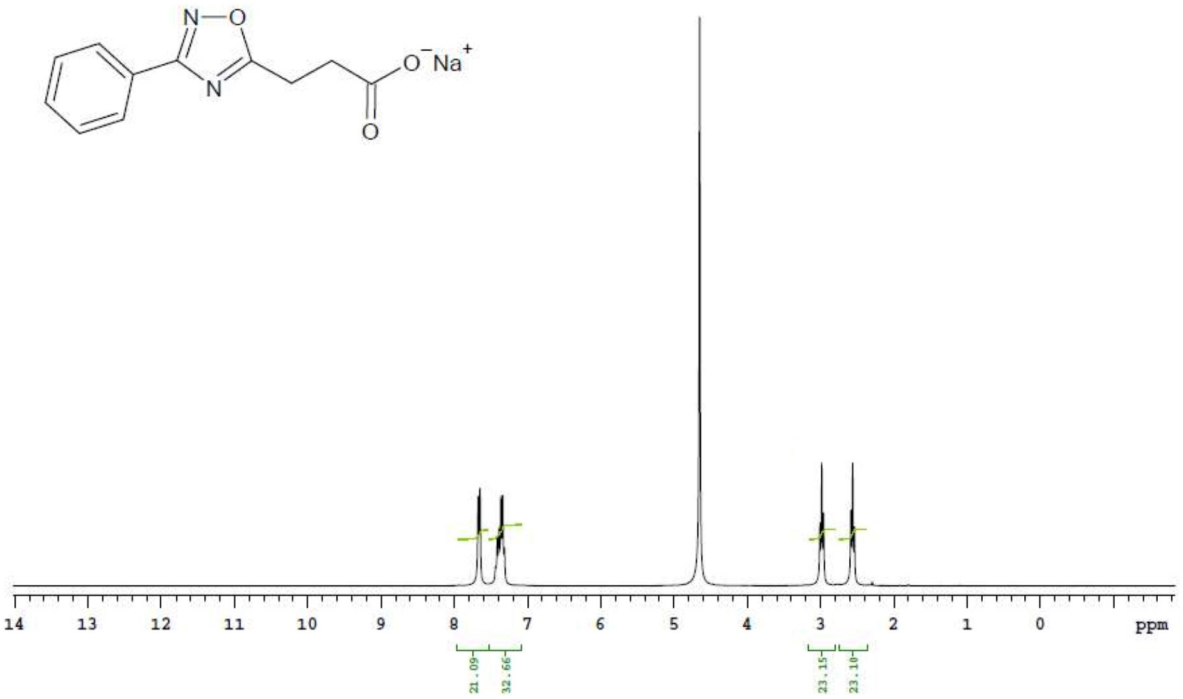
Electronic Supplementary Material (ESI) for RSC Medicinal Chemistry.

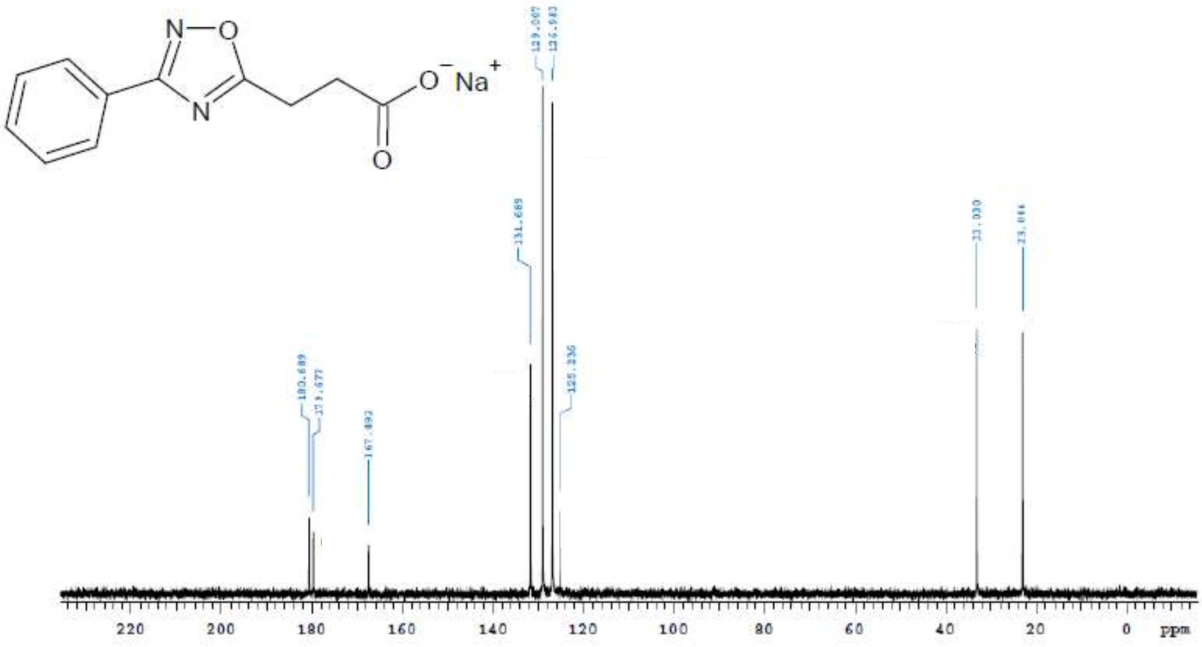
Electronic Supplementary Information

A second generation of 1,2,4-oxadiazole derivatives with enhanced solubility for inhibition of 3-hydroxykynurenine transaminase (HKT) from *Aedes aegypti*

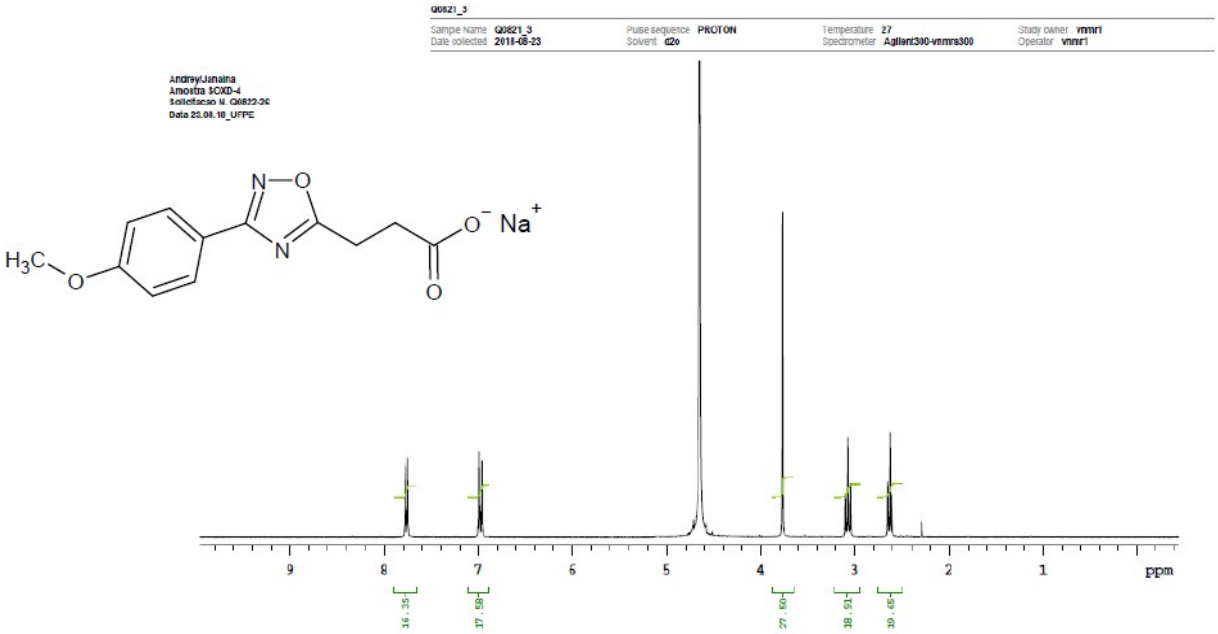
Larissa G. Maciel, Andrey da S. Barbosa, Edilson B. de Alencar-Filho, Thereza A. Soares*, Janaína V. dos Anjos*



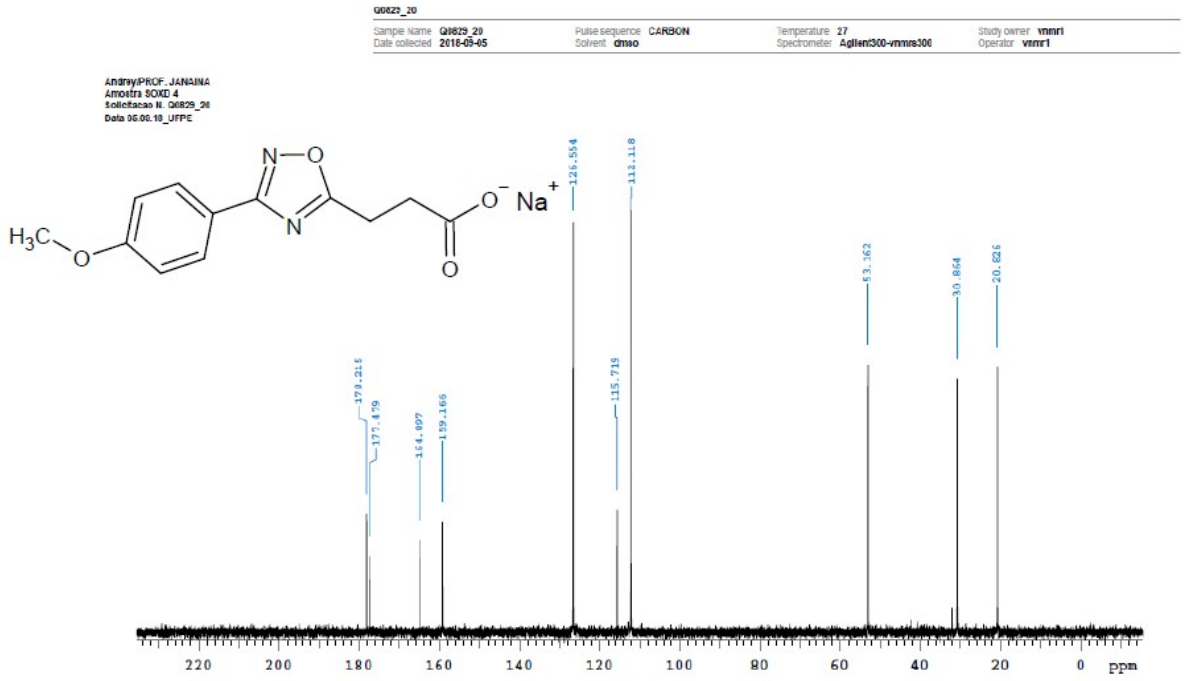
^{1}H NMR spectrum of compound **4a** in D_2O



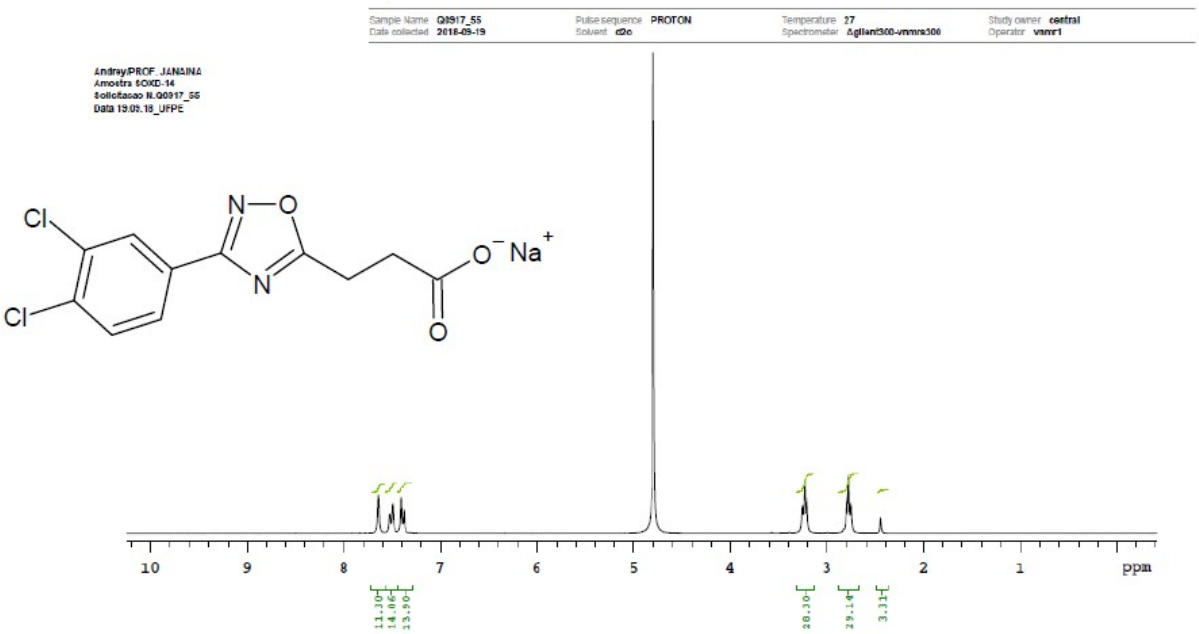
^{13}C NMR spectrum of compound **4a** in D_2O



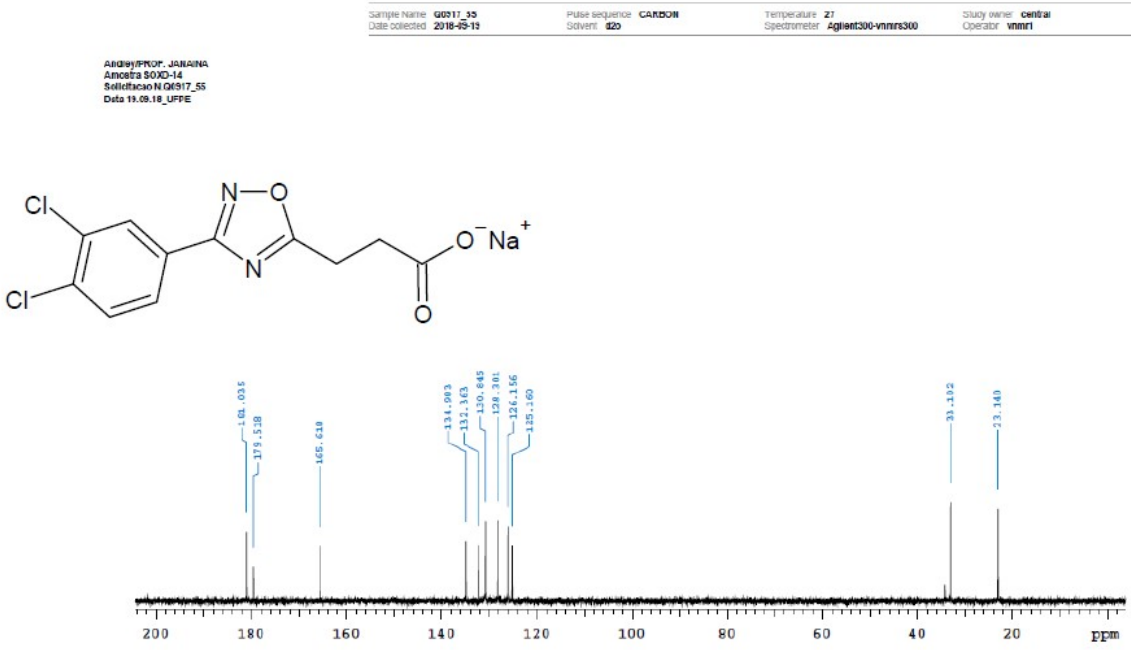
^{1}H NMR spectrum of compound **4b** in D_2O



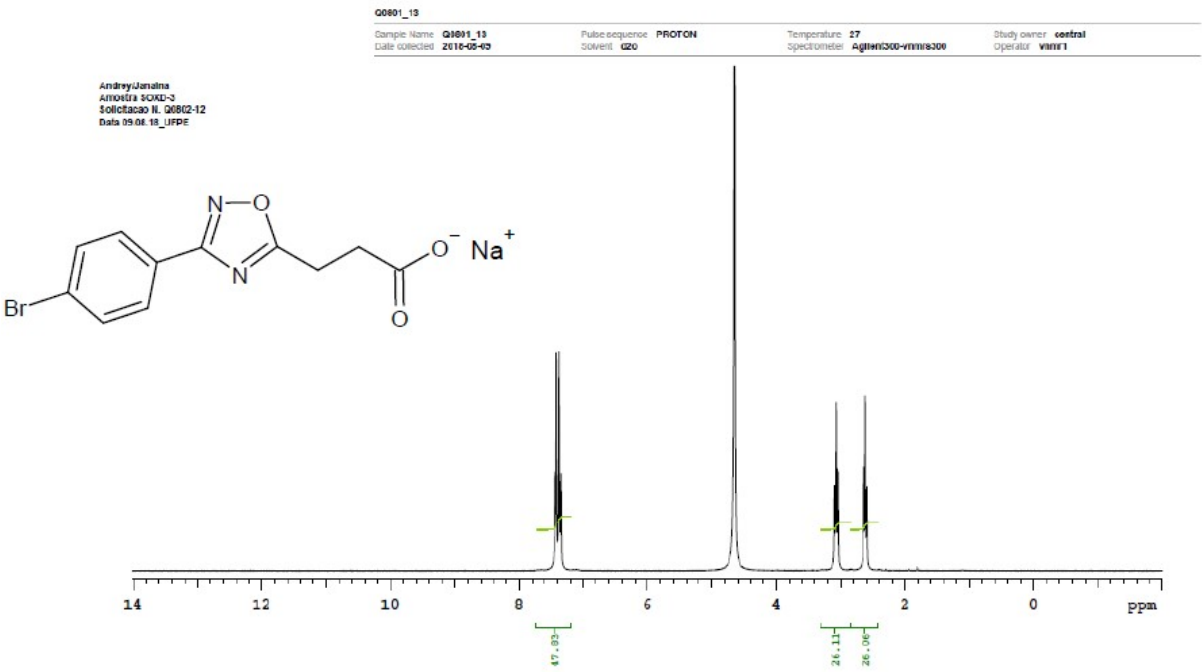
^{13}C NMR spectrum of compound **4b** in D_2O



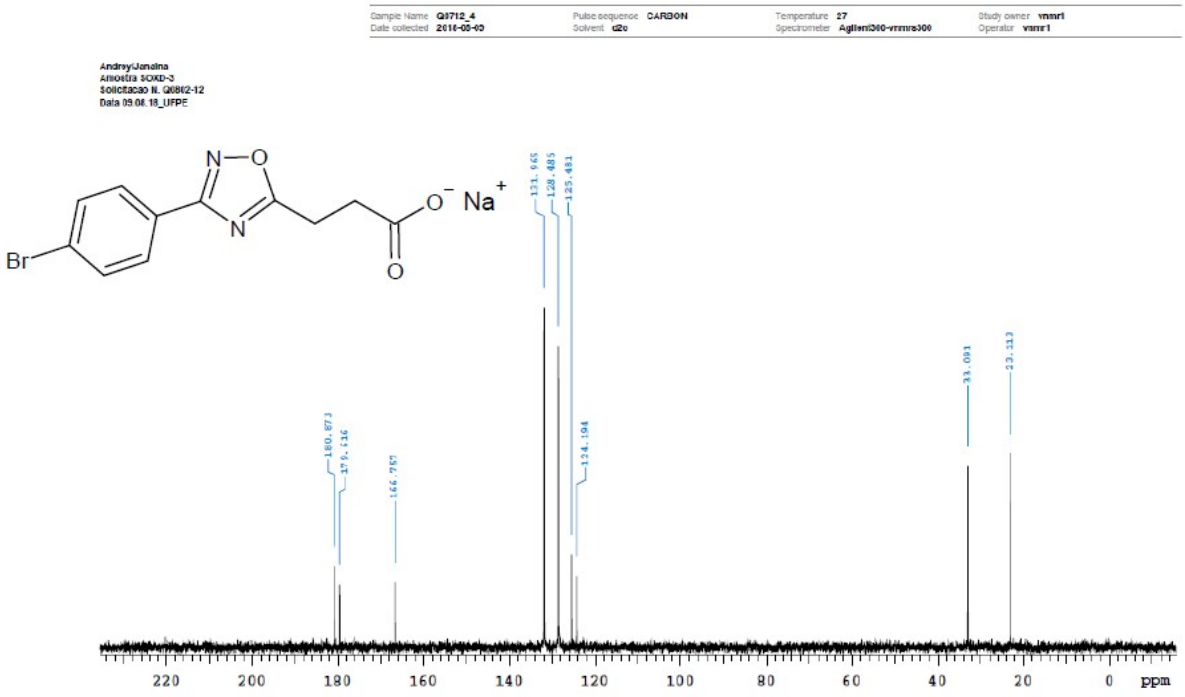
^{1}H NMR spectrum of compound **4c** in D_2O



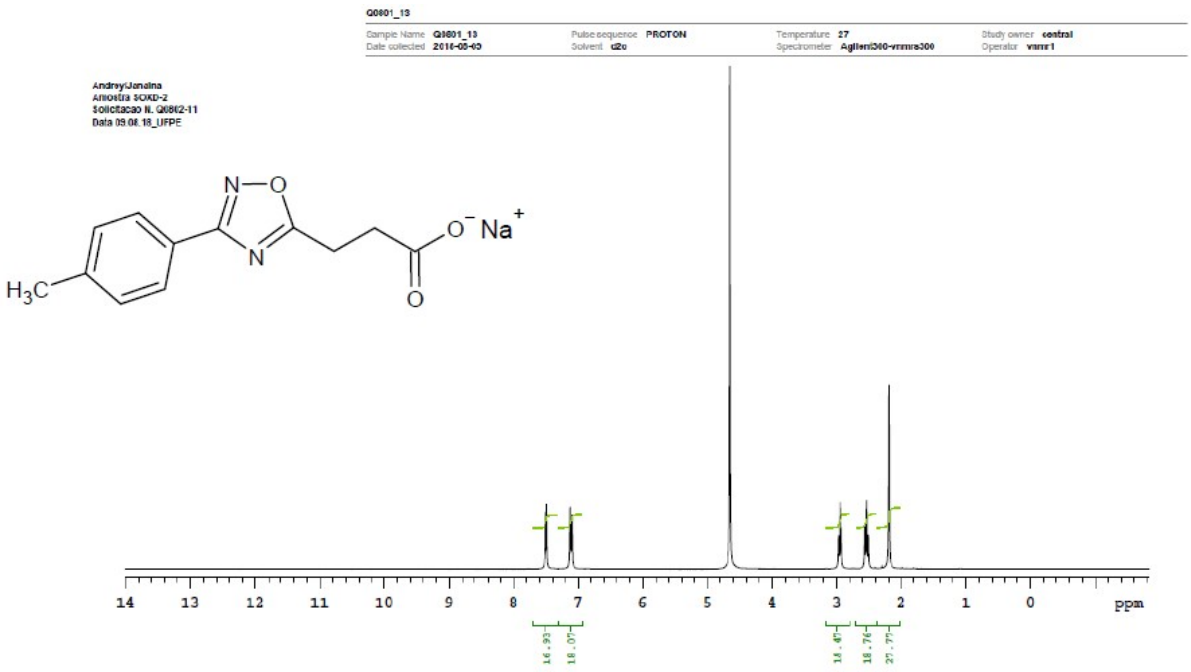
^{13}C NMR spectrum of compound **4c** in D_2O



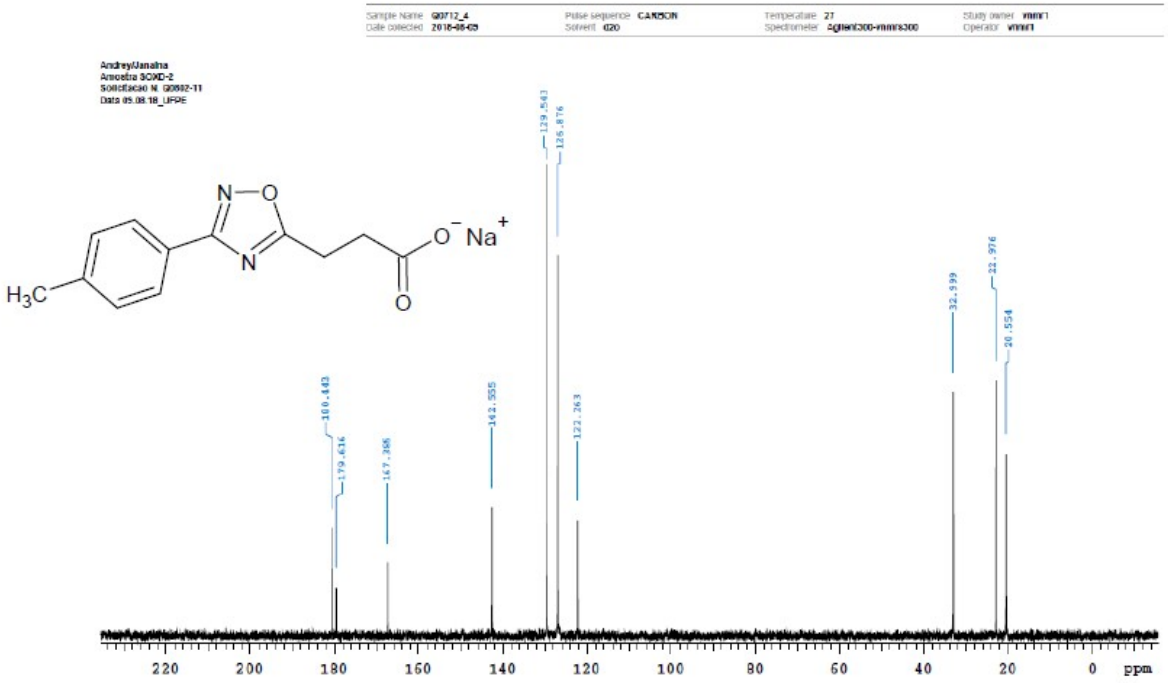
^{1}H NMR spectrum of compound **4d** in D_2O



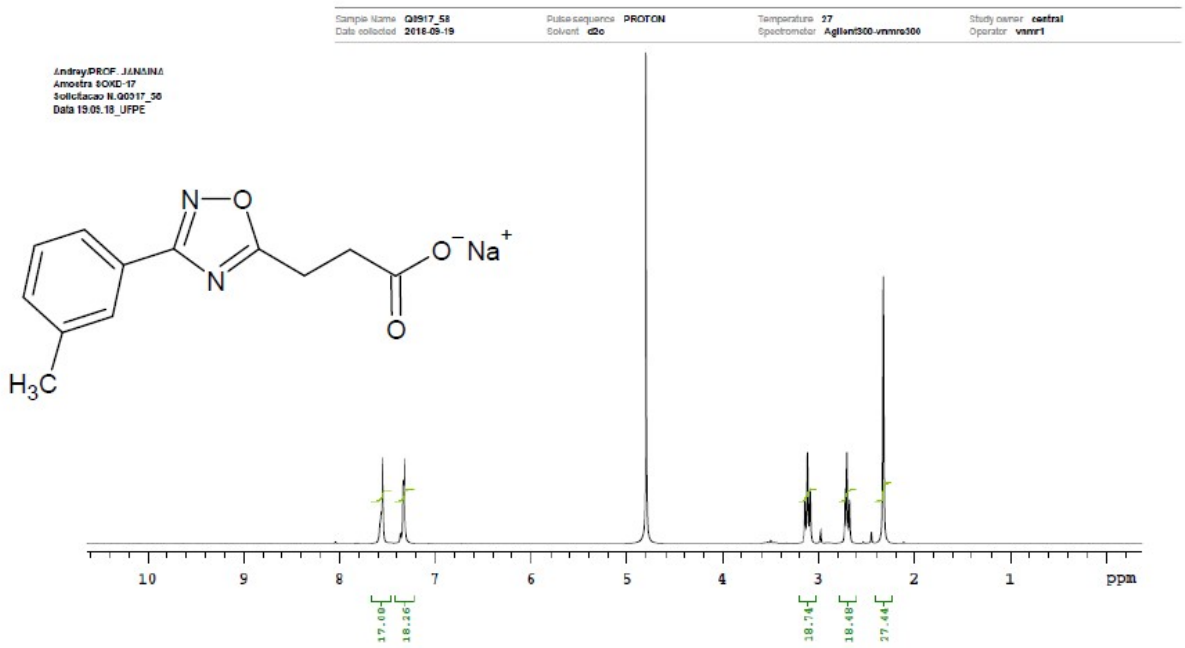
^{13}C NMR spectrum of compound **4d** in D_2O



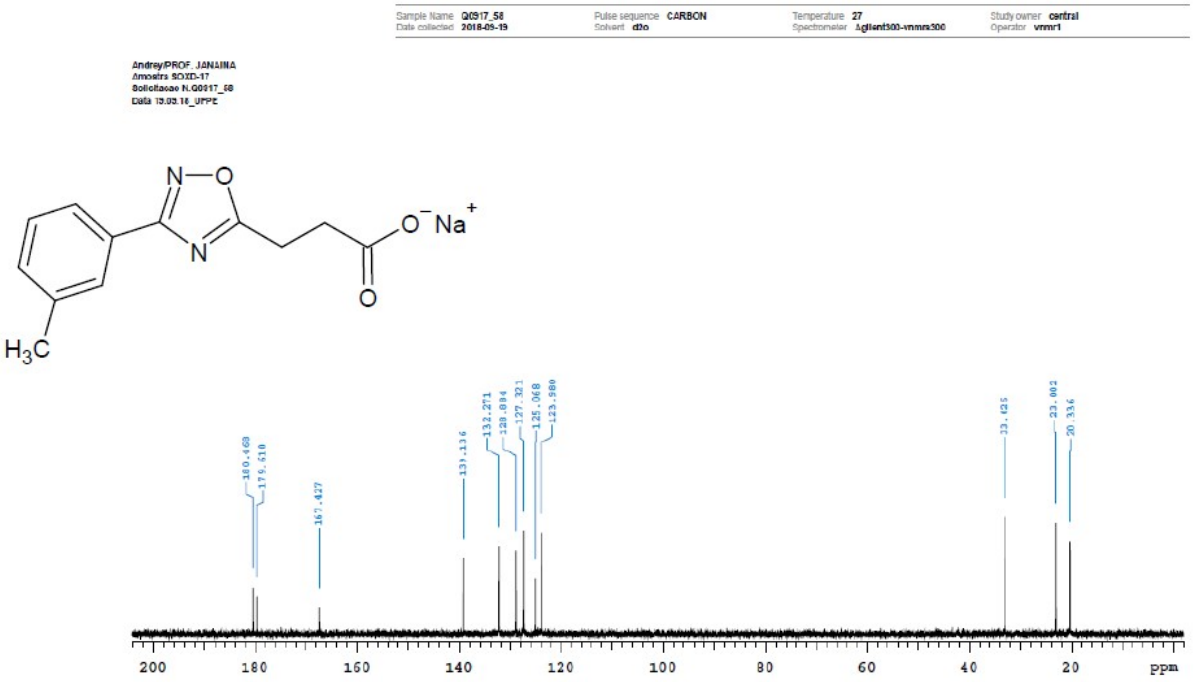
^{1}H NMR spectrum of compound **4e** in D_2O



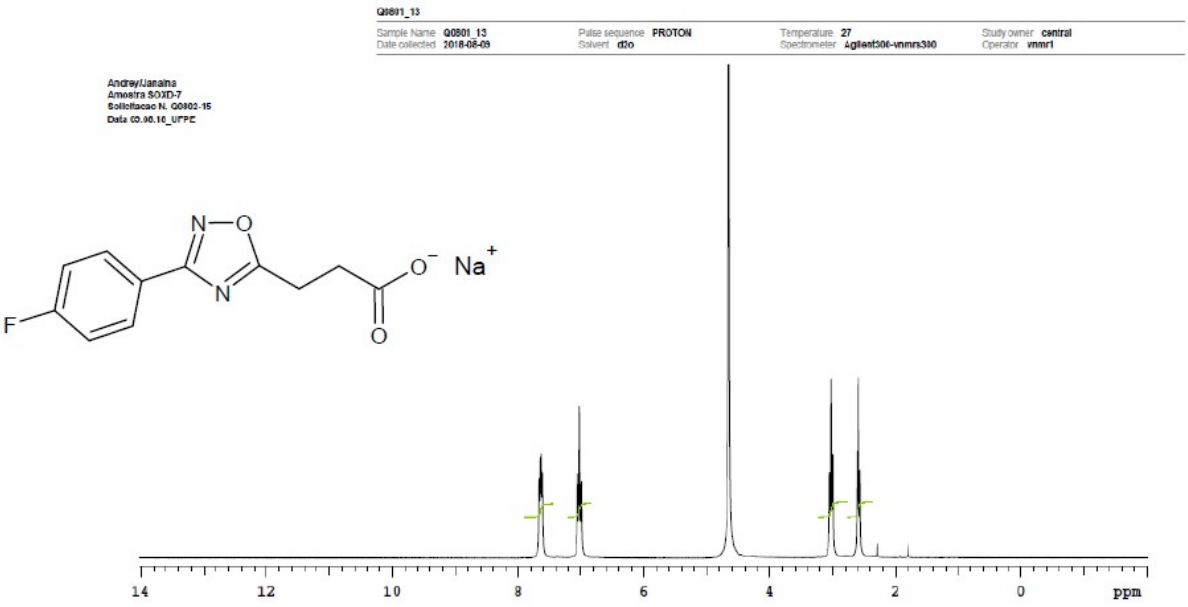
^{13}C NMR spectrum of compound **4e** in D_2O



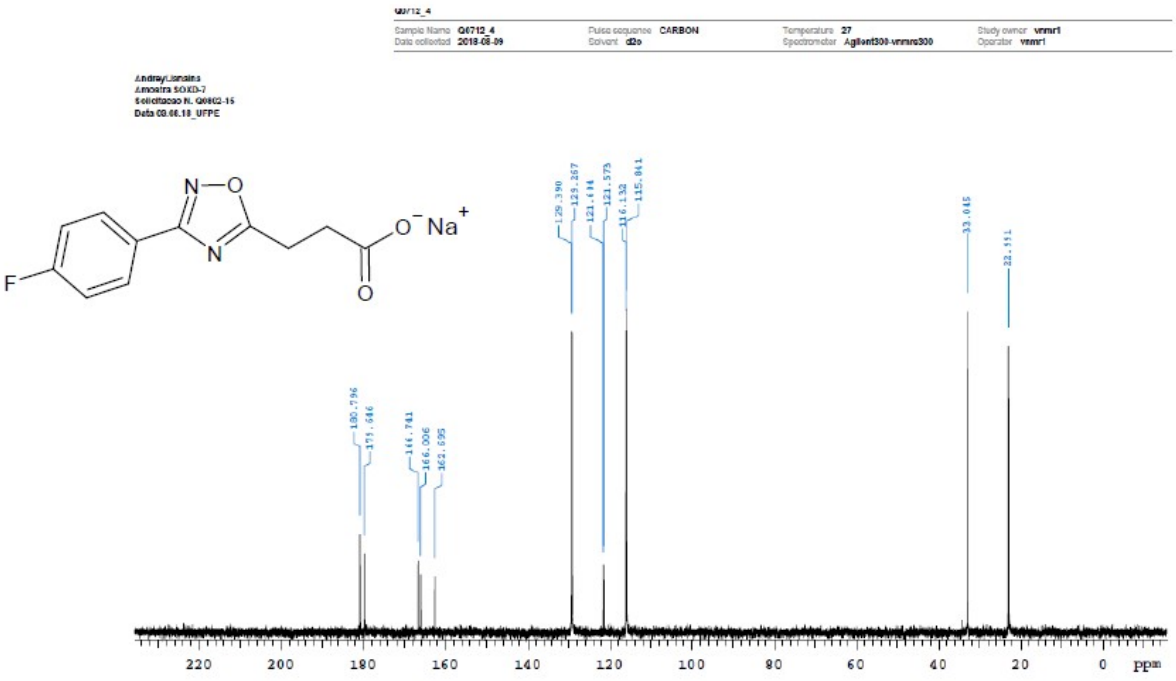
^{1}H NMR spectrum of compound **4f** in D_2O



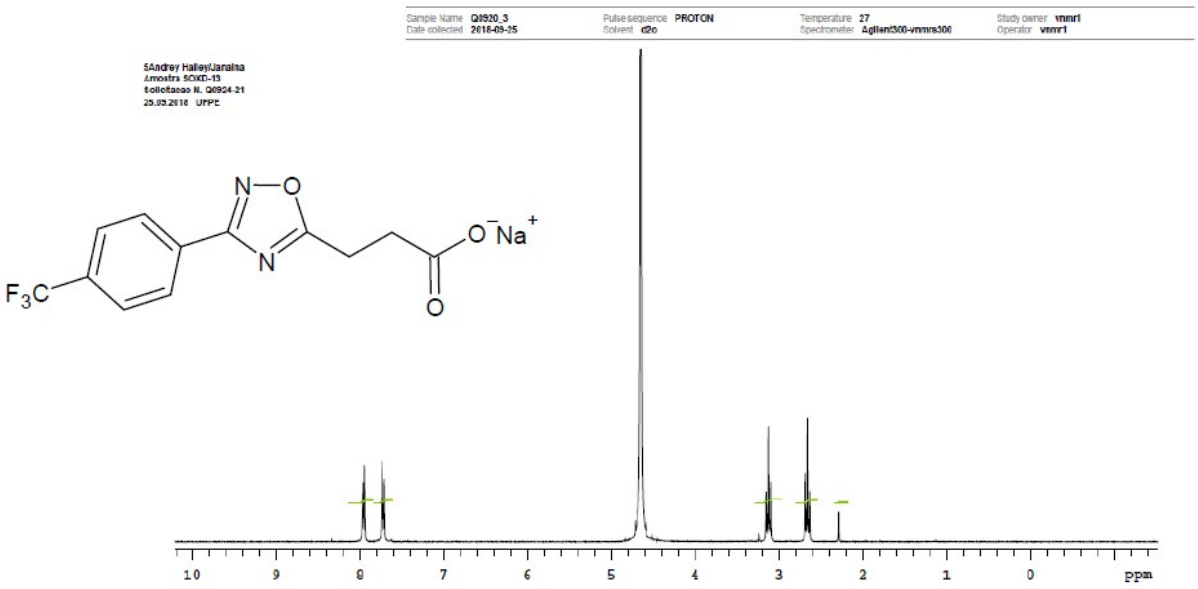
^{13}C NMR spectrum of compound **4f** in D_2O



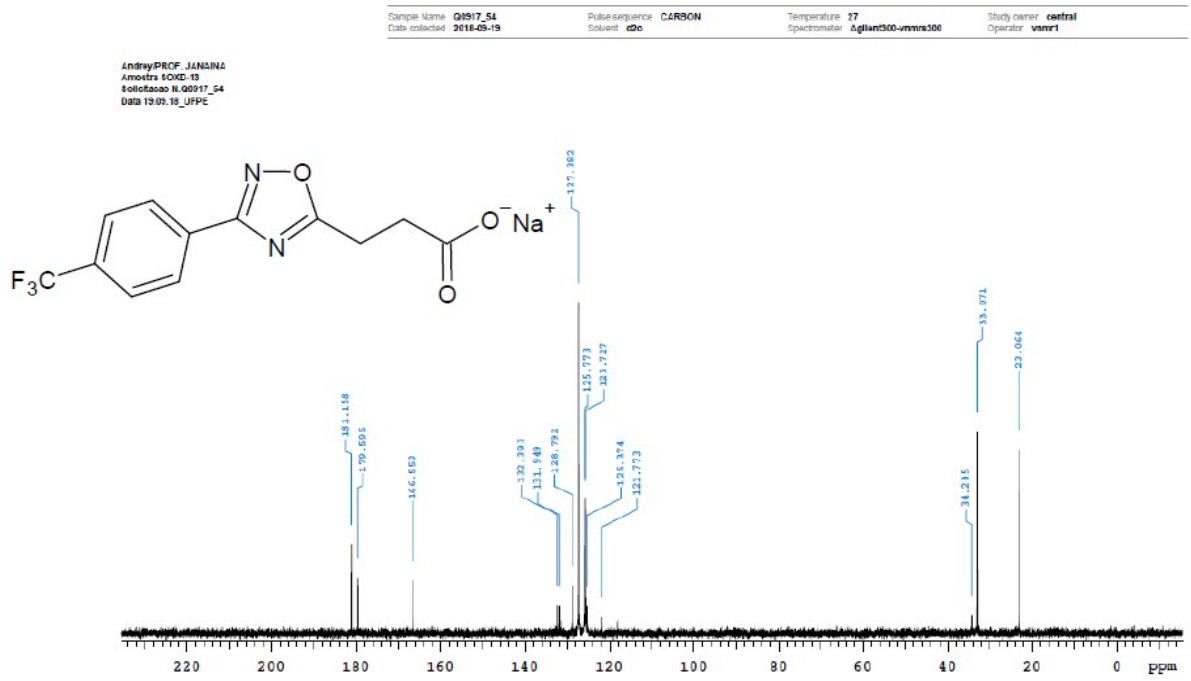
^{1}H NMR spectrum of compound **4g** in D_2O



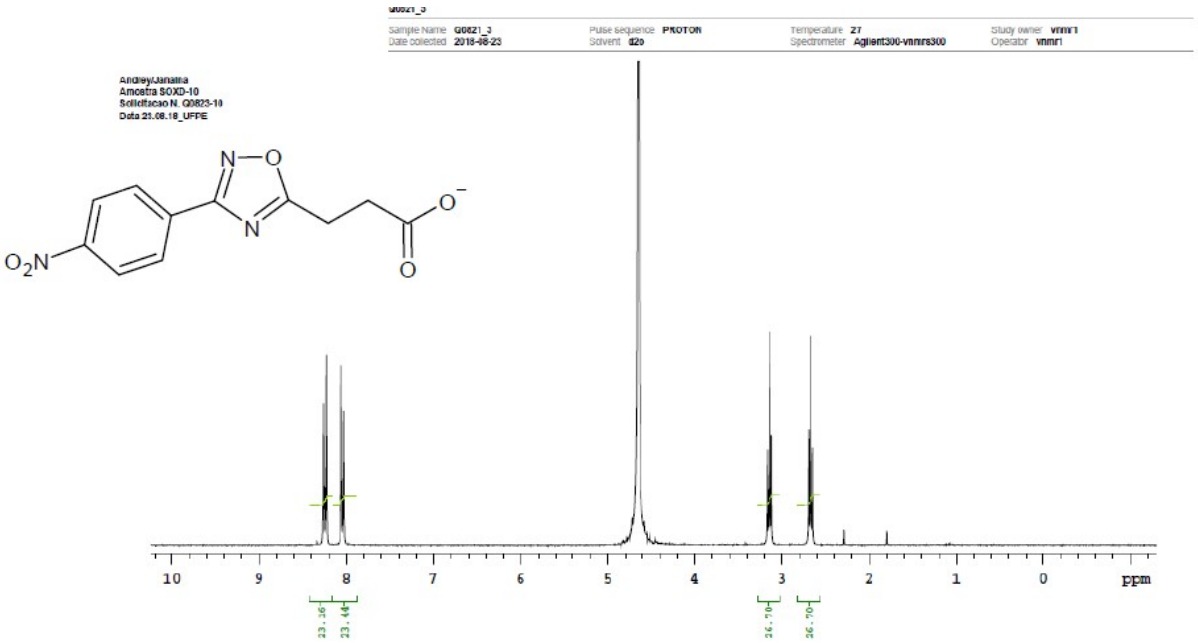
^{13}C NMR spectrum of compound **4g** in D_2O



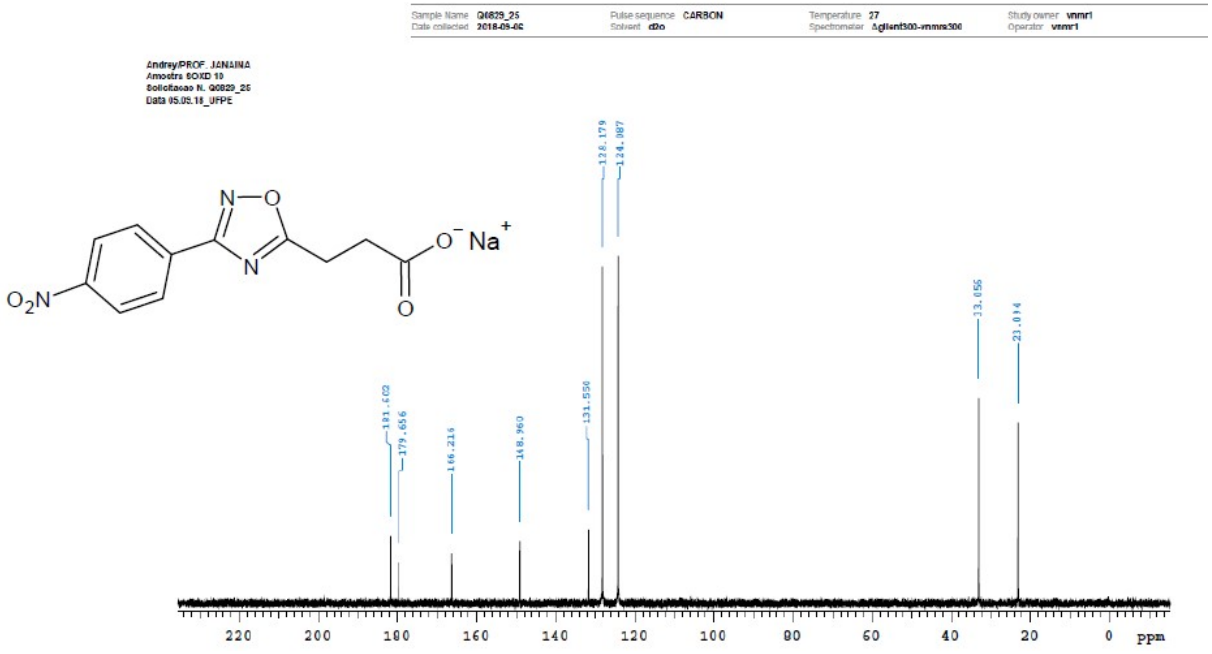
^{1}H NMR spectrum of compound **4h** in D_2O



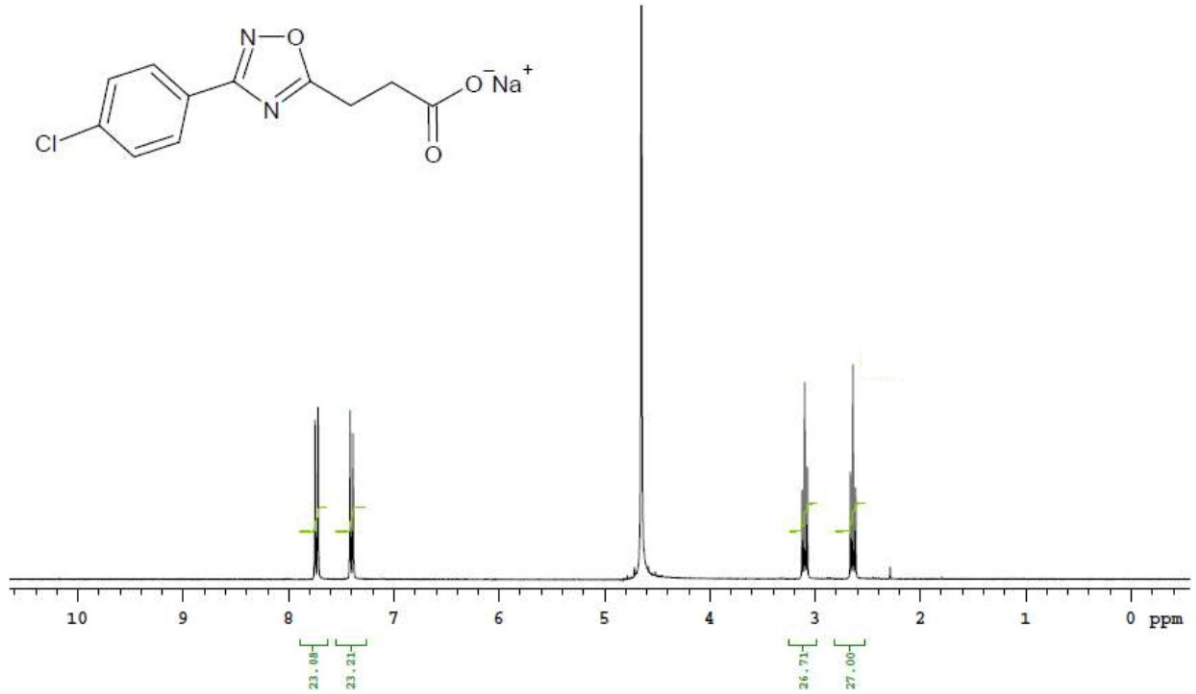
^{13}C NMR spectrum of compound **4h** in D_2O



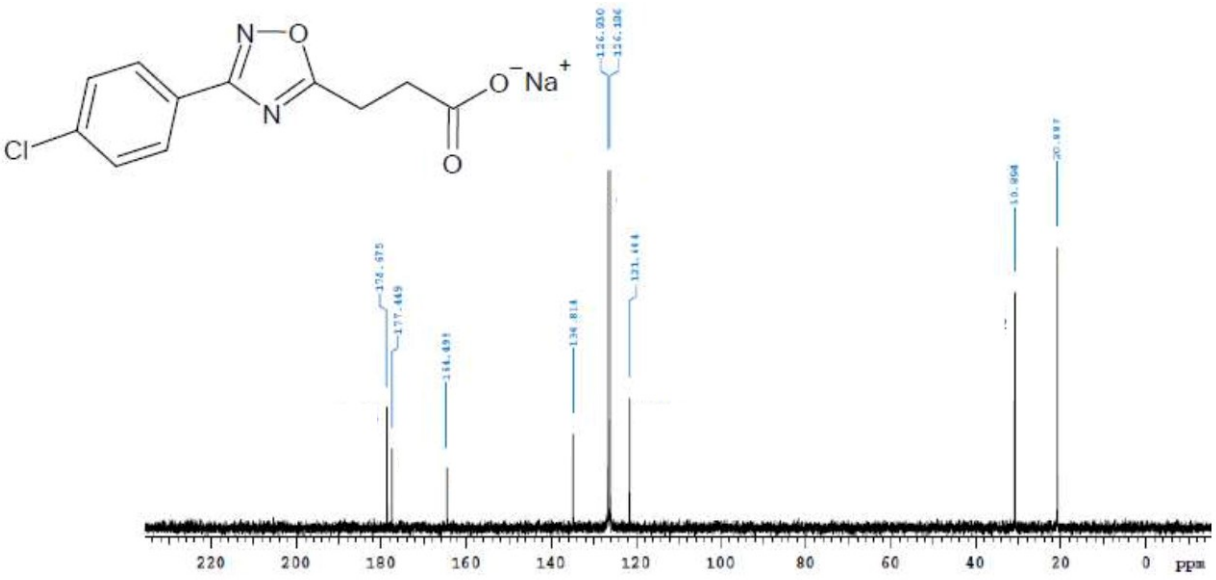
^{1}H NMR spectrum of compound **4i** in D_2O



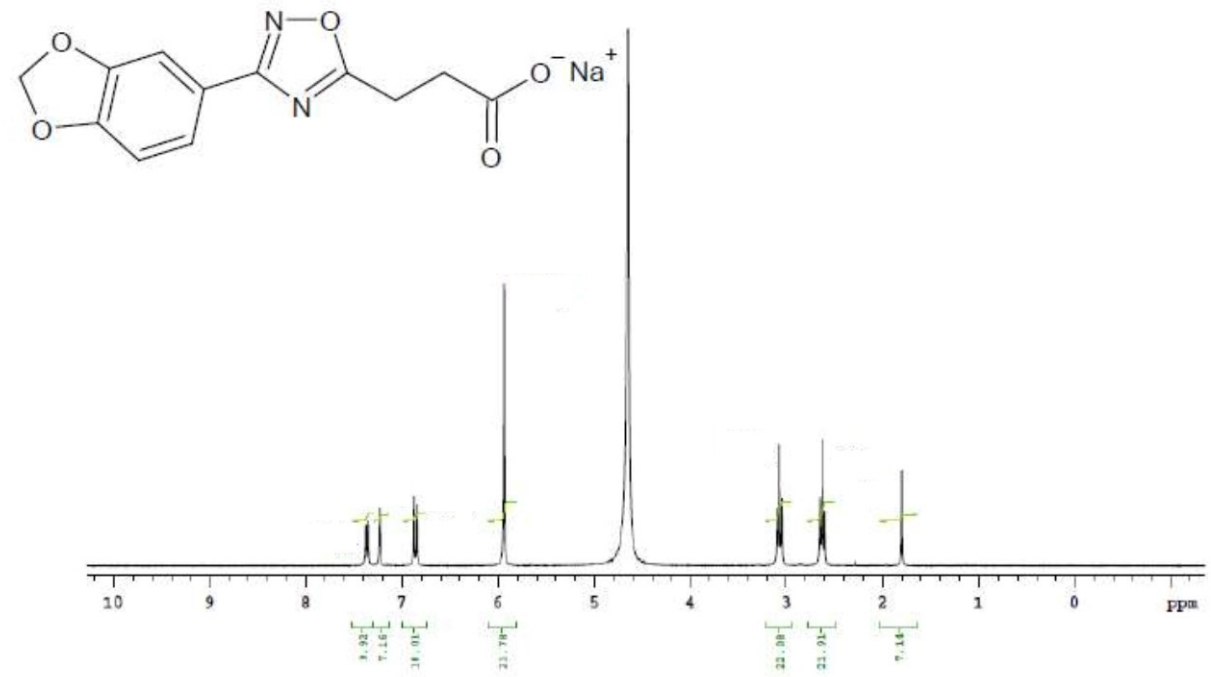
^{13}C NMR spectrum of compound **4i** in D_2O



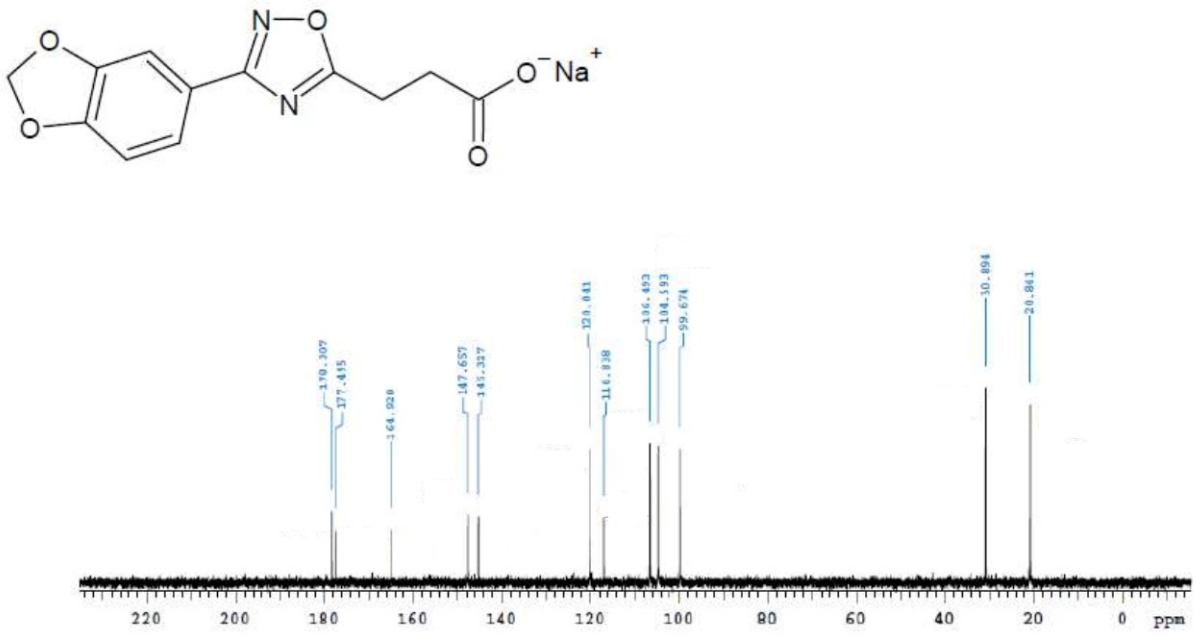
^{1}H NMR spectrum of compound **4j** in D_2O



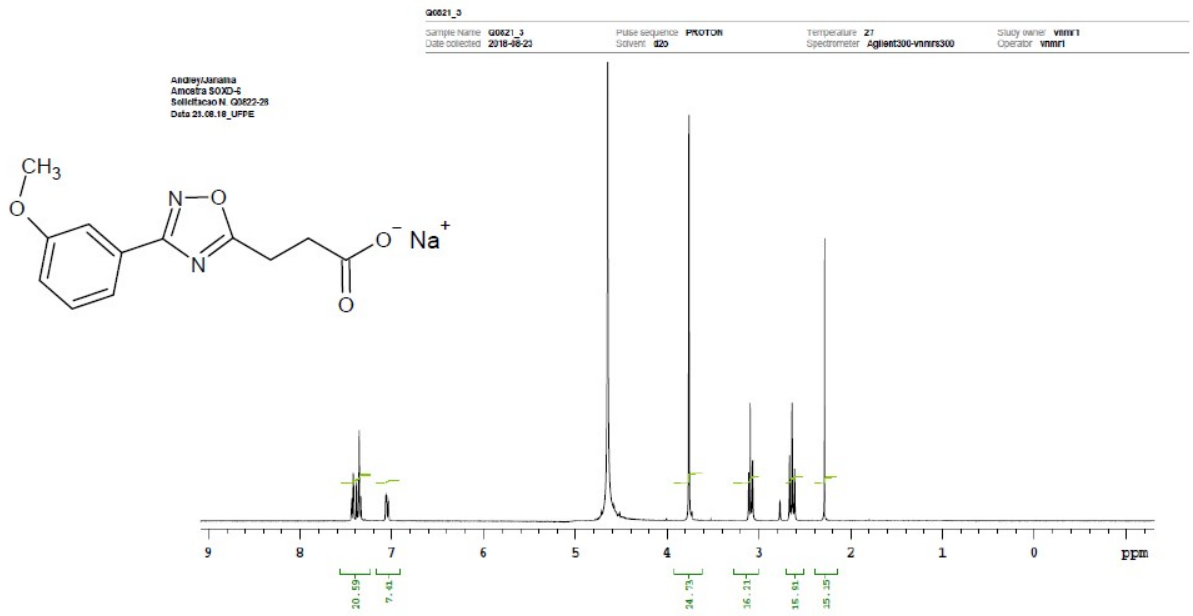
^{13}C NMR spectrum of compound **4j** in D_2O



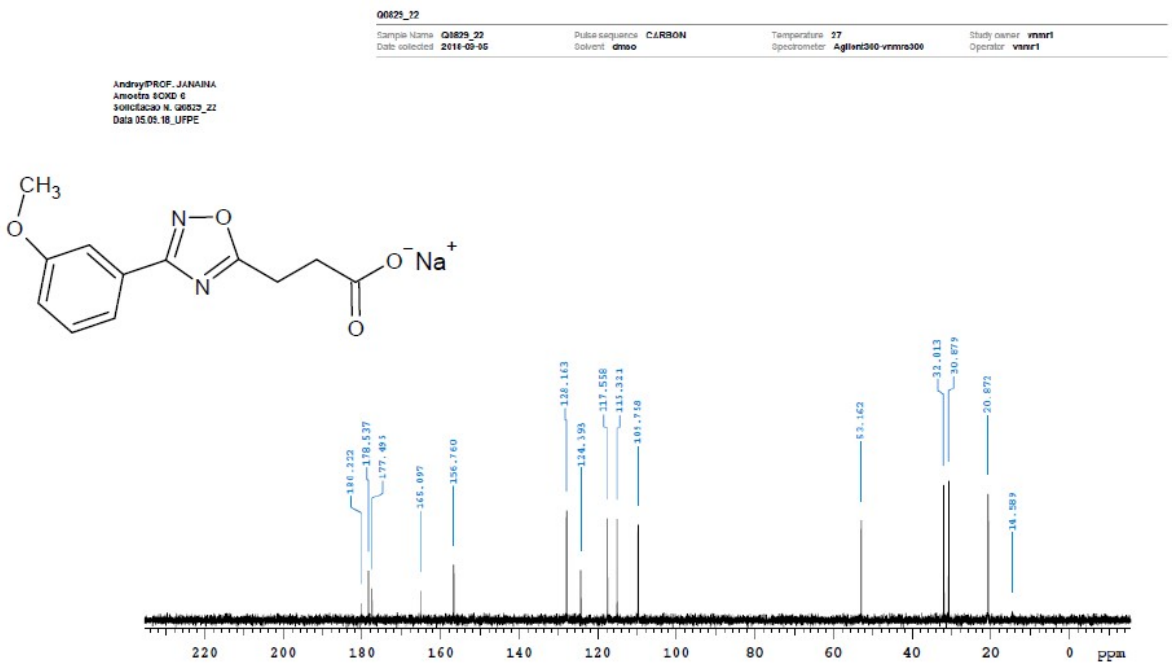
^{1}H NMR spectrum of compound **4k** in D_2O



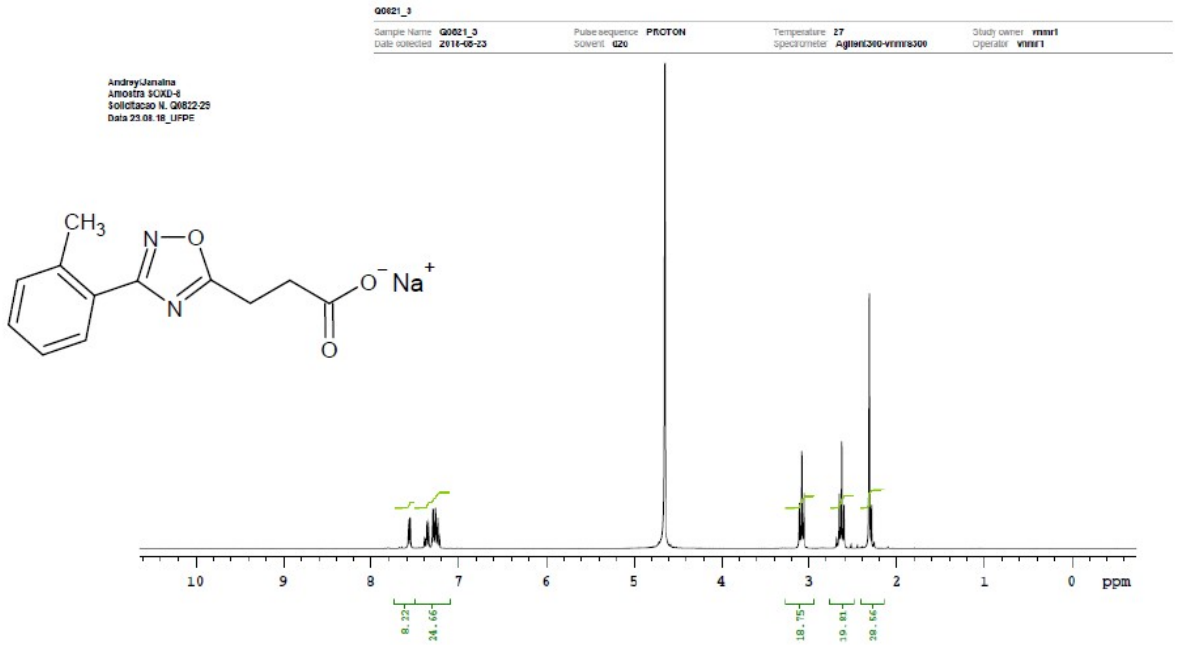
^{13}C NMR spectrum of compound **4k** in D_2O



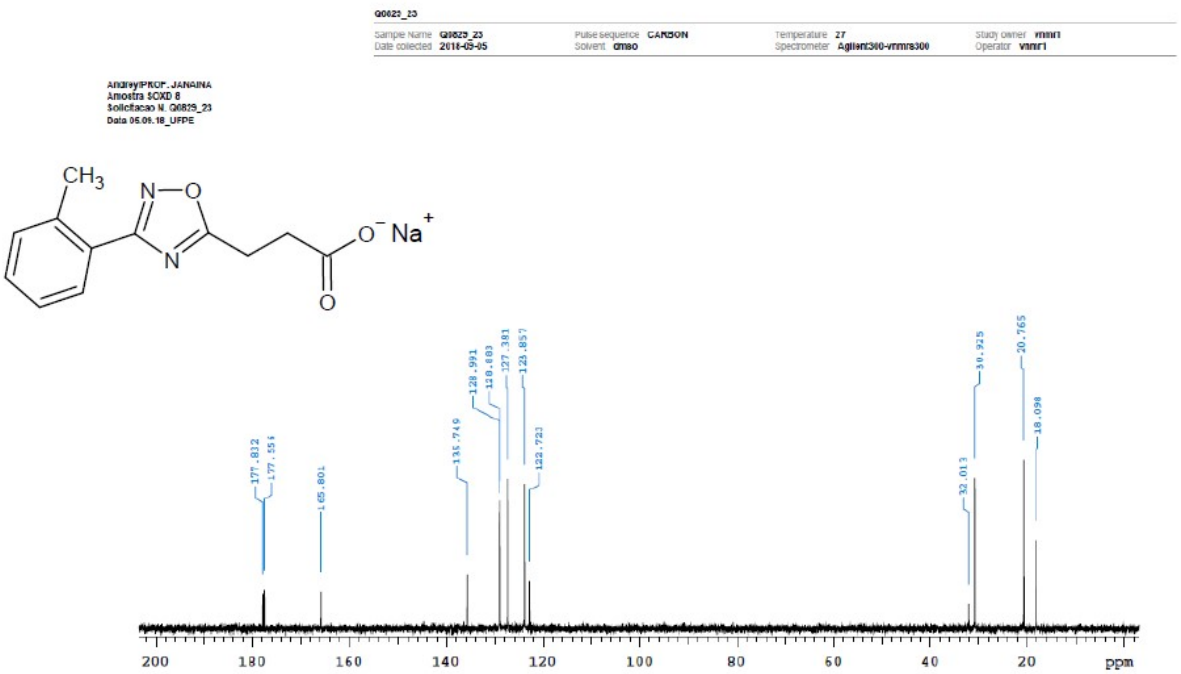
^{1}H NMR spectrum of compound **4l** in D_2O



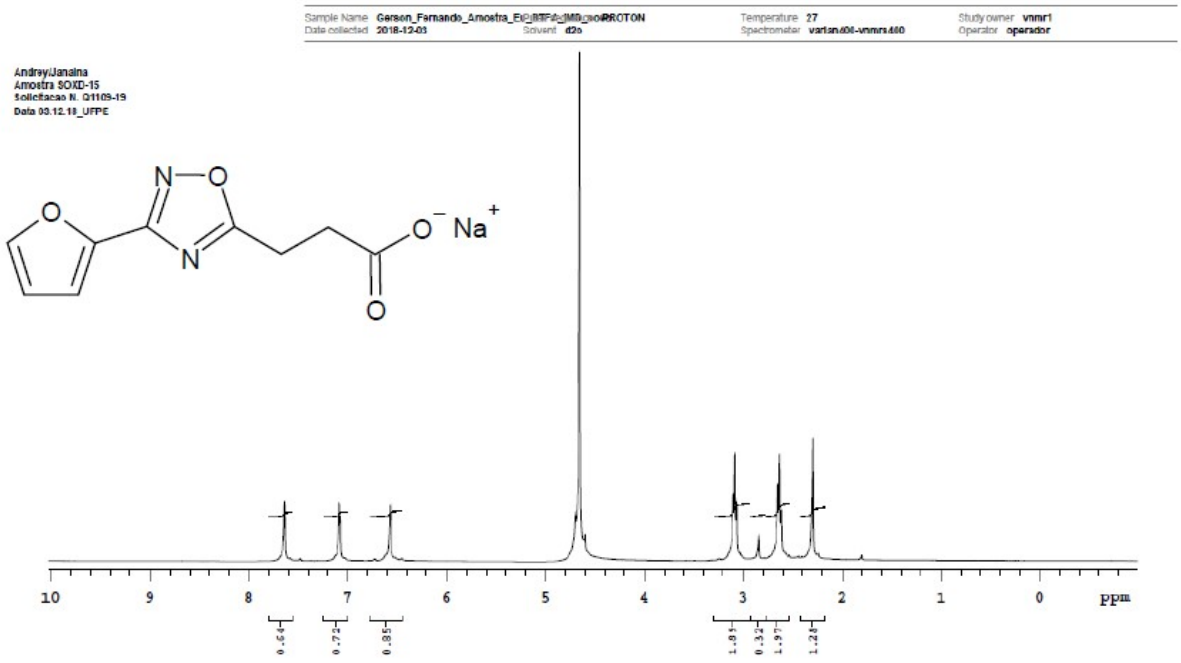
^{13}C NMR spectrum of compound **4l** in D_2O



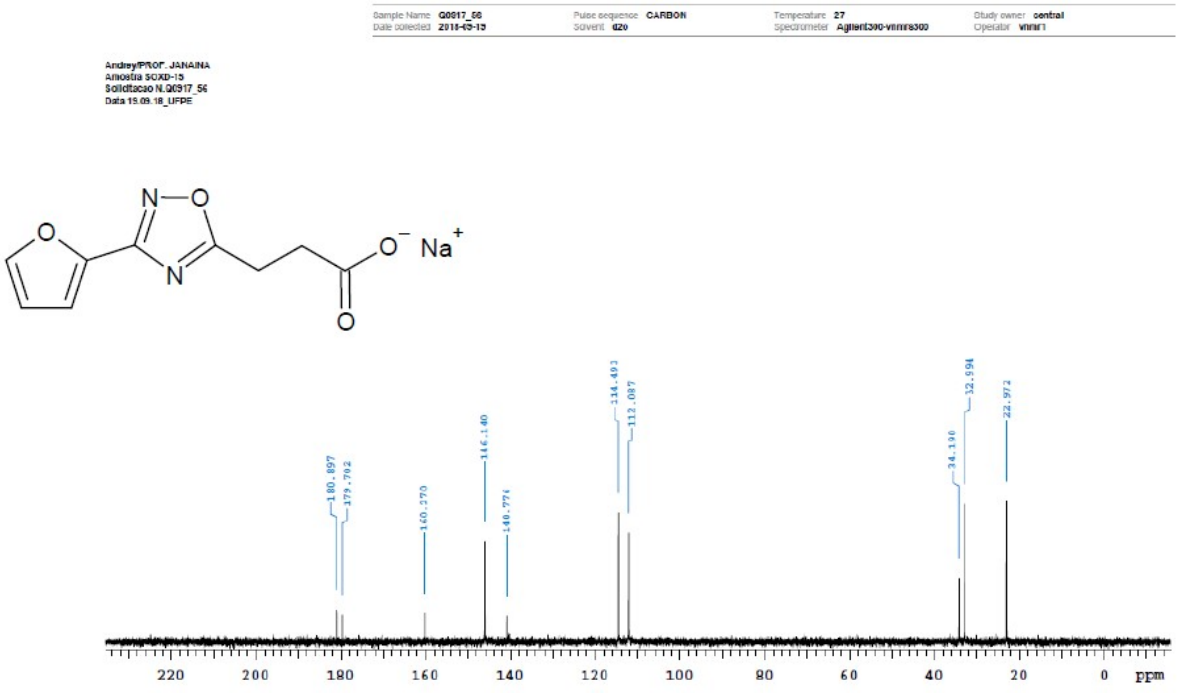
^{1}H NMR spectrum of compound **4m** in D_2O



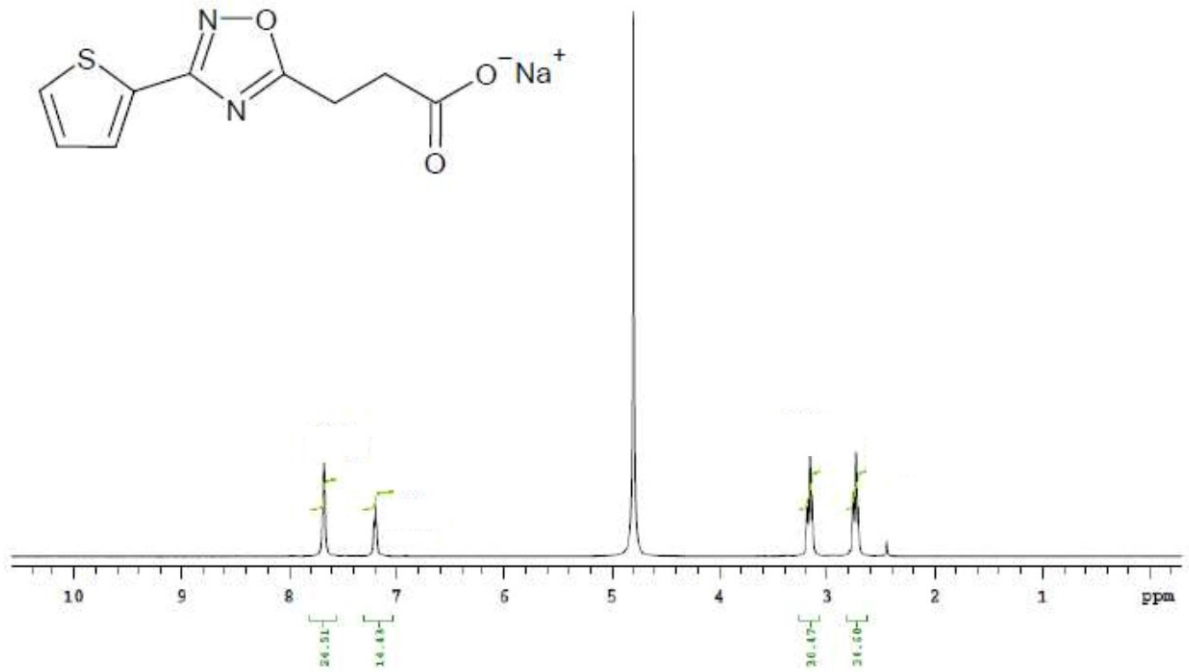
^{13}C NMR spectrum of compound **4m** in D_2O



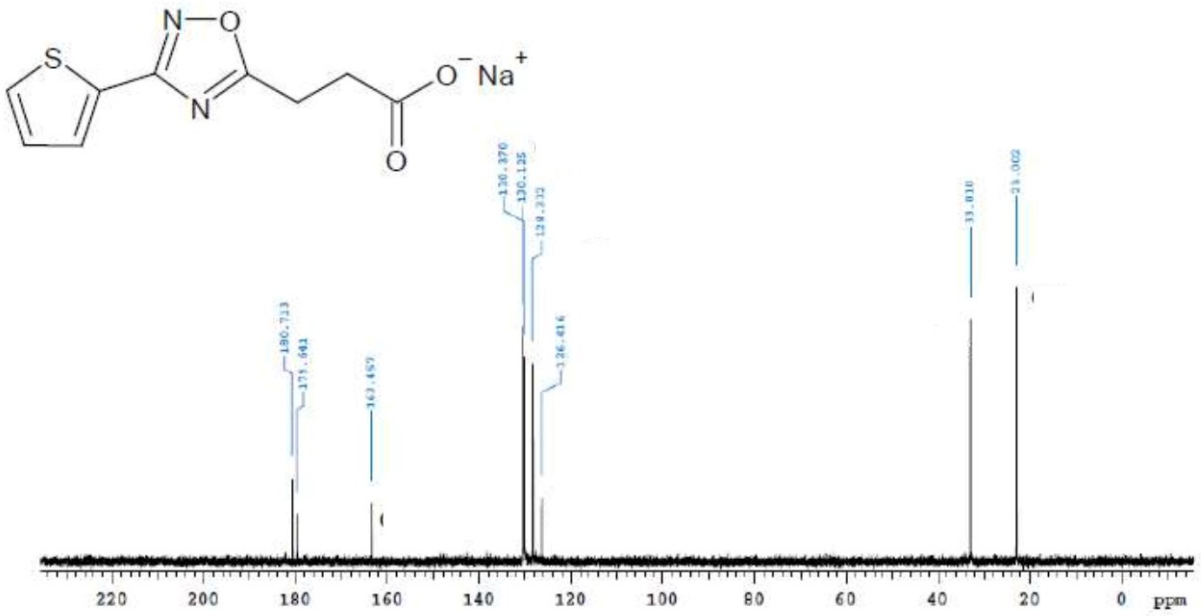
^{1}H NMR spectrum of compound **4n** in D_2O



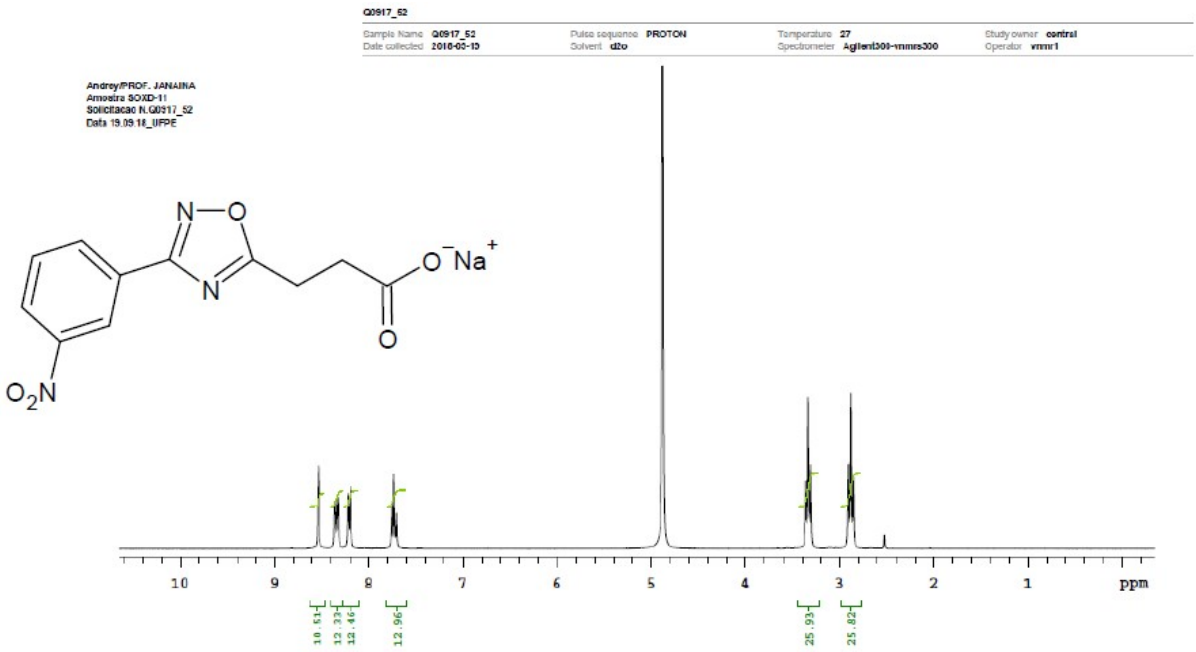
^{13}C NMR spectrum of compound **4n** in D_2O



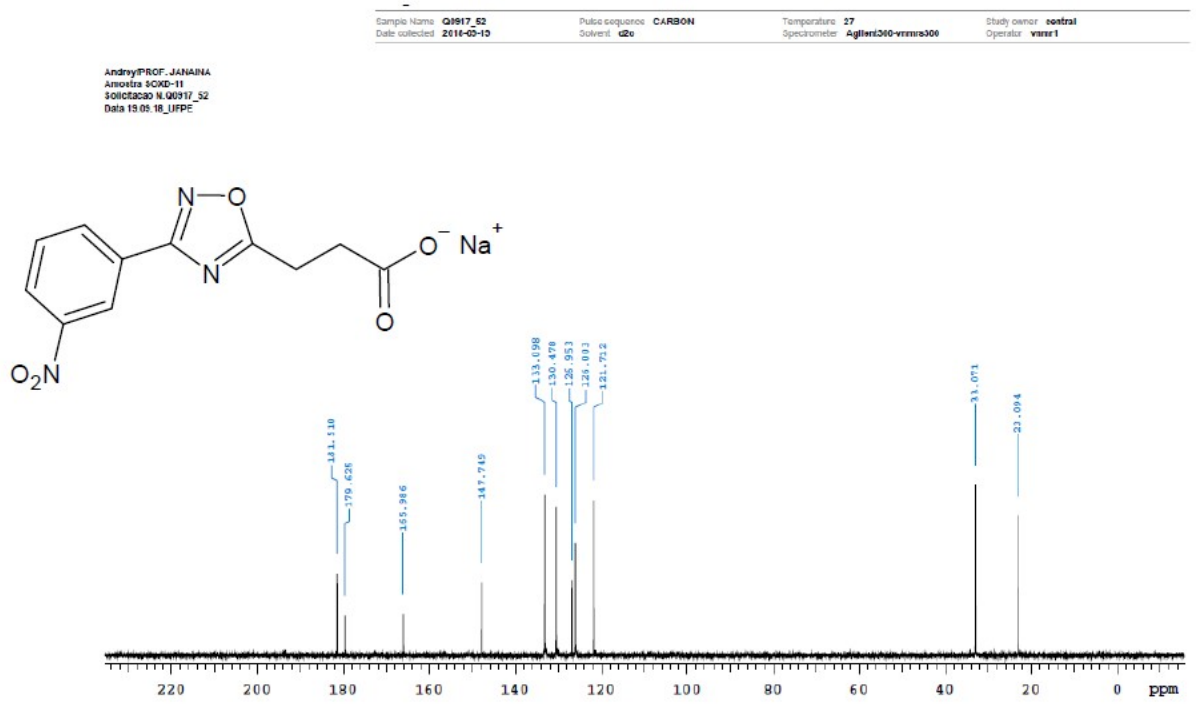
^{1}H NMR spectrum of compound **4o** in D_2O



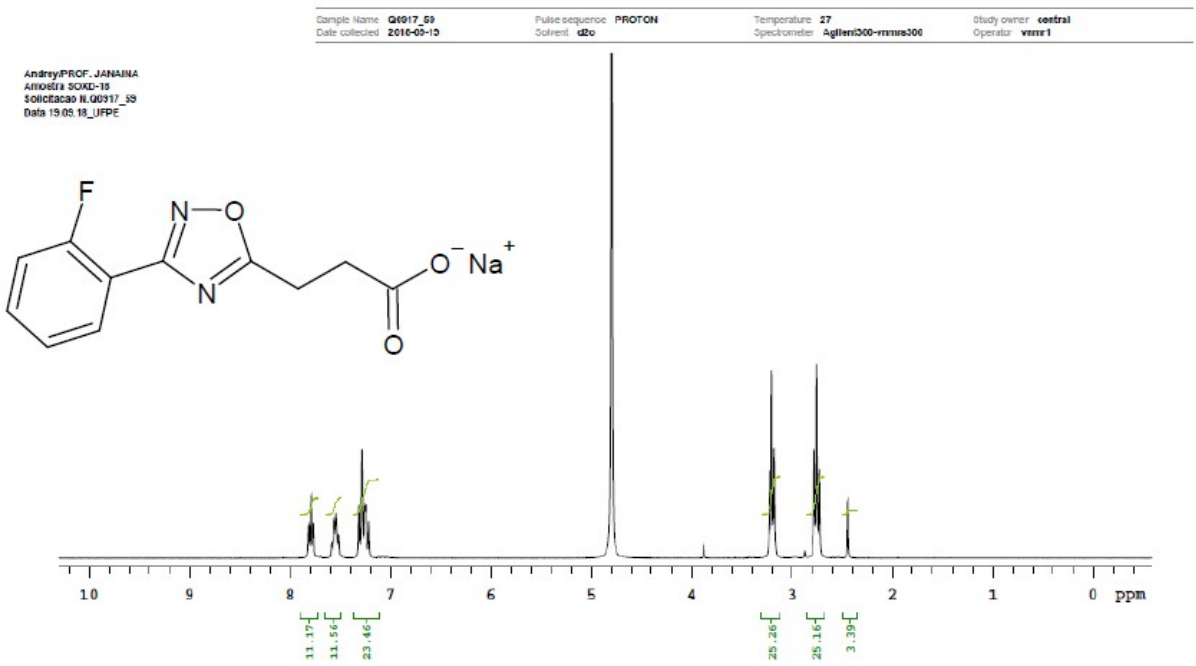
^{13}C NMR spectrum of compound **4o** in D_2O



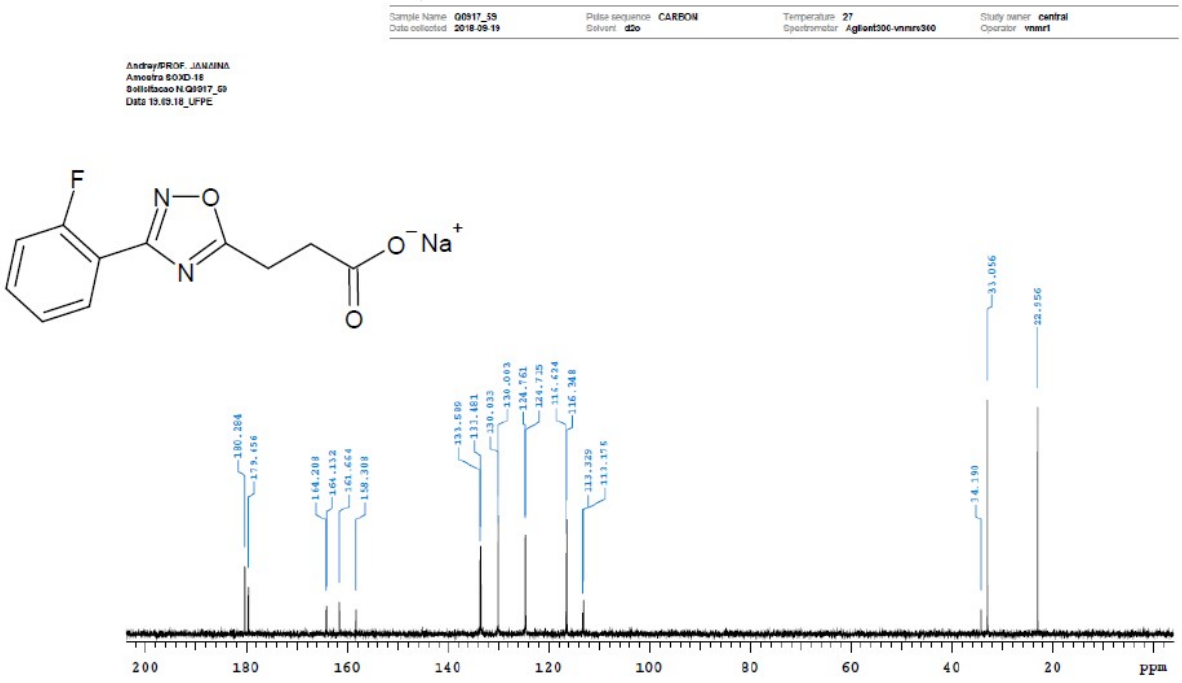
^{1}H NMR spectrum of compound **4p** in D_2O



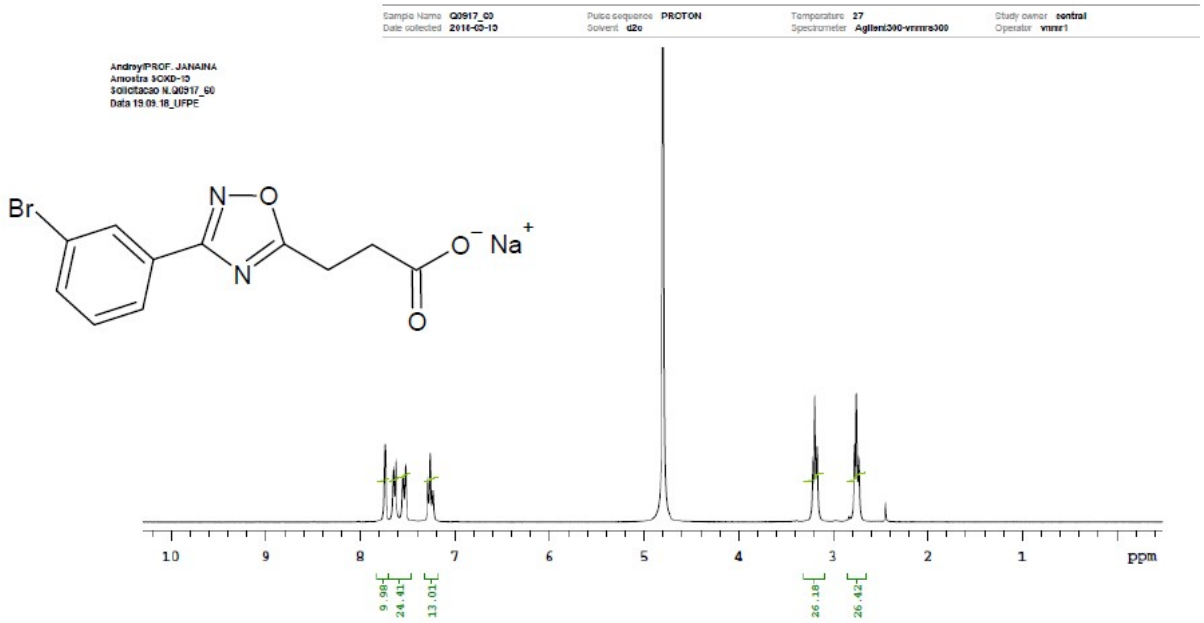
^{13}C NMR spectrum of compound **4p** in D_2O



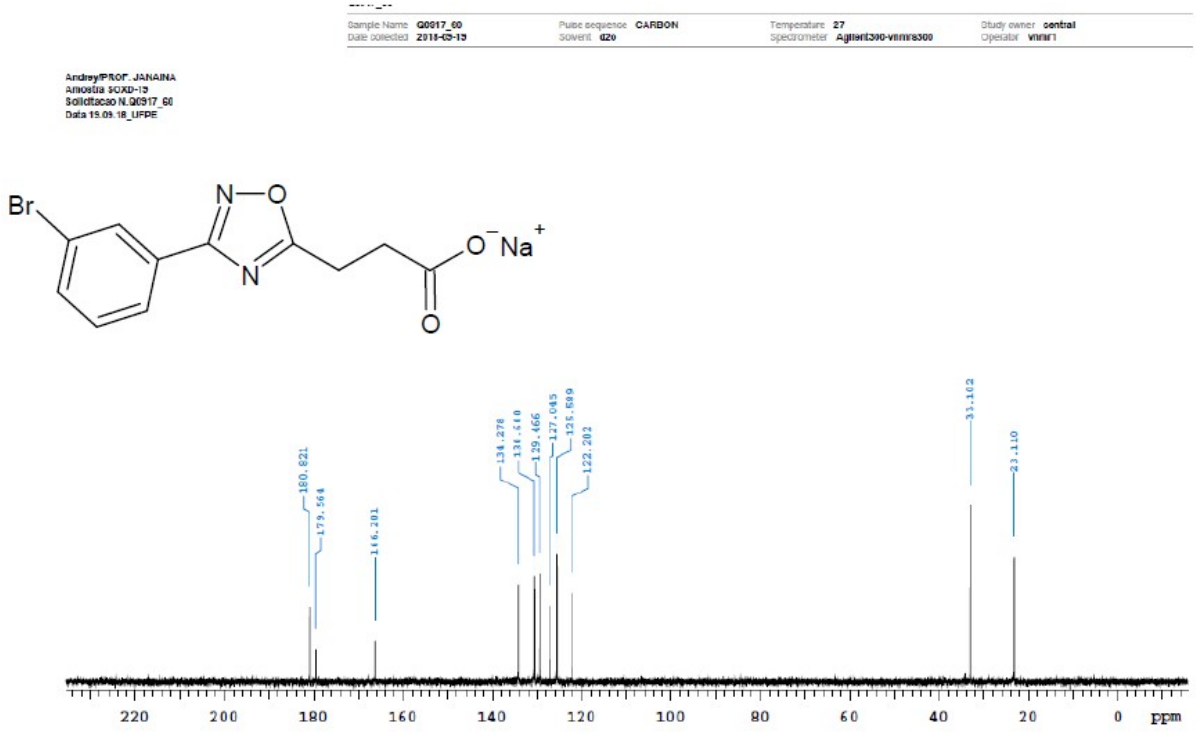
^{1}H NMR spectrum of compound **4q** in D_2O



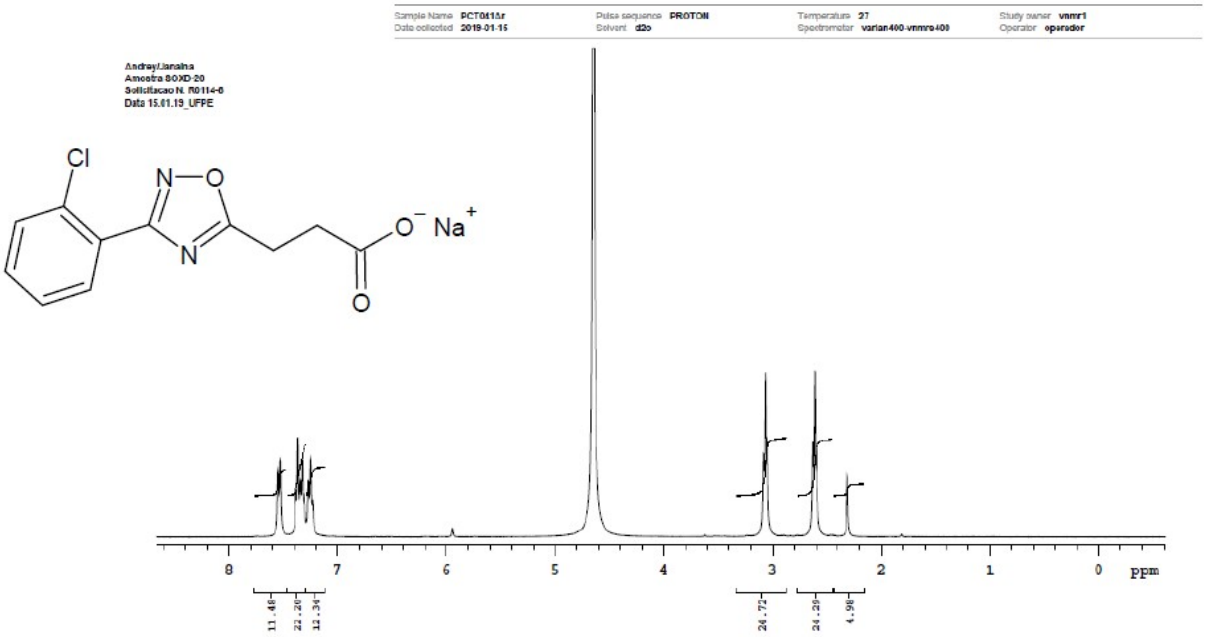
^{13}C NMR spectrum of compound **4q** in D_2O



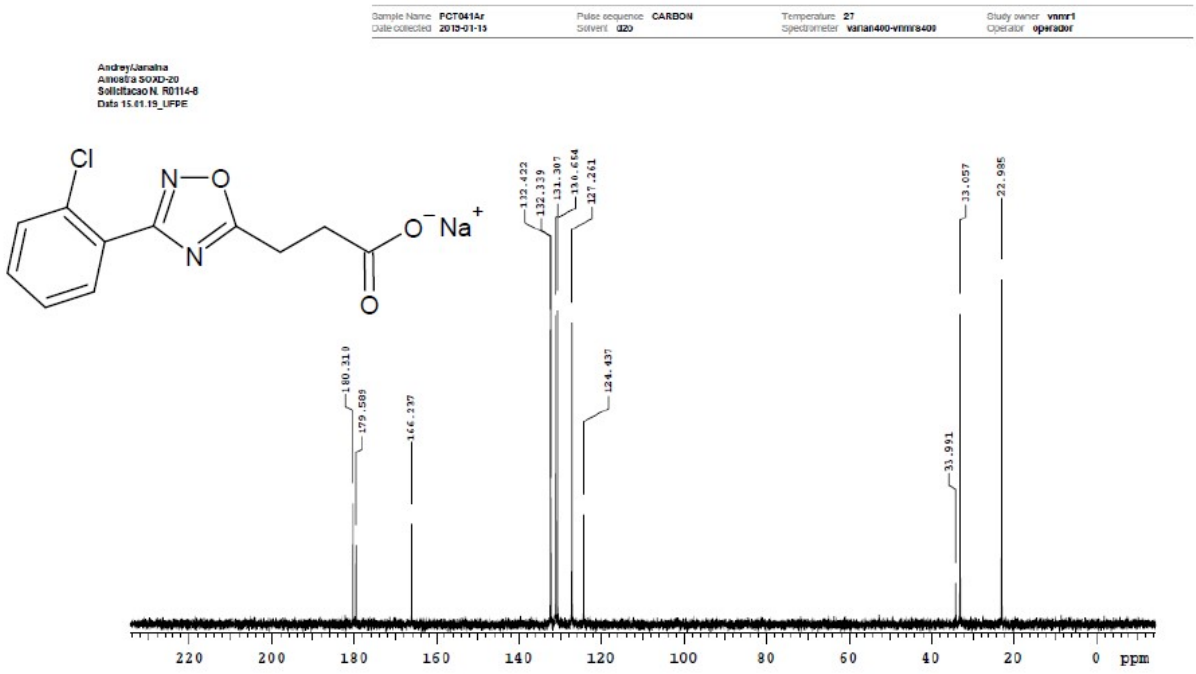
^{1}H NMR spectrum of compound **4r** in D_2O



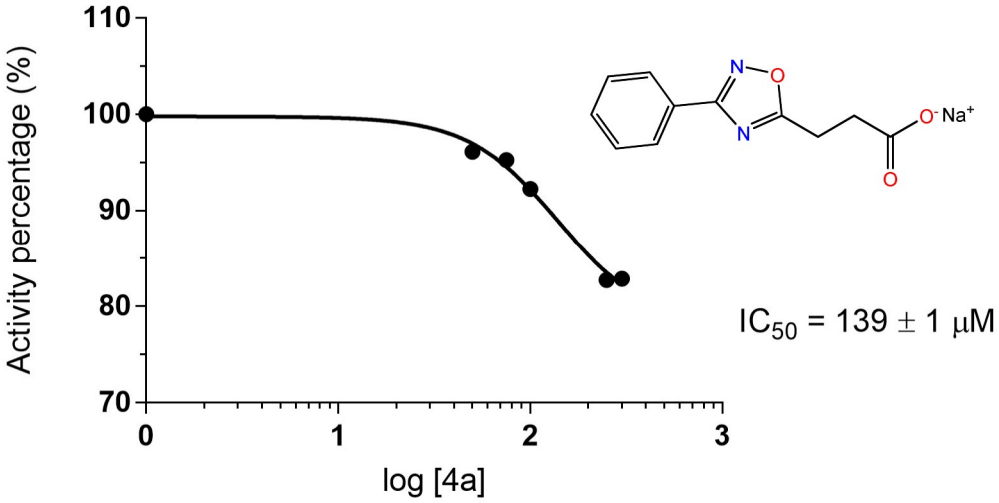
^{13}C NMR spectrum of compound **4r** in D_2O



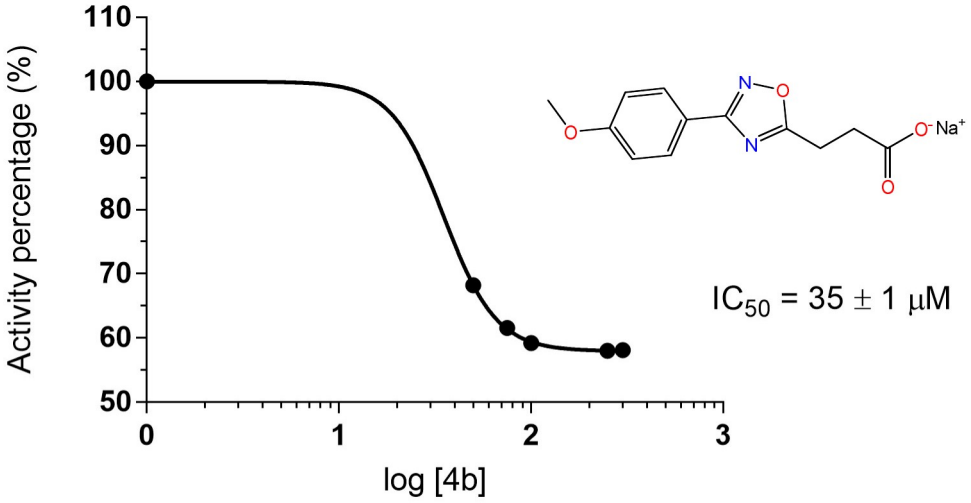
^{1}H NMR spectrum of compound **4s** in D_2O



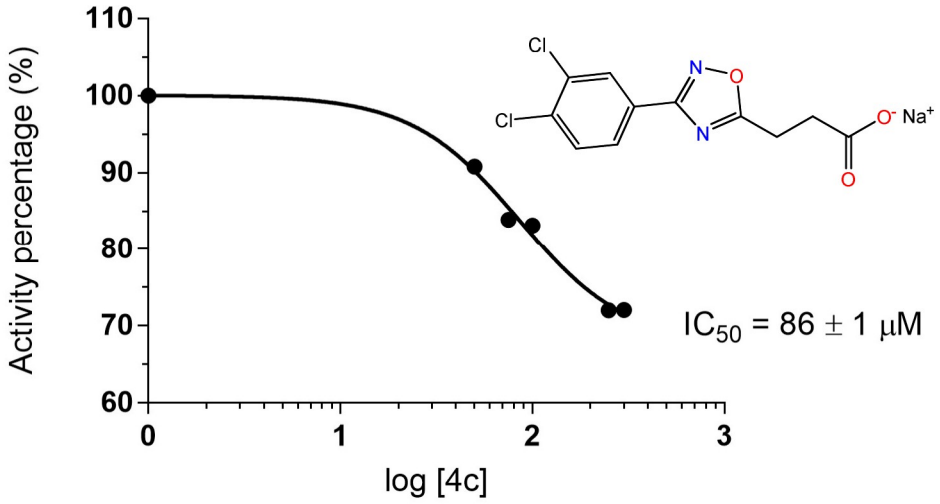
^{13}C NMR spectrum of compound **4s** in D_2O



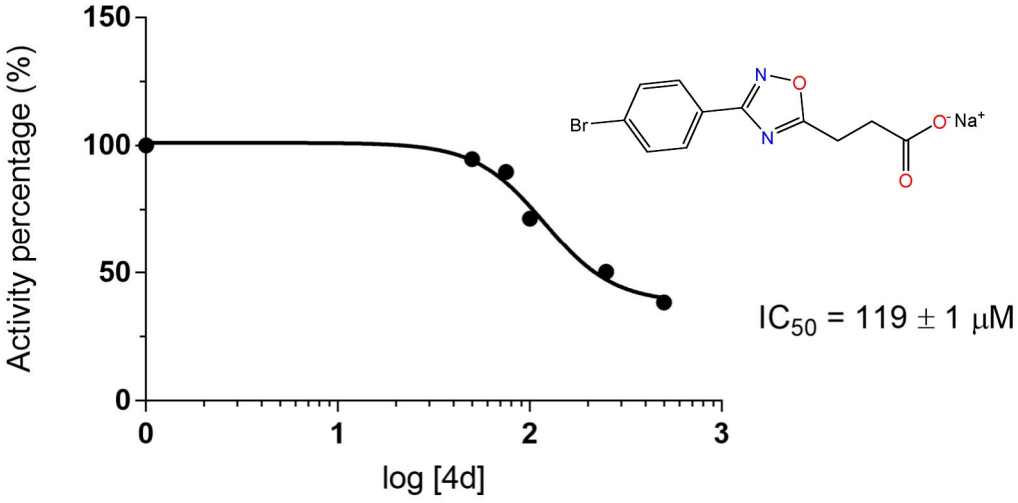
Dose-response curve of compound **4a**



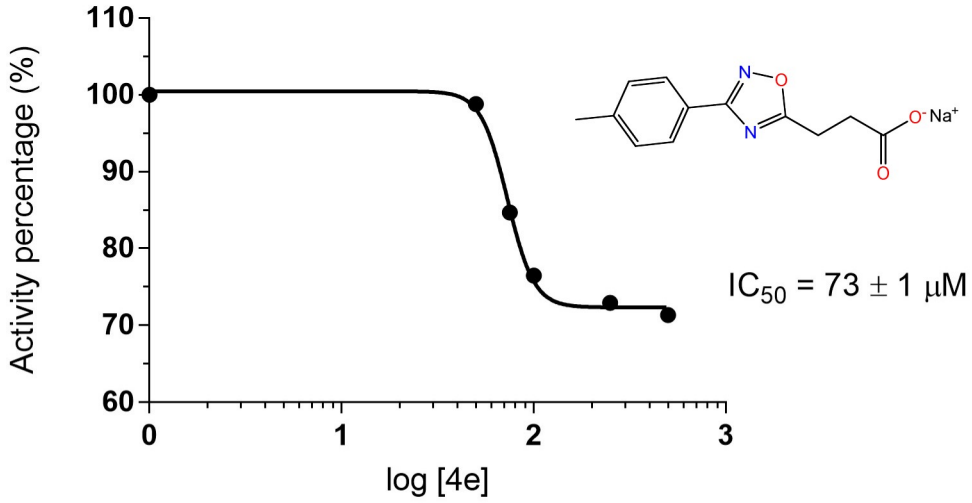
Dose-response curve of compound **4b**



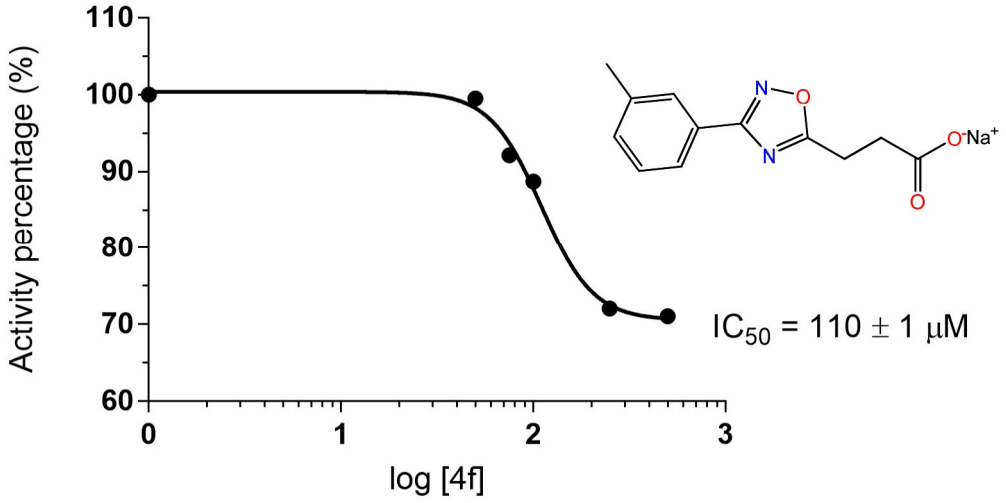
Dose-response curve of compound **4c**



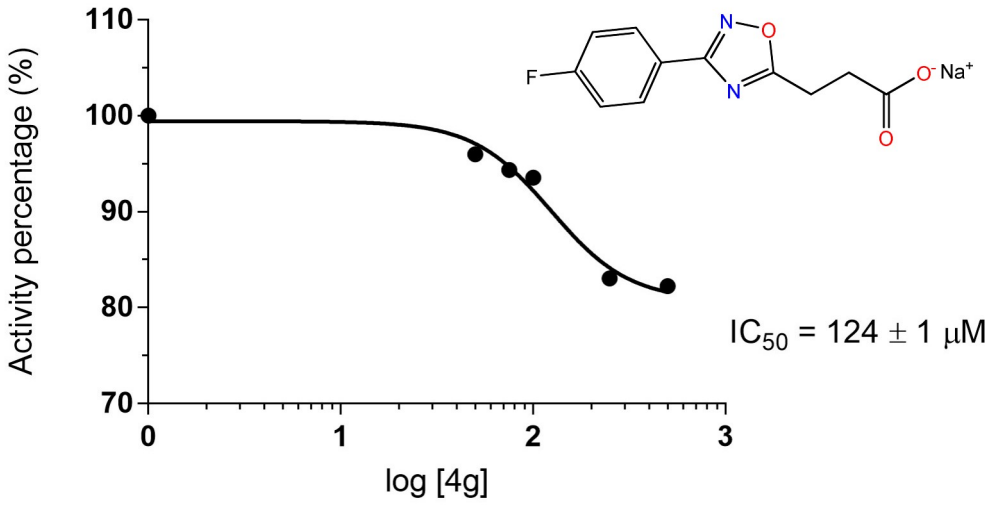
Dose-response curve of compound **4d**



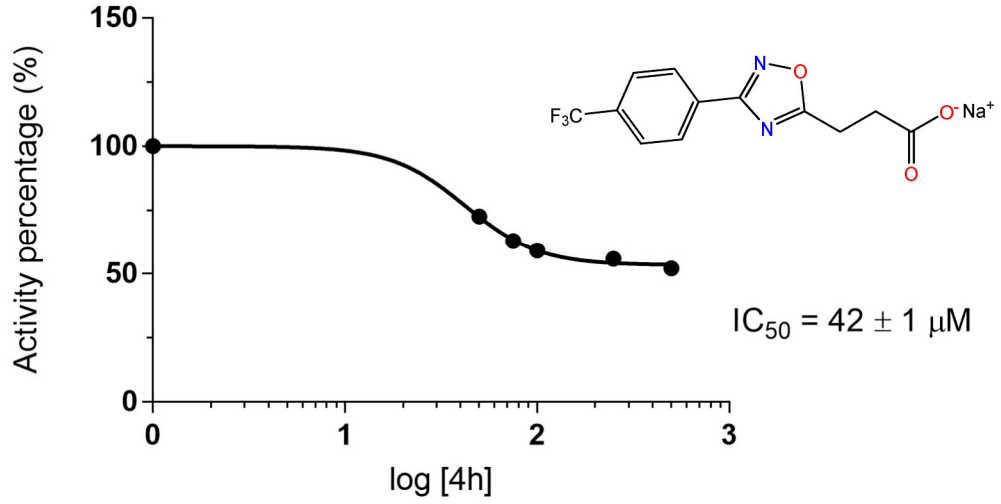
Dose-response curve of compound **4e**



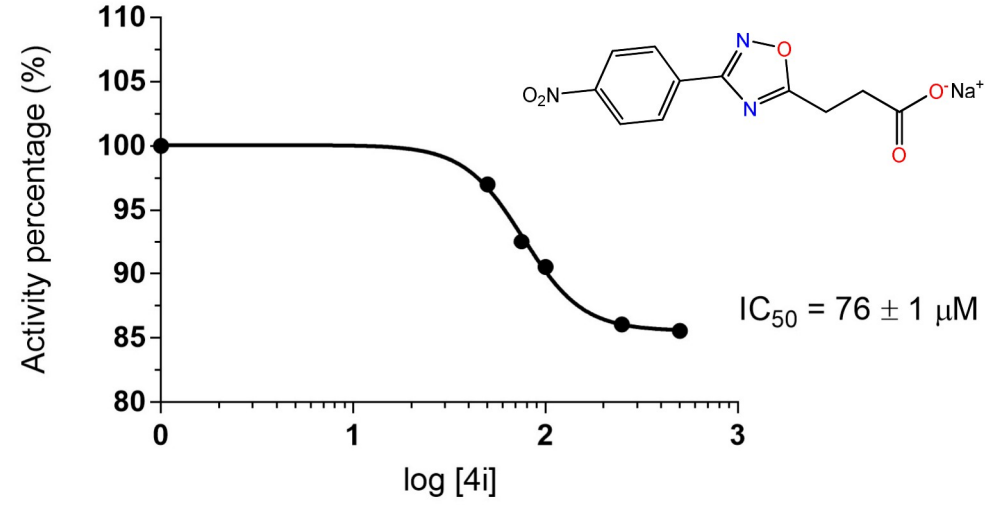
Dose-response curve of compound **4f**



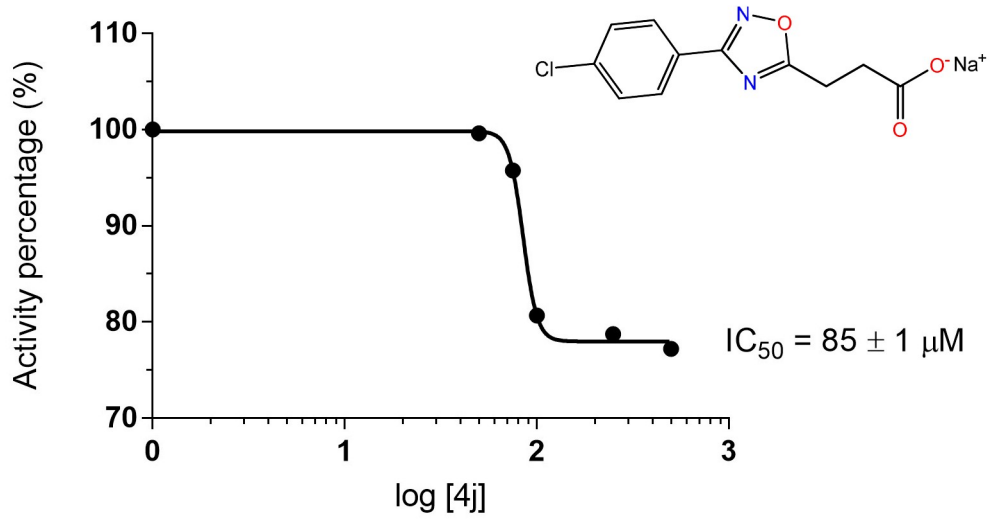
Dose-response curve of compound **4g**



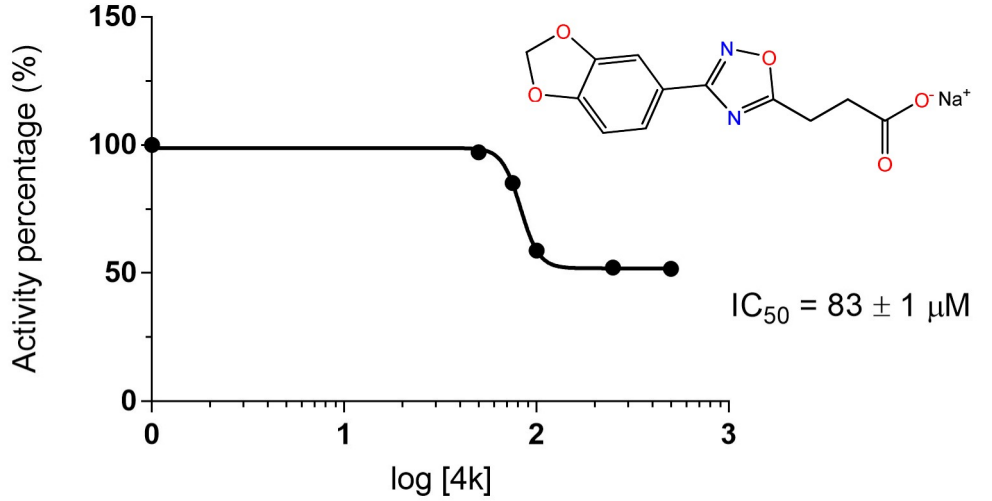
Dose-response curve of compound **4h**



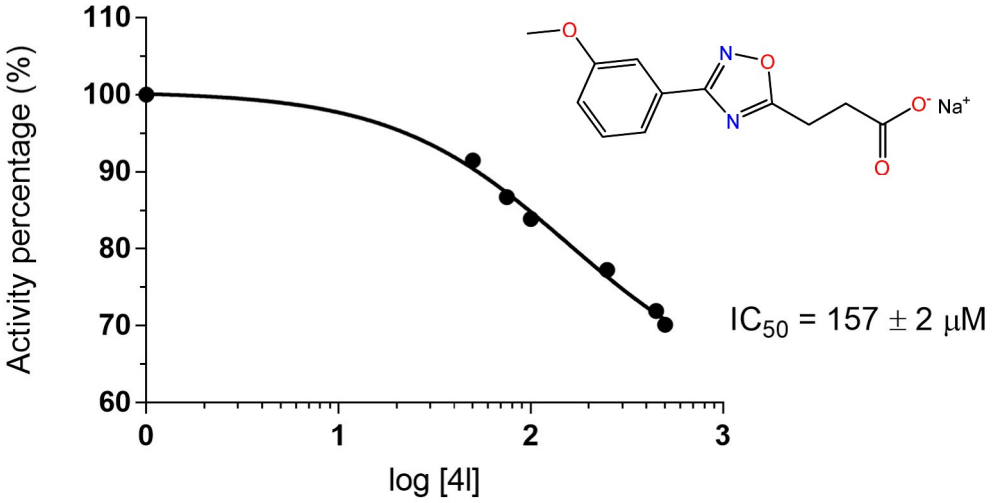
Dose-response curve of compound **4i**



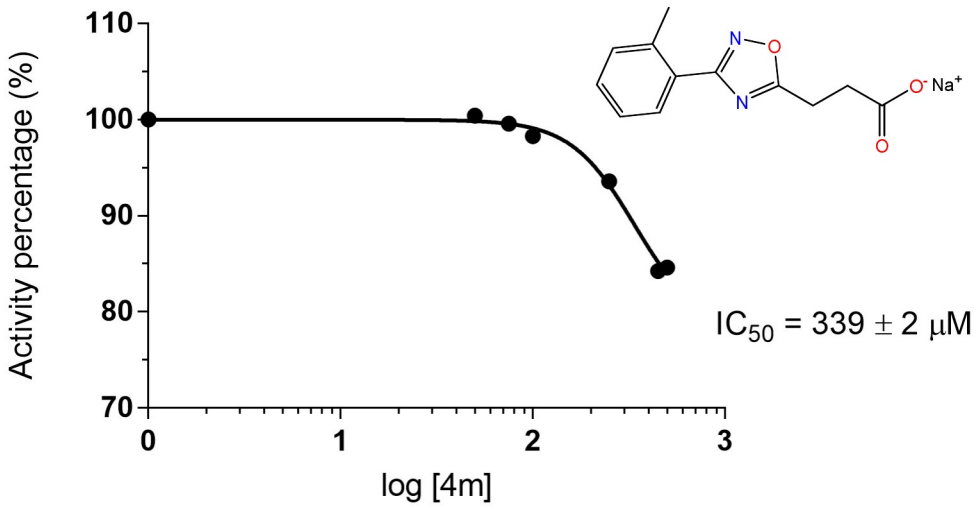
Dose-response curve of compound **4j**



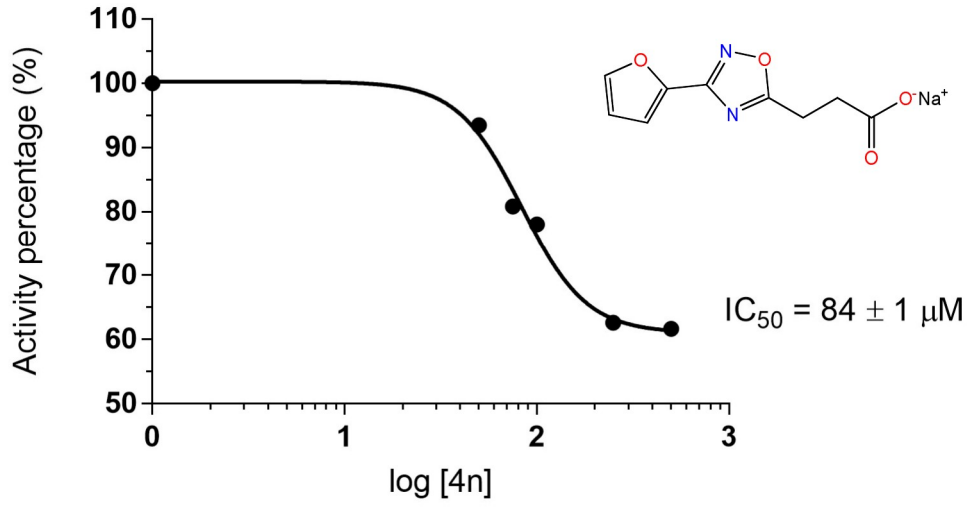
Dose-response curve of compound **4k**



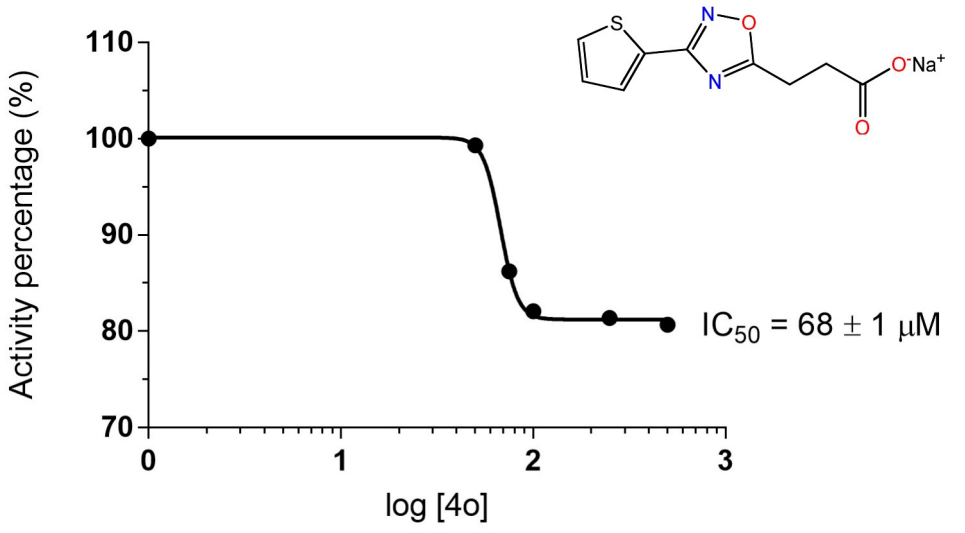
Dose-response curve of compound **4l**



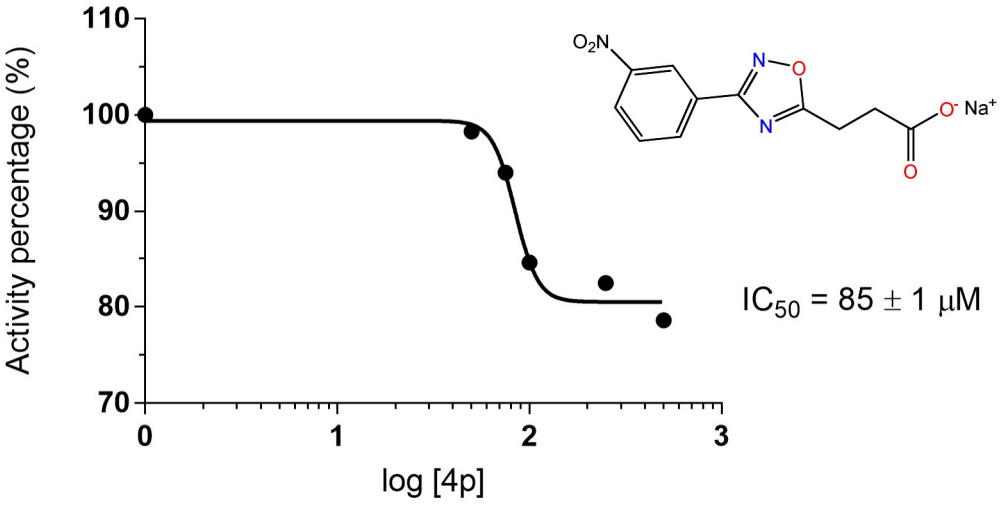
Dose-response curve of compound **4m**



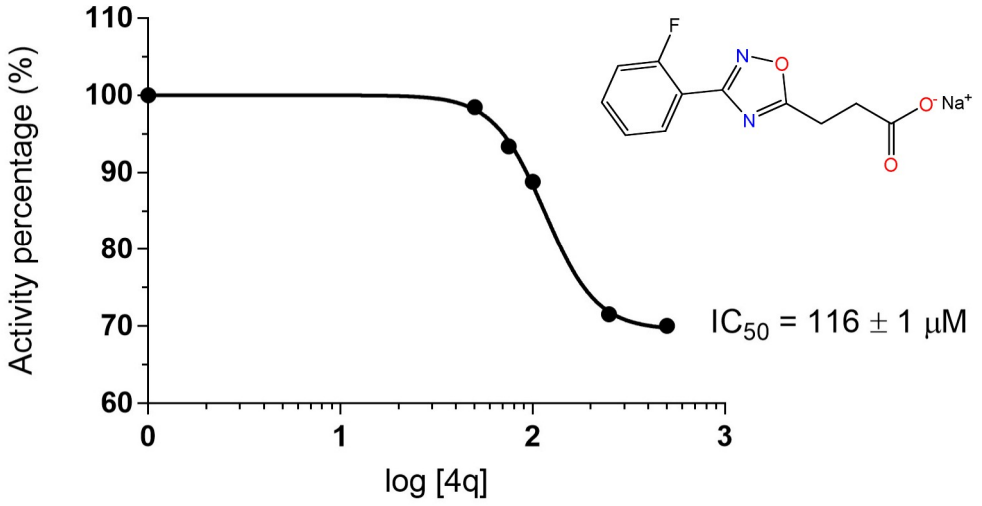
Dose-response curve of compound **4n**



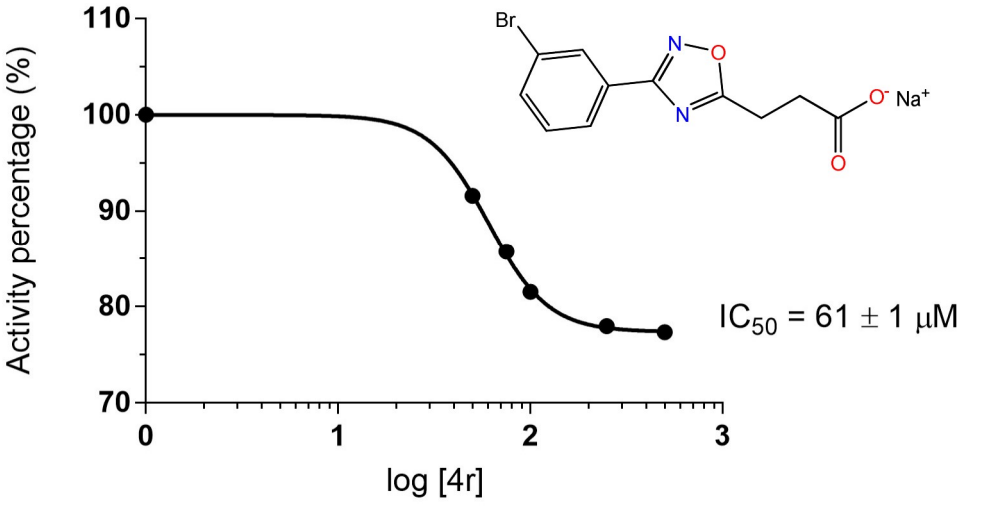
Dose-response curve of compound **4o**



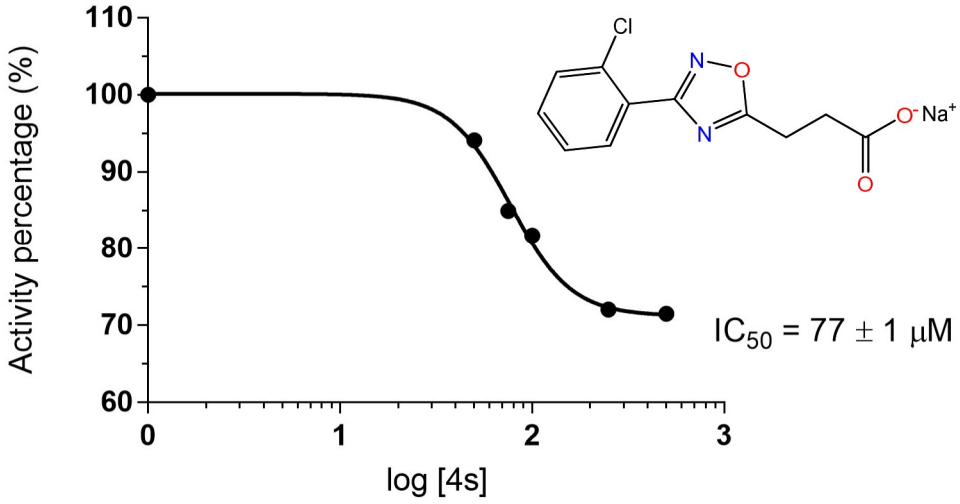
Dose-response curve of compound **4p**



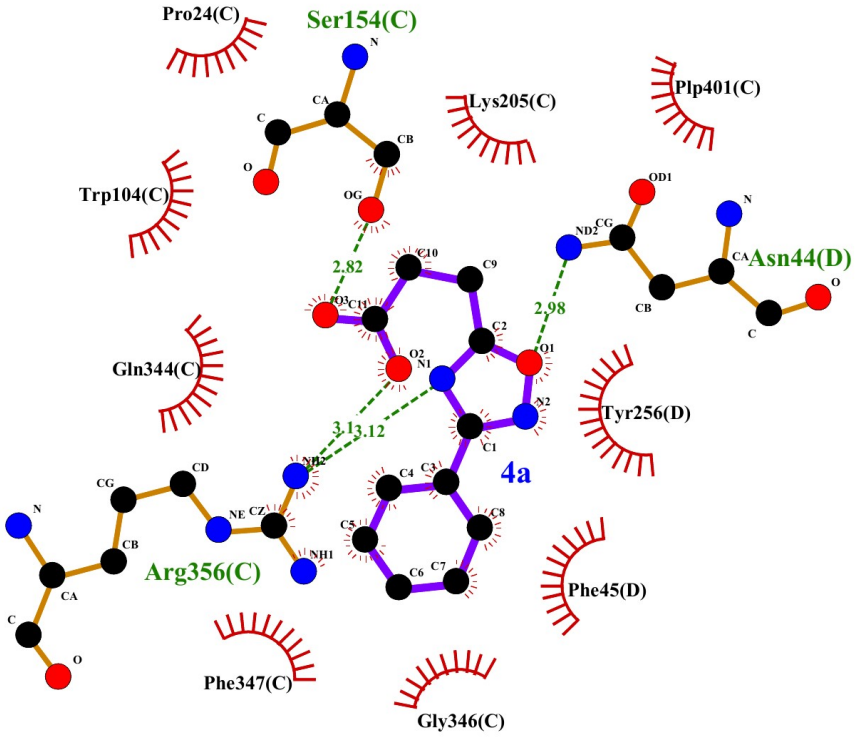
Dose-response curve of compound **4q**



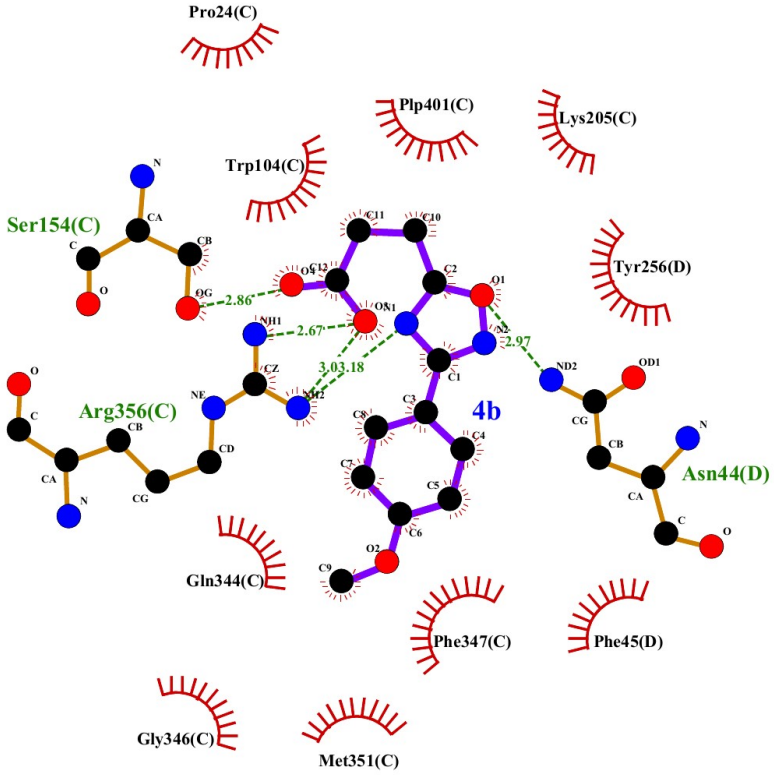
Dose-response curve of compound **4r**



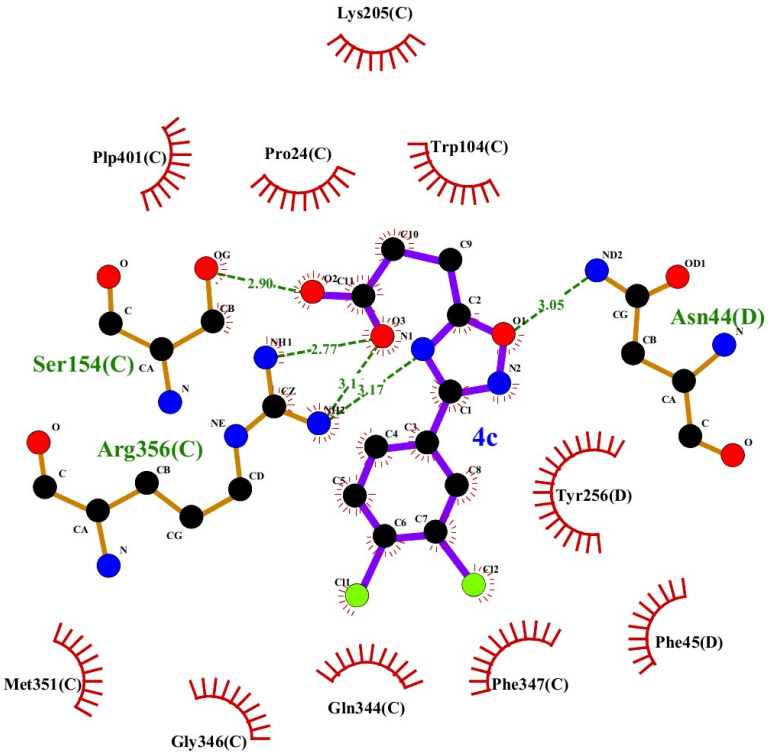
Dose-response curve of compound **4s**



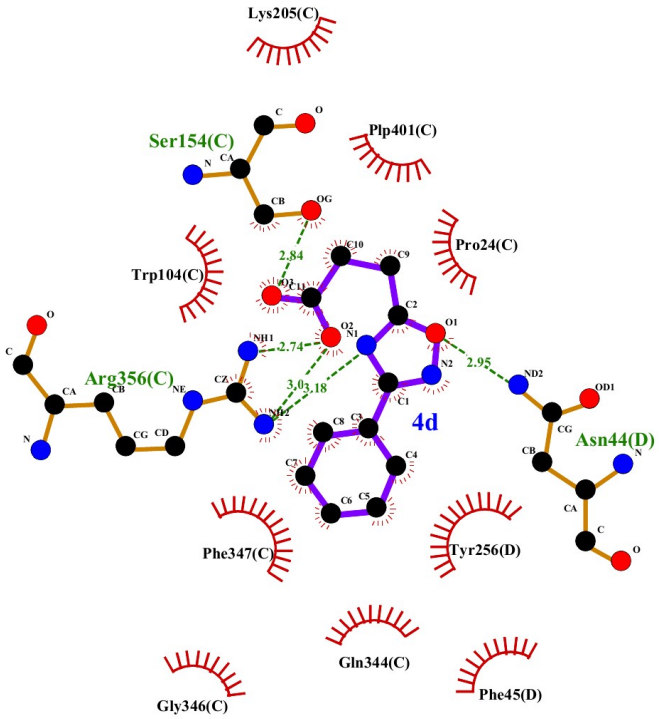
Electrostatic and van der Waals interactions between AeHKT and compound **4a** generated by LigPLOT+



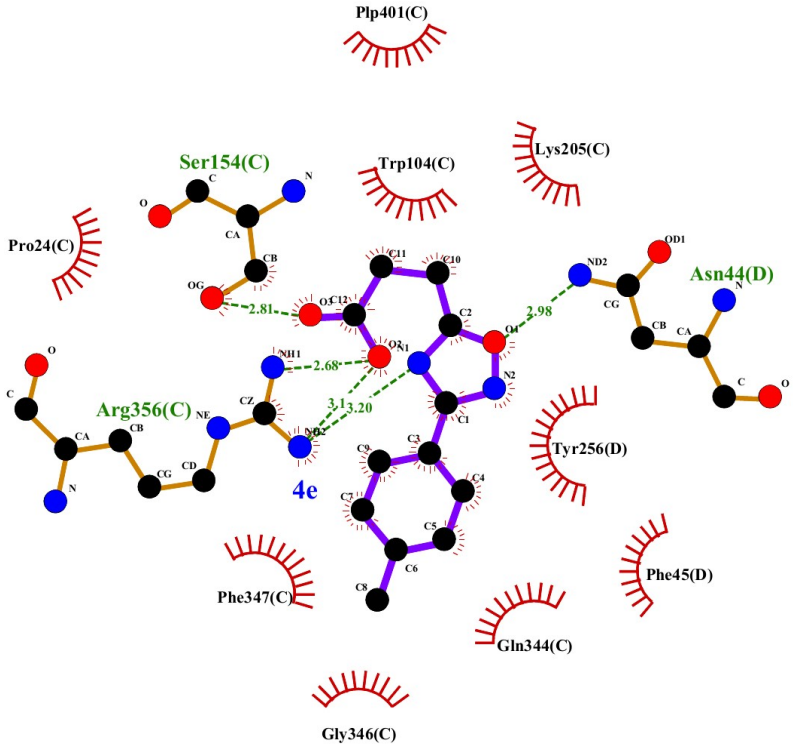
Electrostatic and van der Waals interactions between AeHKT and compound **4b** generated by LigPLOT+



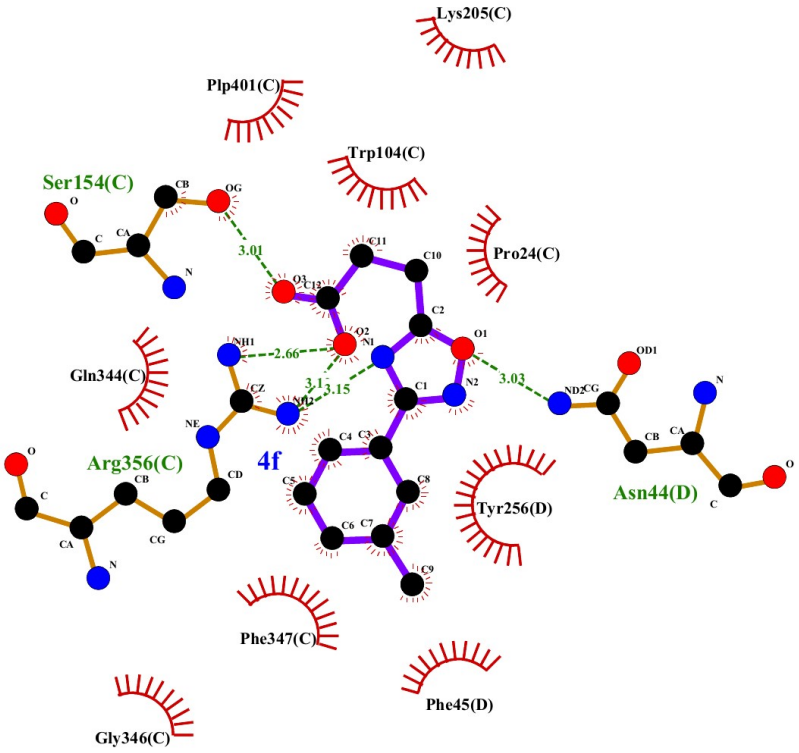
Electrostatic and van der Waals interactions between AeHKT and compound **4c** generated by LigPLOT+



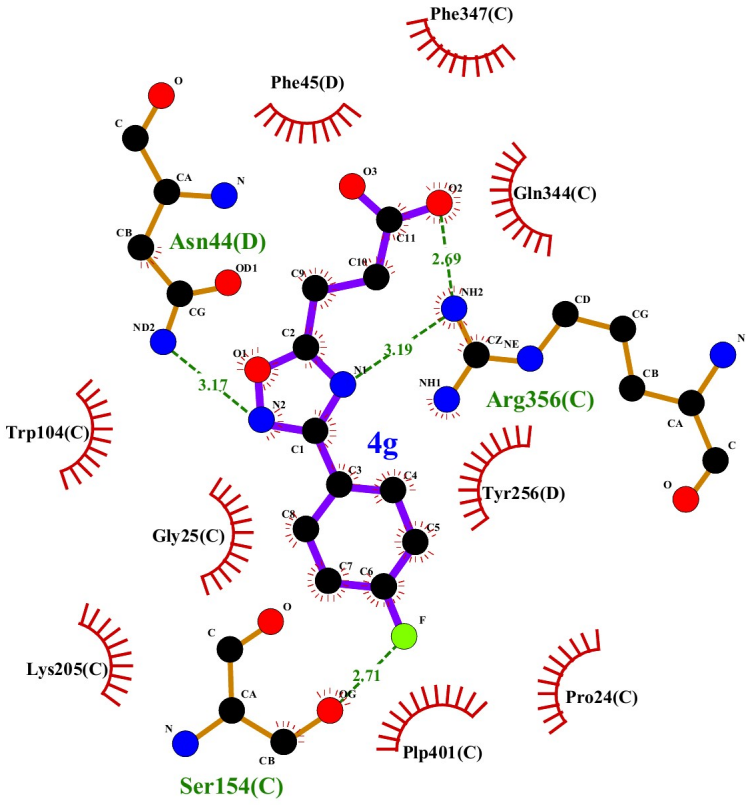
Electrostatic and van der Waals interactions between AeHKT and compound **4d** generated by LigPLOT+



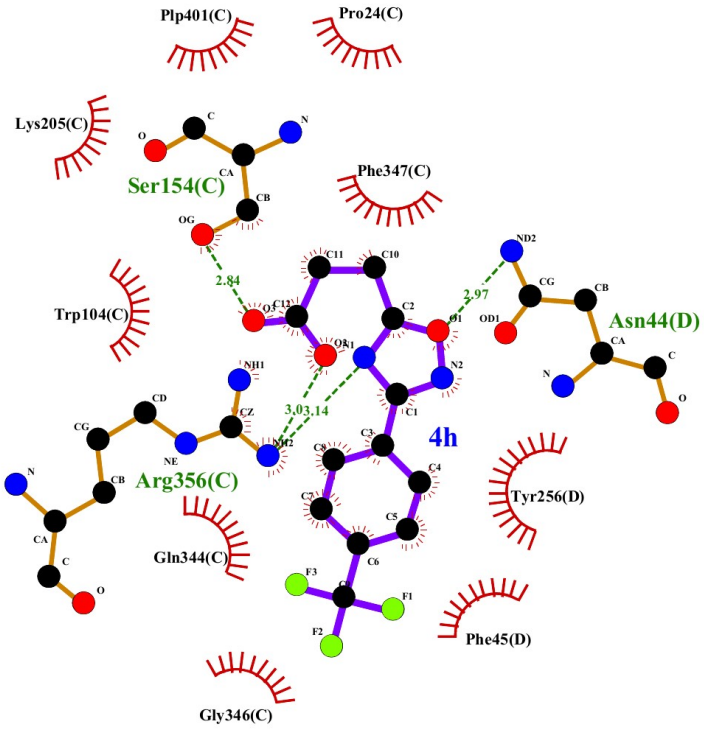
Electrostatic and van der Waals interactions between AeHKT and compound **4e** generated by LigPLOT+



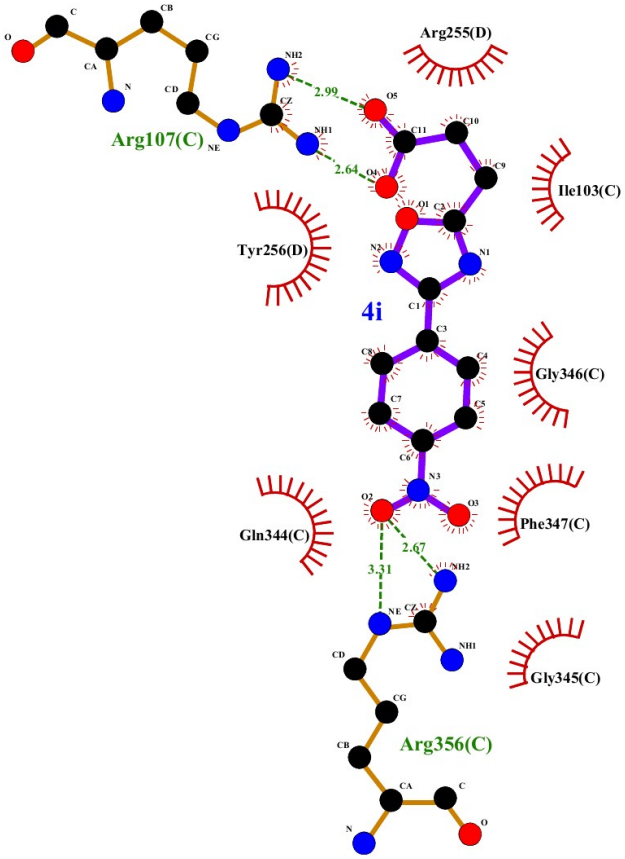
Electrostatic and van der Waals interactions between AeHKT and compound **4f** generated by LigPLOT+



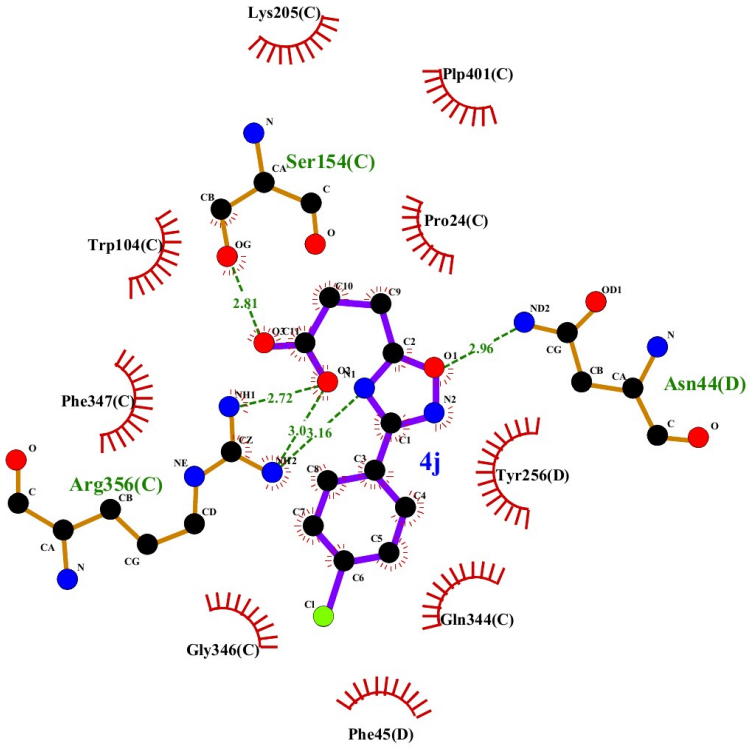
Electrostatic and van der Waals interactions between AeHKT and compound **4g** generated by LigPLOT+



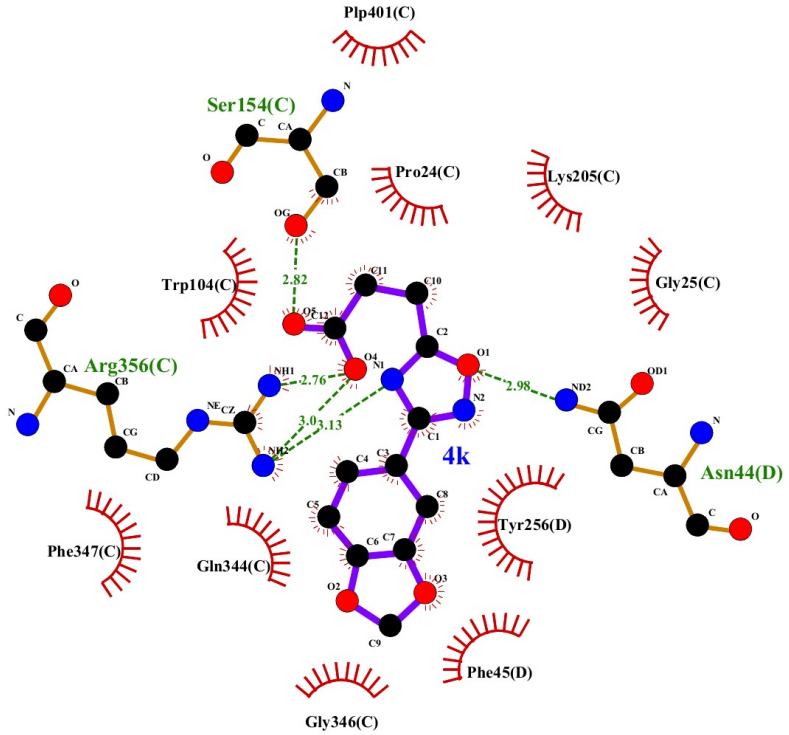
Electrostatic and van der Waals interactions between AeHKT and compound **4h** generated by LigPLOT+



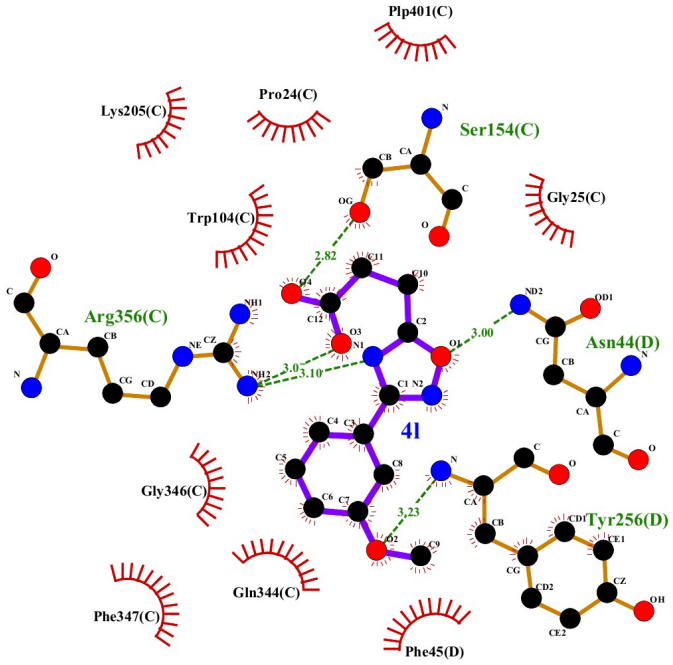
Electrostatic and van der Waals interactions between AeHKT and compound **4i** generated by LigPLOT+



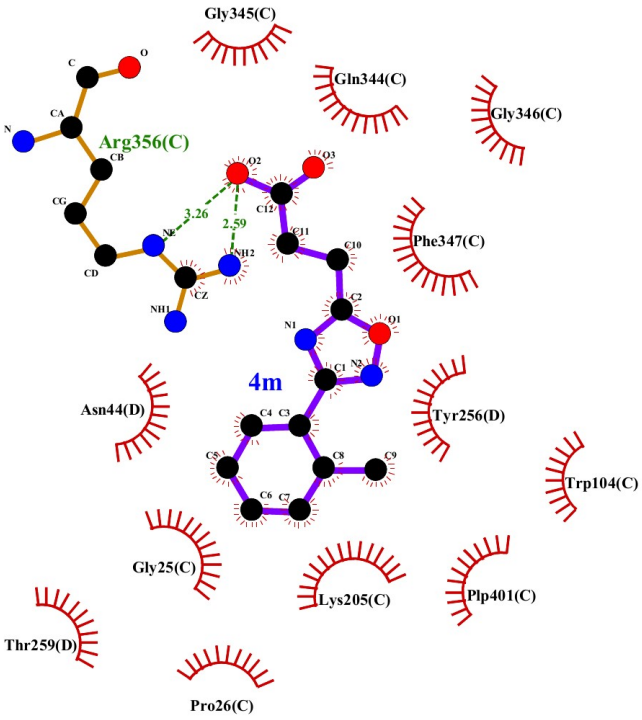
Electrostatic and van der Waals interactions between AeHKT and compound **4j** generated by LigPLOT+



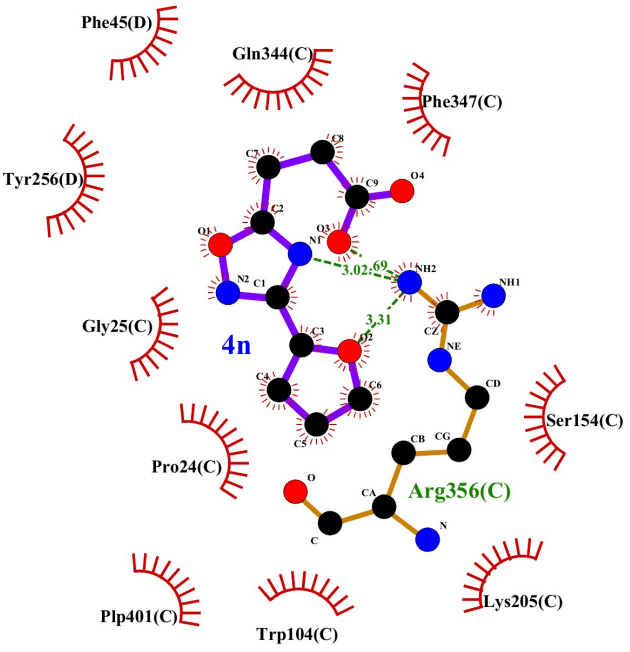
Electrostatic and van der Waals interactions between AeHKT and compound **4k** generated by LigPLOT+



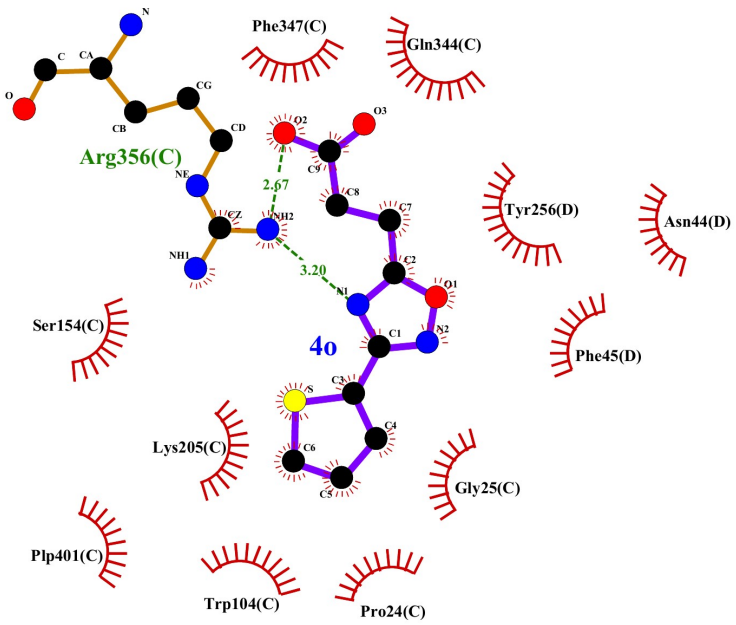
Electrostatic and van der Waals interactions between AeHKT and compound **4l** generated by LigPLOT+



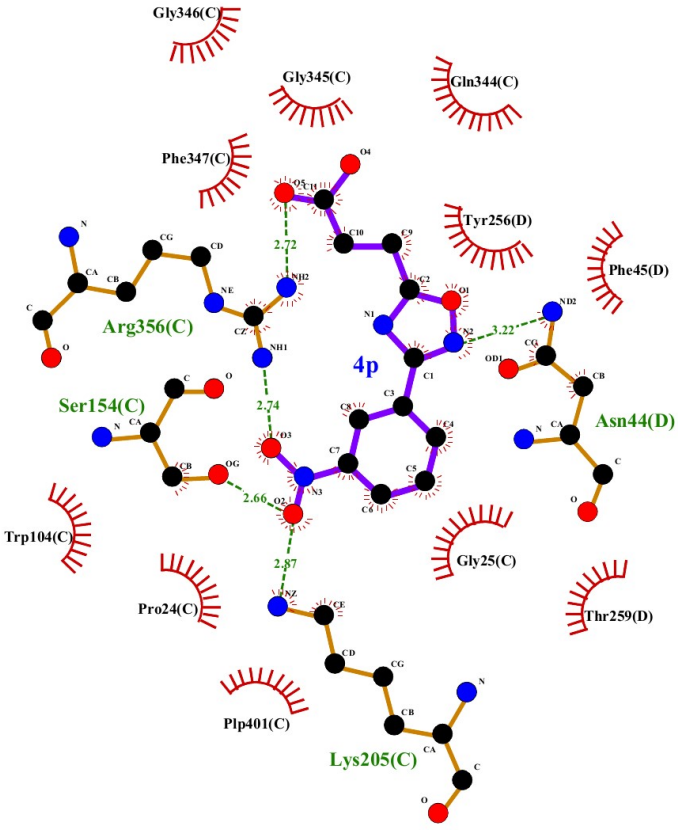
Electrostatic and van der Waals interactions between AeHKT and compound **4m** generated by LigPLOT+



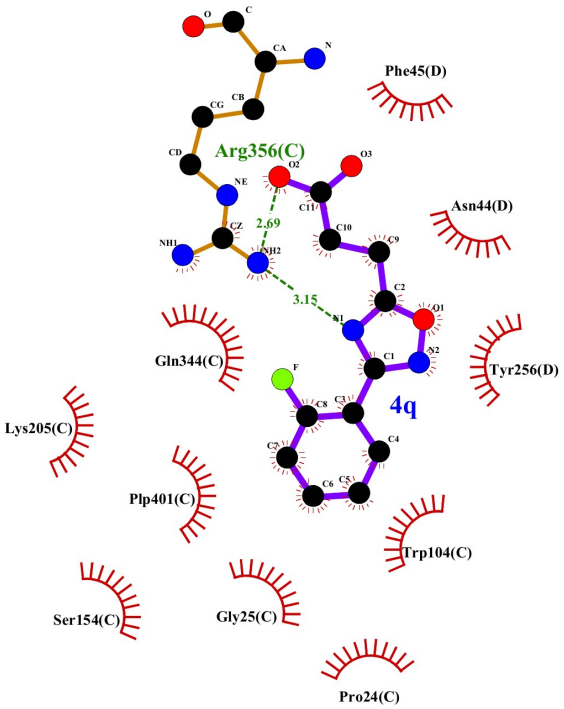
Electrostatic and van der Waals interactions between AeHKT and compound **4n** generated by LigPLOT+



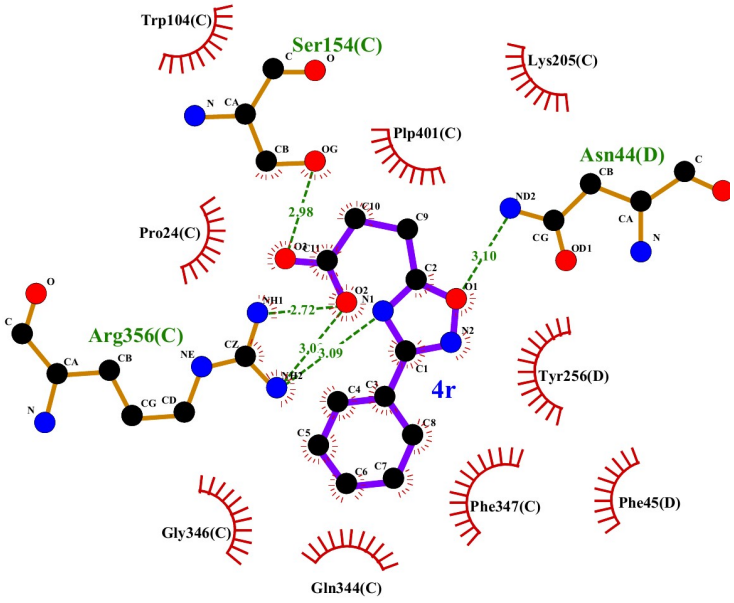
Electrostatic and van der Waals interactions between AeHKT and compound **4o** generated by LigPLOT+



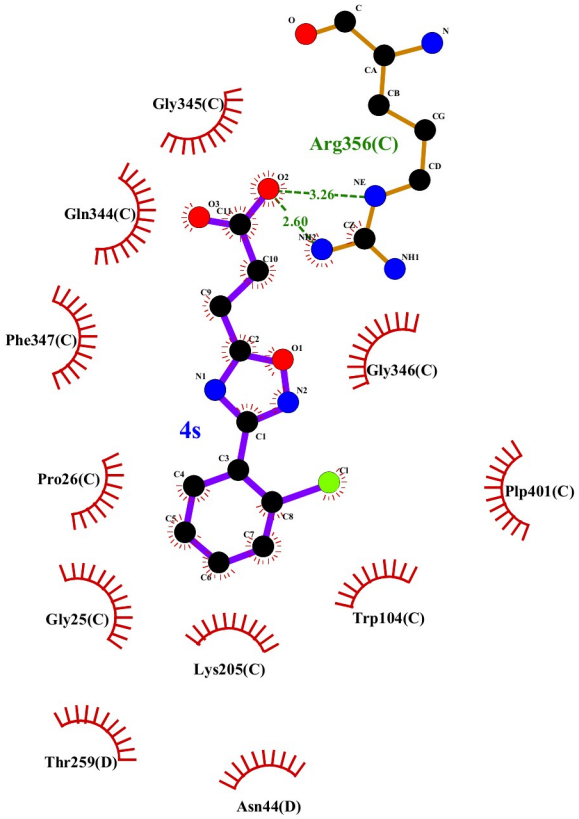
Electrostatic and van der Waals interactions between AeHKT and compound **4p** generated by LigPLOT+



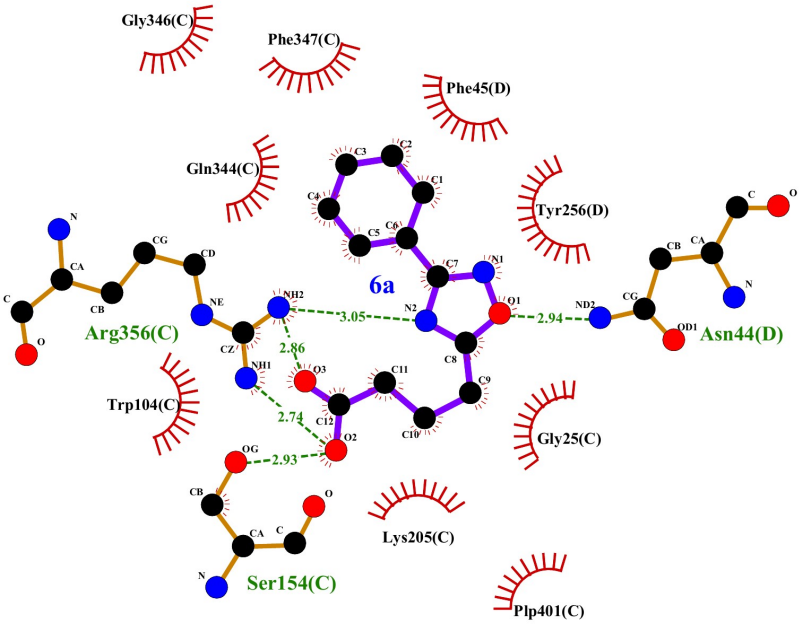
Electrostatic and van der Waals interactions between AeHKT and compound **4q** generated by LigPLOT+



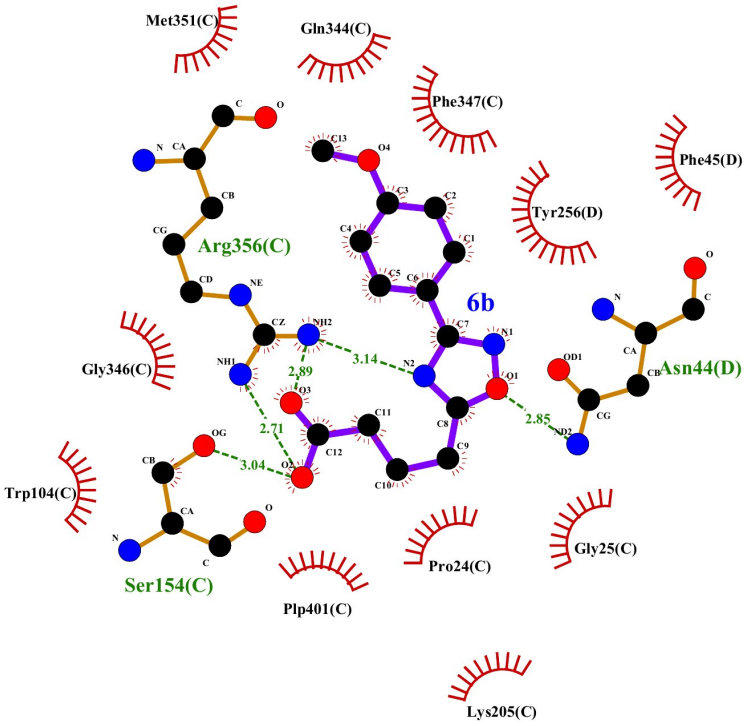
Electrostatic and van der Waals interactions between AeHKT and compound **4r** generated by LigPLOT+



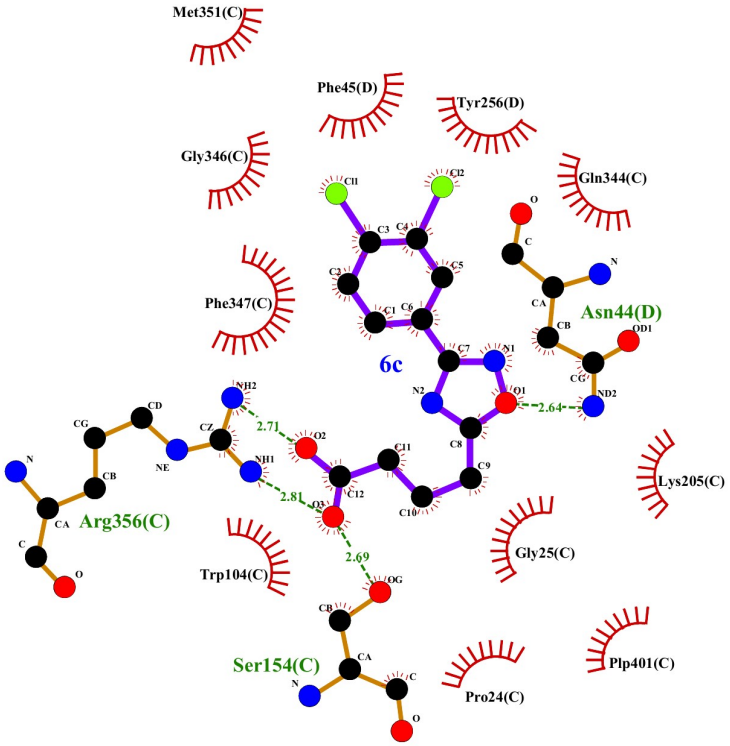
Electrostatic and van der Waals interactions between AeHKT and compound **4s** generated by LigPLOT+



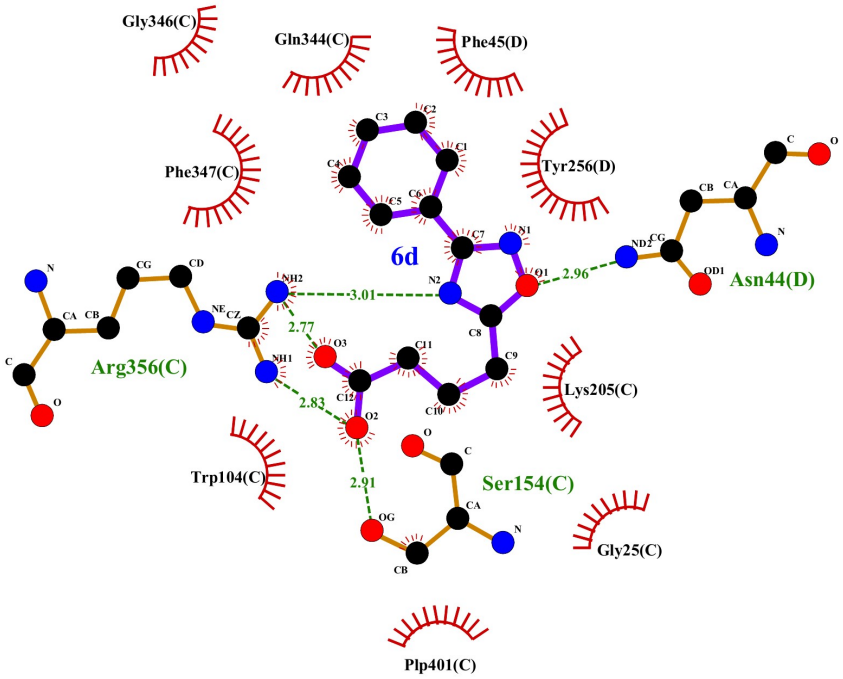
Electrostatic and van der Waals interactions between AeHKT and compound **6a** generated by LigPLOT+



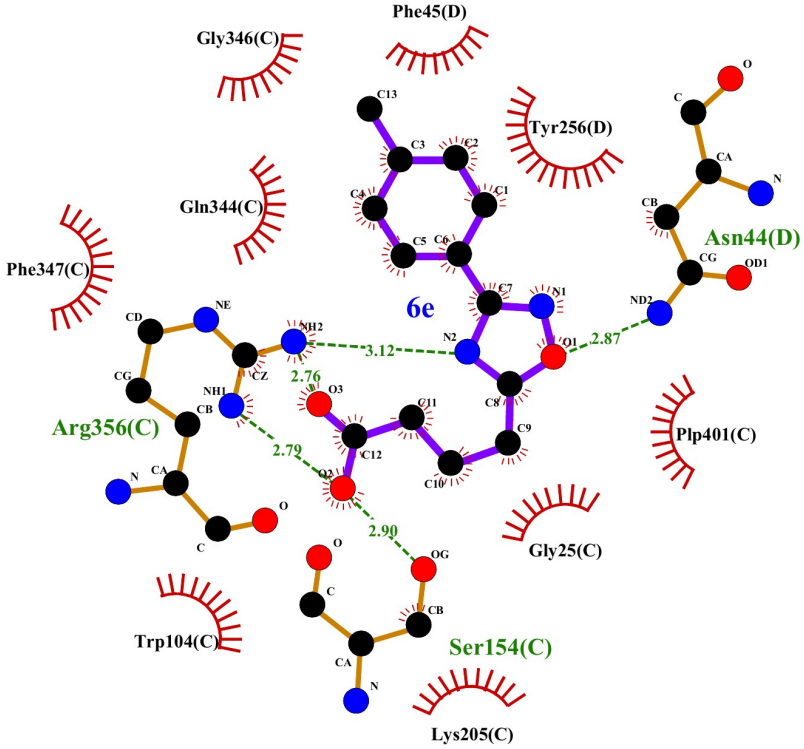
Electrostatic and van der Waals interactions between AeHKT and compound **6b** generated by LigPLOT+



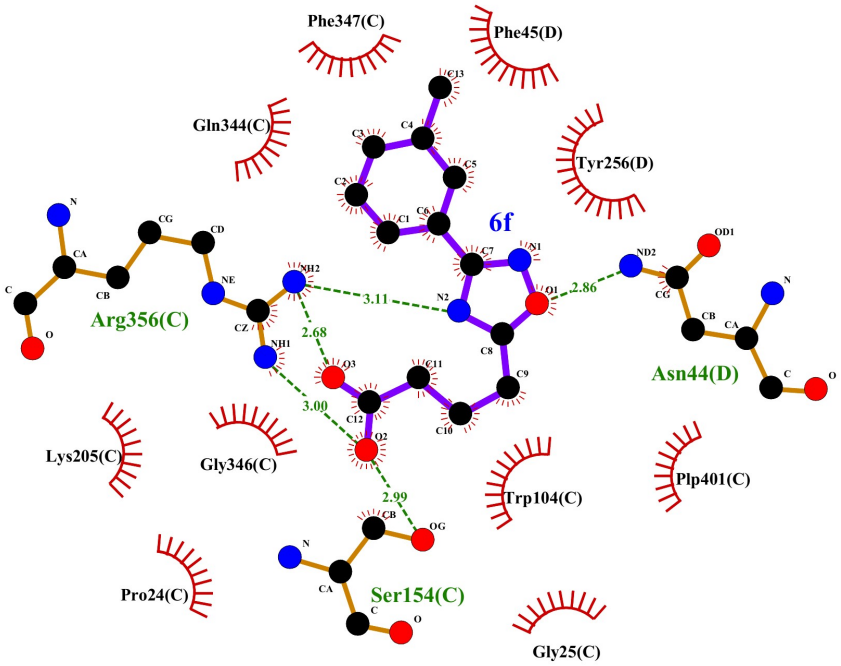
Electrostatic and van der Waals interactions between AeHKT and compound **6c** generated by LigPLOT+



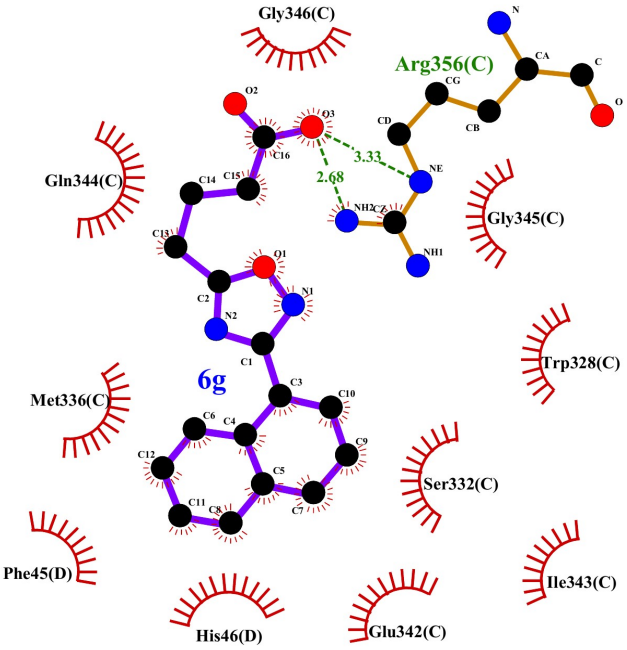
Electrostatic and van der Waals interactions between AeHKT and compound **6d** generated by LigPLOT+



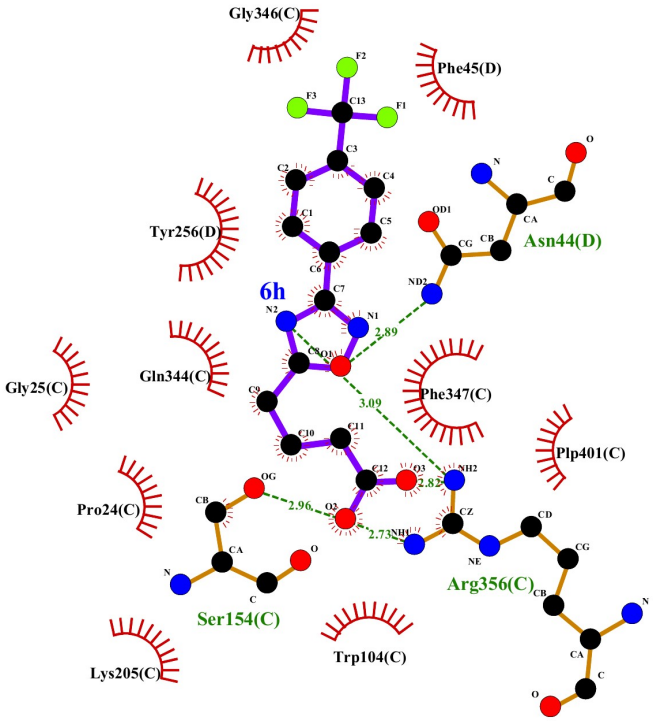
Electrostatic and van der Waals interactions between AeHKT and compound **6e** generated by LigPLOT+



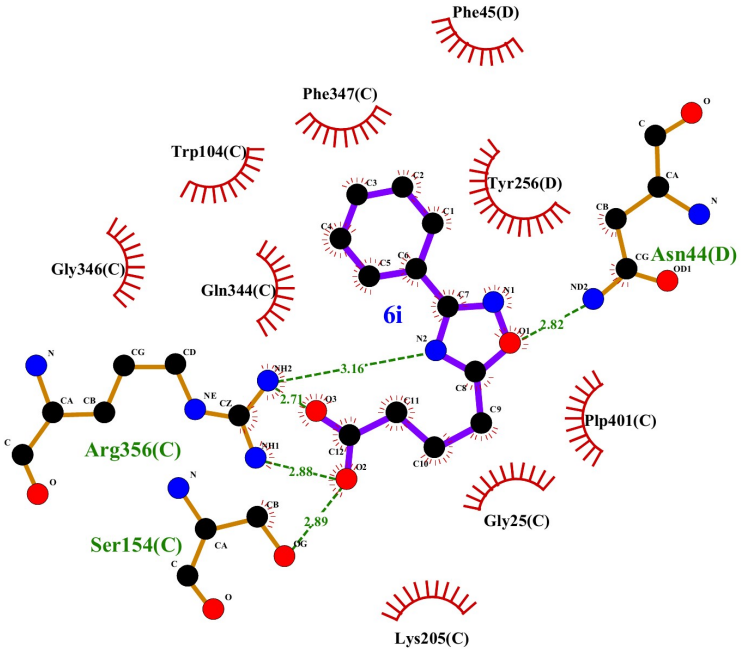
Electrostatic and van der Waals interactions between AeHKT and compound **6f** generated by LigPLOT+



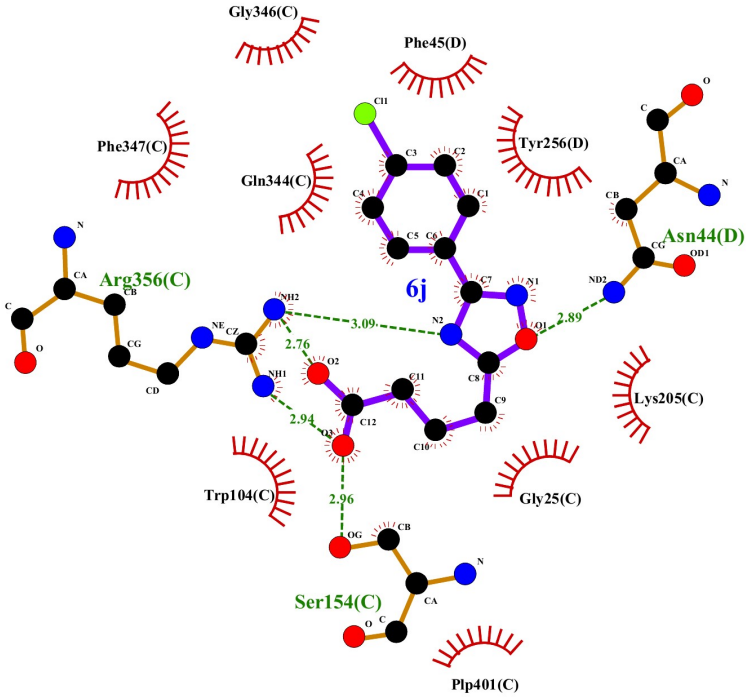
Electrostatic and van der Waals interactions between AeHKT and compound **6g** generated by LigPLOT+



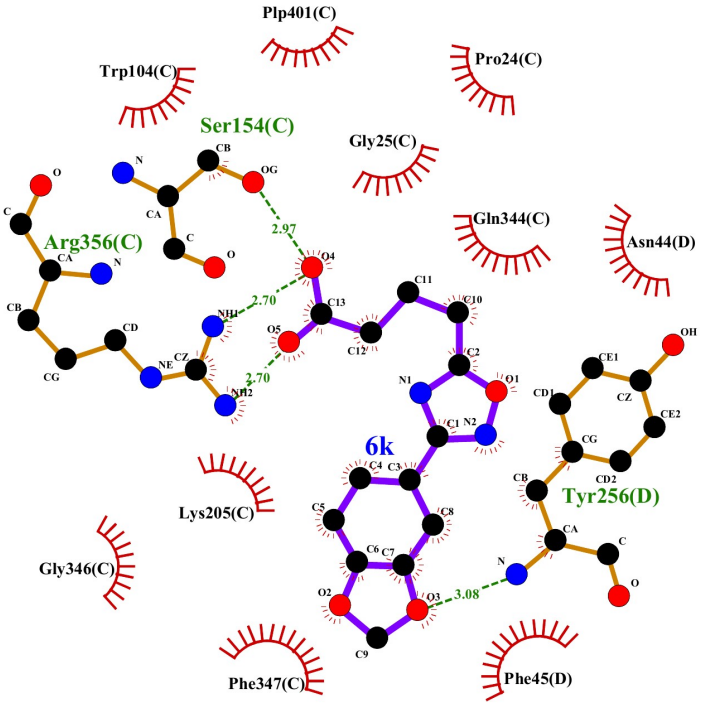
Electrostatic and van der Waals interactions between AeHKT and compound **6h** generated by LigPLOT+



Electrostatic and van der Waals interactions between AeHKT and compound **6i** generated by LigPLOT+



Electrostatic and van der Waals interactions between AeHKT and compound **6j** generated by LigPLOT+



Electrostatic and van der Waals interactions between AeHKT and compound **6k** generated by LigPLOT+

Atomic coordinates of lowest energy conformers obtained via molecular docking calculations of compounds 4-OB (validation) and **4a**, **4i**, **4n**, **4m** and **6g** to the HKT enzyme from *Aedes aegypti* (PDB ID 6MFB)

4-OB inhibitor (placed at the active site)

```
ATOM      1  CA  KY1 D1391      -2.373  25.701 -15.479 -0.58 +0.00    +0.106     0.939
ATOM      2  C   KY1 D1391      -2.592  24.797 -14.304 -0.48 +0.11    +0.186     0.939
ATOM      3  O   KY1 D1391      -3.167  25.213 -13.272 -0.49 -0.64    -0.647     0.939
ATOM      4  OXT KY1 D1391      -2.179  23.633 -14.421 -0.66 -0.44    -0.647     0.939
ATOM      5  CB  KY1 D1391      -1.811  27.015 -15.013 -0.57 -0.01    +0.081     0.939
ATOM      6  C1  KY1 D1391      -2.830  28.128 -14.996 -0.40 -0.05    +0.175     0.939
ATOM      7  O2  KY1 D1391      -2.975  28.713 -16.050 -0.38 +0.11    -0.291     0.939
ATOM      8  CD2 KY1 D1391      -3.670  28.524 -13.793 -0.43 -0.00    +0.050     0.939
ATOM      9  CG  KY1 D1391      -3.576  29.807 -13.213 -0.50 -0.00    +0.052     0.939
ATOM     10  CD1 KY1 D1391      -4.378  30.147 -12.108 -0.53 +0.00    +0.017     0.939
ATOM     11  CE1 KY1 D1391      -5.275  29.224 -11.557 -0.48 +0.00    +0.002     0.939
ATOM     12  CZ  KY1 D1391      -5.363  27.956 -12.132 -0.45 +0.00    +0.000     0.939
ATOM     13  CE2 KY1 D1391      -4.575  27.619 -13.237 -0.45 +0.00    +0.004     0.939
ATOM     14  N1  KY1 D1391      -2.727  30.751 -13.694 -0.25 +0.12    -0.398     0.939
ATOM     15  H12 KY1 D1391      -2.194  30.610 -14.552 -0.43 -0.11    +0.156     0.939
ATOM     16  H11 KY1 D1391      -2.636  31.621 -13.168 -0.46 -0.05    +0.156     0.939
END
```

4-OB inhibitor (placed outside of the active site)

```
ATOM      1  CA  KY1 D1391      -3.012  25.831 -15.523 -0.53 -0.01    +0.106    11.269
ATOM      2  C   KY1 D1391      -2.765  24.900 -14.375 -0.51 +0.09    +0.186    11.269
ATOM      3  O   KY1 D1391      -2.179  23.806 -14.549 -0.67 -0.39    -0.647    11.269
ATOM      4  OXT KY1 D1391      -3.166  25.279 -13.265 -0.49 -0.64    -0.647    11.269
ATOM      5  CB  KY1 D1391      -2.148  27.053 -15.382 -0.56 -0.01    +0.081    11.269
ATOM      6  C1  KY1 D1391      -2.938  28.319 -15.153 -0.41 -0.05    +0.175    11.269
ATOM      7  O2  KY1 D1391      -2.965  29.088 -16.092 -0.38 +0.11    -0.291    11.269
ATOM      8  CD2 KY1 D1391      -3.691  28.660 -13.878 -0.44 -0.00    +0.050    11.269
ATOM      9  CE2 KY1 D1391      -4.505  27.706 -13.265 -0.46 +0.00    +0.004    11.269
```

```
ATOM     10  CZ  KY1 D1391      -5.212  27.992 -12.092 -0.47 +0.00    +0.000    11.269
ATOM     11  CE1 KY1 D1391      -5.133  29.254 -11.505 -0.49 +0.00    +0.002    11.269
ATOM     12  CD1 KY1 D1391      -4.327  30.225 -12.112 -0.53 +0.00    +0.017    11.269
ATOM     13  CG  KY1 D1391      -3.606  29.938 -13.286 -0.51 -0.00    +0.052    11.269
ATOM     14  N1  KY1 D1391      -2.843  30.926 -13.818 -0.24 +0.10    -0.398    11.269
ATOM     15  H12 KY1 D1391      -2.735  31.786 -13.280 -0.45 -0.03    +0.156    11.269
ATOM     16  H11 KY1 D1391      -2.389  30.827 -14.726 -0.42 -0.09    +0.156    11.269
END
```

Compound 4a

```
HETATM 7000  N   4A      1      -3.827  26.733 -12.824 -0.68 -0.09    -0.203     9.484
HETATM 7001  N   4A      1      -5.188  28.491 -12.905 -0.79 -0.02    -0.105     9.484
HETATM 7002  C   4A      1      -4.721  27.480 -12.145 -0.32 +0.05    +0.191     9.484
HETATM 7003  C   4A      1      -3.782  27.341 -14.024 -0.30 +0.01    +0.185     9.484
HETATM 7004  O   4A      1      -4.590  28.375 -14.052 -0.80 -0.01    -0.195     9.484
HETATM 7005  C   4A      1      -5.135  27.223 -10.749 -0.47 +0.01    +0.038     9.484
HETATM 7006  C   4A      1      -4.271  26.558  -9.860 -0.43 +0.00    +0.003     9.484
HETATM 7007  C   4A      1      -4.668  26.319  -8.542 -0.48 +0.00    +0.000     9.484
HETATM 7008  C   4A      1      -5.923  26.740  -8.098 -0.37 +0.00    +0.000     9.484
HETATM 7009  C   4A      1      -6.788  27.401  -8.974 -0.42 +0.00    +0.000     9.484
HETATM 7010  C   4A      1      -6.398  27.643 -10.295 -0.37 +0.00    +0.003     9.484
HETATM 7011  C   4A      1      -2.926  26.896 -15.167 -0.53 -0.01    +0.085     9.484
HETATM 7012  C   4A      1      -3.205  25.426 -15.509 -0.53 -0.00    +0.106     9.484
HETATM 7013  C   4A      1      -2.511  24.462 -14.583 -0.53 +0.09    +0.186     9.484
HETATM 7014  O   4A      1      -3.163  24.004 -13.498 -0.46 -0.58    -0.647     9.484
HETATM 7015  O   4A      1      -1.369  24.089 -14.801 -0.49 -0.35    -0.647     9.484
END
```

Compound 4i

```
HETATM 7000  N   4i      1      -8.832  24.233  -8.176 -0.18 -0.03    -0.203     6.815
HETATM 7001  N   4i      1      -9.425  26.362  -8.428 -0.87 -0.04    -0.105     6.815
HETATM 7002  C   4i      1      -8.396  25.506  -8.264 -0.26 +0.03    +0.191     6.815
HETATM 7003  C   4i      1     -10.167  24.367  -8.293 -0.26 +0.04    +0.185     6.815
HETATM 7004  O   4i      1     -10.496  25.627  -8.442 -0.68 -0.09    -0.195     6.815
HETATM 7005  C   4i      1      -6.977  25.911  -8.187 -0.31 +0.00    +0.038     6.815
HETATM 7006  C   4i      1      -6.275  25.815  -6.975 -0.34 -0.00    +0.005     6.815
HETATM 7007  C   4i      1      -4.932  26.197  -6.903 -0.32 -0.00    +0.024     6.815
HETATM 7008  C   4i      1      -4.265  26.682  -8.044 -0.38 +0.02    +0.127     6.815
HETATM 7009  C   4i      1      -4.972  26.778  -9.256 -0.44 +0.01    +0.024     6.815
HETATM 7010  C   4i      1      -6.316  26.396  -9.326 -0.38 +0.00    +0.005     6.815
HETATM 7011  N   4i      1      -2.893  27.072  -7.975 -0.42 -0.04    -0.114     6.815
HETATM 7012  O   4i      1      -2.071  26.512  -8.637 -0.60 -0.48    -0.532     6.815
HETATM 7013  O   4i      1      -2.520  28.054  -7.182 -0.58 -0.14    -0.532     6.815
HETATM 7014  C   4i      1     -11.138  23.229  -8.260 -0.26 +0.02    +0.085     6.815
HETATM 7015  C   4i      1     -12.020  23.238  -9.514 -0.32 +0.04    +0.106     6.815
HETATM 7016  C   4i      1     -11.278  22.837 -10.763 -0.35 +0.11    +0.186     6.815
HETATM 7017  O   4i      1     -11.145  21.531 -11.064 -0.48 -0.56    -0.647     6.815
HETATM 7018  O   4i      1     -10.794  23.677 -11.506 -0.58 -0.46    -0.647     6.815
END
```

Compound 4m

```
HETATM 7000  N   4m      1      -4.686  27.588 -11.962 -0.30 -0.05    -0.203     4.050
HETATM 7001  N   4m      1      -4.173  25.563 -12.707 -0.90 -0.07    -0.105     4.050
HETATM 7002  C   4m      1      -4.186  26.882 -12.995 -0.32 +0.05    +0.190     4.050
HETATM 7003  C   4m      1      -4.971  26.638 -11.053 -0.38 +0.06    +0.185     4.050
HETATM 7004  O   4m      1      -4.661  25.452 -11.509 -0.52 -0.11    -0.195     4.050
HETATM 7005  C   4m      1      -3.697  27.442 -14.296 -0.44 -0.00    +0.034     4.050
HETATM 7006  C   4m      1      -3.799  28.841 -14.464 -0.42 -0.00    +0.003     4.050
HETATM 7007  C   4m      1      -3.376  29.464 -15.637 -0.44 -0.00    +0.000     4.050
```

```
HETATM 7008  C   4m      1      -2.839  28.712 -16.672 -0.54 +0.00    -0.000     4.050
HETATM 7009  C   4m      1      -2.720  27.331 -16.542 -0.42 +0.00    -0.004     4.050
HETATM 7010  C   4m      1      -3.138  26.669 -15.371 -0.52 +0.00    -0.019     4.050
HETATM 7011  C   4m      1      -2.949  25.169 -15.368 -0.66 +0.00    +0.031     4.050
HETATM 7012  C   4m      1      -5.556  26.909  -9.703 -0.47 +0.02    +0.085     4.050
HETATM 7013  C   4m      1      -4.748  26.194  -8.611 -0.46 +0.02    +0.106     4.050
HETATM 7014  C   4m      1      -3.445  26.882  -8.293 -0.34 +0.07    +0.186     4.050
HETATM 7015  O   4m      1      -2.286  26.294  -8.642 -0.55 -0.61    -0.647     4.050
HETATM 7016  O   4m      1      -3.425  27.963  -7.726 -0.59 -0.20    -0.647     4.050
END
```

Compound 4n

```
HETATM 7000  N   4n      1      -4.117  26.712 -12.254 -0.55 -0.10    -0.201     4.260
HETATM 7001  N   4n      1      -4.412  27.993 -14.051 -0.59 +0.00    -0.103     4.260
HETATM 7002  C   4n      1      -3.781  26.917 -13.542 -0.28 +0.04    +0.214     4.260
HETATM 7003  C   4n      1      -4.980  27.718 -12.013 -0.33 +0.04    +0.186     4.260
HETATM 7004  O   4n      1      -5.141  28.460 -13.082 -0.90 -0.03    -0.195     4.260
HETATM 7005  C   4n      1      -2.848  26.073 -14.292 -0.40 +0.04    +0.138     4.260
HETATM 7006  C   4n      1      -1.976  26.496 -15.274 -0.56 -0.00    +0.030     4.260
HETATM 7007  C   4n      1      -1.305  25.367 -15.691 -0.58 +0.00    +0.029     4.260
HETATM 7008  C   4n      1      -1.805  24.322 -14.941 -0.54 +0.05    +0.123     4.260
HETATM 7009  O   4n      1      -2.723  24.777 -14.117 -0.81 -0.20    -0.302     4.260
HETATM 7010  C   4n      1      -5.665  27.952 -10.703 -0.47 +0.01    +0.085     4.260
HETATM 7011  C   4n      1      -5.317  26.843  -9.700 -0.45 +0.02    +0.106     4.260
HETATM 7012  C   4n      1      -4.156  27.197  -8.806 -0.26 +0.06    +0.186     4.260
HETATM 7013  O   4n      1      -3.005  26.508  -8.914 -0.52 -0.52    -0.647     4.260
HETATM 7014  O   4n      1      -4.244  28.100  -7.986 -0.47 -0.12    -0.647     4.260
END
```

Compound 6g

```
HETATM 7000  N   6g      0      -0.397  30.615  -5.569 -0.95 +0.01    -0.105     7.841
HETATM 7001  N   6g      0      -1.979  31.766  -6.614 -0.24 +0.10    -0.203     7.841
HETATM 7002  C   6g      0      -0.757  31.825  -6.039 -0.35 -0.11    +0.191     7.841
HETATM 7003  C   6g      0      -2.326  30.475  -6.463 -0.28 -0.03    +0.185     7.841
HETATM 7004  O   6g      0      -1.380  29.813  -5.845 -0.95 -0.03    -0.195     7.841
HETATM 7005  C   6g      0       0.050  33.088  -5.959 -0.45 -0.03    +0.038     7.841
HETATM 7006  C   6g      0      -0.488  34.423  -5.994 -0.39 -0.00    +0.003     7.841
HETATM 7007  C   6g      0       0.411  35.529  -5.909 -0.44 -0.00    +0.000     7.841
HETATM 7008  C   6g      0      -1.874  34.708  -6.107 -0.38 -0.00    +0.000     7.841
HETATM 7009  C   6g      0       1.788  35.318  -5.795 -0.56 -0.00    +0.000     7.841
HETATM 7010  C   6g      0      -0.077  36.847  -5.939 -0.37 -0.00    +0.000     7.841
HETATM 7011  C   6g      0       2.299  34.030  -5.762 -0.71 -0.00    +0.000     7.841
HETATM 7012  C   6g      0       1.449  32.933  -5.842 -0.61 -0.00    +0.003     7.841
HETATM 7013  C   6g      0      -1.441  37.090  -6.052 -0.39 -0.00    +0.000     7.841
HETATM 7014  C   6g      0      -2.334  36.027  -6.135 -0.41 -0.00    +0.000     7.841
HETATM 7015  C   6g      0      -3.622  29.896  -6.946 -0.35 -0.00    +0.074     7.841
HETATM 7016  C   6g      0      -4.035  28.657  -6.142 -0.36 -0.00    +0.020     7.841
HETATM 7017  C   6g      0      -3.169  27.447  -6.516 -0.45 +0.01    +0.098     7.841
HETATM 7018  C   6g      0      -3.274  27.084  -7.973 -0.31 +0.06    +0.185     7.841
HETATM 7019  O   6g      0      -4.212  27.504  -8.631 -0.33 -0.19    -0.647     7.841
HETATM 7020  O   6g      0      -2.348  26.301  -8.563 -0.58 -0.54    -0.647     7.841
END
```

AeHKT enzyme (holoenzyme)

```
ATOM      1  N   MET C   1     -32.564  60.106 -23.077  1.00 55.29           N
ATOM      2  CA  MET C   1     -32.594  58.609 -23.093  1.00 53.81           C
ATOM      3  C   MET C   1     -32.511  58.028 -21.670  1.00 56.84           C
ATOM      4  O   MET C   1     -32.737  56.837 -21.484  1.00 62.02           O
ATOM      5  CB  MET C   1     -31.446  58.027 -23.933  1.00 60.32           C
ATOM      6  CG  MET C   1     -31.526  58.305 -25.440  1.00 57.40           C
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ATOM      7  SD  MET C   1     -30.003  57.777 -26.276  1.00 54.89           S
ATOM      8  CE  MET C   1     -29.933  58.896 -27.675  1.00 54.09           C
ATOM      9  N   LYS C   2     -32.148  58.841 -20.674  1.00 61.56           N
ATOM     10  CA  LYS C   2     -32.349  58.524 -19.256  1.00 66.49           C
ATOM     11  C   LYS C   2     -31.664  57.200 -18.873  1.00 60.62           C
ATOM     12  O   LYS C   2     -32.276  56.345 -18.206  1.00 56.84           O
ATOM     13  CB  LYS C   2     -33.849  58.467 -18.942  1.00 71.24           C
ATOM     14  CG  LYS C   2     -34.678  59.643 -19.450  1.00 77.67           C
ATOM     15  CD  LYS C   2     -36.072  59.711 -18.822  1.00 79.89           C
ATOM     16  CE  LYS C   2     -36.104  60.440 -17.492  1.00 84.47           C
ATOM     17  NZ  LYS C   2     -35.935  61.901 -17.673  1.00 86.70           N1+
ATOM     18  N   PHE C   3     -30.393  57.051 -19.268  1.00 57.68           N
ATOM     19  CA  PHE C   3     -29.545  55.886 -18.879  1.00 61.96           C
ATOM     20  C   PHE C   3     -29.073  55.997 -17.422  1.00 54.23           C
ATOM     21  O   PHE C   3     -28.703  57.084 -16.986  1.00 56.26           O
ATOM     22  CB  PHE C   3     -28.289  55.801 -19.755  1.00 61.87           C
ATOM     23  CG  PHE C   3     -28.519  55.557 -21.225  1.00 66.37           C
ATOM     24  CD1 PHE C   3     -29.257  54.465 -21.663  1.00 68.23           C
ATOM     25  CD2 PHE C   3     -27.951  56.392 -22.179  1.00 68.41           C
ATOM     26  CE1 PHE C   3     -29.457  54.234 -23.017  1.00 67.52           C
ATOM     27  CE2 PHE C   3     -28.145  56.158 -23.533  1.00 66.52           C
ATOM     28  CZ  PHE C   3     -28.895  55.078 -23.949  1.00 68.80           C
ATOM     29  N   THR C   4     -29.065  54.864 -16.704  1.00 52.63           N
ATOM     30  CA  THR C   4     -28.244  54.617 -15.497  1.00 58.04           C
ATOM     31  C   THR C   4     -26.905  55.337 -15.612  1.00 63.82           C
ATOM     32  O   THR C   4     -26.286  55.273 -16.666  1.00 74.67           O
ATOM     33  CB  THR C   4     -27.928  53.123 -15.369  1.00 64.02           C
ATOM     34  CG2 THR C   4     -26.983  52.744 -14.245  1.00 70.13           C
ATOM     35  OG1 THR C   4     -29.182  52.489 -15.152  1.00 65.81           O
ATOM     36  N   PRO C   5     -26.396  56.019 -14.557  1.00 64.70           N
ATOM     37  CA  PRO C   5     -25.064  56.639 -14.618  1.00 67.23           C
ATOM     38  C   PRO C   5     -23.943  55.596 -14.733  1.00 60.62           C
ATOM     39  O   PRO C   5     -24.167  54.423 -14.449  1.00 58.70           O
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ATOM     40  CB  PRO C   5     -24.937  57.451 -13.311  1.00 68.46           C
ATOM     41  CG  PRO C   5     -26.038  56.921 -12.389  1.00 69.22           C
ATOM     42  CD  PRO C   5     -27.069  56.230 -13.267  1.00 65.11           C
ATOM     43  N   PRO C   6     -22.719  55.959 -15.193  1.00 58.35           N
ATOM     44  CA  PRO C   6     -21.614  54.997 -15.299  1.00 59.64           C
ATOM     45  C   PRO C   6     -20.985  54.670 -13.947  1.00 59.03           C
ATOM     46  O   PRO C   6     -20.989  55.506 -13.039  1.00 61.12           O
ATOM     47  CB  PRO C   6     -20.586  55.694 -16.200  1.00 58.70           C
ATOM     48  CG  PRO C   6     -20.849  57.176 -15.975  1.00 60.36           C
ATOM     49  CD  PRO C   6     -22.332  57.301 -15.661  1.00 62.33           C
ATOM     50  N   PRO C   7     -20.420  53.454 -13.776  1.00 53.63           N
ATOM     51  CA  PRO C   7     -19.907  53.018 -12.482  1.00 54.81           C
ATOM     52  C   PRO C   7     -18.551  53.689 -12.182  1.00 56.99           C
ATOM     53  O   PRO C   7     -17.730  53.892 -13.116  1.00 49.79           O
ATOM     54  CB  PRO C   7     -19.847  51.499 -12.680  1.00 53.99           C
ATOM     55  CG  PRO C   7     -19.453  51.345 -14.128  1.00 51.38           C
ATOM     56  CD  PRO C   7     -20.197  52.456 -14.832  1.00 55.31           C
ATOM     57  N   SER C   8     -18.342  54.077 -10.909  1.00 54.25           N
ATOM     58  CA  SER C   8     -17.211  54.942 -10.547  1.00 50.41           C
ATOM     59  C   SER C   8     -15.897  54.155 -10.665  1.00 47.26           C
ATOM     60  O   SER C   8     -14.865  54.760 -10.940  1.00 47.07           O
ATOM     61  CB  SER C   8     -17.389  55.607  -9.212  1.00 43.35           C
ATOM     62  OG  SER C   8     -17.627  54.653  -8.191  1.00 45.20           O
ATOM     63  N   SER C   9     -15.988  52.815 -10.594  1.00 49.44           N
ATOM     64  CA  SER C   9     -14.870  51.839 -10.811  1.00 49.01           C
ATOM     65  C   SER C   9     -14.125  51.984 -12.157  1.00 50.24           C
ATOM     66  O   SER C   9     -13.061  51.406 -12.297  1.00 56.11           O
ATOM     67  CB  SER C   9     -15.397  50.452 -10.696  1.00 52.16           C
ATOM     68  OG  SER C   9     -16.212  50.162 -11.823  1.00 59.59           O
ATOM     69  N   LEU C  10     -14.659  52.729 -13.141  1.00 51.84           N
ATOM     70  CA  LEU C  10     -13.982  52.947 -14.442  1.00 49.76           C
ATOM     71  C   LEU C  10     -13.296  54.334 -14.533  1.00 53.27           C
ATOM     72  O   LEU C  10     -12.774  54.709 -15.605  1.00 56.09           O
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ATOM     73  CB  LEU C  10     -14.999  52.739 -15.581  1.00 48.20           C
ATOM     74  CG  LEU C  10     -15.500  51.301 -15.800  1.00 52.25           C
ATOM     75  CD1 LEU C  10     -16.497  51.230 -16.937  1.00 52.89           C
ATOM     76  CD2 LEU C  10     -14.367  50.333 -16.103  1.00 53.41           C
ATOM     77  N   ARG C  11     -13.212  55.089 -13.432  1.00 52.19           N
ATOM     78  CA  ARG C  11     -12.669  56.464 -13.499  1.00 50.52           C
ATOM     79  C   ARG C  11     -11.129  56.461 -13.452  1.00 45.50           C
ATOM     80  O   ARG C  11     -10.517  57.347 -14.012  1.00 44.47           O
ATOM     81  CB  ARG C  11     -13.262  57.358 -12.404  1.00 57.95           C
ATOM     82  CG  ARG C  11     -13.353  58.831 -12.798  1.00 75.17           C
ATOM     83  CD  ARG C  11     -14.602  59.565 -12.319  1.00 87.78           C
ATOM     84  NE  ARG C  11     -15.019  59.234 -10.952  1.00105.27           N
ATOM     85  CZ  ARG C  11     -16.145  59.667 -10.374  1.00120.80           C
ATOM     86  NH1 ARG C  11     -16.500  59.221  -9.179  1.00116.80           N1+
ATOM     87  NH2 ARG C  11     -16.918  60.547 -10.993  1.00120.77           N
ATOM     88  N   GLY C  12     -10.505  55.461 -12.818  1.00 45.56           N
ATOM     89  CA  GLY C  12      -9.054  55.402 -12.703  1.00 45.84           C
ATOM     90  C   GLY C  12      -8.382  54.640 -13.849  1.00 50.26           C
ATOM     91  O   GLY C  12      -9.022  53.923 -14.618  1.00 46.19           O
ATOM     92  N   PRO C  13      -7.039  54.733 -13.971  1.00 52.85           N
ATOM     93  CA  PRO C  13      -6.316  54.078 -15.063  1.00 49.69           C
ATOM     94  C   PRO C  13      -6.083  52.581 -14.804  1.00 49.18           C
ATOM     95  O   PRO C  13      -6.167  52.136 -13.656  1.00 45.61           O
ATOM     96  CB  PRO C  13      -4.983  54.854 -15.088  1.00 46.60           C
ATOM     97  CG  PRO C  13      -4.746  55.231 -13.623  1.00 47.99           C
ATOM     98  CD  PRO C  13      -6.132  55.434 -13.041  1.00 51.59           C
ATOM     99  N   LEU C  14      -5.780  51.841 -15.883  1.00 46.45           N
ATOM    100  CA  LEU C  14      -5.329  50.453 -15.832  1.00 41.91           C
ATOM    101  C   LEU C  14      -3.864  50.398 -15.398  1.00 42.38           C
ATOM    102  O   LEU C  14      -3.005  51.046 -16.001  1.00 41.41           O
ATOM    103  CB  LEU C  14      -5.483  49.843 -17.226  1.00 43.44           C
ATOM    104  CG  LEU C  14      -5.017  48.395 -17.389  1.00 42.43           C
ATOM    105  CD1 LEU C  14      -5.997  47.415 -16.768  1.00 42.25           C
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ATOM    106  CD2 LEU C  14      -4.819  48.075 -18.856  1.00 45.59           C
ATOM    107  N   VAL C  15      -3.586  49.590 -14.371  1.00 44.37           N
ATOM    108  CA  VAL C  15      -2.249  49.431 -13.846  1.00 38.66           C
ATOM    109  C   VAL C  15      -2.022  47.937 -13.654  1.00 38.30           C
ATOM    110  O   VAL C  15      -2.600  47.348 -12.716  1.00 37.10           O
ATOM    111  CB  VAL C  15      -2.043  50.186 -12.515  1.00 40.33           C
ATOM    112  CG1 VAL C  15      -0.573  50.204 -12.118  1.00 40.23           C
ATOM    113  CG2 VAL C  15      -2.566  51.615 -12.571  1.00 41.55           C
ATOM    114  N   ILE C  16      -1.194  47.366 -14.545  1.00 35.94           N
ATOM    115  CA  ILE C  16      -0.821  45.947 -14.546  1.00 39.55           C
ATOM    116  C   ILE C  16       0.687  45.842 -14.365  1.00 38.03           C
ATOM    117  O   ILE C  16       1.424  46.143 -15.293  1.00 39.52           O
ATOM    118  CB  ILE C  16      -1.265  45.244 -15.849  1.00 41.87           C
ATOM    119  CG1 ILE C  16      -2.760  45.428 -16.129  1.00 41.76           C
ATOM    120  CG2 ILE C  16      -0.880  43.771 -15.830  1.00 39.43           C
ATOM    121  CD1 ILE C  16      -3.657  44.847 -15.053  1.00 41.79           C
ATOM    122  N   PRO C  17       1.191  45.452 -13.175  1.00 38.50           N
ATOM    123  CA  PRO C  17       2.636  45.392 -12.939  1.00 39.59           C
ATOM    124  C   PRO C  17       3.323  44.209 -13.625  1.00 40.46           C
ATOM    125  O   PRO C  17       2.679  43.189 -13.876  1.00 40.10           O
ATOM    126  CB  PRO C  17       2.786  45.213 -11.419  1.00 38.62           C
ATOM    127  CG  PRO C  17       1.444  44.681 -10.951  1.00 39.88           C
ATOM    128  CD  PRO C  17       0.409  45.144 -11.967  1.00 39.08           C
ATOM    129  N   ASP C  18       4.626  44.362 -13.878  1.00 39.64           N
ATOM    130  CA  ASP C  18       5.437  43.283 -14.385  1.00 43.07           C
ATOM    131  C   ASP C  18       5.544  42.231 -13.278  1.00 43.65           C
ATOM    132  O   ASP C  18       5.607  42.579 -12.101  1.00 41.08           O
ATOM    133  CB  ASP C  18       6.816  43.766 -14.855  1.00 47.28           C
ATOM    134  CG  ASP C  18       6.822  44.562 -16.153  1.00 46.76           C
ATOM    135  OD1 ASP C  18       5.877  44.424 -16.952  1.00 48.51           O
ATOM    136  OD2 ASP C  18       7.767  45.320 -16.351  1.00 55.43           O1-
ATOM    137  N   LYS C  19       5.517  40.953 -13.685  1.00 43.86           N
ATOM    138  CA  LYS C  19       5.708  39.813 -12.787  1.00 41.53           C
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ATOM    139  C   LYS C  19       6.573  38.749 -13.471  1.00 42.37           C
ATOM    140  O   LYS C  19       6.594  38.621 -14.688  1.00 39.39           O
ATOM    141  CB  LYS C  19       4.375  39.192 -12.377  1.00 39.19           C
ATOM    142  CG  LYS C  19       3.389  40.146 -11.715  1.00 40.50           C
ATOM    143  CD  LYS C  19       2.061  39.475 -11.353  1.00 40.20           C
ATOM    144  CE  LYS C  19       1.054  40.436 -10.756  1.00 40.80           C
ATOM    145  NZ  LYS C  19       1.602  41.127  -9.566  1.00 42.39           N1+
ATOM    146  N   ILE C  20       7.284  37.984 -12.643  1.00 42.81           N
ATOM    147  CA  ILE C  20       8.045  36.851 -13.095  1.00 39.23           C
ATOM    148  C   ILE C  20       7.130  35.642 -12.960  1.00 40.76           C
ATOM    149  O   ILE C  20       6.925  35.140 -11.865  1.00 44.40           O
ATOM    150  CB  ILE C  20       9.366  36.705 -12.310  1.00 39.89           C
ATOM    151  CG1 ILE C  20      10.124  38.041 -12.291  1.00 39.07           C
ATOM    152  CG2 ILE C  20      10.213  35.565 -12.870  1.00 36.24           C
ATOM    153  CD1 ILE C  20      11.550  37.941 -11.832  1.00 41.70           C
ATOM    154  N   MET C  21       6.568  35.220 -14.099  1.00 40.91           N
ATOM    155  CA  MET C  21       5.543  34.192 -14.156  1.00 38.68           C
ATOM    156  C   MET C  21       6.186  32.801 -14.282  1.00 37.58           C
ATOM    157  O   MET C  21       6.498  32.332 -15.384  1.00 37.42           O
ATOM    158  CB  MET C  21       4.616  34.476 -15.339  1.00 38.41           C
ATOM    159  CG  MET C  21       3.901  35.786 -15.213  1.00 38.71           C
ATOM    160  SD  MET C  21       2.818  35.838 -13.762  1.00 42.19           S
ATOM    161  CE  MET C  21       1.426  34.870 -14.357  1.00 39.55           C
ATOM    162  N   MET C  22       6.404  32.157 -13.125  1.00 37.58           N
ATOM    163  CA  MET C  22       7.129  30.873 -13.028  1.00 34.69           C
ATOM    164  C   MET C  22       6.266  29.859 -12.265  1.00 37.30           C
ATOM    165  O   MET C  22       6.765  28.989 -11.530  1.00 38.97           O
ATOM    166  CB  MET C  22       8.491  31.070 -12.364  1.00 33.99           C
ATOM    167  CG  MET C  22       9.427  31.919 -13.229  1.00 35.83           C
ATOM    168  SD  MET C  22      11.183  31.930 -12.731  1.00 33.69           S
ATOM    169  CE  MET C  22      11.649  30.245 -13.120  1.00 34.87           C
ATOM    170  N   GLY C  23       4.949  30.008 -12.453  1.00 36.62           N
ATOM    171  CA  GLY C  23       3.985  28.976 -12.274  1.00 38.28           C
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ATOM    172  C   GLY C  23       3.880  28.147 -13.548  1.00 41.29           C
ATOM    173  O   GLY C  23       4.687  28.290 -14.466  1.00 45.23           O
ATOM    174  N   PRO C  24       2.891  27.243 -13.638  1.00 42.98           N
ATOM    175  CA  PRO C  24       2.698  26.441 -14.846  1.00 42.38           C
ATOM    176  C   PRO C  24       1.822  27.113 -15.913  1.00 42.35           C
ATOM    177  O   PRO C  24       1.347  26.429 -16.812  1.00 38.47           O
ATOM    178  CB  PRO C  24       2.054  25.160 -14.279  1.00 43.16           C
ATOM    179  CG  PRO C  24       1.265  25.639 -13.075  1.00 45.68           C
ATOM    180  CD  PRO C  24       1.976  26.875 -12.547  1.00 43.90           C
ATOM    181  N   GLY C  25       1.648  28.444 -15.821  1.00 41.97           N
ATOM    182  CA  GLY C  25       0.977  29.205 -16.867  1.00 39.99           C
ATOM    183  C   GLY C  25       0.053  30.274 -16.302  1.00 36.34           C
ATOM    184  O   GLY C  25      -0.533  30.073 -15.259  1.00 34.83           O
ATOM    185  N   PRO C  26      -0.083  31.421 -16.978  1.00 41.90           N
ATOM    186  CA  PRO C  26       0.670  31.843 -18.150  1.00 39.36           C
ATOM    187  C   PRO C  26       2.167  32.053 -17.907  1.00 37.09           C
ATOM    188  O   PRO C  26       2.573  32.376 -16.823  1.00 41.30           O
ATOM    189  CB  PRO C  26       0.047  33.204 -18.505  1.00 44.10           C
ATOM    190  CG  PRO C  26      -1.395  33.058 -18.085  1.00 43.59           C
ATOM    191  CD  PRO C  26      -1.323  32.212 -16.836  1.00 45.81           C
ATOM    192  N   SER C  27       2.979  31.853 -18.936  1.00 38.91           N
ATOM    193  CA  SER C  27       4.407  32.217 -18.879  1.00 38.84           C
ATOM    194  C   SER C  27       4.617  33.704 -19.229  1.00 36.47           C
ATOM    195  O   SER C  27       3.687  34.403 -19.665  1.00 39.86           O
ATOM    196  CB  SER C  27       5.169  31.330 -19.810  1.00 34.92           C
ATOM    197  OG  SER C  27       4.493  31.271 -21.043  1.00 32.77           O
ATOM    198  N   ASN C  28       5.845  34.181 -19.039  1.00 32.73           N
ATOM    199  CA  ASN C  28       6.261  35.476 -19.535  1.00 35.52           C
ATOM    200  C   ASN C  28       6.480  35.421 -21.059  1.00 38.22           C
ATOM    201  O   ASN C  28       7.215  34.532 -21.595  1.00 36.90           O
ATOM    202  CB  ASN C  28       7.572  35.937 -18.892  1.00 39.47           C
ATOM    203  CG  ASN C  28       7.467  36.305 -17.428  1.00 38.13           C
ATOM    204  ND2 ASN C  28       6.735  37.366 -17.119  1.00 34.20           N
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ATOM    205  OD1 ASN C  28       8.064  35.632 -16.589  1.00 40.15           O
ATOM    206  N   CYS C  29       5.910  36.409 -21.759  1.00 37.59           N
ATOM    207  CA  CYS C  29       6.092  36.554 -23.215  1.00 38.92           C
ATOM    208  C   CYS C  29       7.294  37.465 -23.491  1.00 38.43           C
ATOM    209  O   CYS C  29       7.535  38.403 -22.747  1.00 39.67           O
ATOM    210  CB  CYS C  29       4.850  37.147 -23.871  1.00 36.01           C
ATOM    211  SG  CYS C  29       3.355  36.171 -23.589  1.00 36.75           S
ATOM    212  N   SER C  30       8.011  37.200 -24.580  1.00 38.14           N
ATOM    213  CA  SER C  30       9.102  38.062 -25.023  1.00 40.83           C
ATOM    214  C   SER C  30       8.535  39.401 -25.476  1.00 40.68           C
ATOM    215  O   SER C  30       7.349  39.510 -25.753  1.00 43.57           O
ATOM    216  CB  SER C  30       9.883  37.439 -26.143  1.00 39.81           C
ATOM    217  OG  SER C  30       9.127  37.529 -27.329  1.00 41.48           O
ATOM    218  N   LYS C  31       9.416  40.398 -25.545  1.00 46.00           N
ATOM    219  CA  LYS C  31       9.112  41.760 -26.046  1.00 48.30           C
ATOM    220  C   LYS C  31       8.487  41.710 -27.444  1.00 42.56           C
ATOM    221  O   LYS C  31       7.447  42.318 -27.688  1.00 36.88           O
ATOM    222  CB  LYS C  31      10.400  42.584 -26.136  1.00 53.07           C
ATOM    223  CG  LYS C  31      10.497  43.750 -25.162  1.00 59.01           C
ATOM    224  CD  LYS C  31      10.030  43.489 -23.749  1.00 53.69           C
ATOM    225  CE  LYS C  31      10.659  44.463 -22.768  1.00 60.31           C
ATOM    226  NZ  LYS C  31       9.675  45.428 -22.219  1.00 65.62           N1+
ATOM    227  N   ARG C  32       9.167  40.988 -28.340  1.00 40.97           N
ATOM    228  CA  ARG C  32       8.731  40.719 -29.719  1.00 40.37           C
ATOM    229  C   ARG C  32       7.278  40.189 -29.764  1.00 40.26           C
ATOM    230  O   ARG C  32       6.460  40.651 -30.584  1.00 41.75           O
ATOM    231  CB  ARG C  32       9.723  39.732 -30.335  1.00 37.17           C
ATOM    232  CG  ARG C  32       9.524  39.484 -31.814  1.00 37.06           C
ATOM    233  CD  ARG C  32      10.397  38.354 -32.312  1.00 36.51           C
ATOM    234  NE  ARG C  32       9.966  37.972 -33.648  1.00 40.30           N
ATOM    235  CZ  ARG C  32      10.669  37.214 -34.490  1.00 42.15           C
ATOM    236  NH1 ARG C  32      11.874  36.776 -34.160  1.00 42.55           N1+
ATOM    237  NH2 ARG C  32      10.146  36.890 -35.657  1.00 39.20           N
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ATOM    238  N   VAL C  33       6.938  39.245 -28.874  1.00 35.28           N
ATOM    239  CA  VAL C  33       5.621  38.570 -28.901  1.00 34.06           C
ATOM    240  C   VAL C  33       4.508  39.514 -28.409  1.00 34.19           C
ATOM    241  O   VAL C  33       3.475  39.635 -29.069  1.00 31.34           O
ATOM    242  CB  VAL C  33       5.678  37.259 -28.105  1.00 33.82           C
ATOM    243  CG1 VAL C  33       4.299  36.735 -27.747  1.00 32.50           C
ATOM    244  CG2 VAL C  33       6.500  36.220 -28.855  1.00 38.07           C
ATOM    245  N   LEU C  34       4.714  40.203 -27.278  1.00 35.52           N
ATOM    246  CA  LEU C  34       3.744  41.227 -26.839  1.00 37.11           C
ATOM    247  C   LEU C  34       3.616  42.345 -27.875  1.00 37.71           C
ATOM    248  O   LEU C  34       2.500  42.783 -28.117  1.00 44.38           O
ATOM    249  CB  LEU C  34       4.135  41.822 -25.488  1.00 36.44           C
ATOM    250  CG  LEU C  34       4.175  40.814 -24.355  1.00 42.11           C
ATOM    251  CD1 LEU C  34       4.660  41.467 -23.078  1.00 41.07           C
ATOM    252  CD2 LEU C  34       2.808  40.167 -24.159  1.00 43.04           C
ATOM    253  N   ALA C  35       4.726  42.813 -28.463  1.00 35.54           N
ATOM    254  CA  ALA C  35       4.661  43.917 -29.469  1.00 36.88           C
ATOM    255  C   ALA C  35       3.745  43.538 -30.643  1.00 35.74           C
ATOM    256  O   ALA C  35       3.079  44.378 -31.188  1.00 41.40           O
ATOM    257  CB  ALA C  35       6.041  44.303 -29.967  1.00 33.14           C
ATOM    258  N   ALA C  36       3.729  42.263 -31.018  1.00 39.78           N
ATOM    259  CA  ALA C  36       2.899  41.726 -32.122  1.00 44.43           C
ATOM    260  C   ALA C  36       1.391  41.984 -31.930  1.00 46.79           C
ATOM    261  O   ALA C  36       0.664  42.040 -32.928  1.00 49.46           O
ATOM    262  CB  ALA C  36       3.166  40.247 -32.262  1.00 44.36           C
ATOM    263  N   LEU C  37       0.927  42.124 -30.677  1.00 43.05           N
ATOM    264  CA  LEU C  37      -0.476  42.382 -30.348  1.00 41.17           C
ATOM    265  C   LEU C  37      -0.932  43.749 -30.873  1.00 45.14           C
ATOM    266  O   LEU C  37      -2.126  43.933 -31.233  1.00 49.55           O
ATOM    267  CB  LEU C  37      -0.641  42.330 -28.827  1.00 41.07           C
ATOM    268  CG  LEU C  37      -0.460  40.958 -28.172  1.00 45.77           C
ATOM    269  CD1 LEU C  37      -0.501  41.066 -26.656  1.00 48.46           C
ATOM    270  CD2 LEU C  37      -1.528  39.977 -28.638  1.00 44.90           C
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ATOM    271  N   ASN C  38      -0.007  44.719 -30.858  1.00 45.51           N
ATOM    272  CA  ASN C  38      -0.291  46.139 -31.130  1.00 44.44           C
ATOM    273  C   ASN C  38      -0.127  46.398 -32.632  1.00 43.95           C
ATOM    274  O   ASN C  38       0.926  46.839 -33.088  1.00 38.80           O
ATOM    275  CB  ASN C  38       0.608  47.039 -30.284  1.00 48.47           C
ATOM    276  CG  ASN C  38       0.517  48.505 -30.659  1.00 49.10           C
ATOM    277  ND2 ASN C  38       1.639  49.202 -30.560  1.00 48.58           N
ATOM    278  OD1 ASN C  38      -0.540  49.002 -31.039  1.00 46.00           O
ATOM    279  N   ASN C  39      -1.183  46.046 -33.375  1.00 42.43           N
ATOM    280  CA  ASN C  39      -1.229  45.969 -34.828  1.00 39.07           C
ATOM    281  C   ASN C  39      -2.710  46.015 -35.220  1.00 38.51           C
ATOM    282  O   ASN C  39      -3.568  45.722 -34.412  1.00 39.38           O
ATOM    283  CB  ASN C  39      -0.535  44.715 -35.373  1.00 37.04           C
ATOM    284  CG  ASN C  39       0.978  44.845 -35.450  1.00 44.04           C
ATOM    285  ND2 ASN C  39       1.684  43.950 -34.762  1.00 40.59           N
ATOM    286  OD1 ASN C  39       1.510  45.712 -36.168  1.00 40.64           O
ATOM    287  N   THR C  40      -2.996  46.426 -36.450  1.00 38.84           N
ATOM    288  CA  THR C  40      -4.349  46.567 -36.942  1.00 39.31           C
ATOM    289  C   THR C  40      -5.079  45.226 -36.826  1.00 36.47           C
ATOM    290  O   THR C  40      -4.514  44.191 -37.240  1.00 31.30           O
ATOM    291  CB  THR C  40      -4.319  47.022 -38.407  1.00 46.03           C
ATOM    292  CG2 THR C  40      -5.670  47.502 -38.885  1.00 49.92           C
ATOM    293  OG1 THR C  40      -3.351  48.066 -38.530  1.00 53.96           O
ATOM    294  N   CYS C  41      -6.291  45.254 -36.252  1.00 33.68           N
ATOM    295  CA  CYS C  41      -7.175  44.117 -36.213  1.00 36.52           C
ATOM    296  C   CYS C  41      -7.657  43.890 -37.655  1.00 39.37           C
ATOM    297  O   CYS C  41      -8.608  44.521 -38.095  1.00 40.96           O
ATOM    298  CB  CYS C  41      -8.362  44.320 -35.262  1.00 38.77           C
ATOM    299  SG  CYS C  41      -7.971  44.728 -33.529  1.00 42.04           S
ATOM    300  N   LEU C  42      -6.975  43.010 -38.400  1.00 41.10           N
ATOM    301  CA  LEU C  42      -7.262  42.788 -39.826  1.00 45.05           C
ATOM    302  C   LEU C  42      -8.606  42.084 -40.031  1.00 48.26           C
ATOM    303  O   LEU C  42      -9.074  41.346 -39.172  1.00 49.86           O
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ATOM    304  CB  LEU C  42      -6.186  41.909 -40.450  1.00 44.68           C
ATOM    305  CG  LEU C  42      -4.786  42.490 -40.486  1.00 46.52           C
ATOM    306  CD1 LEU C  42      -3.813  41.455 -41.028  1.00 46.98           C
ATOM    307  CD2 LEU C  42      -4.751  43.759 -41.312  1.00 48.65           C
ATOM    308  N   SER C  43      -9.164  42.284 -41.230  1.00 50.70           N
ATOM    309  CA  SER C  43     -10.397  41.644 -41.677  1.00 50.44           C
ATOM    310  C   SER C  43     -10.117  40.165 -41.915  1.00 45.12           C
ATOM    311  O   SER C  43      -8.974  39.813 -42.167  1.00 43.22           O
ATOM    312  CB  SER C  43     -10.935  42.265 -42.920  1.00 49.62           C
ATOM    313  OG  SER C  43     -12.102  41.587 -43.342  1.00 52.74           O
ATOM    314  N   ASN C  44     -11.174  39.347 -41.835  1.00 41.17           N
ATOM    315  CA  ASN C  44     -11.067  37.922 -42.000  1.00 43.18           C
ATOM    316  C   ASN C  44     -10.505  37.617 -43.403  1.00 45.68           C
ATOM    317  O   ASN C  44      -9.846  36.593 -43.589  1.00 46.72           O
ATOM    318  CB  ASN C  44     -12.392  37.247 -41.632  1.00 42.38           C
ATOM    319  CG  ASN C  44     -12.697  37.297 -40.136  1.00 45.63           C
ATOM    320  ND2 ASN C  44     -13.935  37.623 -39.789  1.00 35.36           N
ATOM    321  OD1 ASN C  44     -11.841  36.994 -39.282  1.00 45.01           O
ATOM    322  N   PHE C  45     -10.651  38.539 -44.367  1.00 49.16           N
ATOM    323  CA  PHE C  45     -10.247  38.250 -45.762  1.00 50.16           C
ATOM    324  C   PHE C  45      -9.098  39.135 -46.278  1.00 47.53           C
ATOM    325  O   PHE C  45      -8.846  39.118 -47.465  1.00 50.11           O
ATOM    326  CB  PHE C  45     -11.489  38.262 -46.666  1.00 50.35           C
ATOM    327  CG  PHE C  45     -12.319  37.004 -46.512  1.00 53.50           C
ATOM    328  CD1 PHE C  45     -12.060  35.876 -47.278  1.00 55.07           C
ATOM    329  CD2 PHE C  45     -13.294  36.906 -45.531  1.00 56.52           C
ATOM    330  CE1 PHE C  45     -12.784  34.704 -47.106  1.00 53.09           C
ATOM    331  CE2 PHE C  45     -14.028  35.739 -45.374  1.00 56.02           C
ATOM    332  CZ  PHE C  45     -13.771  34.641 -46.163  1.00 54.57           C
ATOM    333  N   HIS C  46      -8.345  39.835 -45.423  1.00 43.97           N
ATOM    334  CA  HIS C  46      -7.162  40.546 -45.940  1.00 47.11           C
ATOM    335  C   HIS C  46      -6.039  39.543 -46.251  1.00 47.21           C
ATOM    336  O   HIS C  46      -5.815  38.614 -45.507  1.00 50.18           O
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ATOM    337  CB  HIS C  46      -6.669  41.654 -44.990  1.00 49.43           C
ATOM    338  CG  HIS C  46      -7.616  42.801 -44.825  1.00 52.98           C
ATOM    339  CD2 HIS C  46      -8.681  43.198 -45.557  1.00 49.11           C
ATOM    340  ND1 HIS C  46      -7.521  43.694 -43.762  1.00 49.82           N
ATOM    341  CE1 HIS C  46      -8.486  44.585 -43.854  1.00 50.94           C
ATOM    342  NE2 HIS C  46      -9.227  44.286 -44.930  1.00 50.45           N
ATOM    343  N   ASP C  47      -5.309  39.779 -47.343  1.00 47.18           N
ATOM    344  CA  ASP C  47      -4.187  38.930 -47.766  1.00 48.64           C
ATOM    345  C   ASP C  47      -3.140  38.814 -46.644  1.00 49.68           C
ATOM    346  O   ASP C  47      -2.410  37.835 -46.575  1.00 42.80           O
ATOM    347  CB  ASP C  47      -3.494  39.464 -49.035  1.00 52.04           C
ATOM    348  CG  ASP C  47      -4.387  39.731 -50.251  1.00 57.25           C
ATOM    349  OD1 ASP C  47      -5.306  38.932 -50.496  1.00 52.10           O
ATOM    350  OD2 ASP C  47      -4.148  40.751 -50.967  1.00 65.49           O1-
ATOM    351  N   GLU C  48      -3.028  39.848 -45.798  1.00 49.67           N
ATOM    352  CA  GLU C  48      -1.985  39.919 -44.776  1.00 42.07           C
ATOM    353  C   GLU C  48      -2.294  38.926 -43.648  1.00 41.21           C
ATOM    354  O   GLU C  48      -1.380  38.199 -43.212  1.00 39.59           O
ATOM    355  CB  GLU C  48      -1.829  41.360 -44.290  1.00 43.58           C
ATOM    356  CG  GLU C  48      -1.428  42.323 -45.397  1.00 39.71           C
ATOM    357  CD  GLU C  48      -2.522  43.222 -45.944  1.00 38.78           C
ATOM    358  OE1 GLU C  48      -3.719  42.825 -45.966  1.00 40.34           O
ATOM    359  OE2 GLU C  48      -2.171  44.348 -46.337  1.00 41.87           O1-
ATOM    360  N   LEU C  49      -3.567  38.830 -43.234  1.00 39.02           N
ATOM    361  CA  LEU C  49      -3.997  37.773 -42.279  1.00 41.88           C
ATOM    362  C   LEU C  49      -3.792  36.350 -42.854  1.00 43.40           C
ATOM    363  O   LEU C  49      -3.254  35.485 -42.182  1.00 47.88           O
ATOM    364  CB  LEU C  49      -5.459  37.988 -41.886  1.00 40.31           C
ATOM    365  CG  LEU C  49      -5.971  37.044 -40.797  1.00 38.59           C
ATOM    366  CD1 LEU C  49      -5.036  37.032 -39.606  1.00 44.13           C
ATOM    367  CD2 LEU C  49      -7.359  37.425 -40.339  1.00 36.85           C
ATOM    368  N   PHE C  50      -4.201  36.113 -44.105  1.00 44.90           N
ATOM    369  CA  PHE C  50      -4.010  34.822 -44.808  1.00 45.54           C
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ATOM    370  C   PHE C  50      -2.535  34.436 -44.942  1.00 43.70           C
ATOM    371  O   PHE C  50      -2.217  33.273 -44.754  1.00 50.10           O
ATOM    372  CB  PHE C  50      -4.640  34.846 -46.198  1.00 45.61           C
ATOM    373  CG  PHE C  50      -6.149  34.878 -46.207  1.00 45.93           C
ATOM    374  CD1 PHE C  50      -6.883  34.180 -45.251  1.00 47.46           C
ATOM    375  CD2 PHE C  50      -6.831  35.552 -47.213  1.00 41.06           C
ATOM    376  CE1 PHE C  50      -8.271  34.181 -45.284  1.00 45.92           C
ATOM    377  CE2 PHE C  50      -8.215  35.549 -47.241  1.00 45.86           C
ATOM    378  CZ  PHE C  50      -8.934  34.864 -46.279  1.00 45.13           C
ATOM    379  N   GLN C  51      -1.645  35.391 -45.234  1.00 44.99           N
ATOM    380  CA  GLN C  51      -0.203  35.116 -45.195  1.00 45.12           C
ATOM    381  C   GLN C  51       0.235  34.712 -43.767  1.00 45.15           C
ATOM    382  O   GLN C  51       0.984  33.751 -43.620  1.00 43.21           O
ATOM    383  CB  GLN C  51       0.597  36.302 -45.728  1.00 45.20           C
ATOM    384  CG  GLN C  51       2.073  35.980 -45.911  1.00 57.04           C
ATOM    385  CD  GLN C  51       2.825  37.023 -46.710  1.00 73.84           C
ATOM    386  NE2 GLN C  51       4.050  37.322 -46.298  1.00 71.03           N
ATOM    387  OE1 GLN C  51       2.322  37.551 -47.700  1.00 88.70           O
ATOM    388  N   VAL C  52      -0.228  35.421 -42.717  1.00 43.05           N
ATOM    389  CA  VAL C  52       0.153  35.096 -41.317  1.00 43.27           C
ATOM    390  C   VAL C  52      -0.394  33.718 -40.916  1.00 40.71           C
ATOM    391  O   VAL C  52       0.282  32.972 -40.230  1.00 37.50           O
ATOM    392  CB  VAL C  52      -0.297  36.183 -40.316  1.00 49.30           C
ATOM    393  CG1 VAL C  52      -0.371  35.680 -38.871  1.00 42.29           C
ATOM    394  CG2 VAL C  52       0.613  37.400 -40.406  1.00 53.32           C
ATOM    395  N   ILE C  53      -1.626  33.411 -41.327  1.00 43.45           N
ATOM    396  CA  ILE C  53      -2.256  32.103 -41.108  1.00 43.85           C
ATOM    397  C   ILE C  53      -1.410  30.983 -41.733  1.00 41.50           C
ATOM    398  O   ILE C  53      -1.152  29.993 -41.086  1.00 45.71           O
ATOM    399  CB  ILE C  53      -3.714  32.113 -41.617  1.00 45.92           C
ATOM    400  CG1 ILE C  53      -4.621  32.802 -40.596  1.00 45.52           C
ATOM    401  CG2 ILE C  53      -4.209  30.706 -41.931  1.00 50.91           C
ATOM    402  CD1 ILE C  53      -6.040  32.980 -41.038  1.00 42.17           C
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ATOM    403  N   ASP C  54      -0.974  31.129 -42.987  1.00 42.64           N
ATOM    404  CA  ASP C  54      -0.203  30.051 -43.642  1.00 42.39           C
ATOM    405  C   ASP C  54       1.115  29.872 -42.879  1.00 41.54           C
ATOM    406  O   ASP C  54       1.631  28.774 -42.789  1.00 44.25           O
ATOM    407  CB  ASP C  54       0.060  30.312 -45.134  1.00 42.48           C
ATOM    408  CG  ASP C  54      -1.134  30.150 -46.065  1.00 49.01           C
ATOM    409  OD1 ASP C  54      -2.168  29.570 -45.648  1.00 53.64           O
ATOM    410  OD2 ASP C  54      -1.021  30.604 -47.214  1.00 51.89           O1-
ATOM    411  N   GLU C  55       1.676  30.976 -42.371  1.00 43.93           N
ATOM    412  CA  GLU C  55       2.964  30.941 -41.629  1.00 45.31           C
ATOM    413  C   GLU C  55       2.784  30.228 -40.282  1.00 42.85           C
ATOM    414  O   GLU C  55       3.670  29.530 -39.849  1.00 42.40           O
ATOM    415  CB  GLU C  55       3.533  32.349 -41.457  1.00 43.06           C
ATOM    416  CG  GLU C  55       4.141  32.889 -42.737  1.00 45.00           C
ATOM    417  CD  GLU C  55       4.689  34.297 -42.662  1.00 40.07           C
ATOM    418  OE1 GLU C  55       4.657  34.872 -41.587  1.00 39.67           O
ATOM    419  OE2 GLU C  55       5.147  34.804 -43.691  1.00 39.72           O1-
ATOM    420  N   VAL C  56       1.629  30.406 -39.640  1.00 40.50           N
ATOM    421  CA  VAL C  56       1.352  29.752 -38.394  1.00 45.56           C
ATOM    422  C   VAL C  56       1.204  28.247 -38.651  1.00 48.74           C
ATOM    423  O   VAL C  56       1.736  27.429 -37.882  1.00 55.65           O
ATOM    424  CB  VAL C  56       0.111  30.341 -37.692  1.00 46.04           C
ATOM    425  CG1 VAL C  56      -0.401  29.434 -36.576  1.00 43.65           C
ATOM    426  CG2 VAL C  56       0.383  31.747 -37.164  1.00 43.93           C
ATOM    427  N   LYS C  57       0.470  27.888 -39.707  1.00 46.21           N
ATOM    428  CA  LYS C  57       0.272  26.474 -40.072  1.00 46.11           C
ATOM    429  C   LYS C  57       1.609  25.780 -40.400  1.00 45.57           C
ATOM    430  O   LYS C  57       1.785  24.613 -40.040  1.00 47.91           O
ATOM    431  CB  LYS C  57      -0.686  26.343 -41.253  1.00 44.26           C
ATOM    432  CG  LYS C  57      -2.153  26.562 -40.910  1.00 42.42           C
ATOM    433  CD  LYS C  57      -3.093  26.072 -41.992  1.00 41.44           C
ATOM    434  CE  LYS C  57      -2.641  26.439 -43.393  1.00 44.04           C
ATOM    435  NZ  LYS C  57      -3.697  26.156 -44.392  1.00 47.05           N1+
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ATOM    436  N   ASP C  58       2.552  26.495 -41.028  1.00 40.61           N
ATOM    437  CA  ASP C  58       3.860  25.927 -41.336  1.00 45.50           C
ATOM    438  C   ASP C  58       4.641  25.680 -40.031  1.00 45.76           C
ATOM    439  O   ASP C  58       5.208  24.624 -39.816  1.00 44.04           O
ATOM    440  CB  ASP C  58       4.671  26.826 -42.275  1.00 47.16           C
ATOM    441  CG  ASP C  58       4.197  26.909 -43.713  1.00 48.64           C
ATOM    442  OD1 ASP C  58       3.543  25.951 -44.182  1.00 44.70           O
ATOM    443  OD2 ASP C  58       4.548  27.924 -44.369  1.00 58.87           O1-
ATOM    444  N   GLY C  59       4.641  26.682 -39.153  1.00 48.72           N
ATOM    445  CA  GLY C  59       5.320  26.627 -37.875  1.00 48.72           C
ATOM    446  C   GLY C  59       4.696  25.603 -36.935  1.00 47.42           C
ATOM    447  O   GLY C  59       5.398  24.969 -36.158  1.00 49.43           O
ATOM    448  N   LEU C  60       3.372  25.468 -36.990  1.00 42.82           N
ATOM    449  CA  LEU C  60       2.668  24.507 -36.179  1.00 40.80           C
ATOM    450  C   LEU C  60       3.054  23.094 -36.605  1.00 41.03           C
ATOM    451  O   LEU C  60       3.234  22.240 -35.768  1.00 43.32           O
ATOM    452  CB  LEU C  60       1.158  24.728 -36.309  1.00 41.41           C
ATOM    453  CG  LEU C  60       0.564  25.723 -35.322  1.00 41.09           C
ATOM    454  CD1 LEU C  60      -0.949  25.641 -35.342  1.00 42.93           C
ATOM    455  CD2 LEU C  60       1.097  25.496 -33.909  1.00 39.00           C
ATOM    456  N   ARG C  61       3.223  22.885 -37.913  1.00 44.85           N
ATOM    457  CA  ARG C  61       3.718  21.614 -38.430  1.00 42.48           C
ATOM    458  C   ARG C  61       5.124  21.368 -37.885  1.00 40.89           C
ATOM    459  O   ARG C  61       5.456  20.239 -37.536  1.00 46.32           O
ATOM    460  CB  ARG C  61       3.670  21.576 -39.964  1.00 45.60           C
ATOM    461  CG  ARG C  61       2.265  21.368 -40.532  1.00 45.52           C
ATOM    462  CD  ARG C  61       2.219  21.153 -42.033  1.00 44.64           C
ATOM    463  NE  ARG C  61       2.121  22.404 -42.753  1.00 43.69           N
ATOM    464  CZ  ARG C  61       0.984  23.000 -43.081  1.00 42.39           C
ATOM    465  NH1 ARG C  61      -0.186  22.436 -42.819  1.00 41.44           N1+
ATOM    466  NH2 ARG C  61       1.029  24.175 -43.676  1.00 43.65           N
ATOM    467  N   TYR C  62       5.944  22.418 -37.812  1.00 41.45           N
ATOM    468  CA  TYR C  62       7.328  22.275 -37.334  1.00 42.42           C
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ATOM    469  C   TYR C  62       7.369  21.847 -35.861  1.00 47.17           C
ATOM    470  O   TYR C  62       8.147  20.959 -35.498  1.00 50.03           O
ATOM    471  CB  TYR C  62       8.089  23.584 -37.471  1.00 43.19           C
ATOM    472  CG  TYR C  62       9.484  23.587 -36.902  1.00 44.34           C
ATOM    473  CD1 TYR C  62      10.435  22.704 -37.364  1.00 40.09           C
ATOM    474  CD2 TYR C  62       9.871  24.504 -35.930  1.00 49.10           C
ATOM    475  CE1 TYR C  62      11.729  22.715 -36.877  1.00 44.11           C
ATOM    476  CE2 TYR C  62      11.168  24.534 -35.434  1.00 47.24           C
ATOM    477  CZ  TYR C  62      12.107  23.637 -35.922  1.00 47.78           C
ATOM    478  OH  TYR C  62      13.400  23.614 -35.475  1.00 45.76           O
ATOM    479  N   ILE C  63       6.561  22.484 -35.004  1.00 44.26           N
ATOM    480  CA  ILE C  63       6.703  22.241 -33.559  1.00 43.32           C
ATOM    481  C   ILE C  63       5.960  20.947 -33.180  1.00 46.91           C
ATOM    482  O   ILE C  63       6.388  20.249 -32.281  1.00 54.76           O
ATOM    483  CB  ILE C  63       6.261  23.443 -32.688  1.00 39.60           C
ATOM    484  CG1 ILE C  63       4.862  23.956 -33.007  1.00 38.28           C
ATOM    485  CG2 ILE C  63       7.269  24.580 -32.721  1.00 37.98           C
ATOM    486  CD1 ILE C  63       4.299  24.807 -31.892  1.00 42.94           C
ATOM    487  N   PHE C  64       4.841  20.638 -33.855  1.00 45.64           N
ATOM    488  CA  PHE C  64       4.121  19.364 -33.668  1.00 43.20           C
ATOM    489  C   PHE C  64       4.819  18.190 -34.396  1.00 43.45           C
ATOM    490  O   PHE C  64       4.582  17.048 -34.067  1.00 45.03           O
ATOM    491  CB  PHE C  64       2.709  19.443 -34.240  1.00 40.68           C
ATOM    492  CG  PHE C  64       1.641  20.121 -33.422  1.00 39.98           C
ATOM    493  CD1 PHE C  64       1.486  19.860 -32.069  1.00 42.66           C
ATOM    494  CD2 PHE C  64       0.700  20.932 -34.040  1.00 38.55           C
ATOM    495  CE1 PHE C  64       0.466  20.461 -31.335  1.00 43.23           C
ATOM    496  CE2 PHE C  64      -0.333  21.504 -33.305  1.00 43.90           C
ATOM    497  CZ  PHE C  64      -0.452  21.274 -31.952  1.00 39.97           C
ATOM    498  N   GLN C  65       5.653  18.478 -35.399  1.00 40.63           N
ATOM    499  CA  GLN C  65       6.357  17.465 -36.241  1.00 46.40           C
ATOM    500  C   GLN C  65       5.333  16.534 -36.893  1.00 43.14           C
ATOM    501  O   GLN C  65       5.384  15.354 -36.713  1.00 40.61           O
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ATOM    502  CB  GLN C  65       7.410  16.677 -35.461  1.00 44.06           C
ATOM    503  CG  GLN C  65       8.624  17.510 -35.064  1.00 45.79           C
ATOM    504  CD  GLN C  65       9.610  17.717 -36.187  1.00 45.40           C
ATOM    505  NE2 GLN C  65       9.989  18.963 -36.422  1.00 43.02           N
ATOM    506  OE1 GLN C  65      10.054  16.769 -36.823  1.00 50.22           O
ATOM    507  N   THR C  66       4.421  17.153 -37.646  1.00 51.18           N
ATOM    508  CA  THR C  66       3.408  16.528 -38.489  1.00 52.89           C
ATOM    509  C   THR C  66       3.421  17.174 -39.885  1.00 53.65           C
ATOM    510  O   THR C  66       3.952  18.312 -40.072  1.00 51.01           O
ATOM    511  CB  THR C  66       2.005  16.693 -37.890  1.00 53.53           C
ATOM    512  CG2 THR C  66       1.574  18.145 -37.838  1.00 53.44           C
ATOM    513  OG1 THR C  66       1.049  15.941 -38.642  1.00 48.41           O
ATOM    514  N   GLU C  67       2.816  16.449 -40.842  1.00 45.10           N
ATOM    515  CA  GLU C  67       2.635  16.901 -42.222  1.00 44.47           C
ATOM    516  C   GLU C  67       1.145  17.107 -42.495  1.00 40.30           C
ATOM    517  O   GLU C  67       0.745  17.484 -43.586  1.00 41.68           O
ATOM    518  CB  GLU C  67       3.208  15.888 -43.205  1.00 45.70           C
ATOM    519  CG  GLU C  67       4.711  15.954 -43.394  1.00 49.58           C
ATOM    520  CD  GLU C  67       5.191  14.984 -44.470  1.00 54.80           C
ATOM    521  OE1 GLU C  67       4.848  13.774 -44.390  1.00 56.58           O
ATOM    522  OE2 GLU C  67       5.867  15.437 -45.409  1.00 60.44           O1-
ATOM    523  N   ASN C  68       0.332  16.910 -41.463  1.00 40.19           N
ATOM    524  CA  ASN C  68      -1.076  17.105 -41.537  1.00 38.60           C
ATOM    525  C   ASN C  68      -1.350  18.439 -42.239  1.00 47.57           C
ATOM    526  O   ASN C  68      -0.786  19.499 -41.881  1.00 53.48           O
ATOM    527  CB  ASN C  68      -1.676  16.983 -40.141  1.00 39.51           C
ATOM    528  CG  ASN C  68      -1.662  15.554 -39.642  1.00 42.47           C
ATOM    529  ND2 ASN C  68      -1.772  15.356 -38.340  1.00 40.56           N
ATOM    530  OD1 ASN C  68      -1.569  14.626 -40.439  1.00 41.21           O
ATOM    531  N   ARG C  69      -2.161  18.358 -43.294  1.00 50.38           N
ATOM    532  CA  ARG C  69      -2.724  19.497 -43.940  1.00 50.33           C
ATOM    533  C   ARG C  69      -3.776  20.064 -43.000  1.00 48.87           C
ATOM    534  O   ARG C  69      -3.987  21.279 -42.984  1.00 54.97           O
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ATOM    535  CB  ARG C  69      -3.351  19.143 -45.295  1.00 58.87           C
ATOM    536  CG  ARG C  69      -2.342  18.990 -46.431  1.00 65.10           C
ATOM    537  CD  ARG C  69      -3.001  18.879 -47.801  1.00 68.20           C
ATOM    538  NE  ARG C  69      -3.965  19.950 -48.042  1.00 65.87           N
ATOM    539  CZ  ARG C  69      -5.026  19.836 -48.820  1.00 66.82           C
ATOM    540  NH1 ARG C  69      -5.227  18.716 -49.490  1.00 79.63           N1+
ATOM    541  NH2 ARG C  69      -5.890  20.825 -48.921  1.00 70.69           N
ATOM    542  N   THR C  70      -4.423  19.179 -42.232  1.00 48.16           N
ATOM    543  CA  THR C  70      -5.516  19.589 -41.328  1.00 49.25           C
ATOM    544  C   THR C  70      -4.969  20.084 -39.984  1.00 49.17           C
ATOM    545  O   THR C  70      -5.251  19.505 -38.962  1.00 50.35           O
ATOM    546  CB  THR C  70      -6.493  18.444 -41.088  1.00 46.08           C
ATOM    547  CG2 THR C  70      -7.836  18.934 -40.580  1.00 49.19           C
ATOM    548  OG1 THR C  70      -6.575  17.775 -42.346  1.00 42.79           O
ATOM    549  N   THR C  71      -4.227  21.191 -40.037  1.00 47.77           N
ATOM    550  CA  THR C  71      -3.515  21.804 -38.944  1.00 50.67           C
ATOM    551  C   THR C  71      -3.977  23.266 -38.835  1.00 54.60           C
ATOM    552  O   THR C  71      -3.807  24.035 -39.798  1.00 49.39           O
ATOM    553  CB  THR C  71      -2.005  21.735 -39.207  1.00 50.20           C
ATOM    554  CG2 THR C  71      -1.204  22.455 -38.147  1.00 51.21           C
ATOM    555  OG1 THR C  71      -1.581  20.370 -39.283  1.00 50.92           O
ATOM    556  N   MET C  72      -4.576  23.642 -37.693  1.00 51.40           N
ATOM    557  CA  MET C  72      -5.249  24.956 -37.594  1.00 48.29           C
ATOM    558  C   MET C  72      -5.156  25.498 -36.153  1.00 46.95           C
ATOM    559  O   MET C  72      -4.326  25.015 -35.380  1.00 45.36           O
ATOM    560  CB  MET C  72      -6.701  24.834 -38.076  1.00 45.34           C
ATOM    561  CG  MET C  72      -7.629  24.089 -37.155  1.00 43.84           C
ATOM    562  SD  MET C  72      -9.202  23.625 -37.943  1.00 39.12           S
ATOM    563  CE  MET C  72      -8.657  22.077 -38.670  1.00 42.54           C
ATOM    564  N   CYS C  73      -5.946  26.536 -35.816  1.00 44.41           N
ATOM    565  CA  CYS C  73      -6.135  26.972 -34.409  1.00 39.58           C
ATOM    566  C   CYS C  73      -7.621  27.144 -34.115  1.00 37.48           C
ATOM    567  O   CYS C  73      -8.351  27.658 -34.937  1.00 34.88           O
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ATOM    568  CB  CYS C  73      -5.469  28.304 -34.084  1.00 34.77           C
ATOM    569  SG  CYS C  73      -3.656  28.313 -34.191  1.00 35.30           S
ATOM    570  N   ILE C  74      -8.021  26.780 -32.898  1.00 36.83           N
ATOM    571  CA  ILE C  74      -9.329  27.157 -32.373  1.00 41.18           C
ATOM    572  C   ILE C  74      -9.206  28.482 -31.590  1.00 45.66           C
ATOM    573  O   ILE C  74      -8.161  28.739 -30.937  1.00 42.46           O
ATOM    574  CB  ILE C  74      -9.898  26.001 -31.522  1.00 39.99           C
ATOM    575  CG1 ILE C  74      -9.919  24.706 -32.333  1.00 42.47           C
ATOM    576  CG2 ILE C  74     -11.282  26.344 -31.013  1.00 37.67           C
ATOM    577  CD1 ILE C  74     -10.054  23.498 -31.513  1.00 46.52           C
ATOM    578  N   THR C  75     -10.274  29.304 -31.661  1.00 39.32           N
ATOM    579  CA  THR C  75     -10.380  30.566 -30.980  1.00 38.43           C
ATOM    580  C   THR C  75     -10.954  30.348 -29.567  1.00 38.36           C
ATOM    581  O   THR C  75     -12.147  30.150 -29.363  1.00 38.29           O
ATOM    582  CB  THR C  75     -11.180  31.574 -31.814  1.00 42.86           C
ATOM    583  CG2 THR C  75     -11.313  32.923 -31.129  1.00 40.92           C
ATOM    584  OG1 THR C  75     -10.507  31.760 -33.065  1.00 47.65           O
ATOM    585  N   GLY C  76     -10.060  30.443 -28.582  1.00 35.45           N
ATOM    586  CA  GLY C  76     -10.317  30.203 -27.189  1.00 35.16           C
ATOM    587  C   GLY C  76      -9.059  29.653 -26.553  1.00 35.03           C
ATOM    588  O   GLY C  76      -8.058  29.455 -27.223  1.00 34.15           O
ATOM    589  N   SER C  77      -9.121  29.390 -25.251  1.00 38.81           N
ATOM    590  CA  SER C  77      -7.987  28.812 -24.514  1.00 37.62           C
ATOM    591  C   SER C  77      -7.909  27.310 -24.824  1.00 34.53           C
ATOM    592  O   SER C  77      -8.726  26.785 -25.582  1.00 32.27           O
ATOM    593  CB  SER C  77      -8.115  29.102 -23.030  1.00 37.81           C
ATOM    594  OG  SER C  77      -9.137  28.321 -22.444  1.00 38.63           O
ATOM    595  N   ALA C  78      -6.921  26.645 -24.234  1.00 31.89           N
ATOM    596  CA  ALA C  78      -6.562  25.281 -24.558  1.00 38.27           C
ATOM    597  C   ALA C  78      -7.611  24.233 -24.108  1.00 42.02           C
ATOM    598  O   ALA C  78      -7.539  23.120 -24.575  1.00 48.30           O
ATOM    599  CB  ALA C  78      -5.192  24.979 -23.995  1.00 36.68           C
ATOM    600  N   HIS C  79      -8.572  24.551 -23.224  1.00 41.72           N
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ATOM    601  CA  HIS C  79      -9.764  23.670 -22.983  1.00 40.07           C
ATOM    602  C   HIS C  79     -10.482  23.323 -24.297  1.00 42.88           C
ATOM    603  O   HIS C  79     -10.933  22.228 -24.531  1.00 50.06           O
ATOM    604  CB  HIS C  79     -10.769  24.355 -22.057  1.00 37.60           C
ATOM    605  CG  HIS C  79     -10.553  24.062 -20.619  1.00 37.95           C
ATOM    606  CD2 HIS C  79     -11.213  23.251 -19.772  1.00 43.40           C
ATOM    607  ND1 HIS C  79      -9.533  24.620 -19.911  1.00 38.30           N
ATOM    608  CE1 HIS C  79      -9.568  24.161 -18.682  1.00 47.03           C
ATOM    609  NE2 HIS C  79     -10.582  23.314 -18.570  1.00 42.72           N
ATOM    610  N   THR C  80     -10.662  24.360 -25.094  1.00 44.95           N
ATOM    611  CA  THR C  80     -11.199  24.397 -26.453  1.00 40.99           C
ATOM    612  C   THR C  80     -10.620  23.282 -27.328  1.00 39.46           C
ATOM    613  O   THR C  80     -11.300  22.788 -28.179  1.00 43.54           O
ATOM    614  CB  THR C  80     -10.912  25.823 -26.963  1.00 38.62           C
ATOM    615  CG2 THR C  80     -10.170  25.863 -28.272  1.00 39.17           C
ATOM    616  OG1 THR C  80     -12.125  26.567 -27.009  1.00 37.59           O
ATOM    617  N   GLY C  81      -9.341  22.944 -27.151  1.00 41.95           N
ATOM    618  CA  GLY C  81      -8.658  21.945 -27.966  1.00 43.61           C
ATOM    619  C   GLY C  81      -9.076  20.535 -27.572  1.00 51.27           C
ATOM    620  O   GLY C  81      -9.264  19.662 -28.427  1.00 56.67           O
ATOM    621  N   MET C  82      -9.197  20.320 -26.257  1.00 51.69           N
ATOM    622  CA  MET C  82      -9.812  19.121 -25.646  1.00 48.79           C
ATOM    623  C   MET C  82     -11.295  19.019 -26.076  1.00 46.27           C
ATOM    624  O   MET C  82     -11.735  17.989 -26.571  1.00 46.50           O
ATOM    625  CB  MET C  82      -9.686  19.185 -24.114  1.00 40.84           C
ATOM    626  CG  MET C  82     -10.122  17.919 -23.371  1.00 43.05           C
ATOM    627  SD  MET C  82     -10.210  18.096 -21.545  1.00 42.55           S
ATOM    628  CE  MET C  82      -8.477  17.898 -21.140  1.00 41.76           C
ATOM    629  N   GLU C  83     -12.069  20.089 -25.876  1.00 44.36           N
ATOM    630  CA  GLU C  83     -13.493  20.134 -26.279  1.00 45.42           C
ATOM    631  C   GLU C  83     -13.642  19.658 -27.729  1.00 49.06           C
ATOM    632  O   GLU C  83     -14.492  18.847 -28.027  1.00 49.83           O
ATOM    633  CB  GLU C  83     -14.056  21.552 -26.186  1.00 41.31           C
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ATOM    634  CG  GLU C  83     -14.207  22.046 -24.768  1.00 40.72           C
ATOM    635  CD  GLU C  83     -15.510  21.668 -24.118  1.00 40.46           C
ATOM    636  OE1 GLU C  83     -16.241  20.866 -24.711  1.00 48.18           O
ATOM    637  OE2 GLU C  83     -15.786  22.175 -23.018  1.00 42.60           O1-
ATOM    638  N   ALA C  84     -12.784  20.189 -28.610  1.00 48.92           N
ATOM    639  CA  ALA C  84     -12.953  20.072 -30.031  1.00 44.82           C
ATOM    640  C   ALA C  84     -12.661  18.640 -30.497  1.00 43.46           C
ATOM    641  O   ALA C  84     -13.275  18.143 -31.436  1.00 40.18           O
ATOM    642  CB  ALA C  84     -12.065  21.075 -30.725  1.00 42.08           C
ATOM    643  N   LEU C  85     -11.680  17.993 -29.875  1.00 45.41           N
ATOM    644  CA  LEU C  85     -11.305  16.643 -30.271  1.00 45.70           C
ATOM    645  C   LEU C  85     -12.447  15.684 -29.941  1.00 52.73           C
ATOM    646  O   LEU C  85     -12.895  14.925 -30.811  1.00 47.56           O
ATOM    647  CB  LEU C  85     -10.037  16.224 -29.536  1.00 42.31           C
ATOM    648  CG  LEU C  85      -8.746  16.800 -30.100  1.00 40.67           C
ATOM    649  CD1 LEU C  85      -7.551  16.190 -29.382  1.00 39.24           C
ATOM    650  CD2 LEU C  85      -8.658  16.569 -31.602  1.00 38.92           C
ATOM    651  N   LEU C  86     -12.927  15.764 -28.693  1.00 56.01           N
ATOM    652  CA  LEU C  86     -14.010  14.897 -28.216  1.00 58.83           C
ATOM    653  C   LEU C  86     -15.296  15.159 -29.027  1.00 55.57           C
ATOM    654  O   LEU C  86     -15.925  14.233 -29.515  1.00 56.31           O
ATOM    655  CB  LEU C  86     -14.216  15.116 -26.710  1.00 57.81           C
ATOM    656  CG  LEU C  86     -13.000  14.876 -25.801  1.00 55.83           C
ATOM    657  CD1 LEU C  86     -13.394  15.088 -24.355  1.00 57.65           C
ATOM    658  CD2 LEU C  86     -12.388  13.498 -25.972  1.00 47.93           C
ATOM    659  N   CYS C  87     -15.654  16.432 -29.199  1.00 54.15           N
ATOM    660  CA  CYS C  87     -16.935  16.858 -29.791  1.00 52.74           C
ATOM    661  C   CYS C  87     -17.060  16.413 -31.256  1.00 53.88           C
ATOM    662  O   CYS C  87     -18.165  16.031 -31.716  1.00 56.71           O
ATOM    663  CB  CYS C  87     -17.078  18.372 -29.730  1.00 48.90           C
ATOM    664  SG  CYS C  87     -18.665  18.980 -30.349  1.00 45.67           S
ATOM    665  N   ASN C  88     -15.944  16.491 -31.985  1.00 50.24           N
ATOM    666  CA  ASN C  88     -15.909  16.131 -33.385  1.00 51.55           C
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ATOM    667  C   ASN C  88     -15.836  14.607 -33.546  1.00 53.74           C
ATOM    668  O   ASN C  88     -16.560  14.080 -34.367  1.00 60.48           O
ATOM    669  CB  ASN C  88     -14.742  16.768 -34.139  1.00 53.33           C
ATOM    670  CG  ASN C  88     -14.936  18.244 -34.396  1.00 54.33           C
ATOM    671  ND2 ASN C  88     -14.987  19.038 -33.342  1.00 59.19           N
ATOM    672  OD1 ASN C  88     -15.038  18.664 -35.537  1.00 60.25           O
ATOM    673  N   LEU C  89     -14.980  13.908 -32.781  1.00 50.22           N
ATOM    674  CA  LEU C  89     -14.670  12.505 -33.086  1.00 43.42           C
ATOM    675  C   LEU C  89     -15.616  11.517 -32.381  1.00 45.98           C
ATOM    676  O   LEU C  89     -15.457  10.311 -32.582  1.00 54.59           O
ATOM    677  CB  LEU C  89     -13.218  12.203 -32.720  1.00 41.50           C
ATOM    678  CG  LEU C  89     -12.149  12.787 -33.629  1.00 44.49           C
ATOM    679  CD1 LEU C  89     -10.770  12.623 -32.996  1.00 48.88           C
ATOM    680  CD2 LEU C  89     -12.173  12.143 -35.010  1.00 45.19           C
ATOM    681  N   LEU C  90     -16.578  11.975 -31.566  1.00 50.36           N
ATOM    682  CA  LEU C  90     -17.528  11.041 -30.870  1.00 49.98           C
ATOM    683  C   LEU C  90     -18.990  11.448 -31.115  1.00 51.54           C
ATOM    684  O   LEU C  90     -19.371  12.611 -30.932  1.00 45.22           O
ATOM    685  CB  LEU C  90     -17.240  10.998 -29.365  1.00 55.15           C
ATOM    686  CG  LEU C  90     -15.768  10.863 -28.955  1.00 54.26           C
ATOM    687  CD1 LEU C  90     -15.609  11.184 -27.472  1.00 53.66           C
ATOM    688  CD2 LEU C  90     -15.216   9.481 -29.277  1.00 49.32           C
ATOM    689  N   GLU C  91     -19.787  10.452 -31.540  1.00 55.70           N
ATOM    690  CA  GLU C  91     -21.250  10.497 -31.622  1.00 54.67           C
ATOM    691  C   GLU C  91     -21.833   9.894 -30.337  1.00 52.74           C
ATOM    692  O   GLU C  91     -21.112   9.261 -29.599  1.00 51.85           O
ATOM    693  CB  GLU C  91     -21.705   9.710 -32.849  1.00 57.48           C
ATOM    694  CG  GLU C  91     -20.970  10.098 -34.118  1.00 61.32           C
ATOM    695  CD  GLU C  91     -21.511   9.468 -35.390  1.00 62.12           C
ATOM    696  OE1 GLU C  91     -20.811   8.591 -35.977  1.00 57.55           O
ATOM    697  OE2 GLU C  91     -22.633   9.853 -35.781  1.00 59.67           O1-
ATOM    698  N   GLU C  92     -23.132  10.091 -30.077  1.00 54.57           N
ATOM    699  CA  GLU C  92     -23.800   9.501 -28.896  1.00 60.87           C
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ATOM    700  C   GLU C  92     -23.488   8.003 -28.854  1.00 60.80           C
ATOM    701  O   GLU C  92     -23.672   7.341 -29.865  1.00 68.90           O
ATOM    702  CB  GLU C  92     -25.323   9.629 -28.964  1.00 64.58           C
ATOM    703  CG  GLU C  92     -25.819  11.063 -28.977  1.00 72.25           C
ATOM    704  CD  GLU C  92     -25.931  11.750 -27.624  1.00 77.46           C
ATOM    705  OE1 GLU C  92     -26.112  12.990 -27.619  1.00 62.37           O
ATOM    706  OE2 GLU C  92     -25.858  11.050 -26.575  1.00 86.27           O1-
ATOM    707  N   GLY C  93     -22.969   7.509 -27.719  1.00 55.02           N
ATOM    708  CA  GLY C  93     -22.756   6.079 -27.482  1.00 52.11           C
ATOM    709  C   GLY C  93     -21.402   5.525 -27.928  1.00 53.73           C
ATOM    710  O   GLY C  93     -21.053   4.393 -27.523  1.00 57.73           O
ATOM    711  N   ASP C  94     -20.624   6.272 -28.737  1.00 56.15           N
ATOM    712  CA  ASP C  94     -19.241   5.841 -29.144  1.00 53.36           C
ATOM    713  C   ASP C  94     -18.382   5.708 -27.887  1.00 55.46           C
ATOM    714  O   ASP C  94     -18.610   6.373 -26.876  1.00 60.17           O
ATOM    715  CB  ASP C  94     -18.541   6.790 -30.123  1.00 52.90           C
ATOM    716  CG  ASP C  94     -19.299   7.056 -31.410  1.00 58.28           C
ATOM    717  OD1 ASP C  94     -20.397   6.482 -31.565  1.00 61.78           O
ATOM    718  OD2 ASP C  94     -18.806   7.870 -32.237  1.00 59.53           O1-
ATOM    719  N   ILE C  95     -17.380   4.839 -27.964  1.00 64.34           N
ATOM    720  CA  ILE C  95     -16.644   4.412 -26.788  1.00 64.12           C
ATOM    721  C   ILE C  95     -15.306   5.162 -26.750  1.00 63.13           C
ATOM    722  O   ILE C  95     -14.468   5.010 -27.665  1.00 58.91           O
ATOM    723  CB  ILE C  95     -16.458   2.878 -26.798  1.00 65.67           C
ATOM    724  CG1 ILE C  95     -17.770   2.133 -26.510  1.00 63.27           C
ATOM    725  CG2 ILE C  95     -15.342   2.450 -25.847  1.00 64.34           C
ATOM    726  CD1 ILE C  95     -17.661   0.608 -26.628  1.00 59.36           C
ATOM    727  N   VAL C  96     -15.104   5.931 -25.672  1.00 57.55           N
ATOM    728  CA  VAL C  96     -13.842   6.620 -25.435  1.00 54.74           C
ATOM    729  C   VAL C  96     -13.184   6.054 -24.162  1.00 54.28           C
ATOM    730  O   VAL C  96     -13.812   5.891 -23.105  1.00 48.93           O
ATOM    731  CB  VAL C  96     -14.032   8.153 -25.380  1.00 50.12           C
ATOM    732  CG1 VAL C  96     -14.797   8.604 -24.143  1.00 51.40           C
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ATOM    733  CG2 VAL C  96     -12.702   8.880 -25.484  1.00 44.75           C
ATOM    734  N   LEU C  97     -11.889   5.766 -24.283  1.00 50.32           N
ATOM    735  CA  LEU C  97     -11.082   5.372 -23.165  1.00 53.83           C
ATOM    736  C   LEU C  97     -10.220   6.562 -22.729  1.00 55.43           C
ATOM    737  O   LEU C  97      -9.416   7.105 -23.523  1.00 55.31           O
ATOM    738  CB  LEU C  97     -10.199   4.200 -23.612  1.00 58.32           C
ATOM    739  CG  LEU C  97      -9.251   3.635 -22.558  1.00 51.89           C
ATOM    740  CD1 LEU C  97     -10.002   3.366 -21.263  1.00 56.09           C
ATOM    741  CD2 LEU C  97      -8.570   2.370 -23.064  1.00 48.94           C
ATOM    742  N   ILE C  98     -10.317   6.924 -21.451  1.00 50.01           N
ATOM    743  CA  ILE C  98      -9.508   8.015 -20.935  1.00 50.65           C
ATOM    744  C   ILE C  98      -8.538   7.484 -19.874  1.00 48.46           C
ATOM    745  O   ILE C  98      -8.983   6.928 -18.894  1.00 46.07           O
ATOM    746  CB  ILE C  98     -10.408   9.133 -20.378  1.00 52.77           C
ATOM    747  CG1 ILE C  98     -11.358   9.676 -21.452  1.00 48.58           C
ATOM    748  CG2 ILE C  98      -9.535  10.223 -19.772  1.00 58.17           C
ATOM    749  CD1 ILE C  98     -12.473  10.537 -20.925  1.00 48.01           C
ATOM    750  N   ALA C  99      -7.224   7.683 -20.091  1.00 51.95           N
ATOM    751  CA  ALA C  99      -6.157   7.421 -19.088  1.00 48.80           C
ATOM    752  C   ALA C  99      -6.100   8.562 -18.060  1.00 53.61           C
ATOM    753  O   ALA C  99      -5.537   9.617 -18.364  1.00 61.74           O
ATOM    754  CB  ALA C  99      -4.827   7.268 -19.777  1.00 46.07           C
ATOM    755  N   ASN C 100      -6.656   8.319 -16.858  1.00 52.98           N
ATOM    756  CA  ASN C 100      -6.800   9.303 -15.777  1.00 52.18           C
ATOM    757  C   ASN C 100      -5.810   9.042 -14.636  1.00 56.46           C
ATOM    758  O   ASN C 100      -6.098   8.210 -13.770  1.00 57.91           O
ATOM    759  CB  ASN C 100      -8.192   9.271 -15.138  1.00 54.38           C
ATOM    760  CG  ASN C 100      -8.265  10.012 -13.814  1.00 53.45           C
ATOM    761  ND2 ASN C 100      -9.223   9.668 -12.974  1.00 55.33           N
ATOM    762  OD1 ASN C 100      -7.454  10.884 -13.529  1.00 62.53           O
ATOM    763  N   ASN C 101      -4.695   9.795 -14.601  1.00 56.76           N
ATOM    764  CA  ASN C 101      -3.930  10.001 -13.346  1.00 55.20           C
ATOM    765  C   ASN C 101      -3.765  11.513 -13.084  1.00 49.59           C
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ATOM    766  O   ASN C 101      -2.780  11.970 -12.493  1.00 45.71           O
ATOM    767  CB  ASN C 101      -2.627   9.187 -13.314  1.00 54.50           C
ATOM    768  CG  ASN C 101      -1.731   9.460 -14.495  1.00 56.07           C
ATOM    769  ND2 ASN C 101      -0.598   8.783 -14.567  1.00 53.88           N
ATOM    770  OD1 ASN C 101      -2.081  10.271 -15.344  1.00 66.92           O
ATOM    771  N   GLY C 102      -4.791  12.290 -13.435  1.00 50.66           N
ATOM    772  CA  GLY C 102      -4.725  13.735 -13.295  1.00 53.37           C
ATOM    773  C   GLY C 102      -6.065  14.406 -13.523  1.00 54.65           C
ATOM    774  O   GLY C 102      -6.984  13.800 -14.057  1.00 49.35           O
ATOM    775  N   ILE C 103      -6.147  15.688 -13.140  1.00 52.47           N
ATOM    776  CA  ILE C 103      -7.380  16.455 -13.239  1.00 48.62           C
ATOM    777  C   ILE C 103      -7.681  16.821 -14.698  1.00 44.62           C
ATOM    778  O   ILE C 103      -8.839  16.997 -15.085  1.00 42.37           O
ATOM    779  CB  ILE C 103      -7.311  17.689 -12.336  1.00 50.58           C
ATOM    780  CG1 ILE C 103      -8.702  18.275 -12.106  1.00 46.56           C
ATOM    781  CG2 ILE C 103      -6.315  18.695 -12.891  1.00 58.90           C
ATOM    782  CD1 ILE C 103      -8.765  19.256 -10.955  1.00 52.10           C
ATOM    783  N   TRP C 104      -6.643  16.901 -15.525  1.00 44.90           N
ATOM    784  CA  TRP C 104      -6.851  17.170 -16.933  1.00 45.15           C
ATOM    785  C   TRP C 104      -7.668  16.041 -17.566  1.00 45.65           C
ATOM    786  O   TRP C 104      -8.463  16.309 -18.431  1.00 54.09           O
ATOM    787  CB  TRP C 104      -5.532  17.453 -17.658  1.00 46.04           C
ATOM    788  CG  TRP C 104      -4.834  18.650 -17.095  1.00 49.65           C
ATOM    789  CD1 TRP C 104      -3.581  18.676 -16.553  1.00 50.86           C
ATOM    790  CD2 TRP C 104      -5.392  19.970 -16.909  1.00 51.58           C
ATOM    791  CE2 TRP C 104      -4.393  20.747 -16.279  1.00 53.98           C
ATOM    792  CE3 TRP C 104      -6.611  20.584 -17.237  1.00 48.21           C
ATOM    793  NE1 TRP C 104      -3.309  19.929 -16.073  1.00 55.99           N
ATOM    794  CZ2 TRP C 104      -4.586  22.097 -15.966  1.00 50.23           C
ATOM    795  CZ3 TRP C 104      -6.799  21.920 -16.933  1.00 46.57           C
ATOM    796  CH2 TRP C 104      -5.801  22.661 -16.299  1.00 48.55           C
ATOM    797  N   ALA C 105      -7.543  14.808 -17.066  1.00 46.68           N
ATOM    798  CA  ALA C 105      -8.362  13.688 -17.558  1.00 42.24           C
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ATOM    799  C   ALA C 105      -9.773  13.735 -16.954  1.00 42.88           C
ATOM    800  O   ALA C 105     -10.775  13.401 -17.636  1.00 39.49           O
ATOM    801  CB  ALA C 105      -7.659  12.390 -17.300  1.00 45.22           C
ATOM    802  N   GLU C 106      -9.887  14.219 -15.712  1.00 46.17           N
ATOM    803  CA  GLU C 106     -11.212  14.414 -15.117  1.00 49.73           C
ATOM    804  C   GLU C 106     -12.024  15.369 -15.993  1.00 47.00           C
ATOM    805  O   GLU C 106     -13.231  15.160 -16.161  1.00 45.38           O
ATOM    806  CB  GLU C 106     -11.125  14.918 -13.675  1.00 56.54           C
ATOM    807  CG  GLU C 106     -10.466  13.921 -12.724  1.00 62.31           C
ATOM    808  CD  GLU C 106     -10.864  14.052 -11.261  1.00 66.11           C
ATOM    809  OE1 GLU C 106     -11.121  15.188 -10.815  1.00 67.79           O
ATOM    810  OE2 GLU C 106     -10.933  13.007 -10.576  1.00 74.96           O1-
ATOM    811  N   ARG C 107     -11.354  16.409 -16.530  1.00 53.01           N
ATOM    812  CA  ARG C 107     -11.969  17.411 -17.453  1.00 45.55           C
ATOM    813  C   ARG C 107     -12.459  16.664 -18.686  1.00 39.90           C
ATOM    814  O   ARG C 107     -13.628  16.723 -19.022  1.00 34.33           O
ATOM    815  CB  ARG C 107     -10.992  18.510 -17.894  1.00 46.62           C
ATOM    816  CG  ARG C 107     -10.604  19.515 -16.818  1.00 46.66           C
ATOM    817  CD  ARG C 107     -11.779  20.331 -16.319  1.00 49.55           C
ATOM    818  NE  ARG C 107     -11.423  21.690 -15.912  1.00 48.68           N
ATOM    819  CZ  ARG C 107     -11.385  22.113 -14.671  1.00 43.36           C
ATOM    820  NH1 ARG C 107     -11.367  21.234 -13.681  1.00 46.83           N1+
ATOM    821  NH2 ARG C 107     -11.391  23.413 -14.428  1.00 42.47           N
ATOM    822  N   ALA C 108     -11.555  15.889 -19.289  1.00 34.82           N
ATOM    823  CA  ALA C 108     -11.900  15.128 -20.473  1.00 38.75           C
ATOM    824  C   ALA C 108     -13.130  14.240 -20.208  1.00 45.25           C
ATOM    825  O   ALA C 108     -14.070  14.238 -21.020  1.00 53.74           O
ATOM    826  CB  ALA C 108     -10.711  14.331 -20.941  1.00 38.91           C
ATOM    827  N   ILE C 109     -13.134  13.487 -19.093  1.00 42.50           N
ATOM    828  CA  ILE C 109     -14.252  12.604 -18.771  1.00 43.97           C
ATOM    829  C   ILE C 109     -15.553  13.431 -18.762  1.00 45.92           C
ATOM    830  O   ILE C 109     -16.544  13.021 -19.353  1.00 49.36           O
ATOM    831  CB  ILE C 109     -13.990  11.845 -17.447  1.00 44.91           C
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ATOM    832  CG1 ILE C 109     -12.908  10.781 -17.619  1.00 45.98           C
ATOM    833  CG2 ILE C 109     -15.251  11.236 -16.854  1.00 41.93           C
ATOM    834  CD1 ILE C 109     -12.253  10.365 -16.314  1.00 48.28           C
ATOM    835  N   ASN C 110     -15.520  14.609 -18.133  1.00 45.25           N
ATOM    836  CA  ASN C 110     -16.699  15.488 -17.959  1.00 44.66           C
ATOM    837  C   ASN C 110     -17.248  15.891 -19.336  1.00 47.07           C
ATOM    838  O   ASN C 110     -18.441  15.783 -19.610  1.00 45.19           O
ATOM    839  CB  ASN C 110     -16.325  16.693 -17.089  1.00 40.89           C
ATOM    840  CG  ASN C 110     -17.445  17.686 -16.873  1.00 40.81           C
ATOM    841  ND2 ASN C 110     -17.808  17.932 -15.621  1.00 41.53           N
ATOM    842  OD1 ASN C 110     -17.953  18.272 -17.817  1.00 48.25           O
ATOM    843  N   MET C 111     -16.360  16.381 -20.198  1.00 49.89           N
ATOM    844  CA  MET C 111     -16.711  16.772 -21.546  1.00 53.20           C
ATOM    845  C   MET C 111     -17.317  15.569 -22.278  1.00 55.60           C
ATOM    846  O   MET C 111     -18.415  15.678 -22.841  1.00 56.17           O
ATOM    847  CB  MET C 111     -15.488  17.254 -22.335  1.00 55.92           C
ATOM    848  CG  MET C 111     -15.092  18.705 -22.064  1.00 54.44           C
ATOM    849  SD  MET C 111     -13.393  19.029 -22.628  1.00 50.40           S
ATOM    850  CE  MET C 111     -13.059  20.512 -21.679  1.00 56.40           C
ATOM    851  N   ALA C 112     -16.593  14.441 -22.284  1.00 52.80           N
ATOM    852  CA  ALA C 112     -16.998  13.266 -23.094  1.00 52.42           C
ATOM    853  C   ALA C 112     -18.409  12.787 -22.700  1.00 52.71           C
ATOM    854  O   ALA C 112     -19.215  12.492 -23.564  1.00 56.67           O
ATOM    855  CB  ALA C 112     -15.977  12.178 -22.953  1.00 49.80           C
ATOM    856  N   THR C 113     -18.705  12.765 -21.397  1.00 48.34           N
ATOM    857  CA  THR C 113     -20.045  12.533 -20.878  1.00 51.68           C
ATOM    858  C   THR C 113     -21.026  13.577 -21.435  1.00 54.02           C
ATOM    859  O   THR C 113     -22.049  13.220 -22.018  1.00 52.92           O
ATOM    860  CB  THR C 113     -20.083  12.569 -19.340  1.00 52.91           C
ATOM    861  CG2 THR C 113     -21.448  12.252 -18.762  1.00 49.10           C
ATOM    862  OG1 THR C 113     -19.128  11.636 -18.835  1.00 55.46           O
ATOM    863  N   ARG C 114     -20.725  14.864 -21.239  1.00 57.24           N
ATOM    864  CA  ARG C 114     -21.620  15.943 -21.695  1.00 54.86           C
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ATOM    865  C   ARG C 114     -22.022  15.690 -23.148  1.00 52.15           C
ATOM    866  O   ARG C 114     -23.188  15.832 -23.479  1.00 51.90           O
ATOM    867  CB  ARG C 114     -20.979  17.324 -21.502  1.00 57.46           C
ATOM    868  CG  ARG C 114     -20.998  17.807 -20.055  1.00 60.59           C
ATOM    869  CD  ARG C 114     -20.011  18.909 -19.673  1.00 53.56           C
ATOM    870  NE  ARG C 114     -20.687  20.172 -19.462  1.00 52.80           N
ATOM    871  CZ  ARG C 114     -20.967  20.702 -18.281  1.00 52.73           C
ATOM    872  NH1 ARG C 114     -20.282  20.350 -17.212  1.00 50.81           N1+
ATOM    873  NH2 ARG C 114     -21.924  21.606 -18.184  1.00 56.11           N
ATOM    874  N   TYR C 115     -21.055  15.265 -23.978  1.00 55.51           N
ATOM    875  CA  TYR C 115     -21.251  15.040 -25.418  1.00 55.18           C
ATOM    876  C   TYR C 115     -21.956  13.701 -25.694  1.00 56.77           C
ATOM    877  O   TYR C 115     -22.372  13.447 -26.825  1.00 53.95           O
ATOM    878  CB  TYR C 115     -19.912  15.129 -26.161  1.00 57.52           C
ATOM    879  CG  TYR C 115     -19.390  16.534 -26.361  1.00 59.13           C
ATOM    880  CD1 TYR C 115     -20.193  17.552 -26.852  1.00 56.51           C
ATOM    881  CD2 TYR C 115     -18.081  16.851 -26.038  1.00 58.40           C
ATOM    882  CE1 TYR C 115     -19.706  18.842 -27.006  1.00 59.86           C
ATOM    883  CE2 TYR C 115     -17.575  18.128 -26.205  1.00 59.53           C
ATOM    884  CZ  TYR C 115     -18.385  19.131 -26.694  1.00 59.52           C
ATOM    885  OH  TYR C 115     -17.856  20.381 -26.862  1.00 51.62           O
ATOM    886  N   GLY C 116     -22.075  12.848 -24.668  1.00 57.96           N
ATOM    887  CA  GLY C 116     -22.976  11.687 -24.688  1.00 54.81           C
ATOM    888  C   GLY C 116     -22.255  10.400 -25.041  1.00 52.47           C
ATOM    889  O   GLY C 116     -22.887   9.438 -25.475  1.00 50.79           O
ATOM    890  N   ALA C 117     -20.928  10.388 -24.862  1.00 50.90           N
ATOM    891  CA  ALA C 117     -20.111   9.225 -25.150  1.00 51.48           C
ATOM    892  C   ALA C 117     -20.291   8.216 -24.019  1.00 53.54           C
ATOM    893  O   ALA C 117     -20.799   8.553 -22.958  1.00 51.38           O
ATOM    894  CB  ALA C 117     -18.659   9.604 -25.300  1.00 53.40           C
ATOM    895  N   ASP C 118     -19.874   6.979 -24.304  1.00 58.39           N
ATOM    896  CA  ASP C 118     -19.794   5.881 -23.371  1.00 56.35           C
ATOM    897  C   ASP C 118     -18.360   5.845 -22.842  1.00 56.22           C
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ATOM    898  O   ASP C 118     -17.422   5.342 -23.516  1.00 51.31           O
ATOM    899  CB  ASP C 118     -20.189   4.566 -24.061  1.00 62.79           C
ATOM    900  CG  ASP C 118     -20.148   3.333 -23.174  1.00 55.97           C
ATOM    901  OD1 ASP C 118     -19.947   3.497 -21.961  1.00 53.79           O
ATOM    902  OD2 ASP C 118     -20.315   2.217 -23.711  1.00 53.71           O1-
ATOM    903  N   VAL C 119     -18.197   6.376 -21.627  1.00 54.54           N
ATOM    904  CA  VAL C 119     -16.887   6.711 -21.116  1.00 52.24           C
ATOM    905  C   VAL C 119     -16.359   5.501 -20.353  1.00 52.58           C
ATOM    906  O   VAL C 119     -17.017   5.041 -19.440  1.00 59.12           O
ATOM    907  CB  VAL C 119     -16.916   7.964 -20.216  1.00 53.45           C
ATOM    908  CG1 VAL C 119     -15.499   8.384 -19.856  1.00 56.67           C
ATOM    909  CG2 VAL C 119     -17.677   9.136 -20.840  1.00 53.40           C
ATOM    910  N   ARG C 120     -15.178   5.023 -20.751  1.00 51.21           N
ATOM    911  CA  ARG C 120     -14.400   4.065 -19.998  1.00 53.10           C
ATOM    912  C   ARG C 120     -13.139   4.771 -19.464  1.00 55.55           C
ATOM    913  O   ARG C 120     -12.486   5.561 -20.164  1.00 58.13           O
ATOM    914  CB  ARG C 120     -14.041   2.856 -20.880  1.00 56.03           C
ATOM    915  CG  ARG C 120     -15.175   2.325 -21.756  1.00 56.72           C
ATOM    916  CD  ARG C 120     -16.384   1.864 -20.950  1.00 58.57           C
ATOM    917  NE  ARG C 120     -17.552   1.504 -21.755  1.00 61.94           N
ATOM    918  CZ  ARG C 120     -17.736   0.321 -22.369  1.00 56.77           C
ATOM    919  NH1 ARG C 120     -16.755  -0.566 -22.461  1.00 45.16           N1+
ATOM    920  NH2 ARG C 120     -18.920   0.035 -22.874  1.00 45.15           N
ATOM    921  N   VAL C 121     -12.786   4.457 -18.218  1.00 57.38           N
ATOM    922  CA  VAL C 121     -11.649   5.043 -17.553  1.00 60.70           C
ATOM    923  C   VAL C 121     -10.614   3.934 -17.323  1.00 62.94           C
ATOM    924  O   VAL C 121     -10.960   2.765 -17.189  1.00 72.61           O
ATOM    925  CB  VAL C 121     -12.057   5.756 -16.243  1.00 60.75           C
ATOM    926  CG1 VAL C 121     -10.892   6.500 -15.612  1.00 67.50           C
ATOM    927  CG2 VAL C 121     -13.219   6.718 -16.440  1.00 56.88           C
ATOM    928  N   LEU C 122      -9.339   4.337 -17.353  1.00 64.73           N
ATOM    929  CA  LEU C 122      -8.176   3.583 -16.899  1.00 58.87           C
ATOM    930  C   LEU C 122      -7.534   4.420 -15.782  1.00 58.97           C
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ATOM    931  O   LEU C 122      -6.793   5.369 -16.044  1.00 70.51           O
ATOM    932  CB  LEU C 122      -7.271   3.333 -18.116  1.00 56.66           C
ATOM    933  CG  LEU C 122      -5.779   3.089 -17.868  1.00 63.33           C
ATOM    934  CD1 LEU C 122      -5.544   1.987 -16.841  1.00 64.51           C
ATOM    935  CD2 LEU C 122      -5.063   2.763 -19.179  1.00 61.88           C
ATOM    936  N   GLU C 123      -7.909   4.107 -14.534  1.00 62.41           N
ATOM    937  CA  GLU C 123      -7.548   4.884 -13.323  1.00 61.94           C
ATOM    938  C   GLU C 123      -6.083   4.580 -12.994  1.00 55.42           C
ATOM    939  O   GLU C 123      -5.566   3.562 -13.434  1.00 56.52           O
ATOM    940  CB  GLU C 123      -8.455   4.544 -12.126  1.00 61.29           C
ATOM    941  CG  GLU C 123      -9.943   4.435 -12.439  1.00 66.59           C
ATOM    942  CD  GLU C 123     -10.851   5.568 -11.968  1.00 74.65           C
ATOM    943  OE1 GLU C 123     -11.866   5.271 -11.277  1.00 76.25           O
ATOM    944  OE2 GLU C 123     -10.584   6.736 -12.336  1.00 69.60           O1-
ATOM    945  N   GLY C 124      -5.423   5.460 -12.233  1.00 55.79           N
ATOM    946  CA  GLY C 124      -3.982   5.302 -11.942  1.00 56.47           C
ATOM    947  C   GLY C 124      -3.469   6.275 -10.883  1.00 57.48           C
ATOM    948  O   GLY C 124      -4.184   7.186 -10.455  1.00 50.87           O
ATOM    949  N   PRO C 125      -2.215   6.083 -10.404  1.00 64.07           N
ATOM    950  CA  PRO C 125      -1.598   7.007  -9.452  1.00 63.12           C
ATOM    951  C   PRO C 125      -0.972   8.217 -10.170  1.00 65.42           C
ATOM    952  O   PRO C 125      -0.459   8.111 -11.304  1.00 73.12           O
ATOM    953  CB  PRO C 125      -0.566   6.120  -8.733  1.00 61.59           C
ATOM    954  CG  PRO C 125      -0.170   5.072  -9.756  1.00 62.23           C
ATOM    955  CD  PRO C 125      -1.343   4.936 -10.710  1.00 64.74           C
ATOM    956  N   ALA C 126      -1.027   9.365  -9.499  1.00 58.61           N
ATOM    957  CA  ALA C 126      -0.718  10.628 -10.109  1.00 56.65           C
ATOM    958  C   ALA C 126       0.795  10.780 -10.294  1.00 57.68           C
ATOM    959  O   ALA C 126       1.235  11.557 -11.146  1.00 57.20           O
ATOM    960  CB  ALA C 126      -1.292  11.738  -9.268  1.00 59.35           C
ATOM    961  N   ASP C 127       1.585  10.027  -9.518  1.00 56.92           N
ATOM    962  CA  ASP C 127       3.037  10.199  -9.501  1.00 53.82           C
ATOM    963  C   ASP C 127       3.742   9.112 -10.321  1.00 50.06           C
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ATOM    964  O   ASP C 127       4.968   9.025 -10.277  1.00 51.00           O
ATOM    965  CB  ASP C 127       3.584  10.259  -8.069  1.00 61.87           C
ATOM    966  CG  ASP C 127       3.303   9.035  -7.207  1.00 61.07           C
ATOM    967  OD1 ASP C 127       2.756   8.049  -7.735  1.00 59.03           O
ATOM    968  OD2 ASP C 127       3.630   9.091  -6.008  1.00 62.80           O1-
ATOM    969  N   LYS C 128       3.002   8.306 -11.086  1.00 50.09           N
ATOM    970  CA  LYS C 128       3.652   7.289 -11.910  1.00 55.54           C
ATOM    971  C   LYS C 128       2.910   7.143 -13.227  1.00 51.16           C
ATOM    972  O   LYS C 128       1.674   7.152 -13.247  1.00 49.04           O
ATOM    973  CB  LYS C 128       3.748   5.951 -11.173  1.00 66.06           C
ATOM    974  CG  LYS C 128       4.772   5.959 -10.039  1.00 79.01           C
ATOM    975  CD  LYS C 128       5.147   4.613  -9.457  1.00 84.06           C
ATOM    976  CE  LYS C 128       6.050   4.761  -8.250  1.00 87.33           C
ATOM    977  NZ  LYS C 128       6.444   3.446  -7.689  1.00 90.96           N1+
ATOM    978  N   PRO C 129       3.666   6.986 -14.339  1.00 45.62           N
ATOM    979  CA  PRO C 129       3.089   6.807 -15.674  1.00 53.58           C
ATOM    980  C   PRO C 129       2.385   5.455 -15.906  1.00 60.19           C
ATOM    981  O   PRO C 129       2.599   4.493 -15.150  1.00 56.15           O
ATOM    982  CB  PRO C 129       4.315   6.864 -16.605  1.00 49.39           C
ATOM    983  CG  PRO C 129       5.456   6.373 -15.748  1.00 47.34           C
ATOM    984  CD  PRO C 129       5.135   6.888 -14.356  1.00 47.27           C
ATOM    985  N   PHE C 130       1.564   5.379 -16.959  1.00 58.73           N
ATOM    986  CA  PHE C 130       1.082   4.092 -17.424  1.00 58.98           C
ATOM    987  C   PHE C 130       2.160   3.443 -18.295  1.00 54.08           C
ATOM    988  O   PHE C 130       2.845   4.125 -19.059  1.00 52.90           O
ATOM    989  CB  PHE C 130      -0.232   4.225 -18.191  1.00 60.72           C
ATOM    990  CG  PHE C 130      -1.339   4.853 -17.392  1.00 59.62           C
ATOM    991  CD1 PHE C 130      -1.531   6.226 -17.417  1.00 57.47           C
ATOM    992  CD2 PHE C 130      -2.187   4.075 -16.623  1.00 56.24           C
ATOM    993  CE1 PHE C 130      -2.558   6.805 -16.686  1.00 61.30           C
ATOM    994  CE2 PHE C 130      -3.213   4.657 -15.895  1.00 58.83           C
ATOM    995  CZ  PHE C 130      -3.399   6.019 -15.928  1.00 61.51           C
ATOM    996  N   SER C 131       2.287   2.118 -18.155  1.00 52.36           N
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ATOM    997  CA  SER C 131       3.081   1.255 -19.048  1.00 52.91           C
ATOM    998  C   SER C 131       2.298   1.001 -20.343  1.00 46.01           C
ATOM    999  O   SER C 131       1.081   1.177 -20.396  1.00 42.45           O
ATOM   1000  CB  SER C 131       3.368  -0.045 -18.356  1.00 51.41           C
ATOM   1001  OG  SER C 131       2.129  -0.625 -17.937  1.00 48.74           O
ATOM   1002  N   MET C 132       2.983   0.519 -21.373  1.00 50.15           N
ATOM   1003  CA  MET C 132       2.293   0.103 -22.600  1.00 56.58           C
ATOM   1004  C   MET C 132       1.372  -1.099 -22.333  1.00 63.23           C
ATOM   1005  O   MET C 132       0.259  -1.166 -22.901  1.00 60.05           O
ATOM   1006  CB  MET C 132       3.288  -0.250 -23.707  1.00 55.54           C
ATOM   1007  CG  MET C 132       3.910   0.985 -24.328  1.00 57.77           C
ATOM   1008  SD  MET C 132       2.717   2.343 -24.561  1.00 59.11           S
ATOM   1009  CE  MET C 132       3.705   3.703 -23.941  1.00 59.48           C
ATOM   1010  N   THR C 133       1.809  -2.027 -21.466  1.00 59.62           N
ATOM   1011  CA  THR C 133       0.997  -3.225 -21.205  1.00 61.21           C
ATOM   1012  C   THR C 133      -0.262  -2.779 -20.446  1.00 58.69           C
ATOM   1013  O   THR C 133      -1.346  -3.310 -20.686  1.00 66.51           O
ATOM   1014  CB  THR C 133       1.799  -4.386 -20.573  1.00 66.37           C
ATOM   1015  CG2 THR C 133       3.300  -4.295 -20.781  1.00 65.02           C
ATOM   1016  OG1 THR C 133       1.511  -4.492 -19.176  1.00 63.79           O
ATOM   1017  N   ASP C 134      -0.141  -1.775 -19.566  1.00 56.38           N
ATOM   1018  CA  ASP C 134      -1.320  -1.190 -18.925  1.00 56.21           C
ATOM   1019  C   ASP C 134      -2.301  -0.717 -20.016  1.00 55.58           C
ATOM   1020  O   ASP C 134      -3.484  -1.028 -19.950  1.00 56.10           O
ATOM   1021  CB  ASP C 134      -0.952  -0.090 -17.920  1.00 59.90           C
ATOM   1022  CG  ASP C 134      -0.473  -0.547 -16.540  1.00 64.08           C
ATOM   1023  OD1 ASP C 134      -0.840  -1.668 -16.106  1.00 57.81           O
ATOM   1024  OD2 ASP C 134       0.261   0.242 -15.883  1.00 63.78           O1-
ATOM   1025  N   PHE C 135      -1.805  -0.002 -21.038  1.00 57.16           N
ATOM   1026  CA  PHE C 135      -2.660   0.563 -22.114  1.00 57.24           C
ATOM   1027  C   PHE C 135      -3.283  -0.526 -23.012  1.00 58.23           C
ATOM   1028  O   PHE C 135      -4.494  -0.510 -23.201  1.00 52.86           O
ATOM   1029  CB  PHE C 135      -1.876   1.529 -23.007  1.00 60.66           C
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ATOM   1030  CG  PHE C 135      -1.689   2.923 -22.465  1.00 54.36           C
ATOM   1031  CD1 PHE C 135      -2.774   3.743 -22.220  1.00 54.10           C
ATOM   1032  CD2 PHE C 135      -0.414   3.430 -22.250  1.00 52.10           C
ATOM   1033  CE1 PHE C 135      -2.588   5.032 -21.738  1.00 49.59           C
ATOM   1034  CE2 PHE C 135      -0.234   4.711 -21.763  1.00 46.28           C
ATOM   1035  CZ  PHE C 135      -1.322   5.513 -21.521  1.00 47.77           C
ATOM   1036  N   LYS C 136      -2.464  -1.425 -23.596  1.00 59.89           N
ATOM   1037  CA  LYS C 136      -2.954  -2.589 -24.403  1.00 63.43           C
ATOM   1038  C   LYS C 136      -4.148  -3.287 -23.732  1.00 59.52           C
ATOM   1039  O   LYS C 136      -5.206  -3.441 -24.346  1.00 61.19           O
ATOM   1040  CB  LYS C 136      -1.897  -3.674 -24.630  1.00 65.65           C
ATOM   1041  CG  LYS C 136      -2.241  -4.628 -25.773  1.00 78.15           C
ATOM   1042  CD  LYS C 136      -1.867  -6.105 -25.584  1.00 86.67           C
ATOM   1043  CE  LYS C 136      -0.415  -6.448 -25.870  1.00 86.60           C
ATOM   1044  NZ  LYS C 136       0.118  -5.733 -27.055  1.00 84.59           N1+
ATOM   1045  N   LYS C 137      -3.960  -3.709 -22.480  1.00 56.58           N
ATOM   1046  CA  LYS C 137      -4.943  -4.506 -21.741  1.00 62.84           C
ATOM   1047  C   LYS C 137      -6.286  -3.771 -21.572  1.00 58.55           C
ATOM   1048  O   LYS C 137      -7.309  -4.416 -21.448  1.00 69.52           O
ATOM   1049  CB  LYS C 137      -4.367  -4.908 -20.379  1.00 62.84           C
ATOM   1050  CG  LYS C 137      -3.474  -6.143 -20.383  1.00 66.53           C
ATOM   1051  CD  LYS C 137      -3.126  -6.590 -18.969  1.00 76.05           C
ATOM   1052  CE  LYS C 137      -2.819  -8.066 -18.823  1.00 76.78           C
ATOM   1053  NZ  LYS C 137      -2.886  -8.479 -17.399  1.00 76.95           N1+
ATOM   1054  N   ALA C 138      -6.282  -2.433 -21.534  1.00 58.79           N
ATOM   1055  CA  ALA C 138      -7.493  -1.620 -21.345  1.00 56.09           C
ATOM   1056  C   ALA C 138      -8.225  -1.391 -22.683  1.00 56.00           C
ATOM   1057  O   ALA C 138      -9.494  -1.373 -22.742  1.00 48.43           O
ATOM   1058  CB  ALA C 138      -7.104  -0.319 -20.683  1.00 62.27           C
ATOM   1059  N   ILE C 139      -7.431  -1.188 -23.749  1.00 57.62           N
ATOM   1060  CA  ILE C 139      -7.915  -1.144 -25.156  1.00 64.99           C
ATOM   1061  C   ILE C 139      -8.578  -2.495 -25.496  1.00 59.55           C
ATOM   1062  O   ILE C 139      -9.718  -2.511 -25.946  1.00 49.49           O
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ATOM   1063  CB  ILE C 139      -6.771  -0.759 -26.138  1.00 64.30           C
ATOM   1064  CG1 ILE C 139      -6.322   0.693 -25.954  1.00 61.16           C
ATOM   1065  CG2 ILE C 139      -7.163  -1.003 -27.589  1.00 63.80           C
ATOM   1066  CD1 ILE C 139      -5.061   1.053 -26.706  1.00 62.61           C
ATOM   1067  N   GLU C 140      -7.840  -3.599 -25.293  1.00 61.13           N
ATOM   1068  CA  GLU C 140      -8.348  -5.004 -25.283  1.00 62.87           C
ATOM   1069  C   GLU C 140      -9.784  -5.085 -24.725  1.00 58.98           C
ATOM   1070  O   GLU C 140     -10.737  -5.463 -25.426  1.00 49.34           O
ATOM   1071  CB  GLU C 140      -7.440  -5.861 -24.393  1.00 70.96           C
ATOM   1072  CG  GLU C 140      -6.239  -6.481 -25.088  1.00 80.10           C
ATOM   1073  CD  GLU C 140      -6.393  -7.949 -25.447  1.00 87.90           C
ATOM   1074  OE1 GLU C 140      -7.527  -8.474 -25.344  1.00 97.08           O
ATOM   1075  OE2 GLU C 140      -5.384  -8.560 -25.840  1.00 93.87           O1-
ATOM   1076  N   GLN C 141      -9.928  -4.731 -23.442  1.00 54.23           N
ATOM   1077  CA  GLN C 141     -11.161  -4.904 -22.693  1.00 55.58           C
ATOM   1078  C   GLN C 141     -12.284  -4.071 -23.322  1.00 53.85           C
ATOM   1079  O   GLN C 141     -13.392  -4.553 -23.429  1.00 54.21           O
ATOM   1080  CB  GLN C 141     -10.974  -4.538 -21.215  1.00 57.66           C
ATOM   1081  CG  GLN C 141     -12.283  -4.553 -20.425  1.00 61.70           C
ATOM   1082  CD  GLN C 141     -12.141  -4.122 -18.983  1.00 66.16           C
ATOM   1083  NE2 GLN C 141     -13.281  -3.923 -18.334  1.00 61.80           N
ATOM   1084  OE1 GLN C 141     -11.037  -3.963 -18.450  1.00 61.49           O
ATOM   1085  N   HIS C 142     -11.989  -2.824 -23.727  1.00 59.07           N
ATOM   1086  CA  HIS C 142     -13.042  -1.811 -23.977  1.00 54.52           C
ATOM   1087  C   HIS C 142     -13.327  -1.628 -25.466  1.00 50.16           C
ATOM   1088  O   HIS C 142     -14.453  -1.250 -25.831  1.00 53.11           O
ATOM   1089  CB  HIS C 142     -12.684  -0.510 -23.260  1.00 57.51           C
ATOM   1090  CG  HIS C 142     -12.888  -0.627 -21.786  1.00 57.24           C
ATOM   1091  CD2 HIS C 142     -14.019  -0.737 -21.051  1.00 54.91           C
ATOM   1092  ND1 HIS C 142     -11.833  -0.714 -20.899  1.00 59.03           N
ATOM   1093  CE1 HIS C 142     -12.305  -0.834 -19.669  1.00 55.53           C
ATOM   1094  NE2 HIS C 142     -13.648  -0.847 -19.739  1.00 55.59           N
ATOM   1095  N   ARG C 143     -12.326  -1.934 -26.299  1.00 50.50           N
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ATOM   1096  CA  ARG C 143     -12.434  -1.894 -27.752  1.00 57.22           C
ATOM   1097  C   ARG C 143     -12.904  -0.496 -28.156  1.00 64.94           C
ATOM   1098  O   ARG C 143     -13.953  -0.339 -28.774  1.00 70.33           O
ATOM   1099  CB  ARG C 143     -13.362  -3.019 -28.243  1.00 60.11           C
ATOM   1100  CG  ARG C 143     -12.784  -4.431 -28.149  1.00 61.49           C
ATOM   1101  CD  ARG C 143     -11.304  -4.482 -28.510  1.00 61.21           C
ATOM   1102  NE  ARG C 143     -10.887  -5.616 -29.327  1.00 65.31           N
ATOM   1103  CZ  ARG C 143     -10.148  -6.625 -28.899  1.00 66.07           C
ATOM   1104  NH1 ARG C 143     -10.177  -6.978 -27.625  1.00 66.66           N1+
ATOM   1105  NH2 ARG C 143      -9.352  -7.254 -29.747  1.00 62.02           N
ATOM   1106  N   PRO C 144     -12.143   0.570 -27.812  1.00 65.96           N
ATOM   1107  CA  PRO C 144     -12.641   1.940 -27.907  1.00 61.54           C
ATOM   1108  C   PRO C 144     -12.359   2.621 -29.256  1.00 52.14           C
ATOM   1109  O   PRO C 144     -11.384   2.293 -29.939  1.00 44.34           O
ATOM   1110  CB  PRO C 144     -11.830   2.621 -26.790  1.00 65.65           C
ATOM   1111  CG  PRO C 144     -10.467   1.960 -26.878  1.00 66.39           C
ATOM   1112  CD  PRO C 144     -10.745   0.539 -27.342  1.00 69.66           C
ATOM   1113  N   LYS C 145     -13.203   3.602 -29.584  1.00 47.52           N
ATOM   1114  CA  LYS C 145     -13.096   4.350 -30.815  1.00 46.29           C
ATOM   1115  C   LYS C 145     -11.907   5.298 -30.710  1.00 47.37           C
ATOM   1116  O   LYS C 145     -11.037   5.342 -31.629  1.00 48.18           O
ATOM   1117  CB  LYS C 145     -14.380   5.121 -31.099  1.00 42.71           C
ATOM   1118  CG  LYS C 145     -14.461   5.708 -32.494  1.00 42.42           C
ATOM   1119  CD  LYS C 145     -15.691   6.564 -32.645  1.00 42.95           C
ATOM   1120  CE  LYS C 145     -15.799   7.218 -34.003  1.00 42.57           C
ATOM   1121  NZ  LYS C 145     -16.949   8.146 -33.979  1.00 46.80           N1+
ATOM   1122  N   CYS C 146     -11.839   5.991 -29.568  1.00 50.46           N
ATOM   1123  CA  CYS C 146     -10.686   6.855 -29.261  1.00 55.16           C
ATOM   1124  C   CYS C 146     -10.122   6.534 -27.872  1.00 50.25           C
ATOM   1125  O   CYS C 146     -10.884   6.173 -26.962  1.00 49.41           O
ATOM   1126  CB  CYS C 146     -11.068   8.330 -29.351  1.00 52.46           C
ATOM   1127  SG  CYS C 146     -11.867   8.797 -30.913  1.00 49.87           S
ATOM   1128  N   LEU C 147      -8.797   6.697 -27.737  1.00 48.94           N
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ATOM   1129  CA  LEU C 147      -8.073   6.748 -26.448  1.00 52.24           C
ATOM   1130  C   LEU C 147      -7.520   8.166 -26.240  1.00 57.45           C
ATOM   1131  O   LEU C 147      -6.867   8.689 -27.145  1.00 52.43           O
ATOM   1132  CB  LEU C 147      -6.909   5.754 -26.471  1.00 52.06           C
ATOM   1133  CG  LEU C 147      -5.852   5.968 -25.391  1.00 50.93           C
ATOM   1134  CD1 LEU C 147      -6.414   5.626 -24.029  1.00 53.32           C
ATOM   1135  CD2 LEU C 147      -4.612   5.140 -25.658  1.00 55.58           C
ATOM   1136  N   PHE C 148      -7.728   8.738 -25.038  1.00 61.42           N
ATOM   1137  CA  PHE C 148      -7.267  10.103 -24.689  1.00 57.89           C
ATOM   1138  C   PHE C 148      -6.180  10.048 -23.611  1.00 51.38           C
ATOM   1139  O   PHE C 148      -6.304   9.334 -22.653  1.00 58.97           O
ATOM   1140  CB  PHE C 148      -8.439  10.981 -24.249  1.00 60.46           C
ATOM   1141  CG  PHE C 148      -8.039  12.405 -23.962  1.00 64.32           C
ATOM   1142  CD1 PHE C 148      -7.911  13.322 -24.991  1.00 68.52           C
ATOM   1143  CD2 PHE C 148      -7.767  12.822 -22.671  1.00 67.79           C
ATOM   1144  CE1 PHE C 148      -7.528  14.629 -24.735  1.00 68.21           C
ATOM   1145  CE2 PHE C 148      -7.394  14.131 -22.415  1.00 73.47           C
ATOM   1146  CZ  PHE C 148      -7.274  15.033 -23.446  1.00 69.56           C
ATOM   1147  N   VAL C 149      -5.109  10.824 -23.799  1.00 56.75           N
ATOM   1148  CA  VAL C 149      -3.910  10.800 -22.943  1.00 53.52           C
ATOM   1149  C   VAL C 149      -3.398  12.236 -22.722  1.00 55.83           C
ATOM   1150  O   VAL C 149      -3.118  12.946 -23.684  1.00 57.63           O
ATOM   1151  CB  VAL C 149      -2.801   9.942 -23.578  1.00 55.71           C
ATOM   1152  CG1 VAL C 149      -1.550   9.905 -22.721  1.00 57.64           C
ATOM   1153  CG2 VAL C 149      -3.269   8.527 -23.864  1.00 66.22           C
ATOM   1154  N   VAL C 150      -3.229  12.632 -21.452  1.00 50.75           N
ATOM   1155  CA  VAL C 150      -2.430  13.794 -21.074  1.00 48.97           C
ATOM   1156  C   VAL C 150      -0.935  13.449 -21.240  1.00 43.97           C
ATOM   1157  O   VAL C 150      -0.527  12.470 -20.726  1.00 44.91           O
ATOM   1158  CB  VAL C 150      -2.757  14.223 -19.628  1.00 46.08           C
ATOM   1159  CG1 VAL C 150      -1.828  15.321 -19.135  1.00 49.11           C
ATOM   1160  CG2 VAL C 150      -4.195  14.674 -19.485  1.00 44.89           C
ATOM   1161  N   HIS C 151      -0.149  14.272 -21.957  1.00 43.65           N
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ATOM   1162  CA  HIS C 151       1.291  14.016 -22.190  1.00 46.19           C
ATOM   1163  C   HIS C 151       2.085  14.583 -21.021  1.00 48.59           C
ATOM   1164  O   HIS C 151       2.774  13.851 -20.329  1.00 51.33           O
ATOM   1165  CB  HIS C 151       1.819  14.600 -23.522  1.00 43.58           C
ATOM   1166  CG  HIS C 151       3.246  14.265 -23.845  1.00 44.11           C
ATOM   1167  CD2 HIS C 151       4.055  13.255 -23.440  1.00 46.99           C
ATOM   1168  ND1 HIS C 151       4.015  15.018 -24.720  1.00 49.26           N
ATOM   1169  CE1 HIS C 151       5.227  14.484 -24.832  1.00 45.02           C
ATOM   1170  NE2 HIS C 151       5.281  13.410 -24.049  1.00 43.28           N
ATOM   1171  N   GLY C 152       1.984  15.904 -20.841  1.00 46.69           N
ATOM   1172  CA  GLY C 152       2.614  16.589 -19.746  1.00 40.56           C
ATOM   1173  C   GLY C 152       1.548  17.079 -18.804  1.00 39.83           C
ATOM   1174  O   GLY C 152       0.697  17.871 -19.208  1.00 43.18           O
ATOM   1175  N   ASP C 153       1.564  16.581 -17.563  1.00 42.34           N
ATOM   1176  CA  ASP C 153       0.488  16.882 -16.592  1.00 45.03           C
ATOM   1177  C   ASP C 153       0.945  18.026 -15.680  1.00 43.06           C
ATOM   1178  O   ASP C 153       1.904  17.898 -14.930  1.00 45.52           O
ATOM   1179  CB  ASP C 153       0.093  15.627 -15.819  1.00 41.90           C
ATOM   1180  CG  ASP C 153      -1.182  15.758 -15.021  1.00 43.85           C
ATOM   1181  OD1 ASP C 153      -1.454  16.862 -14.532  1.00 50.99           O
ATOM   1182  OD2 ASP C 153      -1.896  14.744 -14.895  1.00 54.15           O1-
ATOM   1183  N   SER C 154       0.248  19.155 -15.765  1.00 45.26           N
ATOM   1184  CA  SER C 154       0.678  20.377 -15.086  1.00 44.91           C
ATOM   1185  C   SER C 154       0.147  20.415 -13.649  1.00 43.91           C
ATOM   1186  O   SER C 154       0.420  21.371 -12.909  1.00 45.38           O
ATOM   1187  CB  SER C 154       0.277  21.615 -15.882  1.00 46.35           C
ATOM   1188  OG  SER C 154      -1.116  21.657 -16.196  1.00 37.62           O
ATOM   1189  N   SER C 155      -0.623  19.397 -13.258  1.00 43.28           N
ATOM   1190  CA  SER C 155      -1.131  19.330 -11.877  1.00 47.62           C
ATOM   1191  C   SER C 155      -0.214  18.454 -11.013  1.00 44.75           C
ATOM   1192  O   SER C 155      -0.334  18.519  -9.811  1.00 41.50           O
ATOM   1193  CB  SER C 155      -2.566  18.854 -11.811  1.00 45.06           C
ATOM   1194  OG  SER C 155      -2.685  17.578 -12.394  1.00 45.86           O
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ATOM   1195  N   SER C 156       0.707  17.706 -11.649  1.00 41.89           N
ATOM   1196  CA  SER C 156       1.441  16.604 -11.034  1.00 40.66           C
ATOM   1197  C   SER C 156       2.955  16.627 -11.328  1.00 43.86           C
ATOM   1198  O   SER C 156       3.730  16.106 -10.539  1.00 42.81           O
ATOM   1199  CB  SER C 156       0.820  15.305 -11.476  1.00 39.50           C
ATOM   1200  OG  SER C 156       1.184  14.967 -12.810  1.00 38.71           O
ATOM   1201  N   GLY C 157       3.380  17.165 -12.482  1.00 45.22           N
ATOM   1202  CA  GLY C 157       4.791  17.209 -12.868  1.00 42.55           C
ATOM   1203  C   GLY C 157       5.251  15.958 -13.595  1.00 43.58           C
ATOM   1204  O   GLY C 157       6.467  15.758 -13.777  1.00 43.72           O
ATOM   1205  N   LEU C 158       4.277  15.175 -14.088  1.00 44.83           N
ATOM   1206  CA  LEU C 158       4.468  13.835 -14.685  1.00 47.89           C
ATOM   1207  C   LEU C 158       4.418  13.883 -16.220  1.00 50.43           C
ATOM   1208  O   LEU C 158       3.412  14.328 -16.786  1.00 45.87           O
ATOM   1209  CB  LEU C 158       3.348  12.910 -14.188  1.00 48.69           C
ATOM   1210  CG  LEU C 158       3.423  11.460 -14.670  1.00 47.65           C
ATOM   1211  CD1 LEU C 158       4.428  10.673 -13.851  1.00 48.19           C
ATOM   1212  CD2 LEU C 158       2.055  10.789 -14.623  1.00 51.81           C
ATOM   1213  N   LEU C 159       5.457  13.316 -16.859  1.00 48.89           N
ATOM   1214  CA  LEU C 159       5.533  13.144 -18.312  1.00 48.78           C
ATOM   1215  C   LEU C 159       5.340  11.666 -18.689  1.00 50.87           C
ATOM   1216  O   LEU C 159       6.229  10.809 -18.493  1.00 56.03           O
ATOM   1217  CB  LEU C 159       6.898  13.639 -18.787  1.00 45.77           C
ATOM   1218  CG  LEU C 159       7.129  13.551 -20.290  1.00 46.47           C
ATOM   1219  CD1 LEU C 159       6.305  14.603 -21.022  1.00 48.19           C
ATOM   1220  CD2 LEU C 159       8.611  13.700 -20.628  1.00 43.59           C
ATOM   1221  N   GLN C 160       4.192  11.393 -19.295  1.00 46.93           N
ATOM   1222  CA  GLN C 160       3.797  10.080 -19.799  1.00 48.28           C
ATOM   1223  C   GLN C 160       4.579   9.718 -21.066  1.00 44.54           C
ATOM   1224  O   GLN C 160       4.457  10.448 -22.037  1.00 46.52           O
ATOM   1225  CB  GLN C 160       2.296  10.137 -20.095  1.00 46.83           C
ATOM   1226  CG  GLN C 160       1.753   8.896 -20.772  1.00 50.82           C
ATOM   1227  CD  GLN C 160       2.021   7.668 -19.941  1.00 50.19           C
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ATOM   1228  NE2 GLN C 160       2.922   6.835 -20.441  1.00 42.94           N
ATOM   1229  OE1 GLN C 160       1.431   7.477 -18.873  1.00 49.87           O
ATOM   1230  N   PRO C 161       5.362   8.597 -21.133  1.00 45.15           N
ATOM   1231  CA  PRO C 161       5.918   8.097 -22.400  1.00 47.57           C
ATOM   1232  C   PRO C 161       4.839   7.637 -23.389  1.00 45.49           C
ATOM   1233  O   PRO C 161       3.863   7.054 -22.976  1.00 47.69           O
ATOM   1234  CB  PRO C 161       6.791   6.882 -22.020  1.00 44.72           C
ATOM   1235  CG  PRO C 161       7.072   7.097 -20.553  1.00 44.76           C
ATOM   1236  CD  PRO C 161       5.814   7.763 -20.010  1.00 41.71           C
ATOM   1237  N   LEU C 162       5.052   7.932 -24.677  1.00 52.67           N
ATOM   1238  CA  LEU C 162       4.094   7.705 -25.773  1.00 50.61           C
ATOM   1239  C   LEU C 162       4.640   6.726 -26.827  1.00 51.31           C
ATOM   1240  O   LEU C 162       3.868   6.266 -27.659  1.00 56.37           O
ATOM   1241  CB  LEU C 162       3.786   9.056 -26.430  1.00 51.25           C
ATOM   1242  CG  LEU C 162       3.133  10.103 -25.529  1.00 55.98           C
ATOM   1243  CD1 LEU C 162       3.142  11.466 -26.207  1.00 59.71           C
ATOM   1244  CD2 LEU C 162       1.708   9.709 -25.144  1.00 56.44           C
ATOM   1245  N   GLU C 163       5.946   6.420 -26.829  1.00 49.99           N
ATOM   1246  CA  GLU C 163       6.514   5.597 -27.896  1.00 55.86           C
ATOM   1247  C   GLU C 163       5.794   4.243 -27.883  1.00 58.30           C
ATOM   1248  O   GLU C 163       5.713   3.597 -26.820  1.00 55.46           O
ATOM   1249  CB  GLU C 163       8.026   5.400 -27.752  1.00 64.43           C
ATOM   1250  CG  GLU C 163       8.856   6.572 -28.240  1.00 69.42           C
ATOM   1251  CD  GLU C 163      10.086   6.153 -29.023  1.00 75.30           C
ATOM   1252  OE1 GLU C 163       9.995   6.114 -30.262  1.00 82.89           O
ATOM   1253  OE2 GLU C 163      11.121   5.846 -28.392  1.00 77.71           O1-
ATOM   1254  N   GLY C 164       5.239   3.875 -29.052  1.00 56.33           N
ATOM   1255  CA  GLY C 164       4.560   2.626 -29.287  1.00 51.12           C
ATOM   1256  C   GLY C 164       3.047   2.734 -29.221  1.00 50.29           C
ATOM   1257  O   GLY C 164       2.372   2.127 -30.013  1.00 63.64           O
ATOM   1258  N   LEU C 165       2.516   3.501 -28.263  1.00 52.59           N
ATOM   1259  CA  LEU C 165       1.066   3.581 -27.972  1.00 47.74           C
ATOM   1260  C   LEU C 165       0.220   3.845 -29.226  1.00 47.35           C
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ATOM   1261  O   LEU C 165      -0.948   3.488 -29.237  1.00 46.08           O
ATOM   1262  CB  LEU C 165       0.841   4.680 -26.931  1.00 46.38           C
ATOM   1263  CG  LEU C 165      -0.611   4.974 -26.551  1.00 47.82           C
ATOM   1264  CD1 LEU C 165      -1.353   3.744 -26.045  1.00 46.92           C
ATOM   1265  CD2 LEU C 165      -0.649   6.064 -25.510  1.00 49.66           C
ATOM   1266  N   GLY C 166       0.787   4.506 -30.243  1.00 51.89           N
ATOM   1267  CA  GLY C 166       0.098   4.762 -31.504  1.00 56.77           C
ATOM   1268  C   GLY C 166      -0.098   3.498 -32.328  1.00 59.18           C
ATOM   1269  O   GLY C 166      -1.195   3.227 -32.833  1.00 59.10           O
ATOM   1270  N   LYS C 167       0.988   2.741 -32.494  1.00 66.57           N
ATOM   1271  CA  LYS C 167       0.952   1.427 -33.143  1.00 67.31           C
ATOM   1272  C   LYS C 167      -0.107   0.551 -32.461  1.00 61.23           C
ATOM   1273  O   LYS C 167      -0.941  -0.022 -33.129  1.00 63.00           O
ATOM   1274  CB  LYS C 167       2.331   0.762 -33.079  1.00 68.23           C
ATOM   1275  CG  LYS C 167       2.583  -0.345 -34.093  1.00 66.08           C
ATOM   1276  CD  LYS C 167       4.058  -0.718 -34.232  1.00 67.08           C
ATOM   1277  CE  LYS C 167       4.878   0.244 -35.079  1.00 70.04           C
ATOM   1278  NZ  LYS C 167       4.283   0.460 -36.423  1.00 69.63           N1+
ATOM   1279  N   ILE C 168      -0.064   0.469 -31.128  1.00 54.92           N
ATOM   1280  CA  ILE C 168      -0.951  -0.418 -30.363  1.00 59.09           C
ATOM   1281  C   ILE C 168      -2.403   0.016 -30.592  1.00 63.61           C
ATOM   1282  O   ILE C 168      -3.286  -0.822 -30.726  1.00 68.77           O
ATOM   1283  CB  ILE C 168      -0.575  -0.456 -28.860  1.00 52.95           C
ATOM   1284  CG1 ILE C 168       0.654  -1.337 -28.615  1.00 49.78           C
ATOM   1285  CG2 ILE C 168      -1.749  -0.890 -27.985  1.00 54.21           C
ATOM   1286  CD1 ILE C 168       1.401  -1.031 -27.343  1.00 50.25           C
ATOM   1287  N   CYS C 169      -2.631   1.331 -30.631  1.00 66.32           N
ATOM   1288  CA  CYS C 169      -3.959   1.892 -30.857  1.00 62.70           C
ATOM   1289  C   CYS C 169      -4.493   1.486 -32.243  1.00 57.55           C
ATOM   1290  O   CYS C 169      -5.646   1.052 -32.384  1.00 46.52           O
ATOM   1291  CB  CYS C 169      -3.920   3.407 -30.691  1.00 63.16           C
ATOM   1292  SG  CYS C 169      -4.071   3.917 -28.959  1.00 58.51           S
ATOM   1293  N   HIS C 170      -3.651   1.642 -33.267  1.00 56.28           N
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ATOM   1294  CA  HIS C 170      -4.026   1.321 -34.659  1.00 61.50           C
ATOM   1295  C   HIS C 170      -4.213  -0.195 -34.837  1.00 62.67           C
ATOM   1296  O   HIS C 170      -5.113  -0.628 -35.585  1.00 57.16           O
ATOM   1297  CB  HIS C 170      -3.009   1.915 -35.641  1.00 57.68           C
ATOM   1298  CG  HIS C 170      -2.942   3.403 -35.575  1.00 64.34           C
ATOM   1299  CD2 HIS C 170      -3.855   4.311 -35.169  1.00 63.39           C
ATOM   1300  ND1 HIS C 170      -1.818   4.122 -35.950  1.00 64.80           N
ATOM   1301  CE1 HIS C 170      -2.054   5.405 -35.788  1.00 63.27           C
ATOM   1302  NE2 HIS C 170      -3.292   5.546 -35.304  1.00 59.99           N
ATOM   1303  N   ASP C 171      -3.390  -0.995 -34.138  1.00 57.28           N
ATOM   1304  CA  ASP C 171      -3.567  -2.459 -34.098  1.00 54.80           C
ATOM   1305  C   ASP C 171      -5.029  -2.762 -33.697  1.00 53.48           C
ATOM   1306  O   ASP C 171      -5.691  -3.555 -34.377  1.00 57.59           O
ATOM   1307  CB  ASP C 171      -2.502  -3.141 -33.222  1.00 51.69           C
ATOM   1308  CG  ASP C 171      -1.083  -3.224 -33.798  1.00 52.01           C
ATOM   1309  OD1 ASP C 171      -0.901  -2.996 -35.007  1.00 54.81           O
ATOM   1310  OD2 ASP C 171      -0.141  -3.490 -33.014  1.00 54.84           O1-
ATOM   1311  N   TYR C 172      -5.564  -2.069 -32.674  1.00 51.77           N
ATOM   1312  CA  TYR C 172      -6.960  -2.301 -32.161  1.00 51.21           C
ATOM   1313  C   TYR C 172      -7.997  -1.345 -32.791  1.00 50.56           C
ATOM   1314  O   TYR C 172      -9.103  -1.186 -32.246  1.00 39.92           O
ATOM   1315  CB  TYR C 172      -6.966  -2.256 -30.628  1.00 53.18           C
ATOM   1316  CG  TYR C 172      -6.313  -3.454 -29.977  1.00 56.95           C
ATOM   1317  CD1 TYR C 172      -4.940  -3.498 -29.745  1.00 55.76           C
ATOM   1318  CD2 TYR C 172      -7.063  -4.570 -29.625  1.00 56.05           C
ATOM   1319  CE1 TYR C 172      -4.333  -4.619 -29.199  1.00 59.22           C
ATOM   1320  CE2 TYR C 172      -6.474  -5.696 -29.069  1.00 58.71           C
ATOM   1321  CZ  TYR C 172      -5.103  -5.727 -28.859  1.00 64.60           C
ATOM   1322  OH  TYR C 172      -4.528  -6.832 -28.290  1.00 59.06           O
ATOM   1323  N   ASP C 173      -7.676  -0.758 -33.962  1.00 56.55           N
ATOM   1324  CA  ASP C 173      -8.590   0.151 -34.724  1.00 61.52           C
ATOM   1325  C   ASP C 173      -8.988   1.389 -33.899  1.00 59.42           C
ATOM   1326  O   ASP C 173     -10.126   1.791 -33.893  1.00 55.39           O
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ATOM   1327  CB  ASP C 173      -9.861  -0.584 -35.163  1.00 63.52           C
ATOM   1328  CG  ASP C 173      -9.798  -1.194 -36.551  1.00 67.76           C
ATOM   1329  OD1 ASP C 173      -8.676  -1.346 -37.097  1.00 65.90           O
ATOM   1330  OD2 ASP C 173     -10.883  -1.527 -37.072  1.00 75.76           O1-
ATOM   1331  N   CYS C 174      -8.029   2.015 -33.221  1.00 64.67           N
ATOM   1332  CA  CYS C 174      -8.345   3.040 -32.212  1.00 61.78           C
ATOM   1333  C   CYS C 174      -7.623   4.340 -32.576  1.00 54.33           C
ATOM   1334  O   CYS C 174      -6.480   4.276 -33.063  1.00 46.48           O
ATOM   1335  CB  CYS C 174      -7.940   2.559 -30.822  1.00 59.71           C
ATOM   1336  SG  CYS C 174      -8.367   3.714 -29.496  1.00 56.91           S
ATOM   1337  N   LEU C 175      -8.298   5.493 -32.376  1.00 48.97           N
ATOM   1338  CA  LEU C 175      -7.663   6.834 -32.616  1.00 47.46           C
ATOM   1339  C   LEU C 175      -6.930   7.255 -31.343  1.00 46.39           C
ATOM   1340  O   LEU C 175      -7.517   7.110 -30.214  1.00 45.26           O
ATOM   1341  CB  LEU C 175      -8.722   7.873 -33.009  1.00 47.23           C
ATOM   1342  CG  LEU C 175      -9.361   7.713 -34.395  1.00 48.86           C
ATOM   1343  CD1 LEU C 175     -10.282   8.881 -34.688  1.00 53.72           C
ATOM   1344  CD2 LEU C 175      -8.327   7.582 -35.508  1.00 46.54           C
ATOM   1345  N   LEU C 176      -5.675   7.728 -31.497  1.00 39.87           N
ATOM   1346  CA  LEU C 176      -4.866   8.207 -30.323  1.00 43.62           C
ATOM   1347  C   LEU C 176      -4.872   9.746 -30.246  1.00 46.85           C
ATOM   1348  O   LEU C 176      -4.479  10.433 -31.211  1.00 46.39           O
ATOM   1349  CB  LEU C 176      -3.438   7.668 -30.426  1.00 43.59           C
ATOM   1350  CG  LEU C 176      -2.434   8.250 -29.427  1.00 43.54           C
ATOM   1351  CD1 LEU C 176      -2.860   7.976 -27.992  1.00 44.04           C
ATOM   1352  CD2 LEU C 176      -1.030   7.714 -29.683  1.00 40.68           C
ATOM   1353  N   LEU C 177      -5.291  10.259 -29.083  1.00 45.60           N
ATOM   1354  CA  LEU C 177      -5.483  11.694 -28.782  1.00 45.22           C
ATOM   1355  C   LEU C 177      -4.579  12.121 -27.618  1.00 48.05           C
ATOM   1356  O   LEU C 177      -4.575  11.466 -26.563  1.00 45.67           O
ATOM   1357  CB  LEU C 177      -6.945  11.900 -28.399  1.00 42.31           C
ATOM   1358  CG  LEU C 177      -7.947  11.393 -29.439  1.00 45.34           C
ATOM   1359  CD1 LEU C 177      -9.388  11.780 -29.070  1.00 39.03           C
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ATOM   1360  CD2 LEU C 177      -7.573  11.899 -30.830  1.00 46.44           C
ATOM   1361  N   VAL C 178      -3.852  13.234 -27.795  1.00 43.64           N
ATOM   1362  CA  VAL C 178      -2.853  13.653 -26.816  1.00 44.58           C
ATOM   1363  C   VAL C 178      -3.054  15.136 -26.444  1.00 47.08           C
ATOM   1364  O   VAL C 178      -3.040  16.031 -27.306  1.00 44.06           O
ATOM   1365  CB  VAL C 178      -1.424  13.403 -27.341  1.00 46.11           C
ATOM   1366  CG1 VAL C 178      -0.366  13.836 -26.335  1.00 46.02           C
ATOM   1367  CG2 VAL C 178      -1.197  11.959 -27.770  1.00 47.03           C
ATOM   1368  N   ASP C 179      -3.211  15.394 -25.138  1.00 49.56           N
ATOM   1369  CA  ASP C 179      -3.058  16.730 -24.568  1.00 45.61           C
ATOM   1370  C   ASP C 179      -1.564  16.998 -24.454  1.00 45.55           C
ATOM   1371  O   ASP C 179      -0.834  16.208 -23.847  1.00 46.58           O
ATOM   1372  CB  ASP C 179      -3.702  16.892 -23.192  1.00 42.56           C
ATOM   1373  CG  ASP C 179      -3.471  18.276 -22.604  1.00 44.29           C
ATOM   1374  OD1 ASP C 179      -2.298  18.694 -22.560  1.00 40.94           O
ATOM   1375  OD2 ASP C 179      -4.468  18.937 -22.217  1.00 44.47           O1-
ATOM   1376  N   ALA C 180      -1.119  18.078 -25.097  1.00 42.86           N
ATOM   1377  CA  ALA C 180       0.298  18.372 -25.145  1.00 41.29           C
ATOM   1378  C   ALA C 180       0.534  19.857 -24.808  1.00 38.91           C
ATOM   1379  O   ALA C 180       1.598  20.404 -25.118  1.00 38.99           O
ATOM   1380  CB  ALA C 180       0.864  17.958 -26.482  1.00 36.65           C
ATOM   1381  N   VAL C 181      -0.408  20.438 -24.057  1.00 34.77           N
ATOM   1382  CA  VAL C 181      -0.403  21.834 -23.666  1.00 40.46           C
ATOM   1383  C   VAL C 181       0.905  22.167 -22.932  1.00 42.65           C
ATOM   1384  O   VAL C 181       1.627  23.101 -23.344  1.00 50.53           O
ATOM   1385  CB  VAL C 181      -1.631  22.165 -22.798  1.00 42.15           C
ATOM   1386  CG1 VAL C 181      -1.499  23.528 -22.144  1.00 43.91           C
ATOM   1387  CG2 VAL C 181      -2.932  22.070 -23.575  1.00 38.24           C
ATOM   1388  N   ALA C 182       1.219  21.377 -21.893  1.00 43.41           N
ATOM   1389  CA  ALA C 182       2.365  21.620 -21.012  1.00 43.04           C
ATOM   1390  C   ALA C 182       3.673  20.999 -21.548  1.00 43.38           C
ATOM   1391  O   ALA C 182       4.783  21.426 -21.111  1.00 44.46           O
ATOM   1392  CB  ALA C 182       2.049  21.129 -19.620  1.00 43.10           C
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ATOM   1393  N   SER C 183       3.584  20.049 -22.494  1.00 42.41           N
ATOM   1394  CA  SER C 183       4.794  19.291 -22.975  1.00 44.77           C
ATOM   1395  C   SER C 183       5.443  19.919 -24.226  1.00 40.47           C
ATOM   1396  O   SER C 183       6.679  19.949 -24.347  1.00 41.88           O
ATOM   1397  CB  SER C 183       4.493  17.813 -23.186  1.00 47.01           C
ATOM   1398  OG  SER C 183       3.461  17.604 -24.142  1.00 50.96           O
ATOM   1399  N   LEU C 184       4.653  20.402 -25.184  1.00 38.46           N
ATOM   1400  CA  LEU C 184       5.258  20.760 -26.467  1.00 40.82           C
ATOM   1401  C   LEU C 184       6.272  21.896 -26.286  1.00 43.22           C
ATOM   1402  O   LEU C 184       5.948  22.915 -25.659  1.00 51.10           O
ATOM   1403  CB  LEU C 184       4.186  21.179 -27.461  1.00 39.75           C
ATOM   1404  CG  LEU C 184       4.604  21.004 -28.909  1.00 40.71           C
ATOM   1405  CD1 LEU C 184       4.624  19.536 -29.250  1.00 43.67           C
ATOM   1406  CD2 LEU C 184       3.661  21.742 -29.844  1.00 43.72           C
ATOM   1407  N   CYS C 185       7.465  21.685 -26.862  1.00 41.47           N
ATOM   1408  CA  CYS C 185       8.629  22.588 -26.935  1.00 43.38           C
ATOM   1409  C   CYS C 185       9.458  22.530 -25.646  1.00 43.30           C
ATOM   1410  O   CYS C 185      10.441  23.265 -25.495  1.00 49.60           O
ATOM   1411  CB  CYS C 185       8.254  24.030 -27.263  1.00 46.86           C
ATOM   1412  SG  CYS C 185       7.440  24.227 -28.870  1.00 48.84           S
ATOM   1413  N   GLY C 186       9.068  21.647 -24.720  1.00 49.12           N
ATOM   1414  CA  GLY C 186       9.864  21.343 -23.524  1.00 49.56           C
ATOM   1415  C   GLY C 186      10.584  20.002 -23.629  1.00 48.13           C
ATOM   1416  O   GLY C 186      11.650  19.821 -23.017  1.00 43.21           O
ATOM   1417  N   VAL C 187       9.979  19.069 -24.384  1.00 47.60           N
ATOM   1418  CA  VAL C 187      10.476  17.719 -24.588  1.00 45.87           C
ATOM   1419  C   VAL C 187      10.356  17.345 -26.058  1.00 46.27           C
ATOM   1420  O   VAL C 187       9.558  17.905 -26.801  1.00 43.71           O
ATOM   1421  CB  VAL C 187       9.700  16.709 -23.727  1.00 49.31           C
ATOM   1422  CG1 VAL C 187       9.862  17.010 -22.245  1.00 53.73           C
ATOM   1423  CG2 VAL C 187       8.230  16.640 -24.099  1.00 47.77           C
ATOM   1424  N   PRO C 188      11.123  16.332 -26.515  1.00 50.90           N
ATOM   1425  CA  PRO C 188      10.905  15.768 -27.842  1.00 45.82           C
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ATOM   1426  C   PRO C 188       9.422  15.440 -28.040  1.00 44.58           C
ATOM   1427  O   PRO C 188       8.770  15.000 -27.113  1.00 46.53           O
ATOM   1428  CB  PRO C 188      11.780  14.515 -27.815  1.00 45.18           C
ATOM   1429  CG  PRO C 188      12.921  14.905 -26.900  1.00 44.14           C
ATOM   1430  CD  PRO C 188      12.231  15.673 -25.791  1.00 45.23           C
ATOM   1431  N   PHE C 189       8.906  15.736 -29.235  1.00 48.76           N
ATOM   1432  CA  PHE C 189       7.585  15.291 -29.676  1.00 47.88           C
ATOM   1433  C   PHE C 189       7.586  15.082 -31.189  1.00 51.62           C
ATOM   1434  O   PHE C 189       8.162  15.886 -31.936  1.00 51.57           O
ATOM   1435  CB  PHE C 189       6.540  16.325 -29.303  1.00 42.26           C
ATOM   1436  CG  PHE C 189       5.121  15.885 -29.500  1.00 41.28           C
ATOM   1437  CD1 PHE C 189       4.487  16.080 -30.712  1.00 40.37           C
ATOM   1438  CD2 PHE C 189       4.389  15.371 -28.441  1.00 42.55           C
ATOM   1439  CE1 PHE C 189       3.151  15.756 -30.860  1.00 39.44           C
ATOM   1440  CE2 PHE C 189       3.056  15.024 -28.593  1.00 38.99           C
ATOM   1441  CZ  PHE C 189       2.443  15.214 -29.803  1.00 40.45           C
ATOM   1442  N   TYR C 190       6.967  13.979 -31.618  1.00 53.02           N
ATOM   1443  CA  TYR C 190       6.974  13.542 -33.016  1.00 50.02           C
ATOM   1444  C   TYR C 190       5.563  13.063 -33.374  1.00 48.74           C
ATOM   1445  O   TYR C 190       5.277  11.879 -33.316  1.00 55.15           O
ATOM   1446  CB  TYR C 190       8.011  12.436 -33.256  1.00 47.32           C
ATOM   1447  CG  TYR C 190       9.444  12.742 -32.878  1.00 44.13           C
ATOM   1448  CD1 TYR C 190       9.882  12.603 -31.565  1.00 44.34           C
ATOM   1449  CD2 TYR C 190      10.382  13.113 -33.831  1.00 40.46           C
ATOM   1450  CE1 TYR C 190      11.197  12.869 -31.206  1.00 45.11           C
ATOM   1451  CE2 TYR C 190      11.703  13.379 -33.492  1.00 43.61           C
ATOM   1452  CZ  TYR C 190      12.117  13.245 -32.173  1.00 45.93           C
ATOM   1453  OH  TYR C 190      13.417  13.473 -31.814  1.00 44.87           O
ATOM   1454  N   MET C 191       4.673  13.992 -33.730  1.00 44.03           N
ATOM   1455  CA  MET C 191       3.281  13.626 -33.898  1.00 45.10           C
ATOM   1456  C   MET C 191       3.147  12.444 -34.866  1.00 44.35           C
ATOM   1457  O   MET C 191       2.465  11.475 -34.550  1.00 44.48           O
ATOM   1458  CB  MET C 191       2.407  14.769 -34.411  1.00 43.22           C
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ATOM   1459  CG  MET C 191       0.919  14.470 -34.293  1.00 42.32           C
ATOM   1460  SD  MET C 191      -0.012  15.592 -35.339  1.00 42.01           S
ATOM   1461  CE  MET C 191      -1.707  15.127 -34.977  1.00 37.45           C
ATOM   1462  N   ASP C 192       3.803  12.533 -36.022  1.00 49.71           N
ATOM   1463  CA  ASP C 192       3.613  11.559 -37.121  1.00 48.52           C
ATOM   1464  C   ASP C 192       4.238  10.206 -36.742  1.00 44.08           C
ATOM   1465  O   ASP C 192       3.521   9.211 -36.697  1.00 42.42           O
ATOM   1466  CB  ASP C 192       4.073  12.161 -38.450  1.00 46.38           C
ATOM   1467  CG  ASP C 192       2.982  13.015 -39.097  1.00 50.48           C
ATOM   1468  OD1 ASP C 192       1.859  13.107 -38.520  1.00 48.38           O
ATOM   1469  OD2 ASP C 192       3.242  13.566 -40.180  1.00 51.77           O1-
ATOM   1470  N   LYS C 193       5.525  10.211 -36.382  1.00 43.39           N
ATOM   1471  CA  LYS C 193       6.305   9.016 -36.052  1.00 44.65           C
ATOM   1472  C   LYS C 193       5.795   8.330 -34.777  1.00 45.32           C
ATOM   1473  O   LYS C 193       5.993   7.141 -34.649  1.00 44.47           O
ATOM   1474  CB  LYS C 193       7.795   9.360 -35.954  1.00 47.06           C
ATOM   1475  CG  LYS C 193       8.371   9.898 -37.262  1.00 51.80           C
ATOM   1476  CD  LYS C 193       9.861   9.790 -37.400  1.00 53.65           C
ATOM   1477  CE  LYS C 193      10.349  10.364 -38.711  1.00 61.54           C
ATOM   1478  NZ  LYS C 193      11.599  11.149 -38.537  1.00 66.96           N1+
ATOM   1479  N   TRP C 194       5.090   9.043 -33.885  1.00 44.33           N
ATOM   1480  CA  TRP C 194       4.408   8.390 -32.757  1.00 44.02           C
ATOM   1481  C   TRP C 194       2.945   8.066 -33.100  1.00 47.14           C
ATOM   1482  O   TRP C 194       2.112   7.829 -32.212  1.00 44.36           O
ATOM   1483  CB  TRP C 194       4.517   9.230 -31.491  1.00 43.64           C
ATOM   1484  CG  TRP C 194       5.919   9.405 -30.990  1.00 47.39           C
ATOM   1485  CD1 TRP C 194       7.041   8.750 -31.406  1.00 49.03           C
ATOM   1486  CD2 TRP C 194       6.347  10.309 -29.952  1.00 49.45           C
ATOM   1487  CE2 TRP C 194       7.744  10.139 -29.803  1.00 52.45           C
ATOM   1488  CE3 TRP C 194       5.694  11.252 -29.148  1.00 49.00           C
ATOM   1489  NE1 TRP C 194       8.140   9.187 -30.708  1.00 53.43           N
ATOM   1490  CZ2 TRP C 194       8.487  10.867 -28.872  1.00 48.95           C
ATOM   1491  CZ3 TRP C 194       6.433  11.981 -28.235  1.00 50.75           C
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ATOM   1492  CH2 TRP C 194       7.814  11.800 -28.110  1.00 47.48           C
ATOM   1493  N   GLU C 195       2.641   8.006 -34.400  1.00 50.64           N
ATOM   1494  CA  GLU C 195       1.323   7.643 -34.906  1.00 50.76           C
ATOM   1495  C   GLU C 195       0.237   8.204 -33.985  1.00 46.71           C
ATOM   1496  O   GLU C 195      -0.536   7.457 -33.401  1.00 52.92           O
ATOM   1497  CB  GLU C 195       1.253   6.120 -35.040  1.00 53.95           C
ATOM   1498  CG  GLU C 195       2.130   5.557 -36.154  1.00 54.74           C
ATOM   1499  CD  GLU C 195       2.061   4.040 -36.271  1.00 61.14           C
ATOM   1500  OE1 GLU C 195       0.936   3.521 -36.434  1.00 58.70           O
ATOM   1501  OE2 GLU C 195       3.123   3.374 -36.167  1.00 64.15           O1-
ATOM   1502  N   ILE C 196       0.198   9.536 -33.873  1.00 45.21           N
ATOM   1503  CA  ILE C 196      -0.810  10.250 -33.108  1.00 46.97           C
ATOM   1504  C   ILE C 196      -1.822  10.829 -34.110  1.00 49.12           C
ATOM   1505  O   ILE C 196      -1.399  11.304 -35.187  1.00 44.40           O
ATOM   1506  CB  ILE C 196      -0.158  11.340 -32.225  1.00 47.54           C
ATOM   1507  CG1 ILE C 196       0.717  10.723 -31.138  1.00 46.10           C
ATOM   1508  CG2 ILE C 196      -1.194  12.280 -31.612  1.00 49.93           C
ATOM   1509  CD1 ILE C 196       1.656  11.702 -30.490  1.00 45.89           C
ATOM   1510  N   ASP C 197      -3.117  10.835 -33.723  1.00 46.66           N
ATOM   1511  CA  ASP C 197      -4.244  11.197 -34.615  1.00 52.30           C
ATOM   1512  C   ASP C 197      -4.837  12.572 -34.285  1.00 62.14           C
ATOM   1513  O   ASP C 197      -5.486  13.177 -35.147  1.00 65.06           O
ATOM   1514  CB  ASP C 197      -5.352  10.139 -34.568  1.00 49.64           C
ATOM   1515  CG  ASP C 197      -4.893   8.826 -35.182  1.00 48.85           C
ATOM   1516  OD1 ASP C 197      -4.363   8.873 -36.332  1.00 40.27           O
ATOM   1517  OD2 ASP C 197      -4.997   7.782 -34.477  1.00 46.22           O1-
ATOM   1518  N   GLY C 198      -4.638  13.044 -33.047  1.00 64.88           N
ATOM   1519  CA  GLY C 198      -5.258  14.261 -32.547  1.00 62.27           C
ATOM   1520  C   GLY C 198      -4.455  14.859 -31.411  1.00 57.00           C
ATOM   1521  O   GLY C 198      -4.092  14.150 -30.452  1.00 51.35           O
ATOM   1522  N   VAL C 199      -4.186  16.163 -31.532  1.00 52.30           N
ATOM   1523  CA  VAL C 199      -3.326  16.861 -30.608  1.00 51.34           C
ATOM   1524  C   VAL C 199      -3.630  18.371 -30.605  1.00 52.84           C
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ATOM   1525  O   VAL C 199      -4.068  18.961 -31.599  1.00 52.50           O
ATOM   1526  CB  VAL C 199      -1.862  16.579 -30.972  1.00 52.97           C
ATOM   1527  CG1 VAL C 199      -1.487  17.224 -32.297  1.00 52.22           C
ATOM   1528  CG2 VAL C 199      -0.917  17.002 -29.854  1.00 54.11           C
ATOM   1529  N   TYR C 200      -3.394  18.995 -29.449  1.00 49.67           N
ATOM   1530  CA  TYR C 200      -3.509  20.436 -29.281  1.00 44.53           C
ATOM   1531  C   TYR C 200      -2.404  20.872 -28.311  1.00 43.24           C
ATOM   1532  O   TYR C 200      -1.856  20.018 -27.609  1.00 42.41           O
ATOM   1533  CB  TYR C 200      -4.926  20.801 -28.823  1.00 42.23           C
ATOM   1534  CG  TYR C 200      -5.348  20.192 -27.505  1.00 47.60           C
ATOM   1535  CD1 TYR C 200      -5.656  18.840 -27.386  1.00 46.95           C
ATOM   1536  CD2 TYR C 200      -5.441  20.965 -26.360  1.00 44.88           C
ATOM   1537  CE1 TYR C 200      -6.032  18.274 -26.172  1.00 44.59           C
ATOM   1538  CE2 TYR C 200      -5.836  20.418 -25.146  1.00 47.84           C
ATOM   1539  CZ  TYR C 200      -6.124  19.065 -25.038  1.00 46.69           C
ATOM   1540  OH  TYR C 200      -6.481  18.541 -23.823  1.00 40.41           O
ATOM   1541  N   THR C 201      -2.062  22.171 -28.321  1.00 40.37           N
ATOM   1542  CA  THR C 201      -1.286  22.804 -27.243  1.00 42.88           C
ATOM   1543  C   THR C 201      -1.958  24.125 -26.834  1.00 39.25           C
ATOM   1544  O   THR C 201      -3.050  24.444 -27.266  1.00 34.96           O
ATOM   1545  CB  THR C 201       0.197  22.968 -27.614  1.00 46.92           C
ATOM   1546  CG2 THR C 201       0.403  23.884 -28.805  1.00 44.37           C
ATOM   1547  OG1 THR C 201       0.903  23.473 -26.470  1.00 47.58           O
ATOM   1548  N   GLY C 202      -1.315  24.836 -25.909  1.00 39.97           N
ATOM   1549  CA  GLY C 202      -1.750  26.164 -25.440  1.00 42.08           C
ATOM   1550  C   GLY C 202      -0.716  27.237 -25.763  1.00 41.98           C
ATOM   1551  O   GLY C 202       0.497  26.994 -25.839  1.00 43.94           O
ATOM   1552  N   SER C 203      -1.202  28.454 -25.971  1.00 43.07           N
ATOM   1553  CA  SER C 203      -0.326  29.567 -26.319  1.00 38.85           C
ATOM   1554  C   SER C 203       0.513  29.964 -25.108  1.00 35.18           C
ATOM   1555  O   SER C 203       1.696  30.187 -25.274  1.00 41.19           O
ATOM   1556  CB  SER C 203      -1.109  30.746 -26.854  1.00 34.86           C
ATOM   1557  OG  SER C 203      -2.258  30.967 -26.055  1.00 32.64           O
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ATOM   1558  N   GLN C 204      -0.103  29.992 -23.910  1.00 36.99           N
ATOM   1559  CA  GLN C 204       0.469  30.630 -22.713  1.00 36.49           C
ATOM   1560  C   GLN C 204       1.366  29.676 -21.909  1.00 36.22           C
ATOM   1561  O   GLN C 204       1.774  30.012 -20.798  1.00 38.58           O
ATOM   1562  CB  GLN C 204      -0.638  31.246 -21.849  1.00 37.88           C
ATOM   1563  CG  GLN C 204      -1.367  30.284 -20.923  1.00 39.26           C
ATOM   1564  CD  GLN C 204      -2.492  29.532 -21.599  1.00 45.74           C
ATOM   1565  NE2 GLN C 204      -3.409  28.983 -20.794  1.00 34.58           N
ATOM   1566  OE1 GLN C 204      -2.523  29.434 -22.833  1.00 47.60           O
ATOM   1567  N   LYS C 205       1.721  28.507 -22.449  1.00 38.29           N
ATOM   1568  CA  LYS C 205       2.556  27.571 -21.684  1.00 37.16           C
ATOM   1569  C   LYS C 205       3.978  27.715 -22.240  1.00 40.95           C
ATOM   1570  O   LYS C 205       4.560  28.834 -22.177  1.00 43.89           O
ATOM   1571  CB  LYS C 205       1.887  26.192 -21.625  1.00 37.05           C
ATOM   1572  CG  LYS C 205       0.464  26.195 -21.052  1.00 38.93           C
ATOM   1573  CD  LYS C 205       0.319  25.845 -19.577  1.00 42.98           C
ATOM   1574  CE  LYS C 205      -0.935  26.404 -18.920  1.00 46.32           C
ATOM   1575  NZ  LYS C 205      -1.980  25.383 -18.670  1.00 50.33           N1+
ATOM   1576  N   VAL C 206       4.562  26.659 -22.812  1.00 40.77           N
ATOM   1577  CA  VAL C 206       5.982  26.749 -23.124  1.00 39.26           C
ATOM   1578  C   VAL C 206       6.242  27.796 -24.227  1.00 40.88           C
ATOM   1579  O   VAL C 206       7.298  28.395 -24.238  1.00 46.21           O
ATOM   1580  CB  VAL C 206       6.566  25.373 -23.470  1.00 43.30           C
ATOM   1581  CG1 VAL C 206       8.063  25.451 -23.699  1.00 43.03           C
ATOM   1582  CG2 VAL C 206       6.241  24.335 -22.409  1.00 47.85           C
ATOM   1583  N   LEU C 207       5.304  28.016 -25.159  1.00 42.42           N
ATOM   1584  CA  LEU C 207       5.532  28.937 -26.328  1.00 42.55           C
ATOM   1585  C   LEU C 207       5.811  30.382 -25.888  1.00 41.87           C
ATOM   1586  O   LEU C 207       6.460  31.138 -26.633  1.00 43.32           O
ATOM   1587  CB  LEU C 207       4.325  28.908 -27.284  1.00 44.33           C
ATOM   1588  CG  LEU C 207       4.320  27.748 -28.282  1.00 42.81           C
ATOM   1589  CD1 LEU C 207       2.943  27.528 -28.865  1.00 40.99           C
ATOM   1590  CD2 LEU C 207       5.351  27.972 -29.379  1.00 43.14           C
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ATOM   1591  N   GLY C 208       5.301  30.775 -24.714  1.00 40.18           N
ATOM   1592  CA  GLY C 208       5.475  32.128 -24.205  1.00 37.64           C
ATOM   1593  C   GLY C 208       4.686  33.136 -25.020  1.00 34.48           C
ATOM   1594  O   GLY C 208       5.266  34.068 -25.475  1.00 29.39           O
ATOM   1595  N   ALA C 209       3.371  32.876 -25.184  1.00 32.93           N
ATOM   1596  CA  ALA C 209       2.458  33.611 -26.059  1.00 34.27           C
ATOM   1597  C   ALA C 209       1.152  33.908 -25.331  1.00 34.03           C
ATOM   1598  O   ALA C 209       0.768  33.174 -24.447  1.00 37.53           O
ATOM   1599  CB  ALA C 209       2.177  32.836 -27.318  1.00 35.68           C
ATOM   1600  N   PRO C 210       0.443  35.013 -25.642  1.00 36.06           N
ATOM   1601  CA  PRO C 210      -0.743  35.384 -24.876  1.00 38.79           C
ATOM   1602  C   PRO C 210      -1.806  34.298 -24.960  1.00 33.34           C
ATOM   1603  O   PRO C 210      -1.927  33.637 -25.971  1.00 36.61           O
ATOM   1604  CB  PRO C 210      -1.232  36.691 -25.522  1.00 39.52           C
ATOM   1605  CG  PRO C 210       0.020  37.214 -26.220  1.00 41.08           C
ATOM   1606  CD  PRO C 210       0.754  35.980 -26.703  1.00 37.68           C
ATOM   1607  N   PRO C 211      -2.585  34.057 -23.894  1.00 35.84           N
ATOM   1608  CA  PRO C 211      -3.669  33.079 -23.959  1.00 38.55           C
ATOM   1609  C   PRO C 211      -4.774  33.531 -24.923  1.00 36.60           C
ATOM   1610  O   PRO C 211      -4.900  34.719 -25.199  1.00 40.44           O
ATOM   1611  CB  PRO C 211      -4.146  32.996 -22.499  1.00 37.17           C
ATOM   1612  CG  PRO C 211      -3.774  34.332 -21.897  1.00 32.65           C
ATOM   1613  CD  PRO C 211      -2.466  34.682 -22.565  1.00 35.66           C
ATOM   1614  N   GLY C 212      -5.498  32.563 -25.478  1.00 35.45           N
ATOM   1615  CA  GLY C 212      -6.726  32.850 -26.210  1.00 37.04           C
ATOM   1616  C   GLY C 212      -6.828  32.192 -27.571  1.00 32.73           C
ATOM   1617  O   GLY C 212      -7.851  32.338 -28.235  1.00 35.32           O
ATOM   1618  N   ILE C 213      -5.792  31.466 -27.982  1.00 32.34           N
ATOM   1619  CA  ILE C 213      -5.700  30.912 -29.341  1.00 33.72           C
ATOM   1620  C   ILE C 213      -4.971  29.560 -29.243  1.00 33.63           C
ATOM   1621  O   ILE C 213      -3.856  29.490 -28.730  1.00 38.32           O
ATOM   1622  CB  ILE C 213      -5.011  31.920 -30.289  1.00 30.26           C
ATOM   1623  CG1 ILE C 213      -4.791  31.395 -31.714  1.00 31.10           C
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ATOM   1624  CG2 ILE C 213      -3.687  32.352 -29.694  1.00 30.55           C
ATOM   1625  CD1 ILE C 213      -6.015  31.376 -32.592  1.00 30.49           C
ATOM   1626  N   THR C 214      -5.611  28.494 -29.735  1.00 34.56           N
ATOM   1627  CA  THR C 214      -5.209  27.109 -29.404  1.00 36.07           C
ATOM   1628  C   THR C 214      -4.886  26.325 -30.673  1.00 34.70           C
ATOM   1629  O   THR C 214      -5.780  25.944 -31.416  1.00 39.13           O
ATOM   1630  CB  THR C 214      -6.306  26.417 -28.577  1.00 35.65           C
ATOM   1631  CG2 THR C 214      -5.957  24.971 -28.297  1.00 34.86           C
ATOM   1632  OG1 THR C 214      -6.544  27.108 -27.339  1.00 34.41           O
ATOM   1633  N   PRO C 215      -3.609  26.065 -30.988  1.00 34.53           N
ATOM   1634  CA  PRO C 215      -3.254  25.164 -32.085  1.00 39.34           C
ATOM   1635  C   PRO C 215      -3.833  23.744 -31.935  1.00 41.46           C
ATOM   1636  O   PRO C 215      -3.929  23.259 -30.826  1.00 39.51           O
ATOM   1637  CB  PRO C 215      -1.723  25.077 -32.010  1.00 37.33           C
ATOM   1638  CG  PRO C 215      -1.329  26.365 -31.336  1.00 37.17           C
ATOM   1639  CD  PRO C 215      -2.435  26.642 -30.335  1.00 37.06           C
ATOM   1640  N   ILE C 216      -4.175  23.107 -33.067  1.00 41.36           N
ATOM   1641  CA  ILE C 216      -4.758  21.772 -33.118  1.00 38.83           C
ATOM   1642  C   ILE C 216      -4.399  21.141 -34.468  1.00 41.75           C
ATOM   1643  O   ILE C 216      -4.236  21.845 -35.485  1.00 43.86           O
ATOM   1644  CB  ILE C 216      -6.282  21.841 -32.877  1.00 40.42           C
ATOM   1645  CG1 ILE C 216      -6.906  20.450 -32.720  1.00 43.55           C
ATOM   1646  CG2 ILE C 216      -6.991  22.636 -33.965  1.00 40.81           C
ATOM   1647  CD1 ILE C 216      -8.359  20.467 -32.314  1.00 41.64           C
ATOM   1648  N   SER C 217      -4.285  19.807 -34.490  1.00 45.12           N
ATOM   1649  CA  SER C 217      -3.925  19.062 -35.714  1.00 42.98           C
ATOM   1650  C   SER C 217      -4.470  17.641 -35.646  1.00 45.94           C
ATOM   1651  O   SER C 217      -4.440  17.031 -34.572  1.00 46.40           O
ATOM   1652  CB  SER C 217      -2.453  19.045 -35.947  1.00 43.17           C
ATOM   1653  OG  SER C 217      -2.160  18.379 -37.165  1.00 46.40           O
ATOM   1654  N   ILE C 218      -4.986  17.152 -36.789  1.00 47.57           N
ATOM   1655  CA  ILE C 218      -5.531  15.807 -36.890  1.00 47.73           C
ATOM   1656  C   ILE C 218      -4.998  15.083 -38.141  1.00 53.15           C
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ATOM   1657  O   ILE C 218      -4.723  15.669 -39.166  1.00 57.49           O
ATOM   1658  CB  ILE C 218      -7.066  15.833 -36.852  1.00 46.73           C
ATOM   1659  CG1 ILE C 218      -7.665  16.513 -38.080  1.00 46.99           C
ATOM   1660  CG2 ILE C 218      -7.582  16.443 -35.555  1.00 47.00           C
ATOM   1661  CD1 ILE C 218      -9.146  16.258 -38.222  1.00 44.54           C
ATOM   1662  N   SER C 219      -4.878  13.760 -38.025  1.00 56.13           N
ATOM   1663  CA  SER C 219      -4.368  12.859 -39.076  1.00 52.11           C
ATOM   1664  C   SER C 219      -5.409  12.631 -40.171  1.00 50.21           C
ATOM   1665  O   SER C 219      -6.620  12.771 -39.913  1.00 44.07           O
ATOM   1666  CB  SER C 219      -4.012  11.539 -38.467  1.00 49.32           C
ATOM   1667  OG  SER C 219      -5.154  10.979 -37.824  1.00 47.80           O
ATOM   1668  N   PRO C 220      -4.976  12.206 -41.392  1.00 47.32           N
ATOM   1669  CA  PRO C 220      -5.906  11.729 -42.425  1.00 50.95           C
ATOM   1670  C   PRO C 220      -6.967  10.723 -41.909  1.00 55.91           C
ATOM   1671  O   PRO C 220      -8.175  10.921 -42.193  1.00 56.55           O
ATOM   1672  CB  PRO C 220      -4.962  11.145 -43.498  1.00 47.90           C
ATOM   1673  CG  PRO C 220      -3.676  11.962 -43.354  1.00 45.37           C
ATOM   1674  CD  PRO C 220      -3.570  12.185 -41.859  1.00 46.42           C
ATOM   1675  N   LYS C 221      -6.579   9.699 -41.120  1.00 53.73           N
ATOM   1676  CA  LYS C 221      -7.607   8.785 -40.529  1.00 62.32           C
ATOM   1677  C   LYS C 221      -8.653   9.609 -39.760  1.00 56.30           C
ATOM   1678  O   LYS C 221      -9.850   9.423 -39.969  1.00 54.71           O
ATOM   1679  CB  LYS C 221      -7.077   7.740 -39.534  1.00 71.42           C
ATOM   1680  CG  LYS C 221      -5.932   6.846 -39.991  1.00 85.61           C
ATOM   1681  CD  LYS C 221      -4.901   6.598 -38.874  1.00 96.46           C
ATOM   1682  CE  LYS C 221      -3.640   5.869 -39.303  1.00 95.69           C
ATOM   1683  NZ  LYS C 221      -3.857   4.406 -39.433  1.00 91.62           N1+
ATOM   1684  N   ALA C 222      -8.195  10.492 -38.853  1.00 53.97           N
ATOM   1685  CA  ALA C 222      -9.101  11.260 -37.951  1.00 51.73           C
ATOM   1686  C   ALA C 222     -10.067  12.152 -38.743  1.00 46.45           C
ATOM   1687  O   ALA C 222     -11.221  12.300 -38.363  1.00 45.42           O
ATOM   1688  CB  ALA C 222      -8.294  12.076 -36.979  1.00 54.79           C
ATOM   1689  N   LEU C 223      -9.591  12.734 -39.846  1.00 45.80           N
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ATOM   1690  CA  LEU C 223     -10.424  13.575 -40.714  1.00 49.90           C
ATOM   1691  C   LEU C 223     -11.552  12.728 -41.332  1.00 54.20           C
ATOM   1692  O   LEU C 223     -12.715  13.149 -41.343  1.00 49.00           O
ATOM   1693  CB  LEU C 223      -9.520  14.209 -41.780  1.00 48.63           C
ATOM   1694  CG  LEU C 223     -10.190  15.061 -42.860  1.00 46.12           C
ATOM   1695  CD1 LEU C 223     -10.951  16.232 -42.263  1.00 42.12           C
ATOM   1696  CD2 LEU C 223      -9.146  15.556 -43.851  1.00 46.89           C
ATOM   1697  N   GLU C 224     -11.201  11.532 -41.822  1.00 58.58           N
ATOM   1698  CA  GLU C 224     -12.158  10.619 -42.472  1.00 61.06           C
ATOM   1699  C   GLU C 224     -13.190  10.134 -41.448  1.00 55.14           C
ATOM   1700  O   GLU C 224     -14.370   9.966 -41.769  1.00 53.73           O
ATOM   1701  CB  GLU C 224     -11.427   9.439 -43.120  1.00 74.94           C
ATOM   1702  CG  GLU C 224     -12.352   8.454 -43.827  1.00 87.04           C
ATOM   1703  CD  GLU C 224     -11.667   7.330 -44.598  1.00100.44           C
ATOM   1704  OE1 GLU C 224     -10.666   6.754 -44.087  1.00 96.71           O
ATOM   1705  OE2 GLU C 224     -12.147   7.018 -45.713  1.00103.10           O1-
ATOM   1706  N   VAL C 225     -12.769   9.924 -40.201  1.00 52.39           N
ATOM   1707  CA  VAL C 225     -13.733   9.527 -39.177  1.00 55.68           C
ATOM   1708  C   VAL C 225     -14.763  10.646 -38.949  1.00 58.48           C
ATOM   1709  O   VAL C 225     -15.905  10.345 -38.633  1.00 62.69           O
ATOM   1710  CB  VAL C 225     -13.028   9.118 -37.876  1.00 58.42           C
ATOM   1711  CG1 VAL C 225     -14.003   8.986 -36.708  1.00 60.04           C
ATOM   1712  CG2 VAL C 225     -12.241   7.832 -38.077  1.00 59.27           C
ATOM   1713  N   ILE C 226     -14.370  11.920 -39.115  1.00 56.98           N
ATOM   1714  CA  ILE C 226     -15.294  13.061 -38.922  1.00 59.97           C
ATOM   1715  C   ILE C 226     -16.263  13.166 -40.119  1.00 57.27           C
ATOM   1716  O   ILE C 226     -17.466  13.292 -39.918  1.00 59.26           O
ATOM   1717  CB  ILE C 226     -14.534  14.381 -38.629  1.00 59.45           C
ATOM   1718  CG1 ILE C 226     -13.794  14.301 -37.289  1.00 63.07           C
ATOM   1719  CG2 ILE C 226     -15.476  15.576 -38.660  1.00 57.35           C
ATOM   1720  CD1 ILE C 226     -12.667  15.306 -37.115  1.00 63.05           C
ATOM   1721  N   ARG C 227     -15.737  13.101 -41.345  1.00 56.91           N
ATOM   1722  CA  ARG C 227     -16.540  13.087 -42.586  1.00 58.10           C
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ATOM   1723  C   ARG C 227     -17.556  11.928 -42.594  1.00 58.29           C
ATOM   1724  O   ARG C 227     -18.632  12.063 -43.175  1.00 53.86           O
ATOM   1725  CB  ARG C 227     -15.608  13.001 -43.802  1.00 55.67           C
ATOM   1726  CG  ARG C 227     -14.947  14.323 -44.183  1.00 56.00           C
ATOM   1727  CD  ARG C 227     -13.855  14.180 -45.229  1.00 52.45           C
ATOM   1728  NE  ARG C 227     -13.188  15.440 -45.537  1.00 53.52           N
ATOM   1729  CZ  ARG C 227     -11.983  15.527 -46.097  1.00 57.52           C
ATOM   1730  NH1 ARG C 227     -11.231  14.447 -46.203  1.00 56.27           N1+
ATOM   1731  NH2 ARG C 227     -11.535  16.679 -46.571  1.00 57.39           N
ATOM   1732  N   SER C 228     -17.201  10.802 -41.951  1.00 63.55           N
ATOM   1733  CA  SER C 228     -18.021   9.579 -41.880  1.00 59.96           C
ATOM   1734  C   SER C 228     -19.214   9.751 -40.939  1.00 60.66           C
ATOM   1735  O   SER C 228     -20.141   8.975 -41.003  1.00 72.67           O
ATOM   1736  CB  SER C 228     -17.194   8.385 -41.433  1.00 59.42           C
ATOM   1737  OG  SER C 228     -16.485   7.830 -42.526  1.00 58.28           O
ATOM   1738  N   ARG C 229     -19.152  10.708 -40.012  1.00 59.40           N
ATOM   1739  CA  ARG C 229     -20.216  10.900 -39.024  1.00 68.60           C
ATOM   1740  C   ARG C 229     -21.591  10.829 -39.701  1.00 72.04           C
ATOM   1741  O   ARG C 229     -21.808  11.444 -40.741  1.00 66.39           O
ATOM   1742  CB  ARG C 229     -20.090  12.255 -38.315  1.00 69.73           C
ATOM   1743  CG  ARG C 229     -19.022  12.305 -37.234  1.00 66.56           C
ATOM   1744  CD  ARG C 229     -19.058  13.605 -36.465  1.00 66.87           C
ATOM   1745  NE  ARG C 229     -20.253  13.764 -35.638  1.00 67.71           N
ATOM   1746  CZ  ARG C 229     -20.272  13.871 -34.299  1.00 63.05           C
ATOM   1747  NH1 ARG C 229     -19.151  13.930 -33.595  1.00 58.09           N1+
ATOM   1748  NH2 ARG C 229     -21.434  13.915 -33.668  1.00 49.95           N
ATOM   1749  N   LYS C 230     -22.513  10.091 -39.079  1.00 77.15           N
ATOM   1750  CA  LYS C 230     -23.898  10.041 -39.523  1.00 81.71           C
ATOM   1751  C   LYS C 230     -24.597  11.282 -38.968  1.00 70.30           C
ATOM   1752  O   LYS C 230     -25.222  12.002 -39.717  1.00 68.57           O
ATOM   1753  CB  LYS C 230     -24.596   8.739 -39.102  1.00 90.76           C
ATOM   1754  CG  LYS C 230     -23.782   7.467 -39.327  1.00103.23           C
ATOM   1755  CD  LYS C 230     -22.996   6.997 -38.092  1.00106.60           C
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ATOM   1756  CE  LYS C 230     -21.540   6.649 -38.360  1.00 97.16           C
ATOM   1757  NZ  LYS C 230     -21.397   5.407 -39.157  1.00 88.22           N1+
ATOM   1758  N   THR C 231     -24.456  11.523 -37.658  1.00 67.82           N
ATOM   1759  CA  THR C 231     -25.022  12.716 -36.992  1.00 63.67           C
ATOM   1760  C   THR C 231     -24.060  13.896 -37.077  1.00 64.09           C
ATOM   1761  O   THR C 231     -22.836  13.735 -37.161  1.00 61.98           O
ATOM   1762  CB  THR C 231     -25.331  12.455 -35.517  1.00 63.94           C
ATOM   1763  CG2 THR C 231     -26.318  11.322 -35.323  1.00 63.33           C
ATOM   1764  OG1 THR C 231     -24.072  12.169 -34.899  1.00 63.69           O
ATOM   1765  N   PRO C 232     -24.591  15.134 -37.031  1.00 58.87           N
ATOM   1766  CA  PRO C 232     -23.742  16.327 -37.003  1.00 60.03           C
ATOM   1767  C   PRO C 232     -23.106  16.576 -35.618  1.00 58.68           C
ATOM   1768  O   PRO C 232     -23.805  16.421 -34.607  1.00 51.54           O
ATOM   1769  CB  PRO C 232     -24.760  17.418 -37.341  1.00 59.20           C
ATOM   1770  CG  PRO C 232     -26.026  16.933 -36.678  1.00 59.17           C
ATOM   1771  CD  PRO C 232     -26.024  15.444 -36.935  1.00 54.89           C
ATOM   1772  N   SER C 233     -21.813  16.949 -35.577  1.00 53.88           N
ATOM   1773  CA  SER C 233     -21.153  17.365 -34.327  1.00 54.74           C
ATOM   1774  C   SER C 233     -21.885  18.575 -33.748  1.00 55.11           C
ATOM   1775  O   SER C 233     -22.433  19.384 -34.485  1.00 65.39           O
ATOM   1776  CB  SER C 233     -19.684  17.650 -34.502  1.00 55.63           C
ATOM   1777  OG  SER C 233     -19.475  18.783 -35.328  1.00 64.75           O
ATOM   1778  N   LYS C 234     -21.846  18.698 -32.421  1.00 54.21           N
ATOM   1779  CA  LYS C 234     -22.768  19.541 -31.657  1.00 53.76           C
ATOM   1780  C   LYS C 234     -22.425  21.042 -31.682  1.00 49.47           C
ATOM   1781  O   LYS C 234     -23.264  21.845 -31.273  1.00 49.76           O
ATOM   1782  CB  LYS C 234     -22.748  19.089 -30.192  1.00 62.13           C
ATOM   1783  CG  LYS C 234     -22.981  17.599 -29.969  1.00 61.60           C
ATOM   1784  CD  LYS C 234     -24.092  17.330 -28.979  1.00 63.91           C
ATOM   1785  CE  LYS C 234     -25.150  16.375 -29.495  1.00 65.80           C
ATOM   1786  NZ  LYS C 234     -24.734  14.968 -29.300  1.00 66.66           N1+
ATOM   1787  N   VAL C 235     -21.192  21.421 -32.054  1.00 46.95           N
ATOM   1788  CA  VAL C 235     -20.726  22.776 -31.875  1.00 48.40           C
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ATOM   1789  C   VAL C 235     -20.221  23.321 -33.205  1.00 46.28           C
ATOM   1790  O   VAL C 235     -19.174  22.897 -33.686  1.00 50.55           O
ATOM   1791  CB  VAL C 235     -19.625  22.869 -30.808  1.00 53.77           C
ATOM   1792  CG1 VAL C 235     -19.188  24.315 -30.602  1.00 57.05           C
ATOM   1793  CG2 VAL C 235     -20.070  22.257 -29.494  1.00 54.11           C
ATOM   1794  N   PHE C 236     -20.986  24.273 -33.754  1.00 46.32           N
ATOM   1795  CA  PHE C 236     -20.653  24.965 -35.013  1.00 45.71           C
ATOM   1796  C   PHE C 236     -19.297  25.666 -34.905  1.00 44.86           C
ATOM   1797  O   PHE C 236     -18.495  25.665 -35.830  1.00 43.00           O
ATOM   1798  CB  PHE C 236     -21.724  25.996 -35.364  1.00 42.22           C
ATOM   1799  CG  PHE C 236     -21.355  26.845 -36.549  1.00 45.58           C
ATOM   1800  CD1 PHE C 236     -20.449  27.884 -36.426  1.00 47.10           C
ATOM   1801  CD2 PHE C 236     -21.877  26.576 -37.805  1.00 48.29           C
ATOM   1802  CE1 PHE C 236     -20.093  28.648 -37.527  1.00 48.50           C
ATOM   1803  CE2 PHE C 236     -21.545  27.360 -38.898  1.00 45.38           C
ATOM   1804  CZ  PHE C 236     -20.647  28.392 -38.759  1.00 46.54           C
ATOM   1805  N   TYR C 237     -19.062  26.261 -33.739  1.00 46.52           N
ATOM   1806  CA  TYR C 237     -17.955  27.130 -33.520  1.00 45.13           C
ATOM   1807  C   TYR C 237     -16.633  26.356 -33.632  1.00 47.74           C
ATOM   1808  O   TYR C 237     -15.644  26.973 -33.982  1.00 45.25           O
ATOM   1809  CB  TYR C 237     -18.171  27.825 -32.175  1.00 49.26           C
ATOM   1810  CG  TYR C 237     -17.089  28.784 -31.776  1.00 49.47           C
ATOM   1811  CD1 TYR C 237     -17.002  30.037 -32.354  1.00 50.94           C
ATOM   1812  CD2 TYR C 237     -16.143  28.429 -30.835  1.00 48.38           C
ATOM   1813  CE1 TYR C 237     -15.989  30.917 -32.012  1.00 51.26           C
ATOM   1814  CE2 TYR C 237     -15.128  29.298 -30.479  1.00 54.91           C
ATOM   1815  CZ  TYR C 237     -15.052  30.551 -31.060  1.00 54.34           C
ATOM   1816  OH  TYR C 237     -14.061  31.411 -30.677  1.00 46.65           O
ATOM   1817  N   TRP C 238     -16.610  25.030 -33.354  1.00 50.89           N
ATOM   1818  CA  TRP C 238     -15.348  24.201 -33.516  1.00 48.50           C
ATOM   1819  C   TRP C 238     -15.572  22.853 -34.227  1.00 45.02           C
ATOM   1820  O   TRP C 238     -14.820  21.918 -33.993  1.00 50.08           O
ATOM   1821  CB  TRP C 238     -14.583  23.995 -32.181  1.00 49.96           C
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ATOM   1822  CG  TRP C 238     -15.367  23.471 -31.015  1.00 44.32           C
ATOM   1823  CD1 TRP C 238     -16.083  22.313 -30.952  1.00 42.00           C
ATOM   1824  CD2 TRP C 238     -15.482  24.090 -29.719  1.00 45.44           C
ATOM   1825  CE2 TRP C 238     -16.335  23.266 -28.945  1.00 45.94           C
ATOM   1826  CE3 TRP C 238     -14.968  25.265 -29.140  1.00 40.90           C
ATOM   1827  NE1 TRP C 238     -16.691  22.198 -29.731  1.00 44.60           N
ATOM   1828  CZ2 TRP C 238     -16.670  23.575 -27.624  1.00 45.64           C
ATOM   1829  CZ3 TRP C 238     -15.324  25.584 -27.846  1.00 41.83           C
ATOM   1830  CH2 TRP C 238     -16.166  24.748 -27.102  1.00 45.80           C
ATOM   1831  N   ASP C 239     -16.574  22.749 -35.104  1.00 49.08           N
ATOM   1832  CA  ASP C 239     -16.632  21.689 -36.112  1.00 43.80           C
ATOM   1833  C   ASP C 239     -15.454  21.870 -37.074  1.00 43.84           C
ATOM   1834  O   ASP C 239     -15.395  22.858 -37.802  1.00 49.51           O
ATOM   1835  CB  ASP C 239     -17.939  21.761 -36.895  1.00 45.34           C
ATOM   1836  CG  ASP C 239     -18.060  20.823 -38.097  1.00 45.06           C
ATOM   1837  OD1 ASP C 239     -17.007  20.443 -38.697  1.00 36.90           O
ATOM   1838  OD2 ASP C 239     -19.228  20.512 -38.448  1.00 40.22           O1-
ATOM   1839  N   LEU C 240     -14.543  20.895 -37.115  1.00 42.81           N
ATOM   1840  CA  LEU C 240     -13.287  21.069 -37.813  1.00 43.75           C
ATOM   1841  C   LEU C 240     -13.446  21.042 -39.339  1.00 48.17           C
ATOM   1842  O   LEU C 240     -12.459  21.335 -40.044  1.00 47.17           O
ATOM   1843  CB  LEU C 240     -12.306  19.986 -37.359  1.00 44.78           C
ATOM   1844  CG  LEU C 240     -12.020  19.925 -35.857  1.00 44.18           C
ATOM   1845  CD1 LEU C 240     -10.920  18.911 -35.593  1.00 40.37           C
ATOM   1846  CD2 LEU C 240     -11.636  21.300 -35.306  1.00 43.81           C
ATOM   1847  N   LEU C 241     -14.633  20.682 -39.860  1.00 53.45           N
ATOM   1848  CA  LEU C 241     -14.824  20.568 -41.338  1.00 57.83           C
ATOM   1849  C   LEU C 241     -15.111  21.948 -41.944  1.00 60.75           C
ATOM   1850  O   LEU C 241     -14.748  22.190 -43.103  1.00 52.34           O
ATOM   1851  CB  LEU C 241     -15.964  19.602 -41.665  1.00 56.74           C
ATOM   1852  CG  LEU C 241     -15.735  18.149 -41.261  1.00 56.54           C
ATOM   1853  CD1 LEU C 241     -16.875  17.264 -41.761  1.00 51.65           C
ATOM   1854  CD2 LEU C 241     -14.387  17.662 -41.768  1.00 57.37           C
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ATOM   1855  N   ILE C 242     -15.753  22.824 -41.152  1.00 57.89           N
ATOM   1856  CA  ILE C 242     -16.045  24.177 -41.565  1.00 53.65           C
ATOM   1857  C   ILE C 242     -14.971  25.152 -41.040  1.00 54.90           C
ATOM   1858  O   ILE C 242     -14.529  26.011 -41.780  1.00 55.80           O
ATOM   1859  CB  ILE C 242     -17.496  24.538 -41.204  1.00 51.81           C
ATOM   1860  CG1 ILE C 242     -17.780  24.626 -39.713  1.00 55.23           C
ATOM   1861  CG2 ILE C 242     -18.439  23.537 -41.841  1.00 48.71           C
ATOM   1862  CD1 ILE C 242     -19.219  25.038 -39.427  1.00 54.49           C
ATOM   1863  N   LEU C 243     -14.487  24.984 -39.805  1.00 51.52           N
ATOM   1864  CA  LEU C 243     -13.367  25.821 -39.324  1.00 53.11           C
ATOM   1865  C   LEU C 243     -12.110  25.548 -40.166  1.00 50.11           C
ATOM   1866  O   LEU C 243     -11.356  26.461 -40.486  1.00 48.83           O
ATOM   1867  CB  LEU C 243     -13.122  25.564 -37.829  1.00 56.91           C
ATOM   1868  CG  LEU C 243     -11.926  26.288 -37.202  1.00 53.58           C
ATOM   1869  CD1 LEU C 243     -12.220  27.773 -37.040  1.00 50.71           C
ATOM   1870  CD2 LEU C 243     -11.533  25.664 -35.858  1.00 52.26           C
ATOM   1871  N   GLY C 244     -11.894  24.284 -40.537  1.00 50.81           N
ATOM   1872  CA  GLY C 244     -10.771  23.894 -41.381  1.00 45.37           C
ATOM   1873  C   GLY C 244     -10.821  24.593 -42.731  1.00 46.63           C
ATOM   1874  O   GLY C 244      -9.777  24.881 -43.342  1.00 44.81           O
ATOM   1875  N   ASN C 245     -12.050  24.849 -43.204  1.00 46.23           N
ATOM   1876  CA  ASN C 245     -12.280  25.543 -44.457  1.00 44.56           C
ATOM   1877  C   ASN C 245     -11.623  26.938 -44.388  1.00 46.37           C
ATOM   1878  O   ASN C 245     -10.719  27.216 -45.195  1.00 43.33           O
ATOM   1879  CB  ASN C 245     -13.773  25.575 -44.801  1.00 46.20           C
ATOM   1880  CG  ASN C 245     -14.069  26.474 -45.985  1.00 54.41           C
ATOM   1881  ND2 ASN C 245     -14.704  25.947 -47.026  1.00 59.59           N
ATOM   1882  OD1 ASN C 245     -13.714  27.645 -45.964  1.00 51.55           O
ATOM   1883  N   TYR C 246     -12.047  27.787 -43.419  1.00 43.58           N
ATOM   1884  CA  TYR C 246     -11.530  29.168 -43.253  1.00 41.09           C
ATOM   1885  C   TYR C 246      -9.991  29.174 -43.168  1.00 40.34           C
ATOM   1886  O   TYR C 246      -9.317  30.105 -43.688  1.00 35.39           O
ATOM   1887  CB  TYR C 246     -12.101  29.880 -42.014  1.00 46.69           C
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ATOM   1888  CG  TYR C 246     -11.449  31.233 -41.829  1.00 53.26           C
ATOM   1889  CD1 TYR C 246     -11.633  32.230 -42.778  1.00 57.58           C
ATOM   1890  CD2 TYR C 246     -10.528  31.475 -40.818  1.00 55.33           C
ATOM   1891  CE1 TYR C 246     -10.983  33.447 -42.694  1.00 55.25           C
ATOM   1892  CE2 TYR C 246      -9.873  32.692 -40.712  1.00 57.64           C
ATOM   1893  CZ  TYR C 246     -10.105  33.686 -41.651  1.00 56.97           C
ATOM   1894  OH  TYR C 246      -9.481  34.903 -41.581  1.00 48.60           O
ATOM   1895  N   TRP C 247      -9.445  28.149 -42.490  1.00 37.86           N
ATOM   1896  CA  TRP C 247      -8.024  28.003 -42.262  1.00 38.26           C
ATOM   1897  C   TRP C 247      -7.327  27.365 -43.470  1.00 38.84           C
ATOM   1898  O   TRP C 247      -6.121  27.080 -43.430  1.00 40.06           O
ATOM   1899  CB  TRP C 247      -7.766  27.237 -40.953  1.00 39.89           C
ATOM   1900  CG  TRP C 247      -7.887  28.106 -39.736  1.00 38.39           C
ATOM   1901  CD1 TRP C 247      -9.042  28.537 -39.147  1.00 40.23           C
ATOM   1902  CD2 TRP C 247      -6.819  28.689 -38.972  1.00 35.11           C
ATOM   1903  CE2 TRP C 247      -7.411  29.432 -37.924  1.00 37.67           C
ATOM   1904  CE3 TRP C 247      -5.428  28.643 -39.056  1.00 41.56           C
ATOM   1905  NE1 TRP C 247      -8.770  29.300 -38.039  1.00 39.64           N
ATOM   1906  CZ2 TRP C 247      -6.661  30.124 -36.977  1.00 36.84           C
ATOM   1907  CZ3 TRP C 247      -4.681  29.336 -38.121  1.00 45.11           C
ATOM   1908  CH2 TRP C 247      -5.292  30.064 -37.092  1.00 40.50           C
ATOM   1909  N   GLY C 248      -8.059  27.194 -44.568  1.00 39.45           N
ATOM   1910  CA  GLY C 248      -7.463  26.831 -45.848  1.00 40.74           C
ATOM   1911  C   GLY C 248      -6.820  25.467 -45.785  1.00 39.90           C
ATOM   1912  O   GLY C 248      -5.697  25.301 -46.192  1.00 44.14           O
ATOM   1913  N   CYS C 249      -7.564  24.505 -45.240  1.00 46.42           N
ATOM   1914  CA  CYS C 249      -7.086  23.164 -44.926  1.00 48.95           C
ATOM   1915  C   CYS C 249      -7.533  22.161 -45.995  1.00 51.22           C
ATOM   1916  O   CYS C 249      -6.911  21.106 -46.148  1.00 59.48           O
ATOM   1917  CB  CYS C 249      -7.599  22.729 -43.556  1.00 51.61           C
ATOM   1918  SG  CYS C 249      -6.627  23.366 -42.157  1.00 50.90           S
ATOM   1919  N   TYR C 250      -8.614  22.500 -46.712  1.00 57.71           N
ATOM   1920  CA  TYR C 250      -9.267  21.641 -47.677  1.00 53.51           C
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ATOM   1921  C   TYR C 250      -9.195  22.274 -49.069  1.00 62.28           C
ATOM   1922  O   TYR C 250      -8.681  23.381 -49.211  1.00 59.16           O
ATOM   1923  CB  TYR C 250     -10.696  21.390 -47.213  1.00 50.85           C
ATOM   1924  CG  TYR C 250     -10.786  20.953 -45.773  1.00 52.28           C
ATOM   1925  CD1 TYR C 250      -9.967  19.946 -45.267  1.00 51.19           C
ATOM   1926  CD2 TYR C 250     -11.693  21.542 -44.909  1.00 49.57           C
ATOM   1927  CE1 TYR C 250     -10.047  19.545 -43.942  1.00 48.15           C
ATOM   1928  CE2 TYR C 250     -11.775  21.163 -43.581  1.00 51.45           C
ATOM   1929  CZ  TYR C 250     -10.946  20.167 -43.092  1.00 48.00           C
ATOM   1930  OH  TYR C 250     -11.061  19.812 -41.782  1.00 46.71           O
ATOM   1931  N   ASP C 251      -9.650  21.520 -50.088  1.00 74.84           N
ATOM   1932  CA  ASP C 251      -9.816  22.007 -51.482  1.00 70.10           C
ATOM   1933  C   ASP C 251     -11.261  22.488 -51.628  1.00 67.15           C
ATOM   1934  O   ASP C 251     -12.123  21.768 -52.113  1.00 66.55           O
ATOM   1935  CB  ASP C 251      -9.505  20.936 -52.536  1.00 69.77           C
ATOM   1936  CG  ASP C 251      -8.186  20.196 -52.372  1.00 68.17           C
ATOM   1937  OD1 ASP C 251      -7.130  20.805 -52.634  1.00 67.03           O
ATOM   1938  OD2 ASP C 251      -8.229  18.999 -52.022  1.00 62.86           O1-
ATOM   1939  N   GLU C 252     -11.519  23.688 -51.115  1.00 62.31           N
ATOM   1940  CA  GLU C 252     -12.811  24.330 -51.225  1.00 60.88           C
ATOM   1941  C   GLU C 252     -12.605  25.843 -51.333  1.00 59.48           C
ATOM   1942  O   GLU C 252     -11.506  26.341 -51.161  1.00 58.02           O
ATOM   1943  CB  GLU C 252     -13.674  23.995 -50.016  1.00 62.54           C
ATOM   1944  CG  GLU C 252     -13.583  22.552 -49.590  1.00 58.92           C
ATOM   1945  CD  GLU C 252     -14.316  22.225 -48.304  1.00 64.82           C
ATOM   1946  OE1 GLU C 252     -14.195  21.062 -47.866  1.00 76.77           O
ATOM   1947  OE2 GLU C 252     -15.012  23.113 -47.749  1.00 56.34           O1-
ATOM   1948  N   GLN C 253     -13.672  26.567 -51.660  1.00 66.70           N
ATOM   1949  CA  GLN C 253     -13.655  28.032 -51.576  1.00 69.91           C
ATOM   1950  C   GLN C 253     -13.605  28.379 -50.085  1.00 62.19           C
ATOM   1951  O   GLN C 253     -14.349  27.767 -49.325  1.00 60.59           O
ATOM   1952  CB  GLN C 253     -14.899  28.612 -52.262  1.00 74.53           C
ATOM   1953  CG  GLN C 253     -14.770  30.078 -52.664  1.00 81.54           C
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ATOM   1954  CD  GLN C 253     -15.838  30.501 -53.646  1.00 86.34           C
ATOM   1955  NE2 GLN C 253     -15.835  29.892 -54.823  1.00 83.77           N
ATOM   1956  OE1 GLN C 253     -16.674  31.354 -53.351  1.00 89.79           O
ATOM   1957  N   LYS C 254     -12.716  29.296 -49.671  1.00 57.63           N
ATOM   1958  CA  LYS C 254     -12.765  29.866 -48.300  1.00 53.47           C
ATOM   1959  C   LYS C 254     -14.098  30.605 -48.089  1.00 53.29           C
ATOM   1960  O   LYS C 254     -14.490  31.415 -48.909  1.00 65.58           O
ATOM   1961  CB  LYS C 254     -11.598  30.818 -48.034  1.00 53.78           C
ATOM   1962  CG  LYS C 254     -10.367  30.209 -47.378  1.00 55.78           C
ATOM   1963  CD  LYS C 254      -9.122  31.059 -47.571  1.00 58.44           C
ATOM   1964  CE  LYS C 254      -7.901  30.470 -46.903  1.00 67.72           C
ATOM   1965  NZ  LYS C 254      -6.795  30.283 -47.873  1.00 73.16           N1+
ATOM   1966  N   ARG C 255     -14.802  30.269 -47.003  1.00 47.25           N
ATOM   1967  CA  ARG C 255     -15.968  30.987 -46.517  1.00 53.93           C
ATOM   1968  C   ARG C 255     -15.654  31.539 -45.117  1.00 57.44           C
ATOM   1969  O   ARG C 255     -14.716  31.105 -44.416  1.00 54.05           O
ATOM   1970  CB  ARG C 255     -17.199  30.074 -46.413  1.00 59.06           C
ATOM   1971  CG  ARG C 255     -17.596  29.375 -47.711  1.00 61.44           C
ATOM   1972  CD  ARG C 255     -18.828  28.480 -47.588  1.00 63.97           C
ATOM   1973  NE  ARG C 255     -18.864  27.526 -46.464  1.00 68.37           N
ATOM   1974  CZ  ARG C 255     -18.392  26.265 -46.482  1.00 72.12           C
ATOM   1975  NH1 ARG C 255     -17.630  25.833 -47.476  1.00 72.87           N1+
ATOM   1976  NH2 ARG C 255     -18.669  25.437 -45.489  1.00 62.55           N
ATOM   1977  N   TYR C 256     -16.449  32.515 -44.700  1.00 53.99           N
ATOM   1978  CA  TYR C 256     -16.386  33.011 -43.341  1.00 52.05           C
ATOM   1979  C   TYR C 256     -16.991  31.973 -42.390  1.00 43.92           C
ATOM   1980  O   TYR C 256     -18.001  31.365 -42.677  1.00 44.38           O
ATOM   1981  CB  TYR C 256     -17.104  34.359 -43.257  1.00 52.67           C
ATOM   1982  CG  TYR C 256     -17.540  34.784 -41.879  1.00 51.17           C
ATOM   1983  CD1 TYR C 256     -16.683  35.493 -41.054  1.00 48.65           C
ATOM   1984  CD2 TYR C 256     -18.820  34.504 -41.416  1.00 49.09           C
ATOM   1985  CE1 TYR C 256     -17.083  35.915 -39.798  1.00 47.99           C
ATOM   1986  CE2 TYR C 256     -19.236  34.917 -40.162  1.00 51.29           C
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ATOM   1987  CZ  TYR C 256     -18.359  35.623 -39.354  1.00 51.98           C
ATOM   1988  OH  TYR C 256     -18.748  36.049 -38.122  1.00 57.14           O
ATOM   1989  N   HIS C 257     -16.353  31.803 -41.235  1.00 43.27           N
ATOM   1990  CA  HIS C 257     -16.825  30.897 -40.205  1.00 41.78           C
ATOM   1991  C   HIS C 257     -17.144  31.707 -38.932  1.00 45.08           C
ATOM   1992  O   HIS C 257     -18.314  31.733 -38.473  1.00 49.57           O
ATOM   1993  CB  HIS C 257     -15.788  29.781 -40.033  1.00 41.40           C
ATOM   1994  CG  HIS C 257     -16.114  28.849 -38.934  1.00 44.05           C
ATOM   1995  CD2 HIS C 257     -17.196  28.074 -38.720  1.00 48.66           C
ATOM   1996  ND1 HIS C 257     -15.312  28.724 -37.830  1.00 51.77           N
ATOM   1997  CE1 HIS C 257     -15.875  27.880 -36.990  1.00 51.89           C
ATOM   1998  NE2 HIS C 257     -17.038  27.471 -37.508  1.00 45.83           N
ATOM   1999  N   HIS C 258     -16.107  32.373 -38.389  1.00 40.83           N
ATOM   2000  CA  HIS C 258     -16.181  33.253 -37.241  1.00 39.94           C
ATOM   2001  C   HIS C 258     -15.017  34.239 -37.351  1.00 40.09           C
ATOM   2002  O   HIS C 258     -14.130  33.992 -38.121  1.00 35.44           O
ATOM   2003  CB  HIS C 258     -16.120  32.441 -35.941  1.00 44.21           C
ATOM   2004  CG  HIS C 258     -14.727  32.084 -35.543  1.00 47.53           C
ATOM   2005  CD2 HIS C 258     -13.875  32.674 -34.669  1.00 48.67           C
ATOM   2006  ND1 HIS C 258     -14.042  31.023 -36.116  1.00 50.08           N
ATOM   2007  CE1 HIS C 258     -12.826  30.967 -35.599  1.00 52.76           C
ATOM   2008  NE2 HIS C 258     -12.697  31.973 -34.702  1.00 48.92           N
ATOM   2009  N   THR C 259     -15.026  35.349 -36.599  1.00 41.74           N
ATOM   2010  CA  THR C 259     -13.901  36.298 -36.698  1.00 44.84           C
ATOM   2011  C   THR C 259     -12.740  35.822 -35.813  1.00 45.21           C
ATOM   2012  O   THR C 259     -12.869  35.708 -34.597  1.00 50.39           O
ATOM   2013  CB  THR C 259     -14.307  37.728 -36.327  1.00 44.05           C
ATOM   2014  CG2 THR C 259     -13.133  38.671 -36.415  1.00 41.57           C
ATOM   2015  OG1 THR C 259     -15.352  38.214 -37.175  1.00 43.17           O
ATOM   2016  N   VAL C 260     -11.592  35.553 -36.430  1.00 47.73           N
ATOM   2017  CA  VAL C 260     -10.442  35.091 -35.674  1.00 49.75           C
ATOM   2018  C   VAL C 260      -9.744  36.270 -34.998  1.00 53.86           C
ATOM   2019  O   VAL C 260      -9.649  37.371 -35.551  1.00 51.49           O
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ATOM   2020  CB  VAL C 260      -9.433  34.303 -36.524  1.00 46.68           C
ATOM   2021  CG1 VAL C 260     -10.070  33.059 -37.127  1.00 47.33           C
ATOM   2022  CG2 VAL C 260      -8.762  35.177 -37.567  1.00 48.21           C
ATOM   2023  N   PRO C 261      -9.148  36.014 -33.812  1.00 49.37           N
ATOM   2024  CA  PRO C 261      -8.466  37.052 -33.047  1.00 44.91           C
ATOM   2025  C   PRO C 261      -7.100  37.364 -33.670  1.00 41.53           C
ATOM   2026  O   PRO C 261      -6.082  36.800 -33.259  1.00 40.66           O
ATOM   2027  CB  PRO C 261      -8.340  36.384 -31.672  1.00 48.64           C
ATOM   2028  CG  PRO C 261      -8.138  34.913 -32.007  1.00 46.57           C
ATOM   2029  CD  PRO C 261      -9.069  34.685 -33.180  1.00 45.94           C
ATOM   2030  N   SER C 262      -7.103  38.257 -34.663  1.00 37.73           N
ATOM   2031  CA  SER C 262      -5.916  38.530 -35.468  1.00 37.65           C
ATOM   2032  C   SER C 262      -4.724  38.917 -34.577  1.00 38.64           C
ATOM   2033  O   SER C 262      -3.602  38.497 -34.848  1.00 45.34           O
ATOM   2034  CB  SER C 262      -6.189  39.571 -36.546  1.00 38.61           C
ATOM   2035  OG  SER C 262      -6.859  40.719 -36.028  1.00 38.12           O
ATOM   2036  N   ASN C 263      -4.959  39.694 -33.510  1.00 36.18           N
ATOM   2037  CA  ASN C 263      -3.872  40.109 -32.607  1.00 37.36           C
ATOM   2038  C   ASN C 263      -3.188  38.896 -31.917  1.00 38.33           C
ATOM   2039  O   ASN C 263      -1.941  38.838 -31.826  1.00 35.78           O
ATOM   2040  CB  ASN C 263      -4.372  41.135 -31.596  1.00 38.95           C
ATOM   2041  CG  ASN C 263      -5.175  42.241 -32.247  1.00 42.91           C
ATOM   2042  ND2 ASN C 263      -4.490  43.317 -32.623  1.00 35.99           N
ATOM   2043  OD1 ASN C 263      -6.402  42.118 -32.389  1.00 38.95           O
ATOM   2044  N   LEU C 264      -3.970  37.940 -31.394  1.00 35.33           N
ATOM   2045  CA  LEU C 264      -3.407  36.777 -30.730  1.00 33.65           C
ATOM   2046  C   LEU C 264      -2.643  35.902 -31.736  1.00 36.77           C
ATOM   2047  O   LEU C 264      -1.576  35.336 -31.384  1.00 38.20           O
ATOM   2048  CB  LEU C 264      -4.531  35.994 -30.059  1.00 35.83           C
ATOM   2049  CG  LEU C 264      -5.308  36.757 -28.980  1.00 38.37           C
ATOM   2050  CD1 LEU C 264      -6.285  35.824 -28.281  1.00 37.76           C
ATOM   2051  CD2 LEU C 264      -4.372  37.397 -27.961  1.00 35.89           C
ATOM   2052  N   ILE C 265      -3.136  35.839 -32.984  1.00 36.44           N
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ATOM   2053  CA  ILE C 265      -2.498  35.038 -34.064  1.00 36.41           C
ATOM   2054  C   ILE C 265      -1.137  35.664 -34.434  1.00 38.88           C
ATOM   2055  O   ILE C 265      -0.150  34.943 -34.682  1.00 39.28           O
ATOM   2056  CB  ILE C 265      -3.453  34.911 -35.266  1.00 33.21           C
ATOM   2057  CG1 ILE C 265      -4.662  34.046 -34.927  1.00 34.90           C
ATOM   2058  CG2 ILE C 265      -2.737  34.387 -36.480  1.00 35.66           C
ATOM   2059  CD1 ILE C 265      -5.798  34.158 -35.939  1.00 34.75           C
ATOM   2060  N   PHE C 266      -1.073  37.003 -34.501  1.00 41.51           N
ATOM   2061  CA  PHE C 266       0.205  37.704 -34.764  1.00 44.61           C
ATOM   2062  C   PHE C 266       1.253  37.355 -33.694  1.00 37.82           C
ATOM   2063  O   PHE C 266       2.396  37.114 -34.011  1.00 40.53           O
ATOM   2064  CB  PHE C 266       0.049  39.228 -34.756  1.00 45.72           C
ATOM   2065  CG  PHE C 266      -0.926  39.808 -35.745  1.00 46.86           C
ATOM   2066  CD1 PHE C 266      -1.141  39.213 -36.983  1.00 47.99           C
ATOM   2067  CD2 PHE C 266      -1.594  40.996 -35.456  1.00 43.04           C
ATOM   2068  CE1 PHE C 266      -2.032  39.777 -37.890  1.00 46.41           C
ATOM   2069  CE2 PHE C 266      -2.481  41.556 -36.366  1.00 41.66           C
ATOM   2070  CZ  PHE C 266      -2.704  40.943 -37.579  1.00 42.47           C
ATOM   2071  N   ALA C 267       0.844  37.371 -32.423  1.00 38.57           N
ATOM   2072  CA  ALA C 267       1.712  37.016 -31.248  1.00 36.42           C
ATOM   2073  C   ALA C 267       2.140  35.537 -31.305  1.00 32.97           C
ATOM   2074  O   ALA C 267       3.307  35.228 -31.056  1.00 27.83           O
ATOM   2075  CB  ALA C 267       0.987  37.345 -29.963  1.00 34.63           C
ATOM   2076  N   LEU C 268       1.201  34.640 -31.653  1.00 32.39           N
ATOM   2077  CA  LEU C 268       1.518  33.218 -31.818  1.00 32.89           C
ATOM   2078  C   LEU C 268       2.579  33.078 -32.912  1.00 33.82           C
ATOM   2079  O   LEU C 268       3.588  32.460 -32.676  1.00 36.54           O
ATOM   2080  CB  LEU C 268       0.250  32.414 -32.138  1.00 35.27           C
ATOM   2081  CG  LEU C 268       0.402  30.880 -32.203  1.00 35.52           C
ATOM   2082  CD1 LEU C 268       0.774  30.297 -30.860  1.00 32.68           C
ATOM   2083  CD2 LEU C 268      -0.872  30.212 -32.679  1.00 34.26           C
ATOM   2084  N   ARG C 269       2.392  33.738 -34.068  1.00 36.35           N
ATOM   2085  CA  ARG C 269       3.337  33.640 -35.173  1.00 32.27           C
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ATOM   2086  C   ARG C 269       4.759  33.975 -34.706  1.00 34.17           C
ATOM   2087  O   ARG C 269       5.753  33.265 -35.083  1.00 38.43           O
ATOM   2088  CB  ARG C 269       2.954  34.551 -36.337  1.00 33.44           C
ATOM   2089  CG  ARG C 269       3.819  34.360 -37.588  1.00 33.64           C
ATOM   2090  CD  ARG C 269       5.042  35.253 -37.656  1.00 33.35           C
ATOM   2091  NE  ARG C 269       5.646  35.240 -38.969  1.00 38.37           N
ATOM   2092  CZ  ARG C 269       6.864  35.716 -39.278  1.00 43.62           C
ATOM   2093  NH1 ARG C 269       7.586  36.386 -38.395  1.00 40.23           N1+
ATOM   2094  NH2 ARG C 269       7.362  35.514 -40.485  1.00 39.41           N
ATOM   2095  N   GLU C 270       4.888  35.059 -33.940  1.00 30.78           N
ATOM   2096  CA  GLU C 270       6.212  35.509 -33.465  1.00 32.80           C
ATOM   2097  C   GLU C 270       6.782  34.524 -32.421  1.00 37.29           C
ATOM   2098  O   GLU C 270       8.006  34.298 -32.322  1.00 37.84           O
ATOM   2099  CB  GLU C 270       6.058  36.928 -32.929  1.00 34.18           C
ATOM   2100  CG  GLU C 270       5.702  37.955 -34.011  1.00 36.12           C
ATOM   2101  CD  GLU C 270       6.913  38.329 -34.859  1.00 40.53           C
ATOM   2102  OE1 GLU C 270       7.543  39.384 -34.587  1.00 40.05           O
ATOM   2103  OE2 GLU C 270       7.286  37.514 -35.735  1.00 42.59           O1-
ATOM   2104  N   ALA C 271       5.890  33.893 -31.646  1.00 39.62           N
ATOM   2105  CA  ALA C 271       6.285  32.914 -30.639  1.00 40.06           C
ATOM   2106  C   ALA C 271       6.909  31.691 -31.321  1.00 34.93           C
ATOM   2107  O   ALA C 271       8.014  31.258 -30.981  1.00 33.25           O
ATOM   2108  CB  ALA C 271       5.085  32.536 -29.785  1.00 43.81           C
ATOM   2109  N   ILE C 272       6.228  31.181 -32.344  1.00 32.93           N
ATOM   2110  CA  ILE C 272       6.759  30.039 -33.094  1.00 36.28           C
ATOM   2111  C   ILE C 272       8.064  30.401 -33.851  1.00 36.06           C
ATOM   2112  O   ILE C 272       9.016  29.593 -33.898  1.00 37.48           O
ATOM   2113  CB  ILE C 272       5.667  29.466 -34.012  1.00 36.98           C
ATOM   2114  CG1 ILE C 272       4.421  29.076 -33.219  1.00 38.01           C
ATOM   2115  CG2 ILE C 272       6.194  28.277 -34.789  1.00 38.49           C
ATOM   2116  CD1 ILE C 272       3.257  28.707 -34.102  1.00 41.82           C
ATOM   2117  N   ALA C 273       8.135  31.599 -34.434  1.00 33.10           N
ATOM   2118  CA  ALA C 273       9.323  32.047 -35.129  1.00 34.71           C
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ATOM   2119  C   ALA C 273      10.563  32.038 -34.239  1.00 36.12           C
ATOM   2120  O   ALA C 273      11.660  31.736 -34.712  1.00 40.58           O
ATOM   2121  CB  ALA C 273       9.095  33.433 -35.646  1.00 39.53           C
ATOM   2122  N   GLN C 274      10.396  32.443 -32.981  1.00 39.80           N
ATOM   2123  CA  GLN C 274      11.484  32.441 -31.969  1.00 41.62           C
ATOM   2124  C   GLN C 274      12.091  31.034 -31.871  1.00 41.38           C
ATOM   2125  O   GLN C 274      13.309  30.863 -31.755  1.00 44.62           O
ATOM   2126  CB  GLN C 274      10.960  32.907 -30.598  1.00 44.14           C
ATOM   2127  CG  GLN C 274      11.171  34.385 -30.297  1.00 43.97           C
ATOM   2128  CD  GLN C 274      10.209  35.027 -29.315  1.00 47.46           C
ATOM   2129  NE2 GLN C 274      10.482  36.305 -29.056  1.00 39.35           N
ATOM   2130  OE1 GLN C 274       9.250  34.404 -28.801  1.00 41.91           O
ATOM   2131  N   ILE C 275      11.224  30.022 -31.898  1.00 44.21           N
ATOM   2132  CA  ILE C 275      11.643  28.641 -31.778  1.00 43.05           C
ATOM   2133  C   ILE C 275      12.306  28.162 -33.081  1.00 43.44           C
ATOM   2134  O   ILE C 275      13.298  27.425 -33.011  1.00 39.37           O
ATOM   2135  CB  ILE C 275      10.444  27.792 -31.339  1.00 43.16           C
ATOM   2136  CG1 ILE C 275      10.038  28.207 -29.924  1.00 46.59           C
ATOM   2137  CG2 ILE C 275      10.749  26.302 -31.435  1.00 42.71           C
ATOM   2138  CD1 ILE C 275       8.747  27.578 -29.448  1.00 52.19           C
ATOM   2139  N   ALA C 276      11.801  28.601 -34.248  1.00 42.13           N
ATOM   2140  CA  ALA C 276      12.456  28.294 -35.548  1.00 47.96           C
ATOM   2141  C   ALA C 276      13.851  28.930 -35.640  1.00 54.33           C
ATOM   2142  O   ALA C 276      14.753  28.371 -36.265  1.00 63.15           O
ATOM   2143  CB  ALA C 276      11.603  28.739 -36.703  1.00 48.14           C
ATOM   2144  N   GLU C 277      14.033  30.105 -35.028  1.00 54.66           N
ATOM   2145  CA  GLU C 277      15.296  30.811 -35.138  1.00 56.21           C
ATOM   2146  C   GLU C 277      16.383  30.071 -34.343  1.00 54.21           C
ATOM   2147  O   GLU C 277      17.473  29.854 -34.854  1.00 47.86           O
ATOM   2148  CB  GLU C 277      15.126  32.268 -34.703  1.00 61.02           C
ATOM   2149  CG  GLU C 277      14.535  33.153 -35.788  1.00 62.66           C
ATOM   2150  CD  GLU C 277      13.793  34.398 -35.313  1.00 68.66           C
ATOM   2151  OE1 GLU C 277      13.909  34.758 -34.102  1.00 75.85           O
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ATOM   2152  OE2 GLU C 277      13.085  35.010 -36.153  1.00 61.96           O1-
ATOM   2153  N   GLU C 278      16.090  29.682 -33.093  1.00 50.84           N
ATOM   2154  CA  GLU C 278      17.115  29.086 -32.232  1.00 48.20           C
ATOM   2155  C   GLU C 278      17.285  27.598 -32.563  1.00 50.89           C
ATOM   2156  O   GLU C 278      18.422  27.087 -32.506  1.00 52.83           O
ATOM   2157  CB  GLU C 278      16.804  29.261 -30.751  1.00 50.24           C
ATOM   2158  CG  GLU C 278      17.991  28.929 -29.868  1.00 54.75           C
ATOM   2159  CD  GLU C 278      17.630  28.818 -28.399  1.00 65.37           C
ATOM   2160  OE1 GLU C 278      16.540  29.322 -28.030  1.00 71.91           O
ATOM   2161  OE2 GLU C 278      18.422  28.218 -27.624  1.00 70.90           O1-
ATOM   2162  N   GLY C 279      16.167  26.931 -32.890  1.00 44.77           N
ATOM   2163  CA  GLY C 279      16.124  25.526 -33.219  1.00 43.51           C
ATOM   2164  C   GLY C 279      15.340  24.754 -32.174  1.00 46.26           C
ATOM   2165  O   GLY C 279      15.620  24.898 -30.993  1.00 50.08           O
ATOM   2166  N   LEU C 280      14.377  23.921 -32.607  1.00 45.49           N
ATOM   2167  CA  LEU C 280      13.568  23.072 -31.670  1.00 47.15           C
ATOM   2168  C   LEU C 280      14.461  22.272 -30.693  1.00 44.94           C
ATOM   2169  O   LEU C 280      14.136  22.098 -29.542  1.00 39.52           O
ATOM   2170  CB  LEU C 280      12.692  22.123 -32.489  1.00 43.97           C
ATOM   2171  CG  LEU C 280      11.244  22.034 -32.026  1.00 50.24           C
ATOM   2172  CD1 LEU C 280      10.567  20.798 -32.598  1.00 54.85           C
ATOM   2173  CD2 LEU C 280      11.141  22.028 -30.514  1.00 48.92           C
ATOM   2174  N   GLU C 281      15.600  21.774 -31.182  1.00 50.88           N
ATOM   2175  CA  GLU C 281      16.466  20.869 -30.426  1.00 55.22           C
ATOM   2176  C   GLU C 281      17.151  21.655 -29.315  1.00 49.15           C
ATOM   2177  O   GLU C 281      16.976  21.302 -28.151  1.00 47.90           O
ATOM   2178  CB  GLU C 281      17.438  20.140 -31.364  1.00 58.34           C
ATOM   2179  CG  GLU C 281      18.491  19.298 -30.657  1.00 61.90           C
ATOM   2180  CD  GLU C 281      19.069  18.153 -31.487  1.00 68.15           C
ATOM   2181  OE1 GLU C 281      20.151  17.642 -31.117  1.00 66.50           O
ATOM   2182  OE2 GLU C 281      18.425  17.752 -32.492  1.00 68.09           O1-
ATOM   2183  N   PRO C 282      17.922  22.729 -29.623  1.00 44.51           N
ATOM   2184  CA  PRO C 282      18.496  23.586 -28.579  1.00 43.80           C
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ATOM   2185  C   PRO C 282      17.465  24.137 -27.569  1.00 44.79           C
ATOM   2186  O   PRO C 282      17.703  24.215 -26.347  1.00 42.89           O
ATOM   2187  CB  PRO C 282      19.105  24.751 -29.376  1.00 43.79           C
ATOM   2188  CG  PRO C 282      19.351  24.211 -30.763  1.00 39.84           C
ATOM   2189  CD  PRO C 282      18.272  23.177 -30.979  1.00 40.73           C
ATOM   2190  N   VAL C 283      16.291  24.508 -28.072  1.00 46.62           N
ATOM   2191  CA  VAL C 283      15.234  25.066 -27.229  1.00 51.39           C
ATOM   2192  C   VAL C 283      14.761  24.020 -26.207  1.00 51.78           C
ATOM   2193  O   VAL C 283      14.428  24.356 -25.078  1.00 53.91           O
ATOM   2194  CB  VAL C 283      14.089  25.595 -28.110  1.00 50.41           C
ATOM   2195  CG1 VAL C 283      12.779  25.725 -27.348  1.00 52.02           C
ATOM   2196  CG2 VAL C 283      14.499  26.906 -28.763  1.00 47.88           C
ATOM   2197  N   ILE C 284      14.689  22.754 -26.628  1.00 53.14           N
ATOM   2198  CA  ILE C 284      14.337  21.653 -25.737  1.00 49.50           C
ATOM   2199  C   ILE C 284      15.505  21.369 -24.778  1.00 47.56           C
ATOM   2200  O   ILE C 284      15.309  21.246 -23.576  1.00 45.74           O
ATOM   2201  CB  ILE C 284      13.931  20.418 -26.551  1.00 49.40           C
ATOM   2202  CG1 ILE C 284      12.574  20.616 -27.225  1.00 52.89           C
ATOM   2203  CG2 ILE C 284      13.943  19.184 -25.672  1.00 51.97           C
ATOM   2204  CD1 ILE C 284      12.174  19.486 -28.175  1.00 54.00           C
ATOM   2205  N   ARG C 285      16.728  21.302 -25.310  1.00 55.80           N
ATOM   2206  CA  ARG C 285      17.942  21.060 -24.493  1.00 60.31           C
ATOM   2207  C   ARG C 285      18.080  22.119 -23.391  1.00 61.20           C
ATOM   2208  O   ARG C 285      18.511  21.766 -22.288  1.00 62.54           O
ATOM   2209  CB  ARG C 285      19.225  21.064 -25.333  1.00 65.26           C
ATOM   2210  CG  ARG C 285      19.379  19.867 -26.258  1.00 72.45           C
ATOM   2211  CD  ARG C 285      20.789  19.725 -26.797  1.00 74.63           C
ATOM   2212  NE  ARG C 285      20.868  18.597 -27.716  1.00 78.60           N
ATOM   2213  CZ  ARG C 285      20.726  17.321 -27.363  1.00 78.88           C
ATOM   2214  NH1 ARG C 285      20.523  16.988 -26.098  1.00 69.08           N1+
ATOM   2215  NH2 ARG C 285      20.786  16.378 -28.281  1.00 77.40           N
ATOM   2216  N   ARG C 286      17.757  23.394 -23.699  1.00 60.75           N
ATOM   2217  CA  ARG C 286      17.900  24.479 -22.726  1.00 59.51           C
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ATOM   2218  C   ARG C 286      16.899  24.250 -21.585  1.00 53.19           C
ATOM   2219  O   ARG C 286      17.258  24.456 -20.422  1.00 52.18           O
ATOM   2220  CB  ARG C 286      17.785  25.882 -23.344  1.00 65.20           C
ATOM   2221  CG  ARG C 286      17.976  27.014 -22.332  1.00 74.14           C
ATOM   2222  CD  ARG C 286      18.428  28.382 -22.833  1.00 74.20           C
ATOM   2223  NE  ARG C 286      17.921  28.676 -24.168  1.00 79.78           N
ATOM   2224  CZ  ARG C 286      16.676  29.046 -24.449  1.00 72.24           C
ATOM   2225  NH1 ARG C 286      15.879  29.504 -23.499  1.00 76.04           N1+
ATOM   2226  NH2 ARG C 286      16.234  28.950 -25.688  1.00 67.08           N
ATOM   2227  N   ARG C 287      15.690  23.773 -21.908  1.00 53.38           N
ATOM   2228  CA  ARG C 287      14.657  23.475 -20.892  1.00 56.35           C
ATOM   2229  C   ARG C 287      15.035  22.257 -20.035  1.00 56.74           C
ATOM   2230  O   ARG C 287      14.842  22.296 -18.824  1.00 52.50           O
ATOM   2231  CB  ARG C 287      13.283  23.248 -21.524  1.00 55.69           C
ATOM   2232  CG  ARG C 287      12.336  24.417 -21.315  1.00 60.39           C
ATOM   2233  CD  ARG C 287      11.583  24.827 -22.562  1.00 62.66           C
ATOM   2234  NE  ARG C 287      11.308  26.250 -22.511  1.00 64.20           N
ATOM   2235  CZ  ARG C 287      11.138  26.990 -23.585  1.00 65.77           C
ATOM   2236  NH1 ARG C 287      10.861  26.384 -24.726  1.00 67.82           N1+
ATOM   2237  NH2 ARG C 287      11.264  28.305 -23.524  1.00 60.25           N
ATOM   2238  N   GLN C 288      15.550  21.188 -20.663  1.00 56.88           N
ATOM   2239  CA  GLN C 288      16.048  20.024 -19.932  1.00 52.84           C
ATOM   2240  C   GLN C 288      17.122  20.513 -18.947  1.00 47.45           C
ATOM   2241  O   GLN C 288      17.093  20.120 -17.802  1.00 45.50           O
ATOM   2242  CB  GLN C 288      16.527  18.910 -20.883  1.00 58.21           C
ATOM   2243  CG  GLN C 288      15.472  17.821 -21.134  1.00 73.26           C
ATOM   2244  CD  GLN C 288      15.315  17.280 -22.552  1.00 76.09           C
ATOM   2245  NE2 GLN C 288      14.132  16.751 -22.827  1.00 65.25           N
ATOM   2246  OE1 GLN C 288      16.219  17.284 -23.395  1.00 65.65           O
ATOM   2247  N   GLU C 289      18.031  21.403 -19.374  1.00 45.12           N
ATOM   2248  CA  GLU C 289      19.145  21.876 -18.498  1.00 49.70           C
ATOM   2249  C   GLU C 289      18.627  22.746 -17.332  1.00 46.44           C
ATOM   2250  O   GLU C 289      19.135  22.651 -16.211  1.00 43.19           O
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ATOM   2251  CB  GLU C 289      20.207  22.626 -19.304  1.00 58.68           C
ATOM   2252  CG  GLU C 289      21.109  21.728 -20.153  1.00 66.61           C
ATOM   2253  CD  GLU C 289      21.981  22.467 -21.170  1.00 74.50           C
ATOM   2254  OE1 GLU C 289      22.616  21.792 -22.033  1.00 69.66           O
ATOM   2255  OE2 GLU C 289      22.031  23.727 -21.103  1.00 78.62           O1-
ATOM   2256  N   CYS C 290      17.610  23.577 -17.577  1.00 38.98           N
ATOM   2257  CA  CYS C 290      17.014  24.397 -16.535  1.00 40.04           C
ATOM   2258  C   CYS C 290      16.337  23.492 -15.474  1.00 40.75           C
ATOM   2259  O   CYS C 290      16.317  23.789 -14.267  1.00 39.14           O
ATOM   2260  CB  CYS C 290      16.068  25.432 -17.154  1.00 41.29           C
ATOM   2261  SG  CYS C 290      16.869  26.718 -18.173  1.00 42.35           S
ATOM   2262  N   ALA C 291      15.821  22.333 -15.885  1.00 35.94           N
ATOM   2263  CA  ALA C 291      15.201  21.442 -14.923  1.00 38.50           C
ATOM   2264  C   ALA C 291      16.264  20.769 -14.031  1.00 41.21           C
ATOM   2265  O   ALA C 291      16.059  20.611 -12.804  1.00 42.16           O
ATOM   2266  CB  ALA C 291      14.309  20.442 -15.624  1.00 36.30           C
ATOM   2267  N   GLU C 292      17.375  20.350 -14.642  1.00 45.24           N
ATOM   2268  CA  GLU C 292      18.508  19.813 -13.930  1.00 51.98           C
ATOM   2269  C   GLU C 292      18.863  20.781 -12.791  1.00 50.91           C
ATOM   2270  O   GLU C 292      18.918  20.390 -11.634  1.00 56.44           O
ATOM   2271  CB  GLU C 292      19.735  19.650 -14.837  1.00 63.80           C
ATOM   2272  CG  GLU C 292      19.647  18.532 -15.857  1.00 70.18           C
ATOM   2273  CD  GLU C 292      19.437  17.155 -15.258  1.00 84.73           C
ATOM   2274  OE1 GLU C 292      19.932  16.922 -14.122  1.00 94.33           O
ATOM   2275  OE2 GLU C 292      18.768  16.326 -15.919  1.00 86.77           O1-
ATOM   2276  N   GLN C 293      19.084  22.054 -13.136  1.00 48.77           N
ATOM   2277  CA  GLN C 293      19.536  23.053 -12.177  1.00 44.70           C
ATOM   2278  C   GLN C 293      18.482  23.176 -11.076  1.00 42.08           C
ATOM   2279  O   GLN C 293      18.848  23.221  -9.911  1.00 39.50           O
ATOM   2280  CB  GLN C 293      19.821  24.382 -12.880  1.00 44.64           C
ATOM   2281  CG  GLN C 293      20.313  25.502 -11.968  1.00 46.14           C
ATOM   2282  CD  GLN C 293      21.712  25.279 -11.452  1.00 44.08           C
ATOM   2283  NE2 GLN C 293      22.300  26.334 -10.911  1.00 40.25           N
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ATOM   2284  OE1 GLN C 293      22.250  24.178 -11.527  1.00 42.57           O
ATOM   2285  N   MET C 294      17.198  23.210 -11.466  1.00 42.57           N
ATOM   2286  CA  MET C 294      16.087  23.303 -10.506  1.00 43.27           C
ATOM   2287  C   MET C 294      16.220  22.154  -9.503  1.00 45.71           C
ATOM   2288  O   MET C 294      16.093  22.390  -8.310  1.00 41.72           O
ATOM   2289  CB  MET C 294      14.711  23.233 -11.182  1.00 39.38           C
ATOM   2290  CG  MET C 294      13.536  23.328 -10.195  1.00 41.60           C
ATOM   2291  SD  MET C 294      13.290  24.978  -9.424  1.00 46.74           S
ATOM   2292  CE  MET C 294      12.554  25.869 -10.786  1.00 44.21           C
ATOM   2293  N   TYR C 295      16.487  20.940 -10.025  1.00 49.00           N
ATOM   2294  CA  TYR C 295      16.553  19.685  -9.244  1.00 46.85           C
ATOM   2295  C   TYR C 295      17.695  19.762  -8.225  1.00 44.07           C
ATOM   2296  O   TYR C 295      17.505  19.407  -7.050  1.00 44.99           O
ATOM   2297  CB  TYR C 295      16.725  18.451 -10.139  1.00 44.78           C
ATOM   2298  CG  TYR C 295      15.605  18.185 -11.117  1.00 46.07           C
ATOM   2299  CD1 TYR C 295      14.302  18.550 -10.816  1.00 44.48           C
ATOM   2300  CD2 TYR C 295      15.834  17.529 -12.327  1.00 43.41           C
ATOM   2301  CE1 TYR C 295      13.267  18.313 -11.702  1.00 46.27           C
ATOM   2302  CE2 TYR C 295      14.805  17.294 -13.232  1.00 42.28           C
ATOM   2303  CZ  TYR C 295      13.511  17.682 -12.912  1.00 45.87           C
ATOM   2304  OH  TYR C 295      12.448  17.490 -13.758  1.00 46.68           O
ATOM   2305  N   ARG C 296      18.862  20.212  -8.682  1.00 40.67           N
ATOM   2306  CA  ARG C 296      20.028  20.333  -7.815  1.00 46.28           C
ATOM   2307  C   ARG C 296      19.731  21.305  -6.667  1.00 46.69           C
ATOM   2308  O   ARG C 296      19.969  20.983  -5.506  1.00 52.05           O
ATOM   2309  CB  ARG C 296      21.273  20.743  -8.604  1.00 46.70           C
ATOM   2310  CG  ARG C 296      21.867  19.589  -9.397  1.00 49.56           C
ATOM   2311  CD  ARG C 296      23.278  19.893  -9.813  1.00 50.08           C
ATOM   2312  NE  ARG C 296      23.204  20.915 -10.839  1.00 56.57           N
ATOM   2313  CZ  ARG C 296      22.874  20.678 -12.104  1.00 56.38           C
ATOM   2314  NH1 ARG C 296      22.701  19.431 -12.509  1.00 49.93           N1+
ATOM   2315  NH2 ARG C 296      22.718  21.683 -12.952  1.00 53.54           N
ATOM   2316  N   GLY C 297      19.163  22.462  -6.995  1.00 45.35           N
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ATOM   2317  CA  GLY C 297      18.854  23.484  -6.015  1.00 44.11           C
ATOM   2318  C   GLY C 297      17.840  23.015  -4.990  1.00 46.81           C
ATOM   2319  O   GLY C 297      17.907  23.398  -3.817  1.00 53.92           O
ATOM   2320  N   LEU C 298      16.877  22.207  -5.433  1.00 50.35           N
ATOM   2321  CA  LEU C 298      15.853  21.663  -4.540  1.00 54.64           C
ATOM   2322  C   LEU C 298      16.462  20.580  -3.619  1.00 54.98           C
ATOM   2323  O   LEU C 298      16.113  20.485  -2.457  1.00 52.05           O
ATOM   2324  CB  LEU C 298      14.682  21.129  -5.377  1.00 51.76           C
ATOM   2325  CG  LEU C 298      13.718  22.190  -5.922  1.00 52.90           C
ATOM   2326  CD1 LEU C 298      12.745  21.589  -6.925  1.00 49.58           C
ATOM   2327  CD2 LEU C 298      12.938  22.868  -4.807  1.00 53.45           C
ATOM   2328  N   GLN C 299      17.387  19.770  -4.136  1.00 52.59           N
ATOM   2329  CA  GLN C 299      18.011  18.731  -3.354  1.00 53.46           C
ATOM   2330  C   GLN C 299      18.817  19.377  -2.224  1.00 56.05           C
ATOM   2331  O   GLN C 299      18.785  18.913  -1.078  1.00 51.74           O
ATOM   2332  CB  GLN C 299      18.900  17.898  -4.265  1.00 57.48           C
ATOM   2333  CG  GLN C 299      19.479  16.641  -3.637  1.00 62.71           C
ATOM   2334  CD  GLN C 299      20.416  16.001  -4.633  1.00 70.54           C
ATOM   2335  NE2 GLN C 299      21.576  16.611  -4.831  1.00 72.61           N
ATOM   2336  OE1 GLN C 299      20.070  15.025  -5.292  1.00 79.52           O
ATOM   2337  N   ALA C 300      19.505  20.476  -2.566  1.00 53.33           N
ATOM   2338  CA  ALA C 300      20.416  21.170  -1.672  1.00 48.99           C
ATOM   2339  C   ALA C 300      19.621  21.822  -0.538  1.00 52.03           C
ATOM   2340  O   ALA C 300      20.144  22.040   0.552  1.00 57.11           O
ATOM   2341  CB  ALA C 300      21.250  22.176  -2.443  1.00 43.22           C
ATOM   2342  N   MET C 301      18.349  22.126  -0.809  1.00 51.79           N
ATOM   2343  CA  MET C 301      17.464  22.764   0.153  1.00 51.64           C
ATOM   2344  C   MET C 301      16.666  21.726   0.959  1.00 46.08           C
ATOM   2345  O   MET C 301      15.868  22.112   1.803  1.00 43.84           O
ATOM   2346  CB  MET C 301      16.485  23.691  -0.575  1.00 58.34           C
ATOM   2347  CG  MET C 301      17.143  24.909  -1.194  1.00 59.89           C
ATOM   2348  SD  MET C 301      15.897  25.856  -2.084  1.00 61.09           S
ATOM   2349  CE  MET C 301      14.970  26.547  -0.715  1.00 63.38           C
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ATOM   2350  N   GLY C 302      16.864  20.435   0.666  1.00 42.80           N
ATOM   2351  CA  GLY C 302      16.296  19.333   1.402  1.00 45.61           C
ATOM   2352  C   GLY C 302      14.871  19.012   0.992  1.00 52.44           C
ATOM   2353  O   GLY C 302      14.252  18.162   1.581  1.00 54.76           O
ATOM   2354  N   LEU C 303      14.357  19.673  -0.050  1.00 60.68           N
ATOM   2355  CA  LEU C 303      12.924  19.577  -0.443  1.00 59.15           C
ATOM   2356  C   LEU C 303      12.708  18.423  -1.431  1.00 51.73           C
ATOM   2357  O   LEU C 303      13.615  18.009  -2.133  1.00 50.96           O
ATOM   2358  CB  LEU C 303      12.497  20.918  -1.046  1.00 57.19           C
ATOM   2359  CG  LEU C 303      12.486  22.075  -0.054  1.00 58.62           C
ATOM   2360  CD1 LEU C 303      12.555  23.426  -0.758  1.00 59.54           C
ATOM   2361  CD2 LEU C 303      11.259  21.972   0.829  1.00 61.59           C
ATOM   2362  N   GLU C 304      11.472  17.935  -1.498  1.00 52.59           N
ATOM   2363  CA  GLU C 304      11.151  16.783  -2.325  1.00 58.94           C
ATOM   2364  C   GLU C 304      10.244  17.191  -3.494  1.00 58.35           C
ATOM   2365  O   GLU C 304       9.644  18.264  -3.508  1.00 58.71           O
ATOM   2366  CB  GLU C 304      10.514  15.706  -1.449  1.00 61.39           C
ATOM   2367  CG  GLU C 304      11.511  15.099  -0.475  1.00 71.50           C
ATOM   2368  CD  GLU C 304      10.961  13.999   0.416  1.00 71.52           C
ATOM   2369  OE1 GLU C 304       9.956  14.244   1.098  1.00 66.53           O
ATOM   2370  OE2 GLU C 304      11.521  12.892   0.390  1.00 76.46           O1-
ATOM   2371  N   ILE C 305      10.142  16.273  -4.457  1.00 53.30           N
ATOM   2372  CA  ILE C 305       9.406  16.432  -5.687  1.00 51.16           C
ATOM   2373  C   ILE C 305       8.343  15.322  -5.767  1.00 54.30           C
ATOM   2374  O   ILE C 305       8.674  14.150  -5.616  1.00 57.43           O
ATOM   2375  CB  ILE C 305      10.403  16.366  -6.867  1.00 47.89           C
ATOM   2376  CG1 ILE C 305      11.481  17.443  -6.745  1.00 44.92           C
ATOM   2377  CG2 ILE C 305       9.682  16.411  -8.205  1.00 49.65           C
ATOM   2378  CD1 ILE C 305      12.464  17.460  -7.875  1.00 44.55           C
ATOM   2379  N   PHE C 306       7.091  15.695  -6.075  1.00 55.90           N
ATOM   2380  CA  PHE C 306       5.919  14.785  -6.084  1.00 52.55           C
ATOM   2381  C   PHE C 306       6.196  13.518  -6.911  1.00 52.80           C
ATOM   2382  O   PHE C 306       5.913  12.381  -6.463  1.00 50.13           O
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ATOM   2383  CB  PHE C 306       4.693  15.520  -6.634  1.00 51.64           C
ATOM   2384  CG  PHE C 306       3.404  14.732  -6.597  1.00 54.05           C
ATOM   2385  CD1 PHE C 306       2.821  14.375  -5.386  1.00 52.36           C
ATOM   2386  CD2 PHE C 306       2.760  14.359  -7.770  1.00 50.52           C
ATOM   2387  CE1 PHE C 306       1.634  13.661  -5.350  1.00 50.08           C
ATOM   2388  CE2 PHE C 306       1.574  13.640  -7.731  1.00 52.05           C
ATOM   2389  CZ  PHE C 306       1.007  13.302  -6.521  1.00 53.98           C
ATOM   2390  N   VAL C 307       6.714  13.717  -8.128  1.00 52.48           N
ATOM   2391  CA  VAL C 307       7.121  12.619  -8.981  1.00 56.26           C
ATOM   2392  C   VAL C 307       8.576  12.291  -8.638  1.00 58.61           C
ATOM   2393  O   VAL C 307       9.471  13.053  -8.970  1.00 70.54           O
ATOM   2394  CB  VAL C 307       6.930  12.976 -10.468  1.00 58.26           C
ATOM   2395  CG1 VAL C 307       7.630  11.994 -11.403  1.00 58.12           C
ATOM   2396  CG2 VAL C 307       5.456  13.085 -10.823  1.00 55.81           C
ATOM   2397  N   LYS C 308       8.803  11.159  -7.966  1.00 64.76           N
ATOM   2398  CA  LYS C 308      10.127  10.875  -7.373  1.00 71.86           C
ATOM   2399  C   LYS C 308      11.094  10.383  -8.463  1.00 66.67           C
ATOM   2400  O   LYS C 308      12.260  10.756  -8.471  1.00 57.49           O
ATOM   2401  CB  LYS C 308       9.963   9.958  -6.153  1.00 71.62           C
ATOM   2402  CG  LYS C 308       9.586  10.724  -4.886  1.00 83.64           C
ATOM   2403  CD  LYS C 308       8.918   9.908  -3.796  1.00 88.41           C
ATOM   2404  CE  LYS C 308       7.442  10.208  -3.633  1.00 88.06           C
ATOM   2405  NZ  LYS C 308       6.764   9.135  -2.867  1.00 84.33           N1+
ATOM   2406  N   ASP C 309      10.595   9.609  -9.425  1.00 69.22           N
ATOM   2407  CA  ASP C 309      11.463   8.995 -10.409  1.00 76.51           C
ATOM   2408  C   ASP C 309      11.772  10.017 -11.498  1.00 72.90           C
ATOM   2409  O   ASP C 309      10.897  10.315 -12.309  1.00 68.17           O
ATOM   2410  CB  ASP C 309      10.848   7.716 -10.979  1.00 86.36           C
ATOM   2411  CG  ASP C 309      11.902   6.768 -11.528  1.00 93.00           C
ATOM   2412  OD1 ASP C 309      12.982   7.261 -11.933  1.00 94.22           O
ATOM   2413  OD2 ASP C 309      11.646   5.547 -11.528  1.00 97.52           O1-
ATOM   2414  N   PRO C 310      13.019  10.558 -11.559  1.00 71.81           N
ATOM   2415  CA  PRO C 310      13.357  11.681 -12.436  1.00 66.47           C
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ATOM   2416  C   PRO C 310      13.109  11.435 -13.928  1.00 65.50           C
ATOM   2417  O   PRO C 310      12.874  12.388 -14.670  1.00 75.96           O
ATOM   2418  CB  PRO C 310      14.867  11.906 -12.248  1.00 67.19           C
ATOM   2419  CG  PRO C 310      15.156  11.281 -10.904  1.00 72.01           C
ATOM   2420  CD  PRO C 310      14.191  10.118 -10.783  1.00 72.42           C
ATOM   2421  N   GLU C 311      13.182  10.176 -14.357  1.00 64.69           N
ATOM   2422  CA  GLU C 311      12.994   9.863 -15.759  1.00 66.36           C
ATOM   2423  C   GLU C 311      11.508  10.026 -16.125  1.00 54.10           C
ATOM   2424  O   GLU C 311      11.199  10.065 -17.279  1.00 57.48           O
ATOM   2425  CB  GLU C 311      13.616   8.506 -16.135  1.00 77.87           C
ATOM   2426  CG  GLU C 311      13.125   7.307 -15.335  1.00 85.60           C
ATOM   2427  CD  GLU C 311      14.215   6.318 -14.933  1.00 97.59           C
ATOM   2428  OE1 GLU C 311      13.933   5.082 -14.887  1.00 94.43           O
ATOM   2429  OE2 GLU C 311      15.344   6.779 -14.651  1.00103.03           O1-
ATOM   2430  N   TYR C 312      10.604  10.206 -15.160  1.00 47.57           N
ATOM   2431  CA  TYR C 312       9.193  10.437 -15.488  1.00 52.34           C
ATOM   2432  C   TYR C 312       8.759  11.871 -15.127  1.00 49.05           C
ATOM   2433  O   TYR C 312       7.541  12.158 -15.123  1.00 42.02           O
ATOM   2434  CB  TYR C 312       8.319   9.363 -14.825  1.00 61.05           C
ATOM   2435  CG  TYR C 312       8.700   7.949 -15.201  1.00 70.86           C
ATOM   2436  CD1 TYR C 312       9.144   7.666 -16.483  1.00 72.10           C
ATOM   2437  CD2 TYR C 312       8.632   6.895 -14.292  1.00 66.98           C
ATOM   2438  CE1 TYR C 312       9.534   6.390 -16.849  1.00 77.83           C
ATOM   2439  CE2 TYR C 312       8.999   5.605 -14.650  1.00 65.61           C
ATOM   2440  CZ  TYR C 312       9.454   5.353 -15.938  1.00 75.69           C
ATOM   2441  OH  TYR C 312       9.818   4.109 -16.381  1.00 71.21           O
ATOM   2442  N   ARG C 313       9.733  12.771 -14.885  1.00 45.79           N
ATOM   2443  CA  ARG C 313       9.462  14.192 -14.559  1.00 47.63           C
ATOM   2444  C   ARG C 313       9.332  15.019 -15.849  1.00 46.28           C
ATOM   2445  O   ARG C 313      10.137  14.914 -16.781  1.00 40.67           O
ATOM   2446  CB  ARG C 313      10.543  14.771 -13.642  1.00 47.48           C
ATOM   2447  CG  ARG C 313      10.560  14.132 -12.262  1.00 55.96           C
ATOM   2448  CD  ARG C 313      11.216  14.914 -11.137  1.00 53.49           C
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ATOM   2449  NE  ARG C 313      12.648  14.696 -10.978  1.00 54.40           N
ATOM   2450  CZ  ARG C 313      13.257  14.442  -9.822  1.00 55.83           C
ATOM   2451  NH1 ARG C 313      12.594  13.856  -8.839  1.00 53.86           N1+
ATOM   2452  NH2 ARG C 313      14.524  14.790  -9.655  1.00 48.31           N
ATOM   2453  N   LEU C 314       8.272  15.833 -15.884  1.00 48.39           N
ATOM   2454  CA  LEU C 314       8.039  16.839 -16.913  1.00 40.16           C
ATOM   2455  C   LEU C 314       8.948  18.019 -16.619  1.00 37.72           C
ATOM   2456  O   LEU C 314       8.741  18.698 -15.622  1.00 45.32           O
ATOM   2457  CB  LEU C 314       6.576  17.283 -16.859  1.00 40.74           C
ATOM   2458  CG  LEU C 314       6.219  18.461 -17.769  1.00 45.02           C
ATOM   2459  CD1 LEU C 314       6.438  18.099 -19.227  1.00 47.14           C
ATOM   2460  CD2 LEU C 314       4.778  18.908 -17.559  1.00 44.01           C
ATOM   2461  N   PRO C 315       9.958  18.325 -17.452  1.00 35.58           N
ATOM   2462  CA  PRO C 315      10.880  19.403 -17.124  1.00 39.20           C
ATOM   2463  C   PRO C 315      10.211  20.778 -16.915  1.00 40.65           C
ATOM   2464  O   PRO C 315      10.716  21.566 -16.147  1.00 45.09           O
ATOM   2465  CB  PRO C 315      11.887  19.414 -18.295  1.00 41.40           C
ATOM   2466  CG  PRO C 315      11.274  18.571 -19.393  1.00 38.00           C
ATOM   2467  CD  PRO C 315      10.277  17.655 -18.723  1.00 37.98           C
ATOM   2468  N   THR C 316       9.066  21.053 -17.549  1.00 40.60           N
ATOM   2469  CA  THR C 316       8.503  22.407 -17.536  1.00 38.57           C
ATOM   2470  C   THR C 316       7.638  22.674 -16.305  1.00 39.24           C
ATOM   2471  O   THR C 316       7.304  23.848 -16.044  1.00 36.19           O
ATOM   2472  CB  THR C 316       7.678  22.686 -18.793  1.00 40.72           C
ATOM   2473  CG2 THR C 316       8.538  22.580 -20.037  1.00 39.90           C
ATOM   2474  OG1 THR C 316       6.555  21.797 -18.834  1.00 38.66           O
ATOM   2475  N   VAL C 317       7.246  21.606 -15.590  1.00 40.19           N
ATOM   2476  CA  VAL C 317       6.526  21.725 -14.338  1.00 38.36           C
ATOM   2477  C   VAL C 317       7.084  20.728 -13.320  1.00 40.31           C
ATOM   2478  O   VAL C 317       7.185  19.537 -13.596  1.00 39.54           O
ATOM   2479  CB  VAL C 317       5.024  21.523 -14.523  1.00 39.49           C
ATOM   2480  CG1 VAL C 317       4.274  21.868 -13.249  1.00 42.74           C
ATOM   2481  CG2 VAL C 317       4.506  22.331 -15.688  1.00 41.91           C
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ATOM   2482  N   THR C 318       7.470  21.269 -12.160  1.00 39.78           N
ATOM   2483  CA  THR C 318       8.052  20.545 -11.071  1.00 41.38           C
ATOM   2484  C   THR C 318       7.309  20.874  -9.772  1.00 46.15           C
ATOM   2485  O   THR C 318       7.306  22.064  -9.337  1.00 40.06           O
ATOM   2486  CB  THR C 318       9.518  20.936 -10.874  1.00 41.44           C
ATOM   2487  CG2 THR C 318      10.126  20.184  -9.706  1.00 42.39           C
ATOM   2488  OG1 THR C 318      10.242  20.696 -12.078  1.00 37.26           O
ATOM   2489  N   CYS C 319       6.720  19.840  -9.144  1.00 49.07           N
ATOM   2490  CA  CYS C 319       5.801  20.039  -8.000  1.00 50.81           C
ATOM   2491  C   CYS C 319       6.522  19.796  -6.672  1.00 48.45           C
ATOM   2492  O   CYS C 319       6.791  18.672  -6.286  1.00 52.55           O
ATOM   2493  CB  CYS C 319       4.564  19.163  -8.108  1.00 50.13           C
ATOM   2494  SG  CYS C 319       3.514  19.645  -9.500  1.00 53.46           S
ATOM   2495  N   ILE C 320       6.777  20.899  -5.976  1.00 46.30           N
ATOM   2496  CA  ILE C 320       7.605  20.979  -4.793  1.00 46.47           C
ATOM   2497  C   ILE C 320       6.738  20.687  -3.563  1.00 47.29           C
ATOM   2498  O   ILE C 320       5.739  21.392  -3.350  1.00 46.08           O
ATOM   2499  CB  ILE C 320       8.209  22.395  -4.716  1.00 46.00           C
ATOM   2500  CG1 ILE C 320       9.101  22.696  -5.927  1.00 45.93           C
ATOM   2501  CG2 ILE C 320       8.929  22.601  -3.393  1.00 49.10           C
ATOM   2502  CD1 ILE C 320       9.422  24.172  -6.111  1.00 44.75           C
ATOM   2503  N   MET C 321       7.141  19.699  -2.742  1.00 48.98           N
ATOM   2504  CA  MET C 321       6.296  19.195  -1.609  1.00 48.81           C
ATOM   2505  C   MET C 321       6.421  20.155  -0.416  1.00 45.45           C
ATOM   2506  O   MET C 321       7.505  20.505  -0.007  1.00 47.53           O
ATOM   2507  CB  MET C 321       6.692  17.774  -1.175  1.00 48.24           C
ATOM   2508  CG  MET C 321       6.493  16.687  -2.244  1.00 49.85           C
ATOM   2509  SD  MET C 321       4.768  16.546  -2.867  1.00 56.35           S
ATOM   2510  CE  MET C 321       3.946  15.868  -1.424  1.00 52.09           C
ATOM   2511  N   ILE C 322       5.289  20.610   0.115  1.00 46.16           N
ATOM   2512  CA  ILE C 322       5.301  21.529   1.235  1.00 48.84           C
ATOM   2513  C   ILE C 322       5.775  20.768   2.470  1.00 50.93           C
ATOM   2514  O   ILE C 322       5.130  19.812   2.869  1.00 54.78           O
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ATOM   2515  CB  ILE C 322       3.909  22.140   1.470  1.00 51.16           C
ATOM   2516  CG1 ILE C 322       3.355  22.845   0.226  1.00 53.91           C
ATOM   2517  CG2 ILE C 322       3.954  23.082   2.662  1.00 57.68           C
ATOM   2518  CD1 ILE C 322       1.842  23.036   0.220  1.00 50.27           C
ATOM   2519  N   PRO C 323       6.873  21.178   3.144  1.00 54.56           N
ATOM   2520  CA  PRO C 323       7.314  20.506   4.369  1.00 51.09           C
ATOM   2521  C   PRO C 323       6.270  20.624   5.489  1.00 53.81           C
ATOM   2522  O   PRO C 323       5.548  21.650   5.553  1.00 47.03           O
ATOM   2523  CB  PRO C 323       8.591  21.246   4.799  1.00 50.66           C
ATOM   2524  CG  PRO C 323       8.999  22.084   3.583  1.00 53.22           C
ATOM   2525  CD  PRO C 323       7.728  22.328   2.798  1.00 53.39           C
ATOM   2526  N   LYS C 324       6.199  19.582   6.338  1.00 57.79           N
ATOM   2527  CA  LYS C 324       5.280  19.536   7.483  1.00 59.84           C
ATOM   2528  C   LYS C 324       5.381  20.881   8.199  1.00 52.74           C
ATOM   2529  O   LYS C 324       6.494  21.402   8.374  1.00 46.95           O
ATOM   2530  CB  LYS C 324       5.564  18.348   8.419  1.00 68.67           C
ATOM   2531  CG  LYS C 324       5.010  18.459   9.848  1.00 73.18           C
ATOM   2532  CD  LYS C 324       4.307  17.206  10.399  1.00 74.79           C
ATOM   2533  CE  LYS C 324       5.231  16.173  11.012  1.00 85.21           C
ATOM   2534  NZ  LYS C 324       5.883  15.319   9.986  1.00 97.60           N1+
ATOM   2535  N   GLY C 325       4.201  21.454   8.489  1.00 49.15           N
ATOM   2536  CA  GLY C 325       4.023  22.627   9.333  1.00 47.40           C
ATOM   2537  C   GLY C 325       4.362  23.938   8.655  1.00 50.86           C
ATOM   2538  O   GLY C 325       4.424  24.949   9.334  1.00 54.45           O
ATOM   2539  N   VAL C 326       4.555  23.946   7.327  1.00 57.07           N
ATOM   2540  CA  VAL C 326       4.834  25.190   6.566  1.00 51.81           C
ATOM   2541  C   VAL C 326       3.534  25.662   5.907  1.00 52.21           C
ATOM   2542  O   VAL C 326       2.856  24.868   5.249  1.00 62.79           O
ATOM   2543  CB  VAL C 326       5.943  24.979   5.516  1.00 52.87           C
ATOM   2544  CG1 VAL C 326       6.036  26.155   4.556  1.00 54.58           C
ATOM   2545  CG2 VAL C 326       7.303  24.696   6.149  1.00 48.45           C
ATOM   2546  N   ASN C 327       3.202  26.949   6.065  1.00 49.46           N
ATOM   2547  CA  ASN C 327       2.024  27.562   5.394  1.00 53.76           C
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ATOM   2548  C   ASN C 327       2.411  28.024   3.973  1.00 51.52           C
ATOM   2549  O   ASN C 327       3.133  29.007   3.790  1.00 49.32           O
ATOM   2550  CB  ASN C 327       1.446  28.721   6.220  1.00 51.79           C
ATOM   2551  CG  ASN C 327       0.357  29.494   5.502  1.00 52.90           C
ATOM   2552  ND2 ASN C 327      -0.130  30.546   6.131  1.00 53.64           N
ATOM   2553  OD1 ASN C 327      -0.050  29.158   4.389  1.00 54.07           O
ATOM   2554  N   TRP C 328       1.876  27.349   2.955  1.00 50.10           N
ATOM   2555  CA  TRP C 328       2.310  27.601   1.578  1.00 56.13           C
ATOM   2556  C   TRP C 328       1.904  29.008   1.108  1.00 57.31           C
ATOM   2557  O   TRP C 328       2.661  29.645   0.399  1.00 52.47           O
ATOM   2558  CB  TRP C 328       1.784  26.513   0.648  1.00 56.13           C
ATOM   2559  CG  TRP C 328       0.358  26.706   0.281  1.00 55.88           C
ATOM   2560  CD1 TRP C 328      -0.730  26.147   0.879  1.00 61.43           C
ATOM   2561  CD2 TRP C 328      -0.134  27.549  -0.770  1.00 63.88           C
ATOM   2562  CE2 TRP C 328      -1.541  27.438  -0.752  1.00 67.06           C
ATOM   2563  CE3 TRP C 328       0.471  28.381  -1.720  1.00 62.24           C
ATOM   2564  NE1 TRP C 328      -1.874  26.582   0.268  1.00 63.45           N
ATOM   2565  CZ2 TRP C 328      -2.345  28.135  -1.656  1.00 63.44           C
ATOM   2566  CZ3 TRP C 328      -0.326  29.069  -2.610  1.00 56.18           C
ATOM   2567  CH2 TRP C 328      -1.715  28.953  -2.568  1.00 59.73           C
ATOM   2568  N   TRP C 329       0.732  29.485   1.546  1.00 63.69           N
ATOM   2569  CA  TRP C 329       0.193  30.792   1.172  1.00 64.58           C
ATOM   2570  C   TRP C 329       1.114  31.926   1.659  1.00 65.08           C
ATOM   2571  O   TRP C 329       1.356  32.907   0.931  1.00 57.77           O
ATOM   2572  CB  TRP C 329      -1.256  30.961   1.677  1.00 75.54           C
ATOM   2573  CG  TRP C 329      -1.849  32.318   1.422  1.00 85.33           C
ATOM   2574  CD1 TRP C 329      -2.385  33.163   2.352  1.00 87.24           C
ATOM   2575  CD2 TRP C 329      -1.938  33.008   0.151  1.00 99.16           C
ATOM   2576  CE2 TRP C 329      -2.546  34.259   0.406  1.00 98.59           C
ATOM   2577  CE3 TRP C 329      -1.558  32.702  -1.172  1.00 97.77           C
ATOM   2578  NE1 TRP C 329      -2.808  34.322   1.753  1.00 92.67           N
ATOM   2579  CZ2 TRP C 329      -2.787  35.186  -0.613  1.00 98.80           C
ATOM   2580  CZ3 TRP C 329      -1.792  33.618  -2.176  1.00 90.65           C
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ATOM   2581  CH2 TRP C 329      -2.403  34.843  -1.894  1.00100.56           C
ATOM   2582  N   LYS C 330       1.638  31.817   2.882  1.00 61.97           N
ATOM   2583  CA  LYS C 330       2.511  32.880   3.411  1.00 66.78           C
ATOM   2584  C   LYS C 330       3.734  33.046   2.488  1.00 57.97           C
ATOM   2585  O   LYS C 330       4.207  34.178   2.274  1.00 58.08           O
ATOM   2586  CB  LYS C 330       2.940  32.598   4.863  1.00 80.24           C
ATOM   2587  CG  LYS C 330       2.053  33.169   5.979  1.00 89.02           C
ATOM   2588  CD  LYS C 330       2.671  33.045   7.388  1.00 96.81           C
ATOM   2589  CE  LYS C 330       1.679  32.799   8.514  1.00 96.42           C
ATOM   2590  NZ  LYS C 330       2.266  31.930   9.565  1.00 95.36           N1+
ATOM   2591  N   VAL C 331       4.243  31.931   1.944  1.00 48.32           N
ATOM   2592  CA  VAL C 331       5.474  31.934   1.152  1.00 47.67           C
ATOM   2593  C   VAL C 331       5.197  32.566  -0.221  1.00 46.80           C
ATOM   2594  O   VAL C 331       5.965  33.380  -0.687  1.00 50.13           O
ATOM   2595  CB  VAL C 331       6.076  30.521   1.036  1.00 47.07           C
ATOM   2596  CG1 VAL C 331       7.353  30.491   0.211  1.00 46.79           C
ATOM   2597  CG2 VAL C 331       6.354  29.930   2.404  1.00 49.15           C
ATOM   2598  N   SER C 332       4.080  32.198  -0.844  1.00 47.64           N
ATOM   2599  CA  SER C 332       3.681  32.735  -2.142  1.00 49.10           C
ATOM   2600  C   SER C 332       3.424  34.243  -2.053  1.00 47.45           C
ATOM   2601  O   SER C 332       3.753  34.980  -2.956  1.00 53.12           O
ATOM   2602  CB  SER C 332       2.481  31.989  -2.683  1.00 48.42           C
ATOM   2603  OG  SER C 332       2.795  30.610  -2.872  1.00 51.10           O
ATOM   2604  N   GLU C 333       2.824  34.680  -0.951  1.00 50.00           N
ATOM   2605  CA  GLU C 333       2.481  36.085  -0.710  1.00 49.86           C
ATOM   2606  C   GLU C 333       3.769  36.913  -0.555  1.00 46.28           C
ATOM   2607  O   GLU C 333       3.973  37.948  -1.203  1.00 46.68           O
ATOM   2608  CB  GLU C 333       1.602  36.174   0.542  1.00 50.15           C
ATOM   2609  CG  GLU C 333       0.786  37.441   0.631  1.00 57.15           C
ATOM   2610  CD  GLU C 333       0.705  38.071   2.013  1.00 60.96           C
ATOM   2611  OE1 GLU C 333       1.109  37.421   2.997  1.00 56.44           O
ATOM   2612  OE2 GLU C 333       0.259  39.234   2.089  1.00 64.86           O1-
ATOM   2613  N   TYR C 334       4.660  36.428   0.309  1.00 45.78           N
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ATOM   2614  CA  TYR C 334       5.918  37.085   0.532  1.00 45.07           C
ATOM   2615  C   TYR C 334       6.662  37.257  -0.800  1.00 41.66           C
ATOM   2616  O   TYR C 334       7.175  38.329  -1.070  1.00 40.86           O
ATOM   2617  CB  TYR C 334       6.782  36.317   1.539  1.00 42.48           C
ATOM   2618  CG  TYR C 334       7.975  37.115   1.990  1.00 43.02           C
ATOM   2619  CD1 TYR C 334       7.835  38.062   2.992  1.00 44.61           C
ATOM   2620  CD2 TYR C 334       9.220  36.977   1.384  1.00 42.18           C
ATOM   2621  CE1 TYR C 334       8.904  38.841   3.399  1.00 44.43           C
ATOM   2622  CE2 TYR C 334      10.306  37.740   1.790  1.00 43.09           C
ATOM   2623  CZ  TYR C 334      10.137  38.684   2.791  1.00 45.64           C
ATOM   2624  OH  TYR C 334      11.166  39.446   3.242  1.00 47.14           O
ATOM   2625  N   ALA C 335       6.730  36.183  -1.601  1.00 38.16           N
ATOM   2626  CA  ALA C 335       7.550  36.145  -2.809  1.00 39.50           C
ATOM   2627  C   ALA C 335       7.015  37.148  -3.851  1.00 40.92           C
ATOM   2628  O   ALA C 335       7.789  37.767  -4.604  1.00 39.80           O
ATOM   2629  CB  ALA C 335       7.586  34.741  -3.342  1.00 40.63           C
ATOM   2630  N   MET C 336       5.692  37.343  -3.859  1.00 40.12           N
ATOM   2631  CA  MET C 336       5.053  38.264  -4.775  1.00 41.81           C
ATOM   2632  C   MET C 336       5.262  39.705  -4.267  1.00 45.26           C
ATOM   2633  O   MET C 336       5.604  40.631  -5.049  1.00 43.29           O
ATOM   2634  CB  MET C 336       3.566  37.914  -4.912  1.00 38.40           C
ATOM   2635  CG  MET C 336       2.754  38.835  -5.827  1.00 38.32           C
ATOM   2636  SD  MET C 336       3.375  39.010  -7.526  1.00 38.14           S
ATOM   2637  CE  MET C 336       3.172  37.339  -8.136  1.00 40.51           C
ATOM   2638  N   ASN C 337       5.122  39.906  -2.954  1.00 40.60           N
ATOM   2639  CA  ASN C 337       5.219  41.235  -2.419  1.00 38.40           C
ATOM   2640  C   ASN C 337       6.649  41.752  -2.543  1.00 37.17           C
ATOM   2641  O   ASN C 337       6.835  42.940  -2.673  1.00 41.50           O
ATOM   2642  CB  ASN C 337       4.766  41.310  -0.962  1.00 40.06           C
ATOM   2643  CG  ASN C 337       3.282  41.107  -0.793  1.00 39.21           C
ATOM   2644  ND2 ASN C 337       2.871  40.940   0.444  1.00 43.32           N
ATOM   2645  OD1 ASN C 337       2.523  41.072  -1.758  1.00 42.60           O
ATOM   2646  N   ASN C 338       7.642  40.875  -2.446  1.00 34.00           N
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ATOM   2647  CA  ASN C 338       9.037  41.297  -2.298  1.00 39.00           C
ATOM   2648  C   ASN C 338       9.842  41.164  -3.602  1.00 42.23           C
ATOM   2649  O   ASN C 338      10.732  41.973  -3.826  1.00 41.46           O
ATOM   2650  CB  ASN C 338       9.725  40.504  -1.177  1.00 42.17           C
ATOM   2651  CG  ASN C 338       9.257  40.960   0.185  1.00 40.14           C
ATOM   2652  ND2 ASN C 338       8.133  40.438   0.646  1.00 39.45           N
ATOM   2653  OD1 ASN C 338       9.855  41.855   0.766  1.00 42.10           O
ATOM   2654  N   PHE C 339       9.549  40.141  -4.430  1.00 45.83           N
ATOM   2655  CA  PHE C 339      10.353  39.812  -5.641  1.00 46.44           C
ATOM   2656  C   PHE C 339       9.557  39.894  -6.961  1.00 46.67           C
ATOM   2657  O   PHE C 339      10.160  39.753  -8.049  1.00 47.31           O
ATOM   2658  CB  PHE C 339      10.948  38.412  -5.470  1.00 44.22           C
ATOM   2659  CG  PHE C 339      11.811  38.294  -4.245  1.00 42.47           C
ATOM   2660  CD1 PHE C 339      12.934  39.089  -4.101  1.00 43.95           C
ATOM   2661  CD2 PHE C 339      11.462  37.449  -3.209  1.00 43.84           C
ATOM   2662  CE1 PHE C 339      13.717  39.017  -2.961  1.00 42.38           C
ATOM   2663  CE2 PHE C 339      12.242  37.382  -2.063  1.00 45.62           C
ATOM   2664  CZ  PHE C 339      13.370  38.164  -1.944  1.00 42.16           C
ATOM   2665  N   SER C 340       8.237  40.113  -6.868  1.00 43.21           N
ATOM   2666  CA  SER C 340       7.284  40.079  -7.977  1.00 40.80           C
ATOM   2667  C   SER C 340       7.288  38.709  -8.666  1.00 43.46           C
ATOM   2668  O   SER C 340       7.027  38.598  -9.882  1.00 44.81           O
ATOM   2669  CB  SER C 340       7.545  41.196  -8.923  1.00 39.85           C
ATOM   2670  OG  SER C 340       7.140  42.402  -8.318  1.00 43.16           O
ATOM   2671  N   LEU C 341       7.513  37.669  -7.860  1.00 40.91           N
ATOM   2672  CA  LEU C 341       7.564  36.304  -8.316  1.00 41.54           C
ATOM   2673  C   LEU C 341       6.239  35.590  -8.012  1.00 42.54           C
ATOM   2674  O   LEU C 341       5.708  35.659  -6.881  1.00 37.75           O
ATOM   2675  CB  LEU C 341       8.709  35.609  -7.578  1.00 43.59           C
ATOM   2676  CG  LEU C 341       8.991  34.177  -8.016  1.00 44.80           C
ATOM   2677  CD1 LEU C 341       9.315  34.105  -9.490  1.00 49.56           C
ATOM   2678  CD2 LEU C 341      10.141  33.588  -7.227  1.00 48.32           C
ATOM   2679  N   GLU C 342       5.758  34.847  -9.012  1.00 41.50           N
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ATOM   2680  CA  GLU C 342       4.661  33.913  -8.871  1.00 46.15           C
ATOM   2681  C   GLU C 342       5.212  32.560  -8.389  1.00 42.64           C
ATOM   2682  O   GLU C 342       5.880  31.875  -9.139  1.00 40.58           O
ATOM   2683  CB  GLU C 342       3.959  33.770 -10.231  1.00 48.85           C
ATOM   2684  CG  GLU C 342       2.949  32.629 -10.305  1.00 48.30           C
ATOM   2685  CD  GLU C 342       1.662  32.860  -9.526  1.00 52.28           C
ATOM   2686  OE1 GLU C 342       1.590  33.843  -8.780  1.00 55.58           O
ATOM   2687  OE2 GLU C 342       0.714  32.077  -9.701  1.00 60.46           O1-
ATOM   2688  N   ILE C 343       4.924  32.190  -7.139  1.00 41.22           N
ATOM   2689  CA  ILE C 343       5.131  30.812  -6.644  1.00 44.36           C
ATOM   2690  C   ILE C 343       3.753  30.199  -6.419  1.00 44.38           C
ATOM   2691  O   ILE C 343       3.133  30.439  -5.387  1.00 43.68           O
ATOM   2692  CB  ILE C 343       5.950  30.758  -5.334  1.00 47.47           C
ATOM   2693  CG1 ILE C 343       7.319  31.428  -5.468  1.00 48.43           C
ATOM   2694  CG2 ILE C 343       6.083  29.321  -4.849  1.00 47.06           C
ATOM   2695  CD1 ILE C 343       8.065  31.574  -4.166  1.00 49.36           C
ATOM   2696  N   GLN C 344       3.282  29.436  -7.403  1.00 48.52           N
ATOM   2697  CA  GLN C 344       1.870  29.028  -7.452  1.00 49.50           C
ATOM   2698  C   GLN C 344       1.636  27.823  -6.536  1.00 43.15           C
ATOM   2699  O   GLN C 344       2.483  26.972  -6.440  1.00 43.61           O
ATOM   2700  CB  GLN C 344       1.430  28.722  -8.888  1.00 47.84           C
ATOM   2701  CG  GLN C 344      -0.042  28.329  -8.978  1.00 46.71           C
ATOM   2702  CD  GLN C 344      -0.758  28.893 -10.180  1.00 51.38           C
ATOM   2703  NE2 GLN C 344      -2.076  28.983 -10.066  1.00 42.55           N
ATOM   2704  OE1 GLN C 344      -0.147  29.243 -11.200  1.00 59.47           O
ATOM   2705  N   GLY C 345       0.466  27.799  -5.886  1.00 47.88           N
ATOM   2706  CA  GLY C 345      -0.062  26.651  -5.149  1.00 53.04           C
ATOM   2707  C   GLY C 345      -0.334  25.448  -6.056  1.00 56.85           C
ATOM   2708  O   GLY C 345      -0.189  25.503  -7.279  1.00 55.88           O
ATOM   2709  N   GLY C 346      -0.728  24.337  -5.431  1.00 58.31           N
ATOM   2710  CA  GLY C 346      -1.024  23.101  -6.111  1.00 50.28           C
ATOM   2711  C   GLY C 346      -2.454  23.077  -6.605  1.00 47.65           C
ATOM   2712  O   GLY C 346      -3.193  23.987  -6.376  1.00 44.84           O
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ATOM   2713  N   PHE C 347      -2.837  21.957  -7.213  1.00 49.06           N
ATOM   2714  CA  PHE C 347      -3.998  21.811  -8.062  1.00 50.50           C
ATOM   2715  C   PHE C 347      -4.186  20.315  -8.381  1.00 52.45           C
ATOM   2716  O   PHE C 347      -3.211  19.571  -8.564  1.00 49.85           O
ATOM   2717  CB  PHE C 347      -3.824  22.652  -9.333  1.00 48.91           C
ATOM   2718  CG  PHE C 347      -5.026  22.693 -10.240  1.00 47.91           C
ATOM   2719  CD1 PHE C 347      -6.231  23.222  -9.788  1.00 44.50           C
ATOM   2720  CD2 PHE C 347      -4.947  22.226 -11.547  1.00 48.20           C
ATOM   2721  CE1 PHE C 347      -7.341  23.269 -10.611  1.00 42.51           C
ATOM   2722  CE2 PHE C 347      -6.052  22.290 -12.382  1.00 48.84           C
ATOM   2723  CZ  PHE C 347      -7.245  22.808 -11.908  1.00 52.64           C
ATOM   2724  N   GLY C 348      -5.450  19.878  -8.431  1.00 55.49           N
ATOM   2725  CA  GLY C 348      -5.777  18.484  -8.683  1.00 56.05           C
ATOM   2726  C   GLY C 348      -5.090  17.590  -7.661  1.00 50.87           C
ATOM   2727  O   GLY C 348      -5.236  17.853  -6.475  1.00 50.39           O
ATOM   2728  N   PRO C 349      -4.274  16.582  -8.065  1.00 47.25           N
ATOM   2729  CA  PRO C 349      -3.621  15.680  -7.109  1.00 46.31           C
ATOM   2730  C   PRO C 349      -2.632  16.346  -6.142  1.00 51.01           C
ATOM   2731  O   PRO C 349      -2.104  15.693  -5.256  1.00 65.27           O
ATOM   2732  CB  PRO C 349      -2.879  14.688  -8.012  1.00 44.88           C
ATOM   2733  CG  PRO C 349      -2.678  15.437  -9.296  1.00 45.25           C
ATOM   2734  CD  PRO C 349      -3.947  16.242  -9.455  1.00 45.47           C
ATOM   2735  N   THR C 350      -2.438  17.657  -6.291  1.00 54.63           N
ATOM   2736  CA  THR C 350      -1.329  18.396  -5.708  1.00 49.77           C
ATOM   2737  C   THR C 350      -1.912  19.516  -4.817  1.00 49.90           C
ATOM   2738  O   THR C 350      -1.193  20.262  -4.174  1.00 51.99           O
ATOM   2739  CB  THR C 350      -0.412  18.684  -6.911  1.00 48.13           C
ATOM   2740  CG2 THR C 350      -0.322  20.128  -7.336  1.00 44.19           C
ATOM   2741  OG1 THR C 350       0.900  18.153  -6.716  1.00 52.68           O
ATOM   2742  N   MET C 351      -3.244  19.600  -4.737  1.00 48.84           N
ATOM   2743  CA  MET C 351      -3.922  20.575  -3.901  1.00 55.58           C
ATOM   2744  C   MET C 351      -3.465  20.374  -2.455  1.00 57.66           C
ATOM   2745  O   MET C 351      -3.593  19.278  -1.896  1.00 58.33           O
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ATOM   2746  CB  MET C 351      -5.455  20.457  -3.964  1.00 59.78           C
ATOM   2747  CG  MET C 351      -6.200  21.586  -3.246  1.00 58.65           C
ATOM   2748  SD  MET C 351      -5.848  23.224  -3.973  1.00 73.55           S
ATOM   2749  CE  MET C 351      -5.164  24.113  -2.568  1.00 75.87           C
ATOM   2750  N   GLY C 352      -2.898  21.449  -1.897  1.00 57.20           N
ATOM   2751  CA  GLY C 352      -2.567  21.568  -0.502  1.00 50.97           C
ATOM   2752  C   GLY C 352      -1.270  20.858  -0.133  1.00 50.34           C
ATOM   2753  O   GLY C 352      -0.902  20.868   1.031  1.00 43.34           O
ATOM   2754  N   ILE C 353      -0.580  20.230  -1.095  1.00 51.10           N
ATOM   2755  CA  ILE C 353       0.606  19.421  -0.746  1.00 52.50           C
ATOM   2756  C   ILE C 353       1.852  19.919  -1.489  1.00 53.03           C
ATOM   2757  O   ILE C 353       2.962  19.760  -0.982  1.00 56.41           O
ATOM   2758  CB  ILE C 353       0.367  17.901  -0.927  1.00 53.34           C
ATOM   2759  CG1 ILE C 353       0.040  17.514  -2.369  1.00 58.77           C
ATOM   2760  CG2 ILE C 353      -0.699  17.385   0.038  1.00 48.03           C
ATOM   2761  CD1 ILE C 353      -0.062  16.006  -2.571  1.00 60.19           C
ATOM   2762  N   ALA C 354       1.680  20.552  -2.656  1.00 54.90           N
ATOM   2763  CA  ALA C 354       2.824  21.050  -3.418  1.00 51.04           C
ATOM   2764  C   ALA C 354       2.580  22.472  -3.930  1.00 47.09           C
ATOM   2765  O   ALA C 354       1.450  22.909  -4.069  1.00 59.06           O
ATOM   2766  CB  ALA C 354       3.122  20.111  -4.551  1.00 50.21           C
ATOM   2767  N   TRP C 355       3.681  23.190  -4.151  1.00 42.96           N
ATOM   2768  CA  TRP C 355       3.741  24.316  -5.055  1.00 39.05           C
ATOM   2769  C   TRP C 355       4.098  23.764  -6.439  1.00 40.71           C
ATOM   2770  O   TRP C 355       4.638  22.636  -6.522  1.00 40.23           O
ATOM   2771  CB  TRP C 355       4.803  25.337  -4.627  1.00 40.43           C
ATOM   2772  CG  TRP C 355       4.721  25.975  -3.265  1.00 43.31           C
ATOM   2773  CD1 TRP C 355       4.029  27.099  -2.929  1.00 45.75           C
ATOM   2774  CD2 TRP C 355       5.483  25.628  -2.092  1.00 42.10           C
ATOM   2775  CE2 TRP C 355       5.157  26.565  -1.090  1.00 45.06           C
ATOM   2776  CE3 TRP C 355       6.385  24.602  -1.779  1.00 42.41           C
ATOM   2777  NE1 TRP C 355       4.273  27.452  -1.631  1.00 45.86           N
ATOM   2778  CZ2 TRP C 355       5.697  26.499   0.197  1.00 46.64           C
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ATOM   2779  CZ3 TRP C 355       6.920  24.532  -0.507  1.00 40.39           C
ATOM   2780  CH2 TRP C 355       6.583  25.470   0.463  1.00 41.52           C
ATOM   2781  N   ARG C 356       3.874  24.563  -7.498  1.00 36.28           N
ATOM   2782  CA  ARG C 356       4.118  24.116  -8.877  1.00 36.85           C
ATOM   2783  C   ARG C 356       5.078  25.080  -9.594  1.00 38.61           C
ATOM   2784  O   ARG C 356       4.793  26.275  -9.786  1.00 38.29           O
ATOM   2785  CB  ARG C 356       2.773  23.982  -9.593  1.00 39.48           C
ATOM   2786  CG  ARG C 356       1.783  23.093  -8.851  1.00 40.02           C
ATOM   2787  CD  ARG C 356       0.531  22.785  -9.632  1.00 40.30           C
ATOM   2788  NE  ARG C 356      -0.353  23.929  -9.792  1.00 41.71           N
ATOM   2789  CZ  ARG C 356      -1.063  24.161 -10.884  1.00 40.49           C
ATOM   2790  NH1 ARG C 356      -0.971  23.330 -11.911  1.00 45.34           N1+
ATOM   2791  NH2 ARG C 356      -1.830  25.228 -10.961  1.00 41.21           N
ATOM   2792  N   ALA C 357       6.237  24.558  -9.994  1.00 37.10           N
ATOM   2793  CA  ALA C 357       7.294  25.402 -10.458  1.00 39.56           C
ATOM   2794  C   ALA C 357       7.426  25.303 -11.986  1.00 41.29           C
ATOM   2795  O   ALA C 357       7.721  24.237 -12.530  1.00 42.12           O
ATOM   2796  CB  ALA C 357       8.556  25.034  -9.742  1.00 43.41           C
ATOM   2797  N   GLY C 358       7.223  26.448 -12.654  1.00 40.45           N
ATOM   2798  CA  GLY C 358       7.150  26.532 -14.080  1.00 40.07           C
ATOM   2799  C   GLY C 358       8.473  26.876 -14.724  1.00 39.34           C
ATOM   2800  O   GLY C 358       9.157  27.829 -14.320  1.00 36.71           O
ATOM   2801  N   ILE C 359       8.809  26.127 -15.775  1.00 38.06           N
ATOM   2802  CA  ILE C 359       9.906  26.512 -16.653  1.00 40.98           C
ATOM   2803  C   ILE C 359       9.387  26.622 -18.093  1.00 37.45           C
ATOM   2804  O   ILE C 359       9.453  25.695 -18.855  1.00 36.98           O
ATOM   2805  CB  ILE C 359      11.079  25.534 -16.493  1.00 43.35           C
ATOM   2806  CG1 ILE C 359      11.490  25.440 -15.021  1.00 45.53           C
ATOM   2807  CG2 ILE C 359      12.254  25.918 -17.387  1.00 42.86           C
ATOM   2808  CD1 ILE C 359      12.712  24.565 -14.791  1.00 48.88           C
ATOM   2809  N   MET C 360       8.890  27.809 -18.436  1.00 36.36           N
ATOM   2810  CA  MET C 360       8.113  28.032 -19.645  1.00 36.50           C
ATOM   2811  C   MET C 360       8.325  29.464 -20.155  1.00 36.77           C
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ATOM   2812  O   MET C 360       8.520  30.400 -19.370  1.00 38.92           O
ATOM   2813  CB  MET C 360       6.629  27.862 -19.319  1.00 34.70           C
ATOM   2814  CG  MET C 360       6.263  26.467 -18.977  1.00 36.38           C
ATOM   2815  SD  MET C 360       4.496  26.398 -18.660  1.00 38.27           S
ATOM   2816  CE  MET C 360       4.291  24.641 -18.404  1.00 41.58           C
ATOM   2817  N   GLY C 361       8.245  29.648 -21.471  1.00 37.16           N
ATOM   2818  CA  GLY C 361       8.403  30.974 -22.050  1.00 39.00           C
ATOM   2819  C   GLY C 361       9.712  31.596 -21.607  1.00 40.39           C
ATOM   2820  O   GLY C 361      10.692  30.895 -21.526  1.00 40.92           O
ATOM   2821  N   GLU C 362       9.717  32.901 -21.308  1.00 41.32           N
ATOM   2822  CA  GLU C 362      10.993  33.665 -21.225  1.00 43.75           C
ATOM   2823  C   GLU C 362      11.726  33.390 -19.910  1.00 44.39           C
ATOM   2824  O   GLU C 362      12.899  33.750 -19.789  1.00 42.47           O
ATOM   2825  CB  GLU C 362      10.784  35.173 -21.366  1.00 44.78           C
ATOM   2826  CG  GLU C 362      10.575  35.614 -22.790  1.00 47.46           C
ATOM   2827  CD  GLU C 362      11.817  35.579 -23.655  1.00 53.16           C
ATOM   2828  OE1 GLU C 362      12.606  36.550 -23.569  1.00 54.47           O
ATOM   2829  OE2 GLU C 362      11.976  34.591 -24.428  1.00 52.00           O1-
ATOM   2830  N   SER C 363      11.058  32.744 -18.949  1.00 42.76           N
ATOM   2831  CA  SER C 363      11.723  32.371 -17.717  1.00 44.60           C
ATOM   2832  C   SER C 363      12.329  30.968 -17.838  1.00 43.80           C
ATOM   2833  O   SER C 363      12.555  30.319 -16.824  1.00 45.48           O
ATOM   2834  CB  SER C 363      10.802  32.509 -16.525  1.00 44.03           C
ATOM   2835  OG  SER C 363      10.458  33.886 -16.312  1.00 44.44           O
ATOM   2836  N   SER C 364      12.628  30.532 -19.071  1.00 41.02           N
ATOM   2837  CA  SER C 364      13.350  29.268 -19.346  1.00 41.44           C
ATOM   2838  C   SER C 364      14.858  29.530 -19.455  1.00 42.20           C
ATOM   2839  O   SER C 364      15.469  29.226 -20.466  1.00 45.39           O
ATOM   2840  CB  SER C 364      12.850  28.640 -20.603  1.00 36.31           C
ATOM   2841  OG  SER C 364      11.484  28.318 -20.479  1.00 41.54           O
ATOM   2842  N   THR C 365      15.442  30.148 -18.427  1.00 40.64           N
ATOM   2843  CA  THR C 365      16.866  30.484 -18.422  1.00 39.56           C
ATOM   2844  C   THR C 365      17.477  30.031 -17.090  1.00 37.73           C
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ATOM   2845  O   THR C 365      16.786  30.001 -16.059  1.00 33.91           O
ATOM   2846  CB  THR C 365      17.133  31.974 -18.699  1.00 37.83           C
ATOM   2847  CG2 THR C 365      16.484  32.473 -19.971  1.00 35.41           C
ATOM   2848  OG1 THR C 365      16.661  32.751 -17.602  1.00 42.01           O
ATOM   2849  N   LEU C 366      18.757  29.644 -17.167  1.00 38.34           N
ATOM   2850  CA  LEU C 366      19.590  29.341 -16.020  1.00 41.86           C
ATOM   2851  C   LEU C 366      19.467  30.459 -14.984  1.00 37.38           C
ATOM   2852  O   LEU C 366      19.285  30.192 -13.823  1.00 36.42           O
ATOM   2853  CB  LEU C 366      21.040  29.206 -16.487  1.00 50.74           C
ATOM   2854  CG  LEU C 366      21.764  27.955 -16.003  1.00 62.16           C
ATOM   2855  CD1 LEU C 366      23.045  27.738 -16.805  1.00 66.22           C
ATOM   2856  CD2 LEU C 366      22.040  28.030 -14.502  1.00 63.25           C
ATOM   2857  N   GLN C 367      19.534  31.709 -15.453  1.00 39.13           N
ATOM   2858  CA  GLN C 367      19.458  32.911 -14.604  1.00 40.80           C
ATOM   2859  C   GLN C 367      18.098  32.999 -13.911  1.00 35.77           C
ATOM   2860  O   GLN C 367      18.056  33.416 -12.785  1.00 43.22           O
ATOM   2861  CB  GLN C 367      19.704  34.211 -15.385  1.00 38.13           C
ATOM   2862  CG  GLN C 367      21.089  34.269 -16.018  1.00 39.32           C
ATOM   2863  CD  GLN C 367      21.074  33.805 -17.455  1.00 38.93           C
ATOM   2864  NE2 GLN C 367      21.886  34.437 -18.272  1.00 30.98           N
ATOM   2865  OE1 GLN C 367      20.305  32.926 -17.841  1.00 44.67           O
ATOM   2866  N   ARG C 368      17.005  32.639 -14.591  1.00 33.47           N
ATOM   2867  CA  ARG C 368      15.680  32.767 -13.990  1.00 35.16           C
ATOM   2868  C   ARG C 368      15.439  31.671 -12.954  1.00 36.40           C
ATOM   2869  O   ARG C 368      14.796  31.937 -11.950  1.00 37.88           O
ATOM   2870  CB  ARG C 368      14.573  32.760 -15.041  1.00 37.23           C
ATOM   2871  CG  ARG C 368      14.330  34.134 -15.645  1.00 38.91           C
ATOM   2872  CD  ARG C 368      13.511  35.014 -14.722  1.00 38.87           C
ATOM   2873  NE  ARG C 368      13.553  36.406 -15.133  1.00 39.45           N
ATOM   2874  CZ  ARG C 368      12.681  36.994 -15.931  1.00 38.62           C
ATOM   2875  NH1 ARG C 368      11.579  36.363 -16.319  1.00 43.15           N1+
ATOM   2876  NH2 ARG C 368      12.933  38.223 -16.337  1.00 37.60           N
ATOM   2877  N   VAL C 369      15.955  30.458 -13.209  1.00 39.76           N
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ATOM   2878  CA  VAL C 369      15.839  29.338 -12.266  1.00 39.83           C
ATOM   2879  C   VAL C 369      16.596  29.683 -10.971  1.00 39.07           C
ATOM   2880  O   VAL C 369      16.087  29.489  -9.890  1.00 36.84           O
ATOM   2881  CB  VAL C 369      16.338  28.024 -12.892  1.00 41.64           C
ATOM   2882  CG1 VAL C 369      16.281  26.871 -11.904  1.00 42.89           C
ATOM   2883  CG2 VAL C 369      15.550  27.660 -14.137  1.00 43.58           C
ATOM   2884  N   ASN C 370      17.813  30.214 -11.113  1.00 40.16           N
ATOM   2885  CA  ASN C 370      18.687  30.586  -9.988  1.00 40.57           C
ATOM   2886  C   ASN C 370      18.030  31.672  -9.136  1.00 41.33           C
ATOM   2887  O   ASN C 370      18.167  31.664  -7.906  1.00 43.62           O
ATOM   2888  CB  ASN C 370      20.070  31.043 -10.463  1.00 37.03           C
ATOM   2889  CG  ASN C 370      20.919  29.869 -10.872  1.00 33.32           C
ATOM   2890  ND2 ASN C 370      21.719  30.030 -11.903  1.00 35.76           N
ATOM   2891  OD1 ASN C 370      20.820  28.808 -10.283  1.00 36.65           O
ATOM   2892  N   PHE C 371      17.298  32.578  -9.788  1.00 38.44           N
ATOM   2893  CA  PHE C 371      16.492  33.560  -9.076  1.00 38.71           C
ATOM   2894  C   PHE C 371      15.323  32.895  -8.318  1.00 41.55           C
ATOM   2895  O   PHE C 371      15.068  33.244  -7.172  1.00 41.84           O
ATOM   2896  CB  PHE C 371      15.960  34.610 -10.051  1.00 38.79           C
ATOM   2897  CG  PHE C 371      15.205  35.685  -9.323  1.00 37.84           C
ATOM   2898  CD1 PHE C 371      15.871  36.540  -8.470  1.00 39.88           C
ATOM   2899  CD2 PHE C 371      13.834  35.783  -9.417  1.00 36.75           C
ATOM   2900  CE1 PHE C 371      15.186  37.508  -7.761  1.00 38.83           C
ATOM   2901  CE2 PHE C 371      13.151  36.757  -8.713  1.00 37.32           C
ATOM   2902  CZ  PHE C 371      13.831  37.608  -7.881  1.00 36.89           C
ATOM   2903  N   TYR C 372      14.618  31.952  -8.971  1.00 40.49           N
ATOM   2904  CA  TYR C 372      13.477  31.220  -8.386  1.00 43.79           C
ATOM   2905  C   TYR C 372      13.944  30.536  -7.095  1.00 40.81           C
ATOM   2906  O   TYR C 372      13.334  30.673  -6.030  1.00 41.11           O
ATOM   2907  CB  TYR C 372      12.859  30.220  -9.387  1.00 44.80           C
ATOM   2908  CG  TYR C 372      11.564  29.578  -8.936  1.00 43.74           C
ATOM   2909  CD1 TYR C 372      11.562  28.505  -8.060  1.00 42.31           C
ATOM   2910  CD2 TYR C 372      10.326  30.069  -9.333  1.00 48.80           C
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ATOM   2911  CE1 TYR C 372      10.381  27.927  -7.611  1.00 41.54           C
ATOM   2912  CE2 TYR C 372       9.131  29.503  -8.895  1.00 46.20           C
ATOM   2913  CZ  TYR C 372       9.160  28.416  -8.036  1.00 45.68           C
ATOM   2914  OH  TYR C 372       8.004  27.851  -7.575  1.00 48.30           O
ATOM   2915  N   LEU C 373      15.045  29.802  -7.195  1.00 38.87           N
ATOM   2916  CA  LEU C 373      15.569  29.078  -6.039  1.00 42.53           C
ATOM   2917  C   LEU C 373      15.855  30.064  -4.901  1.00 42.09           C
ATOM   2918  O   LEU C 373      15.415  29.845  -3.781  1.00 38.11           O
ATOM   2919  CB  LEU C 373      16.830  28.317  -6.450  1.00 40.31           C
ATOM   2920  CG  LEU C 373      16.603  27.156  -7.421  1.00 40.48           C
ATOM   2921  CD1 LEU C 373      17.912  26.703  -8.046  1.00 42.28           C
ATOM   2922  CD2 LEU C 373      15.930  25.985  -6.728  1.00 40.41           C
ATOM   2923  N   TYR C 374      16.583  31.140  -5.222  1.00 42.85           N
ATOM   2924  CA  TYR C 374      16.971  32.155  -4.240  1.00 45.72           C
ATOM   2925  C   TYR C 374      15.728  32.666  -3.498  1.00 48.21           C
ATOM   2926  O   TYR C 374      15.649  32.627  -2.267  1.00 49.87           O
ATOM   2927  CB  TYR C 374      17.682  33.334  -4.916  1.00 41.76           C
ATOM   2928  CG  TYR C 374      17.931  34.529  -4.020  1.00 40.31           C
ATOM   2929  CD1 TYR C 374      18.999  34.552  -3.131  1.00 39.70           C
ATOM   2930  CD2 TYR C 374      17.127  35.660  -4.086  1.00 39.52           C
ATOM   2931  CE1 TYR C 374      19.232  35.635  -2.294  1.00 38.75           C
ATOM   2932  CE2 TYR C 374      17.361  36.761  -3.274  1.00 41.71           C
ATOM   2933  CZ  TYR C 374      18.409  36.747  -2.366  1.00 40.11           C
ATOM   2934  OH  TYR C 374      18.664  37.843  -1.594  1.00 38.15           O
ATOM   2935  N   ALA C 375      14.769  33.139  -4.290  1.00 44.52           N
ATOM   2936  CA  ALA C 375      13.635  33.886  -3.835  1.00 43.19           C
ATOM   2937  C   ALA C 375      12.714  33.013  -2.976  1.00 43.47           C
ATOM   2938  O   ALA C 375      12.171  33.492  -1.974  1.00 39.41           O
ATOM   2939  CB  ALA C 375      12.912  34.416  -5.055  1.00 45.58           C
ATOM   2940  N   PHE C 376      12.488  31.772  -3.438  1.00 46.56           N
ATOM   2941  CA  PHE C 376      11.729  30.737  -2.729  1.00 46.71           C
ATOM   2942  C   PHE C 376      12.340  30.535  -1.341  1.00 49.89           C
ATOM   2943  O   PHE C 376      11.603  30.526  -0.349  1.00 47.71           O
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ATOM   2944  CB  PHE C 376      11.734  29.436  -3.537  1.00 47.73           C
ATOM   2945  CG  PHE C 376      11.018  28.259  -2.921  1.00 50.35           C
ATOM   2946  CD1 PHE C 376       9.827  28.404  -2.233  1.00 59.42           C
ATOM   2947  CD2 PHE C 376      11.508  26.975  -3.087  1.00 59.30           C
ATOM   2948  CE1 PHE C 376       9.165  27.304  -1.699  1.00 58.46           C
ATOM   2949  CE2 PHE C 376      10.844  25.874  -2.557  1.00 60.36           C
ATOM   2950  CZ  PHE C 376       9.669  26.039  -1.871  1.00 55.57           C
ATOM   2951  N   LYS C 377      13.683  30.407  -1.297  1.00 48.86           N
ATOM   2952  CA  LYS C 377      14.423  30.098  -0.078  1.00 48.49           C
ATOM   2953  C   LYS C 377      14.345  31.277   0.886  1.00 48.73           C
ATOM   2954  O   LYS C 377      14.099  31.055   2.040  1.00 49.81           O
ATOM   2955  CB  LYS C 377      15.903  29.804  -0.326  1.00 48.93           C
ATOM   2956  CG  LYS C 377      16.698  29.512   0.941  1.00 47.33           C
ATOM   2957  CD  LYS C 377      18.122  29.062   0.697  1.00 51.16           C
ATOM   2958  CE  LYS C 377      18.845  28.651   1.967  1.00 58.81           C
ATOM   2959  NZ  LYS C 377      19.795  27.530   1.733  1.00 62.68           N1+
ATOM   2960  N   GLU C 378      14.623  32.494   0.392  1.00 48.80           N
ATOM   2961  CA  GLU C 378      14.529  33.731   1.178  1.00 46.38           C
ATOM   2962  C   GLU C 378      13.109  33.882   1.735  1.00 47.63           C
ATOM   2963  O   GLU C 378      12.964  34.216   2.899  1.00 45.60           O
ATOM   2964  CB  GLU C 378      14.908  34.961   0.354  1.00 46.74           C
ATOM   2965  CG  GLU C 378      16.403  35.090   0.102  1.00 52.71           C
ATOM   2966  CD  GLU C 378      17.261  35.151   1.363  1.00 58.43           C
ATOM   2967  OE1 GLU C 378      17.153  36.179   2.093  1.00 45.50           O
ATOM   2968  OE2 GLU C 378      18.024  34.149   1.626  1.00 62.09           O1-
ATOM   2969  N   SER C 379      12.096  33.587   0.903  1.00 47.38           N
ATOM   2970  CA  SER C 379      10.684  33.701   1.256  1.00 46.95           C
ATOM   2971  C   SER C 379      10.310  32.705   2.349  1.00 44.63           C
ATOM   2972  O   SER C 379       9.528  33.061   3.217  1.00 47.18           O
ATOM   2973  CB  SER C 379       9.782  33.513   0.057  1.00 46.50           C
ATOM   2974  OG  SER C 379      10.101  34.434  -0.962  1.00 42.57           O
ATOM   2975  N   LEU C 380      10.835  31.476   2.258  1.00 47.65           N
ATOM   2976  CA  LEU C 380      10.650  30.409   3.278  1.00 54.62           C
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ATOM   2977  C   LEU C 380      11.063  30.917   4.662  1.00 55.43           C
ATOM   2978  O   LEU C 380      10.258  30.902   5.574  1.00 50.31           O
ATOM   2979  CB  LEU C 380      11.503  29.192   2.912  1.00 57.77           C
ATOM   2980  CG  LEU C 380      10.742  27.930   2.529  1.00 66.04           C
ATOM   2981  CD1 LEU C 380      11.643  27.002   1.730  1.00 76.17           C
ATOM   2982  CD2 LEU C 380      10.188  27.222   3.758  1.00 61.72           C
ATOM   2983  N   LYS C 381      12.321  31.381   4.749  1.00 56.76           N
ATOM   2984  CA  LYS C 381      13.025  31.821   5.965  1.00 61.34           C
ATOM   2985  C   LYS C 381      12.398  33.108   6.541  1.00 65.58           C
ATOM   2986  O   LYS C 381      12.367  33.309   7.751  1.00 78.82           O
ATOM   2987  CB  LYS C 381      14.510  32.089   5.655  1.00 67.89           C
ATOM   2988  CG  LYS C 381      15.343  30.904   5.156  1.00 73.11           C
ATOM   2989  CD  LYS C 381      16.875  31.128   5.091  1.00 76.66           C
ATOM   2990  CE  LYS C 381      17.307  32.541   4.735  1.00 76.18           C
ATOM   2991  NZ  LYS C 381      18.711  32.629   4.257  1.00 65.86           N1+
ATOM   2992  N   ALA C 382      11.944  34.019   5.680  1.00 61.02           N
ATOM   2993  CA  ALA C 382      11.354  35.260   6.139  1.00 59.47           C
ATOM   2994  C   ALA C 382      10.035  34.984   6.873  1.00 56.27           C
ATOM   2995  O   ALA C 382       9.665  35.755   7.733  1.00 53.03           O
ATOM   2996  CB  ALA C 382      11.132  36.204   4.984  1.00 61.27           C
ATOM   2997  N   THR C 383       9.321  33.922   6.484  1.00 52.76           N
ATOM   2998  CA  THR C 383       7.969  33.633   7.002  1.00 55.07           C
ATOM   2999  C   THR C 383       7.969  32.511   8.046  1.00 57.83           C
ATOM   3000  O   THR C 383       7.005  32.414   8.807  1.00 54.24           O
ATOM   3001  CB  THR C 383       7.001  33.222   5.889  1.00 51.93           C
ATOM   3002  CG2 THR C 383       6.565  34.407   5.059  1.00 51.50           C
ATOM   3003  OG1 THR C 383       7.634  32.225   5.083  1.00 53.28           O
ATOM   3004  N   HIS C 384       9.019  31.673   8.032  1.00 60.23           N
ATOM   3005  CA  HIS C 384       9.265  30.575   8.974  1.00 62.50           C
ATOM   3006  C   HIS C 384      10.706  30.647   9.495  1.00 68.06           C
ATOM   3007  O   HIS C 384      11.615  30.861   8.710  1.00 89.54           O
ATOM   3008  CB  HIS C 384       8.969  29.249   8.261  1.00 58.69           C
ATOM   3009  CG  HIS C 384       7.611  29.175   7.636  1.00 62.74           C
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ATOM   3010  CD2 HIS C 384       6.610  28.269   7.758  1.00 64.15           C
ATOM   3011  ND1 HIS C 384       7.152  30.120   6.741  1.00 65.42           N
ATOM   3012  CE1 HIS C 384       5.934  29.798   6.336  1.00 61.68           C
ATOM   3013  NE2 HIS C 384       5.575  28.672   6.948  1.00 61.33           N
ATOM   3014  N   PRO C 385      11.024  30.401  10.791  1.00 85.82           N
ATOM   3015  CA  PRO C 385      12.410  30.536  11.255  1.00 82.20           C
ATOM   3016  C   PRO C 385      13.367  29.514  10.612  1.00 82.91           C
ATOM   3017  O   PRO C 385      13.791  28.549  11.253  1.00 84.47           O
ATOM   3018  CB  PRO C 385      12.291  30.298  12.764  1.00 80.72           C
ATOM   3019  CG  PRO C 385      11.099  29.362  12.892  1.00 84.27           C
ATOM   3020  CD  PRO C 385      10.131  29.851  11.831  1.00 87.64           C
TER    3021      PRO C 385
HETATM 3022  P   PLP C 401      -6.445  26.743 -20.550  1.00 44.65           P
HETATM 3023  O1P PLP C 401      -7.905  26.469 -20.831  1.00 43.50           O
HETATM 3024  O2P PLP C 401      -5.786  27.675 -21.569  1.00 45.58           O1-
HETATM 3025  O3P PLP C 401      -6.231  27.066 -19.073  1.00 44.85           O
HETATM 3026  O4P PLP C 401      -5.593  25.375 -20.710  1.00 47.81           O
HETATM 3027  N1  PLP C 401      -4.286  20.880 -20.185  1.00 48.60           N
HETATM 3028  C2  PLP C 401      -3.037  21.040 -19.626  1.00 44.53           C
HETATM 3029  C2A PLP C 401      -2.023  19.927 -19.530  1.00 46.19           C
HETATM 3030  C3  PLP C 401      -2.631  22.357 -19.123  1.00 45.04           C
HETATM 3031  O3  PLP C 401      -1.397  22.469 -18.610  1.00 44.71           O
HETATM 3032  C4  PLP C 401      -3.608  23.489 -19.183  1.00 50.01           C
HETATM 3033  C4A PLP C 401      -3.199  24.848 -18.670  1.00 53.59           C
HETATM 3034  C5  PLP C 401      -4.943  23.162 -19.816  1.00 46.94           C
HETATM 3035  C5A PLP C 401      -6.033  24.196 -19.981  1.00 51.34           C
HETATM 3036  C6  PLP C 401      -5.200  21.870 -20.296  1.00 44.73           C
ATOM   3037  N   MET D   1      18.320  13.662 -32.168  1.00 68.10           N
ATOM   3038  CA  MET D   1      16.925  14.220 -32.047  1.00 67.24           C
ATOM   3039  C   MET D   1      16.293  14.411 -33.435  1.00 71.11           C
ATOM   3040  O   MET D   1      15.089  14.151 -33.608  1.00 70.32           O
ATOM   3041  CB  MET D   1      16.913  15.572 -31.329  1.00 62.28           C
ATOM   3042  CG  MET D   1      16.488  15.501 -29.876  1.00 62.52           C
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ATOM   3043  SD  MET D   1      15.704  17.042 -29.295  1.00 54.45           S
ATOM   3044  CE  MET D   1      16.062  16.963 -27.538  1.00 56.91           C
ATOM   3045  N   LYS D   2      17.081  14.958 -34.374  1.00 66.69           N
ATOM   3046  CA  LYS D   2      16.755  14.994 -35.806  1.00 71.66           C
ATOM   3047  C   LYS D   2      15.263  15.306 -36.050  1.00 64.56           C
ATOM   3048  O   LYS D   2      14.452  14.416 -36.333  1.00 63.40           O
ATOM   3049  CB  LYS D   2      17.172  13.662 -36.431  1.00 77.79           C
ATOM   3050  CG  LYS D   2      18.664  13.373 -36.344  1.00 86.58           C
ATOM   3051  CD  LYS D   2      19.074  12.101 -37.050  1.00 90.36           C
ATOM   3052  CE  LYS D   2      20.213  12.316 -38.024  1.00 90.57           C
ATOM   3053  NZ  LYS D   2      20.607  11.045 -38.676  1.00 94.19           N1+
ATOM   3054  N   PHE D   3      14.918  16.598 -35.994  1.00 55.33           N
ATOM   3055  CA  PHE D   3      13.601  17.099 -36.395  1.00 52.68           C
ATOM   3056  C   PHE D   3      13.615  17.495 -37.891  1.00 50.32           C
ATOM   3057  O   PHE D   3      14.614  17.969 -38.400  1.00 40.02           O
ATOM   3058  CB  PHE D   3      13.230  18.292 -35.505  1.00 53.19           C
ATOM   3059  CG  PHE D   3      13.143  18.044 -34.017  1.00 53.00           C
ATOM   3060  CD1 PHE D   3      12.084  17.333 -33.466  1.00 55.99           C
ATOM   3061  CD2 PHE D   3      14.098  18.550 -33.148  1.00 52.70           C
ATOM   3062  CE1 PHE D   3      11.994  17.134 -32.090  1.00 61.71           C
ATOM   3063  CE2 PHE D   3      13.995  18.355 -31.775  1.00 54.73           C
ATOM   3064  CZ  PHE D   3      12.943  17.654 -31.240  1.00 49.79           C
ATOM   3065  N   THR D   4      12.493  17.287 -38.598  1.00 49.22           N
ATOM   3066  CA  THR D   4      12.190  18.004 -39.833  1.00 52.39           C
ATOM   3067  C   THR D   4      12.631  19.456 -39.676  1.00 54.94           C
ATOM   3068  O   THR D   4      12.249  20.076 -38.692  1.00 52.31           O
ATOM   3069  CB  THR D   4      10.681  18.147 -40.095  1.00 55.56           C
ATOM   3070  CG2 THR D   4      10.420  18.582 -41.523  1.00 60.00           C
ATOM   3071  OG1 THR D   4       9.940  16.958 -39.810  1.00 47.16           O
ATOM   3072  N   PRO D   5      13.370  20.074 -40.626  1.00 50.23           N
ATOM   3073  CA  PRO D   5      13.761  21.476 -40.488  1.00 51.60           C
ATOM   3074  C   PRO D   5      12.542  22.408 -40.495  1.00 52.07           C
ATOM   3075  O   PRO D   5      11.449  22.012 -40.891  1.00 53.85           O
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ATOM   3076  CB  PRO D   5      14.703  21.707 -41.682  1.00 51.89           C
ATOM   3077  CG  PRO D   5      14.268  20.691 -42.710  1.00 49.16           C
ATOM   3078  CD  PRO D   5      13.817  19.494 -41.895  1.00 52.60           C
ATOM   3079  N   PRO D   6      12.673  23.655 -39.991  1.00 51.59           N
ATOM   3080  CA  PRO D   6      11.570  24.613 -39.965  1.00 50.80           C
ATOM   3081  C   PRO D   6      11.371  25.400 -41.255  1.00 51.86           C
ATOM   3082  O   PRO D   6      12.323  25.637 -42.009  1.00 53.97           O
ATOM   3083  CB  PRO D   6      12.046  25.613 -38.905  1.00 58.49           C
ATOM   3084  CG  PRO D   6      13.549  25.652 -39.097  1.00 56.47           C
ATOM   3085  CD  PRO D   6      13.911  24.211 -39.415  1.00 56.51           C
ATOM   3086  N   PRO D   7      10.142  25.902 -41.495  1.00 47.37           N
ATOM   3087  CA  PRO D   7       9.801  26.570 -42.756  1.00 49.68           C
ATOM   3088  C   PRO D   7      10.442  27.959 -42.936  1.00 51.86           C
ATOM   3089  O   PRO D   7      10.434  28.784 -42.018  1.00 53.13           O
ATOM   3090  CB  PRO D   7       8.277  26.728 -42.667  1.00 48.15           C
ATOM   3091  CG  PRO D   7       8.029  26.856 -41.166  1.00 50.29           C
ATOM   3092  CD  PRO D   7       9.038  25.910 -40.528  1.00 48.08           C
ATOM   3093  N   SER D   8      10.938  28.229 -44.146  1.00 54.28           N
ATOM   3094  CA  SER D   8      11.566  29.502 -44.478  1.00 54.46           C
ATOM   3095  C   SER D   8      10.553  30.670 -44.449  1.00 53.34           C
ATOM   3096  O   SER D   8      10.958  31.826 -44.450  1.00 49.18           O
ATOM   3097  CB  SER D   8      12.267  29.407 -45.807  1.00 52.20           C
ATOM   3098  OG  SER D   8      11.329  29.119 -46.826  1.00 56.06           O
ATOM   3099  N   SER D   9       9.242  30.392 -44.395  1.00 54.08           N
ATOM   3100  CA  SER D   9       8.252  31.467 -44.339  1.00 51.61           C
ATOM   3101  C   SER D   9       8.163  32.110 -42.938  1.00 55.97           C
ATOM   3102  O   SER D   9       7.263  32.906 -42.708  1.00 64.56           O
ATOM   3103  CB  SER D   9       6.901  30.998 -44.816  1.00 52.50           C
ATOM   3104  OG  SER D   9       6.283  30.122 -43.890  1.00 54.33           O
ATOM   3105  N   LEU D  10       9.078  31.777 -42.016  1.00 54.82           N
ATOM   3106  CA  LEU D  10       9.207  32.442 -40.717  1.00 47.01           C
ATOM   3107  C   LEU D  10      10.559  33.153 -40.618  1.00 49.46           C
ATOM   3108  O   LEU D  10      10.916  33.653 -39.543  1.00 42.90           O
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ATOM   3109  CB  LEU D  10       9.134  31.400 -39.600  1.00 44.62           C
ATOM   3110  CG  LEU D  10       7.853  30.593 -39.472  1.00 43.71           C
ATOM   3111  CD1 LEU D  10       8.088  29.436 -38.508  1.00 46.85           C
ATOM   3112  CD2 LEU D  10       6.677  31.454 -39.006  1.00 40.46           C
ATOM   3113  N   ARG D  11      11.344  33.149 -41.703  1.00 54.56           N
ATOM   3114  CA  ARG D  11      12.696  33.750 -41.674  1.00 57.23           C
ATOM   3115  C   ARG D  11      12.572  35.272 -41.517  1.00 51.38           C
ATOM   3116  O   ARG D  11      13.437  35.905 -40.933  1.00 51.82           O
ATOM   3117  CB  ARG D  11      13.505  33.389 -42.926  1.00 63.71           C
ATOM   3118  CG  ARG D  11      13.921  31.923 -42.987  1.00 73.90           C
ATOM   3119  CD  ARG D  11      15.067  31.602 -43.943  1.00 79.69           C
ATOM   3120  NE  ARG D  11      15.871  30.459 -43.487  1.00 87.72           N
ATOM   3121  CZ  ARG D  11      15.954  29.261 -44.084  1.00 89.78           C
ATOM   3122  NH1 ARG D  11      15.393  29.041 -45.262  1.00 75.39           N1+
ATOM   3123  NH2 ARG D  11      16.613  28.278 -43.494  1.00 94.18           N
ATOM   3124  N   GLY D  12      11.460  35.837 -42.004  1.00 46.26           N
ATOM   3125  CA  GLY D  12      11.314  37.260 -42.118  1.00 47.96           C
ATOM   3126  C   GLY D  12      10.369  37.846 -41.074  1.00 51.29           C
ATOM   3127  O   GLY D  12       9.675  37.142 -40.332  1.00 55.17           O
ATOM   3128  N   PRO D  13      10.282  39.185 -41.033  1.00 44.06           N
ATOM   3129  CA  PRO D  13       9.557  39.874 -39.977  1.00 43.55           C
ATOM   3130  C   PRO D  13       8.040  39.849 -40.180  1.00 46.22           C
ATOM   3131  O   PRO D  13       7.577  39.499 -41.264  1.00 47.59           O
ATOM   3132  CB  PRO D  13      10.108  41.304 -40.071  1.00 43.36           C
ATOM   3133  CG  PRO D  13      10.481  41.477 -41.523  1.00 42.51           C
ATOM   3134  CD  PRO D  13      10.901  40.101 -42.000  1.00 45.75           C
ATOM   3135  N   LEU D  14       7.311  40.212 -39.113  1.00 49.27           N
ATOM   3136  CA  LEU D  14       5.864  40.428 -39.128  1.00 52.16           C
ATOM   3137  C   LEU D  14       5.579  41.911 -39.392  1.00 50.31           C
ATOM   3138  O   LEU D  14       6.121  42.768 -38.721  1.00 59.13           O
ATOM   3139  CB  LEU D  14       5.284  40.007 -37.777  1.00 51.65           C
ATOM   3140  CG  LEU D  14       3.814  40.358 -37.583  1.00 48.41           C
ATOM   3141  CD1 LEU D  14       2.953  39.256 -38.148  1.00 49.15           C
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ATOM   3142  CD2 LEU D  14       3.485  40.603 -36.119  1.00 45.02           C
ATOM   3143  N   VAL D  15       4.695  42.184 -40.354  1.00 55.46           N
ATOM   3144  CA  VAL D  15       4.471  43.524 -40.913  1.00 51.79           C
ATOM   3145  C   VAL D  15       2.972  43.681 -41.219  1.00 50.55           C
ATOM   3146  O   VAL D  15       2.468  43.088 -42.163  1.00 47.20           O
ATOM   3147  CB  VAL D  15       5.355  43.726 -42.161  1.00 54.06           C
ATOM   3148  CG1 VAL D  15       4.883  44.879 -43.041  1.00 54.11           C
ATOM   3149  CG2 VAL D  15       6.827  43.902 -41.778  1.00 54.82           C
ATOM   3150  N   ILE D  16       2.270  44.465 -40.391  1.00 45.81           N
ATOM   3151  CA  ILE D  16       0.839  44.670 -40.515  1.00 44.23           C
ATOM   3152  C   ILE D  16       0.564  46.158 -40.724  1.00 51.18           C
ATOM   3153  O   ILE D  16       0.554  46.933 -39.773  1.00 61.36           O
ATOM   3154  CB  ILE D  16       0.116  44.096 -39.286  1.00 37.23           C
ATOM   3155  CG1 ILE D  16       0.567  42.669 -39.015  1.00 46.77           C
ATOM   3156  CG2 ILE D  16      -1.394  44.148 -39.422  1.00 36.69           C
ATOM   3157  CD1 ILE D  16       0.035  41.651 -40.022  1.00 48.73           C
ATOM   3158  N   PRO D  17       0.265  46.600 -41.966  1.00 55.95           N
ATOM   3159  CA  PRO D  17       0.000  48.019 -42.230  1.00 53.09           C
ATOM   3160  C   PRO D  17      -1.190  48.585 -41.426  1.00 51.89           C
ATOM   3161  O   PRO D  17      -2.039  47.790 -40.978  1.00 51.97           O
ATOM   3162  CB  PRO D  17      -0.304  48.038 -43.741  1.00 51.62           C
ATOM   3163  CG  PRO D  17      -0.729  46.622 -44.071  1.00 52.40           C
ATOM   3164  CD  PRO D  17       0.096  45.747 -43.159  1.00 53.92           C
ATOM   3165  N   ASP D  18      -1.235  49.923 -41.239  1.00 50.47           N
ATOM   3166  CA  ASP D  18      -2.467  50.633 -40.764  1.00 52.98           C
ATOM   3167  C   ASP D  18      -3.494  50.532 -41.888  1.00 50.59           C
ATOM   3168  O   ASP D  18      -3.108  50.570 -43.091  1.00 51.03           O
ATOM   3169  CB  ASP D  18      -2.302  52.128 -40.410  1.00 52.07           C
ATOM   3170  CG  ASP D  18      -1.329  52.443 -39.276  1.00 60.37           C
ATOM   3171  OD1 ASP D  18      -1.620  52.091 -38.107  1.00 68.28           O
ATOM   3172  OD2 ASP D  18      -0.277  53.056 -39.557  1.00 62.50           O1-
ATOM   3173  N   LYS D  19      -4.771  50.404 -41.491  1.00 47.68           N
ATOM   3174  CA  LYS D  19      -5.891  50.356 -42.413  1.00 42.87           C
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ATOM   3175  C   LYS D  19      -7.066  51.110 -41.811  1.00 44.76           C
ATOM   3176  O   LYS D  19      -7.250  51.128 -40.599  1.00 45.08           O
ATOM   3177  CB  LYS D  19      -6.356  48.922 -42.692  1.00 44.83           C
ATOM   3178  CG  LYS D  19      -5.361  48.018 -43.412  1.00 42.73           C
ATOM   3179  CD  LYS D  19      -5.961  46.677 -43.795  1.00 42.40           C
ATOM   3180  CE  LYS D  19      -4.937  45.729 -44.377  1.00 41.19           C
ATOM   3181  NZ  LYS D  19      -4.308  46.273 -45.602  1.00 40.98           N1+
ATOM   3182  N   ILE D  20      -7.889  51.690 -42.690  1.00 47.40           N
ATOM   3183  CA  ILE D  20      -9.079  52.365 -42.269  1.00 45.21           C
ATOM   3184  C   ILE D  20     -10.224  51.358 -42.334  1.00 44.11           C
ATOM   3185  O   ILE D  20     -10.752  51.078 -43.390  1.00 48.91           O
ATOM   3186  CB  ILE D  20      -9.319  53.651 -43.076  1.00 45.14           C
ATOM   3187  CG1 ILE D  20      -8.047  54.512 -43.074  1.00 50.24           C
ATOM   3188  CG2 ILE D  20     -10.530  54.397 -42.522  1.00 46.79           C
ATOM   3189  CD1 ILE D  20      -8.189  55.904 -43.639  1.00 52.38           C
ATOM   3190  N   MET D  21     -10.613  50.868 -41.150  1.00 46.33           N
ATOM   3191  CA  MET D  21     -11.431  49.674 -40.992  1.00 44.40           C
ATOM   3192  C   MET D  21     -12.903  50.043 -40.860  1.00 37.93           C
ATOM   3193  O   MET D  21     -13.488  49.890 -39.817  1.00 41.42           O
ATOM   3194  CB  MET D  21     -10.971  48.863 -39.773  1.00 38.81           C
ATOM   3195  CG  MET D  21      -9.567  48.287 -39.965  1.00 38.17           C
ATOM   3196  SD  MET D  21      -9.425  47.029 -41.279  1.00 41.28           S
ATOM   3197  CE  MET D  21     -10.442  45.730 -40.579  1.00 36.62           C
ATOM   3198  N   MET D  22     -13.506  50.436 -41.978  1.00 43.66           N
ATOM   3199  CA  MET D  22     -14.942  50.824 -41.994  1.00 47.78           C
ATOM   3200  C   MET D  22     -15.771  49.779 -42.766  1.00 44.28           C
ATOM   3201  O   MET D  22     -16.720  50.092 -43.466  1.00 45.85           O
ATOM   3202  CB  MET D  22     -15.114  52.230 -42.590  1.00 48.48           C
ATOM   3203  CG  MET D  22     -14.357  53.301 -41.820  1.00 49.18           C
ATOM   3204  SD  MET D  22     -14.510  54.994 -42.488  1.00 50.32           S
ATOM   3205  CE  MET D  22     -16.226  55.294 -42.085  1.00 44.76           C
ATOM   3206  N   GLY D  23     -15.388  48.510 -42.631  1.00 45.89           N
ATOM   3207  CA  GLY D  23     -16.277  47.411 -42.855  1.00 47.12           C
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ATOM   3208  C   GLY D  23     -17.223  47.276 -41.671  1.00 43.91           C
ATOM   3209  O   GLY D  23     -17.208  48.094 -40.765  1.00 50.66           O
ATOM   3210  N   PRO D  24     -18.087  46.253 -41.603  1.00 43.30           N
ATOM   3211  CA  PRO D  24     -18.916  46.071 -40.413  1.00 46.35           C
ATOM   3212  C   PRO D  24     -18.154  45.195 -39.408  1.00 46.43           C
ATOM   3213  O   PRO D  24     -18.752  44.746 -38.425  1.00 48.70           O
ATOM   3214  CB  PRO D  24     -20.176  45.414 -40.993  1.00 42.66           C
ATOM   3215  CG  PRO D  24     -19.672  44.635 -42.221  1.00 44.02           C
ATOM   3216  CD  PRO D  24     -18.342  45.243 -42.639  1.00 41.96           C
ATOM   3217  N   GLY D  25     -16.837  45.060 -39.652  1.00 49.37           N
ATOM   3218  CA  GLY D  25     -16.001  43.835 -39.421  1.00 47.21           C
ATOM   3219  C   GLY D  25     -15.295  43.997 -38.097  1.00 50.58           C
ATOM   3220  O   GLY D  25     -15.953  44.330 -37.121  1.00 76.85           O
ATOM   3221  N   PRO D  26     -13.965  43.841 -37.993  1.00 48.37           N
ATOM   3222  CA  PRO D  26     -13.232  44.458 -36.884  1.00 46.79           C
ATOM   3223  C   PRO D  26     -13.126  45.981 -37.124  1.00 42.76           C
ATOM   3224  O   PRO D  26     -12.890  46.406 -38.239  1.00 40.99           O
ATOM   3225  CB  PRO D  26     -11.853  43.781 -36.913  1.00 45.55           C
ATOM   3226  CG  PRO D  26     -11.990  42.663 -37.935  1.00 47.78           C
ATOM   3227  CD  PRO D  26     -13.098  43.083 -38.885  1.00 47.88           C
ATOM   3228  N   SER D  27     -13.302  46.792 -36.081  1.00 44.04           N
ATOM   3229  CA  SER D  27     -13.131  48.260 -36.175  1.00 41.42           C
ATOM   3230  C   SER D  27     -11.688  48.615 -35.850  1.00 41.02           C
ATOM   3231  O   SER D  27     -10.943  47.756 -35.367  1.00 43.61           O
ATOM   3232  CB  SER D  27     -14.084  48.996 -35.263  1.00 44.65           C
ATOM   3233  OG  SER D  27     -14.380  48.232 -34.097  1.00 42.86           O
ATOM   3234  N   ASN D  28     -11.295  49.861 -36.166  1.00 44.05           N
ATOM   3235  CA  ASN D  28     -10.051  50.441 -35.636  1.00 41.94           C
ATOM   3236  C   ASN D  28     -10.236  50.674 -34.137  1.00 39.99           C
ATOM   3237  O   ASN D  28     -11.324  51.099 -33.695  1.00 42.72           O
ATOM   3238  CB  ASN D  28      -9.676  51.794 -36.234  1.00 42.05           C
ATOM   3239  CG  ASN D  28      -9.419  51.753 -37.717  1.00 40.73           C
ATOM   3240  ND2 ASN D  28      -8.298  51.170 -38.105  1.00 36.00           N
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ATOM   3241  OD1 ASN D  28     -10.235  52.248 -38.500  1.00 41.83           O
ATOM   3242  N   CYS D  29      -9.166  50.415 -33.387  1.00 38.97           N
ATOM   3243  CA  CYS D  29      -9.130  50.536 -31.917  1.00 43.58           C
ATOM   3244  C   CYS D  29      -8.360  51.797 -31.524  1.00 41.69           C
ATOM   3245  O   CYS D  29      -7.443  52.184 -32.232  1.00 42.46           O
ATOM   3246  CB  CYS D  29      -8.451  49.306 -31.324  1.00 43.28           C
ATOM   3247  SG  CYS D  29      -9.301  47.770 -31.774  1.00 40.74           S
ATOM   3248  N   SER D  30      -8.713  52.425 -30.398  1.00 40.27           N
ATOM   3249  CA  SER D  30      -7.927  53.583 -29.914  1.00 39.82           C
ATOM   3250  C   SER D  30      -6.517  53.133 -29.527  1.00 40.29           C
ATOM   3251  O   SER D  30      -6.324  51.956 -29.210  1.00 44.32           O
ATOM   3252  CB  SER D  30      -8.590  54.264 -28.757  1.00 42.35           C
ATOM   3253  OG  SER D  30      -8.311  53.595 -27.528  1.00 40.71           O
ATOM   3254  N   LYS D  31      -5.567  54.081 -29.535  1.00 39.44           N
ATOM   3255  CA  LYS D  31      -4.209  53.936 -28.956  1.00 38.64           C
ATOM   3256  C   LYS D  31      -4.267  53.402 -27.508  1.00 37.11           C
ATOM   3257  O   LYS D  31      -3.577  52.449 -27.174  1.00 33.24           O
ATOM   3258  CB  LYS D  31      -3.517  55.298 -28.990  1.00 41.44           C
ATOM   3259  CG  LYS D  31      -2.003  55.311 -28.774  1.00 43.64           C
ATOM   3260  CD  LYS D  31      -1.571  56.546 -27.992  1.00 47.24           C
ATOM   3261  CE  LYS D  31      -0.136  56.965 -28.162  1.00 49.47           C
ATOM   3262  NZ  LYS D  31       0.804  56.026 -27.509  1.00 50.94           N1+
ATOM   3263  N   ARG D  32      -5.086  54.038 -26.657  1.00 34.11           N
ATOM   3264  CA  ARG D  32      -5.293  53.639 -25.271  1.00 36.37           C
ATOM   3265  C   ARG D  32      -5.631  52.138 -25.190  1.00 41.66           C
ATOM   3266  O   ARG D  32      -5.118  51.397 -24.333  1.00 46.15           O
ATOM   3267  CB  ARG D  32      -6.431  54.471 -24.657  1.00 36.92           C
ATOM   3268  CG  ARG D  32      -6.917  54.002 -23.291  1.00 36.65           C
ATOM   3269  CD  ARG D  32      -7.771  55.026 -22.556  1.00 37.86           C
ATOM   3270  NE  ARG D  32      -8.009  54.650 -21.158  1.00 38.37           N
ATOM   3271  CZ  ARG D  32      -9.031  55.097 -20.415  1.00 40.96           C
ATOM   3272  NH1 ARG D  32      -9.854  56.020 -20.892  1.00 36.73           N1+
ATOM   3273  NH2 ARG D  32      -9.255  54.592 -19.211  1.00 37.64           N
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ATOM   3274  N   VAL D  33      -6.543  51.707 -26.063  1.00 41.92           N
ATOM   3275  CA  VAL D  33      -7.093  50.371 -26.045  1.00 43.71           C
ATOM   3276  C   VAL D  33      -6.041  49.347 -26.498  1.00 42.74           C
ATOM   3277  O   VAL D  33      -6.043  48.247 -25.969  1.00 42.77           O
ATOM   3278  CB  VAL D  33      -8.359  50.287 -26.910  1.00 41.54           C
ATOM   3279  CG1 VAL D  33      -8.747  48.854 -27.208  1.00 43.50           C
ATOM   3280  CG2 VAL D  33      -9.502  51.002 -26.241  1.00 44.53           C
ATOM   3281  N   LEU D  34      -5.212  49.684 -27.501  1.00 38.67           N
ATOM   3282  CA  LEU D  34      -4.225  48.744 -28.024  1.00 39.52           C
ATOM   3283  C   LEU D  34      -3.074  48.663 -27.021  1.00 45.25           C
ATOM   3284  O   LEU D  34      -2.404  47.633 -26.901  1.00 51.95           O
ATOM   3285  CB  LEU D  34      -3.691  49.183 -29.393  1.00 39.57           C
ATOM   3286  CG  LEU D  34      -4.628  49.057 -30.597  1.00 43.44           C
ATOM   3287  CD1 LEU D  34      -3.924  49.511 -31.862  1.00 43.09           C
ATOM   3288  CD2 LEU D  34      -5.151  47.636 -30.771  1.00 44.45           C
ATOM   3289  N   ALA D  35      -2.828  49.787 -26.334  1.00 46.03           N
ATOM   3290  CA  ALA D  35      -1.734  49.887 -25.391  1.00 42.55           C
ATOM   3291  C   ALA D  35      -1.951  48.854 -24.267  1.00 40.14           C
ATOM   3292  O   ALA D  35      -1.015  48.247 -23.751  1.00 42.38           O
ATOM   3293  CB  ALA D  35      -1.630  51.308 -24.885  1.00 39.59           C
ATOM   3294  N   ALA D  36      -3.221  48.624 -23.954  1.00 37.66           N
ATOM   3295  CA  ALA D  36      -3.651  47.778 -22.897  1.00 37.56           C
ATOM   3296  C   ALA D  36      -3.221  46.327 -23.128  1.00 37.94           C
ATOM   3297  O   ALA D  36      -3.121  45.581 -22.161  1.00 43.44           O
ATOM   3298  CB  ALA D  36      -5.154  47.893 -22.773  1.00 37.65           C
ATOM   3299  N   LEU D  37      -3.009  45.917 -24.384  1.00 37.93           N
ATOM   3300  CA  LEU D  37      -2.662  44.528 -24.673  1.00 39.37           C
ATOM   3301  C   LEU D  37      -1.250  44.221 -24.160  1.00 41.52           C
ATOM   3302  O   LEU D  37      -0.882  43.030 -23.840  1.00 36.50           O
ATOM   3303  CB  LEU D  37      -2.765  44.294 -26.180  1.00 39.07           C
ATOM   3304  CG  LEU D  37      -4.191  44.346 -26.721  1.00 43.21           C
ATOM   3305  CD1 LEU D  37      -4.183  44.477 -28.239  1.00 41.91           C
ATOM   3306  CD2 LEU D  37      -4.995  43.121 -26.259  1.00 38.51           C
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ATOM   3307  N   ASN D  38      -0.460  45.294 -24.067  1.00 41.18           N
ATOM   3308  CA  ASN D  38       0.942  45.202 -23.731  1.00 43.47           C
ATOM   3309  C   ASN D  38       1.096  45.198 -22.205  1.00 42.38           C
ATOM   3310  O   ASN D  38       1.608  46.149 -21.626  1.00 38.98           O
ATOM   3311  CB  ASN D  38       1.714  46.331 -24.399  1.00 42.69           C
ATOM   3312  CG  ASN D  38       3.200  46.145 -24.288  1.00 41.24           C
ATOM   3313  ND2 ASN D  38       3.906  47.172 -23.859  1.00 41.70           N
ATOM   3314  OD1 ASN D  38       3.698  45.077 -24.576  1.00 46.89           O
ATOM   3315  N   ASN D  39       0.668  44.098 -21.567  1.00 39.21           N
ATOM   3316  CA  ASN D  39       0.805  43.942 -20.136  1.00 39.25           C
ATOM   3317  C   ASN D  39       0.964  42.462 -19.832  1.00 42.76           C
ATOM   3318  O   ASN D  39       0.533  41.614 -20.640  1.00 49.64           O
ATOM   3319  CB  ASN D  39      -0.351  44.548 -19.337  1.00 41.28           C
ATOM   3320  CG  ASN D  39      -0.318  46.065 -19.302  1.00 39.56           C
ATOM   3321  ND2 ASN D  39      -1.360  46.692 -19.823  1.00 34.86           N
ATOM   3322  OD1 ASN D  39       0.651  46.662 -18.834  1.00 37.32           O
ATOM   3323  N   THR D  40       1.602  42.189 -18.682  1.00 40.75           N
ATOM   3324  CA  THR D  40       1.708  40.850 -18.134  1.00 43.15           C
ATOM   3325  C   THR D  40       0.389  40.081 -18.294  1.00 38.98           C
ATOM   3326  O   THR D  40      -0.657  40.490 -17.746  1.00 33.41           O
ATOM   3327  CB  THR D  40       2.071  40.872 -16.645  1.00 44.57           C
ATOM   3328  CG2 THR D  40       2.423  39.503 -16.112  1.00 44.75           C
ATOM   3329  OG1 THR D  40       3.183  41.745 -16.474  1.00 51.69           O
ATOM   3330  N   CYS D  41       0.463  38.966 -19.029  1.00 36.97           N
ATOM   3331  CA  CYS D  41      -0.567  37.954 -19.001  1.00 37.44           C
ATOM   3332  C   CYS D  41      -0.618  37.379 -17.583  1.00 37.00           C
ATOM   3333  O   CYS D  41       0.257  36.602 -17.204  1.00 33.49           O
ATOM   3334  CB  CYS D  41      -0.303  36.805 -19.967  1.00 37.67           C
ATOM   3335  SG  CYS D  41       0.204  37.321 -21.617  1.00 37.32           S
ATOM   3336  N   LEU D  42      -1.632  37.789 -16.819  1.00 35.02           N
ATOM   3337  CA  LEU D  42      -1.674  37.522 -15.407  1.00 38.16           C
ATOM   3338  C   LEU D  42      -2.189  36.099 -15.184  1.00 43.70           C
ATOM   3339  O   LEU D  42      -2.800  35.496 -16.080  1.00 45.36           O
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ATOM   3340  CB  LEU D  42      -2.572  38.551 -14.718  1.00 35.62           C
ATOM   3341  CG  LEU D  42      -2.005  39.963 -14.684  1.00 35.30           C
ATOM   3342  CD1 LEU D  42      -3.007  40.944 -14.115  1.00 35.53           C
ATOM   3343  CD2 LEU D  42      -0.723  40.002 -13.881  1.00 37.35           C
ATOM   3344  N   SER D  43      -1.886  35.574 -13.991  1.00 42.83           N
ATOM   3345  CA  SER D  43      -2.463  34.348 -13.502  1.00 41.51           C
ATOM   3346  C   SER D  43      -3.965  34.557 -13.293  1.00 42.11           C
ATOM   3347  O   SER D  43      -4.401  35.682 -13.087  1.00 40.41           O
ATOM   3348  CB  SER D  43      -1.813  33.888 -12.236  1.00 41.79           C
ATOM   3349  OG  SER D  43      -2.659  32.978 -11.562  1.00 44.62           O
ATOM   3350  N   ASN D  44      -4.713  33.446 -13.318  1.00 38.98           N
ATOM   3351  CA  ASN D  44      -6.142  33.454 -13.193  1.00 40.56           C
ATOM   3352  C   ASN D  44      -6.525  33.912 -11.771  1.00 41.05           C
ATOM   3353  O   ASN D  44      -7.645  34.428 -11.567  1.00 41.58           O
ATOM   3354  CB  ASN D  44      -6.743  32.100 -13.620  1.00 42.58           C
ATOM   3355  CG  ASN D  44      -6.551  31.775 -15.100  1.00 47.88           C
ATOM   3356  ND2 ASN D  44      -6.070  30.579 -15.405  1.00 36.08           N
ATOM   3357  OD1 ASN D  44      -6.849  32.588 -15.980  1.00 49.84           O
ATOM   3358  N   PHE D  45      -5.610  33.792 -10.794  1.00 42.77           N
ATOM   3359  CA  PHE D  45      -5.977  34.022  -9.385  1.00 45.35           C
ATOM   3360  C   PHE D  45      -5.303  35.255  -8.784  1.00 47.26           C
ATOM   3361  O   PHE D  45      -5.529  35.525  -7.612  1.00 54.17           O
ATOM   3362  CB  PHE D  45      -5.790  32.738  -8.567  1.00 51.59           C
ATOM   3363  CG  PHE D  45      -7.030  31.893  -8.684  1.00 51.86           C
ATOM   3364  CD1 PHE D  45      -8.125  32.142  -7.867  1.00 54.09           C
ATOM   3365  CD2 PHE D  45      -7.175  30.992  -9.729  1.00 52.42           C
ATOM   3366  CE1 PHE D  45      -9.304  31.431  -8.030  1.00 57.59           C
ATOM   3367  CE2 PHE D  45      -8.358  30.287  -9.894  1.00 52.51           C
ATOM   3368  CZ  PHE D  45      -9.415  30.498  -9.041  1.00 55.64           C
ATOM   3369  N   HIS D  46      -4.604  36.052  -9.605  1.00 44.10           N
ATOM   3370  CA  HIS D  46      -3.986  37.288  -9.155  1.00 40.35           C
ATOM   3371  C   HIS D  46      -5.050  38.354  -8.889  1.00 39.56           C
ATOM   3372  O   HIS D  46      -5.984  38.466  -9.643  1.00 40.07           O
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ATOM   3373  CB  HIS D  46      -3.006  37.813 -10.216  1.00 44.49           C
ATOM   3374  CG  HIS D  46      -1.668  37.153 -10.240  1.00 43.96           C
ATOM   3375  CD2 HIS D  46      -1.029  36.377  -9.331  1.00 39.60           C
ATOM   3376  ND1 HIS D  46      -0.810  37.296 -11.319  1.00 46.07           N
ATOM   3377  CE1 HIS D  46       0.303  36.619 -11.060  1.00 49.53           C
ATOM   3378  NE2 HIS D  46       0.186  36.039  -9.852  1.00 39.46           N
ATOM   3379  N   ASP D  47      -4.814  39.212  -7.893  1.00 40.35           N
ATOM   3380  CA  ASP D  47      -5.773  40.240  -7.479  1.00 45.72           C
ATOM   3381  C   ASP D  47      -5.972  41.313  -8.563  1.00 46.88           C
ATOM   3382  O   ASP D  47      -7.079  41.867  -8.725  1.00 46.38           O
ATOM   3383  CB  ASP D  47      -5.347  40.900  -6.167  1.00 47.43           C
ATOM   3384  CG  ASP D  47      -5.374  39.940  -4.994  1.00 53.46           C
ATOM   3385  OD1 ASP D  47      -6.382  39.185  -4.871  1.00 57.56           O
ATOM   3386  OD2 ASP D  47      -4.373  39.920  -4.239  1.00 53.47           O1-
ATOM   3387  N   GLU D  48      -4.910  41.662  -9.286  1.00 45.37           N
ATOM   3388  CA  GLU D  48      -5.046  42.699 -10.317  1.00 39.94           C
ATOM   3389  C   GLU D  48      -6.033  42.219 -11.398  1.00 39.00           C
ATOM   3390  O   GLU D  48      -6.759  43.028 -11.965  1.00 34.98           O
ATOM   3391  CB  GLU D  48      -3.685  43.091 -10.888  1.00 38.80           C
ATOM   3392  CG  GLU D  48      -2.706  43.592  -9.844  1.00 38.12           C
ATOM   3393  CD  GLU D  48      -1.692  42.563  -9.354  1.00 42.12           C
ATOM   3394  OE1 GLU D  48      -2.015  41.337  -9.292  1.00 39.67           O
ATOM   3395  OE2 GLU D  48      -0.569  42.986  -9.044  1.00 39.42           O1-
ATOM   3396  N   LEU D  49      -6.103  40.905 -11.658  1.00 37.50           N
ATOM   3397  CA  LEU D  49      -7.004  40.423 -12.705  1.00 41.82           C
ATOM   3398  C   LEU D  49      -8.462  40.462 -12.213  1.00 42.75           C
ATOM   3399  O   LEU D  49      -9.363  40.858 -12.970  1.00 39.90           O
ATOM   3400  CB  LEU D  49      -6.599  39.018 -13.153  1.00 39.80           C
ATOM   3401  CG  LEU D  49      -7.507  38.413 -14.222  1.00 40.93           C
ATOM   3402  CD1 LEU D  49      -7.528  39.261 -15.496  1.00 41.63           C
ATOM   3403  CD2 LEU D  49      -7.091  36.988 -14.533  1.00 41.13           C
ATOM   3404  N   PHE D  50      -8.679  40.036 -10.959  1.00 43.44           N
ATOM   3405  CA  PHE D  50      -9.984  40.072 -10.309  1.00 46.59           C
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ATOM   3406  C   PHE D  50     -10.508  41.507 -10.261  1.00 41.00           C
ATOM   3407  O   PHE D  50     -11.669  41.753 -10.411  1.00 38.88           O
ATOM   3408  CB  PHE D  50      -9.936  39.480  -8.897  1.00 50.97           C
ATOM   3409  CG  PHE D  50      -9.778  37.980  -8.824  1.00 58.85           C
ATOM   3410  CD1 PHE D  50     -10.360  37.147  -9.767  1.00 63.65           C
ATOM   3411  CD2 PHE D  50      -9.051  37.399  -7.791  1.00 64.77           C
ATOM   3412  CE1 PHE D  50     -10.200  35.770  -9.682  1.00 74.20           C
ATOM   3413  CE2 PHE D  50      -8.892  36.024  -7.709  1.00 61.26           C
ATOM   3414  CZ  PHE D  50      -9.476  35.213  -8.650  1.00 67.31           C
ATOM   3415  N   GLN D  51      -9.615  42.457 -10.028  1.00 45.12           N
ATOM   3416  CA  GLN D  51      -9.994  43.846 -10.002  1.00 45.01           C
ATOM   3417  C   GLN D  51     -10.531  44.258 -11.382  1.00 47.24           C
ATOM   3418  O   GLN D  51     -11.599  44.890 -11.477  1.00 45.08           O
ATOM   3419  CB  GLN D  51      -8.777  44.658  -9.593  1.00 45.86           C
ATOM   3420  CG  GLN D  51      -8.915  46.136  -9.891  1.00 55.32           C
ATOM   3421  CD  GLN D  51      -9.371  46.885  -8.670  1.00 57.38           C
ATOM   3422  NE2 GLN D  51     -10.442  46.396  -8.059  1.00 52.00           N
ATOM   3423  OE1 GLN D  51      -8.744  47.870  -8.279  1.00 62.55           O
ATOM   3424  N   VAL D  52      -9.787  43.917 -12.449  1.00 45.61           N
ATOM   3425  CA  VAL D  52     -10.169  44.305 -13.809  1.00 45.35           C
ATOM   3426  C   VAL D  52     -11.500  43.622 -14.180  1.00 42.59           C
ATOM   3427  O   VAL D  52     -12.385  44.250 -14.776  1.00 41.00           O
ATOM   3428  CB  VAL D  52      -9.062  44.014 -14.838  1.00 47.24           C
ATOM   3429  CG1 VAL D  52      -9.526  44.317 -16.250  1.00 49.75           C
ATOM   3430  CG2 VAL D  52      -7.780  44.778 -14.549  1.00 49.30           C
ATOM   3431  N   ILE D  53     -11.672  42.364 -13.775  1.00 36.89           N
ATOM   3432  CA  ILE D  53     -12.909  41.642 -14.045  1.00 37.32           C
ATOM   3433  C   ILE D  53     -14.123  42.312 -13.369  1.00 39.38           C
ATOM   3434  O   ILE D  53     -15.183  42.431 -13.981  1.00 40.58           O
ATOM   3435  CB  ILE D  53     -12.764  40.189 -13.594  1.00 37.40           C
ATOM   3436  CG1 ILE D  53     -11.910  39.390 -14.585  1.00 37.12           C
ATOM   3437  CG2 ILE D  53     -14.144  39.602 -13.376  1.00 37.08           C
ATOM   3438  CD1 ILE D  53     -11.285  38.141 -14.004  1.00 37.28           C
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ATOM   3439  N   ASP D  54     -13.985  42.742 -12.108  1.00 41.37           N
ATOM   3440  CA  ASP D  54     -15.087  43.391 -11.391  1.00 42.22           C
ATOM   3441  C   ASP D  54     -15.484  44.668 -12.146  1.00 43.55           C
ATOM   3442  O   ASP D  54     -16.676  44.996 -12.219  1.00 50.16           O
ATOM   3443  CB  ASP D  54     -14.747  43.687  -9.925  1.00 43.70           C
ATOM   3444  CG  ASP D  54     -14.827  42.500  -8.975  1.00 48.57           C
ATOM   3445  OD1 ASP D  54     -15.018  41.370  -9.460  1.00 46.60           O
ATOM   3446  OD2 ASP D  54     -14.665  42.715  -7.743  1.00 50.20           O1-
ATOM   3447  N   GLU D  55     -14.494  45.367 -12.723  1.00 45.17           N
ATOM   3448  CA  GLU D  55     -14.695  46.668 -13.413  1.00 46.03           C
ATOM   3449  C   GLU D  55     -15.361  46.464 -14.780  1.00 47.80           C
ATOM   3450  O   GLU D  55     -16.201  47.281 -15.183  1.00 45.58           O
ATOM   3451  CB  GLU D  55     -13.372  47.425 -13.521  1.00 46.75           C
ATOM   3452  CG  GLU D  55     -12.849  47.832 -12.145  1.00 52.57           C
ATOM   3453  CD  GLU D  55     -11.520  48.558 -12.058  1.00 46.89           C
ATOM   3454  OE1 GLU D  55     -10.933  48.824 -13.103  1.00 44.92           O
ATOM   3455  OE2 GLU D  55     -11.114  48.886 -10.930  1.00 50.40           O1-
ATOM   3456  N   VAL D  56     -14.995  45.374 -15.471  1.00 47.95           N
ATOM   3457  CA  VAL D  56     -15.606  45.013 -16.750  1.00 44.06           C
ATOM   3458  C   VAL D  56     -17.086  44.699 -16.516  1.00 41.15           C
ATOM   3459  O   VAL D  56     -17.923  45.179 -17.243  1.00 38.33           O
ATOM   3460  CB  VAL D  56     -14.878  43.830 -17.416  1.00 45.61           C
ATOM   3461  CG1 VAL D  56     -15.753  43.134 -18.455  1.00 45.84           C
ATOM   3462  CG2 VAL D  56     -13.554  44.263 -18.031  1.00 41.14           C
ATOM   3463  N   LYS D  57     -17.386  43.898 -15.488  1.00 41.91           N
ATOM   3464  CA  LYS D  57     -18.766  43.535 -15.159  1.00 42.35           C
ATOM   3465  C   LYS D  57     -19.574  44.801 -14.816  1.00 47.97           C
ATOM   3466  O   LYS D  57     -20.747  44.929 -15.160  1.00 50.32           O
ATOM   3467  CB  LYS D  57     -18.795  42.500 -14.032  1.00 39.46           C
ATOM   3468  CG  LYS D  57     -18.145  41.172 -14.382  1.00 42.28           C
ATOM   3469  CD  LYS D  57     -18.395  40.047 -13.389  1.00 47.00           C
ATOM   3470  CE  LYS D  57     -18.361  40.459 -11.931  1.00 49.07           C
ATOM   3471  NZ  LYS D  57     -18.747  39.330 -11.047  1.00 50.61           N1+
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ATOM   3472  N   ASP D  58     -18.953  45.774 -14.146  1.00 51.33           N
ATOM   3473  CA  ASP D  58     -19.665  47.025 -13.880  1.00 52.27           C
ATOM   3474  C   ASP D  58     -19.953  47.752 -15.202  1.00 52.46           C
ATOM   3475  O   ASP D  58     -21.035  48.334 -15.388  1.00 50.47           O
ATOM   3476  CB  ASP D  58     -18.860  47.936 -12.956  1.00 54.02           C
ATOM   3477  CG  ASP D  58     -18.768  47.461 -11.525  1.00 48.84           C
ATOM   3478  OD1 ASP D  58     -19.521  46.517 -11.163  1.00 47.72           O
ATOM   3479  OD2 ASP D  58     -17.938  48.044 -10.798  1.00 48.45           O1-
ATOM   3480  N   GLY D  59     -18.946  47.768 -16.086  1.00 50.58           N
ATOM   3481  CA  GLY D  59     -19.045  48.348 -17.424  1.00 49.21           C
ATOM   3482  C   GLY D  59     -20.087  47.671 -18.318  1.00 49.62           C
ATOM   3483  O   GLY D  59     -20.701  48.321 -19.137  1.00 42.76           O
ATOM   3484  N   LEU D  60     -20.269  46.353 -18.190  1.00 49.10           N
ATOM   3485  CA  LEU D  60     -21.238  45.640 -19.010  1.00 46.23           C
ATOM   3486  C   LEU D  60     -22.656  45.890 -18.467  1.00 45.97           C
ATOM   3487  O   LEU D  60     -23.581  46.207 -19.229  1.00 48.15           O
ATOM   3488  CB  LEU D  60     -20.872  44.153 -19.056  1.00 43.35           C
ATOM   3489  CG  LEU D  60     -19.537  43.838 -19.726  1.00 41.06           C
ATOM   3490  CD1 LEU D  60     -19.296  42.338 -19.767  1.00 45.10           C
ATOM   3491  CD2 LEU D  60     -19.446  44.426 -21.133  1.00 39.64           C
ATOM   3492  N   ARG D  61     -22.826  45.817 -17.146  1.00 41.77           N
ATOM   3493  CA  ARG D  61     -24.079  46.238 -16.555  1.00 40.56           C
ATOM   3494  C   ARG D  61     -24.468  47.637 -17.085  1.00 42.96           C
ATOM   3495  O   ARG D  61     -25.643  47.924 -17.347  1.00 44.43           O
ATOM   3496  CB  ARG D  61     -23.984  46.159 -15.033  1.00 41.73           C
ATOM   3497  CG  ARG D  61     -24.229  44.766 -14.477  1.00 42.85           C
ATOM   3498  CD  ARG D  61     -24.445  44.775 -12.978  1.00 45.08           C
ATOM   3499  NE  ARG D  61     -23.187  44.937 -12.263  1.00 47.74           N
ATOM   3500  CZ  ARG D  61     -22.360  43.944 -11.938  1.00 43.70           C
ATOM   3501  NH1 ARG D  61     -22.700  42.687 -12.173  1.00 38.44           N1+
ATOM   3502  NH2 ARG D  61     -21.188  44.228 -11.391  1.00 41.57           N
ATOM   3503  N   TYR D  62     -23.491  48.511 -17.308  1.00 39.96           N
ATOM   3504  CA  TYR D  62     -23.804  49.860 -17.747  1.00 40.39           C
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ATOM   3505  C   TYR D  62     -24.193  49.898 -19.236  1.00 44.35           C
ATOM   3506  O   TYR D  62     -25.214  50.492 -19.587  1.00 47.10           O
ATOM   3507  CB  TYR D  62     -22.618  50.765 -17.430  1.00 39.12           C
ATOM   3508  CG  TYR D  62     -22.682  52.142 -18.018  1.00 36.28           C
ATOM   3509  CD1 TYR D  62     -23.623  53.055 -17.592  1.00 39.81           C
ATOM   3510  CD2 TYR D  62     -21.806  52.532 -19.001  1.00 36.78           C
ATOM   3511  CE1 TYR D  62     -23.700  54.318 -18.148  1.00 41.14           C
ATOM   3512  CE2 TYR D  62     -21.861  53.798 -19.552  1.00 38.59           C
ATOM   3513  CZ  TYR D  62     -22.793  54.704 -19.110  1.00 39.56           C
ATOM   3514  OH  TYR D  62     -22.835  55.966 -19.637  1.00 52.65           O
ATOM   3515  N   ILE D  63     -23.384  49.301 -20.122  1.00 47.69           N
ATOM   3516  CA  ILE D  63     -23.622  49.412 -21.595  1.00 46.10           C
ATOM   3517  C   ILE D  63     -24.809  48.531 -22.020  1.00 50.64           C
ATOM   3518  O   ILE D  63     -25.468  48.875 -23.019  1.00 49.01           O
ATOM   3519  CB  ILE D  63     -22.387  49.119 -22.483  1.00 42.10           C
ATOM   3520  CG1 ILE D  63     -21.789  47.722 -22.272  1.00 40.22           C
ATOM   3521  CG2 ILE D  63     -21.351  50.224 -22.345  1.00 41.42           C
ATOM   3522  CD1 ILE D  63     -20.750  47.352 -23.317  1.00 40.17           C
ATOM   3523  N   PHE D  64     -25.069  47.423 -21.300  1.00 48.44           N
ATOM   3524  CA  PHE D  64     -26.280  46.603 -21.532  1.00 47.53           C
ATOM   3525  C   PHE D  64     -27.504  47.249 -20.849  1.00 49.61           C
ATOM   3526  O   PHE D  64     -28.639  46.854 -21.113  1.00 50.07           O
ATOM   3527  CB  PHE D  64     -26.115  45.165 -21.025  1.00 45.81           C
ATOM   3528  CG  PHE D  64     -25.230  44.235 -21.822  1.00 47.03           C
ATOM   3529  CD1 PHE D  64     -25.220  44.240 -23.210  1.00 51.34           C
ATOM   3530  CD2 PHE D  64     -24.422  43.308 -21.173  1.00 50.29           C
ATOM   3531  CE1 PHE D  64     -24.425  43.351 -23.929  1.00 50.20           C
ATOM   3532  CE2 PHE D  64     -23.626  42.420 -21.890  1.00 52.86           C
ATOM   3533  CZ  PHE D  64     -23.628  42.443 -23.270  1.00 48.63           C
ATOM   3534  N   GLN D  65     -27.267  48.214 -19.945  1.00 49.04           N
ATOM   3535  CA  GLN D  65     -28.295  48.805 -19.094  1.00 46.29           C
ATOM   3536  C   GLN D  65     -29.097  47.699 -18.383  1.00 44.86           C
ATOM   3537  O   GLN D  65     -30.292  47.586 -18.591  1.00 50.85           O
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ATOM   3538  CB  GLN D  65     -29.167  49.725 -19.953  1.00 49.83           C
ATOM   3539  CG  GLN D  65     -28.509  51.060 -20.304  1.00 50.79           C
ATOM   3540  CD  GLN D  65     -28.451  51.961 -19.092  1.00 54.16           C
ATOM   3541  NE2 GLN D  65     -27.294  52.541 -18.821  1.00 59.21           N
ATOM   3542  OE1 GLN D  65     -29.428  52.103 -18.370  1.00 58.85           O
ATOM   3543  N   THR D  66     -28.411  46.903 -17.546  1.00 44.74           N
ATOM   3544  CA  THR D  66     -28.975  45.854 -16.633  1.00 47.30           C
ATOM   3545  C   THR D  66     -28.349  45.946 -15.225  1.00 50.48           C
ATOM   3546  O   THR D  66     -27.291  46.542 -15.034  1.00 51.45           O
ATOM   3547  CB  THR D  66     -28.741  44.428 -17.170  1.00 45.49           C
ATOM   3548  CG2 THR D  66     -27.351  44.218 -17.729  1.00 44.99           C
ATOM   3549  OG1 THR D  66     -28.940  43.446 -16.146  1.00 40.71           O
ATOM   3550  N   GLU D  67     -29.016  45.309 -14.251  1.00 56.55           N
ATOM   3551  CA  GLU D  67     -28.563  45.127 -12.860  1.00 54.91           C
ATOM   3552  C   GLU D  67     -28.117  43.672 -12.596  1.00 52.31           C
ATOM   3553  O   GLU D  67     -27.768  43.346 -11.462  1.00 47.34           O
ATOM   3554  CB  GLU D  67     -29.702  45.491 -11.898  1.00 59.30           C
ATOM   3555  CG  GLU D  67     -29.780  46.974 -11.556  1.00 65.83           C
ATOM   3556  CD  GLU D  67     -30.989  47.394 -10.723  1.00 71.45           C
ATOM   3557  OE1 GLU D  67     -32.012  46.669 -10.738  1.00 68.35           O
ATOM   3558  OE2 GLU D  67     -30.917  48.459 -10.072  1.00 76.05           O1-
ATOM   3559  N   ASN D  68     -28.111  42.804 -13.625  1.00 52.52           N
ATOM   3560  CA  ASN D  68     -27.893  41.335 -13.468  1.00 54.17           C
ATOM   3561  C   ASN D  68     -26.505  41.014 -12.884  1.00 55.95           C
ATOM   3562  O   ASN D  68     -25.457  41.381 -13.435  1.00 57.48           O
ATOM   3563  CB  ASN D  68     -28.027  40.578 -14.792  1.00 56.61           C
ATOM   3564  CG  ASN D  68     -29.406  40.641 -15.414  1.00 58.83           C
ATOM   3565  ND2 ASN D  68     -29.462  40.671 -16.740  1.00 51.30           N
ATOM   3566  OD1 ASN D  68     -30.408  40.645 -14.698  1.00 59.27           O
ATOM   3567  N   ARG D  69     -26.497  40.257 -11.784  1.00 57.80           N
ATOM   3568  CA  ARG D  69     -25.266  39.689 -11.251  1.00 57.20           C
ATOM   3569  C   ARG D  69     -24.637  38.746 -12.285  1.00 51.99           C
ATOM   3570  O   ARG D  69     -23.438  38.539 -12.229  1.00 46.21           O
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ATOM   3571  CB  ARG D  69     -25.504  38.923  -9.943  1.00 57.05           C
ATOM   3572  CG  ARG D  69     -25.542  39.796  -8.697  1.00 64.79           C
ATOM   3573  CD  ARG D  69     -25.898  39.002  -7.446  1.00 71.03           C
ATOM   3574  NE  ARG D  69     -24.805  38.179  -6.936  1.00 69.20           N
ATOM   3575  CZ  ARG D  69     -24.908  37.333  -5.908  1.00 67.19           C
ATOM   3576  NH1 ARG D  69     -26.096  36.940  -5.482  1.00 62.83           N1+
ATOM   3577  NH2 ARG D  69     -23.820  36.882  -5.308  1.00 64.15           N
ATOM   3578  N   THR D  70     -25.455  38.132 -13.160  1.00 47.56           N
ATOM   3579  CA  THR D  70     -24.981  37.062 -14.081  1.00 46.89           C
ATOM   3580  C   THR D  70     -24.534  37.711 -15.406  1.00 47.60           C
ATOM   3581  O   THR D  70     -25.187  37.547 -16.484  1.00 39.60           O
ATOM   3582  CB  THR D  70     -26.042  35.963 -14.235  1.00 48.60           C
ATOM   3583  CG2 THR D  70     -25.452  34.694 -14.804  1.00 50.33           C
ATOM   3584  OG1 THR D  70     -26.663  35.664 -12.978  1.00 47.90           O
ATOM   3585  N   THR D  71     -23.440  38.489 -15.289  1.00 43.38           N
ATOM   3586  CA  THR D  71     -22.846  39.306 -16.343  1.00 41.74           C
ATOM   3587  C   THR D  71     -21.362  38.919 -16.447  1.00 42.49           C
ATOM   3588  O   THR D  71     -20.695  38.896 -15.436  1.00 43.15           O
ATOM   3589  CB  THR D  71     -23.110  40.787 -16.059  1.00 41.79           C
ATOM   3590  CG2 THR D  71     -22.607  41.729 -17.137  1.00 42.70           C
ATOM   3591  OG1 THR D  71     -24.518  40.963 -15.916  1.00 39.57           O
ATOM   3592  N   MET D  72     -20.882  38.538 -17.646  1.00 38.09           N
ATOM   3593  CA  MET D  72     -19.569  37.930 -17.760  1.00 38.96           C
ATOM   3594  C   MET D  72     -19.067  37.927 -19.213  1.00 38.90           C
ATOM   3595  O   MET D  72     -19.626  38.604 -20.120  1.00 35.16           O
ATOM   3596  CB  MET D  72     -19.563  36.513 -17.161  1.00 42.43           C
ATOM   3597  CG  MET D  72     -20.142  35.421 -18.050  1.00 42.13           C
ATOM   3598  SD  MET D  72     -20.574  33.904 -17.136  1.00 42.57           S
ATOM   3599  CE  MET D  72     -22.061  34.440 -16.298  1.00 37.91           C
ATOM   3600  N   CYS D  73     -17.912  37.284 -19.423  1.00 35.43           N
ATOM   3601  CA  CYS D  73     -17.440  37.130 -20.764  1.00 39.47           C
ATOM   3602  C   CYS D  73     -17.166  35.649 -21.073  1.00 41.15           C
ATOM   3603  O   CYS D  73     -16.790  34.858 -20.211  1.00 41.71           O
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ATOM   3604  CB  CYS D  73     -16.223  37.998 -21.043  1.00 37.66           C
ATOM   3605  SG  CYS D  73     -16.508  39.768 -20.755  1.00 42.15           S
ATOM   3606  N   ILE D  74     -17.364  35.302 -22.346  1.00 37.81           N
ATOM   3607  CA  ILE D  74     -16.940  34.067 -22.883  1.00 38.06           C
ATOM   3608  C   ILE D  74     -15.637  34.311 -23.646  1.00 39.21           C
ATOM   3609  O   ILE D  74     -15.498  35.345 -24.327  1.00 41.58           O
ATOM   3610  CB  ILE D  74     -18.037  33.479 -23.785  1.00 37.54           C
ATOM   3611  CG1 ILE D  74     -19.388  33.468 -23.071  1.00 38.27           C
ATOM   3612  CG2 ILE D  74     -17.623  32.097 -24.239  1.00 39.01           C
ATOM   3613  CD1 ILE D  74     -20.502  33.039 -23.935  1.00 39.12           C
ATOM   3614  N   THR D  75     -14.712  33.348 -23.537  1.00 36.69           N
ATOM   3615  CA  THR D  75     -13.413  33.425 -24.173  1.00 33.98           C
ATOM   3616  C   THR D  75     -13.556  32.846 -25.582  1.00 34.79           C
ATOM   3617  O   THR D  75     -13.535  31.629 -25.769  1.00 32.22           O
ATOM   3618  CB  THR D  75     -12.370  32.729 -23.286  1.00 33.22           C
ATOM   3619  CG2 THR D  75     -10.980  32.657 -23.880  1.00 30.89           C
ATOM   3620  OG1 THR D  75     -12.337  33.431 -22.041  1.00 34.62           O
ATOM   3621  N   GLY D  76     -13.751  33.748 -26.548  1.00 37.46           N
ATOM   3622  CA  GLY D  76     -13.916  33.437 -27.976  1.00 36.63           C
ATOM   3623  C   GLY D  76     -14.663  34.547 -28.710  1.00 36.20           C
ATOM   3624  O   GLY D  76     -15.057  35.555 -28.107  1.00 40.37           O
ATOM   3625  N   SER D  77     -14.844  34.369 -30.018  1.00 33.64           N
ATOM   3626  CA  SER D  77     -15.477  35.362 -30.874  1.00 37.76           C
ATOM   3627  C   SER D  77     -16.976  35.445 -30.551  1.00 36.42           C
ATOM   3628  O   SER D  77     -17.479  34.635 -29.784  1.00 38.48           O
ATOM   3629  CB  SER D  77     -15.222  35.052 -32.344  1.00 43.47           C
ATOM   3630  OG  SER D  77     -16.312  34.336 -32.941  1.00 47.84           O
ATOM   3631  N   ALA D  78     -17.688  36.423 -31.131  1.00 34.01           N
ATOM   3632  CA  ALA D  78     -19.121  36.684 -30.759  1.00 37.08           C
ATOM   3633  C   ALA D  78     -20.081  35.500 -31.022  1.00 36.91           C
ATOM   3634  O   ALA D  78     -21.139  35.433 -30.408  1.00 41.77           O
ATOM   3635  CB  ALA D  78     -19.625  37.903 -31.475  1.00 38.39           C
ATOM   3636  N   HIS D  79     -19.751  34.592 -31.939  1.00 37.88           N
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ATOM   3637  CA  HIS D  79     -20.557  33.399 -32.187  1.00 43.88           C
ATOM   3638  C   HIS D  79     -20.830  32.654 -30.885  1.00 41.94           C
ATOM   3639  O   HIS D  79     -21.869  31.994 -30.718  1.00 47.19           O
ATOM   3640  CB  HIS D  79     -19.845  32.405 -33.103  1.00 44.85           C
ATOM   3641  CG  HIS D  79     -20.080  32.599 -34.555  1.00 52.21           C
ATOM   3642  CD2 HIS D  79     -20.694  31.805 -35.457  1.00 56.27           C
ATOM   3643  ND1 HIS D  79     -19.557  33.675 -35.255  1.00 52.61           N
ATOM   3644  CE1 HIS D  79     -19.860  33.536 -36.527  1.00 56.50           C
ATOM   3645  NE2 HIS D  79     -20.551  32.394 -36.678  1.00 56.92           N
ATOM   3646  N   THR D  80     -19.856  32.771 -29.995  1.00 39.62           N
ATOM   3647  CA  THR D  80     -19.741  32.029 -28.756  1.00 42.32           C
ATOM   3648  C   THR D  80     -20.862  32.461 -27.793  1.00 43.95           C
ATOM   3649  O   THR D  80     -21.348  31.682 -26.992  1.00 44.28           O
ATOM   3650  CB  THR D  80     -18.303  32.261 -28.291  1.00 46.26           C
ATOM   3651  CG2 THR D  80     -18.241  33.133 -27.064  1.00 43.10           C
ATOM   3652  OG1 THR D  80     -17.624  31.014 -28.166  1.00 53.60           O
ATOM   3653  N   GLY D  81     -21.290  33.725 -27.892  1.00 43.10           N
ATOM   3654  CA  GLY D  81     -22.468  34.197 -27.201  1.00 43.98           C
ATOM   3655  C   GLY D  81     -23.736  33.510 -27.676  1.00 41.33           C
ATOM   3656  O   GLY D  81     -24.591  33.154 -26.883  1.00 44.09           O
ATOM   3657  N   MET D  82     -23.873  33.371 -28.994  1.00 44.37           N
ATOM   3658  CA  MET D  82     -25.007  32.664 -29.595  1.00 45.73           C
ATOM   3659  C   MET D  82     -24.966  31.192 -29.166  1.00 41.32           C
ATOM   3660  O   MET D  82     -25.957  30.669 -28.746  1.00 40.48           O
ATOM   3661  CB  MET D  82     -24.983  32.761 -31.120  1.00 45.13           C
ATOM   3662  CG  MET D  82     -26.247  32.233 -31.770  1.00 46.17           C
ATOM   3663  SD  MET D  82     -26.038  32.098 -33.554  1.00 46.32           S
ATOM   3664  CE  MET D  82     -26.170  33.823 -34.017  1.00 43.33           C
ATOM   3665  N   GLU D  83     -23.786  30.570 -29.241  1.00 43.93           N
ATOM   3666  CA  GLU D  83     -23.560  29.206 -28.794  1.00 45.31           C
ATOM   3667  C   GLU D  83     -23.947  29.060 -27.319  1.00 47.10           C
ATOM   3668  O   GLU D  83     -24.667  28.149 -26.934  1.00 51.80           O
ATOM   3669  CB  GLU D  83     -22.092  28.819 -28.999  1.00 50.12           C
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ATOM   3670  CG  GLU D  83     -21.667  28.701 -30.458  1.00 49.90           C
ATOM   3671  CD  GLU D  83     -21.936  27.361 -31.147  1.00 52.89           C
ATOM   3672  OE1 GLU D  83     -22.822  26.599 -30.667  1.00 51.22           O
ATOM   3673  OE2 GLU D  83     -21.247  27.075 -32.171  1.00 45.58           O1-
ATOM   3674  N   ALA D  84     -23.459  29.968 -26.480  1.00 53.66           N
ATOM   3675  CA  ALA D  84     -23.593  29.808 -25.013  1.00 54.33           C
ATOM   3676  C   ALA D  84     -25.061  29.899 -24.586  1.00 46.93           C
ATOM   3677  O   ALA D  84     -25.506  29.078 -23.787  1.00 46.41           O
ATOM   3678  CB  ALA D  84     -22.754  30.832 -24.275  1.00 54.83           C
ATOM   3679  N   LEU D  85     -25.768  30.917 -25.098  1.00 46.12           N
ATOM   3680  CA  LEU D  85     -27.216  31.143 -24.835  1.00 47.11           C
ATOM   3681  C   LEU D  85     -28.057  29.910 -25.207  1.00 44.62           C
ATOM   3682  O   LEU D  85     -28.886  29.496 -24.417  1.00 42.57           O
ATOM   3683  CB  LEU D  85     -27.686  32.374 -25.622  1.00 49.26           C
ATOM   3684  CG  LEU D  85     -27.358  33.742 -25.015  1.00 50.43           C
ATOM   3685  CD1 LEU D  85     -28.146  34.843 -25.715  1.00 49.86           C
ATOM   3686  CD2 LEU D  85     -27.661  33.777 -23.515  1.00 49.36           C
ATOM   3687  N   LEU D  86     -27.835  29.324 -26.401  1.00 47.92           N
ATOM   3688  CA  LEU D  86     -28.637  28.165 -26.911  1.00 46.47           C
ATOM   3689  C   LEU D  86     -28.295  26.878 -26.149  1.00 52.19           C
ATOM   3690  O   LEU D  86     -29.203  26.215 -25.626  1.00 51.52           O
ATOM   3691  CB  LEU D  86     -28.363  27.971 -28.404  1.00 44.60           C
ATOM   3692  CG  LEU D  86     -28.794  29.111 -29.331  1.00 39.14           C
ATOM   3693  CD1 LEU D  86     -28.355  28.832 -30.753  1.00 38.15           C
ATOM   3694  CD2 LEU D  86     -30.288  29.331 -29.289  1.00 42.20           C
ATOM   3695  N   CYS D  87     -26.989  26.544 -26.108  1.00 56.57           N
ATOM   3696  CA  CYS D  87     -26.425  25.365 -25.400  1.00 52.70           C
ATOM   3697  C   CYS D  87     -26.913  25.307 -23.953  1.00 55.81           C
ATOM   3698  O   CYS D  87     -27.128  24.219 -23.431  1.00 61.15           O
ATOM   3699  CB  CYS D  87     -24.902  25.405 -25.360  1.00 53.31           C
ATOM   3700  SG  CYS D  87     -24.119  23.913 -24.681  1.00 48.43           S
ATOM   3701  N   ASN D  88     -27.060  26.482 -23.323  1.00 53.47           N
ATOM   3702  CA  ASN D  88     -27.321  26.584 -21.889  1.00 51.88           C
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ATOM   3703  C   ASN D  88     -28.821  26.471 -21.575  1.00 51.82           C
ATOM   3704  O   ASN D  88     -29.169  25.868 -20.547  1.00 43.61           O
ATOM   3705  CB  ASN D  88     -26.756  27.881 -21.294  1.00 53.42           C
ATOM   3706  CG  ASN D  88     -25.348  27.714 -20.761  1.00 51.54           C
ATOM   3707  ND2 ASN D  88     -24.356  28.087 -21.553  1.00 41.01           N
ATOM   3708  OD1 ASN D  88     -25.166  27.256 -19.634  1.00 52.49           O
ATOM   3709  N   LEU D  89     -29.682  27.065 -22.427  1.00 51.97           N
ATOM   3710  CA  LEU D  89     -31.121  27.262 -22.133  1.00 47.15           C
ATOM   3711  C   LEU D  89     -32.025  26.262 -22.884  1.00 52.38           C
ATOM   3712  O   LEU D  89     -33.250  26.431 -22.865  1.00 58.40           O
ATOM   3713  CB  LEU D  89     -31.501  28.687 -22.528  1.00 42.50           C
ATOM   3714  CG  LEU D  89     -30.908  29.777 -21.660  1.00 45.37           C
ATOM   3715  CD1 LEU D  89     -30.971  31.121 -22.363  1.00 45.44           C
ATOM   3716  CD2 LEU D  89     -31.621  29.839 -20.314  1.00 49.99           C
ATOM   3717  N   LEU D  90     -31.453  25.237 -23.529  1.00 50.39           N
ATOM   3718  CA  LEU D  90     -32.215  24.249 -24.305  1.00 50.48           C
ATOM   3719  C   LEU D  90     -31.712  22.833 -23.991  1.00 54.54           C
ATOM   3720  O   LEU D  90     -30.549  22.516 -24.265  1.00 63.49           O
ATOM   3721  CB  LEU D  90     -32.046  24.555 -25.801  1.00 48.89           C
ATOM   3722  CG  LEU D  90     -32.472  25.952 -26.244  1.00 46.22           C
ATOM   3723  CD1 LEU D  90     -32.025  26.229 -27.673  1.00 43.64           C
ATOM   3724  CD2 LEU D  90     -33.976  26.127 -26.106  1.00 43.71           C
ATOM   3725  N   GLU D  91     -32.595  21.980 -23.455  1.00 56.67           N
ATOM   3726  CA  GLU D  91     -32.366  20.510 -23.390  1.00 59.26           C
ATOM   3727  C   GLU D  91     -32.813  19.866 -24.715  1.00 52.32           C
ATOM   3728  O   GLU D  91     -33.527  20.500 -25.471  1.00 47.34           O
ATOM   3729  CB  GLU D  91     -33.144  19.887 -22.224  1.00 62.73           C
ATOM   3730  CG  GLU D  91     -33.007  20.642 -20.922  1.00 61.68           C
ATOM   3731  CD  GLU D  91     -33.294  19.842 -19.661  1.00 66.44           C
ATOM   3732  OE1 GLU D  91     -34.171  20.276 -18.895  1.00 64.33           O
ATOM   3733  OE2 GLU D  91     -32.609  18.814 -19.425  1.00 67.90           O1-
ATOM   3734  N   GLU D  92     -32.422  18.604 -24.964  1.00 56.29           N
ATOM   3735  CA  GLU D  92     -33.005  17.793 -26.076  1.00 61.37           C
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ATOM   3736  C   GLU D  92     -34.521  18.032 -26.068  1.00 61.41           C
ATOM   3737  O   GLU D  92     -35.147  17.979 -24.993  1.00 54.16           O
ATOM   3738  CB  GLU D  92     -32.754  16.280 -25.960  1.00 64.27           C
ATOM   3739  CG  GLU D  92     -31.289  15.854 -25.802  1.00 76.06           C
ATOM   3740  CD  GLU D  92     -30.405  15.763 -27.049  1.00 83.74           C
ATOM   3741  OE1 GLU D  92     -29.240  15.245 -26.939  1.00 66.91           O
ATOM   3742  OE2 GLU D  92     -30.859  16.207 -28.128  1.00 90.80           O1-
ATOM   3743  N   GLY D  93     -35.083  18.416 -27.227  1.00 60.57           N
ATOM   3744  CA  GLY D  93     -36.548  18.543 -27.416  1.00 58.30           C
ATOM   3745  C   GLY D  93     -37.205  19.848 -26.948  1.00 61.85           C
ATOM   3746  O   GLY D  93     -38.364  20.055 -27.273  1.00 66.22           O
ATOM   3747  N   ASP D  94     -36.528  20.736 -26.203  1.00 58.22           N
ATOM   3748  CA  ASP D  94     -37.108  22.074 -25.923  1.00 59.62           C
ATOM   3749  C   ASP D  94     -37.406  22.817 -27.238  1.00 57.58           C
ATOM   3750  O   ASP D  94     -36.732  22.595 -28.258  1.00 60.72           O
ATOM   3751  CB  ASP D  94     -36.178  22.923 -25.058  1.00 64.83           C
ATOM   3752  CG  ASP D  94     -35.995  22.360 -23.665  1.00 69.76           C
ATOM   3753  OD1 ASP D  94     -36.766  21.440 -23.300  1.00 68.54           O
ATOM   3754  OD2 ASP D  94     -35.074  22.827 -22.971  1.00 68.38           O1-
ATOM   3755  N   ILE D  95     -38.410  23.704 -27.209  1.00 53.42           N
ATOM   3756  CA  ILE D  95     -38.863  24.433 -28.399  1.00 53.73           C
ATOM   3757  C   ILE D  95     -38.272  25.848 -28.380  1.00 55.86           C
ATOM   3758  O   ILE D  95     -38.598  26.657 -27.508  1.00 53.45           O
ATOM   3759  CB  ILE D  95     -40.405  24.497 -28.495  1.00 55.50           C
ATOM   3760  CG1 ILE D  95     -41.065  23.113 -28.457  1.00 59.23           C
ATOM   3761  CG2 ILE D  95     -40.842  25.275 -29.732  1.00 55.22           C
ATOM   3762  CD1 ILE D  95     -42.581  23.161 -28.347  1.00 55.40           C
ATOM   3763  N   VAL D  96     -37.489  26.159 -29.412  1.00 52.23           N
ATOM   3764  CA  VAL D  96     -36.958  27.480 -29.618  1.00 55.52           C
ATOM   3765  C   VAL D  96     -37.585  28.039 -30.888  1.00 55.23           C
ATOM   3766  O   VAL D  96     -37.501  27.405 -31.945  1.00 53.19           O
ATOM   3767  CB  VAL D  96     -35.417  27.483 -29.731  1.00 63.35           C
ATOM   3768  CG1 VAL D  96     -34.895  26.507 -30.788  1.00 64.20           C
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ATOM   3769  CG2 VAL D  96     -34.867  28.890 -29.982  1.00 56.68           C
ATOM   3770  N   LEU D  97     -38.150  29.243 -30.780  1.00 54.42           N
ATOM   3771  CA  LEU D  97     -38.593  29.982 -31.941  1.00 59.84           C
ATOM   3772  C   LEU D  97     -37.523  31.028 -32.317  1.00 61.51           C
ATOM   3773  O   LEU D  97     -37.076  31.814 -31.473  1.00 69.00           O
ATOM   3774  CB  LEU D  97     -39.958  30.617 -31.634  1.00 61.06           C
ATOM   3775  CG  LEU D  97     -40.448  31.682 -32.626  1.00 60.53           C
ATOM   3776  CD1 LEU D  97     -40.643  31.118 -34.026  1.00 58.91           C
ATOM   3777  CD2 LEU D  97     -41.731  32.345 -32.143  1.00 61.25           C
ATOM   3778  N   ILE D  98     -37.163  31.066 -33.605  1.00 55.73           N
ATOM   3779  CA  ILE D  98     -36.131  31.935 -34.115  1.00 55.48           C
ATOM   3780  C   ILE D  98     -36.681  32.818 -35.244  1.00 58.81           C
ATOM   3781  O   ILE D  98     -37.185  32.322 -36.245  1.00 59.64           O
ATOM   3782  CB  ILE D  98     -34.949  31.068 -34.569  1.00 53.98           C
ATOM   3783  CG1 ILE D  98     -34.418  30.229 -33.398  1.00 54.90           C
ATOM   3784  CG2 ILE D  98     -33.879  31.927 -35.221  1.00 53.95           C
ATOM   3785  CD1 ILE D  98     -33.351  29.223 -33.773  1.00 57.42           C
ATOM   3786  N   ALA D  99     -36.541  34.139 -35.080  1.00 61.02           N
ATOM   3787  CA  ALA D  99     -36.983  35.132 -36.065  1.00 61.39           C
ATOM   3788  C   ALA D  99     -35.951  35.232 -37.192  1.00 57.14           C
ATOM   3789  O   ALA D  99     -34.935  35.853 -37.049  1.00 58.08           O
ATOM   3790  CB  ALA D  99     -37.193  36.463 -35.393  1.00 66.07           C
ATOM   3791  N   ASN D 100     -36.241  34.600 -38.327  1.00 58.00           N
ATOM   3792  CA  ASN D 100     -35.250  34.427 -39.362  1.00 57.26           C
ATOM   3793  C   ASN D 100     -35.526  35.384 -40.529  1.00 60.55           C
ATOM   3794  O   ASN D 100     -36.323  35.053 -41.409  1.00 60.27           O
ATOM   3795  CB  ASN D 100     -35.203  32.977 -39.838  1.00 49.74           C
ATOM   3796  CG  ASN D 100     -34.440  32.823 -41.133  1.00 55.65           C
ATOM   3797  ND2 ASN D 100     -34.683  31.714 -41.809  1.00 57.04           N
ATOM   3798  OD1 ASN D 100     -33.647  33.696 -41.524  1.00 56.66           O
ATOM   3799  N   ASN D 101     -34.835  36.538 -40.540  1.00 59.06           N
ATOM   3800  CA  ASN D 101     -34.771  37.407 -41.721  1.00 58.57           C
ATOM   3801  C   ASN D 101     -33.317  37.830 -42.000  1.00 56.32           C
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ATOM   3802  O   ASN D 101     -33.069  38.919 -42.490  1.00 49.68           O
ATOM   3803  CB  ASN D 101     -35.740  38.590 -41.623  1.00 60.36           C
ATOM   3804  CG  ASN D 101     -35.321  39.666 -40.650  1.00 62.37           C
ATOM   3805  ND2 ASN D 101     -36.186  40.647 -40.431  1.00 61.71           N
ATOM   3806  OD1 ASN D 101     -34.215  39.622 -40.123  1.00 75.45           O
ATOM   3807  N   GLY D 102     -32.362  36.930 -41.744  1.00 53.75           N
ATOM   3808  CA  GLY D 102     -30.976  37.165 -42.139  1.00 51.27           C
ATOM   3809  C   GLY D 102     -30.048  36.038 -41.729  1.00 49.18           C
ATOM   3810  O   GLY D 102     -30.429  35.098 -41.047  1.00 48.91           O
ATOM   3811  N   ILE D 103     -28.791  36.163 -42.141  1.00 50.86           N
ATOM   3812  CA  ILE D 103     -27.835  35.071 -42.028  1.00 51.00           C
ATOM   3813  C   ILE D 103     -27.532  34.732 -40.570  1.00 50.59           C
ATOM   3814  O   ILE D 103     -27.229  33.567 -40.286  1.00 51.50           O
ATOM   3815  CB  ILE D 103     -26.540  35.381 -42.790  1.00 50.54           C
ATOM   3816  CG1 ILE D 103     -25.654  34.134 -42.853  1.00 51.85           C
ATOM   3817  CG2 ILE D 103     -25.832  36.582 -42.173  1.00 53.71           C
ATOM   3818  CD1 ILE D 103     -24.822  34.032 -44.109  1.00 53.76           C
ATOM   3819  N   TRP D 104     -27.610  35.723 -39.671  1.00 47.30           N
ATOM   3820  CA  TRP D 104     -27.289  35.485 -38.257  1.00 51.23           C
ATOM   3821  C   TRP D 104     -28.310  34.522 -37.631  1.00 47.83           C
ATOM   3822  O   TRP D 104     -27.933  33.657 -36.851  1.00 45.50           O
ATOM   3823  CB  TRP D 104     -27.118  36.804 -37.486  1.00 50.75           C
ATOM   3824  CG  TRP D 104     -26.062  37.669 -38.104  1.00 48.77           C
ATOM   3825  CD1 TRP D 104     -26.241  38.891 -38.682  1.00 48.05           C
ATOM   3826  CD2 TRP D 104     -24.669  37.352 -38.292  1.00 45.63           C
ATOM   3827  CE2 TRP D 104     -24.076  38.445 -38.965  1.00 47.19           C
ATOM   3828  CE3 TRP D 104     -23.858  36.272 -37.941  1.00 47.41           C
ATOM   3829  NE1 TRP D 104     -25.058  39.363 -39.195  1.00 44.56           N
ATOM   3830  CZ2 TRP D 104     -22.722  38.480 -39.295  1.00 53.57           C
ATOM   3831  CZ3 TRP D 104     -22.522  36.293 -38.283  1.00 51.04           C
ATOM   3832  CH2 TRP D 104     -21.957  37.389 -38.938  1.00 54.95           C
ATOM   3833  N   ALA D 105     -29.570  34.616 -38.058  1.00 50.33           N
ATOM   3834  CA  ALA D 105     -30.623  33.664 -37.662  1.00 52.55           C
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ATOM   3835  C   ALA D 105     -30.360  32.246 -38.214  1.00 49.08           C
ATOM   3836  O   ALA D 105     -30.579  31.234 -37.515  1.00 41.73           O
ATOM   3837  CB  ALA D 105     -31.961  34.206 -38.102  1.00 53.58           C
ATOM   3838  N   GLU D 106     -29.848  32.141 -39.446  1.00 50.77           N
ATOM   3839  CA  GLU D 106     -29.572  30.807 -40.031  1.00 57.66           C
ATOM   3840  C   GLU D 106     -28.532  30.060 -39.191  1.00 57.29           C
ATOM   3841  O   GLU D 106     -28.672  28.864 -38.944  1.00 63.42           O
ATOM   3842  CB  GLU D 106     -28.982  30.879 -41.438  1.00 63.39           C
ATOM   3843  CG  GLU D 106     -29.914  31.379 -42.521  1.00 70.05           C
ATOM   3844  CD  GLU D 106     -29.198  31.331 -43.859  1.00 72.10           C
ATOM   3845  OE1 GLU D 106     -28.034  30.849 -43.873  1.00 63.70           O
ATOM   3846  OE2 GLU D 106     -29.786  31.770 -44.867  1.00 69.93           O1-
ATOM   3847  N   ARG D 107     -27.457  30.774 -38.825  1.00 56.55           N
ATOM   3848  CA  ARG D 107     -26.436  30.293 -37.901  1.00 50.59           C
ATOM   3849  C   ARG D 107     -27.113  29.791 -36.612  1.00 49.93           C
ATOM   3850  O   ARG D 107     -26.747  28.742 -36.088  1.00 49.12           O
ATOM   3851  CB  ARG D 107     -25.421  31.400 -37.601  1.00 52.25           C
ATOM   3852  CG  ARG D 107     -24.457  31.727 -38.735  1.00 54.22           C
ATOM   3853  CD  ARG D 107     -23.282  30.764 -38.834  1.00 54.72           C
ATOM   3854  NE  ARG D 107     -22.056  31.364 -39.363  1.00 55.06           N
ATOM   3855  CZ  ARG D 107     -21.692  31.373 -40.643  1.00 52.91           C
ATOM   3856  NH1 ARG D 107     -22.588  31.138 -41.586  1.00 53.09           N1+
ATOM   3857  NH2 ARG D 107     -20.424  31.574 -40.964  1.00 49.63           N
ATOM   3858  N   ALA D 108     -28.107  30.538 -36.116  1.00 45.38           N
ATOM   3859  CA  ALA D 108     -28.769  30.225 -34.859  1.00 46.11           C
ATOM   3860  C   ALA D 108     -29.667  28.998 -35.037  1.00 51.47           C
ATOM   3861  O   ALA D 108     -29.762  28.162 -34.115  1.00 46.75           O
ATOM   3862  CB  ALA D 108     -29.543  31.416 -34.362  1.00 46.35           C
ATOM   3863  N   ILE D 109     -30.294  28.875 -36.220  1.00 51.03           N
ATOM   3864  CA  ILE D 109     -31.016  27.634 -36.556  1.00 51.21           C
ATOM   3865  C   ILE D 109     -30.022  26.467 -36.600  1.00 46.73           C
ATOM   3866  O   ILE D 109     -30.335  25.394 -36.111  1.00 51.16           O
ATOM   3867  CB  ILE D 109     -31.848  27.764 -37.850  1.00 53.84           C
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ATOM   3868  CG1 ILE D 109     -33.173  28.496 -37.600  1.00 52.71           C
ATOM   3869  CG2 ILE D 109     -32.088  26.402 -38.488  1.00 55.15           C
ATOM   3870  CD1 ILE D 109     -33.659  29.316 -38.781  1.00 52.49           C
ATOM   3871  N   ASN D 110     -28.827  26.674 -37.168  1.00 46.90           N
ATOM   3872  CA  ASN D 110     -27.873  25.563 -37.335  1.00 46.59           C
ATOM   3873  C   ASN D 110     -27.386  25.121 -35.943  1.00 52.85           C
ATOM   3874  O   ASN D 110     -27.235  23.917 -35.686  1.00 57.60           O
ATOM   3875  CB  ASN D 110     -26.803  25.916 -38.362  1.00 43.72           C
ATOM   3876  CG  ASN D 110     -25.662  24.923 -38.456  1.00 51.27           C
ATOM   3877  ND2 ASN D 110     -25.144  24.694 -39.655  1.00 45.71           N
ATOM   3878  OD1 ASN D 110     -25.175  24.435 -37.443  1.00 55.33           O
ATOM   3879  N   MET D 111     -27.223  26.074 -35.016  1.00 50.23           N
ATOM   3880  CA  MET D 111     -26.669  25.767 -33.689  1.00 51.32           C
ATOM   3881  C   MET D 111     -27.715  25.011 -32.841  1.00 52.17           C
ATOM   3882  O   MET D 111     -27.419  23.987 -32.208  1.00 46.95           O
ATOM   3883  CB  MET D 111     -26.217  27.048 -32.971  1.00 52.24           C
ATOM   3884  CG  MET D 111     -24.823  27.568 -33.399  1.00 50.77           C
ATOM   3885  SD  MET D 111     -24.423  29.222 -32.680  1.00 49.35           S
ATOM   3886  CE  MET D 111     -23.165  29.767 -33.836  1.00 45.48           C
ATOM   3887  N   ALA D 112     -28.953  25.508 -32.860  1.00 53.93           N
ATOM   3888  CA  ALA D 112     -30.038  24.963 -32.077  1.00 53.83           C
ATOM   3889  C   ALA D 112     -30.328  23.526 -32.522  1.00 58.34           C
ATOM   3890  O   ALA D 112     -30.577  22.656 -31.671  1.00 61.97           O
ATOM   3891  CB  ALA D 112     -31.255  25.857 -32.181  1.00 55.05           C
ATOM   3892  N   THR D 113     -30.269  23.280 -33.837  1.00 55.62           N
ATOM   3893  CA  THR D 113     -30.410  21.936 -34.389  1.00 55.07           C
ATOM   3894  C   THR D 113     -29.390  21.026 -33.704  1.00 53.88           C
ATOM   3895  O   THR D 113     -29.770  20.017 -33.091  1.00 57.77           O
ATOM   3896  CB  THR D 113     -30.268  21.936 -35.919  1.00 59.08           C
ATOM   3897  CG2 THR D 113     -30.287  20.556 -36.539  1.00 50.71           C
ATOM   3898  OG1 THR D 113     -31.354  22.714 -36.425  1.00 62.35           O
ATOM   3899  N   ARG D 114     -28.111  21.429 -33.767  1.00 53.85           N
ATOM   3900  CA  ARG D 114     -26.967  20.624 -33.252  1.00 49.13           C
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ATOM   3901  C   ARG D 114     -27.159  20.330 -31.749  1.00 50.60           C
ATOM   3902  O   ARG D 114     -26.779  19.265 -31.275  1.00 50.48           O
ATOM   3903  CB  ARG D 114     -25.646  21.336 -33.580  1.00 46.28           C
ATOM   3904  CG  ARG D 114     -25.347  21.429 -35.072  1.00 51.30           C
ATOM   3905  CD  ARG D 114     -24.230  22.379 -35.512  1.00 50.65           C
ATOM   3906  NE  ARG D 114     -22.953  21.731 -35.813  1.00 49.74           N
ATOM   3907  CZ  ARG D 114     -22.246  21.887 -36.941  1.00 55.00           C
ATOM   3908  NH1 ARG D 114     -22.688  22.669 -37.914  1.00 53.04           N1+
ATOM   3909  NH2 ARG D 114     -21.075  21.283 -37.080  1.00 50.68           N
ATOM   3910  N   TYR D 115     -27.784  21.254 -31.004  1.00 51.94           N
ATOM   3911  CA  TYR D 115     -27.973  21.093 -29.545  1.00 57.17           C
ATOM   3912  C   TYR D 115     -29.191  20.200 -29.248  1.00 59.58           C
ATOM   3913  O   TYR D 115     -29.460  19.924 -28.075  1.00 54.58           O
ATOM   3914  CB  TYR D 115     -28.026  22.457 -28.824  1.00 53.65           C
ATOM   3915  CG  TYR D 115     -26.692  23.169 -28.714  1.00 51.94           C
ATOM   3916  CD1 TYR D 115     -25.556  22.493 -28.306  1.00 52.53           C
ATOM   3917  CD2 TYR D 115     -26.552  24.512 -29.040  1.00 51.39           C
ATOM   3918  CE1 TYR D 115     -24.321  23.114 -28.244  1.00 55.37           C
ATOM   3919  CE2 TYR D 115     -25.327  25.152 -28.978  1.00 50.18           C
ATOM   3920  CZ  TYR D 115     -24.202  24.452 -28.575  1.00 56.86           C
ATOM   3921  OH  TYR D 115     -22.973  25.050 -28.492  1.00 55.06           O
ATOM   3922  N   GLY D 116     -29.908  19.753 -30.293  1.00 63.10           N
ATOM   3923  CA  GLY D 116     -30.976  18.728 -30.185  1.00 62.90           C
ATOM   3924  C   GLY D 116     -32.354  19.307 -29.876  1.00 61.49           C
ATOM   3925  O   GLY D 116     -33.239  18.605 -29.379  1.00 63.15           O
ATOM   3926  N   ALA D 117     -32.543  20.589 -30.191  1.00 61.46           N
ATOM   3927  CA  ALA D 117     -33.751  21.327 -29.867  1.00 60.44           C
ATOM   3928  C   ALA D 117     -34.759  21.168 -31.001  1.00 59.11           C
ATOM   3929  O   ALA D 117     -34.411  20.741 -32.089  1.00 63.66           O
ATOM   3930  CB  ALA D 117     -33.427  22.791 -29.645  1.00 62.37           C
ATOM   3931  N   ASP D 118     -35.996  21.569 -30.708  1.00 60.88           N
ATOM   3932  CA  ASP D 118     -37.096  21.573 -31.634  1.00 57.74           C
ATOM   3933  C   ASP D 118     -37.202  23.012 -32.142  1.00 59.49           C
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ATOM   3934  O   ASP D 118     -37.682  23.903 -31.421  1.00 56.98           O
ATOM   3935  CB  ASP D 118     -38.358  21.011 -30.955  1.00 60.54           C
ATOM   3936  CG  ASP D 118     -39.589  20.846 -31.837  1.00 62.18           C
ATOM   3937  OD1 ASP D 118     -39.529  21.192 -33.031  1.00 66.67           O
ATOM   3938  OD2 ASP D 118     -40.621  20.392 -31.308  1.00 64.55           O1-
ATOM   3939  N   VAL D 119     -36.723  23.208 -33.377  1.00 58.44           N
ATOM   3940  CA  VAL D 119     -36.560  24.503 -34.007  1.00 62.99           C
ATOM   3941  C   VAL D 119     -37.836  24.878 -34.783  1.00 70.06           C
ATOM   3942  O   VAL D 119     -38.310  24.101 -35.604  1.00 76.00           O
ATOM   3943  CB  VAL D 119     -35.335  24.485 -34.942  1.00 60.50           C
ATOM   3944  CG1 VAL D 119     -35.150  25.811 -35.664  1.00 57.45           C
ATOM   3945  CG2 VAL D 119     -34.067  24.100 -34.196  1.00 63.86           C
ATOM   3946  N   ARG D 120     -38.334  26.099 -34.548  1.00 68.46           N
ATOM   3947  CA  ARG D 120     -39.508  26.658 -35.212  1.00 67.90           C
ATOM   3948  C   ARG D 120     -39.197  28.093 -35.661  1.00 68.73           C
ATOM   3949  O   ARG D 120     -38.592  28.854 -34.939  1.00 76.64           O
ATOM   3950  CB  ARG D 120     -40.709  26.678 -34.264  1.00 66.91           C
ATOM   3951  CG  ARG D 120     -40.978  25.363 -33.545  1.00 68.05           C
ATOM   3952  CD  ARG D 120     -41.570  24.245 -34.394  1.00 62.57           C
ATOM   3953  NE  ARG D 120     -41.797  23.087 -33.541  1.00 62.43           N
ATOM   3954  CZ  ARG D 120     -42.773  22.992 -32.650  1.00 59.06           C
ATOM   3955  NH1 ARG D 120     -43.719  23.916 -32.632  1.00 53.92           N1+
ATOM   3956  NH2 ARG D 120     -42.807  21.974 -31.796  1.00 55.13           N
ATOM   3957  N   VAL D 121     -39.652  28.460 -36.856  1.00 65.80           N
ATOM   3958  CA  VAL D 121     -39.122  29.600 -37.546  1.00 65.31           C
ATOM   3959  C   VAL D 121     -40.259  30.579 -37.862  1.00 67.95           C
ATOM   3960  O   VAL D 121     -41.435  30.236 -37.825  1.00 78.14           O
ATOM   3961  CB  VAL D 121     -38.348  29.150 -38.799  1.00 68.00           C
ATOM   3962  CG1 VAL D 121     -37.757  30.321 -39.570  1.00 71.51           C
ATOM   3963  CG2 VAL D 121     -37.256  28.149 -38.450  1.00 63.51           C
ATOM   3964  N   LEU D 122     -39.865  31.832 -38.091  1.00 67.10           N
ATOM   3965  CA  LEU D 122     -40.727  32.907 -38.499  1.00 64.20           C
ATOM   3966  C   LEU D 122     -40.003  33.660 -39.618  1.00 60.69           C
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ATOM   3967  O   LEU D 122     -39.162  34.481 -39.338  1.00 74.58           O
ATOM   3968  CB  LEU D 122     -40.996  33.776 -37.264  1.00 65.56           C
ATOM   3969  CG  LEU D 122     -41.633  35.147 -37.493  1.00 70.59           C
ATOM   3970  CD1 LEU D 122     -42.877  35.058 -38.362  1.00 75.71           C
ATOM   3971  CD2 LEU D 122     -41.985  35.806 -36.166  1.00 74.43           C
ATOM   3972  N   GLU D 123     -40.297  33.322 -40.878  1.00 59.19           N
ATOM   3973  CA  GLU D 123     -39.536  33.829 -42.028  1.00 60.90           C
ATOM   3974  C   GLU D 123     -39.981  35.259 -42.331  1.00 58.31           C
ATOM   3975  O   GLU D 123     -41.069  35.659 -41.981  1.00 65.50           O
ATOM   3976  CB  GLU D 123     -39.708  32.936 -43.260  1.00 67.04           C
ATOM   3977  CG  GLU D 123     -39.468  31.455 -42.984  1.00 70.51           C
ATOM   3978  CD  GLU D 123     -38.628  30.735 -44.022  1.00 73.52           C
ATOM   3979  OE1 GLU D 123     -38.506  31.254 -45.149  1.00 74.58           O
ATOM   3980  OE2 GLU D 123     -38.074  29.670 -43.690  1.00 73.57           O1-
ATOM   3981  N   GLY D 124     -39.102  36.030 -42.973  1.00 62.32           N
ATOM   3982  CA  GLY D 124     -39.370  37.420 -43.317  1.00 54.91           C
ATOM   3983  C   GLY D 124     -38.466  37.891 -44.449  1.00 54.33           C
ATOM   3984  O   GLY D 124     -37.421  37.290 -44.717  1.00 46.03           O
ATOM   3985  N   PRO D 125     -38.847  38.976 -45.158  1.00 59.38           N
ATOM   3986  CA  PRO D 125     -37.921  39.654 -46.066  1.00 64.43           C
ATOM   3987  C   PRO D 125     -36.809  40.330 -45.240  1.00 73.71           C
ATOM   3988  O   PRO D 125     -37.083  40.886 -44.173  1.00 84.78           O
ATOM   3989  CB  PRO D 125     -38.809  40.681 -46.781  1.00 62.09           C
ATOM   3990  CG  PRO D 125     -39.918  40.963 -45.780  1.00 61.92           C
ATOM   3991  CD  PRO D 125     -40.160  39.639 -45.079  1.00 60.49           C
ATOM   3992  N   ALA D 126     -35.569  40.291 -45.735  1.00 68.26           N
ATOM   3993  CA  ALA D 126     -34.404  40.779 -44.996  1.00 64.52           C
ATOM   3994  C   ALA D 126     -34.384  42.313 -44.899  1.00 69.51           C
ATOM   3995  O   ALA D 126     -33.474  42.868 -44.232  1.00 61.16           O
ATOM   3996  CB  ALA D 126     -33.142  40.288 -45.661  1.00 68.44           C
ATOM   3997  N   ASP D 127     -35.356  42.987 -45.549  1.00 67.63           N
ATOM   3998  CA  ASP D 127     -35.328  44.450 -45.743  1.00 64.47           C
ATOM   3999  C   ASP D 127     -36.514  45.123 -45.030  1.00 63.17           C
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ATOM   4000  O   ASP D 127     -36.742  46.328 -45.212  1.00 58.30           O
ATOM   4001  CB  ASP D 127     -35.196  44.791 -47.238  1.00 64.98           C
ATOM   4002  CG  ASP D 127     -36.452  44.681 -48.094  1.00 59.91           C
ATOM   4003  OD1 ASP D 127     -37.418  43.981 -47.681  1.00 47.71           O
ATOM   4004  OD2 ASP D 127     -36.430  45.298 -49.189  1.00 60.28           O1-
ATOM   4005  N   LYS D 128     -37.223  44.349 -44.192  1.00 62.68           N
ATOM   4006  CA  LYS D 128     -38.261  44.845 -43.306  1.00 60.15           C
ATOM   4007  C   LYS D 128     -38.174  44.110 -41.972  1.00 60.68           C
ATOM   4008  O   LYS D 128     -37.784  42.950 -41.924  1.00 56.52           O
ATOM   4009  CB  LYS D 128     -39.635  44.648 -43.950  1.00 68.93           C
ATOM   4010  CG  LYS D 128     -40.075  45.798 -44.848  1.00 83.57           C
ATOM   4011  CD  LYS D 128     -41.087  45.417 -45.912  1.00 90.77           C
ATOM   4012  CE  LYS D 128     -41.663  46.625 -46.626  1.00 93.81           C
ATOM   4013  NZ  LYS D 128     -42.180  46.264 -47.967  1.00 99.06           N1+
ATOM   4014  N   PRO D 129     -38.544  44.750 -40.841  1.00 63.38           N
ATOM   4015  CA  PRO D 129     -38.556  44.077 -39.539  1.00 62.92           C
ATOM   4016  C   PRO D 129     -39.788  43.184 -39.375  1.00 60.19           C
ATOM   4017  O   PRO D 129     -40.621  43.160 -40.245  1.00 68.06           O
ATOM   4018  CB  PRO D 129     -38.660  45.255 -38.558  1.00 61.33           C
ATOM   4019  CG  PRO D 129     -39.510  46.258 -39.315  1.00 63.24           C
ATOM   4020  CD  PRO D 129     -39.007  46.145 -40.746  1.00 63.53           C
ATOM   4021  N   PHE D 130     -39.885  42.507 -38.233  1.00 63.14           N
ATOM   4022  CA  PHE D 130     -41.104  41.851 -37.783  1.00 68.31           C
ATOM   4023  C   PHE D 130     -41.926  42.856 -36.967  1.00 70.11           C
ATOM   4024  O   PHE D 130     -41.351  43.732 -36.331  1.00 73.98           O
ATOM   4025  CB  PHE D 130     -40.749  40.580 -37.000  1.00 70.75           C
ATOM   4026  CG  PHE D 130     -39.935  39.592 -37.798  1.00 69.79           C
ATOM   4027  CD1 PHE D 130     -40.550  38.738 -38.704  1.00 64.35           C
ATOM   4028  CD2 PHE D 130     -38.552  39.561 -37.694  1.00 69.34           C
ATOM   4029  CE1 PHE D 130     -39.803  37.854 -39.463  1.00 61.91           C
ATOM   4030  CE2 PHE D 130     -37.802  38.680 -38.457  1.00 69.53           C
ATOM   4031  CZ  PHE D 130     -38.431  37.827 -39.340  1.00 71.45           C
ATOM   4032  N   SER D 131     -43.261  42.734 -37.019  1.00 74.69           N
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ATOM   4033  CA  SER D 131     -44.191  43.555 -36.221  1.00 77.80           C
ATOM   4034  C   SER D 131     -44.517  42.797 -34.933  1.00 74.58           C
ATOM   4035  O   SER D 131     -44.297  41.588 -34.876  1.00 81.94           O
ATOM   4036  CB  SER D 131     -45.441  43.880 -36.999  1.00 83.18           C
ATOM   4037  OG  SER D 131     -46.174  42.697 -37.293  1.00 90.31           O
ATOM   4038  N   MET D 132     -45.039  43.486 -33.911  1.00 68.51           N
ATOM   4039  CA  MET D 132     -45.341  42.780 -32.650  1.00 70.85           C
ATOM   4040  C   MET D 132     -46.471  41.777 -32.904  1.00 72.34           C
ATOM   4041  O   MET D 132     -46.564  40.788 -32.171  1.00 71.90           O
ATOM   4042  CB  MET D 132     -45.733  43.696 -31.480  1.00 70.14           C
ATOM   4043  CG  MET D 132     -44.551  44.336 -30.698  1.00 82.85           C
ATOM   4044  SD  MET D 132     -42.951  43.412 -30.538  1.00 87.51           S
ATOM   4045  CE  MET D 132     -41.999  44.108 -31.893  1.00 76.51           C
ATOM   4046  N   THR D 133     -47.300  42.026 -33.931  1.00 64.77           N
ATOM   4047  CA  THR D 133     -48.387  41.119 -34.247  1.00 69.62           C
ATOM   4048  C   THR D 133     -47.777  39.790 -34.715  1.00 73.68           C
ATOM   4049  O   THR D 133     -48.097  38.714 -34.155  1.00 66.38           O
ATOM   4050  CB  THR D 133     -49.375  41.739 -35.246  1.00 74.04           C
ATOM   4051  CG2 THR D 133     -50.561  40.854 -35.565  1.00 70.77           C
ATOM   4052  OG1 THR D 133     -49.873  42.949 -34.685  1.00 66.63           O
ATOM   4053  N   ASP D 134     -46.871  39.870 -35.701  1.00 67.41           N
ATOM   4054  CA  ASP D 134     -46.140  38.689 -36.210  1.00 66.80           C
ATOM   4055  C   ASP D 134     -45.524  37.894 -35.043  1.00 68.34           C
ATOM   4056  O   ASP D 134     -45.511  36.653 -35.060  1.00 64.82           O
ATOM   4057  CB  ASP D 134     -45.044  39.085 -37.201  1.00 64.71           C
ATOM   4058  CG  ASP D 134     -45.567  39.845 -38.399  1.00 70.51           C
ATOM   4059  OD1 ASP D 134     -46.723  39.591 -38.778  1.00 72.58           O
ATOM   4060  OD2 ASP D 134     -44.819  40.697 -38.925  1.00 74.04           O1-
ATOM   4061  N   PHE D 135     -45.003  38.615 -34.041  1.00 67.17           N
ATOM   4062  CA  PHE D 135     -44.369  37.988 -32.875  1.00 70.12           C
ATOM   4063  C   PHE D 135     -45.424  37.294 -31.983  1.00 71.41           C
ATOM   4064  O   PHE D 135     -45.233  36.129 -31.595  1.00 62.32           O
ATOM   4065  CB  PHE D 135     -43.517  39.009 -32.106  1.00 70.06           C
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ATOM   4066  CG  PHE D 135     -42.131  39.288 -32.655  1.00 63.23           C
ATOM   4067  CD1 PHE D 135     -41.246  38.257 -32.921  1.00 59.30           C
ATOM   4068  CD2 PHE D 135     -41.690  40.590 -32.838  1.00 58.93           C
ATOM   4069  CE1 PHE D 135     -39.977  38.517 -33.407  1.00 58.40           C
ATOM   4070  CE2 PHE D 135     -40.423  40.852 -33.325  1.00 57.19           C
ATOM   4071  CZ  PHE D 135     -39.566  39.814 -33.603  1.00 62.20           C
ATOM   4072  N   LYS D 136     -46.532  37.976 -31.645  1.00 68.88           N
ATOM   4073  CA  LYS D 136     -47.552  37.359 -30.766  1.00 70.83           C
ATOM   4074  C   LYS D 136     -48.074  36.062 -31.399  1.00 76.53           C
ATOM   4075  O   LYS D 136     -48.207  35.054 -30.710  1.00 77.95           O
ATOM   4076  CB  LYS D 136     -48.732  38.293 -30.487  1.00 73.79           C
ATOM   4077  CG  LYS D 136     -48.376  39.601 -29.797  1.00 87.02           C
ATOM   4078  CD  LYS D 136     -49.475  40.656 -29.818  1.00 89.96           C
ATOM   4079  CE  LYS D 136     -50.092  40.907 -28.456  1.00 86.18           C
ATOM   4080  NZ  LYS D 136     -50.589  42.297 -28.349  1.00 84.70           N1+
ATOM   4081  N   LYS D 137     -48.356  36.103 -32.712  1.00 80.89           N
ATOM   4082  CA  LYS D 137     -48.949  34.972 -33.453  1.00 80.64           C
ATOM   4083  C   LYS D 137     -48.025  33.750 -33.384  1.00 70.20           C
ATOM   4084  O   LYS D 137     -48.418  32.716 -32.865  1.00 68.28           O
ATOM   4085  CB  LYS D 137     -49.260  35.362 -34.902  1.00 89.92           C
ATOM   4086  CG  LYS D 137     -50.652  35.946 -35.134  1.00 93.95           C
ATOM   4087  CD  LYS D 137     -50.965  36.196 -36.607  1.00 99.15           C
ATOM   4088  CE  LYS D 137     -50.335  37.461 -37.157  1.00 98.44           C
ATOM   4089  NZ  LYS D 137     -50.393  37.514 -38.638  1.00 93.79           N1+
ATOM   4090  N   ALA D 138     -46.787  33.901 -33.860  1.00 71.76           N
ATOM   4091  CA  ALA D 138     -45.756  32.826 -33.833  1.00 71.73           C
ATOM   4092  C   ALA D 138     -45.644  32.140 -32.453  1.00 66.09           C
ATOM   4093  O   ALA D 138     -45.449  30.930 -32.353  1.00 57.61           O
ATOM   4094  CB  ALA D 138     -44.439  33.426 -34.244  1.00 71.11           C
ATOM   4095  N   ILE D 139     -45.750  32.933 -31.382  1.00 73.05           N
ATOM   4096  CA  ILE D 139     -45.561  32.470 -30.005  1.00 73.75           C
ATOM   4097  C   ILE D 139     -46.784  31.637 -29.586  1.00 76.42           C
ATOM   4098  O   ILE D 139     -46.637  30.583 -28.943  1.00 69.52           O
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ATOM   4099  CB  ILE D 139     -45.294  33.668 -29.052  1.00 70.46           C
ATOM   4100  CG1 ILE D 139     -44.050  34.468 -29.459  1.00 70.72           C
ATOM   4101  CG2 ILE D 139     -45.200  33.210 -27.600  1.00 66.42           C
ATOM   4102  CD1 ILE D 139     -43.938  35.838 -28.800  1.00 71.05           C
ATOM   4103  N   GLU D 140     -47.983  32.126 -29.947  1.00 89.91           N
ATOM   4104  CA  GLU D 140     -49.286  31.469 -29.648  1.00 86.93           C
ATOM   4105  C   GLU D 140     -49.358  30.084 -30.314  1.00 81.46           C
ATOM   4106  O   GLU D 140     -49.874  29.148 -29.697  1.00 76.41           O
ATOM   4107  CB  GLU D 140     -50.443  32.356 -30.119  1.00 90.11           C
ATOM   4108  CG  GLU D 140     -51.823  31.729 -29.949  1.00 90.35           C
ATOM   4109  CD  GLU D 140     -52.398  31.842 -28.549  1.00 89.07           C
ATOM   4110  OE1 GLU D 140     -52.922  30.824 -28.036  1.00 74.63           O
ATOM   4111  OE2 GLU D 140     -52.327  32.955 -27.979  1.00 84.34           O1-
ATOM   4112  N   GLN D 141     -48.822  29.977 -31.546  1.00 71.03           N
ATOM   4113  CA  GLN D 141     -48.825  28.739 -32.353  1.00 74.15           C
ATOM   4114  C   GLN D 141     -47.884  27.682 -31.743  1.00 78.90           C
ATOM   4115  O   GLN D 141     -48.220  26.471 -31.679  1.00 62.05           O
ATOM   4116  CB  GLN D 141     -48.398  29.010 -33.803  1.00 81.01           C
ATOM   4117  CG  GLN D 141     -48.748  30.404 -34.319  1.00 92.39           C
ATOM   4118  CD  GLN D 141     -48.909  30.507 -35.818  1.00 99.64           C
ATOM   4119  NE2 GLN D 141     -49.807  31.383 -36.253  1.00 95.35           N
ATOM   4120  OE1 GLN D 141     -48.227  29.825 -36.582  1.00105.91           O
ATOM   4121  N   HIS D 142     -46.692  28.129 -31.311  1.00 80.55           N
ATOM   4122  CA  HIS D 142     -45.562  27.228 -31.070  1.00 73.18           C
ATOM   4123  C   HIS D 142     -45.310  26.985 -29.569  1.00 68.52           C
ATOM   4124  O   HIS D 142     -44.681  25.992 -29.207  1.00 71.86           O
ATOM   4125  CB  HIS D 142     -44.346  27.763 -31.823  1.00 69.96           C
ATOM   4126  CG  HIS D 142     -44.418  27.649 -33.314  1.00 69.48           C
ATOM   4127  CD2 HIS D 142     -44.133  26.620 -34.142  1.00 58.67           C
ATOM   4128  ND1 HIS D 142     -44.731  28.732 -34.136  1.00 79.14           N
ATOM   4129  CE1 HIS D 142     -44.642  28.363 -35.405  1.00 70.08           C
ATOM   4130  NE2 HIS D 142     -44.271  27.067 -35.431  1.00 57.38           N
ATOM   4131  N   ARG D 143     -45.816  27.872 -28.704  1.00 74.76           N
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ATOM   4132  CA  ARG D 143     -45.637  27.819 -27.234  1.00 77.46           C
ATOM   4133  C   ARG D 143     -44.182  27.508 -26.848  1.00 69.46           C
ATOM   4134  O   ARG D 143     -43.910  26.662 -25.994  1.00 59.70           O
ATOM   4135  CB  ARG D 143     -46.659  26.842 -26.647  1.00 85.84           C
ATOM   4136  CG  ARG D 143     -48.095  27.353 -26.708  1.00 98.26           C
ATOM   4137  CD  ARG D 143     -49.052  26.370 -26.054  1.00120.13           C
ATOM   4138  NE  ARG D 143     -50.453  26.502 -26.465  1.00134.26           N
ATOM   4139  CZ  ARG D 143     -51.405  25.595 -26.215  1.00127.51           C
ATOM   4140  NH1 ARG D 143     -51.167  24.589 -25.390  1.00113.48           N1+
ATOM   4141  NH2 ARG D 143     -52.590  25.687 -26.799  1.00118.64           N
ATOM   4142  N   PRO D 144     -43.184  28.251 -27.385  1.00 68.78           N
ATOM   4143  CA  PRO D 144     -41.772  27.929 -27.151  1.00 68.32           C
ATOM   4144  C   PRO D 144     -41.219  28.337 -25.767  1.00 66.45           C
ATOM   4145  O   PRO D 144     -41.728  29.263 -25.117  1.00 58.75           O
ATOM   4146  CB  PRO D 144     -41.057  28.743 -28.235  1.00 62.81           C
ATOM   4147  CG  PRO D 144     -41.932  29.972 -28.392  1.00 66.40           C
ATOM   4148  CD  PRO D 144     -43.351  29.488 -28.168  1.00 65.26           C
ATOM   4149  N   LYS D 145     -40.155  27.633 -25.352  1.00 65.15           N
ATOM   4150  CA  LYS D 145     -39.320  27.982 -24.200  1.00 64.52           C
ATOM   4151  C   LYS D 145     -38.635  29.339 -24.437  1.00 62.17           C
ATOM   4152  O   LYS D 145     -38.774  30.243 -23.626  1.00 63.88           O
ATOM   4153  CB  LYS D 145     -38.266  26.902 -23.938  1.00 61.49           C
ATOM   4154  CG  LYS D 145     -37.917  26.716 -22.469  1.00 59.39           C
ATOM   4155  CD  LYS D 145     -36.918  25.620 -22.253  1.00 58.28           C
ATOM   4156  CE  LYS D 145     -36.442  25.546 -20.819  1.00 57.05           C
ATOM   4157  NZ  LYS D 145     -35.252  24.668 -20.719  1.00 58.30           N1+
ATOM   4158  N   CYS D 146     -37.938  29.480 -25.569  1.00 61.24           N
ATOM   4159  CA  CYS D 146     -37.186  30.678 -25.868  1.00 63.63           C
ATOM   4160  C   CYS D 146     -37.529  31.200 -27.258  1.00 59.92           C
ATOM   4161  O   CYS D 146     -37.678  30.421 -28.183  1.00 62.54           O
ATOM   4162  CB  CYS D 146     -35.686  30.412 -25.825  1.00 67.79           C
ATOM   4163  SG  CYS D 146     -35.113  29.716 -24.254  1.00 69.97           S
ATOM   4164  N   LEU D 147     -37.579  32.533 -27.365  1.00 59.33           N
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ATOM   4165  CA  LEU D 147     -37.530  33.268 -28.620  1.00 56.02           C
ATOM   4166  C   LEU D 147     -36.131  33.874 -28.817  1.00 56.70           C
ATOM   4167  O   LEU D 147     -35.577  34.462 -27.892  1.00 57.79           O
ATOM   4168  CB  LEU D 147     -38.582  34.374 -28.555  1.00 52.59           C
ATOM   4169  CG  LEU D 147     -38.530  35.375 -29.700  1.00 56.06           C
ATOM   4170  CD1 LEU D 147     -38.773  34.681 -31.027  1.00 61.40           C
ATOM   4171  CD2 LEU D 147     -39.550  36.480 -29.482  1.00 60.67           C
ATOM   4172  N   PHE D 148     -35.591  33.768 -30.035  1.00 51.92           N
ATOM   4173  CA  PHE D 148     -34.305  34.330 -30.390  1.00 48.50           C
ATOM   4174  C   PHE D 148     -34.464  35.399 -31.478  1.00 53.44           C
ATOM   4175  O   PHE D 148     -35.090  35.162 -32.479  1.00 64.31           O
ATOM   4176  CB  PHE D 148     -33.370  33.223 -30.875  1.00 48.19           C
ATOM   4177  CG  PHE D 148     -31.960  33.690 -31.144  1.00 50.64           C
ATOM   4178  CD1 PHE D 148     -31.030  33.764 -30.119  1.00 48.34           C
ATOM   4179  CD2 PHE D 148     -31.566  34.062 -32.421  1.00 51.90           C
ATOM   4180  CE1 PHE D 148     -29.738  34.192 -30.368  1.00 50.06           C
ATOM   4181  CE2 PHE D 148     -30.267  34.489 -32.665  1.00 53.98           C
ATOM   4182  CZ  PHE D 148     -29.359  34.566 -31.635  1.00 49.85           C
ATOM   4183  N   VAL D 149     -33.854  36.573 -31.274  1.00 52.78           N
ATOM   4184  CA  VAL D 149     -33.998  37.709 -32.147  1.00 48.09           C
ATOM   4185  C   VAL D 149     -32.638  38.407 -32.328  1.00 50.12           C
ATOM   4186  O   VAL D 149     -31.910  38.633 -31.366  1.00 50.68           O
ATOM   4187  CB  VAL D 149     -35.044  38.681 -31.580  1.00 52.62           C
ATOM   4188  CG1 VAL D 149     -35.157  39.949 -32.408  1.00 55.54           C
ATOM   4189  CG2 VAL D 149     -36.396  38.012 -31.450  1.00 65.07           C
ATOM   4190  N   VAL D 150     -32.328  38.755 -33.580  1.00 48.28           N
ATOM   4191  CA  VAL D 150     -31.224  39.615 -33.968  1.00 47.81           C
ATOM   4192  C   VAL D 150     -31.679  41.072 -33.871  1.00 55.50           C
ATOM   4193  O   VAL D 150     -32.638  41.452 -34.509  1.00 60.33           O
ATOM   4194  CB  VAL D 150     -30.777  39.274 -35.397  1.00 46.32           C
ATOM   4195  CG1 VAL D 150     -29.752  40.255 -35.933  1.00 51.52           C
ATOM   4196  CG2 VAL D 150     -30.241  37.858 -35.473  1.00 49.47           C
ATOM   4197  N   HIS D 151     -30.980  41.884 -33.070  1.00 58.60           N
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ATOM   4198  CA  HIS D 151     -31.350  43.283 -32.895  1.00 52.22           C
ATOM   4199  C   HIS D 151     -30.827  44.081 -34.089  1.00 52.76           C
ATOM   4200  O   HIS D 151     -31.600  44.613 -34.863  1.00 51.28           O
ATOM   4201  CB  HIS D 151     -30.838  43.817 -31.554  1.00 53.42           C
ATOM   4202  CG  HIS D 151     -31.291  45.206 -31.260  1.00 57.93           C
ATOM   4203  CD2 HIS D 151     -32.483  45.812 -31.462  1.00 60.70           C
ATOM   4204  ND1 HIS D 151     -30.466  46.143 -30.680  1.00 54.03           N
ATOM   4205  CE1 HIS D 151     -31.134  47.270 -30.528  1.00 62.57           C
ATOM   4206  NE2 HIS D 151     -32.381  47.091 -31.000  1.00 60.29           N
ATOM   4207  N   GLY D 152     -29.501  44.117 -34.230  1.00 50.43           N
ATOM   4208  CA  GLY D 152     -28.841  44.807 -35.302  1.00 51.45           C
ATOM   4209  C   GLY D 152     -28.186  43.809 -36.227  1.00 50.12           C
ATOM   4210  O   GLY D 152     -27.341  43.058 -35.773  1.00 55.88           O
ATOM   4211  N   ASP D 153     -28.590  43.813 -37.506  1.00 51.31           N
ATOM   4212  CA  ASP D 153     -28.164  42.823 -38.503  1.00 48.19           C
ATOM   4213  C   ASP D 153     -27.101  43.457 -39.395  1.00 47.45           C
ATOM   4214  O   ASP D 153     -27.393  44.378 -40.142  1.00 46.98           O
ATOM   4215  CB  ASP D 153     -29.343  42.265 -39.313  1.00 47.28           C
ATOM   4216  CG  ASP D 153     -28.972  41.101 -40.230  1.00 49.23           C
ATOM   4217  OD1 ASP D 153     -27.940  41.222 -40.932  1.00 48.25           O
ATOM   4218  OD2 ASP D 153     -29.710  40.072 -40.236  1.00 42.91           O1-
ATOM   4219  N   SER D 154     -25.876  42.929 -39.292  1.00 49.50           N
ATOM   4220  CA  SER D 154     -24.718  43.376 -40.046  1.00 52.96           C
ATOM   4221  C   SER D 154     -24.704  42.822 -41.475  1.00 51.79           C
ATOM   4222  O   SER D 154     -23.824  43.197 -42.254  1.00 53.40           O
ATOM   4223  CB  SER D 154     -23.444  42.995 -39.349  1.00 56.81           C
ATOM   4224  OG  SER D 154     -23.385  41.598 -39.140  1.00 57.73           O
ATOM   4225  N   SER D 155     -25.628  41.917 -41.813  1.00 47.81           N
ATOM   4226  CA  SER D 155     -25.701  41.415 -43.206  1.00 49.95           C
ATOM   4227  C   SER D 155     -26.669  42.271 -44.052  1.00 53.32           C
ATOM   4228  O   SER D 155     -26.494  42.312 -45.272  1.00 46.09           O
ATOM   4229  CB  SER D 155     -26.070  39.955 -43.258  1.00 43.83           C
ATOM   4230  OG  SER D 155     -27.365  39.753 -42.718  1.00 46.11           O
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ATOM   4231  N   SER D 156     -27.636  42.965 -43.408  1.00 51.27           N
ATOM   4232  CA  SER D 156     -28.742  43.685 -44.099  1.00 54.29           C
ATOM   4233  C   SER D 156     -28.723  45.211 -43.882  1.00 58.04           C
ATOM   4234  O   SER D 156     -28.922  45.993 -44.822  1.00 61.80           O
ATOM   4235  CB  SER D 156     -30.075  43.110 -43.709  1.00 48.75           C
ATOM   4236  OG  SER D 156     -30.222  43.061 -42.313  1.00 49.43           O
ATOM   4237  N   GLY D 157     -28.508  45.635 -42.640  1.00 61.05           N
ATOM   4238  CA  GLY D 157     -28.534  47.027 -42.261  1.00 55.19           C
ATOM   4239  C   GLY D 157     -29.814  47.335 -41.527  1.00 56.98           C
ATOM   4240  O   GLY D 157     -30.214  48.498 -41.436  1.00 59.40           O
ATOM   4241  N   LEU D 158     -30.413  46.283 -40.961  1.00 50.78           N
ATOM   4242  CA  LEU D 158     -31.734  46.324 -40.376  1.00 50.29           C
ATOM   4243  C   LEU D 158     -31.659  46.478 -38.851  1.00 49.52           C
ATOM   4244  O   LEU D 158     -30.963  45.701 -38.174  1.00 54.54           O
ATOM   4245  CB  LEU D 158     -32.432  45.012 -40.737  1.00 53.07           C
ATOM   4246  CG  LEU D 158     -33.939  44.983 -40.492  1.00 56.85           C
ATOM   4247  CD1 LEU D 158     -34.624  46.106 -41.255  1.00 53.03           C
ATOM   4248  CD2 LEU D 158     -34.528  43.634 -40.886  1.00 57.84           C
ATOM   4249  N   LEU D 159     -32.422  47.432 -38.306  1.00 49.64           N
ATOM   4250  CA  LEU D 159     -32.694  47.504 -36.863  1.00 51.75           C
ATOM   4251  C   LEU D 159     -34.132  47.029 -36.574  1.00 52.29           C
ATOM   4252  O   LEU D 159     -35.072  47.566 -37.132  1.00 67.55           O
ATOM   4253  CB  LEU D 159     -32.472  48.941 -36.376  1.00 50.80           C
ATOM   4254  CG  LEU D 159     -32.475  49.106 -34.849  1.00 55.35           C
ATOM   4255  CD1 LEU D 159     -31.259  48.445 -34.231  1.00 57.19           C
ATOM   4256  CD2 LEU D 159     -32.561  50.574 -34.416  1.00 54.48           C
ATOM   4257  N   GLN D 160     -34.278  46.086 -35.636  1.00 47.09           N
ATOM   4258  CA  GLN D 160     -35.537  45.457 -35.246  1.00 51.59           C
ATOM   4259  C   GLN D 160     -36.083  46.056 -33.948  1.00 54.70           C
ATOM   4260  O   GLN D 160     -35.578  45.741 -32.879  1.00 63.36           O
ATOM   4261  CB  GLN D 160     -35.296  43.958 -35.032  1.00 52.47           C
ATOM   4262  CG  GLN D 160     -36.444  43.199 -34.364  1.00 50.25           C
ATOM   4263  CD  GLN D 160     -37.654  43.206 -35.265  1.00 57.34           C
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ATOM   4264  NE2 GLN D 160     -38.767  43.735 -34.770  1.00 55.22           N
ATOM   4265  OE1 GLN D 160     -37.576  42.775 -36.414  1.00 56.18           O
ATOM   4266  N   PRO D 161     -37.152  46.887 -33.952  1.00 56.05           N
ATOM   4267  CA  PRO D 161     -37.755  47.355 -32.702  1.00 58.34           C
ATOM   4268  C   PRO D 161     -38.110  46.195 -31.759  1.00 60.38           C
ATOM   4269  O   PRO D 161     -38.533  45.141 -32.221  1.00 62.80           O
ATOM   4270  CB  PRO D 161     -39.038  48.092 -33.113  1.00 57.99           C
ATOM   4271  CG  PRO D 161     -38.890  48.372 -34.595  1.00 54.10           C
ATOM   4272  CD  PRO D 161     -37.811  47.454 -35.136  1.00 54.39           C
ATOM   4273  N   LEU D 162     -37.904  46.413 -30.456  1.00 62.54           N
ATOM   4274  CA  LEU D 162     -38.018  45.378 -29.429  1.00 59.25           C
ATOM   4275  C   LEU D 162     -38.997  45.804 -28.334  1.00 57.08           C
ATOM   4276  O   LEU D 162     -39.367  44.955 -27.508  1.00 61.59           O
ATOM   4277  CB  LEU D 162     -36.654  45.139 -28.769  1.00 64.99           C
ATOM   4278  CG  LEU D 162     -35.525  44.608 -29.644  1.00 63.61           C
ATOM   4279  CD1 LEU D 162     -34.219  44.615 -28.865  1.00 65.23           C
ATOM   4280  CD2 LEU D 162     -35.830  43.212 -30.148  1.00 65.11           C
ATOM   4281  N   GLU D 163     -39.327  47.103 -28.266  1.00 54.51           N
ATOM   4282  CA  GLU D 163     -40.300  47.632 -27.291  1.00 57.73           C
ATOM   4283  C   GLU D 163     -41.517  46.694 -27.219  1.00 55.75           C
ATOM   4284  O   GLU D 163     -42.081  46.368 -28.240  1.00 64.37           O
ATOM   4285  CB  GLU D 163     -40.711  49.039 -27.709  1.00 62.11           C
ATOM   4286  CG  GLU D 163     -39.585  50.047 -27.654  1.00 71.72           C
ATOM   4287  CD  GLU D 163     -39.886  51.223 -26.733  1.00 82.23           C
ATOM   4288  OE1 GLU D 163     -39.091  51.472 -25.793  1.00 78.85           O
ATOM   4289  OE2 GLU D 163     -40.929  51.883 -26.944  1.00 84.41           O1-
ATOM   4290  N   GLY D 164     -41.835  46.173 -26.028  1.00 54.57           N
ATOM   4291  CA  GLY D 164     -43.011  45.334 -25.797  1.00 50.98           C
ATOM   4292  C   GLY D 164     -42.742  43.838 -25.882  1.00 56.01           C
ATOM   4293  O   GLY D 164     -43.249  43.072 -25.057  1.00 56.48           O
ATOM   4294  N   LEU D 165     -41.976  43.404 -26.895  1.00 58.26           N
ATOM   4295  CA  LEU D 165     -41.709  41.965 -27.210  1.00 52.50           C
ATOM   4296  C   LEU D 165     -41.375  41.136 -25.966  1.00 56.87           C
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ATOM   4297  O   LEU D 165     -41.671  39.926 -25.913  1.00 64.41           O
ATOM   4298  CB  LEU D 165     -40.535  41.887 -28.188  1.00 56.79           C
ATOM   4299  CG  LEU D 165     -40.099  40.474 -28.586  1.00 59.26           C
ATOM   4300  CD1 LEU D 165     -41.236  39.701 -29.225  1.00 62.88           C
ATOM   4301  CD2 LEU D 165     -38.912  40.512 -29.526  1.00 57.52           C
ATOM   4302  N   GLY D 166     -40.679  41.770 -25.017  1.00 61.12           N
ATOM   4303  CA  GLY D 166     -40.349  41.193 -23.740  1.00 55.77           C
ATOM   4304  C   GLY D 166     -41.580  40.714 -23.002  1.00 57.24           C
ATOM   4305  O   GLY D 166     -41.624  39.548 -22.579  1.00 59.18           O
ATOM   4306  N   LYS D 167     -42.575  41.602 -22.864  1.00 61.12           N
ATOM   4307  CA  LYS D 167     -43.733  41.349 -21.983  1.00 68.57           C
ATOM   4308  C   LYS D 167     -44.543  40.182 -22.542  1.00 65.74           C
ATOM   4309  O   LYS D 167     -44.939  39.274 -21.790  1.00 63.73           O
ATOM   4310  CB  LYS D 167     -44.676  42.549 -21.824  1.00 70.97           C
ATOM   4311  CG  LYS D 167     -45.659  42.408 -20.661  1.00 79.25           C
ATOM   4312  CD  LYS D 167     -47.003  43.085 -20.864  1.00 89.10           C
ATOM   4313  CE  LYS D 167     -47.613  43.621 -19.582  1.00 95.74           C
ATOM   4314  NZ  LYS D 167     -46.874  44.801 -19.062  1.00 99.25           N1+
ATOM   4315  N   ILE D 168     -44.773  40.250 -23.857  1.00 63.81           N
ATOM   4316  CA  ILE D 168     -45.491  39.250 -24.607  1.00 59.23           C
ATOM   4317  C   ILE D 168     -44.863  37.884 -24.329  1.00 59.51           C
ATOM   4318  O   ILE D 168     -45.526  37.003 -23.788  1.00 52.56           O
ATOM   4319  CB  ILE D 168     -45.470  39.625 -26.096  1.00 64.22           C
ATOM   4320  CG1 ILE D 168     -46.364  40.842 -26.361  1.00 69.40           C
ATOM   4321  CG2 ILE D 168     -45.843  38.431 -26.968  1.00 64.87           C
ATOM   4322  CD1 ILE D 168     -46.007  41.596 -27.628  1.00 76.52           C
ATOM   4323  N   CYS D 169     -43.573  37.744 -24.680  1.00 66.53           N
ATOM   4324  CA  CYS D 169     -42.786  36.534 -24.408  1.00 59.63           C
ATOM   4325  C   CYS D 169     -43.097  36.004 -23.005  1.00 59.00           C
ATOM   4326  O   CYS D 169     -43.340  34.812 -22.839  1.00 62.98           O
ATOM   4327  CB  CYS D 169     -41.292  36.806 -24.505  1.00 58.85           C
ATOM   4328  SG  CYS D 169     -40.621  36.639 -26.175  1.00 60.22           S
ATOM   4329  N   HIS D 170     -43.089  36.904 -22.015  1.00 57.52           N
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ATOM   4330  CA  HIS D 170     -43.264  36.547 -20.587  1.00 63.72           C
ATOM   4331  C   HIS D 170     -44.716  36.193 -20.213  1.00 64.50           C
ATOM   4332  O   HIS D 170     -44.915  35.364 -19.319  1.00 67.85           O
ATOM   4333  CB  HIS D 170     -42.748  37.673 -19.686  1.00 66.45           C
ATOM   4334  CG  HIS D 170     -41.270  37.848 -19.724  1.00 66.00           C
ATOM   4335  CD2 HIS D 170     -40.283  36.976 -20.020  1.00 66.97           C
ATOM   4336  ND1 HIS D 170     -40.662  39.056 -19.438  1.00 65.29           N
ATOM   4337  CE1 HIS D 170     -39.360  38.914 -19.549  1.00 69.91           C
ATOM   4338  NE2 HIS D 170     -39.103  37.643 -19.907  1.00 69.80           N
ATOM   4339  N   ASP D 171     -45.717  36.821 -20.854  1.00 65.31           N
ATOM   4340  CA  ASP D 171     -47.127  36.398 -20.722  1.00 61.93           C
ATOM   4341  C   ASP D 171     -47.239  34.916 -21.127  1.00 67.82           C
ATOM   4342  O   ASP D 171     -48.021  34.146 -20.526  1.00 62.13           O
ATOM   4343  CB  ASP D 171     -48.090  37.232 -21.577  1.00 59.51           C
ATOM   4344  CG  ASP D 171     -48.197  38.710 -21.224  1.00 63.67           C
ATOM   4345  OD1 ASP D 171     -48.076  39.059 -20.034  1.00 64.10           O
ATOM   4346  OD2 ASP D 171     -48.416  39.508 -22.151  1.00 68.51           O1-
ATOM   4347  N   TYR D 172     -46.438  34.523 -22.131  1.00 63.63           N
ATOM   4348  CA  TYR D 172     -46.455  33.178 -22.706  1.00 61.24           C
ATOM   4349  C   TYR D 172     -45.327  32.316 -22.111  1.00 61.68           C
ATOM   4350  O   TYR D 172     -44.948  31.288 -22.698  1.00 53.68           O
ATOM   4351  CB  TYR D 172     -46.370  33.277 -24.235  1.00 64.91           C
ATOM   4352  CG  TYR D 172     -47.634  33.755 -24.909  1.00 73.46           C
ATOM   4353  CD1 TYR D 172     -48.767  32.951 -24.956  1.00 78.66           C
ATOM   4354  CD2 TYR D 172     -47.708  35.006 -25.504  1.00 76.58           C
ATOM   4355  CE1 TYR D 172     -49.936  33.380 -25.568  1.00 78.10           C
ATOM   4356  CE2 TYR D 172     -48.870  35.450 -26.120  1.00 83.30           C
ATOM   4357  CZ  TYR D 172     -49.989  34.634 -26.151  1.00 85.26           C
ATOM   4358  OH  TYR D 172     -51.139  35.056 -26.760  1.00 87.04           O
ATOM   4359  N   ASP D 173     -44.787  32.729 -20.953  1.00 68.91           N
ATOM   4360  CA  ASP D 173     -43.817  31.928 -20.151  1.00 68.92           C
ATOM   4361  C   ASP D 173     -42.546  31.590 -20.969  1.00 63.15           C
ATOM   4362  O   ASP D 173     -42.001  30.493 -20.805  1.00 57.24           O
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ATOM   4363  CB  ASP D 173     -44.517  30.675 -19.607  1.00 70.75           C
ATOM   4364  CG  ASP D 173     -43.859  30.071 -18.379  1.00 72.48           C
ATOM   4365  OD1 ASP D 173     -43.200  30.814 -17.655  1.00 71.36           O
ATOM   4366  OD2 ASP D 173     -43.992  28.852 -18.177  1.00 79.79           O1-
ATOM   4367  N   CYS D 174     -42.068  32.554 -21.790  1.00 60.44           N
ATOM   4368  CA  CYS D 174     -40.991  32.400 -22.822  1.00 62.27           C
ATOM   4369  C   CYS D 174     -39.874  33.442 -22.596  1.00 62.62           C
ATOM   4370  O   CYS D 174     -40.143  34.634 -22.506  1.00 58.38           O
ATOM   4371  CB  CYS D 174     -41.552  32.557 -24.237  1.00 56.84           C
ATOM   4372  SG  CYS D 174     -40.323  32.492 -25.577  1.00 64.03           S
ATOM   4373  N   LEU D 175     -38.615  32.974 -22.553  1.00 59.62           N
ATOM   4374  CA  LEU D 175     -37.413  33.820 -22.458  1.00 54.12           C
ATOM   4375  C   LEU D 175     -37.175  34.554 -23.786  1.00 54.64           C
ATOM   4376  O   LEU D 175     -37.311  33.976 -24.861  1.00 57.56           O
ATOM   4377  CB  LEU D 175     -36.201  32.943 -22.147  1.00 51.84           C
ATOM   4378  CG  LEU D 175     -36.235  32.174 -20.829  1.00 52.02           C
ATOM   4379  CD1 LEU D 175     -34.968  31.346 -20.656  1.00 49.84           C
ATOM   4380  CD2 LEU D 175     -36.425  33.108 -19.643  1.00 53.86           C
ATOM   4381  N   LEU D 176     -36.752  35.813 -23.693  1.00 47.73           N
ATOM   4382  CA  LEU D 176     -36.389  36.605 -24.868  1.00 52.11           C
ATOM   4383  C   LEU D 176     -34.848  36.719 -24.968  1.00 56.15           C
ATOM   4384  O   LEU D 176     -34.215  37.360 -24.117  1.00 54.78           O
ATOM   4385  CB  LEU D 176     -37.060  37.975 -24.718  1.00 47.73           C
ATOM   4386  CG  LEU D 176     -36.609  39.035 -25.709  1.00 45.57           C
ATOM   4387  CD1 LEU D 176     -36.724  38.522 -27.134  1.00 50.07           C
ATOM   4388  CD2 LEU D 176     -37.400  40.311 -25.538  1.00 44.20           C
ATOM   4389  N   LEU D 177     -34.256  36.097 -25.997  1.00 50.99           N
ATOM   4390  CA  LEU D 177     -32.804  36.103 -26.250  1.00 51.37           C
ATOM   4391  C   LEU D 177     -32.472  37.076 -27.386  1.00 55.39           C
ATOM   4392  O   LEU D 177     -33.099  36.982 -28.431  1.00 62.06           O
ATOM   4393  CB  LEU D 177     -32.378  34.693 -26.661  1.00 48.43           C
ATOM   4394  CG  LEU D 177     -32.657  33.590 -25.645  1.00 53.14           C
ATOM   4395  CD1 LEU D 177     -32.084  32.262 -26.118  1.00 56.30           C
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ATOM   4396  CD2 LEU D 177     -32.110  33.932 -24.275  1.00 50.61           C
ATOM   4397  N   VAL D 178     -31.456  37.947 -27.216  1.00 55.08           N
ATOM   4398  CA  VAL D 178     -31.158  39.001 -28.220  1.00 52.96           C
ATOM   4399  C   VAL D 178     -29.666  39.029 -28.580  1.00 58.05           C
ATOM   4400  O   VAL D 178     -28.824  39.067 -27.690  1.00 69.43           O
ATOM   4401  CB  VAL D 178     -31.622  40.377 -27.717  1.00 52.67           C
ATOM   4402  CG1 VAL D 178     -31.505  41.440 -28.796  1.00 53.37           C
ATOM   4403  CG2 VAL D 178     -33.043  40.338 -27.172  1.00 55.14           C
ATOM   4404  N   ASP D 179     -29.361  39.056 -29.890  1.00 54.76           N
ATOM   4405  CA  ASP D 179     -28.003  39.306 -30.430  1.00 49.04           C
ATOM   4406  C   ASP D 179     -27.862  40.819 -30.631  1.00 52.11           C
ATOM   4407  O   ASP D 179     -28.430  41.366 -31.580  1.00 55.11           O
ATOM   4408  CB  ASP D 179     -27.731  38.563 -31.753  1.00 44.14           C
ATOM   4409  CG  ASP D 179     -26.443  38.937 -32.498  1.00 42.52           C
ATOM   4410  OD1 ASP D 179     -26.037  40.095 -32.415  1.00 45.20           O
ATOM   4411  OD2 ASP D 179     -25.849  38.071 -33.180  1.00 41.89           O1-
ATOM   4412  N   ALA D 180     -27.075  41.477 -29.768  1.00 52.08           N
ATOM   4413  CA  ALA D 180     -26.834  42.924 -29.887  1.00 53.90           C
ATOM   4414  C   ALA D 180     -25.391  43.231 -30.336  1.00 50.07           C
ATOM   4415  O   ALA D 180     -24.883  44.306 -30.073  1.00 54.55           O
ATOM   4416  CB  ALA D 180     -27.188  43.589 -28.577  1.00 53.63           C
ATOM   4417  N   VAL D 181     -24.754  42.306 -31.066  1.00 47.40           N
ATOM   4418  CA  VAL D 181     -23.360  42.431 -31.454  1.00 41.17           C
ATOM   4419  C   VAL D 181     -23.163  43.729 -32.255  1.00 44.57           C
ATOM   4420  O   VAL D 181     -22.185  44.428 -32.019  1.00 47.69           O
ATOM   4421  CB  VAL D 181     -22.857  41.209 -32.254  1.00 37.46           C
ATOM   4422  CG1 VAL D 181     -21.502  41.467 -32.882  1.00 33.69           C
ATOM   4423  CG2 VAL D 181     -22.804  39.926 -31.443  1.00 40.14           C
ATOM   4424  N   ALA D 182     -24.064  44.038 -33.200  1.00 45.10           N
ATOM   4425  CA  ALA D 182     -23.872  45.188 -34.122  1.00 46.35           C
ATOM   4426  C   ALA D 182     -24.658  46.424 -33.664  1.00 44.74           C
ATOM   4427  O   ALA D 182     -24.404  47.523 -34.159  1.00 48.59           O
ATOM   4428  CB  ALA D 182     -24.242  44.815 -35.537  1.00 45.80           C
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ATOM   4429  N   SER D 183     -25.579  46.260 -32.712  1.00 43.70           N
ATOM   4430  CA  SER D 183     -26.376  47.396 -32.206  1.00 47.41           C
ATOM   4431  C   SER D 183     -25.653  48.162 -31.083  1.00 49.20           C
ATOM   4432  O   SER D 183     -25.492  49.383 -31.194  1.00 49.08           O
ATOM   4433  CB  SER D 183     -27.745  46.954 -31.740  1.00 42.24           C
ATOM   4434  OG  SER D 183     -27.650  45.838 -30.879  1.00 43.95           O
ATOM   4435  N   LEU D 184     -25.244  47.447 -30.019  1.00 46.99           N
ATOM   4436  CA  LEU D 184     -24.949  48.038 -28.694  1.00 45.83           C
ATOM   4437  C   LEU D 184     -23.947  49.196 -28.807  1.00 47.07           C
ATOM   4438  O   LEU D 184     -22.952  49.101 -29.530  1.00 47.29           O
ATOM   4439  CB  LEU D 184     -24.394  46.958 -27.776  1.00 44.50           C
ATOM   4440  CG  LEU D 184     -24.612  47.213 -26.292  1.00 45.26           C
ATOM   4441  CD1 LEU D 184     -26.085  47.082 -25.939  1.00 39.79           C
ATOM   4442  CD2 LEU D 184     -23.767  46.257 -25.445  1.00 44.49           C
ATOM   4443  N   CYS D 185     -24.244  50.295 -28.103  1.00 45.10           N
ATOM   4444  CA  CYS D 185     -23.422  51.491 -28.096  1.00 46.68           C
ATOM   4445  C   CYS D 185     -23.471  52.197 -29.461  1.00 51.90           C
ATOM   4446  O   CYS D 185     -22.681  53.163 -29.714  1.00 55.53           O
ATOM   4447  CB  CYS D 185     -21.972  51.175 -27.724  1.00 48.38           C
ATOM   4448  SG  CYS D 185     -21.817  50.392 -26.101  1.00 46.02           S
ATOM   4449  N   GLY D 186     -24.373  51.728 -30.335  1.00 49.59           N
ATOM   4450  CA  GLY D 186     -24.696  52.402 -31.615  1.00 50.52           C
ATOM   4451  C   GLY D 186     -26.094  53.021 -31.637  1.00 43.83           C
ATOM   4452  O   GLY D 186     -26.313  54.001 -32.346  1.00 43.45           O
ATOM   4453  N   VAL D 187     -27.020  52.434 -30.869  1.00 37.98           N
ATOM   4454  CA  VAL D 187     -28.395  52.863 -30.721  1.00 41.53           C
ATOM   4455  C   VAL D 187     -28.792  52.598 -29.278  1.00 44.71           C
ATOM   4456  O   VAL D 187     -28.159  51.771 -28.618  1.00 43.72           O
ATOM   4457  CB  VAL D 187     -29.355  52.074 -31.649  1.00 41.30           C
ATOM   4458  CG1 VAL D 187     -28.904  52.113 -33.097  1.00 42.67           C
ATOM   4459  CG2 VAL D 187     -29.552  50.625 -31.185  1.00 38.19           C
ATOM   4460  N   PRO D 188     -29.940  53.143 -28.814  1.00 48.20           N
ATOM   4461  CA  PRO D 188     -30.425  52.874 -27.461  1.00 48.62           C
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ATOM   4462  C   PRO D 188     -30.742  51.388 -27.272  1.00 46.81           C
ATOM   4463  O   PRO D 188     -31.239  50.752 -28.182  1.00 54.82           O
ATOM   4464  CB  PRO D 188     -31.701  53.723 -27.298  1.00 45.99           C
ATOM   4465  CG  PRO D 188     -31.647  54.717 -28.443  1.00 46.11           C
ATOM   4466  CD  PRO D 188     -30.853  54.036 -29.547  1.00 49.79           C
ATOM   4467  N   PHE D 189     -30.468  50.892 -26.066  1.00 48.93           N
ATOM   4468  CA  PHE D 189     -30.669  49.527 -25.679  1.00 52.64           C
ATOM   4469  C   PHE D 189     -30.850  49.508 -24.164  1.00 50.44           C
ATOM   4470  O   PHE D 189     -30.007  50.049 -23.463  1.00 60.18           O
ATOM   4471  CB  PHE D 189     -29.478  48.662 -26.118  1.00 54.77           C
ATOM   4472  CG  PHE D 189     -29.685  47.184 -25.904  1.00 55.88           C
ATOM   4473  CD1 PHE D 189     -29.563  46.626 -24.639  1.00 54.07           C
ATOM   4474  CD2 PHE D 189     -30.022  46.355 -26.960  1.00 57.20           C
ATOM   4475  CE1 PHE D 189     -29.767  45.273 -24.429  1.00 51.69           C
ATOM   4476  CE2 PHE D 189     -30.255  45.006 -26.743  1.00 57.24           C
ATOM   4477  CZ  PHE D 189     -30.125  44.469 -25.481  1.00 56.20           C
ATOM   4478  N   TYR D 190     -31.933  48.881 -23.689  1.00 48.58           N
ATOM   4479  CA  TYR D 190     -32.267  48.815 -22.277  1.00 48.17           C
ATOM   4480  C   TYR D 190     -32.619  47.371 -21.909  1.00 48.23           C
ATOM   4481  O   TYR D 190     -33.735  46.970 -22.047  1.00 49.12           O
ATOM   4482  CB  TYR D 190     -33.453  49.734 -21.943  1.00 50.89           C
ATOM   4483  CG  TYR D 190     -33.319  51.170 -22.387  1.00 50.06           C
ATOM   4484  CD1 TYR D 190     -33.432  51.507 -23.721  1.00 52.28           C
ATOM   4485  CD2 TYR D 190     -33.093  52.192 -21.484  1.00 52.04           C
ATOM   4486  CE1 TYR D 190     -33.289  52.817 -24.152  1.00 55.54           C
ATOM   4487  CE2 TYR D 190     -32.957  53.509 -21.895  1.00 51.25           C
ATOM   4488  CZ  TYR D 190     -33.048  53.819 -23.237  1.00 52.23           C
ATOM   4489  OH  TYR D 190     -32.902  55.097 -23.690  1.00 56.05           O
ATOM   4490  N   MET D 191     -31.677  46.597 -21.374  1.00 50.90           N
ATOM   4491  CA  MET D 191     -31.974  45.180 -21.174  1.00 51.84           C
ATOM   4492  C   MET D 191     -33.196  45.024 -20.272  1.00 52.11           C
ATOM   4493  O   MET D 191     -34.187  44.463 -20.678  1.00 60.26           O
ATOM   4494  CB  MET D 191     -30.808  44.404 -20.565  1.00 51.26           C
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ATOM   4495  CG  MET D 191     -30.886  42.910 -20.807  1.00 47.56           C
ATOM   4496  SD  MET D 191     -29.572  42.105 -19.886  1.00 48.23           S
ATOM   4497  CE  MET D 191     -29.773  40.378 -20.321  1.00 51.28           C
ATOM   4498  N   ASP D 192     -33.100  45.520 -19.043  1.00 58.22           N
ATOM   4499  CA  ASP D 192     -34.085  45.224 -18.007  1.00 54.24           C
ATOM   4500  C   ASP D 192     -35.461  45.810 -18.388  1.00 59.41           C
ATOM   4501  O   ASP D 192     -36.489  45.136 -18.273  1.00 54.72           O
ATOM   4502  CB  ASP D 192     -33.535  45.666 -16.652  1.00 50.39           C
ATOM   4503  CG  ASP D 192     -32.494  44.705 -16.093  1.00 52.60           C
ATOM   4504  OD1 ASP D 192     -31.977  43.862 -16.865  1.00 48.48           O
ATOM   4505  OD2 ASP D 192     -32.245  44.770 -14.870  1.00 57.15           O1-
ATOM   4506  N   LYS D 193     -35.484  47.043 -18.906  1.00 63.96           N
ATOM   4507  CA  LYS D 193     -36.746  47.724 -19.214  1.00 67.21           C
ATOM   4508  C   LYS D 193     -37.480  47.027 -20.378  1.00 62.27           C
ATOM   4509  O   LYS D 193     -38.702  47.006 -20.414  1.00 51.06           O
ATOM   4510  CB  LYS D 193     -36.517  49.223 -19.459  1.00 69.09           C
ATOM   4511  CG  LYS D 193     -37.130  50.116 -18.383  1.00 75.92           C
ATOM   4512  CD  LYS D 193     -36.156  50.976 -17.622  1.00 81.65           C
ATOM   4513  CE  LYS D 193     -36.289  50.779 -16.127  1.00 85.86           C
ATOM   4514  NZ  LYS D 193     -35.333  51.632 -15.389  1.00 88.28           N1+
ATOM   4515  N   TRP D 194     -36.729  46.416 -21.297  1.00 57.27           N
ATOM   4516  CA  TRP D 194     -37.289  45.702 -22.438  1.00 45.22           C
ATOM   4517  C   TRP D 194     -37.496  44.228 -22.088  1.00 45.24           C
ATOM   4518  O   TRP D 194     -37.683  43.412 -22.974  1.00 50.13           O
ATOM   4519  CB  TRP D 194     -36.389  45.880 -23.665  1.00 40.68           C
ATOM   4520  CG  TRP D 194     -36.345  47.280 -24.184  1.00 38.05           C
ATOM   4521  CD1 TRP D 194     -37.113  48.328 -23.767  1.00 40.16           C
ATOM   4522  CD2 TRP D 194     -35.532  47.776 -25.265  1.00 44.99           C
ATOM   4523  CE2 TRP D 194     -35.833  49.154 -25.407  1.00 46.87           C
ATOM   4524  CE3 TRP D 194     -34.543  47.215 -26.089  1.00 46.90           C
ATOM   4525  NE1 TRP D 194     -36.811  49.457 -24.487  1.00 46.74           N
ATOM   4526  CZ2 TRP D 194     -35.199  49.963 -26.354  1.00 45.69           C
ATOM   4527  CZ3 TRP D 194     -33.909  48.018 -27.020  1.00 46.83           C
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ATOM   4528  CH2 TRP D 194     -34.252  49.368 -27.166  1.00 47.54           C
ATOM   4529  N   GLU D 195     -37.476  43.911 -20.788  1.00 52.51           N
ATOM   4530  CA  GLU D 195     -37.728  42.573 -20.250  1.00 54.73           C
ATOM   4531  C   GLU D 195     -37.018  41.507 -21.110  1.00 58.31           C
ATOM   4532  O   GLU D 195     -37.635  40.521 -21.514  1.00 60.66           O
ATOM   4533  CB  GLU D 195     -39.242  42.394 -20.140  1.00 61.27           C
ATOM   4534  CG  GLU D 195     -39.871  43.039 -18.911  1.00 64.98           C
ATOM   4535  CD  GLU D 195     -41.345  42.689 -18.694  1.00 75.19           C
ATOM   4536  OE1 GLU D 195     -41.719  41.480 -18.828  1.00 69.11           O
ATOM   4537  OE2 GLU D 195     -42.137  43.623 -18.402  1.00 68.76           O1-
ATOM   4538  N   ILE D 196     -35.713  41.712 -21.376  1.00 56.06           N
ATOM   4539  CA  ILE D 196     -34.843  40.774 -22.105  1.00 49.88           C
ATOM   4540  C   ILE D 196     -34.162  39.855 -21.080  1.00 50.44           C
ATOM   4541  O   ILE D 196     -33.804  40.300 -20.014  1.00 53.87           O
ATOM   4542  CB  ILE D 196     -33.803  41.519 -22.965  1.00 49.24           C
ATOM   4543  CG1 ILE D 196     -34.440  42.382 -24.057  1.00 50.04           C
ATOM   4544  CG2 ILE D 196     -32.794  40.543 -23.558  1.00 52.72           C
ATOM   4545  CD1 ILE D 196     -33.478  43.347 -24.723  1.00 45.98           C
ATOM   4546  N   ASP D 197     -33.974  38.579 -21.436  1.00 48.52           N
ATOM   4547  CA  ASP D 197     -33.525  37.549 -20.516  1.00 46.34           C
ATOM   4548  C   ASP D 197     -32.092  37.086 -20.836  1.00 47.14           C
ATOM   4549  O   ASP D 197     -31.439  36.513 -19.969  1.00 46.15           O
ATOM   4550  CB  ASP D 197     -34.483  36.360 -20.537  1.00 49.39           C
ATOM   4551  CG  ASP D 197     -35.851  36.653 -19.943  1.00 54.49           C
ATOM   4552  OD1 ASP D 197     -35.979  36.668 -18.690  1.00 52.94           O
ATOM   4553  OD2 ASP D 197     -36.788  36.844 -20.741  1.00 61.27           O1-
ATOM   4554  N   GLY D 198     -31.628  37.287 -22.082  1.00 46.57           N
ATOM   4555  CA  GLY D 198     -30.291  36.907 -22.538  1.00 40.66           C
ATOM   4556  C   GLY D 198     -29.786  37.898 -23.566  1.00 46.67           C
ATOM   4557  O   GLY D 198     -30.561  38.360 -24.402  1.00 52.31           O
ATOM   4558  N   VAL D 199     -28.504  38.269 -23.473  1.00 47.62           N
ATOM   4559  CA  VAL D 199     -27.920  39.228 -24.394  1.00 48.75           C
ATOM   4560  C   VAL D 199     -26.422  38.965 -24.515  1.00 47.49           C
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ATOM   4561  O   VAL D 199     -25.788  38.462 -23.570  1.00 43.28           O
ATOM   4562  CB  VAL D 199     -28.186  40.684 -23.963  1.00 58.68           C
ATOM   4563  CG1 VAL D 199     -27.349  41.086 -22.762  1.00 57.53           C
ATOM   4564  CG2 VAL D 199     -27.966  41.660 -25.116  1.00 58.98           C
ATOM   4565  N   TYR D 200     -25.884  39.281 -25.699  1.00 42.35           N
ATOM   4566  CA  TYR D 200     -24.472  39.244 -25.933  1.00 43.75           C
ATOM   4567  C   TYR D 200     -24.141  40.330 -26.953  1.00 46.53           C
ATOM   4568  O   TYR D 200     -25.014  40.761 -27.694  1.00 49.69           O
ATOM   4569  CB  TYR D 200     -24.017  37.841 -26.336  1.00 47.57           C
ATOM   4570  CG  TYR D 200     -24.529  37.337 -27.664  1.00 48.88           C
ATOM   4571  CD1 TYR D 200     -25.709  36.624 -27.743  1.00 46.75           C
ATOM   4572  CD2 TYR D 200     -23.821  37.546 -28.840  1.00 47.13           C
ATOM   4573  CE1 TYR D 200     -26.189  36.154 -28.954  1.00 47.51           C
ATOM   4574  CE2 TYR D 200     -24.294  37.090 -30.059  1.00 46.41           C
ATOM   4575  CZ  TYR D 200     -25.488  36.391 -30.119  1.00 44.53           C
ATOM   4576  OH  TYR D 200     -25.979  35.931 -31.309  1.00 40.40           O
ATOM   4577  N   THR D 201     -22.888  40.804 -26.933  1.00 47.40           N
ATOM   4578  CA  THR D 201     -22.372  41.699 -27.961  1.00 42.53           C
ATOM   4579  C   THR D 201     -20.968  41.222 -28.304  1.00 37.84           C
ATOM   4580  O   THR D 201     -20.501  40.252 -27.743  1.00 38.50           O
ATOM   4581  CB  THR D 201     -22.447  43.170 -27.527  1.00 41.13           C
ATOM   4582  CG2 THR D 201     -21.583  43.468 -26.326  1.00 44.54           C
ATOM   4583  OG1 THR D 201     -22.014  43.975 -28.622  1.00 41.05           O
ATOM   4584  N   GLY D 202     -20.313  41.948 -29.202  1.00 40.51           N
ATOM   4585  CA  GLY D 202     -18.974  41.636 -29.686  1.00 44.07           C
ATOM   4586  C   GLY D 202     -17.996  42.785 -29.450  1.00 48.85           C
ATOM   4587  O   GLY D 202     -18.360  43.965 -29.476  1.00 46.46           O
ATOM   4588  N   SER D 203     -16.728  42.411 -29.237  1.00 50.79           N
ATOM   4589  CA  SER D 203     -15.689  43.313 -28.801  1.00 47.75           C
ATOM   4590  C   SER D 203     -15.193  44.156 -29.978  1.00 48.76           C
ATOM   4591  O   SER D 203     -14.774  45.320 -29.785  1.00 44.92           O
ATOM   4592  CB  SER D 203     -14.560  42.554 -28.121  1.00 46.00           C
ATOM   4593  OG  SER D 203     -13.900  41.634 -28.983  1.00 36.10           O
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ATOM   4594  N   GLN D 204     -15.270  43.581 -31.188  1.00 45.32           N
ATOM   4595  CA  GLN D 204     -14.563  44.137 -32.324  1.00 46.46           C
ATOM   4596  C   GLN D 204     -15.507  45.031 -33.140  1.00 46.97           C
ATOM   4597  O   GLN D 204     -15.102  45.533 -34.204  1.00 44.58           O
ATOM   4598  CB  GLN D 204     -13.890  43.022 -33.138  1.00 50.64           C
ATOM   4599  CG  GLN D 204     -14.816  42.239 -34.071  1.00 55.59           C
ATOM   4600  CD  GLN D 204     -15.500  41.041 -33.448  1.00 54.37           C
ATOM   4601  NE2 GLN D 204     -16.106  40.216 -34.294  1.00 45.08           N
ATOM   4602  OE1 GLN D 204     -15.512  40.870 -32.224  1.00 55.21           O
ATOM   4603  N   LYS D 205     -16.726  45.267 -32.631  1.00 41.22           N
ATOM   4604  CA  LYS D 205     -17.728  45.977 -33.383  1.00 46.92           C
ATOM   4605  C   LYS D 205     -17.760  47.400 -32.814  1.00 50.23           C
ATOM   4606  O   LYS D 205     -16.706  48.066 -32.791  1.00 47.19           O
ATOM   4607  CB  LYS D 205     -19.038  45.168 -33.453  1.00 55.01           C
ATOM   4608  CG  LYS D 205     -18.908  43.752 -34.063  1.00 64.49           C
ATOM   4609  CD  LYS D 205     -19.463  43.490 -35.488  1.00 63.69           C
ATOM   4610  CE  LYS D 205     -18.783  42.360 -36.268  1.00 64.81           C
ATOM   4611  NZ  LYS D 205     -19.629  41.147 -36.486  1.00 69.61           N1+
ATOM   4612  N   VAL D 206     -18.918  47.877 -32.343  1.00 48.24           N
ATOM   4613  CA  VAL D 206     -19.027  49.298 -31.969  1.00 49.52           C
ATOM   4614  C   VAL D 206     -17.955  49.651 -30.920  1.00 48.41           C
ATOM   4615  O   VAL D 206     -17.363  50.747 -30.961  1.00 50.38           O
ATOM   4616  CB  VAL D 206     -20.444  49.680 -31.495  1.00 51.65           C
ATOM   4617  CG1 VAL D 206     -20.547  51.163 -31.203  1.00 53.09           C
ATOM   4618  CG2 VAL D 206     -21.517  49.282 -32.494  1.00 53.41           C
ATOM   4619  N   LEU D 207     -17.688  48.733 -29.984  1.00 47.07           N
ATOM   4620  CA  LEU D 207     -16.781  49.009 -28.848  1.00 48.17           C
ATOM   4621  C   LEU D 207     -15.359  49.405 -29.296  1.00 45.39           C
ATOM   4622  O   LEU D 207     -14.664  50.093 -28.574  1.00 45.89           O
ATOM   4623  CB  LEU D 207     -16.757  47.772 -27.947  1.00 48.01           C
ATOM   4624  CG  LEU D 207     -17.908  47.722 -26.947  1.00 49.75           C
ATOM   4625  CD1 LEU D 207     -18.066  46.345 -26.311  1.00 51.05           C
ATOM   4626  CD2 LEU D 207     -17.685  48.781 -25.888  1.00 55.46           C
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ATOM   4627  N   GLY D 208     -14.922  48.962 -30.473  1.00 41.48           N
ATOM   4628  CA  GLY D 208     -13.607  49.249 -30.957  1.00 39.18           C
ATOM   4629  C   GLY D 208     -12.542  48.575 -30.121  1.00 41.70           C
ATOM   4630  O   GLY D 208     -11.475  49.166 -29.880  1.00 45.74           O
ATOM   4631  N   ALA D 209     -12.836  47.354 -29.657  1.00 40.98           N
ATOM   4632  CA  ALA D 209     -11.839  46.533 -28.965  1.00 43.48           C
ATOM   4633  C   ALA D 209     -11.392  45.388 -29.876  1.00 42.74           C
ATOM   4634  O   ALA D 209     -12.000  45.132 -30.910  1.00 48.58           O
ATOM   4635  CB  ALA D 209     -12.384  46.053 -27.646  1.00 38.74           C
ATOM   4636  N   PRO D 210     -10.267  44.715 -29.581  1.00 40.38           N
ATOM   4637  CA  PRO D 210      -9.821  43.584 -30.382  1.00 41.08           C
ATOM   4638  C   PRO D 210     -10.748  42.391 -30.222  1.00 40.22           C
ATOM   4639  O   PRO D 210     -11.346  42.192 -29.154  1.00 38.57           O
ATOM   4640  CB  PRO D 210      -8.420  43.264 -29.852  1.00 38.22           C
ATOM   4641  CG  PRO D 210      -7.997  44.563 -29.229  1.00 39.61           C
ATOM   4642  CD  PRO D 210      -9.267  45.082 -28.578  1.00 43.27           C
ATOM   4643  N   PRO D 211     -10.886  41.592 -31.307  1.00 38.81           N
ATOM   4644  CA  PRO D 211     -11.732  40.397 -31.291  1.00 40.09           C
ATOM   4645  C   PRO D 211     -11.155  39.333 -30.352  1.00 34.77           C
ATOM   4646  O   PRO D 211      -9.920  39.254 -30.278  1.00 37.17           O
ATOM   4647  CB  PRO D 211     -11.651  39.902 -32.740  1.00 40.22           C
ATOM   4648  CG  PRO D 211     -10.283  40.371 -33.179  1.00 38.97           C
ATOM   4649  CD  PRO D 211     -10.190  41.759 -32.590  1.00 38.19           C
ATOM   4650  N   GLY D 212     -12.030  38.549 -29.694  1.00 30.91           N
ATOM   4651  CA  GLY D 212     -11.633  37.327 -28.963  1.00 31.68           C
ATOM   4652  C   GLY D 212     -12.224  37.181 -27.559  1.00 30.18           C
ATOM   4653  O   GLY D 212     -11.978  36.196 -26.895  1.00 28.08           O
ATOM   4654  N   ILE D 213     -13.003  38.157 -27.105  1.00 33.19           N
ATOM   4655  CA  ILE D 213     -13.592  38.180 -25.751  1.00 36.13           C
ATOM   4656  C   ILE D 213     -15.028  38.697 -25.896  1.00 36.26           C
ATOM   4657  O   ILE D 213     -15.219  39.737 -26.530  1.00 36.24           O
ATOM   4658  CB  ILE D 213     -12.730  39.037 -24.786  1.00 34.45           C
ATOM   4659  CG1 ILE D 213     -13.293  39.105 -23.365  1.00 34.92           C
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ATOM   4660  CG2 ILE D 213     -12.521  40.442 -25.324  1.00 33.51           C
ATOM   4661  CD1 ILE D 213     -13.310  37.782 -22.651  1.00 37.53           C
ATOM   4662  N   THR D 214     -16.003  37.966 -25.337  1.00 37.76           N
ATOM   4663  CA  THR D 214     -17.417  38.158 -25.683  1.00 41.27           C
ATOM   4664  C   THR D 214     -18.292  38.386 -24.445  1.00 38.99           C
ATOM   4665  O   THR D 214     -18.656  37.459 -23.718  1.00 39.18           O
ATOM   4666  CB  THR D 214     -17.938  36.977 -26.509  1.00 45.19           C
ATOM   4667  CG2 THR D 214     -19.431  37.043 -26.744  1.00 45.52           C
ATOM   4668  OG1 THR D 214     -17.276  37.017 -27.772  1.00 45.33           O
ATOM   4669  N   PRO D 215     -18.718  39.644 -24.208  1.00 35.50           N
ATOM   4670  CA  PRO D 215     -19.656  39.962 -23.138  1.00 37.27           C
ATOM   4671  C   PRO D 215     -21.006  39.239 -23.235  1.00 40.49           C
ATOM   4672  O   PRO D 215     -21.503  39.024 -24.347  1.00 38.83           O
ATOM   4673  CB  PRO D 215     -19.923  41.459 -23.333  1.00 37.16           C
ATOM   4674  CG  PRO D 215     -18.718  41.977 -24.060  1.00 36.57           C
ATOM   4675  CD  PRO D 215     -18.275  40.836 -24.938  1.00 36.26           C
ATOM   4676  N   ILE D 216     -21.598  38.947 -22.061  1.00 45.85           N
ATOM   4677  CA  ILE D 216     -22.886  38.233 -21.924  1.00 44.24           C
ATOM   4678  C   ILE D 216     -23.514  38.570 -20.569  1.00 45.62           C
ATOM   4679  O   ILE D 216     -22.819  38.754 -19.579  1.00 47.23           O
ATOM   4680  CB  ILE D 216     -22.694  36.714 -22.122  1.00 43.59           C
ATOM   4681  CG1 ILE D 216     -24.004  35.942 -22.209  1.00 43.81           C
ATOM   4682  CG2 ILE D 216     -21.798  36.110 -21.067  1.00 44.05           C
ATOM   4683  CD1 ILE D 216     -23.794  34.512 -22.656  1.00 45.51           C
ATOM   4684  N   SER D 217     -24.847  38.674 -20.562  1.00 47.65           N
ATOM   4685  CA  SER D 217     -25.641  38.854 -19.359  1.00 46.31           C
ATOM   4686  C   SER D 217     -26.938  38.045 -19.494  1.00 47.24           C
ATOM   4687  O   SER D 217     -27.497  37.943 -20.575  1.00 46.75           O
ATOM   4688  CB  SER D 217     -25.916  40.313 -19.120  1.00 44.08           C
ATOM   4689  OG  SER D 217     -26.654  40.476 -17.918  1.00 45.54           O
ATOM   4690  N   ILE D 218     -27.394  37.450 -18.391  1.00 48.14           N
ATOM   4691  CA  ILE D 218     -28.677  36.773 -18.366  1.00 50.66           C
ATOM   4692  C   ILE D 218     -29.453  37.197 -17.116  1.00 53.72           C
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ATOM   4693  O   ILE D 218     -28.860  37.477 -16.063  1.00 54.26           O
ATOM   4694  CB  ILE D 218     -28.518  35.241 -18.440  1.00 56.45           C
ATOM   4695  CG1 ILE D 218     -27.994  34.666 -17.114  1.00 53.18           C
ATOM   4696  CG2 ILE D 218     -27.671  34.841 -19.658  1.00 51.05           C
ATOM   4697  CD1 ILE D 218     -28.118  33.170 -16.997  1.00 52.75           C
ATOM   4698  N   SER D 219     -30.785  37.192 -17.249  1.00 54.09           N
ATOM   4699  CA  SER D 219     -31.718  37.615 -16.212  1.00 54.90           C
ATOM   4700  C   SER D 219     -31.821  36.552 -15.129  1.00 47.61           C
ATOM   4701  O   SER D 219     -31.511  35.384 -15.368  1.00 52.64           O
ATOM   4702  CB  SER D 219     -33.084  37.884 -16.789  1.00 64.06           C
ATOM   4703  OG  SER D 219     -33.785  36.662 -17.015  1.00 78.00           O
ATOM   4704  N   PRO D 220     -32.305  36.923 -13.923  1.00 46.13           N
ATOM   4705  CA  PRO D 220     -32.640  35.961 -12.869  1.00 46.98           C
ATOM   4706  C   PRO D 220     -33.460  34.752 -13.339  1.00 53.60           C
ATOM   4707  O   PRO D 220     -33.151  33.631 -12.942  1.00 61.22           O
ATOM   4708  CB  PRO D 220     -33.471  36.797 -11.885  1.00 44.28           C
ATOM   4709  CG  PRO D 220     -32.883  38.176 -12.018  1.00 45.49           C
ATOM   4710  CD  PRO D 220     -32.517  38.312 -13.487  1.00 47.25           C
ATOM   4711  N   LYS D 221     -34.489  34.994 -14.165  1.00 60.65           N
ATOM   4712  CA  LYS D 221     -35.333  33.921 -14.720  1.00 66.18           C
ATOM   4713  C   LYS D 221     -34.474  32.946 -15.535  1.00 63.50           C
ATOM   4714  O   LYS D 221     -34.540  31.723 -15.345  1.00 61.18           O
ATOM   4715  CB  LYS D 221     -36.450  34.508 -15.586  1.00 72.14           C
ATOM   4716  CG  LYS D 221     -37.573  35.165 -14.797  1.00 80.80           C
ATOM   4717  CD  LYS D 221     -38.518  36.010 -15.631  1.00 82.53           C
ATOM   4718  CE  LYS D 221     -39.726  36.468 -14.842  1.00 82.89           C
ATOM   4719  NZ  LYS D 221     -40.783  36.998 -15.732  1.00 85.21           N1+
ATOM   4720  N   ALA D 222     -33.663  33.496 -16.439  1.00 57.48           N
ATOM   4721  CA  ALA D 222     -32.866  32.681 -17.343  1.00 57.28           C
ATOM   4722  C   ALA D 222     -31.946  31.761 -16.534  1.00 57.71           C
ATOM   4723  O   ALA D 222     -31.824  30.574 -16.836  1.00 60.91           O
ATOM   4724  CB  ALA D 222     -32.102  33.577 -18.283  1.00 57.69           C
ATOM   4725  N   LEU D 223     -31.312  32.329 -15.502  1.00 60.54           N
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ATOM   4726  CA  LEU D 223     -30.418  31.601 -14.585  1.00 60.32           C
ATOM   4727  C   LEU D 223     -31.161  30.405 -13.967  1.00 57.67           C
ATOM   4728  O   LEU D 223     -30.591  29.298 -13.866  1.00 52.27           O
ATOM   4729  CB  LEU D 223     -29.929  32.576 -13.501  1.00 60.20           C
ATOM   4730  CG  LEU D 223     -29.010  32.006 -12.413  1.00 56.76           C
ATOM   4731  CD1 LEU D 223     -27.803  31.327 -13.024  1.00 59.50           C
ATOM   4732  CD2 LEU D 223     -28.545  33.092 -11.456  1.00 55.55           C
ATOM   4733  N   GLU D 224     -32.414  30.640 -13.538  1.00 62.31           N
ATOM   4734  CA  GLU D 224     -33.220  29.637 -12.801  1.00 66.28           C
ATOM   4735  C   GLU D 224     -33.601  28.481 -13.741  1.00 61.33           C
ATOM   4736  O   GLU D 224     -33.585  27.305 -13.330  1.00 59.71           O
ATOM   4737  CB  GLU D 224     -34.461  30.264 -12.157  1.00 71.45           C
ATOM   4738  CG  GLU D 224     -34.608  29.918 -10.674  1.00 84.51           C
ATOM   4739  CD  GLU D 224     -35.914  29.253 -10.238  1.00 88.52           C
ATOM   4740  OE1 GLU D 224     -35.842  28.339  -9.381  1.00 83.65           O
ATOM   4741  OE2 GLU D 224     -37.002  29.651 -10.734  1.00 84.30           O1-
ATOM   4742  N   VAL D 225     -33.907  28.814 -15.003  1.00 58.98           N
ATOM   4743  CA  VAL D 225     -34.134  27.820 -16.061  1.00 58.27           C
ATOM   4744  C   VAL D 225     -32.878  26.943 -16.165  1.00 56.18           C
ATOM   4745  O   VAL D 225     -32.963  25.711 -16.100  1.00 55.19           O
ATOM   4746  CB  VAL D 225     -34.512  28.498 -17.393  1.00 61.01           C
ATOM   4747  CG1 VAL D 225     -34.452  27.551 -18.573  1.00 63.39           C
ATOM   4748  CG2 VAL D 225     -35.882  29.146 -17.318  1.00 63.83           C
ATOM   4749  N   ILE D 226     -31.705  27.579 -16.242  1.00 55.44           N
ATOM   4750  CA  ILE D 226     -30.440  26.828 -16.335  1.00 60.68           C
ATOM   4751  C   ILE D 226     -30.297  25.937 -15.095  1.00 53.24           C
ATOM   4752  O   ILE D 226     -29.859  24.819 -15.202  1.00 51.81           O
ATOM   4753  CB  ILE D 226     -29.199  27.732 -16.551  1.00 63.08           C
ATOM   4754  CG1 ILE D 226     -29.339  28.644 -17.779  1.00 67.12           C
ATOM   4755  CG2 ILE D 226     -27.941  26.873 -16.649  1.00 64.71           C
ATOM   4756  CD1 ILE D 226     -28.374  29.813 -17.823  1.00 64.41           C
ATOM   4757  N   ARG D 227     -30.686  26.445 -13.929  1.00 57.57           N
ATOM   4758  CA  ARG D 227     -30.510  25.700 -12.667  1.00 63.82           C
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ATOM   4759  C   ARG D 227     -31.509  24.534 -12.590  1.00 64.74           C
ATOM   4760  O   ARG D 227     -31.184  23.510 -12.014  1.00 58.82           O
ATOM   4761  CB  ARG D 227     -30.635  26.631 -11.452  1.00 65.35           C
ATOM   4762  CG  ARG D 227     -29.311  27.221 -10.985  1.00 66.64           C
ATOM   4763  CD  ARG D 227     -29.459  28.332  -9.966  1.00 67.30           C
ATOM   4764  NE  ARG D 227     -28.145  28.813  -9.559  1.00 74.91           N
ATOM   4765  CZ  ARG D 227     -27.911  29.988  -8.971  1.00 79.63           C
ATOM   4766  NH1 ARG D 227     -28.899  30.850  -8.796  1.00 65.76           N1+
ATOM   4767  NH2 ARG D 227     -26.693  30.296  -8.555  1.00 76.46           N
ATOM   4768  N   SER D 228     -32.713  24.704 -13.158  1.00 68.83           N
ATOM   4769  CA  SER D 228     -33.778  23.679 -13.131  1.00 65.61           C
ATOM   4770  C   SER D 228     -33.462  22.494 -14.048  1.00 63.62           C
ATOM   4771  O   SER D 228     -33.938  21.432 -13.777  1.00 64.77           O
ATOM   4772  CB  SER D 228     -35.110  24.263 -13.496  1.00 65.42           C
ATOM   4773  OG  SER D 228     -35.513  25.199 -12.516  1.00 69.84           O
ATOM   4774  N   ARG D 229     -32.702  22.705 -15.137  1.00 69.40           N
ATOM   4775  CA  ARG D 229     -32.300  21.633 -16.096  1.00 68.26           C
ATOM   4776  C   ARG D 229     -32.137  20.281 -15.374  1.00 72.37           C
ATOM   4777  O   ARG D 229     -31.518  20.237 -14.315  1.00 68.24           O
ATOM   4778  CB  ARG D 229     -30.954  21.966 -16.755  1.00 66.46           C
ATOM   4779  CG  ARG D 229     -31.021  22.907 -17.950  1.00 65.87           C
ATOM   4780  CD  ARG D 229     -29.709  22.987 -18.720  1.00 60.70           C
ATOM   4781  NE  ARG D 229     -29.383  21.768 -19.460  1.00 56.55           N
ATOM   4782  CZ  ARG D 229     -29.129  21.691 -20.773  1.00 56.88           C
ATOM   4783  NH1 ARG D 229     -29.066  22.776 -21.525  1.00 58.49           N1+
ATOM   4784  NH2 ARG D 229     -28.916  20.515 -21.333  1.00 51.35           N
ATOM   4785  N   LYS D 230     -32.655  19.192 -15.970  1.00 71.07           N
ATOM   4786  CA  LYS D 230     -32.393  17.811 -15.509  1.00 68.85           C
ATOM   4787  C   LYS D 230     -31.134  17.263 -16.194  1.00 65.50           C
ATOM   4788  O   LYS D 230     -30.317  16.611 -15.557  1.00 53.60           O
ATOM   4789  CB  LYS D 230     -33.585  16.887 -15.791  1.00 82.52           C
ATOM   4790  CG  LYS D 230     -34.600  16.770 -14.657  1.00 94.21           C
ATOM   4791  CD  LYS D 230     -35.518  15.560 -14.748  1.00 97.57           C
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ATOM   4792  CE  LYS D 230     -36.701  15.758 -15.674  1.00 98.00           C
ATOM   4793  NZ  LYS D 230     -37.144  14.472 -16.261  1.00 98.72           N1+
ATOM   4794  N   THR D 231     -30.990  17.526 -17.502  1.00 66.64           N
ATOM   4795  CA  THR D 231     -29.809  17.088 -18.269  1.00 63.85           C
ATOM   4796  C   THR D 231     -28.730  18.169 -18.210  1.00 66.82           C
ATOM   4797  O   THR D 231     -29.023  19.362 -18.122  1.00 69.10           O
ATOM   4798  CB  THR D 231     -30.179  16.711 -19.714  1.00 69.32           C
ATOM   4799  CG2 THR D 231     -31.178  15.575 -19.771  1.00 68.81           C
ATOM   4800  OG1 THR D 231     -30.721  17.822 -20.431  1.00 61.08           O
ATOM   4801  N   PRO D 232     -27.432  17.797 -18.237  1.00 64.15           N
ATOM   4802  CA  PRO D 232     -26.354  18.785 -18.237  1.00 60.20           C
ATOM   4803  C   PRO D 232     -26.072  19.363 -19.634  1.00 57.84           C
ATOM   4804  O   PRO D 232     -26.010  18.627 -20.604  1.00 65.93           O
ATOM   4805  CB  PRO D 232     -25.186  17.950 -17.692  1.00 57.47           C
ATOM   4806  CG  PRO D 232     -25.427  16.580 -18.242  1.00 53.47           C
ATOM   4807  CD  PRO D 232     -26.930  16.419 -18.250  1.00 58.18           C
ATOM   4808  N   SER D 233     -25.874  20.681 -19.721  1.00 55.45           N
ATOM   4809  CA  SER D 233     -25.499  21.340 -20.971  1.00 50.40           C
ATOM   4810  C   SER D 233     -24.255  20.656 -21.562  1.00 47.93           C
ATOM   4811  O   SER D 233     -23.450  20.080 -20.845  1.00 47.12           O
ATOM   4812  CB  SER D 233     -25.306  22.833 -20.748  1.00 53.50           C
ATOM   4813  OG  SER D 233     -24.383  23.114 -19.694  1.00 59.32           O
ATOM   4814  N   LYS D 234     -24.072  20.778 -22.879  1.00 51.39           N
ATOM   4815  CA  LYS D 234     -23.150  19.920 -23.657  1.00 49.70           C
ATOM   4816  C   LYS D 234     -21.691  20.396 -23.574  1.00 49.74           C
ATOM   4817  O   LYS D 234     -20.768  19.614 -23.893  1.00 46.24           O
ATOM   4818  CB  LYS D 234     -23.635  19.856 -25.111  1.00 52.35           C
ATOM   4819  CG  LYS D 234     -25.097  19.426 -25.260  1.00 57.64           C
ATOM   4820  CD  LYS D 234     -25.311  18.212 -26.147  1.00 64.93           C
ATOM   4821  CE  LYS D 234     -26.069  17.069 -25.492  1.00 69.03           C
ATOM   4822  NZ  LYS D 234     -27.505  17.384 -25.314  1.00 68.01           N1+
ATOM   4823  N   VAL D 235     -21.473  21.656 -23.160  1.00 50.60           N
ATOM   4824  CA  VAL D 235     -20.167  22.333 -23.304  1.00 53.96           C
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ATOM   4825  C   VAL D 235     -19.675  22.850 -21.949  1.00 50.89           C
ATOM   4826  O   VAL D 235     -20.105  23.913 -21.483  1.00 56.26           O
ATOM   4827  CB  VAL D 235     -20.208  23.483 -24.334  1.00 52.57           C
ATOM   4828  CG1 VAL D 235     -18.847  24.171 -24.445  1.00 48.95           C
ATOM   4829  CG2 VAL D 235     -20.676  22.999 -25.702  1.00 49.03           C
ATOM   4830  N   PHE D 236     -18.697  22.143 -21.379  1.00 44.98           N
ATOM   4831  CA  PHE D 236     -18.097  22.572 -20.121  1.00 48.94           C
ATOM   4832  C   PHE D 236     -17.553  24.008 -20.266  1.00 46.01           C
ATOM   4833  O   PHE D 236     -17.710  24.819 -19.360  1.00 44.24           O
ATOM   4834  CB  PHE D 236     -17.023  21.577 -19.673  1.00 50.79           C
ATOM   4835  CG  PHE D 236     -16.205  22.040 -18.500  1.00 53.90           C
ATOM   4836  CD1 PHE D 236     -15.064  22.806 -18.693  1.00 53.57           C
ATOM   4837  CD2 PHE D 236     -16.581  21.721 -17.202  1.00 53.21           C
ATOM   4838  CE1 PHE D 236     -14.312  23.241 -17.610  1.00 52.56           C
ATOM   4839  CE2 PHE D 236     -15.813  22.136 -16.122  1.00 51.19           C
ATOM   4840  CZ  PHE D 236     -14.674  22.885 -16.328  1.00 50.25           C
ATOM   4841  N   TYR D 237     -16.962  24.307 -21.430  1.00 41.79           N
ATOM   4842  CA  TYR D 237     -16.202  25.520 -21.674  1.00 40.57           C
ATOM   4843  C   TYR D 237     -17.060  26.782 -21.529  1.00 38.31           C
ATOM   4844  O   TYR D 237     -16.502  27.809 -21.200  1.00 37.57           O
ATOM   4845  CB  TYR D 237     -15.508  25.466 -23.035  1.00 39.23           C
ATOM   4846  CG  TYR D 237     -14.637  26.656 -23.387  1.00 40.57           C
ATOM   4847  CD1 TYR D 237     -13.373  26.824 -22.836  1.00 38.17           C
ATOM   4848  CD2 TYR D 237     -15.056  27.590 -24.325  1.00 38.06           C
ATOM   4849  CE1 TYR D 237     -12.562  27.886 -23.208  1.00 40.07           C
ATOM   4850  CE2 TYR D 237     -14.262  28.655 -24.704  1.00 36.29           C
ATOM   4851  CZ  TYR D 237     -13.014  28.817 -24.133  1.00 39.31           C
ATOM   4852  OH  TYR D 237     -12.239  29.878 -24.519  1.00 38.58           O
ATOM   4853  N   TRP D 238     -18.381  26.702 -21.743  1.00 40.77           N
ATOM   4854  CA  TRP D 238     -19.259  27.886 -21.601  1.00 40.98           C
ATOM   4855  C   TRP D 238     -20.592  27.551 -20.932  1.00 38.84           C
ATOM   4856  O   TRP D 238     -21.618  28.188 -21.226  1.00 44.13           O
ATOM   4857  CB  TRP D 238     -19.494  28.597 -22.942  1.00 43.04           C
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ATOM   4858  CG  TRP D 238     -19.977  27.749 -24.077  1.00 41.59           C
ATOM   4859  CD1 TRP D 238     -21.072  26.939 -24.104  1.00 43.04           C
ATOM   4860  CD2 TRP D 238     -19.403  27.689 -25.398  1.00 39.08           C
ATOM   4861  CE2 TRP D 238     -20.184  26.793 -26.151  1.00 37.22           C
ATOM   4862  CE3 TRP D 238     -18.302  28.298 -26.009  1.00 39.41           C
ATOM   4863  NE1 TRP D 238     -21.179  26.342 -25.336  1.00 44.35           N
ATOM   4864  CZ2 TRP D 238     -19.900  26.482 -27.471  1.00 40.42           C
ATOM   4865  CZ3 TRP D 238     -18.009  27.980 -27.317  1.00 40.31           C
ATOM   4866  CH2 TRP D 238     -18.800  27.087 -28.036  1.00 43.52           C
ATOM   4867  N   ASP D 239     -20.551  26.586 -20.019  1.00 38.40           N
ATOM   4868  CA  ASP D 239     -21.619  26.304 -19.059  1.00 39.44           C
ATOM   4869  C   ASP D 239     -21.603  27.469 -18.072  1.00 38.69           C
ATOM   4870  O   ASP D 239     -20.614  27.665 -17.386  1.00 42.10           O
ATOM   4871  CB  ASP D 239     -21.371  24.925 -18.416  1.00 36.85           C
ATOM   4872  CG  ASP D 239     -22.169  24.592 -17.166  1.00 37.88           C
ATOM   4873  OD1 ASP D 239     -22.896  25.478 -16.650  1.00 37.15           O
ATOM   4874  OD2 ASP D 239     -22.036  23.436 -16.705  1.00 39.26           O1-
ATOM   4875  N   LEU D 240     -22.670  28.269 -18.032  1.00 42.76           N
ATOM   4876  CA  LEU D 240     -22.610  29.545 -17.307  1.00 42.76           C
ATOM   4877  C   LEU D 240     -22.700  29.336 -15.778  1.00 47.76           C
ATOM   4878  O   LEU D 240     -22.485  30.286 -15.030  1.00 49.24           O
ATOM   4879  CB  LEU D 240     -23.707  30.473 -17.835  1.00 41.73           C
ATOM   4880  CG  LEU D 240     -23.655  30.800 -19.327  1.00 44.90           C
ATOM   4881  CD1 LEU D 240     -24.749  31.800 -19.720  1.00 45.44           C
ATOM   4882  CD2 LEU D 240     -22.289  31.336 -19.725  1.00 50.41           C
ATOM   4883  N   LEU D 241     -22.966  28.105 -15.305  1.00 50.07           N
ATOM   4884  CA  LEU D 241     -23.022  27.816 -13.858  1.00 52.57           C
ATOM   4885  C   LEU D 241     -21.614  27.646 -13.262  1.00 50.58           C
ATOM   4886  O   LEU D 241     -21.463  27.686 -12.036  1.00 51.89           O
ATOM   4887  CB  LEU D 241     -23.855  26.555 -13.607  1.00 58.18           C
ATOM   4888  CG  LEU D 241     -25.342  26.639 -13.954  1.00 60.00           C
ATOM   4889  CD1 LEU D 241     -26.014  25.282 -13.776  1.00 58.71           C
ATOM   4890  CD2 LEU D 241     -26.036  27.710 -13.126  1.00 54.70           C
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ATOM   4891  N   ILE D 242     -20.601  27.427 -14.111  1.00 50.78           N
ATOM   4892  CA  ILE D 242     -19.206  27.265 -13.658  1.00 47.49           C
ATOM   4893  C   ILE D 242     -18.347  28.424 -14.195  1.00 48.42           C
ATOM   4894  O   ILE D 242     -17.634  29.026 -13.414  1.00 47.80           O
ATOM   4895  CB  ILE D 242     -18.638  25.872 -13.997  1.00 49.33           C
ATOM   4896  CG1 ILE D 242     -18.767  25.534 -15.479  1.00 57.23           C
ATOM   4897  CG2 ILE D 242     -19.284  24.777 -13.157  1.00 51.32           C
ATOM   4898  CD1 ILE D 242     -18.454  24.082 -15.772  1.00 61.41           C
ATOM   4899  N   LEU D 243     -18.439  28.770 -15.491  1.00 45.11           N
ATOM   4900  CA  LEU D 243     -17.850  30.001 -15.990  1.00 40.84           C
ATOM   4901  C   LEU D 243     -18.253  31.181 -15.094  1.00 42.79           C
ATOM   4902  O   LEU D 243     -17.407  32.011 -14.772  1.00 46.72           O
ATOM   4903  CB  LEU D 243     -18.275  30.273 -17.436  1.00 42.00           C
ATOM   4904  CG  LEU D 243     -17.699  31.542 -18.079  1.00 37.78           C
ATOM   4905  CD1 LEU D 243     -16.194  31.512 -18.083  1.00 39.65           C
ATOM   4906  CD2 LEU D 243     -18.182  31.716 -19.500  1.00 39.41           C
ATOM   4907  N   GLY D 244     -19.536  31.265 -14.725  1.00 43.08           N
ATOM   4908  CA  GLY D 244     -20.043  32.319 -13.848  1.00 43.23           C
ATOM   4909  C   GLY D 244     -19.419  32.290 -12.452  1.00 44.43           C
ATOM   4910  O   GLY D 244     -19.424  33.302 -11.740  1.00 45.89           O
ATOM   4911  N   ASN D 245     -18.879  31.133 -12.047  1.00 43.84           N
ATOM   4912  CA  ASN D 245     -18.250  30.962 -10.737  1.00 41.21           C
ATOM   4913  C   ASN D 245     -16.950  31.784 -10.719  1.00 41.41           C
ATOM   4914  O   ASN D 245     -16.777  32.655  -9.882  1.00 41.90           O
ATOM   4915  CB  ASN D 245     -18.064  29.477 -10.403  1.00 37.05           C
ATOM   4916  CG  ASN D 245     -17.174  29.224  -9.199  1.00 42.73           C
ATOM   4917  ND2 ASN D 245     -17.773  28.922  -8.057  1.00 36.29           N
ATOM   4918  OD1 ASN D 245     -15.944  29.248  -9.310  1.00 47.68           O
ATOM   4919  N   TYR D 246     -16.067  31.511 -11.680  1.00 37.09           N
ATOM   4920  CA  TYR D 246     -14.804  32.178 -11.790  1.00 40.31           C
ATOM   4921  C   TYR D 246     -15.011  33.705 -11.923  1.00 39.77           C
ATOM   4922  O   TYR D 246     -14.264  34.477 -11.340  1.00 38.33           O
ATOM   4923  CB  TYR D 246     -13.985  31.603 -12.952  1.00 40.78           C
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ATOM   4924  CG  TYR D 246     -12.755  32.423 -13.226  1.00 40.59           C
ATOM   4925  CD1 TYR D 246     -11.623  32.291 -12.443  1.00 45.92           C
ATOM   4926  CD2 TYR D 246     -12.757  33.404 -14.197  1.00 40.99           C
ATOM   4927  CE1 TYR D 246     -10.506  33.094 -12.638  1.00 47.52           C
ATOM   4928  CE2 TYR D 246     -11.651  34.211 -14.408  1.00 43.51           C
ATOM   4929  CZ  TYR D 246     -10.526  34.066 -13.620  1.00 43.52           C
ATOM   4930  OH  TYR D 246      -9.456  34.877 -13.831  1.00 49.65           O
ATOM   4931  N   TRP D 247     -16.026  34.129 -12.689  1.00 37.80           N
ATOM   4932  CA  TRP D 247     -16.347  35.535 -12.910  1.00 37.19           C
ATOM   4933  C   TRP D 247     -17.063  36.168 -11.701  1.00 40.87           C
ATOM   4934  O   TRP D 247     -17.511  37.342 -11.787  1.00 41.66           O
ATOM   4935  CB  TRP D 247     -17.162  35.691 -14.200  1.00 37.08           C
ATOM   4936  CG  TRP D 247     -16.290  35.682 -15.419  1.00 40.50           C
ATOM   4937  CD1 TRP D 247     -15.712  34.589 -15.993  1.00 40.15           C
ATOM   4938  CD2 TRP D 247     -15.835  36.819 -16.175  1.00 38.31           C
ATOM   4939  CE2 TRP D 247     -15.004  36.320 -17.199  1.00 37.41           C
ATOM   4940  CE3 TRP D 247     -16.051  38.206 -16.099  1.00 42.67           C
ATOM   4941  NE1 TRP D 247     -14.956  34.958 -17.062  1.00 37.81           N
ATOM   4942  CZ2 TRP D 247     -14.380  37.159 -18.132  1.00 38.72           C
ATOM   4943  CZ3 TRP D 247     -15.440  39.037 -17.027  1.00 40.51           C
ATOM   4944  CH2 TRP D 247     -14.603  38.519 -18.023  1.00 38.18           C
ATOM   4945  N   GLY D 248     -17.179  35.420 -10.591  1.00 40.54           N
ATOM   4946  CA  GLY D 248     -17.638  35.935  -9.300  1.00 40.46           C
ATOM   4947  C   GLY D 248     -19.107  36.320  -9.310  1.00 44.41           C
ATOM   4948  O   GLY D 248     -19.509  37.260  -8.628  1.00 50.63           O
ATOM   4949  N   CYS D 249     -19.924  35.589 -10.074  1.00 52.97           N
ATOM   4950  CA  CYS D 249     -21.326  35.978 -10.338  1.00 53.13           C
ATOM   4951  C   CYS D 249     -22.267  35.433  -9.258  1.00 53.95           C
ATOM   4952  O   CYS D 249     -23.367  35.950  -9.113  1.00 58.17           O
ATOM   4953  CB  CYS D 249     -21.767  35.516 -11.720  1.00 53.64           C
ATOM   4954  SG  CYS D 249     -20.972  36.436 -13.067  1.00 53.84           S
ATOM   4955  N   TYR D 250     -21.789  34.448  -8.474  1.00 57.60           N
ATOM   4956  CA  TYR D 250     -22.600  33.639  -7.537  1.00 56.84           C
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ATOM   4957  C   TYR D 250     -22.043  33.739  -6.099  1.00 57.52           C
ATOM   4958  O   TYR D 250     -20.993  34.304  -5.893  1.00 60.51           O
ATOM   4959  CB  TYR D 250     -22.619  32.194  -8.045  1.00 53.40           C
ATOM   4960  CG  TYR D 250     -23.056  32.027  -9.482  1.00 56.89           C
ATOM   4961  CD1 TYR D 250     -24.154  32.717  -9.984  1.00 55.08           C
ATOM   4962  CD2 TYR D 250     -22.386  31.165 -10.344  1.00 58.81           C
ATOM   4963  CE1 TYR D 250     -24.569  32.568 -11.297  1.00 48.53           C
ATOM   4964  CE2 TYR D 250     -22.793  31.001 -11.659  1.00 54.49           C
ATOM   4965  CZ  TYR D 250     -23.889  31.707 -12.129  1.00 50.77           C
ATOM   4966  OH  TYR D 250     -24.291  31.581 -13.417  1.00 56.25           O
ATOM   4967  N   ASP D 251     -22.760  33.184  -5.110  1.00 59.43           N
ATOM   4968  CA  ASP D 251     -22.278  33.109  -3.712  1.00 65.91           C
ATOM   4969  C   ASP D 251     -21.573  31.770  -3.462  1.00 65.84           C
ATOM   4970  O   ASP D 251     -22.174  30.865  -2.903  1.00 70.79           O
ATOM   4971  CB  ASP D 251     -23.414  33.222  -2.689  1.00 63.68           C
ATOM   4972  CG  ASP D 251     -24.170  34.533  -2.722  1.00 69.61           C
ATOM   4973  OD1 ASP D 251     -23.539  35.583  -2.937  1.00 63.87           O
ATOM   4974  OD2 ASP D 251     -25.385  34.486  -2.513  1.00 82.89           O1-
ATOM   4975  N   GLU D 252     -20.309  31.654  -3.884  1.00 65.72           N
ATOM   4976  CA  GLU D 252     -19.516  30.404  -3.790  1.00 62.01           C
ATOM   4977  C   GLU D 252     -18.033  30.773  -3.888  1.00 63.17           C
ATOM   4978  O   GLU D 252     -17.691  31.864  -4.299  1.00 70.52           O
ATOM   4979  CB  GLU D 252     -19.814  29.397  -4.909  1.00 64.35           C
ATOM   4980  CG  GLU D 252     -21.243  29.408  -5.445  1.00 68.37           C
ATOM   4981  CD  GLU D 252     -21.542  28.648  -6.736  1.00 67.57           C
ATOM   4982  OE1 GLU D 252     -22.746  28.443  -7.002  1.00 81.05           O
ATOM   4983  OE2 GLU D 252     -20.606  28.296  -7.500  1.00 53.40           O1-
ATOM   4984  N   GLN D 253     -17.157  29.844  -3.522  1.00 67.61           N
ATOM   4985  CA  GLN D 253     -15.726  30.076  -3.624  1.00 68.52           C
ATOM   4986  C   GLN D 253     -15.337  29.917  -5.101  1.00 60.32           C
ATOM   4987  O   GLN D 253     -15.675  28.913  -5.725  1.00 61.15           O
ATOM   4988  CB  GLN D 253     -14.952  29.113  -2.708  1.00 74.94           C
ATOM   4989  CG  GLN D 253     -13.958  29.795  -1.767  1.00 78.30           C
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ATOM   4990  CD  GLN D 253     -12.694  29.005  -1.506  1.00 78.47           C
ATOM   4991  NE2 GLN D 253     -12.804  27.685  -1.465  1.00 76.04           N
ATOM   4992  OE1 GLN D 253     -11.616  29.574  -1.337  1.00 76.04           O
ATOM   4993  N   LYS D 254     -14.643  30.920  -5.648  1.00 55.47           N
ATOM   4994  CA  LYS D 254     -14.115  30.870  -7.008  1.00 56.82           C
ATOM   4995  C   LYS D 254     -13.219  29.631  -7.177  1.00 51.80           C
ATOM   4996  O   LYS D 254     -12.320  29.421  -6.404  1.00 53.26           O
ATOM   4997  CB  LYS D 254     -13.323  32.144  -7.334  1.00 54.11           C
ATOM   4998  CG  LYS D 254     -14.146  33.404  -7.592  1.00 54.98           C
ATOM   4999  CD  LYS D 254     -13.297  34.673  -7.553  1.00 53.93           C
ATOM   5000  CE  LYS D 254     -13.932  35.861  -8.238  1.00 59.04           C
ATOM   5001  NZ  LYS D 254     -13.376  37.138  -7.731  1.00 63.60           N1+
ATOM   5002  N   ARG D 255     -13.468  28.827  -8.217  1.00 55.39           N
ATOM   5003  CA  ARG D 255     -12.512  27.793  -8.663  1.00 56.55           C
ATOM   5004  C   ARG D 255     -11.983  28.185 -10.054  1.00 54.13           C
ATOM   5005  O   ARG D 255     -12.497  29.100 -10.707  1.00 53.45           O
ATOM   5006  CB  ARG D 255     -13.143  26.392  -8.663  1.00 56.51           C
ATOM   5007  CG  ARG D 255     -14.023  26.076  -7.456  1.00 60.48           C
ATOM   5008  CD  ARG D 255     -14.968  24.883  -7.646  1.00 64.36           C
ATOM   5009  NE  ARG D 255     -15.926  25.015  -8.755  1.00 65.80           N
ATOM   5010  CZ  ARG D 255     -17.223  25.344  -8.639  1.00 63.49           C
ATOM   5011  NH1 ARG D 255     -17.774  25.496  -7.448  1.00 66.40           N1+
ATOM   5012  NH2 ARG D 255     -17.976  25.507  -9.714  1.00 54.21           N
ATOM   5013  N   TYR D 256     -10.916  27.506 -10.481  1.00 52.30           N
ATOM   5014  CA  TYR D 256     -10.384  27.631 -11.832  1.00 49.97           C
ATOM   5015  C   TYR D 256     -11.356  26.972 -12.815  1.00 48.10           C
ATOM   5016  O   TYR D 256     -11.684  25.789 -12.667  1.00 47.94           O
ATOM   5017  CB  TYR D 256      -8.997  26.981 -11.924  1.00 52.29           C
ATOM   5018  CG  TYR D 256      -8.509  26.651 -13.319  1.00 52.36           C
ATOM   5019  CD1 TYR D 256      -7.852  27.602 -14.092  1.00 47.18           C
ATOM   5020  CD2 TYR D 256      -8.693  25.385 -13.866  1.00 45.47           C
ATOM   5021  CE1 TYR D 256      -7.415  27.315 -15.373  1.00 43.17           C
ATOM   5022  CE2 TYR D 256      -8.255  25.080 -15.144  1.00 44.43           C
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ATOM   5023  CZ  TYR D 256      -7.617  26.051 -15.896  1.00 44.63           C
ATOM   5024  OH  TYR D 256      -7.161  25.756 -17.136  1.00 44.08           O
ATOM   5025  N   HIS D 257     -11.781  27.725 -13.833  1.00 48.11           N
ATOM   5026  CA  HIS D 257     -12.613  27.176 -14.913  1.00 49.36           C
ATOM   5027  C   HIS D 257     -11.743  26.911 -16.154  1.00 47.61           C
ATOM   5028  O   HIS D 257     -11.592  25.760 -16.595  1.00 51.15           O
ATOM   5029  CB  HIS D 257     -13.823  28.082 -15.168  1.00 48.40           C
ATOM   5030  CG  HIS D 257     -14.644  27.609 -16.315  1.00 52.66           C
ATOM   5031  CD2 HIS D 257     -15.354  26.479 -16.499  1.00 55.95           C
ATOM   5032  ND1 HIS D 257     -14.756  28.324 -17.481  1.00 51.70           N
ATOM   5033  CE1 HIS D 257     -15.502  27.655 -18.328  1.00 52.75           C
ATOM   5034  NE2 HIS D 257     -15.869  26.518 -17.760  1.00 53.64           N
ATOM   5035  N   HIS D 258     -11.163  27.986 -16.694  1.00 47.07           N
ATOM   5036  CA  HIS D 258     -10.234  27.971 -17.838  1.00 45.60           C
ATOM   5037  C   HIS D 258      -9.390  29.246 -17.759  1.00 42.03           C
ATOM   5038  O   HIS D 258      -9.772  30.152 -17.031  1.00 39.81           O
ATOM   5039  CB  HIS D 258     -11.007  27.915 -19.163  1.00 46.13           C
ATOM   5040  CG  HIS D 258     -11.554  29.239 -19.582  1.00 43.80           C
ATOM   5041  CD2 HIS D 258     -11.062  30.193 -20.422  1.00 41.81           C
ATOM   5042  ND1 HIS D 258     -12.742  29.728 -19.078  1.00 40.40           N
ATOM   5043  CE1 HIS D 258     -12.976  30.920 -19.610  1.00 42.09           C
ATOM   5044  NE2 HIS D 258     -11.952  31.236 -20.432  1.00 40.67           N
ATOM   5045  N   THR D 259      -8.276  29.315 -18.501  1.00 39.30           N
ATOM   5046  CA  THR D 259      -7.420  30.516 -18.500  1.00 39.18           C
ATOM   5047  C   THR D 259      -7.984  31.625 -19.398  1.00 39.16           C
ATOM   5048  O   THR D 259      -7.943  31.508 -20.640  1.00 41.45           O
ATOM   5049  CB  THR D 259      -6.002  30.227 -18.982  1.00 35.59           C
ATOM   5050  CG2 THR D 259      -5.208  31.504 -19.095  1.00 36.31           C
ATOM   5051  OG1 THR D 259      -5.375  29.336 -18.060  1.00 34.87           O
ATOM   5052  N   VAL D 260      -8.436  32.723 -18.771  1.00 37.26           N
ATOM   5053  CA  VAL D 260      -9.059  33.827 -19.491  1.00 36.32           C
ATOM   5054  C   VAL D 260      -7.989  34.614 -20.232  1.00 39.41           C
ATOM   5055  O   VAL D 260      -6.869  34.762 -19.739  1.00 43.50           O
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ATOM   5056  CB  VAL D 260      -9.856  34.748 -18.556  1.00 38.75           C
ATOM   5057  CG1 VAL D 260     -11.053  34.018 -17.974  1.00 42.84           C
ATOM   5058  CG2 VAL D 260      -9.020  35.367 -17.446  1.00 39.24           C
ATOM   5059  N   PRO D 261      -8.334  35.244 -21.377  1.00 39.93           N
ATOM   5060  CA  PRO D 261      -7.346  35.974 -22.175  1.00 38.76           C
ATOM   5061  C   PRO D 261      -7.131  37.389 -21.601  1.00 37.52           C
ATOM   5062  O   PRO D 261      -7.727  38.359 -22.059  1.00 40.66           O
ATOM   5063  CB  PRO D 261      -8.036  35.939 -23.553  1.00 39.07           C
ATOM   5064  CG  PRO D 261      -9.530  36.125 -23.217  1.00 34.57           C
ATOM   5065  CD  PRO D 261      -9.712  35.417 -21.888  1.00 35.13           C
ATOM   5066  N   SER D 262      -6.297  37.501 -20.568  1.00 36.95           N
ATOM   5067  CA  SER D 262      -6.222  38.718 -19.751  1.00 37.88           C
ATOM   5068  C   SER D 262      -5.861  39.957 -20.592  1.00 35.73           C
ATOM   5069  O   SER D 262      -6.341  41.045 -20.319  1.00 35.60           O
ATOM   5070  CB  SER D 262      -5.253  38.526 -18.605  1.00 39.52           C
ATOM   5071  OG  SER D 262      -3.995  38.057 -19.062  1.00 36.36           O
ATOM   5072  N   ASN D 263      -4.993  39.798 -21.590  1.00 34.34           N
ATOM   5073  CA  ASN D 263      -4.666  40.884 -22.518  1.00 37.54           C
ATOM   5074  C   ASN D 263      -5.942  41.498 -23.139  1.00 38.94           C
ATOM   5075  O   ASN D 263      -6.179  42.743 -23.080  1.00 31.01           O
ATOM   5076  CB  ASN D 263      -3.699  40.399 -23.597  1.00 36.36           C
ATOM   5077  CG  ASN D 263      -2.417  39.895 -22.975  1.00 41.39           C
ATOM   5078  ND2 ASN D 263      -1.414  40.763 -22.869  1.00 38.99           N
ATOM   5079  OD1 ASN D 263      -2.361  38.735 -22.559  1.00 43.81           O
ATOM   5080  N   LEU D 264      -6.785  40.630 -23.714  1.00 38.57           N
ATOM   5081  CA  LEU D 264      -8.034  41.065 -24.374  1.00 40.42           C
ATOM   5082  C   LEU D 264      -8.980  41.695 -23.355  1.00 38.07           C
ATOM   5083  O   LEU D 264      -9.645  42.673 -23.681  1.00 41.27           O
ATOM   5084  CB  LEU D 264      -8.686  39.877 -25.089  1.00 40.03           C
ATOM   5085  CG  LEU D 264      -7.816  39.228 -26.167  1.00 40.84           C
ATOM   5086  CD1 LEU D 264      -8.595  38.161 -26.908  1.00 42.77           C
ATOM   5087  CD2 LEU D 264      -7.304  40.278 -27.148  1.00 40.12           C
ATOM   5088  N   ILE D 265      -9.006  41.138 -22.133  1.00 34.14           N
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ATOM   5089  CA  ILE D 265      -9.809  41.688 -21.040  1.00 33.35           C
ATOM   5090  C   ILE D 265      -9.345  43.103 -20.651  1.00 31.79           C
ATOM   5091  O   ILE D 265     -10.171  43.941 -20.392  1.00 31.79           O
ATOM   5092  CB  ILE D 265      -9.809  40.752 -19.831  1.00 31.33           C
ATOM   5093  CG1 ILE D 265     -10.621  39.497 -20.132  1.00 33.46           C
ATOM   5094  CG2 ILE D 265     -10.320  41.474 -18.605  1.00 31.65           C
ATOM   5095  CD1 ILE D 265     -10.392  38.367 -19.158  1.00 35.11           C
ATOM   5096  N   PHE D 266      -8.032  43.349 -20.614  1.00 36.27           N
ATOM   5097  CA  PHE D 266      -7.457  44.695 -20.375  1.00 36.33           C
ATOM   5098  C   PHE D 266      -7.954  45.671 -21.450  1.00 38.40           C
ATOM   5099  O   PHE D 266      -8.414  46.781 -21.117  1.00 39.86           O
ATOM   5100  CB  PHE D 266      -5.921  44.676 -20.365  1.00 36.32           C
ATOM   5101  CG  PHE D 266      -5.249  43.718 -19.405  1.00 36.17           C
ATOM   5102  CD1 PHE D 266      -5.813  43.401 -18.178  1.00 35.87           C
ATOM   5103  CD2 PHE D 266      -4.023  43.147 -19.724  1.00 37.26           C
ATOM   5104  CE1 PHE D 266      -5.177  42.528 -17.304  1.00 37.22           C
ATOM   5105  CE2 PHE D 266      -3.388  42.280 -18.845  1.00 36.98           C
ATOM   5106  CZ  PHE D 266      -3.962  41.974 -17.636  1.00 36.66           C
ATOM   5107  N   ALA D 267      -7.876  45.248 -22.723  1.00 36.65           N
ATOM   5108  CA  ALA D 267      -8.320  46.070 -23.861  1.00 35.54           C
ATOM   5109  C   ALA D 267      -9.807  46.407 -23.746  1.00 35.99           C
ATOM   5110  O   ALA D 267     -10.202  47.529 -23.992  1.00 35.95           O
ATOM   5111  CB  ALA D 267      -8.069  45.355 -25.162  1.00 35.77           C
ATOM   5112  N   LEU D 268     -10.615  45.407 -23.391  1.00 35.76           N
ATOM   5113  CA  LEU D 268     -12.037  45.583 -23.227  1.00 38.37           C
ATOM   5114  C   LEU D 268     -12.338  46.554 -22.071  1.00 39.79           C
ATOM   5115  O   LEU D 268     -13.288  47.341 -22.135  1.00 37.05           O
ATOM   5116  CB  LEU D 268     -12.680  44.214 -22.967  1.00 39.98           C
ATOM   5117  CG  LEU D 268     -14.188  44.276 -22.747  1.00 38.59           C
ATOM   5118  CD1 LEU D 268     -14.889  44.678 -24.032  1.00 40.96           C
ATOM   5119  CD2 LEU D 268     -14.727  42.967 -22.201  1.00 37.39           C
ATOM   5120  N   ARG D 269     -11.565  46.477 -20.983  1.00 39.82           N
ATOM   5121  CA  ARG D 269     -11.850  47.331 -19.824  1.00 41.36           C
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ATOM   5122  C   ARG D 269     -11.739  48.798 -20.270  1.00 41.08           C
ATOM   5123  O   ARG D 269     -12.627  49.605 -20.006  1.00 40.90           O
ATOM   5124  CB  ARG D 269     -10.925  46.961 -18.658  1.00 41.74           C
ATOM   5125  CG  ARG D 269     -11.211  47.730 -17.371  1.00 43.01           C
ATOM   5126  CD  ARG D 269     -10.420  49.024 -17.252  1.00 38.88           C
ATOM   5127  NE  ARG D 269     -10.656  49.661 -15.961  1.00 42.85           N
ATOM   5128  CZ  ARG D 269     -10.432  50.954 -15.692  1.00 46.61           C
ATOM   5129  NH1 ARG D 269      -9.759  51.704 -16.550  1.00 43.43           N1+
ATOM   5130  NH2 ARG D 269     -10.932  51.505 -14.594  1.00 43.61           N
ATOM   5131  N   GLU D 270     -10.675  49.095 -21.020  1.00 37.02           N
ATOM   5132  CA  GLU D 270     -10.372  50.416 -21.509  1.00 39.57           C
ATOM   5133  C   GLU D 270     -11.396  50.879 -22.569  1.00 39.88           C
ATOM   5134  O   GLU D 270     -11.744  52.065 -22.628  1.00 47.77           O
ATOM   5135  CB  GLU D 270      -8.931  50.426 -22.047  1.00 40.13           C
ATOM   5136  CG  GLU D 270      -7.859  50.299 -20.970  1.00 37.73           C
ATOM   5137  CD  GLU D 270      -7.704  51.499 -20.038  1.00 37.64           C
ATOM   5138  OE1 GLU D 270      -8.409  51.527 -19.021  1.00 39.83           O
ATOM   5139  OE2 GLU D 270      -6.869  52.415 -20.323  1.00 36.46           O1-
ATOM   5140  N   ALA D 271     -11.887  49.970 -23.408  1.00 37.47           N
ATOM   5141  CA  ALA D 271     -12.898  50.319 -24.434  1.00 39.12           C
ATOM   5142  C   ALA D 271     -14.214  50.772 -23.783  1.00 37.35           C
ATOM   5143  O   ALA D 271     -14.832  51.729 -24.220  1.00 39.47           O
ATOM   5144  CB  ALA D 271     -13.129  49.165 -25.380  1.00 36.41           C
ATOM   5145  N   ILE D 272     -14.630  50.087 -22.723  1.00 40.61           N
ATOM   5146  CA  ILE D 272     -15.869  50.422 -21.992  1.00 39.59           C
ATOM   5147  C   ILE D 272     -15.653  51.724 -21.225  1.00 40.02           C
ATOM   5148  O   ILE D 272     -16.517  52.567 -21.195  1.00 44.87           O
ATOM   5149  CB  ILE D 272     -16.277  49.280 -21.041  1.00 37.87           C
ATOM   5150  CG1 ILE D 272     -16.627  47.999 -21.799  1.00 39.03           C
ATOM   5151  CG2 ILE D 272     -17.410  49.729 -20.162  1.00 39.73           C
ATOM   5152  CD1 ILE D 272     -16.516  46.737 -20.985  1.00 41.75           C
ATOM   5153  N   ALA D 273     -14.473  51.872 -20.621  1.00 42.68           N
ATOM   5154  CA  ALA D 273     -14.116  53.098 -19.922  1.00 43.21           C
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ATOM   5155  C   ALA D 273     -14.303  54.301 -20.859  1.00 46.12           C
ATOM   5156  O   ALA D 273     -14.894  55.305 -20.456  1.00 46.61           O
ATOM   5157  CB  ALA D 273     -12.707  53.016 -19.385  1.00 43.48           C
ATOM   5158  N   GLN D 274     -13.817  54.205 -22.104  1.00 43.59           N
ATOM   5159  CA  GLN D 274     -13.957  55.326 -23.051  1.00 42.40           C
ATOM   5160  C   GLN D 274     -15.440  55.708 -23.198  1.00 40.57           C
ATOM   5161  O   GLN D 274     -15.802  56.860 -23.324  1.00 42.04           O
ATOM   5162  CB  GLN D 274     -13.353  54.963 -24.412  1.00 43.55           C
ATOM   5163  CG  GLN D 274     -11.837  55.101 -24.487  1.00 46.38           C
ATOM   5164  CD  GLN D 274     -11.224  54.407 -25.681  1.00 44.99           C
ATOM   5165  NE2 GLN D 274     -12.054  53.666 -26.398  1.00 38.58           N
ATOM   5166  OE1 GLN D 274     -10.024  54.540 -25.959  1.00 40.86           O
ATOM   5167  N   ILE D 275     -16.324  54.725 -23.194  1.00 43.57           N
ATOM   5168  CA  ILE D 275     -17.736  55.019 -23.372  1.00 49.41           C
ATOM   5169  C   ILE D 275     -18.323  55.596 -22.074  1.00 49.98           C
ATOM   5170  O   ILE D 275     -19.114  56.528 -22.131  1.00 45.38           O
ATOM   5171  CB  ILE D 275     -18.467  53.768 -23.892  1.00 48.19           C
ATOM   5172  CG1 ILE D 275     -18.131  53.547 -25.370  1.00 47.38           C
ATOM   5173  CG2 ILE D 275     -19.968  53.872 -23.671  1.00 51.47           C
ATOM   5174  CD1 ILE D 275     -17.897  52.110 -25.737  1.00 51.54           C
ATOM   5175  N   ALA D 276     -17.903  55.060 -20.916  1.00 47.50           N
ATOM   5176  CA  ALA D 276     -18.284  55.595 -19.612  1.00 47.23           C
ATOM   5177  C   ALA D 276     -17.930  57.094 -19.474  1.00 46.16           C
ATOM   5178  O   ALA D 276     -18.712  57.853 -18.957  1.00 45.52           O
ATOM   5179  CB  ALA D 276     -17.655  54.750 -18.534  1.00 50.49           C
ATOM   5180  N   GLU D 277     -16.771  57.518 -19.992  1.00 51.48           N
ATOM   5181  CA  GLU D 277     -16.228  58.880 -19.822  1.00 51.55           C
ATOM   5182  C   GLU D 277     -16.913  59.891 -20.749  1.00 49.79           C
ATOM   5183  O   GLU D 277     -17.138  61.029 -20.352  1.00 49.26           O
ATOM   5184  CB  GLU D 277     -14.733  58.932 -20.128  1.00 53.48           C
ATOM   5185  CG  GLU D 277     -13.876  58.149 -19.154  1.00 60.28           C
ATOM   5186  CD  GLU D 277     -12.424  58.048 -19.591  1.00 64.33           C
ATOM   5187  OE1 GLU D 277     -12.013  58.894 -20.456  1.00 64.34           O
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ATOM   5188  OE2 GLU D 277     -11.712  57.117 -19.094  1.00 58.57           O1-
ATOM   5189  N   GLU D 278     -17.212  59.496 -21.990  1.00 51.60           N
ATOM   5190  CA  GLU D 278     -17.926  60.386 -22.915  1.00 53.88           C
ATOM   5191  C   GLU D 278     -19.414  60.417 -22.522  1.00 49.69           C
ATOM   5192  O   GLU D 278     -20.025  61.472 -22.505  1.00 48.16           O
ATOM   5193  CB  GLU D 278     -17.689  59.986 -24.373  1.00 53.41           C
ATOM   5194  CG  GLU D 278     -18.022  61.105 -25.352  1.00 61.99           C
ATOM   5195  CD  GLU D 278     -17.878  60.742 -26.826  1.00 71.95           C
ATOM   5196  OE1 GLU D 278     -17.104  59.804 -27.111  1.00 72.70           O
ATOM   5197  OE2 GLU D 278     -18.552  61.377 -27.694  1.00 66.78           O1-
ATOM   5198  N   GLY D 279     -19.945  59.272 -22.093  1.00 49.40           N
ATOM   5199  CA  GLY D 279     -21.370  59.092 -21.847  1.00 51.34           C
ATOM   5200  C   GLY D 279     -21.978  58.252 -22.958  1.00 54.43           C
ATOM   5201  O   GLY D 279     -21.594  58.396 -24.138  1.00 57.26           O
ATOM   5202  N   LEU D 280     -22.887  57.345 -22.583  1.00 56.99           N
ATOM   5203  CA  LEU D 280     -23.574  56.432 -23.531  1.00 56.23           C
ATOM   5204  C   LEU D 280     -24.411  57.242 -24.545  1.00 55.74           C
ATOM   5205  O   LEU D 280     -24.371  56.965 -25.748  1.00 53.65           O
ATOM   5206  CB  LEU D 280     -24.460  55.464 -22.734  1.00 57.21           C
ATOM   5207  CG  LEU D 280     -24.250  53.974 -23.019  1.00 58.32           C
ATOM   5208  CD1 LEU D 280     -25.284  53.149 -22.268  1.00 53.80           C
ATOM   5209  CD2 LEU D 280     -24.280  53.669 -24.519  1.00 51.61           C
ATOM   5210  N   GLU D 281     -25.156  58.248 -24.053  1.00 53.45           N
ATOM   5211  CA  GLU D 281     -26.053  59.037 -24.886  1.00 53.20           C
ATOM   5212  C   GLU D 281     -25.237  59.792 -25.937  1.00 49.45           C
ATOM   5213  O   GLU D 281     -25.495  59.659 -27.139  1.00 48.42           O
ATOM   5214  CB  GLU D 281     -26.938  59.929 -24.006  1.00 57.06           C
ATOM   5215  CG  GLU D 281     -27.868  60.850 -24.790  1.00 58.57           C
ATOM   5216  CD  GLU D 281     -29.093  61.343 -24.035  1.00 64.05           C
ATOM   5217  OE1 GLU D 281     -29.430  62.527 -24.185  1.00 76.48           O
ATOM   5218  OE2 GLU D 281     -29.717  60.548 -23.301  1.00 64.79           O1-
ATOM   5219  N   PRO D 282     -24.208  60.576 -25.535  1.00 44.30           N
ATOM   5220  CA  PRO D 282     -23.346  61.255 -26.505  1.00 47.66           C
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ATOM   5221  C   PRO D 282     -22.726  60.322 -27.554  1.00 50.88           C
ATOM   5222  O   PRO D 282     -22.601  60.743 -28.694  1.00 54.40           O
ATOM   5223  CB  PRO D 282     -22.261  61.941 -25.651  1.00 42.61           C
ATOM   5224  CG  PRO D 282     -22.923  62.088 -24.282  1.00 40.54           C
ATOM   5225  CD  PRO D 282     -23.824  60.886 -24.144  1.00 42.10           C
ATOM   5226  N   VAL D 283     -22.344  59.095 -27.150  1.00 53.66           N
ATOM   5227  CA  VAL D 283     -21.719  58.084 -28.043  1.00 52.12           C
ATOM   5228  C   VAL D 283     -22.746  57.574 -29.071  1.00 48.43           C
ATOM   5229  O   VAL D 283     -22.401  57.393 -30.228  1.00 43.63           O
ATOM   5230  CB  VAL D 283     -21.108  56.904 -27.250  1.00 57.01           C
ATOM   5231  CG1 VAL D 283     -20.908  55.662 -28.115  1.00 55.99           C
ATOM   5232  CG2 VAL D 283     -19.793  57.280 -26.583  1.00 54.97           C
ATOM   5233  N   ILE D 284     -23.981  57.283 -28.637  1.00 49.64           N
ATOM   5234  CA  ILE D 284     -25.041  56.823 -29.561  1.00 51.21           C
ATOM   5235  C   ILE D 284     -25.409  57.934 -30.546  1.00 53.16           C
ATOM   5236  O   ILE D 284     -25.613  57.674 -31.725  1.00 60.36           O
ATOM   5237  CB  ILE D 284     -26.281  56.353 -28.797  1.00 51.05           C
ATOM   5238  CG1 ILE D 284     -26.013  55.054 -28.038  1.00 50.51           C
ATOM   5239  CG2 ILE D 284     -27.459  56.227 -29.739  1.00 53.23           C
ATOM   5240  CD1 ILE D 284     -27.109  54.709 -27.045  1.00 55.97           C
ATOM   5241  N   ARG D 285     -25.506  59.164 -30.045  1.00 57.13           N
ATOM   5242  CA  ARG D 285     -25.886  60.299 -30.870  1.00 60.73           C
ATOM   5243  C   ARG D 285     -24.790  60.605 -31.895  1.00 61.64           C
ATOM   5244  O   ARG D 285     -25.132  60.998 -33.005  1.00 65.73           O
ATOM   5245  CB  ARG D 285     -26.141  61.553 -30.028  1.00 69.83           C
ATOM   5246  CG  ARG D 285     -27.584  61.748 -29.598  1.00 69.40           C
ATOM   5247  CD  ARG D 285     -27.778  63.123 -28.991  1.00 75.36           C
ATOM   5248  NE  ARG D 285     -28.856  63.106 -28.012  1.00 78.25           N
ATOM   5249  CZ  ARG D 285     -30.108  62.740 -28.285  1.00 81.06           C
ATOM   5250  NH1 ARG D 285     -30.408  62.186 -29.451  1.00 83.38           N1+
ATOM   5251  NH2 ARG D 285     -31.061  62.934 -27.392  1.00 69.51           N
ATOM   5252  N   ARG D 286     -23.502  60.459 -31.520  1.00 59.71           N
ATOM   5253  CA  ARG D 286     -22.387  60.673 -32.475  1.00 59.66           C
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ATOM   5254  C   ARG D 286     -22.519  59.666 -33.626  1.00 54.41           C
ATOM   5255  O   ARG D 286     -22.193  59.980 -34.769  1.00 48.49           O
ATOM   5256  CB  ARG D 286     -20.990  60.568 -31.843  1.00 66.93           C
ATOM   5257  CG  ARG D 286     -19.848  60.495 -32.862  1.00 73.95           C
ATOM   5258  CD  ARG D 286     -18.513  61.114 -32.464  1.00 77.09           C
ATOM   5259  NE  ARG D 286     -18.135  60.753 -31.107  1.00 78.68           N
ATOM   5260  CZ  ARG D 286     -17.800  59.533 -30.710  1.00 79.22           C
ATOM   5261  NH1 ARG D 286     -17.419  58.616 -31.585  1.00 90.44           N1+
ATOM   5262  NH2 ARG D 286     -17.870  59.234 -29.429  1.00 70.31           N
ATOM   5263  N   ARG D 287     -22.993  58.457 -33.311  1.00 54.64           N
ATOM   5264  CA  ARG D 287     -23.138  57.407 -34.310  1.00 60.67           C
ATOM   5265  C   ARG D 287     -24.352  57.691 -35.210  1.00 55.77           C
ATOM   5266  O   ARG D 287     -24.250  57.526 -36.437  1.00 44.82           O
ATOM   5267  CB  ARG D 287     -23.150  56.031 -33.636  1.00 62.02           C
ATOM   5268  CG  ARG D 287     -21.865  55.255 -33.892  1.00 66.55           C
ATOM   5269  CD  ARG D 287     -21.253  54.656 -32.646  1.00 69.44           C
ATOM   5270  NE  ARG D 287     -19.817  54.478 -32.757  1.00 64.89           N
ATOM   5271  CZ  ARG D 287     -19.021  54.326 -31.711  1.00 69.91           C
ATOM   5272  NH1 ARG D 287     -19.553  54.084 -30.526  1.00 71.79           N1+
ATOM   5273  NH2 ARG D 287     -17.710  54.418 -31.850  1.00 69.49           N
ATOM   5274  N   GLN D 288     -25.465  58.136 -34.616  1.00 53.24           N
ATOM   5275  CA  GLN D 288     -26.640  58.550 -35.418  1.00 63.85           C
ATOM   5276  C   GLN D 288     -26.230  59.687 -36.371  1.00 56.78           C
ATOM   5277  O   GLN D 288     -26.546  59.658 -37.562  1.00 55.60           O
ATOM   5278  CB  GLN D 288     -27.839  58.922 -34.536  1.00 61.31           C
ATOM   5279  CG  GLN D 288     -28.754  57.738 -34.234  1.00 66.25           C
ATOM   5280  CD  GLN D 288     -29.353  57.793 -32.848  1.00 75.36           C
ATOM   5281  NE2 GLN D 288     -29.682  56.627 -32.312  1.00 68.07           N
ATOM   5282  OE1 GLN D 288     -29.525  58.865 -32.259  1.00 83.17           O
ATOM   5283  N   GLU D 289     -25.477  60.658 -35.857  1.00 54.86           N
ATOM   5284  CA  GLU D 289     -25.165  61.845 -36.629  1.00 57.03           C
ATOM   5285  C   GLU D 289     -24.274  61.429 -37.799  1.00 51.27           C
ATOM   5286  O   GLU D 289     -24.412  61.946 -38.891  1.00 53.22           O
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ATOM   5287  CB  GLU D 289     -24.537  62.926 -35.744  1.00 60.65           C
ATOM   5288  CG  GLU D 289     -25.541  63.580 -34.804  1.00 69.22           C
ATOM   5289  CD  GLU D 289     -24.957  64.441 -33.693  1.00 80.15           C
ATOM   5290  OE1 GLU D 289     -23.750  64.773 -33.780  1.00 86.34           O
ATOM   5291  OE2 GLU D 289     -25.711  64.778 -32.739  1.00 81.25           O1-
ATOM   5292  N   CYS D 290     -23.376  60.476 -37.536  1.00 53.65           N
ATOM   5293  CA  CYS D 290     -22.385  59.987 -38.492  1.00 50.53           C
ATOM   5294  C   CYS D 290     -23.095  59.278 -39.660  1.00 50.73           C
ATOM   5295  O   CYS D 290     -22.657  59.404 -40.826  1.00 42.37           O
ATOM   5296  CB  CYS D 290     -21.384  59.055 -37.809  1.00 53.18           C
ATOM   5297  SG  CYS D 290     -19.877  59.859 -37.194  1.00 49.02           S
ATOM   5298  N   ALA D 291     -24.170  58.546 -39.322  1.00 47.11           N
ATOM   5299  CA  ALA D 291     -25.059  57.846 -40.264  1.00 54.22           C
ATOM   5300  C   ALA D 291     -25.706  58.837 -41.233  1.00 54.27           C
ATOM   5301  O   ALA D 291     -25.572  58.688 -42.462  1.00 50.09           O
ATOM   5302  CB  ALA D 291     -26.125  57.070 -39.509  1.00 56.80           C
ATOM   5303  N   GLU D 292     -26.431  59.815 -40.674  1.00 60.27           N
ATOM   5304  CA  GLU D 292     -27.106  60.877 -41.464  1.00 66.20           C
ATOM   5305  C   GLU D 292     -26.158  61.416 -42.553  1.00 58.22           C
ATOM   5306  O   GLU D 292     -26.529  61.596 -43.710  1.00 61.05           O
ATOM   5307  CB  GLU D 292     -27.587  62.002 -40.541  1.00 70.60           C
ATOM   5308  CG  GLU D 292     -28.814  61.638 -39.717  1.00 72.27           C
ATOM   5309  CD  GLU D 292     -30.050  61.322 -40.542  1.00 81.50           C
ATOM   5310  OE1 GLU D 292     -30.086  61.703 -41.742  1.00 80.93           O
ATOM   5311  OE2 GLU D 292     -30.976  60.693 -39.985  1.00 84.11           O1-
ATOM   5312  N   GLN D 293     -24.911  61.672 -42.177  1.00 51.67           N
ATOM   5313  CA  GLN D 293     -23.911  62.170 -43.111  1.00 55.70           C
ATOM   5314  C   GLN D 293     -23.750  61.166 -44.263  1.00 60.76           C
ATOM   5315  O   GLN D 293     -23.734  61.538 -45.445  1.00 62.78           O
ATOM   5316  CB  GLN D 293     -22.585  62.365 -42.374  1.00 50.00           C
ATOM   5317  CG  GLN D 293     -21.541  63.121 -43.170  1.00 50.85           C
ATOM   5318  CD  GLN D 293     -21.889  64.584 -43.293  1.00 54.36           C
ATOM   5319  NE2 GLN D 293     -21.191  65.258 -44.186  1.00 54.09           N
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ATOM   5320  OE1 GLN D 293     -22.777  65.101 -42.612  1.00 52.08           O
ATOM   5321  N   MET D 294     -23.598  59.895 -43.866  1.00 62.52           N
ATOM   5322  CA  MET D 294     -23.390  58.775 -44.722  1.00 57.27           C
ATOM   5323  C   MET D 294     -24.540  58.738 -45.730  1.00 56.28           C
ATOM   5324  O   MET D 294     -24.322  58.736 -46.947  1.00 51.60           O
ATOM   5325  CB  MET D 294     -23.330  57.484 -43.890  1.00 60.16           C
ATOM   5326  CG  MET D 294     -23.126  56.200 -44.689  1.00 58.23           C
ATOM   5327  SD  MET D 294     -21.598  56.168 -45.674  1.00 57.25           S
ATOM   5328  CE  MET D 294     -20.468  55.594 -44.408  1.00 61.52           C
ATOM   5329  N   TYR D 295     -25.761  58.783 -45.206  1.00 55.79           N
ATOM   5330  CA  TYR D 295     -26.969  58.797 -46.049  1.00 59.91           C
ATOM   5331  C   TYR D 295     -26.898  59.947 -47.072  1.00 59.44           C
ATOM   5332  O   TYR D 295     -26.934  59.707 -48.278  1.00 63.11           O
ATOM   5333  CB  TYR D 295     -28.215  58.876 -45.165  1.00 51.30           C
ATOM   5334  CG  TYR D 295     -28.348  57.741 -44.178  1.00 53.28           C
ATOM   5335  CD1 TYR D 295     -27.570  56.592 -44.283  1.00 47.94           C
ATOM   5336  CD2 TYR D 295     -29.298  57.790 -43.164  1.00 50.82           C
ATOM   5337  CE1 TYR D 295     -27.727  55.536 -43.404  1.00 43.29           C
ATOM   5338  CE2 TYR D 295     -29.463  56.739 -42.277  1.00 46.86           C
ATOM   5339  CZ  TYR D 295     -28.670  55.614 -42.400  1.00 42.03           C
ATOM   5340  OH  TYR D 295     -28.800  54.586 -41.522  1.00 48.01           O
ATOM   5341  N   ARG D 296     -26.743  61.174 -46.576  1.00 57.90           N
ATOM   5342  CA  ARG D 296     -26.734  62.377 -47.392  1.00 65.87           C
ATOM   5343  C   ARG D 296     -25.678  62.260 -48.497  1.00 61.34           C
ATOM   5344  O   ARG D 296     -25.878  62.719 -49.609  1.00 58.66           O
ATOM   5345  CB  ARG D 296     -26.471  63.623 -46.533  1.00 73.57           C
ATOM   5346  CG  ARG D 296     -27.689  64.146 -45.777  1.00 78.13           C
ATOM   5347  CD  ARG D 296     -27.479  65.570 -45.275  1.00 84.70           C
ATOM   5348  NE  ARG D 296     -26.491  65.642 -44.204  1.00 85.23           N
ATOM   5349  CZ  ARG D 296     -26.785  65.667 -42.907  1.00 83.81           C
ATOM   5350  NH1 ARG D 296     -28.035  65.864 -42.525  1.00 80.92           N1+
ATOM   5351  NH2 ARG D 296     -25.841  65.465 -42.001  1.00 76.65           N
ATOM   5352  N   GLY D 297     -24.530  61.668 -48.182  1.00 61.06           N
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ATOM   5353  CA  GLY D 297     -23.479  61.527 -49.174  1.00 57.08           C
ATOM   5354  C   GLY D 297     -23.830  60.475 -50.209  1.00 55.70           C
ATOM   5355  O   GLY D 297     -23.427  60.602 -51.361  1.00 52.91           O
ATOM   5356  N   LEU D 298     -24.543  59.426 -49.771  1.00 57.47           N
ATOM   5357  CA  LEU D 298     -24.993  58.317 -50.646  1.00 65.51           C
ATOM   5358  C   LEU D 298     -26.083  58.848 -51.588  1.00 65.72           C
ATOM   5359  O   LEU D 298     -26.023  58.623 -52.801  1.00 58.91           O
ATOM   5360  CB  LEU D 298     -25.486  57.112 -49.823  1.00 58.66           C
ATOM   5361  CG  LEU D 298     -24.395  56.236 -49.181  1.00 56.42           C
ATOM   5362  CD1 LEU D 298     -24.988  55.149 -48.297  1.00 56.84           C
ATOM   5363  CD2 LEU D 298     -23.483  55.608 -50.215  1.00 53.46           C
ATOM   5364  N   GLN D 299     -27.045  59.582 -51.024  1.00 62.80           N
ATOM   5365  CA  GLN D 299     -28.034  60.313 -51.806  1.00 66.64           C
ATOM   5366  C   GLN D 299     -27.379  61.070 -52.970  1.00 66.05           C
ATOM   5367  O   GLN D 299     -27.754  60.872 -54.109  1.00 79.35           O
ATOM   5368  CB  GLN D 299     -28.769  61.334 -50.948  1.00 66.09           C
ATOM   5369  CG  GLN D 299     -29.839  62.089 -51.719  1.00 66.19           C
ATOM   5370  CD  GLN D 299     -30.683  62.888 -50.765  1.00 64.71           C
ATOM   5371  NE2 GLN D 299     -30.103  63.930 -50.186  1.00 64.13           N
ATOM   5372  OE1 GLN D 299     -31.826  62.542 -50.511  1.00 69.17           O
ATOM   5373  N   ALA D 300     -26.390  61.919 -52.673  1.00 61.23           N
ATOM   5374  CA  ALA D 300     -25.782  62.811 -53.669  1.00 59.82           C
ATOM   5375  C   ALA D 300     -24.993  62.019 -54.714  1.00 60.67           C
ATOM   5376  O   ALA D 300     -24.487  62.588 -55.671  1.00 60.06           O
ATOM   5377  CB  ALA D 300     -24.886  63.819 -52.993  1.00 58.73           C
ATOM   5378  N   MET D 301     -24.856  60.712 -54.493  1.00 66.83           N
ATOM   5379  CA  MET D 301     -24.038  59.845 -55.322  1.00 67.79           C
ATOM   5380  C   MET D 301     -24.919  59.006 -56.265  1.00 62.09           C
ATOM   5381  O   MET D 301     -24.405  58.371 -57.177  1.00 56.01           O
ATOM   5382  CB  MET D 301     -23.228  58.921 -54.410  1.00 71.88           C
ATOM   5383  CG  MET D 301     -21.746  59.005 -54.638  1.00 74.65           C
ATOM   5384  SD  MET D 301     -20.847  58.558 -53.151  1.00 83.35           S
ATOM   5385  CE  MET D 301     -19.317  58.032 -53.923  1.00 79.00           C
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ATOM   5386  N   GLY D 302     -26.238  59.010 -56.015  1.00 60.66           N
ATOM   5387  CA  GLY D 302     -27.215  58.264 -56.766  1.00 56.94           C
ATOM   5388  C   GLY D 302     -27.228  56.795 -56.392  1.00 61.35           C
ATOM   5389  O   GLY D 302     -27.705  55.969 -57.160  1.00 70.60           O
ATOM   5390  N   LEU D 303     -26.725  56.459 -55.201  1.00 59.31           N
ATOM   5391  CA  LEU D 303     -26.703  55.064 -54.754  1.00 61.20           C
ATOM   5392  C   LEU D 303     -27.820  54.836 -53.737  1.00 54.49           C
ATOM   5393  O   LEU D 303     -28.212  55.747 -53.000  1.00 52.02           O
ATOM   5394  CB  LEU D 303     -25.326  54.733 -54.175  1.00 63.51           C
ATOM   5395  CG  LEU D 303     -24.178  54.890 -55.170  1.00 62.35           C
ATOM   5396  CD1 LEU D 303     -22.860  55.153 -54.458  1.00 61.83           C
ATOM   5397  CD2 LEU D 303     -24.087  53.673 -56.073  1.00 63.78           C
ATOM   5398  N   GLU D 304     -28.351  53.615 -53.757  1.00 50.27           N
ATOM   5399  CA  GLU D 304     -29.484  53.265 -52.937  1.00 57.25           C
ATOM   5400  C   GLU D 304     -28.994  52.385 -51.783  1.00 52.85           C
ATOM   5401  O   GLU D 304     -27.856  51.992 -51.741  1.00 49.49           O
ATOM   5402  CB  GLU D 304     -30.555  52.554 -53.771  1.00 61.73           C
ATOM   5403  CG  GLU D 304     -31.096  53.396 -54.913  1.00 67.52           C
ATOM   5404  CD  GLU D 304     -32.326  52.840 -55.613  1.00 70.89           C
ATOM   5405  OE1 GLU D 304     -32.198  51.853 -56.377  1.00 63.57           O
ATOM   5406  OE2 GLU D 304     -33.410  53.404 -55.392  1.00 74.50           O1-
ATOM   5407  N   ILE D 305     -29.906  52.073 -50.865  1.00 56.90           N
ATOM   5408  CA  ILE D 305     -29.598  51.441 -49.608  1.00 56.17           C
ATOM   5409  C   ILE D 305     -30.599  50.302 -49.420  1.00 53.88           C
ATOM   5410  O   ILE D 305     -31.795  50.541 -49.376  1.00 58.48           O
ATOM   5411  CB  ILE D 305     -29.657  52.490 -48.472  1.00 61.90           C
ATOM   5412  CG1 ILE D 305     -28.472  53.464 -48.532  1.00 63.06           C
ATOM   5413  CG2 ILE D 305     -29.786  51.834 -47.104  1.00 62.23           C
ATOM   5414  CD1 ILE D 305     -28.734  54.790 -47.849  1.00 66.38           C
ATOM   5415  N   PHE D 306     -30.080  49.079 -49.269  1.00 55.76           N
ATOM   5416  CA  PHE D 306     -30.865  47.843 -49.182  1.00 58.60           C
ATOM   5417  C   PHE D 306     -32.154  48.048 -48.376  1.00 56.61           C
ATOM   5418  O   PHE D 306     -33.203  47.582 -48.802  1.00 68.99           O
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ATOM   5419  CB  PHE D 306     -30.037  46.706 -48.571  1.00 59.86           C
ATOM   5420  CG  PHE D 306     -30.752  45.377 -48.539  1.00 53.11           C
ATOM   5421  CD1 PHE D 306     -30.978  44.671 -49.707  1.00 48.88           C
ATOM   5422  CD2 PHE D 306     -31.199  44.839 -47.344  1.00 49.76           C
ATOM   5423  CE1 PHE D 306     -31.640  43.452 -49.688  1.00 48.36           C
ATOM   5424  CE2 PHE D 306     -31.840  43.606 -47.325  1.00 56.43           C
ATOM   5425  CZ  PHE D 306     -32.066  42.915 -48.498  1.00 51.62           C
ATOM   5426  N   VAL D 307     -32.049  48.691 -47.208  1.00 53.01           N
ATOM   5427  CA  VAL D 307     -33.195  49.001 -46.366  1.00 58.98           C
ATOM   5428  C   VAL D 307     -33.625  50.443 -46.662  1.00 65.74           C
ATOM   5429  O   VAL D 307     -33.055  51.390 -46.122  1.00 61.05           O
ATOM   5430  CB  VAL D 307     -32.879  48.807 -44.875  1.00 56.23           C
ATOM   5431  CG1 VAL D 307     -34.066  49.204 -44.016  1.00 58.69           C
ATOM   5432  CG2 VAL D 307     -32.430  47.387 -44.561  1.00 56.02           C
ATOM   5433  N   LYS D 308     -34.628  50.586 -47.536  1.00 74.98           N
ATOM   5434  CA  LYS D 308     -35.029  51.884 -48.079  1.00 75.14           C
ATOM   5435  C   LYS D 308     -35.578  52.748 -46.936  1.00 69.98           C
ATOM   5436  O   LYS D 308     -35.120  53.864 -46.755  1.00 67.24           O
ATOM   5437  CB  LYS D 308     -35.994  51.688 -49.255  1.00 81.84           C
ATOM   5438  CG  LYS D 308     -35.354  51.070 -50.497  1.00 85.48           C
ATOM   5439  CD  LYS D 308     -36.173  49.956 -51.153  1.00 93.13           C
ATOM   5440  CE  LYS D 308     -35.334  48.758 -51.557  1.00 93.24           C
ATOM   5441  NZ  LYS D 308     -35.855  48.121 -52.787  1.00 91.77           N1+
ATOM   5442  N   ASP D 309     -36.506  52.201 -46.144  1.00 68.15           N
ATOM   5443  CA  ASP D 309     -37.148  52.917 -45.022  1.00 75.01           C
ATOM   5444  C   ASP D 309     -36.091  53.373 -44.006  1.00 92.44           C
ATOM   5445  O   ASP D 309     -35.503  52.549 -43.293  1.00 91.23           O
ATOM   5446  CB  ASP D 309     -38.196  52.011 -44.365  1.00 77.99           C
ATOM   5447  CG  ASP D 309     -39.176  52.710 -43.440  1.00 76.58           C
ATOM   5448  OD1 ASP D 309     -38.921  53.867 -43.062  1.00 73.10           O
ATOM   5449  OD2 ASP D 309     -40.202  52.085 -43.126  1.00 83.42           O1-
ATOM   5450  N   PRO D 310     -35.795  54.694 -43.896  1.00 83.95           N
ATOM   5451  CA  PRO D 310     -34.876  55.192 -42.867  1.00 70.80           C
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ATOM   5452  C   PRO D 310     -35.262  54.841 -41.421  1.00 67.54           C
ATOM   5453  O   PRO D 310     -34.392  54.615 -40.598  1.00 69.39           O
ATOM   5454  CB  PRO D 310     -34.888  56.713 -43.102  1.00 73.05           C
ATOM   5455  CG  PRO D 310     -35.227  56.851 -44.570  1.00 73.01           C
ATOM   5456  CD  PRO D 310     -36.253  55.762 -44.801  1.00 76.77           C
ATOM   5457  N   GLU D 311     -36.560  54.769 -41.134  1.00 70.61           N
ATOM   5458  CA  GLU D 311     -37.080  54.432 -39.793  1.00 76.01           C
ATOM   5459  C   GLU D 311     -36.450  53.161 -39.193  1.00 72.22           C
ATOM   5460  O   GLU D 311     -36.496  52.998 -37.987  1.00 77.96           O
ATOM   5461  CB  GLU D 311     -38.589  54.193 -39.867  1.00 82.48           C
ATOM   5462  CG  GLU D 311     -39.408  55.465 -39.938  1.00 82.26           C
ATOM   5463  CD  GLU D 311     -39.717  56.058 -38.579  1.00 86.97           C
ATOM   5464  OE1 GLU D 311     -40.253  57.185 -38.554  1.00 76.51           O
ATOM   5465  OE2 GLU D 311     -39.424  55.383 -37.549  1.00 86.03           O1-
ATOM   5466  N   TYR D 312     -35.942  52.240 -40.026  1.00 70.42           N
ATOM   5467  CA  TYR D 312     -35.569  50.884 -39.592  1.00 69.41           C
ATOM   5468  C   TYR D 312     -34.100  50.559 -39.905  1.00 65.26           C
ATOM   5469  O   TYR D 312     -33.712  49.400 -39.837  1.00 57.18           O
ATOM   5470  CB  TYR D 312     -36.470  49.843 -40.265  1.00 75.17           C
ATOM   5471  CG  TYR D 312     -37.930  49.931 -39.904  1.00 76.52           C
ATOM   5472  CD1 TYR D 312     -38.325  50.210 -38.605  1.00 80.01           C
ATOM   5473  CD2 TYR D 312     -38.920  49.727 -40.852  1.00 77.73           C
ATOM   5474  CE1 TYR D 312     -39.663  50.296 -38.258  1.00 85.64           C
ATOM   5475  CE2 TYR D 312     -40.265  49.802 -40.518  1.00 78.95           C
ATOM   5476  CZ  TYR D 312     -40.638  50.090 -39.217  1.00 77.63           C
ATOM   5477  OH  TYR D 312     -41.947  50.170 -38.849  1.00 70.83           O
ATOM   5478  N   ARG D 313     -33.287  51.577 -40.216  1.00 56.70           N
ATOM   5479  CA  ARG D 313     -31.906  51.361 -40.555  1.00 59.22           C
ATOM   5480  C   ARG D 313     -31.112  51.245 -39.246  1.00 61.86           C
ATOM   5481  O   ARG D 313     -31.467  51.856 -38.235  1.00 65.39           O
ATOM   5482  CB  ARG D 313     -31.405  52.451 -41.511  1.00 64.12           C
ATOM   5483  CG  ARG D 313     -32.075  52.406 -42.882  1.00 66.55           C
ATOM   5484  CD  ARG D 313     -31.413  53.183 -44.018  1.00 68.35           C
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ATOM   5485  NE  ARG D 313     -31.935  54.536 -44.206  1.00 70.94           N
ATOM   5486  CZ  ARG D 313     -31.925  55.230 -45.344  1.00 69.42           C
ATOM   5487  NH1 ARG D 313     -31.850  54.627 -46.517  1.00 66.90           N1+
ATOM   5488  NH2 ARG D 313     -31.952  56.548 -45.295  1.00 72.03           N
ATOM   5489  N   LEU D 314     -30.109  50.358 -39.268  1.00 59.45           N
ATOM   5490  CA  LEU D 314     -29.080  50.238 -38.237  1.00 55.94           C
ATOM   5491  C   LEU D 314     -27.951  51.209 -38.587  1.00 61.87           C
ATOM   5492  O   LEU D 314     -27.274  51.041 -39.614  1.00 54.78           O
ATOM   5493  CB  LEU D 314     -28.591  48.784 -38.183  1.00 54.49           C
ATOM   5494  CG  LEU D 314     -27.259  48.500 -37.482  1.00 52.36           C
ATOM   5495  CD1 LEU D 314     -27.301  48.847 -36.002  1.00 54.45           C
ATOM   5496  CD2 LEU D 314     -26.875  47.041 -37.652  1.00 49.90           C
ATOM   5497  N   PRO D 315     -27.740  52.259 -37.750  1.00 54.79           N
ATOM   5498  CA  PRO D 315     -26.767  53.303 -38.054  1.00 50.60           C
ATOM   5499  C   PRO D 315     -25.336  52.772 -38.232  1.00 46.65           C
ATOM   5500  O   PRO D 315     -24.567  53.404 -38.947  1.00 46.80           O
ATOM   5501  CB  PRO D 315     -26.852  54.303 -36.875  1.00 53.20           C
ATOM   5502  CG  PRO D 315     -27.689  53.634 -35.810  1.00 50.75           C
ATOM   5503  CD  PRO D 315     -28.455  52.511 -36.486  1.00 53.65           C
ATOM   5504  N   THR D 316     -25.011  51.614 -37.637  1.00 44.91           N
ATOM   5505  CA  THR D 316     -23.621  51.128 -37.601  1.00 48.25           C
ATOM   5506  C   THR D 316     -23.230  50.457 -38.928  1.00 49.79           C
ATOM   5507  O   THR D 316     -22.038  50.488 -39.305  1.00 46.02           O
ATOM   5508  CB  THR D 316     -23.388  50.229 -36.382  1.00 50.01           C
ATOM   5509  CG2 THR D 316     -23.585  50.966 -35.072  1.00 50.58           C
ATOM   5510  OG1 THR D 316     -24.303  49.138 -36.456  1.00 48.67           O
ATOM   5511  N   VAL D 317     -24.219  49.903 -39.646  1.00 46.40           N
ATOM   5512  CA  VAL D 317     -23.976  49.168 -40.897  1.00 47.88           C
ATOM   5513  C   VAL D 317     -24.984  49.618 -41.961  1.00 47.41           C
ATOM   5514  O   VAL D 317     -26.220  49.534 -41.747  1.00 51.26           O
ATOM   5515  CB  VAL D 317     -24.062  47.644 -40.688  1.00 51.43           C
ATOM   5516  CG1 VAL D 317     -23.628  46.884 -41.933  1.00 54.11           C
ATOM   5517  CG2 VAL D 317     -23.243  47.180 -39.492  1.00 52.68           C
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ATOM   5518  N   THR D 318     -24.444  50.037 -43.112  1.00 40.02           N
ATOM   5519  CA  THR D 318     -25.200  50.615 -44.212  1.00 48.21           C
ATOM   5520  C   THR D 318     -24.897  49.803 -45.488  1.00 51.52           C
ATOM   5521  O   THR D 318     -23.745  49.856 -46.010  1.00 45.85           O
ATOM   5522  CB  THR D 318     -24.840  52.101 -44.412  1.00 50.07           C
ATOM   5523  CG2 THR D 318     -25.572  52.715 -45.585  1.00 54.42           C
ATOM   5524  OG1 THR D 318     -25.113  52.896 -43.253  1.00 51.33           O
ATOM   5525  N   CYS D 319     -25.900  49.062 -45.999  1.00 52.01           N
ATOM   5526  CA  CYS D 319     -25.707  48.231 -47.204  1.00 51.75           C
ATOM   5527  C   CYS D 319     -26.059  49.033 -48.466  1.00 51.78           C
ATOM   5528  O   CYS D 319     -27.197  49.437 -48.670  1.00 56.00           O
ATOM   5529  CB  CYS D 319     -26.504  46.944 -47.107  1.00 53.66           C
ATOM   5530  SG  CYS D 319     -26.094  46.008 -45.617  1.00 59.81           S
ATOM   5531  N   ILE D 320     -25.044  49.248 -49.297  1.00 47.39           N
ATOM   5532  CA  ILE D 320     -25.045  50.164 -50.417  1.00 46.96           C
ATOM   5533  C   ILE D 320     -25.169  49.323 -51.693  1.00 55.95           C
ATOM   5534  O   ILE D 320     -24.188  48.628 -52.060  1.00 58.89           O
ATOM   5535  CB  ILE D 320     -23.723  50.957 -50.438  1.00 46.60           C
ATOM   5536  CG1 ILE D 320     -23.481  51.717 -49.128  1.00 48.35           C
ATOM   5537  CG2 ILE D 320     -23.634  51.876 -51.656  1.00 44.76           C
ATOM   5538  CD1 ILE D 320     -22.075  52.270 -48.991  1.00 44.21           C
ATOM   5539  N   MET D 321     -26.331  49.394 -52.360  1.00 53.57           N
ATOM   5540  CA  MET D 321     -26.613  48.546 -53.514  1.00 56.27           C
ATOM   5541  C   MET D 321     -25.540  48.764 -54.593  1.00 60.95           C
ATOM   5542  O   MET D 321     -25.127  49.886 -54.856  1.00 53.82           O
ATOM   5543  CB  MET D 321     -27.986  48.863 -54.096  1.00 55.35           C
ATOM   5544  CG  MET D 321     -29.108  48.754 -53.084  1.00 59.55           C
ATOM   5545  SD  MET D 321     -29.216  47.163 -52.225  1.00 60.67           S
ATOM   5546  CE  MET D 321     -28.976  45.976 -53.549  1.00 59.75           C
ATOM   5547  N   ILE D 322     -25.042  47.672 -55.176  1.00 60.22           N
ATOM   5548  CA  ILE D 322     -24.199  47.785 -56.348  1.00 68.59           C
ATOM   5549  C   ILE D 322     -25.112  48.165 -57.511  1.00 71.15           C
ATOM   5550  O   ILE D 322     -26.082  47.466 -57.782  1.00 74.85           O
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ATOM   5551  CB  ILE D 322     -23.434  46.474 -56.622  1.00 72.90           C
ATOM   5552  CG1 ILE D 322     -22.679  45.976 -55.385  1.00 80.18           C
ATOM   5553  CG2 ILE D 322     -22.499  46.624 -57.819  1.00 69.76           C
ATOM   5554  CD1 ILE D 322     -22.254  44.520 -55.455  1.00 79.39           C
ATOM   5555  N   PRO D 323     -24.861  49.273 -58.238  1.00 75.50           N
ATOM   5556  CA  PRO D 323     -25.670  49.595 -59.413  1.00 75.12           C
ATOM   5557  C   PRO D 323     -25.376  48.593 -60.543  1.00 73.57           C
ATOM   5558  O   PRO D 323     -24.260  48.019 -60.588  1.00 57.28           O
ATOM   5559  CB  PRO D 323     -25.242  51.031 -59.764  1.00 73.41           C
ATOM   5560  CG  PRO D 323     -23.821  51.126 -59.248  1.00 78.08           C
ATOM   5561  CD  PRO D 323     -23.783  50.246 -58.011  1.00 78.97           C
ATOM   5562  N   LYS D 324     -26.360  48.412 -61.442  1.00 68.28           N
ATOM   5563  CA  LYS D 324     -26.299  47.398 -62.494  1.00 67.98           C
ATOM   5564  C   LYS D 324     -25.044  47.620 -63.355  1.00 67.33           C
ATOM   5565  O   LYS D 324     -24.822  48.688 -63.921  1.00 68.32           O
ATOM   5566  CB  LYS D 324     -27.612  47.380 -63.287  1.00 78.94           C
ATOM   5567  CG  LYS D 324     -28.687  46.442 -62.725  1.00 90.96           C
ATOM   5568  CD  LYS D 324     -30.152  46.842 -62.996  1.00 91.63           C
ATOM   5569  CE  LYS D 324     -30.931  45.879 -63.877  1.00 90.08           C
ATOM   5570  NZ  LYS D 324     -30.974  46.327 -65.292  1.00 88.85           N1+
ATOM   5571  N   GLY D 325     -24.181  46.602 -63.391  1.00 60.99           N
ATOM   5572  CA  GLY D 325     -23.043  46.573 -64.281  1.00 62.25           C
ATOM   5573  C   GLY D 325     -21.742  46.981 -63.620  1.00 64.44           C
ATOM   5574  O   GLY D 325     -20.745  47.209 -64.305  1.00 68.80           O
ATOM   5575  N   VAL D 326     -21.723  47.061 -62.289  1.00 66.66           N
ATOM   5576  CA  VAL D 326     -20.509  47.499 -61.613  1.00 68.53           C
ATOM   5577  C   VAL D 326     -19.908  46.303 -60.868  1.00 65.91           C
ATOM   5578  O   VAL D 326     -20.596  45.637 -60.090  1.00 69.61           O
ATOM   5579  CB  VAL D 326     -20.769  48.714 -60.699  1.00 73.28           C
ATOM   5580  CG1 VAL D 326     -19.664  48.888 -59.665  1.00 73.93           C
ATOM   5581  CG2 VAL D 326     -20.964  49.999 -61.503  1.00 63.71           C
ATOM   5582  N   ASN D 327     -18.622  46.052 -61.147  1.00 61.50           N
ATOM   5583  CA  ASN D 327     -17.804  45.016 -60.528  1.00 60.66           C
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ATOM   5584  C   ASN D 327     -17.298  45.489 -59.148  1.00 64.13           C
ATOM   5585  O   ASN D 327     -16.246  46.165 -59.055  1.00 59.36           O
ATOM   5586  CB  ASN D 327     -16.650  44.639 -61.462  1.00 65.62           C
ATOM   5587  CG  ASN D 327     -15.728  43.563 -60.922  1.00 61.60           C
ATOM   5588  ND2 ASN D 327     -14.893  43.013 -61.787  1.00 53.70           N
ATOM   5589  OD1 ASN D 327     -15.746  43.248 -59.734  1.00 62.30           O
ATOM   5590  N   TRP D 328     -18.013  45.060 -58.090  1.00 61.25           N
ATOM   5591  CA  TRP D 328     -17.827  45.506 -56.707  1.00 59.21           C
ATOM   5592  C   TRP D 328     -16.436  45.125 -56.188  1.00 66.13           C
ATOM   5593  O   TRP D 328     -15.798  45.951 -55.516  1.00 67.95           O
ATOM   5594  CB  TRP D 328     -18.921  44.957 -55.783  1.00 58.73           C
ATOM   5595  CG  TRP D 328     -18.703  43.527 -55.389  1.00 64.85           C
ATOM   5596  CD1 TRP D 328     -19.246  42.422 -55.970  1.00 59.67           C
ATOM   5597  CD2 TRP D 328     -17.851  43.046 -54.333  1.00 66.69           C
ATOM   5598  CE2 TRP D 328     -17.945  41.639 -54.340  1.00 66.25           C
ATOM   5599  CE3 TRP D 328     -17.025  43.664 -53.385  1.00 64.39           C
ATOM   5600  NE1 TRP D 328     -18.796  41.290 -55.352  1.00 60.40           N
ATOM   5601  CZ2 TRP D 328     -17.240  40.842 -53.439  1.00 67.95           C
ATOM   5602  CZ3 TRP D 328     -16.327  42.881 -52.492  1.00 65.90           C
ATOM   5603  CH2 TRP D 328     -16.437  41.488 -52.520  1.00 72.21           C
ATOM   5604  N   TRP D 329     -15.969  43.898 -56.475  1.00 64.54           N
ATOM   5605  CA  TRP D 329     -14.649  43.516 -56.011  1.00 63.80           C
ATOM   5606  C   TRP D 329     -13.652  44.581 -56.473  1.00 60.79           C
ATOM   5607  O   TRP D 329     -12.755  44.932 -55.717  1.00 66.27           O
ATOM   5608  CB  TRP D 329     -14.191  42.102 -56.425  1.00 66.72           C
ATOM   5609  CG  TRP D 329     -12.710  41.901 -56.237  1.00 78.37           C
ATOM   5610  CD1 TRP D 329     -11.753  41.877 -57.218  1.00 78.92           C
ATOM   5611  CD2 TRP D 329     -11.990  41.802 -54.985  1.00 92.30           C
ATOM   5612  CE2 TRP D 329     -10.612  41.699 -55.307  1.00 93.24           C
ATOM   5613  CE3 TRP D 329     -12.365  41.798 -53.629  1.00 94.12           C
ATOM   5614  NE1 TRP D 329     -10.500  41.743 -56.673  1.00 79.85           N
ATOM   5615  CZ2 TRP D 329      -9.626  41.582 -54.322  1.00101.07           C
ATOM   5616  CZ3 TRP D 329     -11.388  41.688 -52.657  1.00 96.03           C
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ATOM   5617  CH2 TRP D 329     -10.037  41.579 -53.003  1.00100.87           C
ATOM   5618  N   LYS D 330     -13.799  45.092 -57.700  1.00 61.44           N
ATOM   5619  CA  LYS D 330     -12.725  45.951 -58.275  1.00 67.92           C
ATOM   5620  C   LYS D 330     -12.733  47.325 -57.582  1.00 58.94           C
ATOM   5621  O   LYS D 330     -11.680  47.895 -57.353  1.00 45.03           O
ATOM   5622  CB  LYS D 330     -12.794  46.026 -59.811  1.00 73.49           C
ATOM   5623  CG  LYS D 330     -12.073  44.884 -60.535  1.00 75.20           C
ATOM   5624  CD  LYS D 330     -11.645  45.175 -61.974  1.00 77.51           C
ATOM   5625  CE  LYS D 330     -12.748  44.965 -62.996  1.00 76.34           C
ATOM   5626  NZ  LYS D 330     -12.235  45.006 -64.386  1.00 72.10           N1+
ATOM   5627  N   VAL D 331     -13.915  47.833 -57.224  1.00 55.76           N
ATOM   5628  CA  VAL D 331     -14.010  49.054 -56.455  1.00 57.44           C
ATOM   5629  C   VAL D 331     -13.205  48.878 -55.158  1.00 56.14           C
ATOM   5630  O   VAL D 331     -12.206  49.600 -54.952  1.00 59.40           O
ATOM   5631  CB  VAL D 331     -15.476  49.442 -56.191  1.00 57.81           C
ATOM   5632  CG1 VAL D 331     -15.602  50.544 -55.150  1.00 56.89           C
ATOM   5633  CG2 VAL D 331     -16.156  49.859 -57.486  1.00 61.48           C
ATOM   5634  N   SER D 332     -13.595  47.888 -54.339  1.00 52.76           N
ATOM   5635  CA  SER D 332     -12.954  47.585 -53.032  1.00 51.50           C
ATOM   5636  C   SER D 332     -11.424  47.499 -53.168  1.00 52.81           C
ATOM   5637  O   SER D 332     -10.702  48.121 -52.380  1.00 60.17           O
ATOM   5638  CB  SER D 332     -13.508  46.321 -52.417  1.00 51.98           C
ATOM   5639  OG  SER D 332     -14.859  46.484 -52.007  1.00 52.45           O
ATOM   5640  N   GLU D 333     -10.951  46.770 -54.189  1.00 47.42           N
ATOM   5641  CA  GLU D 333      -9.531  46.514 -54.446  1.00 53.85           C
ATOM   5642  C   GLU D 333      -8.753  47.817 -54.710  1.00 61.39           C
ATOM   5643  O   GLU D 333      -7.603  47.989 -54.216  1.00 58.29           O
ATOM   5644  CB  GLU D 333      -9.394  45.580 -55.648  1.00 60.51           C
ATOM   5645  CG  GLU D 333      -8.031  44.928 -55.763  1.00 65.50           C
ATOM   5646  CD  GLU D 333      -7.614  44.551 -57.172  1.00 71.14           C
ATOM   5647  OE1 GLU D 333      -8.365  44.857 -58.129  1.00 70.55           O
ATOM   5648  OE2 GLU D 333      -6.525  43.960 -57.309  1.00 81.77           O1-
ATOM   5649  N   TYR D 334      -9.341  48.710 -55.522  1.00 57.20           N
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ATOM   5650  CA  TYR D 334      -8.765  50.021 -55.745  1.00 58.06           C
ATOM   5651  C   TYR D 334      -8.694  50.788 -54.414  1.00 51.68           C
ATOM   5652  O   TYR D 334      -7.637  51.252 -54.057  1.00 54.05           O
ATOM   5653  CB  TYR D 334      -9.544  50.804 -56.800  1.00 58.88           C
ATOM   5654  CG  TYR D 334      -8.820  52.038 -57.270  1.00 59.53           C
ATOM   5655  CD1 TYR D 334      -7.844  51.968 -58.253  1.00 59.06           C
ATOM   5656  CD2 TYR D 334      -9.092  53.276 -56.709  1.00 61.86           C
ATOM   5657  CE1 TYR D 334      -7.174  53.106 -58.684  1.00 62.75           C
ATOM   5658  CE2 TYR D 334      -8.436  54.425 -57.126  1.00 57.40           C
ATOM   5659  CZ  TYR D 334      -7.481  54.338 -58.121  1.00 61.60           C
ATOM   5660  OH  TYR D 334      -6.846  55.469 -58.523  1.00 54.10           O
ATOM   5661  N   ALA D 335      -9.799  50.850 -53.666  1.00 47.53           N
ATOM   5662  CA  ALA D 335      -9.873  51.608 -52.388  1.00 53.73           C
ATOM   5663  C   ALA D 335      -8.751  51.218 -51.402  1.00 61.50           C
ATOM   5664  O   ALA D 335      -8.064  52.112 -50.856  1.00 59.56           O
ATOM   5665  CB  ALA D 335     -11.224  51.434 -51.758  1.00 51.44           C
ATOM   5666  N   MET D 336      -8.557  49.904 -51.184  1.00 60.00           N
ATOM   5667  CA  MET D 336      -7.506  49.373 -50.298  1.00 52.13           C
ATOM   5668  C   MET D 336      -6.119  49.795 -50.799  1.00 54.65           C
ATOM   5669  O   MET D 336      -5.316  50.306 -50.020  1.00 64.28           O
ATOM   5670  CB  MET D 336      -7.547  47.842 -50.218  1.00 49.50           C
ATOM   5671  CG  MET D 336      -6.458  47.229 -49.307  1.00 50.11           C
ATOM   5672  SD  MET D 336      -6.429  47.838 -47.564  1.00 46.31           S
ATOM   5673  CE  MET D 336      -8.185  47.722 -47.194  1.00 44.18           C
ATOM   5674  N   ASN D 337      -5.842  49.572 -52.090  1.00 58.46           N
ATOM   5675  CA  ASN D 337      -4.491  49.737 -52.653  1.00 57.42           C
ATOM   5676  C   ASN D 337      -4.147  51.217 -52.772  1.00 56.48           C
ATOM   5677  O   ASN D 337      -2.956  51.565 -52.778  1.00 53.48           O
ATOM   5678  CB  ASN D 337      -4.323  49.107 -54.040  1.00 60.32           C
ATOM   5679  CG  ASN D 337      -4.486  47.603 -54.023  1.00 59.73           C
ATOM   5680  ND2 ASN D 337      -4.733  47.011 -55.174  1.00 58.85           N
ATOM   5681  OD1 ASN D 337      -4.400  46.980 -52.973  1.00 63.35           O
ATOM   5682  N   ASN D 338      -5.183  52.061 -52.891  1.00 54.83           N
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ATOM   5683  CA  ASN D 338      -4.996  53.476 -53.182  1.00 55.02           C
ATOM   5684  C   ASN D 338      -5.144  54.290 -51.891  1.00 55.16           C
ATOM   5685  O   ASN D 338      -4.314  55.159 -51.673  1.00 55.82           O
ATOM   5686  CB  ASN D 338      -5.858  53.941 -54.370  1.00 53.56           C
ATOM   5687  CG  ASN D 338      -5.112  53.831 -55.691  1.00 53.04           C
ATOM   5688  ND2 ASN D 338      -4.660  54.963 -56.214  1.00 55.92           N
ATOM   5689  OD1 ASN D 338      -4.904  52.737 -56.222  1.00 47.49           O
ATOM   5690  N   PHE D 339      -6.134  53.970 -51.039  1.00 54.43           N
ATOM   5691  CA  PHE D 339      -6.434  54.756 -49.812  1.00 52.29           C
ATOM   5692  C   PHE D 339      -6.306  53.951 -48.501  1.00 52.61           C
ATOM   5693  O   PHE D 339      -6.642  54.480 -47.409  1.00 43.96           O
ATOM   5694  CB  PHE D 339      -7.845  55.323 -49.903  1.00 49.77           C
ATOM   5695  CG  PHE D 339      -8.064  56.123 -51.153  1.00 56.26           C
ATOM   5696  CD1 PHE D 339      -7.722  57.466 -51.206  1.00 56.29           C
ATOM   5697  CD2 PHE D 339      -8.585  55.525 -52.291  1.00 61.43           C
ATOM   5698  CE1 PHE D 339      -7.915  58.199 -52.363  1.00 55.53           C
ATOM   5699  CE2 PHE D 339      -8.768  56.257 -53.453  1.00 58.65           C
ATOM   5700  CZ  PHE D 339      -8.430  57.591 -53.488  1.00 56.64           C
ATOM   5701  N   SER D 340      -5.833  52.698 -48.576  1.00 45.48           N
ATOM   5702  CA  SER D 340      -5.714  51.862 -47.388  1.00 46.92           C
ATOM   5703  C   SER D 340      -7.067  51.767 -46.677  1.00 42.88           C
ATOM   5704  O   SER D 340      -7.089  51.621 -45.472  1.00 45.02           O
ATOM   5705  CB  SER D 340      -4.650  52.394 -46.432  1.00 48.75           C
ATOM   5706  OG  SER D 340      -3.458  51.624 -46.497  1.00 54.39           O
ATOM   5707  N   LEU D 341      -8.171  51.880 -47.422  1.00 40.29           N
ATOM   5708  CA  LEU D 341      -9.523  51.897 -46.856  1.00 42.19           C
ATOM   5709  C   LEU D 341     -10.220  50.563 -47.147  1.00 45.35           C
ATOM   5710  O   LEU D 341     -10.199  50.127 -48.298  1.00 43.46           O
ATOM   5711  CB  LEU D 341     -10.323  53.047 -47.480  1.00 43.60           C
ATOM   5712  CG  LEU D 341     -11.842  52.928 -47.335  1.00 47.00           C
ATOM   5713  CD1 LEU D 341     -12.253  53.077 -45.889  1.00 47.88           C
ATOM   5714  CD2 LEU D 341     -12.578  53.947 -48.188  1.00 49.11           C
ATOM   5715  N   GLU D 342     -10.828  49.955 -46.106  1.00 47.16           N
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ATOM   5716  CA  GLU D 342     -11.669  48.740 -46.200  1.00 46.82           C
ATOM   5717  C   GLU D 342     -13.069  49.139 -46.670  1.00 47.91           C
ATOM   5718  O   GLU D 342     -13.852  49.659 -45.873  1.00 47.97           O
ATOM   5719  CB  GLU D 342     -11.764  48.009 -44.846  1.00 48.28           C
ATOM   5720  CG  GLU D 342     -12.779  46.851 -44.758  1.00 44.03           C
ATOM   5721  CD  GLU D 342     -12.402  45.518 -45.410  1.00 45.90           C
ATOM   5722  OE1 GLU D 342     -11.395  45.459 -46.160  1.00 42.79           O
ATOM   5723  OE2 GLU D 342     -13.134  44.518 -45.179  1.00 47.44           O1-
ATOM   5724  N   ILE D 343     -13.377  48.844 -47.943  1.00 49.69           N
ATOM   5725  CA  ILE D 343     -14.764  48.823 -48.461  1.00 48.46           C
ATOM   5726  C   ILE D 343     -15.204  47.364 -48.622  1.00 45.78           C
ATOM   5727  O   ILE D 343     -14.856  46.685 -49.592  1.00 44.89           O
ATOM   5728  CB  ILE D 343     -14.910  49.594 -49.789  1.00 50.58           C
ATOM   5729  CG1 ILE D 343     -14.282  50.986 -49.711  1.00 49.99           C
ATOM   5730  CG2 ILE D 343     -16.380  49.659 -50.183  1.00 53.78           C
ATOM   5731  CD1 ILE D 343     -14.399  51.778 -50.974  1.00 49.97           C
ATOM   5732  N   GLN D 344     -15.988  46.891 -47.665  1.00 47.79           N
ATOM   5733  CA  GLN D 344     -16.238  45.479 -47.531  1.00 52.35           C
ATOM   5734  C   GLN D 344     -17.389  45.110 -48.467  1.00 51.50           C
ATOM   5735  O   GLN D 344     -18.386  45.845 -48.554  1.00 50.61           O
ATOM   5736  CB  GLN D 344     -16.541  45.114 -46.074  1.00 53.80           C
ATOM   5737  CG  GLN D 344     -16.963  43.663 -45.876  1.00 60.50           C
ATOM   5738  CD  GLN D 344     -16.142  42.907 -44.855  1.00 63.63           C
ATOM   5739  NE2 GLN D 344     -15.479  41.869 -45.327  1.00 59.66           N
ATOM   5740  OE1 GLN D 344     -16.095  43.235 -43.666  1.00 73.09           O
ATOM   5741  N   GLY D 345     -17.241  43.953 -49.124  1.00 48.49           N
ATOM   5742  CA  GLY D 345     -18.298  43.350 -49.935  1.00 47.11           C
ATOM   5743  C   GLY D 345     -19.502  42.945 -49.109  1.00 40.98           C
ATOM   5744  O   GLY D 345     -19.499  43.115 -47.905  1.00 51.57           O
ATOM   5745  N   GLY D 346     -20.511  42.371 -49.775  1.00 44.83           N
ATOM   5746  CA  GLY D 346     -21.783  41.920 -49.142  1.00 46.20           C
ATOM   5747  C   GLY D 346     -21.667  40.530 -48.544  1.00 45.91           C
ATOM   5748  O   GLY D 346     -20.626  39.865 -48.706  1.00 43.53           O
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ATOM   5749  N   PHE D 347     -22.748  40.094 -47.880  1.00 43.77           N
ATOM   5750  CA  PHE D 347     -22.753  38.880 -47.082  1.00 44.53           C
ATOM   5751  C   PHE D 347     -24.193  38.490 -46.725  1.00 43.46           C
ATOM   5752  O   PHE D 347     -25.013  39.333 -46.404  1.00 39.09           O
ATOM   5753  CB  PHE D 347     -21.879  39.052 -45.834  1.00 46.17           C
ATOM   5754  CG  PHE D 347     -21.846  37.861 -44.900  1.00 50.58           C
ATOM   5755  CD1 PHE D 347     -21.228  36.673 -45.286  1.00 50.30           C
ATOM   5756  CD2 PHE D 347     -22.424  37.926 -43.633  1.00 49.37           C
ATOM   5757  CE1 PHE D 347     -21.210  35.573 -44.436  1.00 49.77           C
ATOM   5758  CE2 PHE D 347     -22.395  36.831 -42.784  1.00 50.92           C
ATOM   5759  CZ  PHE D 347     -21.796  35.651 -43.190  1.00 48.75           C
ATOM   5760  N   GLY D 348     -24.482  37.181 -46.797  1.00 49.30           N
ATOM   5761  CA  GLY D 348     -25.796  36.625 -46.456  1.00 47.63           C
ATOM   5762  C   GLY D 348     -26.831  37.142 -47.437  1.00 48.55           C
ATOM   5763  O   GLY D 348     -26.541  37.168 -48.630  1.00 43.81           O
ATOM   5764  N   PRO D 349     -27.995  37.660 -46.975  1.00 55.31           N
ATOM   5765  CA  PRO D 349     -29.020  38.197 -47.880  1.00 56.79           C
ATOM   5766  C   PRO D 349     -28.558  39.339 -48.806  1.00 63.04           C
ATOM   5767  O   PRO D 349     -29.197  39.612 -49.812  1.00 64.74           O
ATOM   5768  CB  PRO D 349     -30.104  38.737 -46.931  1.00 57.22           C
ATOM   5769  CG  PRO D 349     -29.401  38.901 -45.597  1.00 56.25           C
ATOM   5770  CD  PRO D 349     -28.382  37.783 -45.560  1.00 55.43           C
ATOM   5771  N   THR D 350     -27.436  39.978 -48.470  1.00 63.54           N
ATOM   5772  CA  THR D 350     -26.923  41.103 -49.227  1.00 62.57           C
ATOM   5773  C   THR D 350     -25.730  40.679 -50.104  1.00 49.94           C
ATOM   5774  O   THR D 350     -25.083  41.520 -50.693  1.00 49.53           O
ATOM   5775  CB  THR D 350     -26.622  42.251 -48.247  1.00 63.44           C
ATOM   5776  CG2 THR D 350     -25.231  42.201 -47.656  1.00 56.58           C
ATOM   5777  OG1 THR D 350     -26.802  43.499 -48.915  1.00 67.98           O
ATOM   5778  N   MET D 351     -25.453  39.379 -50.194  1.00 47.14           N
ATOM   5779  CA  MET D 351     -24.337  38.826 -51.002  1.00 51.77           C
ATOM   5780  C   MET D 351     -24.543  39.108 -52.507  1.00 56.41           C
ATOM   5781  O   MET D 351     -25.641  38.906 -53.094  1.00 59.98           O
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ATOM   5782  CB  MET D 351     -24.243  37.311 -50.766  1.00 61.35           C
ATOM   5783  CG  MET D 351     -23.495  36.513 -51.836  1.00 67.67           C
ATOM   5784  SD  MET D 351     -21.708  36.515 -51.558  1.00 83.58           S
ATOM   5785  CE  MET D 351     -21.073  36.728 -53.227  1.00 85.33           C
ATOM   5786  N   GLY D 352     -23.474  39.570 -53.156  1.00 50.98           N
ATOM   5787  CA  GLY D 352     -23.430  39.745 -54.600  1.00 50.70           C
ATOM   5788  C   GLY D 352     -24.021  41.072 -55.076  1.00 52.42           C
ATOM   5789  O   GLY D 352     -23.761  41.458 -56.229  1.00 47.65           O
ATOM   5790  N   ILE D 353     -24.777  41.775 -54.208  1.00 55.73           N
ATOM   5791  CA  ILE D 353     -25.626  42.928 -54.602  1.00 60.68           C
ATOM   5792  C   ILE D 353     -25.308  44.231 -53.840  1.00 65.94           C
ATOM   5793  O   ILE D 353     -25.749  45.299 -54.289  1.00 69.88           O
ATOM   5794  CB  ILE D 353     -27.114  42.564 -54.450  1.00 56.51           C
ATOM   5795  CG1 ILE D 353     -27.539  42.480 -52.986  1.00 62.41           C
ATOM   5796  CG2 ILE D 353     -27.417  41.285 -55.203  1.00 55.20           C
ATOM   5797  CD1 ILE D 353     -29.007  42.146 -52.781  1.00 62.84           C
ATOM   5798  N   ALA D 354     -24.575  44.176 -52.714  1.00 65.92           N
ATOM   5799  CA  ALA D 354     -24.374  45.372 -51.857  1.00 62.99           C
ATOM   5800  C   ALA D 354     -23.001  45.362 -51.169  1.00 62.32           C
ATOM   5801  O   ALA D 354     -22.483  44.301 -50.837  1.00 59.29           O
ATOM   5802  CB  ALA D 354     -25.474  45.461 -50.838  1.00 56.75           C
ATOM   5803  N   TRP D 355     -22.417  46.561 -50.994  1.00 55.45           N
ATOM   5804  CA  TRP D 355     -21.305  46.766 -50.073  1.00 52.77           C
ATOM   5805  C   TRP D 355     -21.866  47.014 -48.666  1.00 49.53           C
ATOM   5806  O   TRP D 355     -23.024  47.434 -48.516  1.00 41.59           O
ATOM   5807  CB  TRP D 355     -20.409  47.936 -50.481  1.00 49.32           C
ATOM   5808  CG  TRP D 355     -19.717  47.851 -51.801  1.00 45.15           C
ATOM   5809  CD1 TRP D 355     -18.501  47.306 -52.076  1.00 46.27           C
ATOM   5810  CD2 TRP D 355     -20.168  48.450 -53.026  1.00 50.01           C
ATOM   5811  CE2 TRP D 355     -19.174  48.200 -54.002  1.00 45.95           C
ATOM   5812  CE3 TRP D 355     -21.319  49.169 -53.388  1.00 47.19           C
ATOM   5813  NE1 TRP D 355     -18.165  47.505 -53.390  1.00 44.93           N
ATOM   5814  CZ2 TRP D 355     -19.300  48.644 -55.319  1.00 43.16           C
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ATOM   5815  CZ3 TRP D 355     -21.439  49.608 -54.692  1.00 46.15           C
ATOM   5816  CH2 TRP D 355     -20.446  49.340 -55.640  1.00 45.14           C
ATOM   5817  N   ARG D 356     -21.022  46.777 -47.653  1.00 45.36           N
ATOM   5818  CA  ARG D 356     -21.384  47.019 -46.253  1.00 50.05           C
ATOM   5819  C   ARG D 356     -20.458  48.090 -45.641  1.00 49.26           C
ATOM   5820  O   ARG D 356     -19.217  47.921 -45.539  1.00 42.53           O
ATOM   5821  CB  ARG D 356     -21.354  45.690 -45.499  1.00 49.17           C
ATOM   5822  CG  ARG D 356     -22.275  44.633 -46.098  1.00 52.75           C
ATOM   5823  CD  ARG D 356     -22.410  43.395 -45.223  1.00 47.83           C
ATOM   5824  NE  ARG D 356     -21.179  42.612 -45.171  1.00 42.53           N
ATOM   5825  CZ  ARG D 356     -20.821  41.827 -44.157  1.00 38.39           C
ATOM   5826  NH1 ARG D 356     -21.594  41.747 -43.088  1.00 33.75           N1+
ATOM   5827  NH2 ARG D 356     -19.702  41.115 -44.234  1.00 38.20           N
ATOM   5828  N   ALA D 357     -21.063  49.225 -45.275  1.00 52.19           N
ATOM   5829  CA  ALA D 357     -20.312  50.385 -44.728  1.00 51.96           C
ATOM   5830  C   ALA D 357     -20.488  50.416 -43.205  1.00 49.59           C
ATOM   5831  O   ALA D 357     -21.630  50.463 -42.681  1.00 42.01           O
ATOM   5832  CB  ALA D 357     -20.746  51.676 -45.377  1.00 50.84           C
ATOM   5833  N   GLY D 358     -19.337  50.331 -42.514  1.00 49.13           N
ATOM   5834  CA  GLY D 358     -19.258  50.350 -41.068  1.00 50.16           C
ATOM   5835  C   GLY D 358     -18.974  51.738 -40.509  1.00 48.45           C
ATOM   5836  O   GLY D 358     -18.112  52.465 -41.008  1.00 50.69           O
ATOM   5837  N   ILE D 359     -19.754  52.083 -39.486  1.00 52.10           N
ATOM   5838  CA  ILE D 359     -19.538  53.204 -38.595  1.00 60.76           C
ATOM   5839  C   ILE D 359     -19.284  52.612 -37.197  1.00 58.67           C
ATOM   5840  O   ILE D 359     -20.215  52.510 -36.353  1.00 52.18           O
ATOM   5841  CB  ILE D 359     -20.753  54.164 -38.641  1.00 65.29           C
ATOM   5842  CG1 ILE D 359     -20.784  54.959 -39.951  1.00 72.86           C
ATOM   5843  CG2 ILE D 359     -20.798  55.098 -37.439  1.00 68.39           C
ATOM   5844  CD1 ILE D 359     -22.112  55.645 -40.262  1.00 68.09           C
ATOM   5845  N   MET D 360     -18.039  52.167 -36.964  1.00 50.81           N
ATOM   5846  CA  MET D 360     -17.718  51.460 -35.720  1.00 51.71           C
ATOM   5847  C   MET D 360     -16.335  51.845 -35.198  1.00 50.29           C
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ATOM   5848  O   MET D 360     -15.399  52.177 -35.991  1.00 40.25           O
ATOM   5849  CB  MET D 360     -17.746  49.942 -35.921  1.00 54.67           C
ATOM   5850  CG  MET D 360     -19.118  49.346 -35.857  1.00 49.46           C
ATOM   5851  SD  MET D 360     -19.073  47.693 -36.522  1.00 55.96           S
ATOM   5852  CE  MET D 360     -20.797  47.259 -36.263  1.00 55.13           C
ATOM   5853  N   GLY D 361     -16.218  51.767 -33.858  1.00 48.44           N
ATOM   5854  CA  GLY D 361     -14.971  52.046 -33.156  1.00 46.56           C
ATOM   5855  C   GLY D 361     -14.478  53.452 -33.462  1.00 42.56           C
ATOM   5856  O   GLY D 361     -15.259  54.393 -33.391  1.00 41.61           O
ATOM   5857  N   GLU D 362     -13.204  53.571 -33.844  1.00 39.31           N
ATOM   5858  CA  GLU D 362     -12.549  54.852 -34.007  1.00 42.45           C
ATOM   5859  C   GLU D 362     -12.879  55.467 -35.371  1.00 44.46           C
ATOM   5860  O   GLU D 362     -12.465  56.604 -35.629  1.00 47.32           O
ATOM   5861  CB  GLU D 362     -11.027  54.758 -33.795  1.00 46.65           C
ATOM   5862  CG  GLU D 362     -10.610  54.568 -32.330  1.00 48.14           C
ATOM   5863  CD  GLU D 362     -11.275  55.494 -31.308  1.00 45.35           C
ATOM   5864  OE1 GLU D 362     -10.629  56.456 -30.910  1.00 46.04           O
ATOM   5865  OE2 GLU D 362     -12.440  55.249 -30.917  1.00 46.20           O1-
ATOM   5866  N   SER D 363     -13.657  54.779 -36.215  1.00 42.25           N
ATOM   5867  CA  SER D 363     -14.069  55.393 -37.461  1.00 42.82           C
ATOM   5868  C   SER D 363     -15.490  55.976 -37.373  1.00 46.87           C
ATOM   5869  O   SER D 363     -16.108  56.182 -38.406  1.00 53.18           O
ATOM   5870  CB  SER D 363     -13.917  54.441 -38.582  1.00 46.94           C
ATOM   5871  OG  SER D 363     -12.541  54.179 -38.826  1.00 53.51           O
ATOM   5872  N   SER D 364     -15.955  56.315 -36.156  1.00 45.76           N
ATOM   5873  CA  SER D 364     -17.263  56.966 -35.905  1.00 47.04           C
ATOM   5874  C   SER D 364     -17.122  58.495 -35.772  1.00 51.75           C
ATOM   5875  O   SER D 364     -17.472  59.091 -34.733  1.00 54.55           O
ATOM   5876  CB  SER D 364     -17.910  56.384 -34.688  1.00 45.71           C
ATOM   5877  OG  SER D 364     -17.876  54.965 -34.744  1.00 48.76           O
ATOM   5878  N   THR D 365     -16.623  59.131 -36.840  1.00 48.32           N
ATOM   5879  CA  THR D 365     -16.451  60.564 -36.907  1.00 49.86           C
ATOM   5880  C   THR D 365     -16.966  61.045 -38.265  1.00 52.58           C
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ATOM   5881  O   THR D 365     -16.982  60.281 -39.221  1.00 47.44           O
ATOM   5882  CB  THR D 365     -14.986  60.972 -36.667  1.00 53.35           C
ATOM   5883  CG2 THR D 365     -14.475  60.430 -35.353  1.00 53.66           C
ATOM   5884  OG1 THR D 365     -14.089  60.570 -37.717  1.00 45.26           O
ATOM   5885  N   LEU D 366     -17.363  62.322 -38.326  1.00 56.19           N
ATOM   5886  CA  LEU D 366     -17.804  62.952 -39.568  1.00 55.25           C
ATOM   5887  C   LEU D 366     -16.651  62.913 -40.586  1.00 49.28           C
ATOM   5888  O   LEU D 366     -16.865  62.609 -41.747  1.00 50.38           O
ATOM   5889  CB  LEU D 366     -18.286  64.388 -39.290  1.00 54.46           C
ATOM   5890  CG  LEU D 366     -19.579  64.534 -38.477  1.00 54.07           C
ATOM   5891  CD1 LEU D 366     -19.913  65.996 -38.235  1.00 52.09           C
ATOM   5892  CD2 LEU D 366     -20.757  63.856 -39.158  1.00 54.17           C
ATOM   5893  N   GLN D 367     -15.425  63.173 -40.125  1.00 47.02           N
ATOM   5894  CA  GLN D 367     -14.221  63.215 -40.992  1.00 46.50           C
ATOM   5895  C   GLN D 367     -14.010  61.849 -41.677  1.00 44.23           C
ATOM   5896  O   GLN D 367     -13.780  61.800 -42.843  1.00 51.37           O
ATOM   5897  CB  GLN D 367     -12.981  63.667 -40.203  1.00 44.17           C
ATOM   5898  CG  GLN D 367     -13.028  65.097 -39.666  1.00 43.90           C
ATOM   5899  CD  GLN D 367     -13.508  65.259 -38.232  1.00 49.20           C
ATOM   5900  NE2 GLN D 367     -13.270  66.442 -37.680  1.00 49.84           N
ATOM   5901  OE1 GLN D 367     -14.129  64.380 -37.621  1.00 46.18           O
ATOM   5902  N   ARG D 368     -14.076  60.746 -40.927  1.00 46.19           N
ATOM   5903  CA  ARG D 368     -13.935  59.369 -41.463  1.00 45.94           C
ATOM   5904  C   ARG D 368     -15.069  59.039 -42.460  1.00 45.77           C
ATOM   5905  O   ARG D 368     -14.849  58.400 -43.518  1.00 40.32           O
ATOM   5906  CB  ARG D 368     -13.960  58.337 -40.325  1.00 43.07           C
ATOM   5907  CG  ARG D 368     -12.610  58.103 -39.668  1.00 43.45           C
ATOM   5908  CD  ARG D 368     -11.661  57.215 -40.456  1.00 45.13           C
ATOM   5909  NE  ARG D 368     -10.259  57.501 -40.129  1.00 48.19           N
ATOM   5910  CZ  ARG D 368      -9.527  56.820 -39.243  1.00 46.63           C
ATOM   5911  NH1 ARG D 368     -10.084  55.861 -38.520  1.00 42.98           N1+
ATOM   5912  NH2 ARG D 368      -8.238  57.085 -39.107  1.00 40.77           N
ATOM   5913  N   VAL D 369     -16.299  59.431 -42.124  1.00 43.28           N
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ATOM   5914  CA  VAL D 369     -17.402  59.208 -43.046  1.00 48.37           C
ATOM   5915  C   VAL D 369     -17.149  59.957 -44.368  1.00 53.33           C
ATOM   5916  O   VAL D 369     -17.266  59.367 -45.440  1.00 56.37           O
ATOM   5917  CB  VAL D 369     -18.742  59.604 -42.425  1.00 46.40           C
ATOM   5918  CG1 VAL D 369     -19.783  59.825 -43.510  1.00 48.97           C
ATOM   5919  CG2 VAL D 369     -19.202  58.562 -41.403  1.00 46.02           C
ATOM   5920  N   ASN D 370     -16.791  61.247 -44.270  1.00 56.12           N
ATOM   5921  CA  ASN D 370     -16.502  62.111 -45.424  1.00 54.72           C
ATOM   5922  C   ASN D 370     -15.369  61.501 -46.254  1.00 53.79           C
ATOM   5923  O   ASN D 370     -15.402  61.554 -47.485  1.00 60.02           O
ATOM   5924  CB  ASN D 370     -16.130  63.547 -45.019  1.00 51.92           C
ATOM   5925  CG  ASN D 370     -17.315  64.367 -44.534  1.00 51.47           C
ATOM   5926  ND2 ASN D 370     -17.070  65.292 -43.625  1.00 49.29           N
ATOM   5927  OD1 ASN D 370     -18.450  64.168 -44.957  1.00 46.93           O
ATOM   5928  N   PHE D 371     -14.368  60.930 -45.573  1.00 49.85           N
ATOM   5929  CA  PHE D 371     -13.201  60.376 -46.262  1.00 51.01           C
ATOM   5930  C   PHE D 371     -13.536  59.058 -46.992  1.00 52.78           C
ATOM   5931  O   PHE D 371     -12.850  58.707 -47.941  1.00 48.12           O
ATOM   5932  CB  PHE D 371     -12.039  60.117 -45.303  1.00 46.47           C
ATOM   5933  CG  PHE D 371     -10.878  59.472 -46.015  1.00 43.81           C
ATOM   5934  CD1 PHE D 371     -10.137  60.194 -46.931  1.00 43.65           C
ATOM   5935  CD2 PHE D 371     -10.617  58.123 -45.867  1.00 43.86           C
ATOM   5936  CE1 PHE D 371      -9.095  59.604 -47.623  1.00 44.40           C
ATOM   5937  CE2 PHE D 371      -9.596  57.525 -46.582  1.00 45.30           C
ATOM   5938  CZ  PHE D 371      -8.824  58.270 -47.443  1.00 45.83           C
ATOM   5939  N   TYR D 372     -14.530  58.322 -46.479  1.00 54.33           N
ATOM   5940  CA  TYR D 372     -14.999  57.075 -47.022  1.00 55.40           C
ATOM   5941  C   TYR D 372     -15.701  57.338 -48.346  1.00 59.90           C
ATOM   5942  O   TYR D 372     -15.397  56.679 -49.375  1.00 55.61           O
ATOM   5943  CB  TYR D 372     -16.017  56.439 -46.082  1.00 51.39           C
ATOM   5944  CG  TYR D 372     -16.554  55.101 -46.507  1.00 52.08           C
ATOM   5945  CD1 TYR D 372     -15.876  53.934 -46.202  1.00 55.04           C
ATOM   5946  CD2 TYR D 372     -17.783  54.988 -47.130  1.00 54.46           C
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ATOM   5947  CE1 TYR D 372     -16.400  52.690 -46.521  1.00 58.47           C
ATOM   5948  CE2 TYR D 372     -18.315  53.754 -47.472  1.00 54.51           C
ATOM   5949  CZ  TYR D 372     -17.619  52.598 -47.169  1.00 56.59           C
ATOM   5950  OH  TYR D 372     -18.133  51.378 -47.491  1.00 48.68           O
ATOM   5951  N   LEU D 373     -16.644  58.291 -48.295  1.00 54.56           N
ATOM   5952  CA  LEU D 373     -17.437  58.674 -49.472  1.00 52.88           C
ATOM   5953  C   LEU D 373     -16.502  59.155 -50.591  1.00 50.70           C
ATOM   5954  O   LEU D 373     -16.554  58.676 -51.723  1.00 46.82           O
ATOM   5955  CB  LEU D 373     -18.428  59.759 -49.062  1.00 49.21           C
ATOM   5956  CG  LEU D 373     -19.573  59.291 -48.166  1.00 48.36           C
ATOM   5957  CD1 LEU D 373     -20.286  60.481 -47.547  1.00 50.96           C
ATOM   5958  CD2 LEU D 373     -20.558  58.439 -48.944  1.00 47.09           C
ATOM   5959  N   TYR D 374     -15.608  60.079 -50.242  1.00 48.21           N
ATOM   5960  CA  TYR D 374     -14.648  60.581 -51.179  1.00 49.45           C
ATOM   5961  C   TYR D 374     -13.956  59.399 -51.893  1.00 52.10           C
ATOM   5962  O   TYR D 374     -13.794  59.425 -53.126  1.00 57.22           O
ATOM   5963  CB  TYR D 374     -13.658  61.534 -50.496  1.00 45.15           C
ATOM   5964  CG  TYR D 374     -12.442  61.816 -51.349  1.00 45.29           C
ATOM   5965  CD1 TYR D 374     -12.470  62.788 -52.336  1.00 47.67           C
ATOM   5966  CD2 TYR D 374     -11.276  61.077 -51.218  1.00 43.68           C
ATOM   5967  CE1 TYR D 374     -11.364  63.048 -53.130  1.00 46.21           C
ATOM   5968  CE2 TYR D 374     -10.164  61.310 -52.014  1.00 45.50           C
ATOM   5969  CZ  TYR D 374     -10.209  62.297 -52.986  1.00 48.91           C
ATOM   5970  OH  TYR D 374      -9.133  62.539 -53.797  1.00 48.68           O
ATOM   5971  N   ALA D 375     -13.522  58.388 -51.121  1.00 51.07           N
ATOM   5972  CA  ALA D 375     -12.629  57.308 -51.611  1.00 52.09           C
ATOM   5973  C   ALA D 375     -13.446  56.261 -52.374  1.00 46.44           C
ATOM   5974  O   ALA D 375     -12.978  55.718 -53.339  1.00 50.93           O
ATOM   5975  CB  ALA D 375     -11.855  56.674 -50.477  1.00 52.32           C
ATOM   5976  N   PHE D 376     -14.670  56.010 -51.922  1.00 47.26           N
ATOM   5977  CA  PHE D 376     -15.671  55.265 -52.691  1.00 55.80           C
ATOM   5978  C   PHE D 376     -15.819  55.874 -54.092  1.00 55.51           C
ATOM   5979  O   PHE D 376     -15.573  55.192 -55.091  1.00 56.27           O
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ATOM   5980  CB  PHE D 376     -17.002  55.259 -51.938  1.00 58.83           C
ATOM   5981  CG  PHE D 376     -18.051  54.324 -52.470  1.00 62.98           C
ATOM   5982  CD1 PHE D 376     -17.744  53.308 -53.362  1.00 66.95           C
ATOM   5983  CD2 PHE D 376     -19.357  54.427 -52.018  1.00 70.73           C
ATOM   5984  CE1 PHE D 376     -18.730  52.443 -53.810  1.00 68.52           C
ATOM   5985  CE2 PHE D 376     -20.343  53.560 -52.467  1.00 68.81           C
ATOM   5986  CZ  PHE D 376     -20.027  52.572 -53.365  1.00 65.01           C
ATOM   5987  N   LYS D 377     -16.170  57.168 -54.139  1.00 60.97           N
ATOM   5988  CA  LYS D 377     -16.377  57.931 -55.390  1.00 64.93           C
ATOM   5989  C   LYS D 377     -15.163  57.769 -56.304  1.00 59.87           C
ATOM   5990  O   LYS D 377     -15.294  57.361 -57.435  1.00 62.29           O
ATOM   5991  CB  LYS D 377     -16.591  59.429 -55.125  1.00 73.66           C
ATOM   5992  CG  LYS D 377     -16.932  60.260 -56.360  1.00 76.92           C
ATOM   5993  CD  LYS D 377     -18.032  61.294 -56.143  1.00 80.89           C
ATOM   5994  CE  LYS D 377     -18.206  62.247 -57.313  1.00 80.02           C
ATOM   5995  NZ  LYS D 377     -18.922  63.484 -56.907  1.00 78.07           N1+
ATOM   5996  N   GLU D 378     -13.977  58.098 -55.782  1.00 57.20           N
ATOM   5997  CA  GLU D 378     -12.784  58.095 -56.568  1.00 53.75           C
ATOM   5998  C   GLU D 378     -12.508  56.672 -57.070  1.00 60.12           C
ATOM   5999  O   GLU D 378     -11.861  56.490 -58.122  1.00 57.61           O
ATOM   6000  CB  GLU D 378     -11.622  58.655 -55.751  1.00 51.89           C
ATOM   6001  CG  GLU D 378     -11.689  60.159 -55.578  1.00 58.46           C
ATOM   6002  CD  GLU D 378     -11.749  60.959 -56.875  1.00 57.53           C
ATOM   6003  OE1 GLU D 378     -10.794  60.855 -57.693  1.00 50.38           O
ATOM   6004  OE2 GLU D 378     -12.771  61.662 -57.072  1.00 52.04           O1-
ATOM   6005  N   SER D 379     -12.975  55.676 -56.305  1.00 59.67           N
ATOM   6006  CA  SER D 379     -12.687  54.272 -56.576  1.00 62.49           C
ATOM   6007  C   SER D 379     -13.654  53.754 -57.652  1.00 53.27           C
ATOM   6008  O   SER D 379     -13.225  53.113 -58.584  1.00 51.61           O
ATOM   6009  CB  SER D 379     -12.703  53.435 -55.292  1.00 61.10           C
ATOM   6010  OG  SER D 379     -11.502  53.608 -54.540  1.00 47.43           O
ATOM   6011  N   LEU D 380     -14.941  54.062 -57.522  1.00 51.11           N
ATOM   6012  CA  LEU D 380     -15.908  53.828 -58.611  1.00 63.58           C
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ATOM   6013  C   LEU D 380     -15.326  54.303 -59.948  1.00 64.44           C
ATOM   6014  O   LEU D 380     -15.105  53.499 -60.863  1.00 61.16           O
ATOM   6015  CB  LEU D 380     -17.198  54.603 -58.321  1.00 64.69           C
ATOM   6016  CG  LEU D 380     -18.338  53.800 -57.704  1.00 70.25           C
ATOM   6017  CD1 LEU D 380     -19.526  54.703 -57.431  1.00 70.47           C
ATOM   6018  CD2 LEU D 380     -18.752  52.651 -58.608  1.00 67.82           C
ATOM   6019  N   LYS D 381     -15.079  55.620 -60.010  1.00 62.48           N
ATOM   6020  CA  LYS D 381     -14.754  56.380 -61.217  1.00 62.63           C
ATOM   6021  C   LYS D 381     -13.530  55.790 -61.910  1.00 60.41           C
ATOM   6022  O   LYS D 381     -13.563  55.576 -63.104  1.00 76.32           O
ATOM   6023  CB  LYS D 381     -14.479  57.854 -60.888  1.00 64.31           C
ATOM   6024  CG  LYS D 381     -15.698  58.668 -60.476  1.00 66.05           C
ATOM   6025  CD  LYS D 381     -15.359  60.047 -59.930  1.00 73.07           C
ATOM   6026  CE  LYS D 381     -14.440  60.862 -60.819  1.00 73.58           C
ATOM   6027  NZ  LYS D 381     -14.415  62.279 -60.386  1.00 75.24           N1+
ATOM   6028  N   ALA D 382     -12.464  55.546 -61.148  1.00 58.70           N
ATOM   6029  CA  ALA D 382     -11.183  55.072 -61.697  1.00 71.66           C
ATOM   6030  C   ALA D 382     -11.308  53.674 -62.325  1.00 77.08           C
ATOM   6031  O   ALA D 382     -10.487  53.343 -63.204  1.00 69.04           O
ATOM   6032  CB  ALA D 382     -10.115  55.063 -60.629  1.00 75.66           C
ATOM   6033  N   THR D 383     -12.273  52.862 -61.845  1.00 71.29           N
ATOM   6034  CA  THR D 383     -12.440  51.478 -62.279  1.00 65.97           C
ATOM   6035  C   THR D 383     -13.668  51.336 -63.180  1.00 75.77           C
ATOM   6036  O   THR D 383     -13.872  50.267 -63.732  1.00 78.41           O
ATOM   6037  CB  THR D 383     -12.533  50.494 -61.100  1.00 63.41           C
ATOM   6038  CG2 THR D 383     -11.184  50.252 -60.454  1.00 60.55           C
ATOM   6039  OG1 THR D 383     -13.469  50.937 -60.115  1.00 51.42           O
ATOM   6040  N   HIS D 384     -14.470  52.404 -63.323  1.00 84.46           N
ATOM   6041  CA  HIS D 384     -15.700  52.395 -64.151  1.00 82.52           C
ATOM   6042  C   HIS D 384     -15.962  53.774 -64.762  1.00 87.38           C
ATOM   6043  O   HIS D 384     -16.749  54.545 -64.212  1.00 83.24           O
ATOM   6044  CB  HIS D 384     -16.904  51.940 -63.309  1.00 76.04           C
ATOM   6045  CG  HIS D 384     -16.743  50.594 -62.681  1.00 76.66           C
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ATOM   6046  CD2 HIS D 384     -17.263  49.389 -62.999  1.00 78.73           C
ATOM   6047  ND1 HIS D 384     -15.969  50.392 -61.558  1.00 74.31           N
ATOM   6048  CE1 HIS D 384     -16.018  49.123 -61.215  1.00 71.10           C
ATOM   6049  NE2 HIS D 384     -16.802  48.486 -62.080  1.00 73.04           N
ATOM   6050  N   PRO D 385     -15.320  54.140 -65.902  1.00 94.34           N
ATOM   6051  CA  PRO D 385     -15.643  55.386 -66.614  1.00 92.03           C
ATOM   6052  C   PRO D 385     -17.141  55.577 -66.941  1.00 92.74           C
ATOM   6053  O   PRO D 385     -17.578  55.159 -68.008  1.00 74.06           O
ATOM   6054  CB  PRO D 385     -14.826  55.256 -67.911  1.00 89.84           C
ATOM   6055  CG  PRO D 385     -13.642  54.390 -67.523  1.00 94.27           C
ATOM   6056  CD  PRO D 385     -14.207  53.401 -66.526  1.00 95.68           C
ATOM   6057  N   ASP D 386     -17.904  56.206 -66.021  1.00 97.82           N
ATOM   6058  CA  ASP D 386     -19.390  56.325 -66.100  1.00 91.71           C
ATOM   6059  C   ASP D 386     -19.919  57.242 -64.982  1.00 85.56           C
ATOM   6060  O   ASP D 386     -19.177  58.010 -64.361  1.00 83.97           O
ATOM   6061  CB  ASP D 386     -20.079  54.955 -66.001  1.00 93.24           C
ATOM   6062  CG  ASP D 386     -19.733  53.942 -67.092  1.00 93.28           C
ATOM   6063  OD1 ASP D 386     -20.167  54.131 -68.248  1.00 84.85           O
ATOM   6064  OD2 ASP D 386     -19.036  52.948 -66.776  1.00 94.39           O1-
TER    6065      ASP D 386
HETATM 6066  P   PLP D 401     -17.794  36.932 -34.600  1.00 54.82           P
HETATM 6067  O1P PLP D 401     -18.037  35.509 -34.172  1.00 47.24           O
HETATM 6068  O2P PLP D 401     -17.068  37.705 -33.535  1.00 58.27           O1-
HETATM 6069  O3P PLP D 401     -17.179  37.125 -35.998  1.00 46.01           O
HETATM 6070  O4P PLP D 401     -19.224  37.681 -34.554  1.00 49.11           O
HETAT  6071  N1  PLP D 401     -23.811  38.696 -34.781  1.00 46.22           N
HETATM 6072  C2  PLP D 401     -23.738  39.901 -35.408  1.00 50.02           C
HETATM 6073  C2A PLP D 401     -24.946  40.820 -35.456  1.00 53.20           C
HETATM 6074  C3  PLP D 401     -22.473  40.338 -36.048  1.00 48.15           C
HETATM 6075  O3  PLP D 401     -22.403  41.548 -36.676  1.00 48.26           O
HETATM 6076  C4  PLP D 401     -21.297  39.438 -36.015  1.00 50.52           C
HETATM 6077  C4A PLP D 401     -20.012  39.886 -36.656  1.00 55.99           C
HETATM 6078  C5  PLP D 401     -21.503  38.135 -35.293  1.00 50.43           C
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HETATM 6079  C5A PLP D 401     -20.388  37.094 -35.156  1.00 49.61           C
HETATM 6080  C6  PLP D 401     -22.758  37.852 -34.720  1.00 49.14           C
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QSAR

“Leave-N-Out” Cross Validation

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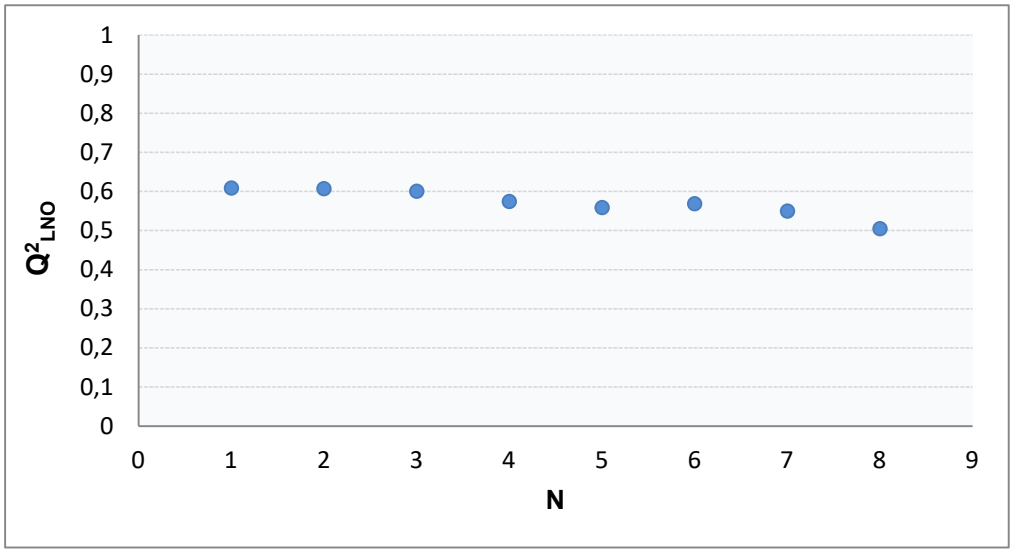


QSAR

Descriptors from Dragon

No.	NAME	MW	AMW	Sv	Mv	Me	Mp	Mi	nTA	nBM	SCBO	RBN
1	4a_docked.pdb	217,22	8,6888	17,031	0,68124	1,031124	0,681592	1,12312	2	13	24,5	4
2	4e_docked.pdb	231,25	8,258929	18,5578	0,662779	1,023632	0,671471	1,124757	3	13	25,5	4
3	4d_docked.pdb	296,11	11,8444	18,0562	0,722248	1,040288	0,735684	1,116784	3	13	25,5	4
4	4b_docked.pdb	247,25	8,525862	19,2726	0,664572	1,034103	0,66399	1,127676	3	13	26,5	5
5	4j_docked.pdb	251,66	10,0664	17,8585	0,71434	1,044072	0,715908	1,12088	3	13	25,5	4
6	4l_docked.pdb	247,25	8,525862	19,2726	0,664572	1,034103	0,66399	1,127676	3	13	26,5	5
7	4g_docked.pdb	235,21	9,4084	17,4143	0,696572	1,051632	0,679092	1,136708	3	13	25,5	4
8	4m_docked.pdb	231,25	8,258929	18,5578	0,662779	1,023632	0,671471	1,124757	3	13	25,5	4
9	4k_docked.pdb	261,23	9,329643	19,4606	0,695021	1,051168	0,676743	1,124886	2	13	28,5	4
10	4i_docked.pdb	262,22	9,711852	18,9552	0,702044	1,061144	0,673819	1,132589	4	15	29,5	5
11	4p_docked.pdb	262,22	9,711852	18,9552	0,702044	1,061144	0,673819	1,132589	4	15	29,5	5
12	4h_docked.pdb	285,22	10,18643	19,7077	0,703846	1,078564	0,664775	1,161154	5	13	28,5	4
13	4c_docked.pdb	286,1	11,444	18,686	0,74744	1,05702	0,750224	1,11864	4	13	26,5	4
14	4n_docked.pdb	207,18	9,417273	15,219	0,691773	1,055536	0,669677	1,130555	2	12	23	4
15	4o_docked.pdb	223,25	10,14773	15,6913	0,713241	1,044132	0,723914	1,1174	2	12	23	4
16	4f_docked.pdb	231,25	8,258929	18,5578	0,662779	1,023632	0,671471	1,124757	3	13	25,5	4
17	4q_docked.pdb	235,21	9,4084	17,4143	0,696572	1,051632	0,679092	1,136708	3	13	25,5	4
18	4r_docked.pdb	296,11	11,8444	18,0562	0,722248	1,040288	0,735684	1,116784	3	13	25,5	4
19	4s_docked.pdb	251,66	10,0664	17,8585	0,71434	1,044072	0,715908	1,12088	3	13	25,5	4
20	6a_docked.pdb	231,25	8,258929	18,5578	0,662779	1,023632	0,671471	1,124757	2	13	25,5	5
21	6b_docked.pdb	261,28	8,165	20,7994	0,649981	1,027269	0,656784	1,128681	3	13	27,5	6
22	6c_docked.pdb	300,13	10,71893	20,2128	0,721886	1,046754	0,73275	1,120757	4	13	27,5	5
23	6d_docked.pdb	310,14	11,07643	19,583	0,699393	1,031814	0,719768	1,1191	3	13	26,5	5
24	6e_docked.pdb	245,28	7,912258	20,0846	0,64789	1,01759	0,66331	1,126077	3	13	26,5	5
25	6f_docked.pdb	245,28	7,912258	20,0846	0,64789	1,01759	0,66331	1,126077	3	13	26,5	5
26	6g_docked.pdb	281,31	8,273824	23,0846	0,678959	1,016038	0,693018	1,114953	2	18	33	5
27	6h_docked.pdb	299,25	9,653226	21,2345	0,684984	1,067206	0,657261	1,158952	5	13	29,5	5
28	6i_docked.pdb	357,14	12,755	19,8746	0,709807	1,0261	0,766439	1,114779	3	13	26,5	5
29	6j_docked.pdb	265,69	9,488929	19,3853	0,692332	1,035193	0,702111	1,122757	3	13	26,5	5
30	6k_docked.pdb	275,26	8,879355	20,9874	0,677013	1,042461	0,668071	1,126194	2	13	29,5	5

RBF	nDB	nAB	nH	nO	nF	nCL	nBR	nHM	nHet	nX	C%	N%	O%	nCsp3
0,153846	2	11	9	3	0	0	0	0	5	0	44	8	12	2
0,137931	2	11	11	3	0	0	0	0	5	0	42,85714	7,142857	10,71429	3
0,153846	2	11	8	3	0	0	1	1	6	1	44	8	12	2
0,166667	2	11	11	4	0	0	0	0	6	0	41,37931	6,896552	13,7931	3
0,153846	2	11	8	3	0	1	0	1	6	1	44	8	12	2
0,166667	2	11	11	4	0	0	0	0	6	0	41,37931	6,896552	13,7931	3
0,153846	2	11	8	3	1	0	0	0	6	1	44	8	12	2
0,137931	2	11	11	3	0	0	0	0	5	0	42,85714	7,142857	10,71429	3
0,133333	2	11	9	5	0	0	0	0	7	0	42,85714	7,142857	17,85714	3
0,178571	4	11	8	5	0	0	0	0	8	0	40,74074	11,11111	18,51852	2
0,178571	4	11	8	5	0	0	0	0	8	0	40,74074	11,11111	18,51852	2
0,137931	2	11	8	3	3	0	0	0	8	3	42,85714	7,142857	10,71429	3
0,153846	2	11	7	3	0	2	0	2	7	2	44	8	12	2
0,173913	2	10	7	4	0	0	0	0	6	0	40,90909	9,090909	18,18182	2
0,173913	2	10	7	3	0	0	0	1	6	0	40,90909	9,090909	13,63636	2
0,137931	2	11	11	3	0	0	0	0	5	0	42,85714	7,142857	10,71429	3
0,153846	2	11	8	3	1	0	0	0	6	1	44	8	12	2
0,153846	2	11	8	3	0	0	1	1	6	1	44	8	12	2
0,153846	2	11	8	3	0	1	0	1	6	1	44	8	12	2
0,172414	2	11	11	3	0	0	0	0	5	0	42,85714	7,142857	10,71429	3
0,181818	2	11	13	4	0	0	0	0	6	0	40,625	6,25	12,5	4
0,172414	2	11	9	3	0	2	0	2	7	2	42,85714	7,142857	10,71429	3
0,172414	2	11	10	3	0	0	1	1	6	1	42,85714	7,142857	10,71429	3
0,15625	2	11	13	3	0	0	0	0	5	0	41,93548	6,451613	9,677419	4
0,15625	2	11	13	3	0	0	0	0	5	0	41,93548	6,451613	9,677419	4
0,138889	2	16	13	3	0	0	0	0	5	0	47,05882	5,882353	8,823529	3
0,15625	2	11	10	3	3	0	0	0	8	3	41,93548	6,451613	9,677419	4
0,172414	2	11	10	3	0	0	0	1	6	1	42,85714	7,142857	10,71429	3
0,172414	2	11	10	3	0	1	0	1	6	1	42,85714	7,142857	10,71429	3
0,151515	2	11	11	5	0	0	0	0	7	0	41,93548	6,451613	16,12903	4

nCIC	MCD	nR05	nR06	nR09	ARR	ZM1Kup	Qindex	DBI	Ram	BLI	PJI2	ICR	S2K	S3K
2	0,6875	1	1	0	0,647059	317,4968	10	2,54951	4	0,852981	1	2,483459	4,68873	2,756226
2	0,647059	1	1	0	0,611111	325,4968	11	2,645751	5	0,87404	0,833333	2,571319	4,896962	2,988493
2	0,647059	1	1	0	0,611111	344,1513	11	2,645751	5	0,95437	0,833333	2,571319	5,215654	3,223022
2	0,611111	1	1	0	0,578947	373,2324	11	2,828427	5	0,845781	1	2,710777	5,539971	3,237486
2	0,647059	1	1	0	0,611111	351,7002	11	2,645751	5	0,885198	0,833333	2,571319	5,085761	3,127134
2	0,611111	1	1	0	0,578947	373,2324	11	2,828427	5	0,845781	0,833333	2,584963	5,539971	3,237486
2	0,647059	1	1	0	0,611111	411,6079	11	2,645751	5	0,822204	0,833333	2,571319	4,854343	2,957319
2	0,647059	1	1	0	0,611111	325,4968	11	2,645751	5	0,875037	1	2,469241	4,896962	2,771325
3	0,736842	2	1	1	0,52381	430,9679	15	2,738613	6	0,806644	0,833333	2,575589	4,899277	2,535413
2	0,578947	1	1	0	0,55	448,613	12	3,162278	6	0,799949	1	2,694781	5,484649	3,28584
2	0,578947	1	1	0	0,55	448,613	12	3,162278	6	0,799949	0,833333	2,575589	5,484649	3,28584
2	0,55	1	1	0	0,52381	601,8302	14	3,605551	7	0,794455	1	2,665957	5,437943	3,662329
2	0,611111	1	1	0	0,578947	385,9036	12	2,738613	6	0,914969	0,833333	2,584963	5,484649	3,301361
2	0,666667	2	0	0	0,625	347,2324	10	2,54951	4	0,809633	0,8	2,289246	4,173326	2,373515
2	0,666667	2	0	0	0,625	318,3572	10	2,54951	4	0,974568	0,8	2,289246	4,428867	2,5528
2	0,647059	1	1	0	0,611111	325,4968	11	2,645751	5	0,87404	1	2,469241	4,896962	2,988493
2	0,647059	1	1	0	0,611111	411,6079	11	2,645751	5	0,823201	1	2,469241	4,854343	2,741909
2	0,647059	1	1	0	0,611111	344,1513	11	2,645751	5	0,95437	1	2,469241	5,215654	3,223022
2	0,647059	1	1	0	0,611111	351,7002	11	2,645751	5	0,886195	1	2,469241	5,085761	2,902225
2	0,647059	1	1	0	0,611111	321,4968	10	2,738613	4	0,888926	0,833333	2,571319	5,374142	3,232225
2	0,578947	1	1	0	0,55	377,2324	11	3	5	0,878492	0,857143	2,786115	6,231744	3,715693
2	0,578947	1	1	0	0,55	389,9036	12	2,915476	6	0,94422	1	2,720583	6,153613	3,771185
2	0,611111	1	1	0	0,578947	348,1513	11	2,828427	5	0,983088	1	2,710777	5,896591	3,749829
2	0,611111	1	1	0	0,578947	329,4968	11	2,828427	5	0,906985	1	2,710777	5,566504	3,501815
2	0,611111	1	1	0	0,578947	329,4968	11	2,828427	5	0,906985	0,833333	2,557728	5,566504	3,501815
3	0,714286	1	2	0	0,695652	371,4968	15	2,915476	6	0,879684	1	2,701376	5,861531	2,987199
2	0,52381	1	1	0	0,5	605,8302	14	3,741657	7	0,826526	0,857143	2,743308	6,068597	4,139496
2	0,611111	1	1	0	0,578947	343,1453	11	2,828427	5	1,028206	1	2,710777	6,068079	3,879575
2	0,611111	1	1	0	0,578947	355,7002	11	2,828427	5	0,917556	1	2,710777	5,762147	3,648534
3	0,7	2	1	1	0,5	434,9679	15	2,915476	6	0,83816	1	2,708695	5,510553	2,936824

MAXDP	Psi_i_A	LOC	X2v	X4v	X3sol	X4sol	AAC	IDDE	Ges	rGes	IC1	IC2	IC3	BIC2
3,24845	2,697917	1,375	3,249757	1,269883	5,05055	3,978581	1,710338	3,625	13	0,8125	3,235085	3,509275	3,973661	0,692699
3,285927	2,637255	1,403374	3,749757	1,385291	5,461234	4,130277	1,670634	3,734522	14	0,823529	3,39123	3,851823	4,137538	0,742188
3,280718	2,681373	1,403374	4,3063	1,545951	6,038584	4,463611	1,891511	3,734522	14	0,823529	3,523856	3,763856	4,083856	0,742951
3,305096	2,685185	1,478028	3,612233	1,422749	5,869482	4,440895	1,717522	3,836592	15	0,833333	3,490688	3,935399	4,211261	0,752636
3,271266	2,761438	1,403374	3,82706	1,407607	5,749909	4,296944	1,891511	3,734522	14	0,823529	3,523856	3,763856	4,083856	0,742951
3,315431	2,685185	1,478028	3,615687	1,444819	5,801441	4,504522	1,717522	3,947703	17	0,944444	3,490688	4,07333	4,487123	0,779015
4,680756	2,990196	1,403374	3,390624	1,281619	5,05055	3,978581	1,891511	3,734522	14	0,823529	3,523856	3,763856	4,083856	0,742951
3,302565	2,637255	1,403374	3,698653	1,498592	5,517378	4,37899	1,670634	3,969816	15	0,882353	3,39123	3,923252	4,351823	0,755951
3,345964	2,684211	1,236188	3,951772	1,718288	6,730964	5,540008	1,765979	3,932138	18	0,947368	3,628085	4,066109	4,450212	0,777634
3,496129	3,096491	1,48586	3,687715	1,414876	6,160026	4,656061	1,850507	3,681881	15	0,789474	3,643776	3,865999	4,162295	0,739364
3,636227	3,096491	1,48586	3,69117	1,441223	6,098858	4,67346	1,850507	3,681881	17	0,894737	3,643776	4,014147	4,458591	0,767697
4,390911	3,404167	1,480482	3,958841	1,49094	5,461234	4,130277	2,002736	3,584184	15	0,75	3,637538	3,851823	4,137538	0,742188
3,298475	2,817901	1,408856	4,32702	1,615969	6,954016	4,776431	1,985451	4,058814	17	0,944444	3,623465	3,893661	4,323856	0,768573
3,188609	2,844444	1,429423	2,861033	1,071279	4,80055	3,801804	1,814849	2,656565	14	0,933333	3,606937	3,913977	4,186704	0,797649
3,209185	2,733333	1,429423	3,808727	1,720478	5,481737	4,446463	1,962354	2,656565	14	0,933333	3,606937	3,913977	4,186704	0,797649
3,293105	2,637255	1,403374	3,753211	1,466812	5,377677	4,282191	1,670634	3,969816	15	0,882353	3,39123	3,99468	4,423252	0,769714
5,372868	2,990196	1,403374	3,363578	1,317354	5,05055	3,978581	1,891511	3,969816	16	0,941176	3,523856	3,843856	4,323856	0,758742
3,286907	2,681373	1,403374	4,309754	1,709467	5,902055	4,789065	1,891511	3,969816	16	0,941176	3,523856	3,923856	4,403856	0,774534
3,281454	2,761438	1,403374	3,770778	1,537603	5,875792	4,700469	1,891511	3,969816	16	0,941176	3,523856	3,843856	4,323856	0,758742
3,238448	2,627451	1,565426	3,60331	1,44484	5,292132	4,22432	1,670634	3,219528	14	0,823529	3,281317	3,722907	4,137538	0,717347
3,286983	2,622807	1,656656	3,965786	1,597705	6,111064	4,686633	1,680893	3,932138	15	0,789474	3,483459	4,10141	4,35141	0,768076
3,280673	2,748538	1,591124	4,680573	1,790926	7,195598	5,02217	1,939363	4,142664	17	0,894737	3,628085	4,066109	4,450212	0,783477
3,26591	2,615741	1,58914	4,659853	1,720908	6,280166	4,70935	1,843294	3,725481	15	0,833333	3,539149	3,950212	4,235926	0,761146
3,270348	2,574074	1,58914	4,10331	1,560248	5,702816	4,376016	1,632702	3,725481	14	0,777778	3,388734	4,026619	4,284684	0,759198
3,275925	2,574074	1,58914	4,106765	1,641768	5,619259	4,52793	1,632702	3,725481	16	0,888889	3,388734	4,155652	4,542748	0,783526
3,384888	2,47619	1,368868	4,763994	2,270157	7,211321	6,15299	1,591563	4,106603	19	0,904762	3,298853	3,876838	4,454822	0,701873
4,427914	3,313492	1,65266	4,312394	1,665897	5,702816	4,376016	1,959526	3,748995	16	0,761905	3,655336	4,026619	4,284684	0,759198
3,269638	2,580741	1,58914	4,98981	1,816158	6,568841	4,876016	1,843294	3,725481	15	0,833333	3,539149	3,950212	4,235926	0,761146
3,257856	2,691358	1,58914	4,180614	1,582563	5,991491	4,542683	1,843294	3,725481	15	0,833333	3,539149	3,950212	4,235926	0,761146
3,321077	2,625	1,412675	4,305325	1,893245	6,972546	5,785747	1,735838	4,221928	18	0,9	3,615171	4,220168	4,5671	0,790316

BIC3	SpPosA_A	VE1_A	VE1sign_A	VE3sign_A	J_D	VE1sign_D	VE3sign_D	TI2_L	SpMax_L	SpMAD_L	SpMAD_X	VE1_X	VE2_X	VE3_X
0,784365	0,642907	3,247545	0,001939	-4,33991	1,697151	0,130136	-1,41696	3,425003	4,834669	1,414279	0,598004	3,545482	0,221593	0,87948
0,79724	0,629521	3,324175	0,101759	-1,68713	1,699982	0,11033	-1,62742	3,51921	4,85577	1,427051	0,585084	3,465271	0,203839	0,917553
0,806116	0,629521	3,324175	0,101759	-1,68713	1,699982	0,11033	-1,62742	3,51921	4,85577	1,427051	0,585084	3,465271	0,203839	0,917553
0,805394	0,639073	3,398723	0,053744	-2,2854	1,68951	0,074666	-2,02838	3,645878	4,861636	1,414269	0,604533	3,487753	0,193764	0,976582
0,806116	0,629521	3,324175	0,101759	-1,68713	1,699982	0,11033	-1,62742	3,51921	4,85577	1,427051	0,585084	3,465271	0,203839	0,917553
0,858152	0,63878	3,384234	0,074009	-2,03529	1,73828	0,140857	-1,5322	3,60197	4,884538	1,413347	0,603887	3,505342	0,194741	0,980515
0,806116	0,629521	3,324175	0,101759	-1,68713	1,699982	0,11033	-1,62742	3,51921	4,85577	1,427051	0,585084	3,465271	0,203839	0,917553
0,83853	0,629917	3,268355	0,129344	-1,51003	1,761627	0,181875	-1,25839	3,438552	4,979968	1,426765	0,58707	3,514012	0,206707	0,927866
0,851093	0,650931	3,376838	0,016994	-3,36244	1,453828	0,178582	-1,42151	3,608838	4,964783	1,429824	0,583422	2,787669	0,146719	0,845958
0,79603	0,625492	3,493888	0,037824	-2,70224	1,699532	0,078904	-2,09551	3,763882	4,892308	1,450949	0,581466	3,52647	0,185604	1,039946
0,852696	0,625319	3,475413	0,017039	-3,36026	1,76473	0,154501	-1,54103	3,700982	4,927417	1,453911	0,580951	3,545887	0,186626	1,044477
0,79724	0,609146	3,54512	0,21888	-1,31959	1,725282	0,107878	-1,93414	3,863798	5,315138	1,484535	0,556187	3,576347	0,178817	1,106879
0,85349	0,626233	3,370119	0,01852	-3,11824	1,747483	0,153168	-1,4667	3,555775	4,938724	1,443177	0,585853	3,489702	0,193872	0,977019
0,85323	0,633846	3,201168	0,010718	-2,95482	1,69124	0,139142	-1,28481	3,339691	4,81047	1,404034	0,586657	2,669823	0,177988	0,639724
0,85323	0,633846	3,201168	0,010718	-2,95482	1,69124	0,139142	-1,28481	3,339691	4,81047	1,404034	0,586657	2,669823	0,177988	0,639724
0,852293	0,626202	3,31117	0,123362	-1,54499	1,728691	0,150166	-1,39983	3,497493	4,87462	1,434695	0,579678	3,478168	0,204598	0,920296
0,85349	0,629917	3,268355	0,129344	-1,51003	1,761627	0,181875	-1,25839	3,438552	4,979968	1,426765	0,58707	3,514012	0,206707	0,927866
0,869281	0,626202	3,31117	0,123362	-1,54499	1,728691	0,150166	-1,39983	3,497493	4,87462	1,434695	0,579678	3,478168	0,204598	0,920296
0,85349	0,629917	3,268355	0,129344	-1,51003	1,761627	0,181875	-1,25839	3,438552	4,979968	1,426765	0,58707	3,514012	0,206707	0,927866
0,79724	0,639264	3,245853	0,03307	-2,51697	1,641029	0,172919	-1,29567	3,941644	4,83432	1,402081	0,59646	3,608778	0,212281	0,947512
0,814894	0,636022	3,396035	0,075375	-2,13327	1,644619	0,126278	-1,70747	4,128237	4,861392	1,403789	0,602811	3,798851	0,19994	1,101339
0,857488	0,623876	3,367453	0,003059	-4,77738	1,695194	0,198367	-1,33481	4,052412	4,938634	1,430944	0,585118	3,823829	0,201254	1,106747
0,816198	0,625813	3,321523	0,126493	-1,61628	1,6489	0,157431	-1,44524	4,021493	4,855505	1,419328	0,583059	3,924814	0,218045	1,068874
0,807855	0,625813	3,321523	0,126493	-1,61628	1,6489	0,157431	-1,44524	4,021493	4,855505	1,419328	0,583059	3,924814	0,218045	1,068874
0,856511	0,623688	3,308453	0,100044	-1,79966	1,673925	0,193842	-1,28259	4,003179	4,874404	1,422135	0,579237	3,931626	0,218424	1,07023
0,806513	0,653363	3,540933	0,001904	-5,7128	1,479882	0,295853	-1,11074	4,010845	5,119288	1,420736	0,592501	3,800709	0,180986	1,217716
0,807855	0,607807	3,542985	0,209315	-1,42632	1,683568	0,154076	-1,70576	4,314962	5,315137	1,473676	0,55693	3,704392	0,1764	1,194306
0,816198	0,625813	3,321523	0,126493	-1,61628	1,6489	0,157431	-1,44524	4,021493	4,855505	1,419328	0,583059	3,924814	0,218045	1,068874
0,816198	0,625813	3,321523	0,126493	-1,61628	1,6489	0,157431	-1,44524	4,021493	4,855505	1,419328	0,583059	3,924814	0,218045	1,068874
0,855286	0,647768	3,374173	0,001535	-5,62783	1,406176	0,222511	-1,3053	4,096644	4,964721	1,417067	0,583154	2,842629	0,142131	0,90744

VE1sign_X	SpMAD_H:	WiA_D/Dt	VE1_D/Dt	VE2_D/Dt	VE1sign_D	SM1_Dz(Z)	VE1sign_D	VE3sign_D	SM1_Dz(v)	VE1sign_D	VE3sign_D	Chi_Dz(p)	J_Dz(p)	VE1_B(m)
0,142389	1,251089	0,653646	3,116404	0,194775	0,145696	0,710847	0,215774	-1,0654	-1,04218	0,23761	-0,99862	0,301267	1,707178	3,130331
0,087655	1,240364	0,668521	3,425181	0,201481	0,159802	0,710847	0,183507	-1,25151	-1,04218	0,232276	-1,07779	0,290704	1,744222	3,189678
0,087655	1,240364	0,668521	3,425181	0,201481	0,159802	1,052319	0,242436	-1,04167	-0,95989	0,245571	-1,0367	0,293251	1,759505	3,156133
0,05329	1,244023	0,685353	3,687086	0,204838	0,194179	0,826679	0,168503	-1,39235	-1,17384	0,123586	-1,63446	0,260279	1,648435	3,246855
0,087655	1,240364	0,668521	3,425181	0,201481	0,159802	0,986851	0,230077	-1,08149	-1,01236	0,237262	-1,06211	0,291852	1,751115	3,173506
0,091555	1,242388	0,661657	3,437899	0,190994	0,175769	0,826679	0,227617	-1,15718	-1,17384	0,179824	-1,34127	0,264768	1,676861	3,244568
0,087655	1,240364	0,668521	3,425181	0,201481	0,159802	0,862488	0,208028	-1,15022	-1,21835	0,198235	-1,19479	0,278958	1,67375	3,185216
0,062653	1,2418	0,643308	3,12538	0,183846	0,143728	0,710847	0,250676	-1,02132	-1,04218	0,282785	-0,93252	0,297835	1,78701	3,171358
0,296593	1,256951	0,55649	3,576161	0,188219	0,223796	0,930475	0,262879	-1,10267	-1,29017	0,203546	-1,31354	0,264779	1,390089	3,244334
0,220406	1,23165	0,70058	3,875374	0,203967	0,211638	0,985284	0,203802	-1,3124	-1,37437	0,149862	-1,56619	0,253668	1,691122	3,393159
0,100215	1,23059	0,669281	3,542201	0,186432	0,192612	0,985284	0,27211	-1,0739	-1,37437	0,212327	-1,27869	0,259704	1,731358	3,388451
0,388744	1,213409	0,714417	4,022399	0,20112	0,22131	1,110447	0,157347	-1,57463	-1,49828	0,128975	-1,77899	0,237839	1,664875	3,405855
0,070509	1,226672	0,666208	3,578381	0,198799	0,150845	1,202922	0,288967	-0,96587	-0,98163	0,279437	-0,99669	0,288584	1,827697	3,213863
0,296082	1,217709	0,666805	3,493614	0,232908	0,421433	0,826679	0,244353	-0,91802	-1,17384	0,172927	-1,14321	0,291696	1,555711	3,299752
0,296082	1,217709	0,666805	3,493614	0,232908	0,421433	0,978595	0,287787	-0,81115	-0,985	0,22968	-0,95831	0,317846	1,695176	3,470654
0,275892	1,239846	0,654558	3,278192	0,192835	0,149303	0,710847	0,220053	-1,11748	-1,04218	0,25967	-0,99548	0,294071	1,764427	3,184197
0,062653	1,2418	0,643308	3,12538	0,183846	0,143728	0,862488	0,26868	-0,96511	-1,21835	0,256814	-1,00365	0,284949	1,709692	3,171334
0,275892	1,239846	0,654558	3,278192	0,192835	0,149303	1,052319	0,27136	-0,95942	-0,95989	0,271446	-0,96274	0,296761	1,780568	3,154965
0,062653	1,2418	0,643308	3,12538	0,183846	0,143728	0,986851	0,285098	-0,92446	-1,01236	0,286629	-0,92256	0,299126	1,794755	3,165267
0,321922	1,251371	0,679297	3,410544	0,20062	0,210738	0,710847	0,289777	-0,91439	-1,04218	0,275731	-0,95117	0,274148	1,644888	3,104901
0,119911	1,245642	0,70567	3,80628	0,200331	0,218336	0,826679	0,261225	-1,10783	-1,17384	0,190591	-1,36781	0,240866	1,605772	3,22871
0,118373	1,234005	0,687769	3,690372	0,19423	0,173803	1,202922	0,363925	-0,83083	-0,98163	0,324	-0,92996	0,26388	1,759201	3,197748
0,358151	1,246235	0,691472	3,577306	0,198739	0,190301	1,052319	0,317869	-0,89296	-0,95989	0,288514	-0,9717	0,267617	1,694908	3,133203
0,358151	1,246235	0,691472	3,577306	0,198739	0,190301	0,710847	0,269877	-1,02376	-1,04218	0,277282	-1,00274	0,265595	1,682101	3,172314
0,077607	1,241043	0,678229	3,510714	0,19504	0,200711	0,710847	0,300563	-0,9396	-1,04218	0,301288	-0,93783	0,268359	1,699606	3,168292
0,030252	1,280445	0,543716	3,162185	0,15058	0,044532	0,710847	0,437149	-0,75458	-1,04218	0,460691	-0,70684	0,276366	1,589104	3,427216
0,301574	1,215098	0,730562	4,106712	0,195558	0,236928	1,110447	0,252826	-1,23602	-1,49828	0,198535	-1,47454	0,222121	1,628886	3,392978
0,358151	1,246235	0,691472	3,577306	0,198739	0,190301	1,072442	0,321101	-0,88544	-0,90349	0,295579	-0,95279	0,268836	1,702628	3,124489
0,358151	1,246235	0,691472	3,577306	0,198739	0,190301	0,986851	0,307688	-0,91926	-1,01236	0,281486	-0,99098	0,266508	1,687882	3,152662
0,377071	1,259733	0,582991	3,644528	0,182226	0,307538	0,930475	0,3466	-0,9205	-1,29017	0,26384	-1,15732	0,245211	1,348661	3,230469

VE1sign_B	VE3sign_B	AVS_B(v)	SpMAD_B(	VE1_B(v)	VE1sign_B	VE3sign_B	AVS_B(e)	SpPosA_B(	SpMax_B(e	VE1sign_B	VE3sign_B	SpMax_B(p	SpDiam_B(	SpMAD_B(
0,025492	-2,54977	3,491728	1,577033	3,319287	0,007961	-3,35846	3,656821	1,41492	3,840508	0,024954	-2,56456	3,670664	5,352352	1,590935
0,093955	-1,74604	3,476332	1,530852	3,346466	0,103335	-1,67578	3,631714	1,411418	3,849843	0,094271	-1,74356	3,706369	5,419869	1,547266
0,006864	-3,67777	3,493308	1,541195	3,346638	0,090375	-1,77472	3,641767	1,419709	3,850681	0,085592	-1,81486	3,72575	5,430617	1,575914
0,029356	-2,75815	3,435802	1,545708	3,413788	0,06645	-2,1195	3,61658	1,408671	3,85178	0,029892	-2,74401	3,697747	5,425306	1,560444
0,036836	-2,43734	3,481679	1,533954	3,346636	0,098912	-1,70807	3,647332	1,424406	3,851212	0,081288	-1,85295	3,711056	5,421143	1,555767
0,083462	-1,94132	3,435802	1,545266	3,40344	0,075939	-2,01516	3,61658	1,408555	3,855053	0,083065	-1,94505	3,701876	5,436535	1,559951
0,068611	-1,97813	3,455549	1,539207	3,344032	0,12442	-1,53869	3,658449	1,433986	3,852455	0,073585	-1,92646	3,697394	5,426874	1,561317
0,111574	-1,61915	3,476332	1,531506	3,303961	0,127604	-1,52003	3,631714	1,411889	3,864243	0,111947	-1,61668	3,730246	5,469031	1,547965
0,029356	-2,91139	3,494276	1,536967	3,387977	0,008092	-3,9747	3,697776	1,425435	3,882195	0,02894	-2,92316	3,744394	5,508587	1,548556
0,080292	-2,08112	3,484637	1,576661	3,285861	0,193083	-1,35709	3,709295	1,446931	3,893158	0,080601	-2,07796	3,724822	5,676205	1,597667
0,03079	-2,87203	3,484637	1,576577	3,30324	0,176422	-1,43155	3,709295	1,446633	3,902329	0,031872	-2,84351	3,731645	5,68868	1,597648
0,075129	-2,24838	3,376987	1,49066	3,613178	0,183693	-1,47182	3,630232	1,443053	3,864663	0,086427	-2,1267	3,726647	5,51262	1,526771
0,02935	-2,75832	3,472858	1,514953	3,369224	0,008783	-3,70148	3,639008	1,431531	3,871654	0,030272	-2,73412	3,768362	5,520464	1,5289
0,042801	-2,05282	3,473663	1,55879	3,49597	0,202641	-1,03991	3,690597	1,459297	3,866809	0,042223	-2,06168	3,634665	5,295313	1,577389
0,075286	-1,68492	3,50515	1,563025	3,178772	0,287429	-0,81221	3,67387	1,448624	3,851375	0,040997	-2,08087	3,789288	5,44826	1,590589
0,150656	-1,39743	3,476332	1,531605	3,334649	0,115629	-1,59279	3,631714	1,41182	3,852633	0,150064	-1,40033	3,711611	5,430586	1,548302
0,08468	-1,82277	3,455549	1,539823	3,296037	0,149776	-1,40175	3,658449	1,43435	3,87041	0,090068	-1,77723	3,716359	5,479412	1,56189
0,060194	-2,07476	3,493308	1,541944	3,335977	0,102709	-1,68026	3,641767	1,420123	3,853706	0,141234	-1,4451	3,732931	5,442004	1,576783
0,04935	-2,22141	3,481679	1,534563	3,305389	0,122833	-1,54817	3,647332	1,424813	3,867503	0,098301	-1,71265	3,737228	5,470485	1,55634
0,007163	-3,64631	3,464567	1,548577	3,233439	0,050974	-2,19751	3,619949	1,403977	3,837317	0,006471	-3,7213	3,669551	5,348712	1,560653
0,042269	-2,61056	3,414655	1,521538	3,364328	0,099318	-1,90565	3,585918	1,399658	3,849025	0,042906	-2,59821	3,696955	5,423985	1,534204
0,017742	-3,3269	3,44976	1,493584	3,337342	0,012587	-3,61014	3,607165	1,421142	3,86955	0,021782	-3,1576	3,768022	5,519806	1,506803
0,023289	-2,93912	3,46768	1,51865	3,28919	0,128578	-1,6035	3,607891	1,409414	3,847887	0,098228	-1,81398	3,725204	5,429056	1,551253
0,1061	-1,75371	3,451647	1,509393	3,291975	0,13941	-1,54027	3,598397	1,401607	3,847016	0,106522	-1,75061	3,705662	5,418376	1,523577
0,13889	-1,54319	3,451647	1,507253	3,285105	0,081833	-1,95673	3,598397	1,401702	3,849891	0,138199	-1,54709	3,71093	5,429236	1,522074
0,017653	-3,68167	3,584909	1,586691	3,504438	0,004819	-4,86586	3,710695	1,410067	3,951368	0,017352	-3,69737	3,903239	5,805055	1,597087
0,065718	-2,48286	3,360845	1,470631	3,586854	0,165285	-1,64171	3,602031	1,43364	3,8624	0,077182	-2,33621	3,726106	5,511968	1,503026
0,012966	-3,39693	3,48388	1,530123	3,286132	0,119951	-1,65779	3,599002	1,402097	3,847068	0,105956	-1,75477	3,914723	5,610605	1,613595
0,051663	-2,31627	3,456697	1,511954	3,291152	0,135702	-1,56135	3,613147	1,413838	3,848438	0,094117	-1,84739	3,710391	5,419612	1,531328
0,019362	-3,42609	3,471362	1,514517	3,354397	0,01441	-3,68268	3,664687	1,415686	3,880405	0,018872	-3,44835	3,74394	5,507886	1,524566

VE1_B(p)	VE2_B(p)	VE3sign_B	VE1_B(i)	VE1sign_B	VE1_B(s)	VE1sign_B	VE3sign_B	ATS5m	ATS8m	ATS4s	ATS5s	ATS6s	ATS8s	ATSC3m
3,641392	0,227587	-1,59998	3,111673	0,039974	3,024675	0,054825	-2,01763	3,055744	2,333161	5,147501	5,190798	4,804938	4,548602	11,0212
3,489859	0,205286	-1,91751	3,166924	0,084961	3,089474	0,049989	-2,21191	3,111184	2,469353	5,263272	5,24849	4,878169	4,70351	11,92327
3,516974	0,206881	-2,40228	3,166734	0,082226	3,080996	0,019107	-2,92196	3,32524	2,826081	5,18101	5,19589	4,874356	4,563917	17,67059
3,526873	0,195937	-2,14999	3,229837	0,022214	3,110425	0,035025	-2,62011	3,186365	2,672727	5,321117	5,33326	5,008789	4,831645	11,84259
3,499915	0,205877	-2,06675	3,166233	0,076882	3,066863	0,010144	-3,38943	3,182402	2,578555	5,208683	5,208377	4,93488	4,584971	12,57028
3,501951	0,194553	-1,85124	3,22746	0,099544	3,099074	0,067867	-2,10301	3,291565	2,592035	5,32139	5,40143	5,090855	4,791884	11,84259
3,448666	0,202863	-1,49785	3,163478	0,059855	3,04589	0,040243	-2,37202	3,1239	2,46881	5,283775	5,243221	5,09	4,64279	10,70498
3,394997	0,199706	-1,5995	3,150617	0,101739	3,019429	0,064736	-2,02105	3,191851	2,457465	5,298047	5,371932	4,948373	4,644398	12,00809
3,460249	0,182118	-3,78216	3,224283	0,039584	3,089568	0,047577	-2,51294	3,294007	2,667845	5,330039	5,360776	5,08846	4,763839	10,50213
3,034224	0,159696	-1,10224	3,377182	0,100753	3,164789	0,003039	-4,78292	3,236005	2,868285	5,557262	5,440739	5,008791	5,118996	10,04628
3,074933	0,161839	-1,14658	3,373457	0,033156	3,149626	0,101784	-1,88541	3,381203	2,656009	5,536028	5,522354	5,415116	4,768802	10,04628
3,673516	0,183676	-1,09982	3,388038	0,08925	3,184179	0,041146	-2,77135	3,32133	3,104363	5,756888	5,583607	5,086921	5,383161	9,547606
3,452302	0,191795	-3,47058	3,21422	0,039837	3,078347	0,048747	-2,3617	3,435143	2,805057	5,273197	5,312481	5,041039	4,679043	14,60856
2,932536	0,195502	-0,62348	3,484881	0,134577	3,103164	0,004666	-3,49652	2,941371	2,286969	5,061018	5,08158	4,696185	4,637962	9,360622
2,680659	0,178711	-0,61004	3,317448	0,104908	2,903207	0,069842	-1,73382	3,00963	2,596022	5,004884	5,065933	4,641454	4,382023	11,82217
3,461911	0,203642	-1,53302	3,161785	0,164232	3,072091	0,152179	-1,39	3,177079	2,453823	5,254025	5,292751	4,995715	4,61787	11,92327
3,35335	0,197256	-1,31098	3,150875	0,075376	2,997708	0,039019	-2,39484	3,213113	2,489921	5,480413	5,403932	4,878591	4,749278	10,65703
3,490835	0,205343	-1,64659	3,161705	0,161586	3,065615	0,123091	-1,54662	3,613999	2,889485	5,180855	5,247759	4,87255	4,599183	17,67059
3,40572	0,200336	-1,69357	3,151087	0,093362	3,01174	0,002107	-4,54965	3,338114	2,614502	5,303587	5,289766	4,833198	4,617508	11,76516
3,38181	0,19893	-1,67689	3,082394	0,019426	3,041202	0,052731	-2,17248	3,025824	2,300832	5,204163	5,093757	5,103589	4,324141	13,63445
3,428474	0,180446	-1,71181	3,210191	0,035855	3,120462	0,033571	-2,80066	3,160157	2,649813	5,368961	5,24966	5,258657	4,66737	14,55884
3,385895	0,178205	-2,87972	3,202248	0,031318	3,083835	0,047782	-2,5094	3,414766	2,785012	5,323331	5,227048	5,283865	4,485519	18,77271
3,361062	0,186726	-1,54074	3,147403	0,09543	3,090076	0,020438	-3,04121	3,302469	2,806458	5,235855	5,099367	5,155541	4,343273	21,46193
3,359176	0,186621	-1,44626	3,147771	0,098032	3,097484	0,051194	-2,32341	3,082901	2,441198	5,313894	5,157146	5,158421	4,514525	14,54562
3,348196	0,186011	-2,31194	3,144372	0,151561	3,079603	0,150941	-1,47814	3,150623	2,425222	5,305105	5,20554	5,248488	4,410785	14,54562
3,538136	0,168483	-3,92094	3,4108	0,023747	3,286626	0,031245	-3,16097	3,450862	2,691458	5,465132	5,434941	5,410657	4,6228	16,09006
3,640919	0,173377	-1,23227	3,374318	0,079371	3,19022	0,042129	-2,88837	3,298469	3,089541	5,788092	5,519134	5,320032	5,291846	12,98934
3,362971	0,186832	-1,62822	3,148245	0,102035	3,09651	0,045025	-2,42378	3,436985	3,018696	5,223484	5,09294	5,133499	4,330918	32,3533
3,360023	0,186668	-1,48285	3,146548	0,09035	3,077067	0,008684	-3,71027	3,156088	2,55335	5,262071	5,113111	5,201565	4,369457	15,76506
3,404737	0,170237	-3,19624	3,209755	0,029296	3,095251	0,046589	-2,66343	3,270506	2,644818	5,377468	5,27954	5,321251	4,587524	13,59938

ATSC4m	ATSC5m	ATSC6m	ATSC7m	ATSC8m	ATSC3v	ATSC6p	ATSC7p	ATSC8p	ATSC3i	ATSC6s	ATSC7s	MATS1m	MATS2m	MATS3m
9,786909	6,976807	4,61628	5,041895	6,117931	4,678518	1,97971	2,327492	2,371541	0,583116	22,17443	14,37144	0,050394	0,047051	-0,03653
13,06592	10,10529	5,334302	6,642619	7,727525	5,520692	2,280156	2,427018	2,824348	0,660218	20,35758	15,42394	0,050589	0,158037	-0,1595
15,24265	3,762829	2,932162	5,453742	6,732621	4,620182	2,063072	2,671983	2,71687	0,582319	22,8688	15,85189	0,001593	0,027905	-0,09631
11,55653	11,03888	7,756022	5,904284	8,082715	4,903621	2,871822	2,594611	2,534135	0,640617	30,65962	15,03913	0,056912	0,112777	-0,12335
10,70847	5,731091	4,07474	5,415936	6,509677	4,347038	1,977154	2,429414	2,538887	0,563011	25,96634	20,44227	0,017741	0,069866	-0,13083
11,55771	10,93714	7,488128	8,25088	7,896314	4,903621	2,890612	2,788629	2,819262	0,640617	27,18051	23,28706	0,056912	0,112777	-0,12335
9,252719	6,226135	3,953059	4,857419	6,216028	4,010509	1,989048	2,361151	2,382919	0,704641	33,67324	34,17846	0,037819	0,08385	-0,11554
12,25968	11,47584	7,782185	5,310264	8,394672	5,524556	2,731962	2,646288	3,164326	0,661974	29,52131	10,84177	0,050589	0,158037	-0,09856
9,819215	8,797868	5,187811	5,926884	7,061615	4,253929	2,336934	2,500086	2,69073	0,647489	29,5567	23,41982	0,062339	0,058667	-0,12651
10,10948	7,530876	3,496653	5,152358	6,913841	3,989958	2,106905	2,235497	2,50398	0,644833	37,35044	40,24121	0,059697	0,104764	-0,03635
10,30498	6,514623	4,804693	5,3435	5,834261	3,989958	2,025817	2,485525	2,264561	0,644833	51,8099	49,17671	0,059697	0,104764	-0,03635
11,32123	8,991389	2,997818	5,487847	7,616572	4,415462	2,349418	2,433976	2,89651	0,947622	54,43422	55,19371	0,02319	0,198241	0,028395
10,11563	5,61584	2,633571	4,462949	8,636707	4,100188	1,998669	2,409536	2,737498	0,546023	28,97862	26,60867	0,006184	0,07407	0,071728
6,529728	4,435857	3,553098	3,602279	4,928638	3,013112	1,585829	1,691053	1,622222	0,434699	25,34461	17,97067	0,056787	0,085979	-0,05856
6,589115	3,821034	5,188621	5,503448	6,277148	3,352606	2,244341	2,354992	2,169041	0,522704	21,33323	12,80891	0,04957	0,017579	-0,08289
13,15074	9,214223	7,595923	6,828881	6,208907	5,520692	2,345383	2,813598	2,657038	0,660218	28,0916	16,85366	0,050589	0,158037	-0,1595
9,328844	6,350131	3,898455	4,941838	6,354971	4,06024	2,002344	2,384413	2,420218	0,726998	32,35978	42,4384	0,037819	0,08385	-0,00602
11,01028	9,713193	2,92835	3,805269	15,32878	4,620182	2,271272	2,49137	3,172905	0,582319	22,40779	17,25266	0,001593	0,027905	-0,09631
11,6012	7,427848	3,402024	6,794565	8,559935	4,359331	1,99633	2,506097	2,66458	0,561098	25,73758	22,08676	0,017741	0,069866	-0,00273
12,50038	9,662464	6,678043	6,27907	6,632431	6,094635	2,282934	2,644497	2,791503	0,66516	35,83283	21,87231	0,050589	0,040086	0,018593
14,38049	13,53183	9,653207	7,275729	8,69947	6,330575	3,138196	2,906409	2,973513	0,721641	44,39437	23,82727	0,056963	0,095818	-0,05108
14,18184	8,785596	4,794956	5,496816	8,975174	5,634007	2,411641	2,767219	3,099128	0,629765	38,96684	30,92312	0,008772	0,081048	0,130294
19,05745	6,899396	5,307162	6,817102	7,071744	6,156967	2,418025	3,012965	3,075248	0,668701	35,49879	22,60406	0,002691	0,033066	-0,05895
15,54442	12,49389	7,45389	8,004953	8,29477	6,927965	2,57268	2,736994	3,254334	0,742691	36,38441	25,91756	0,050271	0,131998	-0,09076
15,59895	11,79967	9,607317	8,160816	6,865367	6,927965	2,617146	3,123232	3,107867	0,742691	44,21965	26,45871	0,050271	0,131998	-0,09076
15,24173	13,79523	11,3843	8,777399	8,18254	8,025275	3,711572	3,576394	3,85948	0,889266	46,51233	27,48395	0,053801	0,034345	0,026949
14,9467	11,90532	4,964241	6,706627	8,250829	5,909954	2,636345	2,742465	3,337606	1,011884	53,80643	58,98497	0,02528	0,19	0,096108
28,19264	5,929965	3,699098	7,944948	9,142272	6,510865	2,844578	3,657865	3,401102	0,723913	34,38199	20,88695	0,000172	0,017285	-0,05198
14,00454	8,676993	6,199847	6,594152	6,963752	5,9174	2,31912	2,764438	2,917892	0,645899	37,78372	26,39682	0,020331	0,070844	-0,05561
13,06288	11,55585	7,213658	7,163685	7,717692	5,805654	2,620862	2,809566	3,116413	0,729806	41,8435	30,32757	0,065371	0,061662	-0,03558

MATS4m	MATS5m	MATS6m	MATS7m	MATS8m	MATS1v	MATS2v	MATS3v	MATS4v	MATS5v	MATS6v	MATS7v	MATS8v	MATS1e	MATS2e
-0,25075	-0,05894	-0,2672	-0,05536	0,355621	-0,02651	-0,17176	0,02216	-0,02854	-0,02652	-0,28741	-0,19145	0,099291	0,08424	0,261192
-0,16708	0,167478	-0,16318	-0,17714	0,062556	-0,02353	-0,01256	-0,12822	-0,05585	0,160006	-0,31262	-0,13536	-0,00336	0,092166	0,278366
-0,17498	0,00827	0,036746	0,132024	0,159665	-0,02272	-0,08801	-0,01224	-0,12959	0,057499	-0,26991	-0,05339	0,266048	0,069119	0,238733
-0,3798	0,082079	0,168138	0,060767	0,119781	-0,05286	0,034544	-0,0241	-0,21127	0,016661	0,008658	-0,21385	0,072646	0,040596	0,10691
-0,34315	-0,01482	0,014037	0,2426	0,381637	-0,02489	-0,10907	-0,00379	-0,11565	0,043936	-0,28676	-0,08104	0,249034	0,058801	0,213201
-0,29393	0,104304	-0,02617	-0,03473	-0,08666	-0,05286	0,034544	-0,0241	-0,15348	0,016449	-0,2361	0,002362	-0,09775	0,040596	0,10691
-0,39886	-0,04262	-0,09766	0,195096	0,489197	-0,02754	-0,15166	0,013579	-0,07105	0,005685	-0,303	-0,14707	0,178963	0,038512	0,155405
-0,22487	-0,00075	-0,21398	-0,27275	0,318395	-0,02353	-0,01256	-0,04197	-0,17598	0,047902	-0,12018	-0,40501	0,106542	0,092166	0,278366
-0,41692	0,091561	0,135852	0,048901	0,077813	-0,05112	0,004413	-0,037	-0,17102	0,019439	-0,14758	-0,07184	0,014143	-0,01546	0,089098
-0,4065	-0,20077	-0,12484	0,267249	0,58623	-0,02961	-0,14317	0,013253	-0,07699	0,010157	-0,30039	-0,12052	0,191841	0,182081	0,256471
-0,32395	-0,1178	-0,13757	0,184132	0,307033	-0,02961	-0,14317	0,013253	-0,00064	-0,07147	-0,23322	-0,12098	0,03978	0,182081	0,256471
-0,41291	-0,32256	-0,10737	0,326968	0,620534	-0,02619	-0,11555	-0,02194	-0,08704	0,058068	-0,30361	-0,09372	0,186557	0,008766	0,420289
-0,3247	-0,06509	0,08953	0,257726	0,06634	-0,0229	-0,04975	0,080358	-0,08787	-0,05588	-0,24965	0,022147	0,113587	0,039454	0,173747
-0,32105	-0,17371	-0,33595	-0,14141	0,609521	-0,0716	-0,15388	0,093392	-0,04173	-0,13072	-0,28612	-0,28793	0,205701	0,002913	0,113264
-0,14036	-0,10702	-0,45206	-0,29566	0,628648	-0,00629	-0,11141	0,020541	0,006765	-0,07585	-0,39886	-0,38794	0,232053	0,059577	0,234496
-0,10503	0,006718	-0,14352	-0,25442	0,077646	-0,02353	-0,01256	-0,12822	0,031972	-0,11896	-0,04778	-0,21476	-0,16518	0,092166	0,278366
-0,29231	-0,07073	-0,22911	-0,27065	0,167578	-0,02754	-0,15166	0,06949	-0,06021	-0,04353	-0,27559	-0,28135	0,052503	0,038512	0,155405
-0,0854	-0,06471	0,036612	0,073819	-0,13218	-0,02272	-0,08801	-0,01224	0,024115	-0,12899	-0,19856	-0,05072	-0,05066	0,069119	0,238733
-0,23636	-0,07165	-0,12438	-0,31744	-0,02398	-0,02489	-0,10907	0,110351	-0,09992	-0,06514	-0,22529	-0,3607	-0,01973	0,058801	0,213201
-0,13248	-0,38904	-0,22499	-0,02093	0,13249	-0,02353	-0,16774	0,046175	0,010099	-0,04356	-0,27246	-0,20048	-0,04169	0,092166	0,266306
-0,26089	-0,19094	0,11695	0,089028	-0,01245	-0,04815	0,002959	0,011127	-0,14449	-0,01438	-0,04139	-0,20598	-0,02909	0,051469	0,124608
-0,18927	-0,18071	0,076269	0,198375	0,003494	-0,02107	-0,05513	0,12188	-0,00387	-0,03929	-0,22083	-0,0466	-0,04424	0,048573	0,188893
-0,12104	-0,04583	0,034522	0,114889	0,120748	-0,02077	-0,09061	0,032444	-0,05522	0,03114	-0,2464	-0,09363	0,090552	0,077719	0,247165
-0,1016	-0,15614	-0,13574	-0,1106	-0,07781	-0,02112	-0,03501	-0,07879	-0,02827	0,099288	-0,28988	-0,14582	-0,09766	0,098278	0,279203
-0,04871	-0,27866	-0,13276	-0,17957	-0,07164	-0,02112	-0,03501	-0,07879	0,045323	-0,11861	-0,08537	-0,213	-0,23523	0,098278	0,279203
-0,13579	-0,23088	-0,06786	-0,15033	-0,1296	0,006813	-0,10599	0,08898	-0,06482	-0,10153	-0,07061	-0,1553	-0,23255	0,098414	0,258211
-0,25176	-0,4983	-0,10505	0,275664	0,430326	-0,02325	-0,11675	0,027677	-0,03304	0,021755	-0,27703	-0,12224	0,038288	0,014629	0,425245
-0,08178	-0,0093	0,019719	0,06241	0,073565	-0,01794	-0,06398	0,02272	-0,06755	0,046918	-0,21891	-0,06219	0,113308	0,090087	0,267734
-0,21353	-0,21442	0,003916	0,201015	0,231406	-0,02241	-0,10972	0,038389	-0,04425	0,017737	-0,26229	-0,11733	0,069464	0,067298	0,223205
-0,25895	-0,2048	0,095004	0,053896	-0,05891	-0,04469	-0,01829	0,011585	-0,09539	-0,00791	-0,16136	-0,10243	-0,09927	0,001147	0,117749

MATS3e	MATS4e	MATS6e	MATS7e	MATS8e	MATS1p	MATS2p	MATS3p	MATS4p	MATS5p	MATS6p	MATS7p	MATS8p	MATS2i	MATS3i
-0,16713	-0,39779	0,016799	0,073931	0,153415	-0,04899	-0,20549	0,01175	0,023175	0,107494	-0,17706	-0,21649	-0,14469	-0,15625	-0,13296
-0,16635	-0,26569	0,085334	-0,08052	-0,04952	-0,04607	-0,06792	-0,10253	-0,03561	0,203191	-0,29202	-0,11175	-0,08474	-0,06201	-0,18806
-0,22906	-0,48274	0,149839	0,266876	0,174905	-0,02156	-0,04816	0,004155	-0,04364	0,203801	-0,23112	-0,14442	0,077907	-0,11052	-0,11319
-0,22831	-0,36198	0,280704	0,269042	-0,04488	-0,12047	-0,00246	-0,00256	-0,11549	0,035319	-0,00872	-0,29437	-0,07566	-0,02637	-0,124
-0,23897	-0,48276	0,185849	0,316952	0,170795	-0,03488	-0,10806	0,014878	-0,0235	0,206274	-0,24682	-0,18691	0,016933	-0,14258	-0,12754
-0,22831	-0,33657	0,233247	-0,054	-0,16115	-0,12047	-0,00246	-0,00256	-0,10514	0,075318	-0,25008	-0,01968	-0,13077	-0,02637	-0,124
-0,23441	-0,4397	0,215925	0,35475	0,148751	-0,04878	-0,20796	0,010123	0,02541	0,097248	-0,16812	-0,21426	-0,15349	-0,16881	-0,12914
-0,16205	-0,26364	-0,07953	0,026426	0,168229	-0,04607	-0,06792	-0,02164	-0,16398	0,118609	0,004041	-0,37404	-0,09169	-0,06201	-0,12446
-0,22116	-0,41986	0,331721	0,13798	-0,10257	-0,14555	0,003925	-0,03685	-0,0693	0,073994	-0,16138	-0,12739	-0,10891	-0,008	-0,15063
-0,18455	-0,51001	0,042098	0,442879	0,394575	0,024219	-0,17187	-0,05429	-0,00765	0,160607	-0,24731	-0,16678	-0,12761	-0,16176	-0,1925
-0,18455	-0,49752	0,159337	0,349203	0,075848	0,024219	-0,17187	-0,05429	0,030397	0,009819	-0,06463	-0,18275	-0,24638	-0,16176	-0,1925
-0,10294	-0,44087	-0,05088	0,390341	0,408815	-0,0455	-0,03999	-0,11922	-0,04225	0,20027	-0,29255	-0,09955	-0,09454	0,281078	-0,21509
-0,20654	-0,55188	0,316516	0,314435	0,031786	-0,02257	-0,03091	0,146065	0,045327	0,06066	-0,26498	-0,0851	-0,09431	-0,12858	-0,11754
-0,18682	-0,38783	-0,14038	-0,04021	0,652709	-0,16041	-0,25284	0,121124	0,032085	0,045996	-0,1109	-0,29915	0,001009	-0,22963	0,008182
-0,23565	-0,54265	0,04301	0,110897	0,295278	0,037484	-0,07139	-0,07735	0,071548	0,162696	-0,27402	-0,4079	-0,20057	-0,08437	-0,22534
-0,16635	-0,26131	-0,03887	-0,12512	0,104624	-0,04607	-0,06792	-0,10253	0,046749	-0,07949	0,019332	-0,12852	-0,31726	-0,06201	-0,18806
-0,20676	-0,31998	-0,03907	-0,11589	-0,05194	-0,04878	-0,20796	0,001048	0,027253	0,109222	-0,1807	-0,20336	-0,13668	-0,16881	-0,20296
-0,22906	-0,46277	0,154146	0,097538	0,063158	-0,02156	-0,04816	0,004155	0,1169	-0,08904	-0,13994	-0,01905	-0,22647	-0,11052	-0,11319
-0,21663	-0,37926	-0,026	-0,05755	0,01979	-0,03488	-0,10806	0,131317	-0,06325	0,031003	-0,07162	-0,34071	-0,22547	-0,14258	-0,10836
-0,11485	-0,28894	0,434498	0,243311	0,168152	-0,04607	-0,2066	0,020869	0,027425	0,101374	-0,06965	-0,19937	-0,1415	-0,16582	-0,11367
-0,16849	-0,27907	0,52813	0,386212	-0,00886	-0,11165	-0,03263	0,009379	-0,08841	0,035618	0,03915	-0,26378	-0,07365	-0,04849	-0,10634
-0,12416	-0,39188	0,597287	0,385038	0,093186	-0,02475	-0,04631	0,153599	0,063936	0,092061	-0,12003	-0,08787	-0,12157	-0,14159	-0,09824
-0,15956	-0,34871	0,527177	0,394587	0,198776	-0,02306	-0,05999	0,024685	-0,01877	0,191041	-0,12095	-0,1345	0,032732	-0,12491	-0,09411
-0,12156	-0,20433	0,494436	0,107719	-0,02294	-0,0433	-0,08722	-0,07412	-0,02551	0,174965	-0,17227	-0,11362	-0,08529	-0,07996	-0,16181
-0,12156	-0,2003	0,322968	0,066072	0,117145	-0,0433	-0,08722	-0,07412	0,044709	-0,05365	0,063504	-0,12796	-0,28019	-0,07996	-0,16181
-0,09471	-0,19537	0,292497	0,059534	0,060337	-0,00149	-0,11772	0,096424	-0,04089	-0,05597	0,017803	-0,08613	-0,23671	-0,07532	0,006713
-0,05757	-0,33739	0,116821	0,412002	0,447065	-0,04278	-0,06214	-0,09082	-0,03269	0,171504	-0,17863	-0,10243	-0,09093	0,260379	-0,19913
-0,13127	-0,31521	0,476657	0,298849	0,182419	-0,00549	0,00755	0,000419	-0,03438	0,139032	-0,09639	-0,07016	0,071692	-0,0856	-0,07495
-0,16758	-0,34895	0,524095	0,421775	0,19694	-0,03464	-0,11774	0,032586	-0,00262	0,189442	-0,11815	-0,17251	-0,02097	-0,15383	-0,10801
-0,1562	-0,31456	0,551886	0,225826	-0,04262	-0,1341	-0,02597	-0,01689	-0,04687	0,071676	-0,07443	-0,127	-0,10753	-0,03124	-0,12906

MATS4i	MATS5i	MATS6i	MATS7i	MATS8i	MATS1s	MATS2s	MATS3s	MATS8s	GATS1m	GATS2m	GATS3m	GATS4m	GATS5m	GATS6m
-0,01726	0,233765	0,08686	-0,14486	-0,16881	-0,00666	0,247741	-0,15947	0,169116	0,612233	0,743604	1,024591	1,250112	1,019333	1,134039
-0,06316	0,25504	-0,21232	0,126937	-0,09916	-0,00954	0,270956	-0,16938	0,091381	0,653993	0,674997	1,077137	1,171851	0,863691	1,013107
-0,00695	0,308066	-0,10152	-0,15022	-0,10823	-0,00701	0,259578	-0,18216	0,182622	0,462247	0,570084	1,070993	1,03202	0,456098	0,886186
-0,10664	0,106805	0,1314	-0,31387	0,073603	-0,01517	0,221091	-0,18719	0,051981	0,633646	0,741206	1,044721	1,308653	0,914355	0,79419
-0,01332	0,264442	0,021765	-0,14866	-0,15023	-0,01069	0,248076	-0,19484	0,174033	0,4935	0,602539	1,126185	1,263174	0,70766	0,855139
-0,10724	0,155821	-0,14451	0,14688	-0,12362	-0,01517	0,22205	-0,19617	0,020248	0,633646	0,741206	1,044721	1,22574	0,879967	0,928556
-0,03615	0,055019	0,302642	-0,1024	-0,19431	-0,01512	0,174261	-0,18748	0,122731	0,552056	0,669648	1,11919	1,380159	0,95056	0,937725
-0,2442	0,306372	0,156727	-0,24406	-0,12432	-0,00792	0,266068	-0,16275	0,143047	0,653993	0,674997	1,018373	1,180013	1,0214	1,187506
-0,07115	0,161328	-0,05272	0,044032	-0,12123	-0,02314	0,192275	-0,18496	0,046628	0,561168	0,758464	1,062643	1,350781	0,908393	0,733624
-0,06577	0,153934	0,119316	0,028372	-0,18891	0,008401	0,279281	-0,0883	0,195107	0,528414	0,648824	1,017978	1,411058	1,184787	0,917252
-0,09241	0,178049	0,229801	-0,14413	-0,20053	0,008401	0,279903	-0,0914	0,085029	0,528414	0,648824	1,017978	1,331557	1,009611	0,997211
-0,17641	0,03485	-0,18831	0,388647	-0,12385	-0,05965	0,434229	-0,0463	0,155348	0,509198	0,565578	0,895832	1,423824	1,323382	0,836821
0,012967	0,215431	0,023255	-0,13643	-0,16324	-0,01057	0,233236	-0,17864	0,068208	0,465236	0,56973	0,938491	1,222928	0,85737	0,774432
-0,11002	0,327617	0,066698	-0,19755	-0,03784	-0,01367	0,22695	-0,20702	0,424274	0,558263	0,710249	1,127998	1,25571	1,037133	1,227028
-0,02151	0,426708	-0,01638	-0,27191	-0,21104	-0,00195	0,260217	-0,20565	0,123083	0,637322	0,884149	1,161334	0,959768	0,782608	1,567074
0,001591	-0,07468	0,338724	-0,07267	-0,26738	-0,00954	0,271933	-0,1744	0,143711	0,653993	0,674997	1,077137	1,112018	0,954905	1,094756
0,091199	0,134797	-0,01362	-0,05326	-0,09735	-0,01401	0,158447	-0,16604	-0,09784	0,552056	0,669648	1,014046	1,291137	0,995367	1,052512
0,055371	0,084027	0,090542	-0,1024	-0,1984	-0,00701	0,260622	-0,18939	0,121045	0,462247	0,570084	1,070993	0,946022	1,127294	0,886315
-0,04981	0,239141	0,106871	-0,16435	-0,18105	-0,00909	0,236853	-0,18414	0,013263	0,4935	0,602539	1,003213	1,372895	1,047409	0,805489
-0,01753	0,13476	0,173534	-0,05566	-0,11961	0,008255	0,257478	-0,10856	0,096337	0,653993	0,777835	0,966591	1,14453	1,391132	1,142785
-0,09286	0,048275	0,187274	-0,21604	0,094757	0,000132	0,232346	-0,13174	-0,00074	0,668942	0,772048	0,991438	1,213965	1,191909	0,851287
0,007922	0,120373	0,133074	-0,04197	-0,11926	0,003759	0,246001	-0,10524	0,045085	0,477094	0,570882	0,862345	1,089575	0,965978	0,747029
-0,00861	0,199032	0,03026	-0,05441	-0,07529	0,007755	0,269307	-0,12266	0,115263	0,468092	0,563506	1,001907	0,945733	0,494971	0,815102
-0,05722	0,168604	-0,08405	0,164702	-0,06275	0,003491	0,275622	-0,12329	0,022514	0,692299	0,718537	1,024486	1,104758	1,197209	1,05027
-0,0005	-0,11023	0,367621	-0,00768	-0,20685	0,003491	0,276556	-0,12795	0,065503	0,692299	0,718537	1,024486	1,053578	1,273177	1,113073
-0,08984	-0,08202	0,178639	0,067306	-0,17629	0,005636	0,241639	-0,09711	0,040878	0,649976	0,769536	0,925468	1,091827	1,214351	1,066622
-0,15669	0,007779	-0,14626	0,380564	-0,08152	-0,05065	0,440146	-0,00885	0,175297	0,536845	0,593621	0,834952	1,272413	1,495753	0,861547
-0,00359	0,227604	-0,07589	-0,05155	-0,03721	0,009454	0,269402	-0,11695	0,112074	0,466274	0,562562	0,982523	0,883091	0,401049	0,836485
-0,01425	0,159826	0,125623	-0,0556	-0,10577	0,004065	0,258799	-0,13088	0,117513	0,518383	0,618857	1,037407	1,138118	0,931866	0,8476
-0,06208	0,091246	0,038588	0,092963	-0,08094	-0,00794	0,209694	-0,12607	0,004324	0,594666	0,774696	0,989615	1,22483	1,207433	0,798394

GATS8m	GATS2v	GATS3v	GATS4v	GATS5v	GATS6v	GATS7v	GATS8v	GATS1e	GATS2e	GATS6e	GATS7e	GATS8e	GATS2p	GATS1i
0,740745	1,091218	0,982471	0,910317	0,834194	1,16626	1,317076	1,074195	0,556329	0,467484	1,018261	0,515542	0,567428	1,186686	1,162597
0,981951	0,971996	1,097926	0,984731	0,743308	1,199596	1,138445	1,071675	0,547269	0,444671	0,941552	0,715525	0,982845	1,075882	1,189444
0,482075	0,941172	1,029542	1,022294	0,729432	1,116499	1,190779	0,942726	0,573466	0,494092	0,876041	0,381433	0,584295	0,847171	1,111545
0,909054	0,909117	0,985073	1,099879	0,936272	0,979986	1,260027	0,965522	0,654444	0,752768	0,641172	0,40887	0,819973	1,008649	1,286891
0,569021	0,990826	1,022086	1,009259	0,769822	1,133071	1,226667	0,995576	0,573361	0,511017	0,831915	0,374804	0,583335	1,005908	1,15671
1,120975	0,909117	0,985073	1,044079	0,901914	1,180382	1,051012	1,142676	0,654444	0,752768	0,652806	0,727046	1,161243	1,008649	1,286891
0,675673	1,074151	1,000741	0,961256	0,831378	1,160766	1,293318	1,074102	0,564381	0,543382	0,784503	0,424892	0,572173	1,18546	1,001048
0,729911	0,971996	1,014757	1,082713	0,820821	1,043551	1,470045	1,037927	0,547269	0,444671	1,265392	0,514244	0,468994	1,075882	1,189444
1,038142	0,895727	1,033656	1,067618	0,915801	1,028939	1,142599	1,129838	0,732198	0,808632	0,622424	0,611059	1,020221	0,983914	1,266008
0,618831	1,089045	1,040379	1,005725	0,881549	1,190108	1,196369	1,024547	0,461062	0,471237	0,824875	0,349947	0,564998	1,206794	1,129519
0,834162	1,089045	1,040379	0,932197	0,88081	1,045785	1,259742	1,187655	0,461062	0,471237	0,867735	0,535485	0,687442	1,206794	1,129519
0,566797	1,032205	1,087282	1,029788	0,845503	1,209319	1,134938	0,988423	0,590021	0,409569	0,785589	0,453923	0,563436	1,051805	0,931895
1,070444	0,906674	0,957939	1,002531	0,856955	1,06116	1,16957	1,179229	0,598052	0,55658	0,687412	0,417182	0,819389	0,873778	1,151542
0,630112	1,064004	0,923551	0,857332	0,91614	1,186703	1,422344	1,017845	0,696092	0,699046	1,199935	0,823549	0,301923	1,239039	1,315208
0,627507	1,020049	1,015754	0,79729	0,817839	1,345652	1,572618	1,021065	0,586478	0,504378	0,925324	0,441161	0,559687	1,050749	1,055514
0,880927	0,971996	1,097926	0,90005	0,988345	0,930739	1,262174	1,252671	0,547269	0,444671	1,052045	0,949519	0,566027	1,075882	1,189444
1,006359	1,074151	0,947066	0,909918	0,823625	1,169649	1,387034	1,127814	0,564381	0,543382	0,895648	1,010354	1,021844	1,18546	1,001048
1,502099	0,941172	1,029542	0,874736	0,937403	1,048002	1,169692	1,282378	0,573466	0,494092	0,871906	0,5349	0,709067	0,847171	1,111545
1,309431	0,990826	0,912507	0,981288	0,857244	1,085124	1,484074	1,232311	0,573361	0,511017	0,991379	0,778238	0,812747	1,005908	1,15671
0,837132	1,117542	0,963159	0,907192	0,861199	1,113231	1,217327	1,187641	0,547269	0,451921	0,792112	0,53613	0,30258	1,212382	1,189444
0,964972	0,960546	0,972174	1,068222	0,938359	0,970904	1,187616	1,0711	0,643044	0,725326	0,520207	0,43063	0,621371	1,055158	1,302895
1,039703	0,941478	0,92204	0,959777	0,862404	1,009708	1,072665	1,250668	0,576194	0,525307	0,510822	0,427843	0,567424	0,914973	1,178456
0,487266	0,975077	0,988116	0,982024	0,764609	1,057991	1,101424	1,056561	0,559154	0,473025	0,66505	0,410231	0,321362	0,884402	1,140459
1,038811	1,014333	1,065922	0,970592	0,781005	1,148413	1,086409	1,166467	0,541514	0,434595	0,740488	0,727285	0,734677	1,113237	1,212342
0,956026	1,014333	1,065922	0,899375	0,981651	0,928601	1,190675	1,332823	0,541514	0,434595	0,882465	0,944116	0,311141	1,113237	1,212342
1,059864	1,031573	0,91584	1,003899	0,981137	0,948921	1,116641	1,322028	0,528382	0,436208	0,941134	0,943342	0,434904	1,093539	1,060166
0,638176	1,061327	1,046396	1,000083	0,867186	1,150157	1,069408	1,100333	0,571164	0,390691	0,643589	0,444416	0,437253	1,090793	0,952686
0,464812	0,90271	0,990214	0,982661	0,700894	1,029649	1,057359	0,967416	0,552812	0,454996	0,74877	0,485287	0,30402	0,654087	1,047695
0,625374	1,022207	0,985257	0,976336	0,804038	1,076409	1,132211	1,111436	0,558427	0,488157	0,634187	0,39882	0,337976	1,042218	1,183657
1,067805	0,942795	1,005117	1,033855	0,920372	1,006887	1,079626	1,220516	0,713525	0,774447	0,492938	0,605782	0,809897	1,03057	1,283691

GATS3i	GATS4i	GATS5i	GATS6i	GATS8i	GATS2s	GATS6s	GATS7s	GATS8s	GGI1	GGI3	GGI4	GGI7	GGI8	GGI9
1,07472	1,054533	0,845255	0,914417	0,968593	0,392196	0,892613	0,551605	0,779568	3	0,534722	0,566111	0,105903	0,082137	0,044375
1,169965	1,065692	0,761634	1,243742	0,915978	0,366091	0,838862	0,610814	0,80718	4	0,597222	0,757222	0,177969	0,106828	0,055625
1,059709	1,072377	0,802909	1,083281	0,915849	0,388279	0,849714	0,518033	0,787443	4	0,597222	0,757222	0,177969	0,106828	0,055625
1,116563	1,157426	0,898653	0,830962	0,875934	0,451898	0,665585	0,499632	0,822933	4	0,597222	0,797222	0,177969	0,138078	0,055625
1,070705	1,064235	0,838357	0,973305	0,958576	0,401658	0,822922	0,524579	0,78332	4	0,597222	0,757222	0,177969	0,106828	0,055625
1,116563	1,157997	0,860369	1,161134	0,956501	0,450971	0,678405	0,581014	0,888647	4	0,722222	0,877222	0,177969	0,082137	0,084375
1,069987	0,96791	0,748978	0,710915	0,87535	0,466284	0,808584	0,633778	0,713909	4	0,597222	0,757222	0,177969	0,106828	0,055625
1,108638	1,271785	0,773231	0,791893	0,935577	0,370803	0,825069	0,545975	0,683046	3,5	0,972222	0,712222	0,105903	0,131519	0,044375
1,128968	1,11539	0,864769	1,084012	0,945778	0,469384	0,726031	0,58689	0,882108	4	0,729167	0,903333	0,168403	0,088695	0,080316
1,16397	1,040793	0,82479	0,931605	0,983942	0,382274	0,767615	0,556131	0,760583	4,5	0,847222	0,837222	0,199653	0,194019	0,075625
1,16397	1,066442	0,864076	0,812101	1,072924	0,381675	0,979768	0,642314	0,73359	4,5	0,847222	0,917222	0,250035	0,106828	0,084375
0,939474	1,112545	0,905209	0,97008	0,95426	0,368711	0,730227	0,613623	0,770734	6	1,097222	0,877222	0,252586	0,249961	0,095625
1,062338	1,05337	0,892782	0,968141	0,958695	0,430307	0,79318	0,544585	0,924149	4,5	0,784722	1,028333	0,209219	0,106828	0,095625
0,898866	1,137827	0,753204	0,864559	0,79371	0,438919	1,022466	0,702892	0,699	3	0,375	0,625	0,103316	0,067515	0,049383
1,164917	1,059754	0,617095	0,987415	1,007632	0,388023	0,919177	0,590115	0,975555	3	0,375	0,625	0,103316	0,067515	0,049383
1,169965	1,003251	1,121862	0,740303	1,129144	0,365148	0,829226	0,606254	0,769765	4	0,722222	0,837222	0,137153	0,082137	0,084375
1,140855	1,03678	0,929211	0,850161	1,098357	0,481465	0,796941	1,05963	1,212412	3,5	0,972222	0,712222	0,105903	0,131519	0,044375
1,059709	1,012554	1,00899	0,8989	0,99134	0,387277	0,862552	0,557127	0,832873	4	0,722222	0,837222	0,137153	0,082137	0,084375
1,052289	1,087154	0,846369	0,902021	0,968129	0,412432	0,89311	0,706216	0,966749	3,5	0,972222	0,712222	0,105903	0,131519	0,044375
1,052267	1,028109	0,91063	0,882166	0,975037	0,376159	0,637973	0,722824	0,468084	3	0,659722	0,406111	0,125035	0,082137	0,065625
1,091425	1,125523	0,947247	0,822157	0,892634	0,435427	0,492992	0,666508	0,564252	4	0,722222	0,637222	0,197102	0,138078	0,085625
1,041298	1,0277	0,954369	0,927439	0,966247	0,406097	0,553213	0,690365	0,613198	4,5	0,909722	0,868333	0,228352	0,131519	0,085625
1,037493	1,041694	0,875409	1,020507	0,92662	0,370725	0,59618	0,691528	0,470524	4	0,722222	0,597222	0,197102	0,106828	0,085625
1,13909	1,046533	0,832049	1,163713	0,928688	0,354938	0,6048	0,769387	0,535792	4	0,722222	0,597222	0,197102	0,106828	0,085625
1,13909	0,991646	1,140353	0,742279	1,119549	0,354035	0,640922	0,765154	0,469188	4	0,847222	0,677222	0,156285	0,106828	0,065625
0,958428	1,121586	1,153947	0,898625	1,055071	0,371547	0,581508	0,748391	0,473615	3,5	1,159722	0,765556	0,17191	0,090199	0,09125
0,9143	1,072234	0,889947	0,906504	0,950612	0,351028	0,582675	0,6474	0,631232	6	1,222222	0,717222	0,271719	0,249961	0,125625
1,019267	1,030514	0,804057	1,107462	0,851784	0,368927	0,610306	0,699511	0,466123	4	0,722222	0,597222	0,197102	0,106828	0,085625
1,048692	1,036637	0,907342	0,931342	0,966156	0,382336	0,579007	0,684383	0,47931	4	0,722222	0,597222	0,197102	0,106828	0,085625
1,102142	1,086814	0,919441	1,035604	0,955434	0,451471	0,52657	0,733597	0,599708	4	0,854167	0,743333	0,187535	0,113387	0,070316

GGI10	SpMax3_B	SpMax4_B	SpMax5_B	SpMax6_B	SpMax7_B	SpMax8_B	SpMax5_B	SpMax4_B	SpMax8_B	SpMin1_Bl	SpMin3_Bl	SpMin4_Bl	SpMin5_Bl	SpMin6_Bl
0,024691	3,561905	2,880962	2,68665	2,582704	1,954053	1,891111	2,715168	2,807938	3,441495	2,014761	1,303935	1,216585	1,180549	0,765676
0,057749	3,579044	2,999528	2,739725	2,68665	2,238227	1,950957	2,715168	2,980285	3,614738	2,040256	1,556578	1,275885	1,180549	1,069026
0,057749	3,687571	3,52084	2,836322	2,68665	2,44893	1,951859	2,715168	2,887805	3,52661	1,965659	1,28467	1,180549	1,138199	0,707804
0,057749	3,577975	3,069209	2,808262	2,68665	2,498944	1,953983	2,739222	2,954919	3,674222	1,992121	1,573656	1,285094	1,180549	1,148332
0,057749	3,618384	3,251861	2,788147	2,68665	2,270413	1,950745	2,715168	2,843488	3,674222	1,975818	1,286365	1,180549	1,151152	0,70782
0,057749	3,575199	3,066307	2,860778	2,607809	2,524795	1,954058	2,810065	2,964121	3,516235	1,992303	1,573226	1,297671	1,212396	1,06592
0,057749	3,57641	2,933809	2,68665	2,668049	1,980787	1,942291	2,715168	2,806352	3,674222	1,985687	1,288621	1,180549	1,165619	0,707883
0,024691	3,568991	2,967169	2,869176	2,604189	2,227924	1,950962	2,81445	3,022834	3,499681	2,039548	1,552602	1,300911	1,212951	1,006335
0,070807	3,5985	3,156293	2,824633	2,681255	2,367175	1,954285	2,767022	2,987901	3,673739	1,949483	1,439644	1,283744	1,150207	1,051148
0,057749	3,624774	3,377472	2,824153	2,68665	2,438871	1,952054	2,715168	2,989963	3,751771	2,011604	1,339139	1,252673	1,180549	0,933243
0,090807	3,618362	3,390966	2,866168	2,603815	2,456611	1,954005	2,808814	3,015408	3,781493	2,011558	1,323532	1,267529	1,209636	0,792255
0,074278	3,604753	3,292834	2,819677	2,68665	2,437565	1,952128	2,715168	2,972909	3,858092	2,004877	1,308699	1,228109	1,180549	0,845411
0,057749	3,62181	3,400261	3,211191	2,782383	2,462599	2,047356	2,76207	2,856264	3,678149	1,938407	1,283619	1,16077	1,031634	0,707793
0	3,546101	2,826553	2,331968	2,233479	1,950357	1,742372	2,26302	2,706454	3,238369	1,869897	1,449495	1,262137	0,824443	0,707759
0	3,583343	2,828452	2,682437	2,331241	1,950779	1,798029	2,269285	2,706482	3,095507	1,869716	1,334594	1,242316	0,792427	0,707756
0,024691	3,576073	2,98414	2,84207	2,595553	2,194893	1,953936	2,804871	3,005231	3,461807	2,039946	1,555072	1,294077	1,211533	0,946134
0,024691	3,567758	2,89132	2,814034	2,598091	1,977182	1,941545	2,73406	2,80766	3,545033	1,986557	1,302471	1,213833	1,103946	0,707954
0,024691	3,687482	3,528291	2,869025	2,606084	2,47171	1,953993	2,772406	2,889806	3,45144	1,965977	1,297597	1,212279	1,04345	0,763645
0,024691	3,590295	3,28858	2,875403	2,607247	2,25848	1,950806	2,764681	2,82622	3,516023	1,976958	1,302242	1,213641	1,085565	0,707851
0,037241	3,608014	3,077735	2,68665	2,673217	2,263313	1,933363	2,715168	2,970403	3,533952	2,015092	1,499666	1,249557	1,180549	0,976954
0,045404	3,625452	3,129821	2,980839	2,68665	2,561843	2,255941	2,881197	3,017881	3,674222	1,992812	1,574476	1,497248	1,180549	1,166682
0,078461	3,665064	3,400717	3,250173	3,000427	2,496576	2,282837	2,76697	2,995135	3,739663	1,947961	1,497727	1,173645	1,040326	0,96881
0,045404	3,6995	3,559448	3,059649	2,68665	2,532525	2,235119	2,715168	3,012516	3,605258	1,967789	1,498135	1,180549	1,156565	0,972847
0,045404	3,62684	3,110615	2,889276	2,68665	2,355401	2,167254	2,829355	3,061857	3,674222	2,040398	1,561593	1,490975	1,180549	1,084511
0,070299	3,624244	3,096789	2,934177	2,675711	2,274519	2,187358	2,923774	3,048326	3,546929	2,040101	1,558149	1,494956	1,23579	0,98025
0,090909	3,655383	3,34103	3,089018	2,872645	2,539329	2,399067	3,032882	3,316179	3,684434	2,153893	1,670338	1,499362	1,319969	1,045739
0,078461	3,650285	3,311848	3,040441	2,68665	2,513885	2,236771	2,867043	3,056978	3,948364	2,005322	1,499644	1,264892	1,180549	0,979218
0,045404	3,70344	3,572753	3,06295	2,68665	2,555241	2,240333	2,715942	3,234554	3,539186	1,964289	1,498049	1,180549	1,151748	0,972613
0,045404	3,662111	3,28258	3,015154	2,68665	2,387993	2,175461	2,715168	2,988534	3,674222	1,977159	1,498372	1,180549	1,170427	0,973495
0,065404	3,646461	3,194658	3,009268	2,719275	2,422926	2,237477	2,895699	3,052759	3,73891	1,954497	1,49813	1,439279	1,164851	1,055649

SpMin7_Bl	SpMin8_Bl	SpMin3_Bl	SpMin5_Bl	SpMin1_Bl	SpMin2_Bl	SpMin3_Bl	SpMin4_Bl	SpMin6_Bl	SpMin3_Bl	SpMin4_Bl	SpMin6_Bl	P_VSA_Log	P_VSA_Log	P_VSA_Log
0,707746	0,55381	1,434721	1,10684	1,98059	1,914046	1,523253	1,396822	0,988207	1,190665	1,080198	0	0	5,069063	47,38124
0,707791	0,639993	1,518927	1,188123	2,002148	1,914877	1,524849	1,507986	1,06232	1,259738	1,149736	0,088193	8,825204	5,069063	37,90499
0,668594	0,553298	1,433248	1,10684	1,960384	1,912814	1,523185	1,371645	0,979225	1,192045	1,084505	0	0	5,069063	37,90499
0,707832	0,687138	1,547356	1,280083	1,987665	1,91442	1,546817	1,522433	1,06232	1,219989	1,145149	0,197544	10,88306	5,069063	37,90499
0,680498	0,553376	1,433397	1,10684	1,965428	1,913213	1,5232	1,377534	0,980908	1,191119	1,081658	0	0	5,069063	37,90499
0,764107	0,707745	1,541604	1,318537	1,987805	1,914415	1,535857	1,522308	0,997706	1,206077	1,139887	0,138734	10,88306	5,069063	37,90499
0,695281	0,553462	1,433898	1,10684	1,982245	1,914114	1,52326	1,399082	0,989301	1,1885	1,072581	0	0	5,069063	37,90499
0,707796	0,640438	1,46954	1,335126	2,003309	1,914704	1,523267	1,418235	0,994489	1,190925	1,130898	0,046194	8,825204	5,069063	37,90499
0,707803	0,666318	1,487292	1,295873	1,95788	1,912637	1,523799	1,521047	0,988904	1,189974	1,133306	0,12322	0	11,7193	28,42874
0,707778	0,586598	1,589176	1,200282	2,081399	1,916173	1,697286	1,522948	1,06232	1,276898	1,154189	0	5,670051	5,069063	37,90499
0,747302	0,707745	1,576803	1,299143	2,081849	1,916013	1,687017	1,523021	0,991655	1,247972	1,155469	0	5,670051	5,069063	37,90499
0,707771	0,555957	1,45062	1,119506	2,004649	1,914948	1,528229	1,51793	1,06232	1,234051	1,139893	0	0	5,069063	37,90499
0,646008	0,553119	1,432852	1,053249	1,950751	1,911776	1,523171	1,367488	0,975679	1,191336	1,082239	0	0	5,069063	28,42874
0,55407	0,340937	1,565678	1,022277	1,917058	1,692217	1,585542	1,522727	0,929157	1,329761	1,156839	0	0	5,069063	30,69199
0,554063	0,336761	1,49516	0,989866	1,916725	1,653288	1,523028	1,45269	0,880276	1,378321	1,15948	0	0	5,069063	26,60157
0,762369	0,707746	1,502451	1,293555	2,002328	1,914799	1,523765	1,486693	0,991198	1,231775	1,14676	0,012763	8,825204	5,069063	37,90499
0,696626	0,553362	1,434721	1,078801	1,982356	1,914101	1,523253	1,396823	0,98856	1,190659	1,079923	0	0	5,069063	37,90499
0,707745	0,55381	1,433946	1,046262	1,959963	1,912849	1,523212	1,385385	0,977504	1,191313	1,081981	0	0	5,069063	37,90499
0,681578	0,553259	1,434721	1,060902	1,964255	1,913347	1,523251	1,396818	0,98216	1,190666	1,080255	0	0	5,069063	37,90499
0,764572	0,642086	1,582487	1,128536	1,980845	1,93669	1,640543	1,398837	1,06232	1,330481	1,099816	0	0	7,603595	47,38124
0,973574	0,687272	1,585211	1,280232	1,987808	1,937134	1,641104	1,545205	1,18859	1,332299	1,188765	0,217552	10,88306	7,603595	37,90499
0,649494	0,638371	1,58178	1,127787	1,953388	1,932132	1,640262	1,371016	1,011209	1,330602	1,102407	0	0	7,603595	28,42874
0,669248	0,641106	1,581999	1,127778	1,961557	1,934603	1,640331	1,374968	1,06232	1,33071	1,105265	0	0	7,603595	37,90499
0,969326	0,646417	1,586362	1,18979	2,002211	1,937611	1,641279	1,508701	1,160891	1,338074	1,229394	0,108678	8,825204	7,603595	37,90499
0,94336	0,761381	1,584651	1,293815	2,002367	1,937592	1,640999	1,486707	1,192403	1,334394	1,199948	0,019002	8,825204	7,603595	37,90499
0,96905	0,947814	1,639363	1,362838	2,126753	1,938583	1,645192	1,617151	1,201544	1,467061	1,327426	0,075609	0	7,603595	66,33373
0,842976	0,642332	1,583609	1,140685	2,004702	1,937681	1,641421	1,521836	1,165725	1,335155	1,197307	0	0	7,603595	37,90499
0,665521	0,640918	1,581927	1,127668	1,954794	1,932679	1,640253	1,366766	1,06232	1,330916	1,110023	0	0	7,603595	37,90499
0,680763	0,641459	1,582058	1,12787	1,966212	1,935374	1,640382	1,380513	1,06232	1,330557	1,101651	0	0	7,603595	37,90499
0,971448	0,667027	1,581781	1,296301	1,959299	1,934183	1,640363	1,521614	1,19224	1,329734	1,142539	0,129405	0	14,25383	28,42874

P_VSA_Log	P_VSA_Log	P_VSA_Log	P_VSA_MR	P_VSA_MR	P_VSA_MR	P_VSA_MR	P_VSA_m_	P_VSA_v_3	P_VSA_e_2	P_VSA_i_1	P_VSA_i_2	P_VSA_i_3	P_VSA_s_3	P_VSA_s_4
0	105,9399	0	60,02397	10,08906	50,56681	0	105,2221	68,83995	68,83995	0	68,83995	165,9639	21,45871	47,38124
0	129,4821	0	60,02397	18,91426	44,27614	0	107,7566	71,37448	71,37448	0	71,37448	189,5061	24,64429	46,73019
0	94,16882	45,95409	60,02397	10,08906	44,14567	45,95409	98,80093	108,3729	62,41881	0	108,3729	154,1928	24,51382	37,90499
0	129,4821	0	71,02386	10,08906	57,21705	0	111,8723	75,49019	75,49019	0	75,49019	200,506	26,70214	48,78805
0	94,16882	39,14864	60,02397	10,08906	44,59117	0	99,24643	102,013	62,86431	0	62,86431	193,3414	24,95932	37,90499
0	129,4821	0	71,02386	10,08906	57,21705	0	111,8723	75,49019	75,49019	0	75,49019	200,506	26,70214	48,78805
14,96011	94,16882	0	60,02397	10,08906	50,21158	0	104,8668	68,48472	68,48472	0	68,48472	154,1928	30,57973	37,90499
0	129,4821	0	60,02397	18,91426	44,27614	0	107,7566	71,37448	71,37448	0	71,37448	189,5061	24,64429	46,73019
23,5422	82,39771	0	82,02375	16,7393	42,10117	0	103,4067	67,02455	67,02455	0	67,02455	187,9637	38,5958	28,42874
0	94,16882	50,74691	60,02397	10,08906	43,84731	0	104,1726	62,12045	62,12045	0	62,12045	204,9397	24,21546	43,57504
0	94,16882	50,74691	60,02397	10,08906	43,84731	0	104,1726	62,12045	62,12045	0	62,12045	204,9397	24,21546	43,57504
0	94,16882	7,759516	104,9043	17,84857	44,27614	0	106,6909	70,30879	70,30879	0	70,30879	154,1928	24,64429	37,90499
0	82,39771	78,29729	60,02397	10,08906	38,61553	0	93,27079	135,186	56,88867	0	56,88867	220,719	28,45992	28,42874
17,21992	70,62661	0	69,53132	10,08906	36,14081	0	90,79607	54,41395	54,41395	0	54,41395	151,929	23,72196	30,69199
13,1295	101,9043	0	60,02397	10,08906	27,95997	31,27769	82,61523	77,51079	77,51079	31,27769	46,23311	142,4217	50,90922	26,60157
0	129,4821	0	60,02397	18,91426	44,27614	0	107,7566	71,37448	71,37448	0	71,37448	189,5061	24,64429	46,73019
14,96011	94,16882	0	60,02397	10,08906	50,21158	0	104,8668	68,48472	68,48472	0	68,48472	154,1928	30,57973	37,90499
0	94,16882	45,95409	60,02397	10,08906	44,14567	45,95409	98,80093	108,3729	62,41881	0	108,3729	154,1928	24,51382	37,90499
0	94,16882	39,14864	60,02397	10,08906	44,59117	0	99,24643	102,013	62,86431	0	62,86431	193,3414	24,95932	37,90499
0	129,4821	0	60,02397	12,62359	50,56681	0	107,7566	71,37448	71,37448	0	71,37448	189,5061	23,99324	47,38124
0	153,0243	0	71,02386	12,62359	57,21705	0	114,4068	78,02472	78,02472	0	78,02472	224,0482	29,23667	48,78805
0	105,9399	78,29729	60,02397	12,62359	38,61553	0	95,80532	137,7205	59,4232	0	59,4232	244,2612	30,99446	28,42874
0	117,711	45,95409	60,02397	12,62359	44,14567	45,95409	101,3355	110,9074	64,95334	0	110,9074	177,735	27,04835	37,90499
0	153,0243	0	60,02397	21,44879	44,27614	0	110,2911	73,90901	73,90901	0	73,90901	213,0483	27,17882	46,73019
0	153,0243	0	60,02397	21,44879	44,27614	0	110,2911	73,90901	73,90901	0	73,90901	213,0483	27,17882	46,73019
0	153,0243	0	60,02397	12,62359	74,66524	0	131,855	95,4729	95,4729	0	95,4729	213,0483	29,13917	66,33373
0	117,711	7,759516	104,9043	20,3831	44,27614	0	109,2254	72,84332	72,84332	0	72,84332	177,735	27,17882	37,90499
0	174,493	0	60,02397	12,62359	42,75021	56,78201	99,94	63,55788	120,3399	56,78201	63,55788	177,735	25,65289	94,687
0	117,711	39,14864	60,02397	12,62359	44,59117	0	101,781	104,5475	65,39884	0	65,39884	216,8836	27,49385	37,90499
23,5422	105,9399	0	82,02375	19,27383	42,10117	0	105,9412	69,55908	69,55908	0	69,55908	211,5059	41,13034	28,42874

P_VSA_s_6	P_VSA_ppl	P_VSA_ppl	P_VSA_ppl	Eta_betaS_	Eta_betaP_	Eta_L	Eta_L_A	Eta_F_A	Eta_FL	Eta_sh_p	Eta_sh_y	SpMAD_EA	SpMaxA_E	SpMAD_EA
96,4061	55,63588	104,031	50,28985	0,640625	0,8125	3,010542	0,188159	0,865604	4,743478	0,091324	0,273973	1,462282	0,542492	2,068228
96,4061	58,17041	97,7403	59,11506	0,632353	0,764706	3,36378	0,197869	0,858062	4,784087	0,149573	0,320513	1,468734	0,513133	2,050025
96,4061	92,11372	97,60983	96,24395	0,632353	0,764706	3,603029	0,211943	0,793918	4,544838	0,23166	0,289575	1,468734	0,513133	2,050025
107,406	46,15963	99,79815	61,17291	0,652778	0,75	3,457756	0,192098	0,901488	5,228116	0,143443	0,307377	1,457814	0,486383	2,008927
135,5547	85,30827	98,05533	89,4385	0,647059	0,764706	3,331699	0,195982	0,862757	4,816168	0,172311	0,311943	1,468734	0,513133	2,050025
107,406	46,15963	99,79815	61,17291	0,652778	0,75	3,457756	0,192098	0,906826	5,228116	0,143443	0,307377	1,45784	0,491179	2,008828
111,3662	46,15963	103,6757	65,24997	0,647059	0,764706	3,200726	0,188278	0,898834	4,947141	0,125549	0,329567	1,468734	0,513133	2,050025
96,4061	58,17041	97,7403	59,11506	0,632353	0,764706	3,364697	0,197923	0,862191	4,800007	0,149573	0,320513	1,468009	0,556104	2,049615
118,4059	36,68338	95,56533	50,28985	0,697368	0,736842	3,711565	0,195346	0,908654	5,508782	0,07874	0,354331	1,501279	0,458789	2,010007
147,153	46,15963	97,31147	101,0368	0,657895	0,842105	3,288627	0,173086	1,010136	5,769924	0,159363	0,346614	1,487552	0,462973	2,132983
147,153	46,15963	97,31147	101,0368	0,657895	0,842105	3,288627	0,173086	1,020666	5,769924	0,159363	0,346614	1,489458	0,470667	2,13549
141,2864	49,3452	97,7403	95,17019	0,65	0,65	3,936522	0,196826	0,983171	5,42267	0,176018	0,288779	1,514095	0,555173	2,013228
174,7034	114,9807	92,07969	128,5871	0,652778	0,722222	3,654714	0,20304	0,858975	4,903836	0,240044	0,343699	1,478199	0,494453	2,039362
105,9134	24,02156	99,11232	50,28985	0,683333	0,733333	2,863636	0,190909	0,831205	4,390384	0,100503	0,301508	1,466895	0,576795	2,066494
96,4061	55,29925	112,7018	50,28985	0,65	0,733333	3,240616	0,216041	0,761814	4,013404	0,093458	0,280374	1,466895	0,576795	2,066494
96,4061	58,17041	97,7403	59,11506	0,632353	0,764706	3,36378	0,197869	0,859855	4,784087	0,149573	0,320513	1,473228	0,517093	2,055315
111,3662	46,15963	103,6757	65,24997	0,647059	0,764706	3,202031	0,188355	0,908128	4,962673	0,125549	0,329567	1,468009	0,556104	2,049615
96,4061	92,11372	97,60983	96,24395	0,632353	0,764706	3,603029	0,211943	0,79235	4,544838	0,23166	0,289575	1,473228	0,517093	2,055315
135,5547	85,30827	98,05533	89,4385	0,647059	0,764706	3,333005	0,196059	0,867443	4,831699	0,172311	0,311943	1,468009	0,556104	2,049615
96,4061	58,17041	104,031	50,28985	0,632353	0,764706	3,510542	0,206502	0,835058	4,743478	0,08547	0,25641	1,446824	0,512328	2,018186
107,406	48,69416	99,79815	61,17291	0,644737	0,710526	3,957756	0,208303	0,872626	5,228116	0,135135	0,289575	1,444156	0,462041	1,966905
174,7034	117,5152	92,07969	128,5871	0,644737	0,684211	4,154714	0,218669	0,830362	4,903836	0,227038	0,325077	1,464175	0,469715	1,996613
96,4061	94,64825	97,60983	96,24395	0,625	0,722222	4,103029	0,227946	0,765947	4,544838	0,218978	0,273723	1,453363	0,486103	2,003142
96,4061	60,70494	97,7403	59,11506	0,625	0,722222	3,86378	0,214654	0,828707	4,784087	0,140562	0,301205	1,453363	0,486103	2,003142
96,4061	60,70494	97,7403	59,11506	0,625	0,722222	3,86378	0,214654	0,830251	4,784087	0,140562	0,301205	1,458008	0,489857	2,008586
96,4061	82,26883	128,1294	50,28985	0,630952	0,809524	4,27153	0,203406	0,933339	5,965654	0,068027	0,306122	1,476253	0,471986	2,095805
141,2864	51,87974	97,7403	95,17019	0,642857	0,619048	4,436522	0,211263	0,954254	5,42267	0,166407	0,273011	1,498945	0,529938	1,974618
96,4061	105,4762	96,21437	107,0719	0,625	0,722222	4,170934	0,231719	0,748134	4,476933	0,244579	0,26475	1,453363	0,486103	2,003142
135,5547	87,8428	98,05533	89,4385	0,638889	0,722222	3,831699	0,212872	0,833274	4,816168	0,162192	0,293624	1,453363	0,486103	2,003142
118,4059	39,21791	95,56533	50,28985	0,6875	0,7	4,211565	0,210578	0,88114	5,508782	0,074349	0,334572	1,486985	0,437929	1,971869

SpMAD_EA	SpDiam_AI	SpMAD_AE	SpMax_AE	SpMAD_AE	Chi1_EA(di	SM07_EA(i	SM14_AEA	SM15_AEA	SM05_AEA	SM13_AEA	SM07_AEA	SM08_AEA	Eig12_EA(E	Eig03_EA(r
1,434247	5,982913	1,483114	4,293305	1,555604	2,70681	7,46509	1	0,686489	-1	4,147575	-2,46237	-3,80353	-1,85138	2,117209
1,442332	5,599554	1,508452	4,306604	1,564619	4,177398	7,647792	1	0,718439	-1	5,064127	-3	-3,01413	-1,5	2,230756
1,387842	5,599554	1,508452	4,306604	1,564041	3,382486	7,49905	1	0,718439	-1	5,064127	-3	-3,01413	-1,5	2,128937
1,406733	5,737669	1,502381	4,30906	1,550501	7,357973	7,618995	1	0,742979	-0,88311	5,074485	-2,42573	-3	-1,5	2,213699
1,397016	5,599554	1,508452	4,306604	1,564869	3,347836	7,514035	1	0,718439	-1	5,064127	-3	-3,01413	-1,5	2,135377
1,406744	5,797063	1,498219	4,322952	1,553411	7,357973	7,629934	1,097838	0,690535	-0,80486	5,06037	-2,10752	-2,54253	-1,1754	2,189742
1,421316	5,599554	1,508452	4,306604	1,564332	3,369062	7,571279	1	0,718439	-1	5,064127	-3	-3,01413	-1,5	2,170275
1,441645	6,148719	1,518224	4,391291	1,565096	4,177398	7,810253	1,112256	0,701231	-0,91601	4,882458	-2,49182	-3,45902	-1,84024	2,158373
1,447285	5,814358	1,512449	4,387978	1,589796	10,54709	7,894108	1,402788	1,048215	-0,63356	5,081714	-2	-2,47119	-1,0936	2,303385
1,454104	5,609753	1,530084	4,344097	1,594827	7,850113	7,840441	1,095047	1	-0,88232	5,085267	-2	-2,43992	-1,5	2,333044
1,455948	5,782959	1,529312	4,373096	1,598724	7,850113	7,850308	1,1184	1	-0,79216	5,079187	-2	-2,24577	-1,19712	2,304992
1,426268	6,525474	1,522254	4,455905	1,529392	6,860517	8,067454	1,225341	1	-0,88206	5,177422	-2,44365	-3	-1	2,357855
1,367791	5,605967	1,530048	4,359662	1,59764	3,613357	7,584885	1,327499	0,720237	-0,86841	5,072959	-2,40092	-3,14939	-1,43774	2,168251
1,437148	5,780701	1,479257	4,300361	1,541187	2,70681	7,512078	0,618034	0,618034	-1,15124	4,16124	-3,86037	-4,37228	-2	2,119031
1,3812	5,780701	1,479257	4,300361	1,541187	2,70681	7,262153	0,618034	0,618034	-1,15124	4,16124	-3,86037	-4,37228	-2	2,080516
1,446745	5,754457	1,507928	4,318541	1,570406	4,177398	7,661063	1,09463	0,689083	-0,91241	5,04203	-2,52765	-3,38956	-1,76802	2,200906
1,420869	6,148719	1,518224	4,391291	1,566737	3,369062	7,689709	1,112256	0,701231	-0,91601	4,882458	-2,49182	-3,45902	-1,84024	2,146652
1,390358	5,754457	1,507928	4,318541	1,56999	3,382486	7,503689	1,09463	0,689083	-0,91241	5,04203	-2,52765	-3,38956	-1,76802	2,129205
1,396822	6,148719	1,518224	4,391291	1,567374	3,347836	7,583091	1,112256	0,701231	-0,91601	4,882458	-2,49182	-3,45902	-1,84024	2,134129
1,420417	5,982803	1,471016	4,292356	1,532767	4,339518	7,46509	1	0,90178	-1	4,21456	-2,34683	-3,04631	-1,5	2,186672
1,395696	5,745258	1,493828	4,308289	1,532711	8,99068	7,618995	1	0,976298	-0,52979	5,159897	-2	-3	-1,32752	2,224718
1,359146	5,79686	1,517677	4,359272	1,58139	5,246065	7,584885	1,396535	0,959316	-0,63237	5,159597	-2	-2,88336	-1,28038	2,20705
1,37693	5,743928	1,496523	4,305804	1,543768	5,015193	7,49905	1	0,959112	-1	5,157536	-2,83854	-3	-1,49193	2,191689
1,428427	5,743928	1,496523	4,305804	1,542107	5,810106	7,647792	1	0,959112	-1	5,157536	-2,83854	-3	-1,49193	2,233259
1,432985	5,760717	1,49628	4,31784	1,547847	5,810106	7,661063	1,15278	0,90594	-0,7276	5,152311	-2,01437	-3,07172	-1,37981	2,220202
1,45564	6,38392	1,509155	4,570841	1,555354	4,339518	8,168983	1,503747	1,260012	-0,19338	5,162618	-1,09293	-1,4781	-0,61028	2,248153
1,415173	6,669953	1,515179	4,455868	1,517625	8,493224	8,067454	1,298205	1	-0,47364	5,181782	-2	-3	-1	2,329532
1,357266	5,743928	1,496523	4,305804	1,541988	5,114711	7,474698	1	0,959112	-1	5,157536	-2,83854	-3	-1,49193	2,188028
1,385587	5,743928	1,496523	4,305804	1,544784	4,980543	7,514035	1	0,959112	-1	5,157536	-2,83854	-3	-1,49193	2,194214
1,4355	5,863684	1,507884	4,387728	1,573865	12,1798	7,894108	1,455623	1,094674	-0,20603	5,161357	-1,78076	-2	-0,83902	2,279239

Eig04_EA(r	Eig12_EA(r	Eig13_EA(r	Eig14_AEA	Eig03_AEA	Eig05_AEA	Eig06_AEA	Eig07_AEA	RGyr	SPAN	SPAM	SPH	PJI3	L/Bw	HOMA
1,664753	-1	-1,38942	1	2,515513	1,4	1,235727	1	3,160605	5,642359	0,475073	0,87799	0,853243	3,88	0,75366
2,038429	-1	-1,17097	1	2,629396	1,486384	1,4	1	3,391339	6,266586	0,473082	0,909601	0,78265	4,46	0,754685
1,814289	-1	-1	1	2,827305	1,528426	1,4	1	3,915985	6,229035	0,499161	0,912478	0,753873	8,22	0,761655
2,031499	-1	-1	1,125182	2,794993	1,567894	1,4	1,086198	3,597083	6,909282	0,48811	0,895959	0,892545	4,82	0,747688
1,862178	-1	-1	1	2,851411	1,532588	1,4	1	3,640873	5,426699	0,465906	0,893283	0,776233	5,54	0,757914
1,983626	-0,89755	-1	1,286551	2,78055	1,588303	1,4	1,19353	3,570434	6,703777	0,480796	0,863093	0,791194	6,28	0,745285
1,978727	-1	-1,06662	1	2,836515	1,52999	1,4	1	3,470552	5,510934	0,469508	0,78708	0,781776	5,42	0,761321
1,764338	-1	-1,38879	1,052675	2,682537	1,497023	1,4	1,221868	3,363792	5,837261	0,456589	0,845814	0,960307	6,9	0,624137
2,067345	-0,8537	-0,9243	1,557104	2,928877	1,992041	1,820233	1,412186	3,64726	6,213208	0,471063	0,894891	0,835814	6,14	0,677199
2,088213	-1	-1	1,31873	2,964373	2,028899	1,416091	1,4	3,949455	6,032364	0,472674	0,880342	0,83341	10,78	0,750679
2,076383	-0,89858	-1	1,374134	2,96464	1,989291	1,4	1,392933	3,562064	5,165169	0,437381	0,866041	0,617628	3,53	0,744356
2,099841	-0,7	-0,86218	2	2,966132	2,051513	1,420208	1,4	3,924732	6,061563	0,465279	0,904504	0,804832	6,61	0,752317
1,952923	-0,95684	-1	1,280614	2,920742	2,138231	1,502982	1,4	3,784767	5,856244	0,483994	0,828007	0,760622	6,64	0,756581
1,59265	-1,47568	-1,58191	0,874578	2,525148	1,4	1,092217	0,779831	3,088864	5,451598	0,497795	0,847155	0,696309	4,41	0,737526
1,526623	-1,27346	-1,4754	0,874578	2,525148	1,4	1,092217	0,779831	3,129832	5,23937	0,488009	0,82276	0,713538	4,44	0,769295
1,991564	-1	-1,29982	1,071057	2,644964	1,489082	1,4	1,164034	3,343448	6,046659	0,464706	0,843957	0,808019	4,78	0,756398
1,730641	-1	-1,27456	1,052675	2,759077	1,592079	1,4	1,225049	3,226858	5,604351	0,47347	0,767922	0,757898	4,78	0,73962
1,776473	-1	-1,08679	1,071057	2,805076	1,543921	1,4	1,173521	3,770148	5,949567	0,487835	0,839428	0,881018	9,19	0,761302
1,698807	-1	-1,13941	1,052675	2,764245	1,596871	1,4	1,225197	3,34566	5,671756	0,476309	0,828458	0,959333	4,73	0,69593
1,692371	-1	-1,12679	1,025573	2,525602	1,4	1,373807	1,082895	3,076063	5,666456	0,449859	0,783529	0,897316	3,5	0,756079
2,090078	-1	-1	1,278621	2,797579	1,60767	1,4	1,273915	3,499124	6,923652	0,46515	0,852609	0,940969	4,28	0,750191
1,990853	-0,87821	-1	1,281098	2,924805	2,1387	1,558261	1,4	3,815281	6,023665	0,463822	0,820729	0,755827	5,56	0,75345
1,837284	-1	-1	1,24151	2,83014	1,578994	1,4	1,234126	3,89754	6,069679	0,46559	0,790233	0,759238	9,17	0,755763
2,103189	-1	-1,06742	1,24151	2,634813	1,546164	1,4	1,215368	3,297606	6,254226	0,449165	0,845634	0,771854	3,88	0,753626
2,04325	-1	-1,12325	1,233531	2,651336	1,537737	1,4	1,282694	3,306079	6,089049	0,443194	0,80686	0,913848	4,41	0,751391
2,11212	-0,43161	-0,61803	2	2,772398	1,618034	1,591408	1,4	3,959288	6,331133	0,43152	0,926756	0,896357	7,04	0,678428
2,175992	-0,7	-0,7	2	2,969231	2,056497	1,494473	1,4	3,861374	6,032519	0,441132	0,8317	0,757486	6,72	0,750444
1,738676	-1	-1	1,24151	2,771013	1,571141	1,4	1,229604	4,04837	6,705926	0,489385	0,809263	0,719869	12,03	0,752734
1,886405	-1	-1	1,24151	2,854377	1,582285	1,4	1,236032	3,578517	5,502442	0,443301	0,791426	0,773382	5,6	0,759069
2,147311	-0,64202	-0,89895	1,557104	2,932736	1,99211	1,826407	1,48188	3,682861	6,266973	0,449623	0,785031	0,759928	4,65	0,680959

CMBL	HOMT	DISPm	QXXm	DISPv	QXXv	DISPe	QYYp	DISPi	QXXs	WiA_G	J_G	VE1sign_G	VE3sign_G	VE1_RG
1,479	9,043918	3,029649	42,62891	1,036704	35,20728	0,291038	164,1866	0,558114	162,2356	4,57715	2,158189	0,064733	-2,97219	2,794194
1,478	9,056222	6,550633	46,43715	2,845569	38,66005	0,370771	216,5016	0,367486	178,0691	4,95872	2,207818	0,036246	-4,03407	2,255056
1,477	9,139857	17,47797	53,51366	7,76943	36,97063	0,155781	213,3139	0,924133	165,523	4,620353	2,145971	0,106074	-2,43597	2,782844
1,479	8,972256	4,725782	52,08914	3,322805	44,32616	0,227643	235,735	0,23078	197,1476	5,121847	2,204247	0,061755	-3,50705	2,302102
1,478	9,094965	7,291234	47,10904	6,377616	36,62323	0,118103	195,0288	0,670928	167,64	4,61701	2,146089	0,096333	-2,54056	2,783563
1,479	8,94342	5,275059	46,62927	3,210214	40,33038	0,261833	244,8157	0,234927	172,866	5,143675	2,202636	0,045841	-3,88237	2,354097
1,477	9,135857	2,578622	46,14213	3,221476	37,10482	0,122496	168,1576	0,220794	177,1918	4,607643	2,147618	0,072487	-2,84935	2,774768
1,498	7,489643	5,552699	42,76712	1,857347	42,19153	0,378111	200,943	0,526495	175,7461	4,817841	2,274681	0,058398	-3,45409	2,259433
1,477	8,126391	0,423998	46,326	1,586159	37,61162	0,054597	231,2511	0,352687	169,2454	5,030542	1,7419	0,06208	-3,37973	2,782676
1,478	9,008154	4,620741	40,49419	4,076228	33,06207	0,206038	228,36	0,035178	168,7868	5,046174	2,1125	0,05731	-3,35278	2,778918
1,479	8,932274	2,873882	75,62778	2,664951	54,11497	0,204767	182,0117	0,293101	300,943	4,782274	2,213745	0,036838	-3,87101	2,781055
1,478	9,027806	7,483266	56,04977	4,054049	41,31713	0,453656	212,6649	1,63458	224,3814	4,99446	2,196765	0,058354	-3,45501	2,784836
1,478	9,078969	13,30336	63,54692	10,38212	42,60529	0,098556	221,0314	0,770242	190,8709	4,65661	2,13361	0,119449	-2,30705	2,777458
1,465	8,112788	2,028634	37,97142	1,58892	28,91882	0,206925	135,0896	0,382255	142,8232	4,406372	2,011821	0,135021	-1,91312	2,758407
1,66	8,46225	1,533326	44,10395	2,954972	31,64253	0,273982	151,4948	0,776327	148,8626	4,489792	1,974626	0,179402	-1,64158	2,748288
1,477	9,076773	6,333332	46,4507	2,877483	41,77729	0,363604	207,817	0,406642	175,8869	4,887479	2,238863	0,003348	-6,93046	2,236688
1,482	8,875438	2,224469	51,65385	1,214268	38,62369	0,254602	173,0177	0,469579	202,8723	4,62486	2,138159	0,059	-3,07286	2,755638
1,477	9,135618	15,73118	76,66967	7,003424	41,67814	0,165068	206,0247	0,870005	174,91	4,623793	2,14338	0,094419	-2,56236	2,780985
1,489	8,351159	5,909012	60,27072	4,387763	38,34511	0,326272	193,6561	0,654401	175,8872	4,759637	2,084715	0,064855	-2,97014	2,770375
1,478	9,07295	0,542362	48,15018	3,072996	41,5047	0,162395	183,5348	0,539298	184,9825	4,557127	2,390856	0,189182	-2,02474	3,124327
1,478	9,002293	1,563186	58,57785	1,885567	51,50825	0,08733	256,2973	0,241742	220,6263	5,105998	2,408587	0,193793	-2,28052	2,309192
1,478	9,041399	16,30283	76,3837	12,61902	54,20817	0,243499	250,7564	0,735299	237,5508	4,737987	2,305784	0,214185	-1,87379	3,120854
1,478	9,069154	19,47911	55,69508	9,480792	42,74433	0,07744	243,8403	0,888101	186,3312	4,626437	2,363514	0,225492	-1,81123	3,12585
1,478	9,043507	3,349952	52,48688	0,856555	45,32883	0,231948	236,8977	0,369996	201,134	4,934118	2,423266	0,169689	-2,38808	2,265653
1,479	9,016696	3,560231	50,95875	1,552252	47,18644	0,2435	235,8915	0,409744	195,1457	4,926761	2,425561	0,135227	-2,6937	2,259477
1,501	11,53328	3,956617	56,06182	3,400629	60,65895	0,387377	326,5198	0,868611	204,7439	5,411528	1,910709	0,015778	-6,12667	3,17275
1,478	9,005326	9,95796	60,99297	6,109532	47,52481	0,544822	236,0539	1,532999	243,8901	4,984043	2,404226	0,191127	-2,2279	3,117767
1,479	9,032811	27,67244	65,08688	11,31942	44,73838	0,135554	298,1923	1,17755	192,5811	4,623743	2,366582	0,234598	-1,76309	3,123676
1,477	9,108832	9,537467	51,90354	8,088909	42,92557	0,088652	218,7974	0,639696	189,2588	4,600696	2,373838	0,217534	-1,85492	3,12338
1,477	8,171511	3,416941	68,06499	4,238498	56,06102	0,099129	264,5849	0,369744	244,6548	5,153381	1,84016	0,145627	-2,59395	3,089162

VE2_RG	VE3_RG	Chi_G/D	J_G/D	SpPosA_G/	VE1_G/D	VE2_G/D	VE1sign_G	VE3sign_G	TDB03u	TDB06u	TDB08u	TDB10u	TDB04m	TDB10m
0,111768	1,115641	1,028919	8,917301	1,04217	4,322021	0,172881	0,077478	-2,77706	3,1128	6,06088	7,291346	8,162667	2,07423	2,726277
0,080538	0,98884	1,025576	9,913904	1,041833	4,382281	0,15651	0,062981	-3,36221	3,124911	6,104143	7,452281	9,1105	1,748767	2,057351
0,111314	1,111222	1,019857	8,838758	1,065038	2,303972	0,092159	0,063716	-2,98938	3,16438	6,1094	7,277538	8,315111	2,921128	10,71524
0,079383	1,050161	1,037074	10,37074	1,036397	4,56651	0,157466	0,137348	-2,50032	3,126436	5,966314	7,404706	8,922467	2,015759	3,41581
0,111343	1,111503	1,020857	8,847431	1,058952	4,369989	0,1748	0,061964	-3,01965	3,15436	6,10464	7,292731	8,312889	2,432329	6,17145
0,081176	1,078291	1,022669	10,22669	1,043066	4,394607	0,151538	0,08013	-3,179	3,126018	6,029568	7,580818	9,443333	2,121927	3,220099
0,110991	1,108067	1,023773	8,872696	1,045766	4,305721	0,172229	0,070578	-2,87832	3,12978	6,0914	7,259654	8,442556	2,260034	4,641556
0,080694	0,991199	1,019253	9,852779	1,039924	4,610428	0,164658	0,077669	-3,1073	3,134393	5,894471	7,627657	8,570933	1,915096	2,214562
0,099381	1,244496	1,046253	7,846896	1,055349	4,429056	0,158181	0,07726	-3,11373	3,155636	6,186258	7,554323	9,308111	2,317161	4,449967
0,102923	1,198465	1,004152	9,372086	1,044476	4,701616	0,174134	0,052432	-3,45709	3,142185	6,166926	7,817367	9,6068	2,344823	4,877482
0,103002	1,199366	1,02439	9,560973	1,04579	4,287231	0,158786	0,144348	-2,26959	3,138796	6,105	7,329464	8,140267	2,454151	4,861824
0,099458	1,245439	1,017337	9,834254	1,060877	4,322006	0,154357	0,091883	-2,90295	3,147357	6,114893	7,485125	9,173389	2,520066	4,962935
0,111098	1,109119	1,012814	8,777723	1,070696	3,048283	0,121931	0,092268	-2,58737	3,19518	6,1426	7,328731	8,422444	3,114596	13,7804
0,125382	0,969448	1,021675	7,832838	1,041825	4,081592	0,185527	0,064607	-2,61739	3,12935	6,1218	7,450842	8,4225	2,696555	0,94364
0,124922	0,965937	1,001117	7,675232	1,071199	3,462244	0,157375	0,009106	-4,48948	3,189875	6,2219	7,611368	8,57575	3,21935	0,96081
0,079882	0,978895	1,022148	9,880765	1,039003	4,525754	0,161634	0,010511	-5,53939	3,125179	6,071618	7,448621	8,7125	1,826821	2,713638
0,110226	1,100555	1,020573	8,844966	1,046997	4,38323	0,175329	0,032488	-3,72068	3,131	6,11028	7,302192	8,513556	2,560838	2,941175
0,111239	1,110497	1,018985	8,831201	1,05997	3,266933	0,130677	0,08894	-2,62726	3,16506	6,10532	7,338192	8,267111	3,682245	20,60848
0,110815	1,106346	1,002463	8,68801	1,051261	4,078077	0,163123	0,02447	-4,02843	3,15774	6,15	7,752885	9,131222	3,012287	3,094584
0,111583	1,385318	1,076872	10,40976	1,044859	4,492581	0,160449	0,088896	-2,94313	3,078661	5,558613	7,071333	7,0907	1,779067	2,332698
0,072162	1,163072	1,08051	11,88561	1,041811	4,87147	0,152233	0,090393	-3,34037	3,092844	5,616805	7,173605	7,744615	1,798798	2,773556
0,111459	1,383966	1,04306	10,08291	1,069634	4,286773	0,153099	0,14544	-2,34449	3,148305	5,891968	7,158933	7,63045	2,709048	5,506174
0,111638	1,385911	1,06468	10,2919	1,065215	4,534153	0,161934	0,100216	-2,79738	3,122763	5,633645	7,131667	7,2721	2,479238	6,022172
0,073086	1,101099	1,07305	11,44586	1,047385	4,663323	0,15043	0,09784	-3,1294	3,0916	5,636559	7,210222	7,937966	1,559607	2,009532
0,072886	1,097425	1,062195	11,33008	1,041498	4,738464	0,152854	0,043817	-4,21092	3,092415	5,7182	7,317879	7,998586	1,618462	2,047513
0,093316	1,704882	1,04706	9,423538	1,063113	4,951396	0,145629	0,1533	-2,76915	3,122197	5,942627	7,610171	9,146079	1,975253	3,338412
0,100573	1,530915	1,063423	11,34318	1,063155	4,801491	0,154887	0,045514	-4,15974	3,111462	5,648353	7,271889	8,03631	2,224189	3,877987
0,11156	1,385065	1,064087	10,28617	1,072015	2,907612	0,103843	0,127196	-2,50747	3,134136	5,653161	7,080333	7,2198	2,94924	8,218817
0,111549	1,38495	1,068067	10,32465	1,061795	4,520316	0,16144	0,08188	-3,04311	3,114169	5,618774	7,089333	7,1682	2,077048	3,894236
0,09965	1,518506	1,067844	8,809717	1,049647	4,743598	0,153019	0,083179	-3,34795	3,120953	6,030243	7,464	8,461034	2,090781	3,073182

TDB03v	TDB04v	TDB05v	TDB07v	TDB03e	TDB06e	TDB08e	TDB03p	TDB04p	TDB06p	TDB08p	TDB10p	TDB03i	TDB05i	TDB06i
1,415518	1,812554	2,480185	2,788206	3,258785	6,542134	7,153354	1,442158	1,753577	3,080193	2,844825	2,027539	3,918159	6,547482	7,465825
1,472086	1,656533	2,185347	2,836588	3,24792	6,53026	7,504064	1,524137	1,690143	3,190204	2,90768	2,692023	3,865286	6,603159	7,387028
1,628502	1,992855	2,678289	3,363813	3,370333	6,741799	7,216725	1,744407	2,032539	3,562011	3,330411	4,614712	3,936204	6,536385	7,431767
1,523915	1,843898	2,108364	3,064375	3,334953	6,338445	7,606611	1,509408	1,816585	2,720604	2,867003	3,231392	3,897094	6,298823	7,522875
1,581885	1,954599	2,638095	3,24833	3,38438	6,795378	7,26734	1,630207	1,927841	3,382671	3,151923	3,66138	3,955456	6,556855	7,497426
1,52361	1,875056	2,248008	2,701854	3,334659	6,463103	7,905172	1,509012	1,820401	2,82799	2,99419	2,73756	3,896758	6,28138	7,517982
1,486256	1,879248	2,563343	2,997562	3,400457	6,897348	7,327497	1,435747	1,749127	3,064186	2,831354	2,001989	4,033037	6,660322	7,743572
1,511937	1,782514	2,086074	3,124723	3,2582	6,262262	7,405841	1,556425	1,80594	2,764588	2,934442	1,904325	3,875437	6,5445	7,394076
1,604438	1,988208	2,399277	3,192733	3,416254	6,956312	7,967633	1,545206	1,878486	3,02726	3,059391	2,865054	3,920875	6,58542	7,735318
1,566811	1,895423	2,466295	3,310291	3,404091	6,88025	8,39523	1,494139	1,729069	3,207611	3,092701	2,771288	3,965788	6,662772	7,621143
1,564421	1,932314	2,680156	3,158544	3,40037	7,149534	7,598395	1,491301	1,739279	2,860103	3,034486	2,212381	3,961773	6,704432	7,920778
1,609844	1,883992	2,403868	3,248978	3,445453	6,887376	8,476432	1,511227	1,66117	3,151989	2,842682	2,521895	4,0092	7,085192	7,631464
1,795973	2,176145	2,917218	3,527623	3,520509	7,049832	7,625077	1,870525	2,173262	3,742769	3,672999	4,440716	3,990904	6,6064	7,515909
1,382443	2,006695	2,656632	2,866172	3,463075	6,887173	7,75757	1,313859	1,772345	2,879262	2,66184	1,45733	4,081127	6,677574	7,648933
1,499173	2,163662	2,810247	3,143213	3,440102	6,771609	7,683728	1,556891	2,056695	3,55852	3,085843	1,483846	4,030401	6,720508	7,46779
1,472481	1,708975	2,34413	2,756558	3,248285	6,497271	7,320679	1,524413	1,728565	2,781192	3,221794	2,321623	3,865601	6,490582	7,86212
1,506165	1,93572	2,618834	2,94534	3,406251	6,726008	7,503777	1,436154	1,749538	3,087534	2,858711	2,138127	4,031481	6,80818	7,60599
1,629544	2,095222	2,834543	3,143638	3,371151	6,743084	7,426943	1,745326	2,14691	3,657841	3,687412	3,297211	3,936959	6,540055	7,427069
1,62753	2,073143	2,747168	3,305063	3,391196	6,702637	7,893609	1,672476	2,034823	3,378133	3,48129	2,276383	3,957365	6,578222	7,534204
1,316512	1,640782	2,155955	2,708471	3,170014	6,038415	6,738616	1,378271	1,64969	2,757005	2,921944	2,188592	3,886659	6,199431	6,934708
1,420744	1,708733	1,943149	2,939535	3,242457	6,007757	7,189574	1,443278	1,730264	2,529212	2,909422	2,835639	3,870463	6,161265	7,139504
1,648397	1,985232	2,603595	3,402938	3,392044	6,761805	7,221854	1,748026	2,030414	3,393874	3,738692	3,764608	3,947645	6,540419	7,347944
1,497078	1,789852	2,320703	3,218797	3,264957	6,24053	6,870944	1,634598	1,880549	3,164995	3,381307	3,425132	3,902419	6,183003	6,952858
1,374873	1,541592	1,972628	2,756099	3,168296	6,077509	7,080923	1,454949	1,616343	2,871819	2,941921	2,536123	3,843219	6,32415	6,917028
1,374246	1,582445	2,106264	2,730414	3,16902	6,154835	7,013129	1,454766	1,646928	2,596218	3,300047	2,501423	3,84419	6,198815	7,439104
1,542739	1,94607	2,324594	3,207843	3,175348	6,334619	7,423923	1,621949	2,015429	2,784994	3,76867	3,491532	3,8163	6,229328	7,586785
1,493883	1,737826	2,15707	3,117731	3,338973	6,372412	7,979919	1,444196	1,591969	2,844349	2,904169	2,450067	3,96785	6,73224	7,120085
1,558892	1,842472	2,378875	3,367619	3,238235	6,18965	6,77318	1,895899	2,116355	3,55821	3,788829	4,572022	3,882002	6,181334	6,911397
1,458027	1,75959	2,288178	3,106725	3,276848	6,273163	6,857591	1,537936	1,79477	3,013655	3,199653	2,946008	3,918486	6,202633	6,99287
1,497491	1,85566	2,243285	3,162352	3,315729	6,80286	7,652516	1,479861	1,803208	2,875456	3,207879	2,784755	3,894456	6,565815	7,641155

TDB07i	TDB09i	TDB10i	TDB06s	TDB08s	TDB09s	TDB10s	TDB08r	TDB10r	RDF025u	RDF030u	RDF035u	RDF040u	RDF050u	RDF065u
8,177192	10,15604	11,25085	27,78123	23,94524	35,72914	51,29259	3,367938	3,417556	19,21991	6,091142	10,85769	10,73191	7,890061	6,600485
8,633942	10,05516	12,17368	27,04345	23,47936	33,79652	31,31507	3,483609	3,493119	19,86596	6,709942	12,47759	12,3257	8,673546	6,490043
8,12586	9,947789	10,86612	30,31008	24,26659	37,80781	53,85452	3,779238	5,716658	17,6254	9,098872	10,62741	9,726143	10,43405	6,782044
8,2816	10,47453	11,47762	24,66288	25,49104	34,97473	41,42868	3,663144	4,577263	19,41149	7,803788	11,30402	13,05289	10,1844	12,17448
8,195264	10,14094	11,25053	32,54904	25,12712	40,34778	59,39686	3,698641	5,242405	17,47355	6,843012	10,03194	11,31166	8,4867	6,770837
8,856827	10,55804	12,66353	25,69422	25,60906	33,5242	45,05528	3,74775	3,763856	20,09801	6,642139	10,29087	9,515891	7,808733	9,399239
8,409453	10,8235	12,80207	38,7483	27,9407	48,38427	75,82309	3,517223	4,205666	18,40361	4,047756	8,545331	5,943509	5,511337	9,897828
8,275918	10,743	12,06129	22,97861	21,72097	34,47739	56,51273	3,410643	3,410624	21,07052	6,379266	9,901278	9,356764	7,793169	8,696754
8,685017	10,51982	12,43524	30,93903	26,5158	36,4656	52,72137	3,924462	4,392463	17,54534	9,239393	12,53817	10,29398	6,749125	9,903761
8,903318	11,25805	13,4132	32,05196	43,17986	46,52255	68,13246	4,219063	5,139355	20,19245	6,368181	12,68467	4,989727	6,998211	9,025251
8,414286	10,65794	11,30585	43,43313	29,79538	44,33267	66,42255	3,930339	4,260348	22,48445	5,175528	9,097698	9,191479	9,288431	8,478019
9,300923	10,49767	14,22159	33,84615	51,62707	45,79806	71,0891	3,993804	4,547577	20,33469	8,230123	11,89014	10,21559	11,65471	9,26347
8,189294	10,13657	11,28005	37,03792	28,61175	43,87626	103,7371	4,286607	6,886731	16,54191	7,563392	8,806886	11,42877	5,824115	6,611309
8,349101	10,43138	12,30082	31,78443	36,81273	49,32849	58,9575	3,464393	2,983421	11,52066	4,247329	7,966228	2,923518	2,03815	8,410093
8,190023	10,62889	12,52464	30,089	29,20053	49,54324	60,03025	3,824879	3,037705	14,74718	2,510392	9,031652	5,897612	4,22132	5,802065
8,383483	10,74034	11,7503	25,18267	23,51286	27,80753	38,33046	3,709698	3,357539	19,78206	6,398231	12,04427	11,42512	5,470226	7,898623
8,4506	10,61324	11,71898	30,64518	29,28317	68,70293	55,13077	3,570485	3,634291	19,42368	3,369966	10,32235	4,184958	2,862637	6,144259
8,137074	9,986297	11,01691	30,30775	25,71375	36,84826	77,1285	4,119699	5,529623	17,32029	8,628943	9,963463	9,482624	6,234078	8,104998
8,418003	11,04764	12,5812	28,46552	28,2445	55,92383	58,086	4,114137	3,851696	18,5202	4,541685	8,859146	9,097349	6,987005	7,252798
7,867583	9,153308	9,397302	25,78088	15,87366	21,05878	32,22241	3,198256	3,012575	21,51689	7,966432	11,80123	11,44351	13,79322	4,640911
7,9661	9,564725	9,913145	23,75181	18,90088	23,24577	31,22684	3,480943	3,749427	21,3008	8,643727	15,37546	11,62077	16,24317	11,07401
7,991379	9,48826	9,930248	35,02283	20,49322	28,81437	41,95032	4,103298	4,792082	20,21611	5,998792	12,94593	14,8639	9,711163	4,204165
7,873574	9,140092	9,360486	28,0415	16,55745	23,25106	35,47351	3,603348	4,138955	18,80489	10,53084	14,47526	11,05898	16,06676	4,858579
8,302441	9,080656	10,43478	25,5122	16,73746	20,8901	26,31813	3,306123	3,162681	22,18526	8,650107	14,30156	13,34178	14,3464	6,568412
8,154496	10,00508	10,5719	24,18296	16,56285	19,60995	26,1513	3,574298	3,149849	21,72897	8,735595	17,63057	12,38941	14,24907	5,280589
8,490968	10,28446	11,6321	24,57043	18,96376	23,51719	34,51026	4,095386	4,324098	29,33051	11,76275	14,15603	13,09608	10,89089	7,816454
8,879693	9,493559	11,78377	31,08922	41,93955	30,08954	51,42519	3,783491	3,851754	23,12115	10,2978	11,92878	11,85192	19,51985	6,475861
7,808309	8,905121	9,072343	27,60807	16,2002	22,42904	34,33026	3,66666	4,358824	18,95885	11,90622	13,80647	12,13003	13,13487	5,77002
7,905537	9,16755	9,404741	29,81611	17,05824	24,63453	37,30646	3,500673	3,864235	19,22759	9,0747	13,55011	13,19967	14,14774	4,41897
8,531994	9,99867	11,14031	30,72169	19,99447	25,83949	32,27266	3,830447	3,903073	21,18753	7,57077	18,57594	5,732198	5,91374	12,02915

RDF070u	RDF075u	RDF080u	RDF085u	RDF090u	RDF095u	RDF100u	RDF105u	RDF110u	RDF120u	RDF025m	RDF030m	RDF035m	RDF045m	RDF050m
4,175675	6,186772	4,113838	3,921128	2,188689	2,349092	0,266469	0	0	0	13,83171	4,068866	5,721166	6,367768	3,641223
5,323044	6,229661	5,172928	3,833114	3,843575	3,582742	3,036055	2,616761	0,150495	0	15,93262	4,666055	5,953596	6,780448	3,674627
4,597799	4,874929	3,694332	3,107641	0,77614	1,967039	0,711203	0,102275	0,17052	0	13,86797	8,190272	4,930761	6,266278	4,516578
3,095865	10,67972	5,502555	8,837875	3,732716	5,137608	1,267155	2,93023	1,461691	0,413293	15,71562	4,568577	5,611982	7,748806	4,168374
3,939379	5,666364	5,809771	3,563124	0,675167	1,263051	1,013259	0,004683	0,00076	0	13,88554	4,169922	5,017714	8,98932	3,341478
3,977048	8,31262	3,617043	5,671932	5,141131	2,888177	4,857262	1,484458	2,696909	0	15,78837	3,591205	5,134676	9,21014	3,780532
5,09778	4,667719	2,885063	2,403212	2,454521	1,80517	1,719452	0	0	0	14,81397	2,004017	5,882474	8,022941	3,747143
6,486203	5,153721	7,169864	3,001577	2,018226	0,83403	1,075916	0,009017	0,000332	0	14,68158	4,750309	5,179576	7,100508	4,170127
6,100673	5,995698	3,475905	6,127417	4,107092	1,963941	2,49173	3,791389	1,347567	0,000352	15,38985	4,194466	8,58518	9,318403	3,988517
6,737985	3,964084	5,311224	5,52489	5,032216	2,40047	3,301177	2,103398	1,61987	0,428956	16,41494	4,115874	8,268714	8,597341	4,103732
6,655156	7,016806	4,272438	5,219107	0,374393	0,693488	0,007758	0	0	0	16,77714	3,65629	6,264095	3,603502	7,936618
3,866054	7,057319	3,843905	6,7178	2,553781	2,852938	4,608807	2,791195	0,663445	0	16,86484	5,837658	6,627559	8,491324	7,688678
5,309891	5,472736	4,130229	3,497884	2,016356	1,103546	1,749899	0,105448	0	0	13,92631	3,682712	5,310229	10,71701	3,638414
2,813359	3,460084	2,509498	0,985165	0,805337	0,353608	0	0	0	0	10,32294	2,806224	8,863242	6,371058	1,799752
2,678112	5,125843	1,33227	4,864416	1,232825	1,857053	0	0	0	0	14,97325	1,324457	7,328329	5,647693	3,336635
6,543775	8,768779	3,75981	8,886245	7,813638	3,108927	2,260632	1,133677	0	0	15,93392	4,552844	6,048414	6,90795	3,114511
5,289777	6,912102	4,118707	3,411936	1,8422	1,556889	0,611956	0	0	0	14,99361	1,391896	7,932359	9,20294	1,968918
4,895446	8,53108	2,083842	5,226909	3,64087	1,515065	1,351438	0,000103	0	0	13,8472	7,46883	5,628844	7,241874	3,694943
4,373905	3,774749	4,753127	5,315322	2,609374	1,825363	1,760817	0,021459	0	0	13,78834	4,672926	5,614332	9,826139	4,352489
4,256687	6,5293	4,822214	3,276956	1,618633	2,609728	0,117586	0	0	0	15,02422	4,893247	6,246694	2,752067	5,070652
6,978062	8,017526	5,906481	7,507168	4,570911	2,097377	4,899422	2,338002	3,221669	0,170559	17,04284	3,782797	10,1295	8,444172	4,551366
5,443983	5,58268	8,876322	1,284286	2,325004	2,529398	2,131738	1,294996	0	0	15,82946	3,96707	9,097653	11,3014	6,645255
7,628867	6,183854	5,058871	3,94858	3,877572	2,128866	1,011059	0,010446	0,455223	0	14,8502	8,9024	7,510846	2,350237	7,620557
6,998219	4,396187	7,302001	5,605255	1,861114	6,474301	3,414094	2,306258	1,596267	0	17,20889	5,393647	9,103557	3,978892	3,812608
6,473251	7,05904	4,720387	4,723526	6,288462	5,357274	4,80084	1,005284	0,153064	0	16,88038	4,611355	8,531265	3,10249	6,957711
7,568614	11,2359	11,51756	4,272244	5,002275	6,020324	6,434921	3,164837	2,401047	1,312012	19,84869	7,735133	3,712993	8,338629	8,145254
5,240206	6,509353	6,122175	6,828006	4,618874	5,658766	4,03437	3,590944	1,037865	0	18,22795	8,147089	9,214533	3,798688	8,863654
5,477887	3,720607	6,466123	5,705706	2,161765	0,194647	0,795644	1,006927	1,697276	0	14,84718	21,30086	8,581626	10,41202	9,395079
6,580669	5,378591	6,562377	5,483515	3,672226	1,113379	1,104358	0,21002	0,000266	0	14,93931	5,616266	8,160483	5,411787	5,808327
5,462465	5,536716	6,767851	5,379645	6,180863	2,84958	4,095301	3,143575	2,022656	0,000123	17,02703	1,178186	14,06793	7,831252	3,939365

RDF055m	RDF060m	RDF065m	RDF070m	RDF075m	RDF080m	RDF085m	RDF090m	RDF095m	RDF100m	RDF105m	RDF110m	RDF115m	RDF020v	RDF040v
5,582807	2,249086	2,085137	0,581794	1,531822	1,224694	1,753199	0,120875	0,137752	0,001885	0	0	0	1,2952	3,035649
3,760186	3,438765	2,794479	1,208353	1,188172	1,578172	1,902487	1,174033	0,434091	0,145669	0,183896	0,001064	0	1,401203	3,682872
3,743379	3,587129	3,625794	13,47614	1,422434	2,3699	1,451621	0,06701	5,187142	6,176109	0,057223	0,095406	0	1,810464	3,106783
4,485577	3,015182	8,08181	0,936325	3,580101	2,245892	3,79906	1,475236	1,418001	1,030441	0,064672	0,10758	0,001757	1,780973	3,741493
5,414787	4,558095	3,304178	2,874581	1,211882	8,58624	1,872613	0,146895	1,692105	3,898898	0,001162	0,000189	0	1,25762	4,76561
6,254338	4,193584	5,354158	1,693926	5,443939	1,294231	3,587396	0,44811	0,45309	1,363581	0,051544	0,57631	0,009741	1,778591	2,744201
5,424671	3,291741	7,628734	3,944049	1,612325	0,373299	1,007991	3,684695	0,11465	1,751051	0	0	0	1,237139	1,952663
2,850217	4,261759	5,30491	2,513032	0,926563	2,925929	1,161721	1,614411	0,072835	0,105172	0	0	0	1,374471	2,986709
7,38627	3,219563	6,97097	2,935832	3,369267	1,772267	4,795061	1,936219	1,546739	0,412312	1,239918	0,137203	0,022841	1,796804	3,259843
2,488988	0,796783	4,856062	4,273553	2,054022	2,34904	5,174106	1,160242	0,86152	2,376717	2,409087	0,671893	1,868232	1,265621	1,525733
7,82754	3,234563	6,748421	5,324271	4,26298	3,46839	3,50813	0,143252	0,056105	0,000961	0	0	0	1,276858	2,414842
4,543899	2,873635	7,008162	2,456748	3,833389	1,42214	7,2789	2,406784	2,279668	5,48505	0,329714	0,137754	0,016728	1,243576	3,136121
3,606099	4,849172	1,999543	3,979296	3,953122	9,617608	2,639149	2,151894	3,22158	6,025805	0,026176	0	0	1,195413	6,238257
8,56324	3,22367	3,539661	1,64015	0,464589	0,241393	0,099924	0,089936	0,012916	0	0	0	0	1,325122	0,974215
3,244492	4,401664	2,042824	1,606685	3,582974	0,111236	2,154704	0,00872	0,103608	0	0	0	0	1,097476	2,976065
3,658006	3,290266	2,102706	1,90477	3,584131	1,742499	3,22267	0,403557	0,136169	0,057721	0,113041	0	0	1,389474	3,535135
3,145719	1,310755	1,075808	5,156806	2,626574	1,052157	1,568992	0,540369	0,028911	0,067732	0	0	0	1,250781	1,235398
5,554324	2,467383	10,63043	8,412962	5,42674	0,972844	3,05958	5,934478	0,138063	0,460497	0,000913	0	0	1,816594	3,04401
2,466855	2,850897	8,582873	4,553351	0,825001	2,931738	1,425683	1,39956	0,123626	0,098181	0,000152	0	0	1,246095	3,985487
2,602021	4,078002	0,347245	1,950014	2,35103	2,401579	0,190971	0,065773	0,028425	0,000832	0	0	0	1,41933	4,223591
8,190225	2,363481	5,780881	2,339794	3,782316	1,474697	2,603513	1,405313	0,463133	1,307557	0,114951	0,13213	0,000267	1,875373	4,361797
7,075416	6,978248	3,654189	4,20861	2,457132	6,801387	0,347451	0,50057	8,21808	0,529226	0,321467	0	0	1,355566	6,931133
2,759953	6,084471	0,381126	15,43913	10,41512	3,544505	0,9712	0,280114	9,959791	0,653153	0,006919	0,254697	0	1,911321	4,244799
4,516766	4,426607	1,658536	2,474091	0,563666	2,600843	0,252539	1,301024	0,347388	0,157833	0,087326	0,01129	0	1,634746	4,554521
3,421569	9,064186	0,699351	3,76307	2,303644	2,122755	1,177237	0,497678	1,492209	0,133027	0,008957	0,001083	0	1,507061	4,539918
3,951501	4,361777	3,082312	2,577712	4,564686	3,901913	0,915924	1,78615	2,256668	3,638066	2,009737	0,967828	0,13916	1,521022	3,937117
3,007788	3,574532	3,116787	4,777195	3,199129	3,021024	6,123517	4,332718	3,276451	3,98434	2,030729	0,138084	0,008157	1,454314	4,355126
3,474714	8,487475	4,405069	2,880911	5,674393	2,678049	14,40015	0,250835	0,432506	0,754549	1,177129	1,508229	0	1,818638	3,821092
2,571944	6,802851	0,332381	5,49404	1,986239	6,736103	3,117674	2,264885	1,586051	2,964391	0,052135	0	0	1,348534	5,673565
5,297326	5,096155	5,422822	2,781016	2,452202	4,595918	1,655695	5,959948	1,494387	0,880267	0,05111	0,020225	0,000153	1,975184	1,770557

RDF070v	RDF075v	RDF080v	RDF085v	RDF090v	RDF100v	RDF110v	RDF045e	RDF055e	RDF060e	RDF065p	RDF085p	RDF090p	RDF095p	RDF100p
1,285083	1,695127	1,586375	1,448522	0,417322	0,018488	0	7,814221	7,914047	6,509202	3,028486	1,439022	0,639805	0,372884	0,03862
1,817998	1,67455	1,843892	1,465103	1,6929	0,509536	0,010441	10,62577	5,844507	6,222756	3,487178	1,38569	2,0333	1,260707	0,797908
2,938061	1,709898	1,656437	1,092061	0,20446	0,65083	0,057878	8,432724	4,988231	5,067655	3,607159	1,038462	0,295536	1,856354	0,566935
1,301364	3,668811	2,163102	3,558672	1,160618	0,667142	0,231911	12,67114	7,686466	6,393542	6,344339	3,559651	1,074365	1,389161	0,53321
1,692637	1,546331	3,30265	1,422536	0,20372	0,778687	0,000218	9,3911	6,346866	5,392388	3,549183	1,331379	0,283845	0,856628	0,568288
1,633334	4,037384	1,626917	2,431086	0,962673	1,779002	0,686336	13,23636	7,709607	9,688068	3,956402	1,984073	1,193467	0,755106	2,121469
3,059224	2,006102	0,662572	0,870172	1,536804	0,517956	0	14,88746	8,479337	6,440003	4,02148	0,887453	0,774699	0,242385	0,226397
2,945248	1,540995	2,496694	1,160508	1,016218	0,1852	0	14,10406	7,070739	10,60275	4,867706	1,19743	0,796615	0,217671	0,182131
2,69624	2,549107	1,95919	2,92668	1,478601	0,654118	0,272825	11,09015	9,581413	5,561763	4,657871	2,115431	1,219442	1,597572	0,820766
3,728007	1,430631	2,063704	2,855418	1,420304	1,610147	0,53286	11,66018	7,544878	4,189021	3,674315	2,324509	1,699797	0,498204	1,279817
3,384	3,144001	1,868125	2,225938	0,138831	0,001102	0	7,417533	11,31343	7,704126	3,4897	1,666129	0,148847	0,110169	0,001245
1,593179	2,580471	1,727566	3,052918	1,575213	2,224599	0,120328	10,41403	6,556795	4,748941	4,865494	2,064926	1,349091	1,176712	1,271437
2,368219	3,546167	2,813571	1,564248	1,089479	1,25021	0	11,58413	6,31997	5,499663	2,535808	1,452044	1,365424	1,356707	0,963874
1,293436	1,048304	0,428928	0,200701	0,151247	0	0	9,796627	11,23794	4,845266	2,981206	0,285663	0,139268	0,054037	0
1,151835	3,175934	0,30258	1,824962	0,085533	0	0	7,35965	5,779387	5,966336	2,63126	1,833125	0,178676	0,293364	0
2,743883	3,633192	1,698073	3,054241	1,379805	0,17871	0	11,34147	7,807806	5,88292	3,27148	3,163553	2,143439	0,773258	0,338478
3,419244	2,723851	1,511097	1,320751	0,582525	0,114278	0	13,5852	4,952391	2,982446	2,188288	1,316799	0,621463	0,230435	0,105663
2,225217	4,17318	1,049114	2,058801	1,655722	0,242448	0	9,669075	7,641762	5,744861	4,289943	2,011703	2,325247	0,312087	0,459092
2,521669	1,229272	1,856111	1,885033	1,111705	0,219278	0	9,372268	5,248621	4,666547	4,206185	2,113643	1,05974	0,494232	0,278157
1,706672	3,032818	2,366432	0,598253	0,209317	0,008158	0	4,351328	3,394844	6,94864	1,324867	0,916239	0,320631	0,408741	0,017042
2,325672	3,475778	2,090614	2,527738	1,317322	1,808904	0,498938	14,7026	13,08658	6,463202	3,960522	2,703686	1,442972	0,592313	2,1752
2,438861	1,799858	3,926137	0,297437	0,659261	0,612554	0	13,95216	12,8709	8,546703	2,324583	0,465185	0,970333	2,51443	1,005203
4,271513	3,490948	2,829302	0,835506	0,757589	0,356793	0,154511	4,340019	4,019706	8,179675	1,482538	1,299738	1,040251	2,217799	0,682448
2,587321	1,033663	3,074533	0,891705	0,905709	0,573488	0,110748	8,213729	7,479535	7,49936	2,477112	1,415674	0,756572	1,534421	0,903776
3,582916	2,975798	2,224398	1,842949	1,411751	0,582544	0,01062	7,214374	5,990711	12,9641	1,617496	2,285979	1,991437	1,409536	0,998872
3,385572	4,92594	4,289498	1,309026	1,97824	2,765165	0,867357	13,50309	8,386127	10,83437	3,745265	1,63341	2,172488	2,56087	2,517274
2,483507	2,450255	2,609379	2,368407	2,194617	1,660057	0,176791	5,45558	6,394744	6,445106	1,871329	1,640437	1,379121	1,244664	1,0771
2,780947	1,992615	2,692762	2,367143	0,509211	0,335358	0,706448	8,876351	4,454365	11,7398	2,751949	4,214091	0,697166	0,141374	0,925916
3,485105	2,577871	3,504977	1,71492	1,381766	1,116958	0	6,799835	3,770274	8,468001	1,207879	2,264801	1,758401	0,781252	1,284059
2,049769	2,002837	3,662406	1,73807	3,412562	1,408539	0,15508	13,16039	12,287	12,10911	4,18806	1,855289	2,532363	0,903479	1,686975

RDF105p	RDF020s	RDF025s	RDF030s	RDF035s	RDF040s	RDF045s	RDF050s	RDF055s	RDF060s	RDF065s	RDF070s	RDF075s	RDF080s	RDF085s
0	8,270539	71,26524	32,56464	40,90904	48,32177	36,97362	34,85703	40,35205	22,12996	15,21457	8,179979	24,41548	13,19316	20,80708
0,592749	8,792241	77,52119	34,32774	43,81484	58,37332	44,47002	36,26227	27,95017	31,55938	17,68509	13,76235	18,18203	20,22676	20,01891
0,067477	9,789371	69,11893	38,35254	39,1093	50,80683	43,64041	33,39185	28,96095	30,37827	24,52435	19,8093	12,59919	14,51261	15,81883
0,551775	17,76972	78,17642	33,46587	39,51465	61,14019	51,65405	38,04525	38,30347	27,37634	52,07253	7,545095	40,42405	27,18877	36,36874
0,002208	7,873593	68,89602	31,61267	35,32285	57,75772	51,82433	29,58182	43,32487	20,77873	22,50473	14,72512	18,47515	48,96533	19,22798
0,340777	17,77042	79,29297	27,17086	35,90775	36,16542	68,51222	22,49978	49,16734	30,166	46,94945	11,38292	56,3664	9,428606	34,58333
0	7,76847	80,24911	18,32546	37,00618	25,70578	67,71178	43,94809	49,00709	26,0041	81,4544	35,76661	12,07482	4,470324	12,24749
0,001307	8,899513	75,97074	26,96164	34,06454	35,31033	70,49236	22,54691	29,20652	33,44547	35,52355	19,6553	14,42833	34,36504	13,49768
1,02212	18,3627	76,45127	33,09023	50,94524	40,69014	64,3259	23,02229	58,36884	17,92101	48,00029	18,07662	26,14478	13,06925	39,72539
0,697384	10,79503	79,24401	47,08903	61,10555	25,93246	61,99672	48,85561	35,41506	7,658882	39,76876	39,94155	25,15881	20,27103	54,75717
0	10,88474	98,93172	30,56502	43,88358	35,47365	27,71098	65,11905	74,08986	31,83886	72,27877	46,37003	48,08189	56,7404	41,94193
0,597701	8,211941	84,11554	51,03375	57,56944	54,69988	66,40093	67,95834	41,66177	23,85841	49,87888	29,15729	46,50254	13,32668	82,93761
0,049723	7,466375	66,3261	31,02497	35,01252	72,55482	48,05352	34,33642	28,82127	30,40988	20,5179	19,77687	25,9053	53,94562	19,53841
0	8,106193	53,97594	22,78534	54,5792	12,35032	57,19874	18,14075	73,21841	25,58482	37,40606	20,64923	6,528493	13,55435	1,784691
0	6,688961	61,48969	12,15828	47,54012	28,65517	31,61216	29,69446	37,92753	31,38157	21,70677	19,02084	30,22708	4,026056	25,59047
0,192418	8,767029	76,9674	37,78376	42,69582	59,56528	39,38836	19,65781	25,35417	32,19057	18,9726	15,08692	36,66532	16,99389	37,21497
0	7,937305	80,61292	15,69713	52,22934	19,18047	88,445	16,0188	50,03095	13,26095	11,9915	71,67618	27,715	7,966631	18,58349
0	9,863544	68,46664	35,46437	39,47638	49,06782	38,5238	32,99933	33,13287	25,84917	33,3077	16,54913	42,9755	5,256503	30,41124
0,00311	7,988033	68,6896	22,70908	34,72973	49,42668	61,82292	24,86409	20,21098	13,68928	61,26056	17,87614	10,37245	24,97201	18,84265
0	9,024349	79,47305	37,44158	45,02665	47,96395	17,21708	47,56249	12,74688	20,84672	7,951348	22,09937	17,28031	20,26149	4,657299
0,400644	18,29662	85,5912	31,4539	61,79784	67,49926	64,10693	49,2878	74,61714	18,03031	55,80422	28,4956	29,2755	13,62228	27,99263
0,610636	8,900576	83,5762	32,50435	62,33296	82,21109	80,0488	55,53876	50,17813	39,82022	20,13735	27,08656	24,08199	35,66275	3,508396
0,007081	10,40428	71,17102	43,27165	60,51386	46,40873	15,98651	60,08486	18,73273	39,98394	7,569041	36,70594	34,30148	28,72124	6,287061
0,551614	10,22532	85,76726	42,08281	61,71616	46,58652	32,6625	51,05618	45,11062	33,04178	12,89558	26,35896	17,202	20,75098	7,669975
0,146193	9,455249	80,3123	33,7874	69,45971	48,7259	28,21472	49,67434	29,44133	75,53714	9,466904	25,76277	26,70371	18,29921	8,742969
1,663898	9,996103	88,33188	52,11845	35,1839	38,26359	64,30539	39,90438	29,20158	27,515	19,37224	20,47375	36,70444	47,15643	7,802052
0,706304	9,50947	93,80035	68,40111	69,52121	58,16898	24,73918	101,74	32,57536	17,68536	29,72294	55,36975	38,38315	23,57094	75,63068
1,220194	9,495552	73,69799	50,10492	61,42375	49,49094	59,32604	40,14099	32,96665	65,15523	9,450656	21,41457	13,28794	24,55911	12,44954
0,099032	8,443651	73,46815	37,40248	59,15103	67,79896	39,37504	52,75427	15,56173	29,10543	6,450622	33,90669	14,04601	36,0764	12,81121
0,522451	20,11856	88,47882	20,8766	75,40691	16,19805	69,07359	20,03943	43,59439	45,13249	58,12712	29,44394	22,7581	32,99953	15,10367

RDF090s	RDF095s	RDF100s	RDF105s	RDF110s	Mor02u	Mor03u	Mor04u	Mor05u	Mor06u	Mor07u	Mor08u	Mor09u	Mor10u	Mor11u
3,091438	9,273538	0,266469	0	0	26,17711	-2,26381	-0,98303	-3,4092	-1,60544	4,153759	-0,06831	-0,4755	-0,61554	0,543323
8,249044	8,012561	4,386948	9,394031	0,150495	28,63096	-1,96655	-0,72377	-3,40797	-1,45331	3,412661	0,425821	-0,38274	-0,74463	0,533645
1,310806	7,981764	13,34102	0,281257	0,468931	24,18821	-2,23323	-0,65653	-2,97651	-0,93952	3,304881	0,006802	-0,69304	-0,33676	0,498322
12,95805	29,93193	11,37455	3,527576	6,317476	28,03486	-1,65052	-1,57229	-3,74151	-1,25405	4,184423	0,495535	-0,38829	-0,72463	0,651985
1,292333	7,038708	28,58677	0,019251	0,003124	24,56651	-2,29399	-0,80996	-3,2685	-0,78967	3,358982	0,059832	-0,65618	-0,55446	0,585966
16,93851	11,12278	8,528631	1,788813	16,38865	28,24636	-2,0048	-1,3075	-4,52193	-1,44092	3,806431	0,399729	-0,28597	-0,49703	0,422824
29,35965	7,466514	50,76239	0	0	25,90671	-2,5399	-1,181	-3,10432	-1,56253	3,863625	0,391786	-0,96883	-0,15822	1,092077
17,85386	3,321704	6,651258	0,009017	0,000332	29,758	-1,84351	-0,3006	-3,28626	-1,82963	3,248982	0,580456	-0,74002	-0,86068	0,404282
15,61675	5,980126	7,314274	12,69574	7,376634	27,87345	-1,96393	-1,29108	-3,9299	-0,88003	4,512983	0,386708	-1,52424	-0,33234	0,707436
12,39025	25,44784	19,15748	29,77453	8,13608	26,29672	-1,38364	-1,48983	-3,34322	-2,03453	4,829404	0,024367	-0,77752	-0,02304	0,799247
1,439631	3,098835	0,043828	0	0	28,42796	-3,11789	-0,42824	-3,52512	-1,34713	3,854187	0,426661	-0,94362	-0,43185	0,483466
19,40654	19,6875	75,98386	15,62672	6,51054	26,70726	-2,76285	-0,61033	-3,56314	-1,1923	4,519631	-0,19654	-0,99789	0,041027	0,711767
7,534974	6,777997	44,63172	0,433508	0	23,28899	-2,73485	-1,05364	-3,75048	-0,24186	2,726819	0,385712	-0,58964	-0,05587	0,609282
5,616897	0,948938	0	0	0	25,22895	-1,88071	-1,13273	-2,12128	-2,00741	3,906309	0,938583	-1,38115	-0,19746	0,409451
1,232827	7,028698	0	0	0	24,16241	-2,24951	-0,9485	-2,09797	-1,79829	3,159933	0,218575	-0,41655	-0,28675	0,305777
11,42982	4,471642	2,729051	7,136938	0	29,09953	-3,17819	-0,97062	-4,09059	-1,26412	3,67977	0,496366	-0,61294	-0,37719	0,500139
9,328279	2,580015	4,23625	0	0	26,23495	-2,62696	-1,73577	-3,17581	-2,04805	4,27312	0,208854	-0,98093	-0,19784	0,683918
7,792559	4,045312	2,577667	0,001983	0	24,53353	-2,50551	-1,12463	-3,86151	-0,87847	3,456147	0,588858	-0,79341	-0,02904	0,508314
15,90309	4,73011	6,660963	0,021459	0	26,43996	-2,12801	-0,24339	-2,84346	-1,16901	3,148466	0,36367	-0,60058	-0,51717	0,662404
3,555077	2,674425	0,117586	0	0	28,25809	-2,06041	-0,56327	-2,9681	-2,50397	3,496512	-0,13507	0,172887	-0,67788	0,486838
10,1667	5,400932	9,647275	4,503291	4,22918	30,25823	-2,11746	-0,59857	-3,29794	-2,42758	4,425477	0,441134	0,03769	-0,67665	0,294496
6,850754	35,23848	8,763825	5,323858	0	26,38833	-3,22126	-0,99938	-3,21523	-1,29562	2,620756	0,836433	-0,77975	-0,58431	0,516373
11,09984	15,4385	2,800123	0,02897	1,251863	26,57888	-2,16218	-0,10986	-2,96526	-2,03003	2,803746	-0,17574	-0,1917	-0,56289	0,398836
14,95946	10,73137	4,968898	3,226895	1,596267	31,08378	-2,04496	-0,20052	-3,47577	-2,62013	3,303126	0,720289	0,271563	-0,82495	0,186507
15,08187	20,93495	5,638346	1,110858	0,153064	31,89595	-2,44931	-0,36996	-3,99426	-2,53007	3,169168	0,015079	0,110979	-0,97069	0,17307
18,38897	22,15758	34,83287	15,16347	11,817	34,08191	-4,12563	-0,32421	-5,38088	-2,20354	3,988927	0,635722	-1,08814	-0,09852	0,472934
41,23795	46,05052	68,60373	31,52149	8,302917	29,13076	-2,86522	0,008267	-3,45536	-2,07217	3,882299	-0,07002	-0,16627	-0,26447	0,498469
6,23235	0,307653	1,711656	2,165613	3,598226	25,92887	-2,22466	-0,26478	-2,87802	-2,50689	3,099325	0,175147	-0,47082	-0,18826	0,407182
10,63456	6,558191	6,585624	0,863412	0,001092	26,64648	-2,24482	-0,02318	-3,04052	-1,9421	2,670618	0,091015	-0,0726	-0,61873	0,513542
43,53252	10,99192	9,102003	3,476205	2,06693	32,40475	-2,76802	-2,07977	-3,31394	-3,14509	5,057523	1,032016	-1,53338	-0,0215	0,469499

Mor12u	Mor13u	Mor14u	Mor15u	Mor16u	Mor17u	Mor20u	Mor21u	Mor22u	Mor23u	Mor24u	Mor25u	Mor27u	Mor28u	Mor29u
-0,55081	-0,1202	0,961627	-0,31912	0,713959	-0,53495	0,953891	-0,49158	0,398818	-0,66105	-0,31567	0,724883	-0,11818	-0,11623	-0,15291
-0,72228	0,026346	0,898051	-0,33172	0,591567	-0,54175	1,121977	-0,62464	0,154017	-0,43238	-0,38617	0,87379	0,046099	-0,24572	-0,22841
-0,32212	-0,50868	0,825763	-0,3343	0,697613	-0,5746	0,757782	-0,44651	0,162498	-0,60193	-0,35146	0,678184	-0,1798	0,070282	-0,12686
-0,44891	-0,18485	0,765874	-0,1615	0,54429	-0,4847	1,093721	-0,58458	0,187571	-0,65327	-0,34922	0,870331	0,085798	-0,29207	-0,17432
-0,4419	-0,07765	0,755987	-0,33474	0,594752	-0,48208	0,922568	-0,59059	0,364306	-0,4818	-0,20218	0,672882	-0,05694	-0,03197	-0,25664
-0,57899	-0,01415	0,832445	-0,26106	0,615603	-0,45835	1,024751	-0,37616	0,125258	-0,75934	-0,13659	0,670255	-0,25619	-0,07277	-0,3982
-0,61841	-0,22214	0,453419	0,059203	0,61147	-0,13645	0,676773	-0,3085	0,30883	-0,67135	-0,28957	0,69001	-0,19345	-0,08282	-0,12437
-0,99432	0,251295	1,330052	-0,61871	1,029855	-0,59405	0,686419	-0,4579	0,047335	-0,62894	-0,34308	0,731392	-0,10264	-0,20933	-0,35981
-0,10946	-0,38083	0,537378	-0,41173	0,873684	-0,52861	0,90318	-0,33859	0,224886	-0,70489	-0,23037	0,712907	-0,06645	-0,24281	-0,22145
-0,49339	-0,15262	0,497578	-0,27047	0,654671	-0,42271	0,751463	-0,56123	0,325843	-0,59177	-0,11633	0,646558	-0,08382	-0,15334	-0,16104
-0,31644	-0,13656	0,588231	-0,04181	0,758714	-0,41743	0,841259	-0,59706	0,451297	-0,66672	-0,26592	0,75108	-0,06603	-0,16704	-0,24288
-0,41444	-0,27351	0,60283	-0,21609	0,734601	-0,73907	1,060005	-0,60439	0,262159	-0,5893	-0,14409	0,662705	-0,20029	-0,08652	-0,10739
-0,2046	-0,29171	0,601289	-0,33192	0,426885	-0,02387	0,769893	-0,457	0,250948	-0,40504	-0,22294	0,473178	-0,09951	0,009986	-0,07557
-0,56065	0,235074	0,055661	-0,11108	0,71001	-0,17427	0,11639	-0,03485	0,147378	-0,57834	-0,31568	0,525331	0,011249	-0,41118	-0,40713
-0,60381	0,165146	0,524825	-0,23821	0,471006	-0,23021	0,306758	-0,03573	0,09347	-0,47358	-0,17806	0,398874	-0,08613	-0,18704	-0,26994
-0,58508	0,320683	0,890186	-0,50681	0,528513	-0,47282	0,997365	-0,43025	0,278082	-0,72208	-0,3762	0,725704	-0,06123	-0,21152	-0,34051
-0,30501	-0,21082	0,29667	-0,32474	0,184776	-0,3277	0,76842	-0,37152	0,283507	-0,80032	-0,22197	0,654727	-0,04673	-0,20936	-0,11904
-0,1921	-0,31601	0,873298	-0,34749	0,552714	-0,37559	0,693198	-0,24099	0,321138	-0,65599	-0,22495	0,61716	-0,15753	0,001827	-0,23077
-0,65838	0,124383	0,975943	-0,28541	0,778469	-0,38568	0,635573	-0,42586	0,192861	-0,52462	-0,14743	0,615934	-0,0978	0,051671	-0,18804
-1,39615	0,473261	1,07348	-0,70652	1,058396	-0,9423	0,953203	-0,74684	0,484261	-0,97938	-0,16624	0,670254	-0,03065	-0,13385	-0,31843
-0,98431	0,165822	0,724963	0,084749	0,780355	-0,93139	0,961063	-0,7301	0,291372	-0,86452	-0,14242	0,912469	-0,16508	-0,24043	-0,33918
-0,74231	-0,00908	0,769578	0,207893	0,451057	-0,0524	0,735087	-0,75284	0,418576	-0,56081	-0,14012	0,667036	-0,02549	-0,29539	-0,19214
-0,91652	0,263421	0,79124	-0,45282	1,083412	-1,07808	0,990134	-0,81826	0,293927	-0,69805	-0,3828	0,781947	0,082191	-0,20321	-0,24544
-1,49349	0,475746	1,054212	-0,39982	0,708912	-0,88587	1,189929	-0,82732	0,02345	-0,48412	-0,32936	0,5885	0,163985	-0,38119	-0,2616
-1,46232	0,58194	0,960089	-0,39991	1,035899	-1,03907	1,420838	-1,01094	0,202608	-0,64058	-0,48141	0,796323	0,08914	-0,37192	-0,29697
-0,40639	-0,25409	1,348206	-0,27503	0,978193	-0,82747	1,318204	-0,88335	0,426794	-0,8964	-0,30138	1,131946	-0,11253	-0,23338	-0,38278
-1,2309	0,28666	0,478894	0,086837	0,892992	-0,9049	1,099798	-0,70625	0,051296	-0,70665	-0,0108	0,670072	-0,00531	-0,22524	-0,08229
-1,04936	0,212784	1,099195	-0,73322	1,115511	-0,68104	0,993783	-0,73247	0,405617	-0,57177	-0,22257	0,670053	-0,08138	-0,00317	-0,29844
-1,27637	0,435006	0,899279	-0,71196	1,058551	-0,86822	1,080725	-0,70925	0,401826	-0,49085	-0,24205	0,598734	0,113348	-0,17047	-0,28604
-0,50257	-0,02217	0,53188	0,016832	1,040702	-0,32825	1,075656	-0,42849	0,124062	-0,90459	-0,13057	0,656095	0,113246	-0,5066	-0,50694

Mor30u	Mor32u	Mor02m	Mor03m	Mor04m	Mor05m	Mor06m	Mor07m	Mor08m	Mor09m	Mor10m	Mor11m	Mor12m	Mor13m	Mor14m
-0,15301	-0,25758	15,08567	-1,6713	-1,54424	-2,85954	0,337942	3,515105	-0,78121	-1,47273	0,075482	0,540826	0,658406	-0,84674	-0,13819
-0,21377	-0,24228	16,25275	-1,66289	-1,63693	-2,97087	0,747954	3,392446	-0,9291	-1,61393	0,223976	0,567633	0,630783	-0,94038	0,002799
-0,13512	-0,22972	18,37284	-1,94561	-0,96614	-2,75538	1,148784	1,062275	-0,03688	-1,60255	-0,22488	0,38461	1,644631	-1,15806	-0,8215
0,083939	-0,23562	17,90712	-1,46187	-1,9155	-3,19958	0,524136	4,251167	-0,89171	-1,71768	0,234217	0,760268	0,900502	-0,96906	-0,32012
-0,0707	-0,17153	17,08491	-1,76299	-1,51832	-3,06866	1,346456	2,46728	-0,87439	-1,28201	-0,30562	0,546048	0,590227	-0,47779	-0,30512
0,18767	0,006013	17,28554	-1,67416	-1,76024	-3,21253	0,216493	4,17771	-0,88269	-1,63593	0,158434	0,559639	0,822186	-0,79779	-0,21548
-0,04237	-0,07521	17,22231	-1,72805	-2,00736	-2,63191	0,232782	3,78536	-0,83998	-1,64021	0,420441	0,947176	0,854486	-0,84089	-0,36625
-0,11024	-0,17242	16,45169	-0,68572	-1,28737	-2,81458	0,597184	2,916401	-0,56952	-1,72017	0,311696	0,638845	0,478464	-0,65279	0,087019
0,0808	-0,2174	21,19256	-1,80645	-2,5035	-3,04115	0,11876	4,980667	-0,93494	-2,24052	0,317911	0,844388	0,764271	-0,85626	-0,37196
0,01263	-0,05586	19,08412	-0,23644	-2,05308	-3,01162	-0,71577	4,627506	-0,77994	-1,61537	0,503479	0,89053	0,734978	-0,70111	-0,38269
-0,01226	-0,06702	20,14501	-1,68272	-1,29353	-2,65251	0,523645	3,832063	-0,61465	-1,84028	0,414489	0,326243	0,938581	-0,60285	-0,46555
-0,04159	-0,15207	22,38423	-2,85148	-1,13909	-3,12002	-0,1166	4,783256	-1,1057	-2,14387	0,925279	0,798379	0,52504	-0,67376	-0,41831
-0,22571	-0,07139	18,0944	-2,48153	-1,40521	-3,1957	1,690155	1,910948	-0,94177	-0,61333	-0,73274	0,809384	0,618482	-0,27153	-0,70377
0,20239	0,050845	15,21525	-1,17831	-2,26374	-1,69586	-0,69956	3,73906	-0,12726	-1,99719	0,102122	0,519955	0,592617	-0,66785	-0,24147
0,023444	0,055286	15,38626	-2,4762	-2,35382	-2,01938	-0,45359	2,726514	-0,90944	-0,56942	0,045928	0,480043	0,314869	-0,40849	-0,02544
-0,23815	-0,07352	15,80374	-1,95267	-1,60452	-2,84108	0,391112	3,339537	-0,86089	-1,59921	0,219424	0,495454	0,782089	-0,89612	0,031968
-0,02178	-0,0572	15,10676	-1,68437	-2,10944	-2,86828	-0,06919	3,89698	-1,00092	-1,74044	0,205205	0,805488	0,960031	-0,87545	-0,51855
-0,19197	-0,02278	16,67694	-3,43647	-0,33878	-3,92175	1,898298	1,918559	0,72332	-1,32211	-0,0876	0,433737	1,748452	-0,87463	-0,47192
-0,05235	-0,16891	15,86506	-0,55089	-0,6488	-3,14279	1,613196	2,21399	-0,31759	-1,21406	0,069594	0,780135	0,764751	-0,44701	-0,08658
-0,01404	-0,0509	14,21042	-0,87498	-2,25717	-3,02404	0,44483	2,790957	-1,21689	-1,01931	-0,01081	0,747151	0,353887	-0,40712	-0,07419
0,259998	-0,01415	17,20273	-0,86687	-2,13716	-3,23008	0,445769	4,502766	-1,07499	-1,3453	0,083725	0,805878	0,747723	-1,19139	-0,17862
0,011606	-0,30103	18,18268	-2,01141	-1,12667	-3,2326	1,46111	2,014471	-1,08545	-0,72821	-0,63149	0,770075	0,487373	-0,54488	-0,22255
0,066387	-0,01986	18,58869	-1,1044	-1,20032	-3,62594	0,76962	0,922648	-0,67314	-1,12685	-0,41257	0,44688	1,412022	-0,71792	-0,67546
-0,06902	-0,1896	15,48577	-0,97559	-1,98438	-3,27417	0,551295	3,383471	-1,23155	-1,1042	0,205994	0,663254	0,347346	-0,80365	0,078924
-0,07551	0,014248	15,61807	-1,13119	-2,03616	-3,18314	0,331193	2,864087	-1,56404	-1,27202	0,108969	0,533972	0,317077	-0,63164	0,036407
-0,06712	-0,13328	18,8948	-2,41651	-1,29504	-4,47207	1,453182	3,186311	-0,9512	-1,92277	0,746037	0,677015	0,868852	-1,17997	-0,24109
0,033449	-0,10906	22,37215	-2,09584	-1,56451	-3,28427	-0,03594	4,412093	-1,57588	-1,4963	0,622628	0,705986	0,568007	-0,62257	-0,45473
-0,0657	-0,16684	18,22408	-1,44426	-0,09172	-3,19249	-1,44884	3,19275	0,018685	-2,37719	1,7067	0,367002	0,214196	-1,01146	1,561667
-0,00221	-0,00116	16,63809	-1,04799	-1,7356	-3,34275	1,030772	1,703045	-1,10589	-1,13219	-0,03581	0,612909	0,36374	-0,24642	-0,10864
0,047026	-0,07545	22,16387	-1,83466	-2,69411	-2,56307	-1,0067	4,65477	-0,8069	-1,97533	0,223941	1,099992	0,811966	-0,85908	-0,35457

Mor15m	Mor16m	Mor17m	Mor18m	Mor19m	Mor20m	Mor21m	Mor22m	Mor23m	Mor24m	Mor25m	Mor26m	Mor27m	Mor28m	Mor29m
0,212182	0,314762	0,208578	-0,78858	0,174397	0,221389	-0,03002	0,264689	-0,3021	-0,04595	0,224465	-0,02982	0,051214	-0,00841	0,003461
0,061571	0,287096	0,222383	-0,79509	0,241736	0,258578	-0,0151	0,21711	-0,3156	-0,07803	0,329219	0,044483	0,122378	0,003728	-0,005
0,638758	-0,14228	-0,14001	-0,57951	0,501395	-0,28381	0,393081	0,164107	-0,70725	-0,14342	0,381882	-0,1817	-0,04822	0,430419	-0,25709
0,296387	0,249258	0,292993	-0,96	0,040336	0,438166	-0,14873	0,284412	-0,4894	-0,08677	0,374729	-0,01783	0,099875	-0,08005	0,040086
0,264136	0,295315	0,269624	-0,92422	-0,00525	0,493015	-0,36174	0,438829	-0,22192	0,01617	0,206962	0,10932	0,194619	-0,12093	-0,10245
0,355765	0,211846	0,449907	-0,81451	0,050969	0,341181	-0,04795	0,512658	-0,61801	0,061788	0,247709	0,089333	-0,05922	0,011703	-0,04285
0,444474	0,329329	0,447423	-0,76982	-0,01125	0,229069	-0,10506	0,38295	-0,61984	-0,05159	0,260177	0,094111	-0,21615	0,028328	-0,01997
0,007363	0,58252	0,123033	-0,71077	0,391543	0,059583	-0,13597	0,106892	-0,36036	-0,03886	0,174412	-0,05877	-0,00206	0,028771	-0,00669
0,063021	0,578803	0,167295	-0,99609	0,106921	0,12696	0,09501	0,437987	-0,68776	-0,05003	0,363686	0,053665	0,090404	-0,12761	-0,13441
-0,02479	0,344176	0,293161	-0,82264	0,315963	0,213474	-0,2695	0,373827	-0,34152	0,061373	0,230615	-0,07295	-0,10633	0,013549	0,002249
0,39618	0,449753	0,354411	-0,75017	0,316209	0,191264	-0,14785	0,380091	-0,40784	0,001222	0,294596	-0,18173	0,029916	-0,04729	-0,0531
0,352667	0,4768	-0,07685	-0,68732	0,169468	0,405053	-0,05208	0,273865	-0,51361	0,165591	0,23014	0,124761	-0,02357	-0,1178	0,042617
0,497866	0,068902	0,829695	-1,14165	0,221644	0,548122	-0,44838	0,3111	-0,06716	0,016011	0,242058	0,09581	0,166396	-0,2005	0,229767
-0,29449	0,813782	0,304537	-0,5839	0,220429	-0,18319	0,092288	0,417216	-0,48054	-0,11375	0,184633	0,171379	0,010116	-0,23196	-0,26539
-0,37657	0,214023	0,446465	-0,64567	-0,02142	0,032731	0,072506	0,391086	-0,56377	0,028782	0,164507	0,026547	-0,05968	-0,16708	-0,00417
-0,14615	0,289439	0,306538	-0,8637	0,249777	0,224638	0,008268	0,357286	-0,47863	-0,01213	0,287429	-0,01699	0,001523	-0,03453	-0,08383
0,148069	0,106162	0,272535	-0,78327	0,191388	0,248913	0,133199	0,256884	-0,531	-0,07614	0,287734	0,086659	-0,01948	-0,04716	-0,01398
0,677358	-0,25625	-0,01431	-0,99092	0,623116	-0,2115	0,485401	0,381458	-0,81573	0,143	0,220649	-0,24903	-0,10702	0,286188	-0,2807
0,319924	0,312397	0,352029	-0,75827	0,233935	0,101364	-0,09682	0,13105	-0,27453	0,00332	0,135484	0,08562	0,023051	0,030604	0,095418
-0,07673	0,536524	0,020154	-0,50894	0,208521	0,159622	-0,20384	0,382298	-0,4295	0,025172	0,121132	0,116051	0,039158	-0,02156	-0,06559
0,29279	0,485016	0,074845	-0,84602	0,297181	0,185482	-0,1297	0,398498	-0,42034	-0,07261	0,385485	-0,00794	-0,10025	-0,06068	-0,07622
0,709547	0,267892	0,583809	-1,08967	0,287637	0,366255	-0,50655	0,270243	0,026331	-0,17754	0,335322	-0,03259	0,113472	-0,3797	0,076613
0,488393	0,035839	-0,14007	-0,42748	0,510591	-0,28682	0,087512	0,090673	-0,66848	-0,00698	0,303109	-0,33711	0,016185	0,414517	-0,28671
-0,08474	0,619778	0,064856	-0,58612	0,319762	0,237198	-0,31597	0,211718	-0,11714	-0,15609	0,153955	0,061114	0,145611	-0,0924	-0,05044
-0,01242	0,612776	0,113156	-0,6345	0,356608	0,315525	-0,25654	0,294746	-0,31768	-0,12246	0,097834	0,039575	0,056105	-0,02388	-0,07514
0,401292	0,406506	0,189884	-0,81931	0,293106	0,39823	-0,25454	0,356984	-0,4586	0,125742	0,361112	-0,02566	-0,09661	-0,06785	-0,02218
0,348316	0,819976	-0,28201	-0,53482	0,348062	0,460206	-0,14668	0,134896	-0,50453	0,155794	0,275948	0,010088	0,116796	-0,18866	0,089595
-1,44897	1,717107	0,518015	-0,74657	-0,31934	0,932488	-0,86855	0,959294	0,015742	-0,19553	-0,1675	0,374485	-0,24357	0,166255	-0,06299
-0,08432	0,62898	0,162732	-0,65927	-0,01473	0,532145	-0,46888	0,381986	-0,1354	-0,02702	0,200675	0,006506	0,174933	-0,21032	-0,03855
0,200649	0,940348	0,269169	-0,93201	0,117927	0,28908	0,132498	0,328133	-0,60795	-0,06562	0,363415	-0,02643	0,096038	-0,13604	-0,2759

Mor30m	Mor31m	Mor32m	Mor03v	Mor04v	Mor06v	Mor11v	Mor14v	Mor16v	Mor17v	Mor18v	Mor19v	Mor21v	Mor22v	Mor23v
0,146424	0,0587	-0,17547	-1,17563	-1,39454	0,175656	0,52678	0,186028	0,246444	-0,03919	-0,75281	0,288671	-0,18384	0,171186	-0,30219
-0,00103	0,078119	-0,08962	-1,10159	-1,29904	0,46563	0,590027	0,27746	0,167091	-0,06846	-0,74102	0,372685	-0,20842	0,112483	-0,27562
0,147819	-0,09046	-0,122	-1,30221	-1,13041	0,583943	0,48366	0,049477	0,166021	-0,08214	-0,66524	0,362793	-0,13915	0,115648	-0,3606
0,179547	0,057409	-0,23295	-0,95897	-1,45002	0,211247	0,62707	0,11169	0,153066	-0,00568	-0,80294	0,23012	-0,25369	0,138094	-0,38936
0,124061	0,107186	-0,23958	-1,29517	-1,26786	0,683236	0,556298	0,097191	0,193164	-0,00978	-0,76572	0,216479	-0,29942	0,207626	-0,26233
0,277998	0,020039	-0,05078	-1,105	-1,44445	0,131507	0,426884	0,177861	0,171531	0,143163	-0,74175	0,298399	-0,18956	0,224273	-0,46983
0,233902	0,069856	-0,20641	-1,26943	-1,52388	0,052402	0,787915	0,020545	0,214988	0,192367	-0,66103	0,205991	-0,21084	0,205808	-0,399
0,071508	0,069603	-0,06611	-0,67066	-0,94883	0,228136	0,550461	0,427323	0,358975	-0,10331	-0,71359	0,51704	-0,21566	-0,01503	-0,29425
0,324157	0,057292	-0,19116	-1,15956	-1,77925	0,119303	0,613478	-0,00157	0,365215	-0,05995	-0,83598	0,258646	-0,08289	0,205075	-0,45598
0,222858	-0,06173	-0,00924	-0,70318	-1,53399	-0,38054	0,7645	0,013524	0,211541	-0,00032	-0,75042	0,345855	-0,28872	0,150643	-0,28648
0,170636	-0,01157	-0,14942	-1,45767	-1,05292	0,373552	0,402372	0,006168	0,235856	0,036866	-0,69305	0,399444	-0,26106	0,198052	-0,32193
0,274895	-0,20031	-0,15948	-1,40094	-1,284	0,519248	0,701555	0,096216	0,256263	-0,15178	-0,69797	0,298081	-0,27161	0,150271	-0,30622
-0,10894	0,293519	-0,34368	-1,69147	-1,18699	0,836188	0,607054	0,017746	0,104932	0,260206	-0,76384	0,263821	-0,34304	0,191289	-0,20342
0,283752	0,127528	0,025658	-0,60945	-1,66983	-0,67246	0,431565	0,009591	0,479383	0,058638	-0,54641	0,371922	-0,00713	0,17492	-0,33897
0,006331	-0,09248	0,056608	-1,22675	-1,5712	-0,41022	0,388656	0,188068	0,121144	0,094638	-0,4876	0,215793	-0,0415	0,116367	-0,2701
-0,03185	0,063232	-0,06389	-1,46638	-1,25237	0,254897	0,533623	0,324517	0,165772	0,017747	-0,80186	0,397067	-0,1693	0,194876	-0,39746
0,186116	0,047579	-0,13445	-1,26132	-1,70851	-0,19002	0,668733	-0,08964	0,042738	0,046815	-0,72413	0,30396	-0,10659	0,131339	-0,38604
0,154892	0,143186	0,227071	-1,62855	-1,17258	0,52495	0,49253	0,151365	0,117383	0,04103	-0,71447	0,374699	-0,0767	0,197246	-0,41016
0,106886	0,045076	-0,1413	-0,94514	-0,94904	0,551474	0,589771	0,227176	0,29489	-0,00961	-0,71162	0,355497	-0,23504	0,056275	-0,24876
0,142996	0,037353	-0,14162	-0,8583	-1,61324	-0,06633	0,600804	0,321261	0,404827	-0,1487	-0,58528	0,427661	-0,32628	0,222466	-0,38444
0,299875	-0,04564	-0,12575	-0,76189	-1,47362	-0,06246	0,594892	0,194445	0,264891	-0,20908	-0,7529	0,483646	-0,27588	0,290213	-0,39064
0,1059	0,337653	-0,4889	-1,60622	-1,31656	0,536067	0,582479	0,209026	0,215338	0,154734	-0,81136	0,385478	-0,45332	0,232603	-0,19107
0,280414	-0,14108	-0,04702	-1,07577	-1,27755	0,168009	0,480401	0,17291	0,347789	-0,17494	-0,53785	0,383849	-0,33384	0,13568	-0,34298
0,092904	0,049779	-0,10471	-0,85936	-1,4157	0,014401	0,578463	0,395199	0,329076	-0,17723	-0,67553	0,517607	-0,40216	0,09286	-0,18481
0,170781	-0,01482	-0,01245	-1,11373	-1,33211	0,003368	0,4785	0,353835	0,357407	-0,13959	-0,62523	0,48338	-0,3958	0,149881	-0,30617
0,159936	-0,04046	-0,19238	-1,93307	-1,12389	0,834691	0,6048	0,224625	0,313199	-0,10384	-0,83692	0,473968	-0,38033	0,215689	-0,45432
0,26669	-0,22373	-0,21132	-1,16769	-1,42092	0,165029	0,653412	0,167041	0,420514	-0,23957	-0,63433	0,534201	-0,33737	0,079754	-0,31012
0,182031	-0,01233	-0,12405	-1,1236	-1,12538	-0,24287	0,410231	0,545079	0,501446	0,000442	-0,58914	0,304293	-0,37814	0,256574	-0,22198
0,121773	0,054291	-0,20831	-1,05464	-1,33987	0,277285	0,515165	0,25781	0,368884	-0,09236	-0,59639	0,313378	-0,37996	0,220638	-0,2045
0,195286	0,042418	-0,21842	-1,27813	-2,29801	-0,87004	0,660379	0,111453	0,525175	-0,03337	-0,79022	0,345496	-0,08666	0,147928	-0,45751

Mor25v	Mor26v	Mor27v	Mor28v	Mor29v	Mor31v	Mor18e	Mor19e	Mor26e	Mor31e	Mor08p	Mor09p	Mor10p	Mor13p	Mor20p
0,316311	-0,03045	-0,06013	0,015647	0,01198	0,143872	-1,37442	0,781417	0,121649	0,577156	-0,49603	-0,73602	0,033454	-0,50292	0,51664
0,362757	0,052451	0,018509	-0,00917	-0,0136	0,166549	-1,30433	0,800809	0,30707	0,742345	-0,45166	-0,72439	0,034343	-0,51042	0,548897
0,324672	-0,01813	-0,07416	0,111551	-0,04149	0,09281	-1,11125	0,778562	0,219948	0,508458	-0,35551	-0,83186	0,095335	-0,71201	0,354903
0,423293	0,004355	0,027133	-0,06373	0,008134	0,121335	-1,41654	0,634704	0,285076	0,525166	-0,4462	-0,71615	0,058351	-0,55705	0,570773
0,306291	0,06087	0,014568	0,005477	-0,05378	0,141443	-1,26075	0,578871	0,352669	0,559697	-0,49281	-0,70978	-0,0554	-0,42573	0,582879
0,317994	0,067515	-0,1329	0,027967	-0,07987	0,094832	-1,22656	0,765451	0,468843	0,424352	-0,41038	-0,67042	0,146785	-0,4763	0,539578
0,280857	0,077794	-0,18395	0,02528	-0,01186	0,098803	-1,09436	0,336577	0,22958	0,494098	-0,44087	-0,80569	0,155601	-0,55434	0,384314
0,246553	-0,03461	-0,0624	0,001145	-0,04964	0,137807	-1,41027	1,149548	0,146361	0,62707	-0,32522	-0,78031	-0,01639	-0,38348	0,377071
0,358453	0,069108	-0,02191	-0,06177	-0,09121	0,145772	-1,54011	0,542546	0,371471	0,491825	-0,4483	-1,14865	0,222444	-0,54758	0,384263
0,27659	-0,05693	-0,11555	0,026444	0,005042	0,025878	-1,32268	0,826508	0,018278	0,376848	-0,58837	-0,77552	0,289508	-0,53453	0,46767
0,313545	-0,10781	-0,05135	-0,01855	-0,01051	0,035375	-1,173	0,815762	-0,05242	0,348297	-0,50716	-0,86662	0,088383	-0,56231	0,481157
0,282221	0,092832	-0,09156	-0,00606	0,008149	0,050279	-1,04939	0,570225	0,353891	0,301456	-0,68353	-0,85819	0,260351	-0,56022	0,518842
0,233296	0,064755	-0,05852	-0,00925	0,080754	0,177707	-1,34187	0,64548	0,32789	0,588325	-0,46112	-0,45584	-0,01532	-0,40479	0,549406
0,173317	0,138414	-0,03662	-0,18113	-0,17927	0,158381	-1,0507	0,669625	0,231811	0,430156	0,06271	-0,961	0,040091	-0,27532	0,036988
0,122146	0,050402	-0,0921	-0,06624	-0,03896	0,027849	-0,87902	0,503817	0,193381	0,291568	-0,53636	-0,17467	0,056875	-0,29678	0,156825
0,297382	0,018553	-0,0649	-0,00665	-0,05535	0,165137	-1,54752	0,885188	0,330456	0,703018	-0,47806	-0,72363	0,123946	-0,40592	0,511176
0,268706	0,057956	-0,10119	-0,009	0,007863	0,111444	-1,20042	0,553342	0,191377	0,468211	-0,49357	-0,71778	0,132808	-0,5483	0,481091
0,271069	-0,03629	-0,08691	0,087756	-0,06235	0,157585	-1,27594	0,864779	0,214057	0,627902	-0,05329	-0,78964	0,196665	-0,56171	0,353008
0,230207	0,044997	-0,05421	0,068753	0,033841	0,149894	-1,20626	0,803904	0,234863	0,537316	-0,35938	-0,66251	-0,05116	-0,31949	0,3858
0,232056	0,11033	-0,06206	0,011551	-0,06009	0,130043	-1,01926	0,973268	0,421308	0,562108	-0,61549	-0,47946	-0,11044	-0,26006	0,48942
0,405824	0,047669	-0,09745	-0,06312	-0,0705	0,078753	-1,39909	0,997446	0,412086	0,38137	-0,46454	-0,53684	-0,0367	-0,61484	0,513525
0,261898	0,0415	-0,07499	-0,11718	0,018506	0,22062	-1,60476	0,945936	0,237162	0,648336	-0,52056	-0,52097	-0,17719	-0,45305	0,514327
0,304502	-0,09099	-0,0142	0,019706	-0,07406	0,101675	-0,72523	0,646364	-0,06114	0,4336	-0,49493	-0,62931	-0,05274	-0,46493	0,394143
0,216571	0,100645	0,026785	-0,04522	-0,06271	0,216094	-1,25329	1,003312	0,359192	0,797827	-0,44627	-0,4157	-0,07896	-0,40824	0,568146
0,211009	0,074589	-0,0126	-0,04933	-0,05588	0,152395	-1,08487	0,779092	0,269058	0,587911	-0,67057	-0,5763	-0,06698	-0,35295	0,653191
0,462843	0,011471	-0,16549	-0,03158	-0,06146	0,119881	-1,41063	1,00291	0,314496	0,742314	-0,63102	-1,13898	0,457566	-0,78071	0,772338
0,255521	0,088921	-0,04801	-0,02435	0,03342	0,047335	-1,13893	1,088194	0,216009	0,286531	-0,73738	-0,51756	0,000942	-0,44462	0,533608
0,206598	0,122222	-0,0852	0,010382	-0,05038	0,133974	-1,04103	0,689008	0,285656	0,570579	-0,35457	-0,91398	0,477493	-0,41839	0,718052
0,23617	0,005209	0,020633	-0,07731	-0,02209	0,101701	-1,0118	0,72525	0,170876	0,415803	-0,55375	-0,49742	-0,10657	-0,22333	0,627523
0,33115	0,041401	0,016982	-0,14379	-0,21407	0,169513	-1,67433	0,815783	0,220998	0,443952	-0,42502	-1,00703	0,255869	-0,56361	0,451276

Mor24p	Mor30p	Mor32p	Mor03s	Mor04s	Mor05s	Mor06s	Mor08s	Mor09s	Mor10s	Mor11s	Mor12s	Mor13s	Mor14s	Mor15s
-0,03895	-0,03601	-0,14856	-15,3781	-2,99648	-15,9323	-5,99354	-0,13045	-7,77133	-2,15347	1,715568	1,279763	-1,00533	-0,77028	-0,82403
-0,06966	-0,10927	-0,1043	-13,926	-3,26124	-14,9444	-4,66148	0,001626	-8,21246	-1,39155	1,63304	0,783967	-0,86404	0,218441	-1,55362
-0,06439	-0,00806	-0,11114	-15,2091	-2,21744	-14,4911	-3,90327	-0,30776	-7,92238	-1,73988	2,335002	1,254149	-0,45869	-1,12663	-0,95504
-0,09686	0,028868	-0,08882	-13,3946	-6,27317	-17,1999	-5,11255	1,075588	-8,71335	-2,15788	3,673577	1,179075	-0,62759	-1,7182	-0,33329
-0,00998	-0,02444	-0,12962	-15,1682	-2,75122	-15,6505	-1,95599	0,042631	-7,43619	-2,62303	1,698297	0,272678	1,22343	-1,62594	-0,78615
0,005746	0,092277	-0,00132	-16,5076	-3,13093	-19,8923	-6,34933	0,71927	-7,28686	-2,73248	3,188212	0,890087	0,436191	-1,213	-0,57167
-0,00796	0,007465	-0,05467	-17,4262	-5,05779	-9,80122	-6,37158	0,365905	-10,0559	2,324308	6,228308	1,340921	-0,60548	-2,56216	2,156855
-0,08167	-0,0465	-0,07113	-7,07635	-0,15083	-14,2274	-5,75197	2,829235	-10,6755	-0,71158	2,675198	-1,75393	1,65705	0,405158	-2,72899
-0,04662	0,06209	-0,1454	-17,132	-6,83749	-16,583	-5,06507	-0,62617	-11,5673	-0,5913	3,950493	0,667994	-0,59877	-1,74092	-1,77899
0,024021	0,05484	-0,00677	-5,78364	-4,45082	-12,4296	-16,9906	1,217268	-10,7912	3,871312	3,860202	-0,70297	1,750805	-2,22743	-4,26738
-0,04664	0,029509	-0,04541	-25,9289	0,436021	-7,35966	-9,67082	5,076925	-11,036	2,834393	0,643807	3,448146	2,47026	-2,19657	-0,84986
0,014237	-0,01615	-0,08156	-52,4513	11,22928	-9,00917	-26,379	-1,1025	-18,4221	11,73911	0,433726	-2,26247	4,713192	-5,94002	0,601406
0,000109	-0,0832	-0,11111	-18,0659	-3,77855	-14,8362	-0,9217	1,53239	-5,98805	-2,30751	1,266454	2,120764	0,6518	-2,72134	-0,67013
-0,0587	0,125592	0,001534	-15,8901	-5,96537	-7,23907	-10,0727	2,08591	-11,8521	1,345171	2,168003	0,476002	-0,19666	-2,50554	-1,97002
0,060025	-0,07078	0,050404	-15,8661	-5,23137	-7,59003	-9,47344	-0,71065	-7,15575	0,541278	2,000901	-0,51128	1,18607	-1,26931	-2,37108
-0,048	-0,11653	-0,02966	-17,4353	-3,5807	-15,3421	-5,29253	0,820511	-9,05696	-0,78363	0,633376	2,095221	-0,35003	-0,18512	-4,01659
0,010244	0,014205	-0,06543	-16,7633	-6,70418	-14,6282	-7,90184	-2,57529	-12,8948	0,068242	3,690285	2,963584	-0,49117	-3,80493	-1,06494
0,002031	-0,04934	0,004551	-17,5948	-2,69803	-16,578	-3,91298	3,149746	-7,94906	-1,00249	1,878128	2,833309	-1,33847	-1,10493	-1,34049
0,012171	-0,02652	-0,10505	-7,8993	0,752083	-13,6607	-1,22248	3,667082	-7,22846	0,36057	4,32232	0,46052	1,947282	-0,32336	-1,28148
-0,04387	0,031185	-0,07821	-9,47951	-5,9776	-15,3517	-4,29148	-2,91806	-3,74917	-0,54233	2,971265	-0,72488	3,608876	-0,79281	-3,61065
0,003152	0,096092	-0,0471	-12,0673	-1,00767	-15,2484	-6,51074	-0,31884	-4,94564	-2,38653	4,036278	0,393229	-1,14231	-0,70869	-0,01681
-0,00088	0,018417	-0,20766	-13,844	2,235985	-16,6557	-5,01049	1,800188	-6,89978	-2,21583	2,271115	-0,06333	-1,00886	1,158441	0,223583
-0,08764	0,053491	-0,04959	-8,9931	-4,81645	-16,1546	-5,61196	-3,87448	-5,259	-0,97539	2,464812	0,810408	3,938146	-0,91303	-2,48654
-0,09765	-0,05651	-0,1149	-8,94809	-0,97208	-18,3295	-5,63418	-1,63011	-4,28009	-0,40699	0,678087	-1,85113	0,942203	0,834296	-2,84904
-0,10614	-0,04245	-0,00953	-9,05011	-4,82801	-18,3704	-8,04732	-4,73331	-5,46531	-2,52364	1,658911	-1,77782	3,118863	0,032306	-2,19966
0,014447	0,044233	-0,11069	-21,8803	-1,92919	-22,117	-5,01409	3,001408	-10,614	2,394275	3,139058	2,574605	-1,21352	-1,39758	-0,73599
0,03354	-0,02158	-0,08887	-44,2227	12,15957	-10,0772	-21,7884	-5,7387	-12,9545	10,95426	-1,8203	-1,31469	6,889357	-8,2369	3,191579
-0,04048	0,00921	-0,06934	-10,6734	-4,14884	-15,3325	-8,92822	0,177765	-9,56388	0,816297	2,562326	-0,32877	1,139792	0,728336	-2,46571
-0,05369	0,005259	-0,07323	-9,3714	-1,75459	-16,1547	-4,35725	-1,01821	-6,09869	0,25672	3,747296	-1,77866	3,741714	0,119614	-4,36125
0,012251	-0,01093	-0,08246	-16,6501	-0,99214	-14,3117	-14,7782	2,897149	-11,5629	1,134307	4,593669	1,856042	0,817886	-2,26651	0,126458

Mor16s	Mor17s	Mor18s	Mor19s	Mor20s	Mor21s	Mor22s	Mor23s	Mor24s	Mor25s	Mor26s	Mor27s	Mor28s	Mor29s	Mor30s
2,940478	-0,87941	-4,57355	2,384003	0,776681	0,392142	1,753654	-2,26531	-0,78697	1,530501	-0,32566	0,879632	-0,55324	-0,58338	1,155668
2,961485	0,132434	-4,60033	2,371203	1,375848	0,699509	0,76925	-2,17187	-0,8421	3,207791	0,225567	1,242896	-0,13106	-0,73625	0,218995
2,770666	-0,92855	-3,55654	2,397156	0,399065	0,231309	2,720201	-2,99282	-1,16602	1,605645	0,768901	0,51421	0,253362	-0,45773	0,472121
2,127065	-0,01829	-5,5493	1,354852	2,389722	-0,58883	1,909759	-2,9357	-0,49786	2,329084	0,238046	1,12316	-0,89797	-0,42111	1,347006
2,151509	-0,52106	-4,59576	0,795123	1,271984	-1,05661	2,986878	-2,06331	-0,00138	1,176015	0,923563	1,386323	-0,71357	-1,34866	1,23768
2,151196	-0,08995	-3,56677	1,142213	1,074619	0,332079	3,349073	-4,35532	0,500119	1,353233	1,04762	0,089661	-0,19299	-0,70359	2,138687
3,415074	0,118921	-3,708	-0,98564	1,110681	0,716489	2,303596	-4,88125	-1,22066	2,56508	-0,28782	-0,8603	0,120443	-0,88599	2,145671
5,650275	-0,80191	-4,11632	2,955896	-0,54903	-0,30297	0,784113	-3,17826	-0,53826	2,151771	-0,56814	0,522606	0,067862	-1,00346	0,369265
3,836257	-1,11716	-4,81455	0,617823	0,29926	0,517374	2,997482	-4,38862	-0,18519	1,756615	0,551391	1,043032	-1,33608	-0,95722	2,170557
4,849401	0,548484	-5,06861	4,070192	-0,2577	-2,32566	4,310775	-3,16794	0,223023	1,93528	-0,73175	-0,43958	-0,46381	-0,86211	1,462319
6,329629	1,366945	-3,84813	3,133992	0,039148	-0,07746	4,928005	-4,71934	0,807067	3,130189	-2,27968	0,895757	-0,53618	-1,81887	0,80835
6,364111	-6,64119	-0,33965	2,012074	-0,6154	2,850943	1,605118	-5,39505	3,167768	0,077336	0,591551	2,165784	-2,64876	-0,07376	3,40124
1,662536	1,944479	-6,00245	2,445499	1,881737	-1,11209	1,697341	-1,89484	0,102694	1,443474	0,555973	0,623596	-0,13443	-0,27913	-0,20216
5,561459	0,816875	-3,04052	1,468742	-1,90956	1,545301	2,117104	-3,23059	-0,51765	1,885206	-0,02106	0,853544	-1,44063	-2,25155	1,937982
4,509741	-0,11658	-3,13543	0,846765	-0,75673	0,96668	1,502514	-2,93207	-0,84332	1,493718	-0,13502	0,752154	-1,44524	-1,22408	1,02267
2,761245	0,340525	-5,4696	2,590392	0,89989	1,199088	2,086909	-3,60739	-0,73848	2,831554	-0,24353	0,47272	-0,7887	-1,9341	-0,08754
0,527766	-1,23155	-3,57776	1,272601	0,837452	2,180262	1,925144	-4,98433	-1,16341	2,189585	0,151392	1,158149	-0,49655	-0,66692	1,155608
2,009994	-0,29129	-4,68532	3,236756	0,393927	0,935864	2,074814	-2,85986	0,240816	1,285373	-0,13584	0,539654	0,620653	-0,79739	0,816052
4,144924	0,239247	-3,68674	1,998604	-0,72787	0,571304	1,333726	-3,26635	0,279614	1,85411	-0,10624	0,75991	0,102711	-0,34633	1,261825
4,627873	-3,37174	-1,48778	1,633469	0,764024	-1,00827	3,401615	-4,55157	0,590638	1,493035	0,545982	1,321305	-0,72499	-1,48183	0,495627
4,884925	-1,66049	-4,74678	2,104312	0,298002	-0,68019	2,041528	-2,9355	-0,57309	3,448185	0,077206	-0,80527	-0,03144	-1,76313	2,246398
2,908935	0,644835	-5,87528	2,968029	0,020004	-1,01315	2,055019	-2,51385	-0,58118	2,262138	-0,01506	0,539109	-1,59792	-1,27489	1,544782
5,994341	-3,23276	-1,52523	1,14683	0,970614	-2,07798	1,732592	-3,12502	-1,00543	2,545341	-1,18325	1,23754	0,17777	-1,00042	1,985154
5,342978	-1,89842	-2,15593	1,825045	1,732656	-1,96658	1,201533	-1,7039	-0,66278	0,980194	0,419369	1,430342	-1,22905	-0,95929	1,157228
6,567442	-2,03575	-2,6358	1,681616	2,651882	-1,90453	2,100439	-3,12859	-1,3391	1,677118	-0,54852	1,044955	-0,66262	-1,22823	1,537388
3,962533	-1,51675	-3,62872	1,847666	1,34145	-1,03385	2,505253	-3,01643	-0,052	3,190169	0,436242	0,47755	-1,14211	-0,94007	0,951469
8,442026	-7,89572	-0,44521	3,421517	0,384609	1,047309	0,4114	-6,89145	4,513534	1,438531	-1,28634	4,235236	-4,01874	0,45461	3,631381
5,652159	-0,07648	-2,71192	0,797411	0,331184	-0,35536	2,819182	-2,38001	-0,42103	1,532178	0,473442	-0,05541	-0,45995	-1,17833	0,649575
5,527785	-1,59844	-2,91504	0,439892	1,903134	-1,28458	2,037412	-2,02199	-0,3101	2,059598	-0,4361	1,854328	-0,99392	-1,32479	1,135315
7,001691	0,803709	-5,1452	1,358175	1,553784	1,206597	2,029104	-4,05826	-1,06571	2,25833	-0,49827	1,086281	-0,66012	-2,39628	1,673096

Mor31s	Mor32s	P1u	P2u	G1u	G2u	G3u	E1u	E2u	E3u	L2m	G1m	G2m	G3m	E2m
0,637326	-1,496	0,804493	0,154837	0,223323	0,177184	0,177184	0,634069	0,493222	0,417791	2,007546	0,177184	0,177184	0,177184	0,497179
1,198919	-0,78453	0,838618	0,131249	0,172195	0,211885	0,232505	0,621437	0,473693	0,361227	2,122063	0,172195	0,172195	0,172195	0,559512
0,541235	-1,5606	0,808117	0,162709	0,177184	0,177184	0,247819	0,59213	0,509258	0,283047	1,87985	0,177184	0,189669	0,200769	0,359909
0,818007	-1,98972	0,834263	0,131057	0,170707	0,208607	0,181063	0,606179	0,466789	0,363251	2,208421	0,170707	0,190227	0,199329	0,537942
0,914029	-1,32033	0,80705	0,157377	0,223323	0,177184	0,223323	0,602077	0,501606	0,366779	2,055324	0,177184	0,30698	0,177184	0,532494
0,368626	-0,13171	0,847735	0,10663	0,170707	0,170707	0,208607	0,602106	0,462889	0,576698	1,708965	0,190227	0,170707	0,170707	0,477071
1,145725	-1,97136	0,798576	0,130451	0,177184	0,177184	0,223323	0,631534	0,553106	0,415099	1,804692	0,177184	0,177184	0,177184	0,640045
1,011396	-0,6061	0,787494	0,16111	0,192603	0,192603	0,192603	0,638877	0,422561	0,220056	1,365282	0,172195	0,192603	0,172195	0,172709
0,511087	-0,9161	0,85253	0,112434	0,211885	0,192603	0,243575	0,594762	0,439948	0,394603	1,824656	0,172195	0,211885	0,192603	0,492721
0,555661	-1,16231	0,860993	0,099121	0,19514	0,19514	0,19514	0,605901	0,450518	0,289762	1,290979	0,19514	0,173765	0,173765	0,46014
1,18591	-1,67948	0,768814	0,186533	0,173765	0,173765	0,261365	0,663824	0,483781	0,246828	2,693554	0,173765	0,173765	0,173765	0,57713
-3,36767	-0,00671	0,837817	0,130351	0,172195	0,202142	0,255269	0,612336	0,484761	0,385195	2,033251	0,172195	0,211885	0,211885	0,517592
1,079473	-1,05804	0,797116	0,145552	0,200769	0,200769	0,177184	0,600388	0,503727	0,520148	1,95967	0,177184	0,211886	0,200769	0,560561
0,666245	0,205091	0,809772	0,139279	0,238013	0,183169	0,183169	0,635378	0,494876	0,471445	1,705171	0,183169	0,210991	0,238013	0,484937
0,338218	0,269292	0,81063	0,13029	0,183169	0,210991	0,210991	0,625463	0,477408	0,48731	1,715387	0,210991	0,183169	0,183169	0,535001
1,002049	-0,78853	0,810643	0,137343	0,192603	0,172195	0,221972	0,642031	0,492487	0,472001	1,905255	0,172195	0,192603	0,172195	0,48135
0,538076	-1,39569	0,797973	0,124668	0,177184	0,200769	0,223323	0,641608	0,57084	0,449968	1,667708	0,177184	0,200769	0,177184	0,528247
1,16863	-0,4987	0,796907	0,149568	0,177184	0,177184	0,247819	0,622595	0,505328	0,501684	1,503515	0,200769	0,177184	0,200769	0,219797
0,199589	-1,15072	0,827349	0,11547	0,177184	0,177184	0,344052	0,645537	0,380748	0,235678	1,856488	0,177184	0,177184	0,211886	0,441941
0,936206	-1,05921	0,786536	0,141307	0,192603	0,183017	0,202142	0,597006	0,438397	0,413766	2,007815	0,192603	0,192603	0,202142	0,591036
-0,39818	-0,50041	0,821125	0,129745	0,183908	0,166667	0,2	0,579598	0,444317	0,420914	2,249992	0,183908	0,166667	0,2	0,557541
1,585873	-2,69769	0,773907	0,166337	0,192603	0,211885	0,192603	0,574592	0,487029	0,516491	2,405906	0,172195	0,172195	0,172195	0,555609
-0,45617	-0,04178	0,792755	0,137322	0,172195	0,172195	0,211885	0,559866	0,4437	0,415086	1,722261	0,172195	0,192603	0,172195	0,370755
0,402736	-0,43574	0,823821	0,124724	0,185892	0,239729	0,239729	0,593695	0,422937	0,380122	2,174166	0,167949	0,185892	0,202685	0,618004
-0,24162	-0,08454	0,807286	0,128335	0,167949	0,202685	0,250133	0,631298	0,456603	0,415005	1,943736	0,167949	0,202685	0,185892	0,522227
0,444469	-1,53397	0,813466	0,16212	0,164272	0,164272	0,328544	0,634589	0,413849	0,215037	1,91361	0,164272	0,164272	0,195095	0,177466
-3,86809	-0,39544	0,825155	0,118745	0,185892	0,167949	0,239729	0,587134	0,427476	0,419055	1,958718	0,167949	0,202685	0,185892	0,500697
0,892632	-1,32968	0,788057	0,148364	0,192603	0,267679	0,255269	0,546525	0,453424	0,385231	1,647283	0,192603	0,172195	0,172195	0,276108
0,09536	-0,76464	0,788905	0,141571	0,192603	0,172195	0,232505	0,566371	0,448749	0,410081	1,981645	0,172195	0,192603	0,192603	0,539899
-0,12372	-1,47179	0,81182	0,116524	0,185892	0,239729	0,202685	0,604107	0,352583	0,409607	2,302305	0,167949	0,211391	0,185892	0,54578

E3m	L2v	L3v	P1v	P2v	G1v	G2v	G3v	E1v	E2v	E3v	G1e	G2e	G3e	E1e
0,079401	1,720018	0,335445	0,809303	0,159576	0,177184	0,177184	0,223323	0,48088	0,399133	0,168676	0,177184	0,200769	0,177184	0,596848
0,069606	1,788581	0,282098	0,836017	0,141643	0,172195	0,172195	0,221972	0,441455	0,409667	0,14032	0,172195	0,172195	0,192603	0,591359
0,030607	1,826155	0,218921	0,834514	0,147771	0,200769	0,200769	0,177184	0,592533	0,394475	0,097345	0,177184	0,177184	0,223323	0,579884
0,068937	1,926602	0,354257	0,832686	0,141327	0,170707	0,190227	0,199329	0,44203	0,415459	0,145573	0,170707	0,170707	0,199329	0,588519
0,051165	1,771098	0,279521	0,82931	0,147423	0,200769	0,189669	0,223323	0,567068	0,397247	0,131989	0,177184	0,200769	0,200769	0,599558
0,133882	1,498578	0,589116	0,847012	0,109817	0,170707	0,170707	0,170707	0,424056	0,362478	0,303884	0,170707	0,170707	0,170707	0,579485
0,082557	1,450317	0,669686	0,814695	0,126769	0,177184	0,177184	0,211886	0,543065	0,414248	0,215159	0,177184	0,177184	0,177184	0,653655
0,213519	1,604432	0,651638	0,813635	0,132535	0,172195	0,172195	0,172195	0,520087	0,219349	0,201988	0,192603	0,172195	0,192603	0,625652
0,081693	1,568073	0,360174	0,856689	0,116542	0,172195	0,183017	0,172195	0,451688	0,361966	0,161435	0,192603	0,192603	0,192603	0,585234
0,192335	1,208586	0,529674	0,879473	0,083801	0,173765	0,185094	0,173765	0,537669	0,303573	0,254307	0,173765	0,288759	0,173765	0,64932
0,199741	2,306645	0,525777	0,769054	0,188076	0,173765	0,19514	0,173765	0,545933	0,422507	0,239379	0,19514	0,173765	0,173765	0,662789
0,157624	1,769095	0,326879	0,848927	0,127512	0,172195	0,172195	0,202142	0,525707	0,394994	0,172209	0,172195	0,172195	0,183017	0,671582
0,211503	1,678487	0,581357	0,823756	0,130904	0,177184	0,177184	0,223323	0,633869	0,411236	0,276447	0,177184	0,177184	0,223323	0,618084
0,095463	1,463524	0,414117	0,814785	0,144366	0,183169	0,183169	0,197862	0,499442	0,396781	0,21897	0,210991	0,183169	0,183169	0,598085
0,106101	1,45436	0,533689	0,809955	0,139028	0,183169	0,210991	0,183169	0,478119	0,396402	0,240816	0,183169	0,183169	0,224248	0,587415
0,09944	1,675492	0,57043	0,815864	0,137368	0,192603	0,172195	0,202142	0,468867	0,368824	0,230665	0,172195	0,183017	0,172195	0,615141
0,170722	1,401425	0,795528	0,801671	0,126513	0,200769	0,177184	0,211886	0,495573	0,409571	0,246679	0,177184	0,200769	0,177184	0,59947
0,158251	1,66701	0,569431	0,814238	0,138465	0,177184	0,177184	0,200769	0,584601	0,377201	0,314169	0,177184	0,200769	0,200769	0,602717
0,291116	1,406713	0,715939	0,821934	0,118007	0,177184	0,177184	0,200769	0,489605	0,302117	0,219731	0,177184	0,223323	0,200769	0,610021
0,096059	1,625116	0,604417	0,789481	0,153448	0,172195	0,172195	0,183017	0,446703	0,393063	0,190451	0,172195	0,172195	0,172195	0,548411
0,09947	1,933384	0,528426	0,815315	0,145043	0,166667	0,2	0,183908	0,408068	0,409238	0,19321	0,183908	0,191898	0,166667	0,549187
0,278049	2,071586	0,607535	0,801073	0,153817	0,192603	0,172195	0,211885	0,625322	0,41332	0,283766	0,192603	0,192603	0,202142	0,58346
0,049469	1,610733	0,570373	0,824726	0,129439	0,172195	0,172195	0,202142	0,574422	0,373159	0,167955	0,172195	0,172195	0,211885	0,540164
0,080908	1,749022	0,500678	0,817362	0,141991	0,167949	0,185892	0,194224	0,408659	0,395866	0,167442	0,167949	0,167949	0,211391	0,550339
0,104169	1,649557	0,695078	0,809407	0,134091	0,167949	0,185892	0,239729	0,450039	0,370397	0,218296	0,167949	0,167949	0,194224	0,590446
0,174039	2,268056	0,349878	0,837342	0,140919	0,180253	0,164272	0,210612	0,541057	0,251485	0,146583	0,180253	0,164272	0,236228	0,638282
0,133435	1,659925	0,577695	0,837603	0,12047	0,167949	0,167949	0,177476	0,504819	0,369174	0,195871	0,167949	0,185892	0,202685	0,640493
0,032601	1,745269	0,498292	0,827133	0,134474	0,172195	0,192603	0,221972	0,621409	0,378455	0,147208	0,192603	0,192603	0,211885	0,510984
0,064054	1,654311	0,559692	0,814683	0,13847	0,172195	0,202142	0,211885	0,543129	0,388529	0,165816	0,172195	0,183017	0,172195	0,554897
0,100395	1,849348	0,816954	0,810513	0,131428	0,167949	0,202685	0,185892	0,459094	0,342877	0,185186	0,167949	0,239729	0,167949	0,583713

E2e	E3e	P1p	P2p	G1p	G2p	G3p	E2p	G1i	G2i	G3i	E1i	L2s	L3s	P2s
0,560324	0,386794	0,825245	0,140879	0,235255	0,223323	0,200769	0,331416	0,223323	0,177184	0,177184	0,638724	2,378316	0,389224	0,199098
0,548968	0,33708	0,850921	0,124335	0,172195	0,172195	0,192603	0,332905	0,172195	0,211885	0,172195	0,636464	2,547347	0,344389	0,178232
0,571966	0,257366	0,856	0,125249	0,177184	0,177184	0,247819	0,311295	0,177184	0,200769	0,200769	0,583145	2,613973	0,276512	0,204923
0,528721	0,320766	0,842184	0,127892	0,170707	0,170707	0,190227	0,352561	0,170707	0,170707	0,199329	0,623556	2,700437	0,379732	0,175033
0,564552	0,329262	0,845193	0,129199	0,200769	0,189669	0,223323	0,318856	0,223323	0,177184	0,200769	0,603548	2,595013	0,321192	0,194577
0,495281	0,574873	0,8558	0,101157	0,170707	0,170707	0,190227	0,320089	0,170707	0,190227	0,170707	0,620106	2,028239	0,647993	0,129208
0,583533	0,47473	0,818312	0,119373	0,189669	0,177184	0,177184	0,364144	0,177184	0,200769	0,200769	0,668395	2,173238	0,723272	0,145991
0,393237	0,285042	0,812068	0,142167	0,192603	0,183017	0,192603	0,265722	0,172195	0,172195	0,172195	0,645593	1,77263	1,052884	0,124829
0,491292	0,349704	0,863711	0,10601	0,192603	0,172195	0,202142	0,303584	0,172195	0,172195	0,192603	0,610501	2,222308	0,39305	0,145019
0,457734	0,379725	0,875669	0,089881	0,173765	0,19514	0,205155	0,291324	0,173765	0,19514	0,173765	0,630404	1,767436	0,688902	0,090126
0,564969	0,331608	0,788741	0,171827	0,173765	0,205155	0,173765	0,321817	0,19514	0,19514	0,261365	0,676337	3,341295	0,734891	0,216682
0,526981	0,384226	0,848682	0,125329	0,172195	0,183017	0,172195	0,337856	0,172195	0,172195	0,202142	0,684303	2,45579	0,491876	0,126897
0,573977	0,494338	0,83649	0,117598	0,177184	0,200769	0,177184	0,356417	0,200769	0,200769	0,200769	0,600276	2,41175	0,666129	0,16846
0,545659	0,50091	0,831772	0,127191	0,183169	0,183169	0,197862	0,336839	0,210991	0,183169	0,183169	0,634819	1,985545	0,507744	0,171711
0,540056	0,4859	0,827189	0,118633	0,183169	0,183169	0,183169	0,326258	0,183169	0,210991	0,183169	0,629581	2,095539	0,590005	0,176861
0,522694	0,46387	0,825376	0,127271	0,172195	0,172195	0,211885	0,33194	0,211885	0,202142	0,202142	0,655759	2,251275	0,633913	0,160967
0,606301	0,556148	0,822016	0,112428	0,200769	0,177184	0,177184	0,370134	0,177184	0,200769	0,177184	0,633551	1,868147	1,185631	0,151615
0,571122	0,478057	0,828215	0,124698	0,177184	0,177184	0,200769	0,352771	0,177184	0,200769	0,200769	0,618105	2,291136	0,5879	0,180753
0,403531	0,308432	0,828457	0,12239	0,177184	0,189669	0,200769	0,3478	0,177184	0,200769	0,211886	0,650589	1,686464	1,175068	0,124488
0,513532	0,38126	0,808401	0,129237	0,192603	0,172195	0,243575	0,304365	0,172195	0,192603	0,202142	0,598354	2,519139	0,604551	0,232222
0,498721	0,385557	0,82821	0,128273	0,166667	0,166667	0,2	0,346557	0,166667	0,183908	0,183908	0,594174	2,843461	0,550473	0,203977
0,546615	0,493148	0,819995	0,133663	0,172195	0,172195	0,172195	0,353082	0,172195	0,172195	0,192603	0,570133	3,065851	0,720881	0,214162
0,51555	0,372587	0,846665	0,104837	0,192603	0,172195	0,192603	0,275494	0,172195	0,192603	0,192603	0,547376	2,58091	0,570703	0,21427
0,498122	0,348043	0,835891	0,11938	0,167949	0,167949	0,194224	0,30796	0,185892	0,185892	0,202685	0,605482	2,713439	0,506863	0,211139
0,50194	0,398433	0,821822	0,11868	0,185892	0,167949	0,185892	0,312145	0,167949	0,167949	0,229846	0,641967	2,403767	0,679305	0,183856
0,385943	0,265376	0,829637	0,15105	0,164272	0,164272	0,210612	0,29791	0,164272	0,164272	0,255441	0,644243	2,340886	0,60324	0,120751
0,472349	0,388476	0,835404	0,114897	0,167949	0,167949	0,194224	0,304847	0,167949	0,185892	0,202685	0,659088	2,400466	0,657418	0,126209
0,533275	0,345552	0,867575	0,09667	0,172195	0,172195	0,211885	0,253631	0,172195	0,183017	0,192603	0,521191	2,74981	0,506828	0,232152
0,519494	0,363173	0,831489	0,116477	0,172195	0,192603	0,192603	0,296331	0,172195	0,172195	0,172195	0,564131	2,639679	0,540288	0,211541
0,414167	0,350291	0,82273	0,113136	0,167949	0,185892	0,185892	0,262663	0,185892	0,185892	0,185892	0,615857	2,864849	0,803656	0,18912

G2s	G3s	E2s	E3s	Gu	Dv	Dp	Di	Ds	Vu	Vm	Vp	Vs	ISH	H1u
0,177184	0,200769	0,528828	0,207441	0,191393	0,349563	0,367424	0,543408	0,43574	47,72581	31,98091	35,50185	46,7673	0,875	2,063257
0,172195	0,172195	0,657735	0,204094	0,203947	0,330481	0,338644	0,515162	0,468993	57,28328	38,35379	41,57035	58,13862	0,845224	1,977151
0,177184	0,177184	0,664005	0,152217	0,19815	0,361451	0,386179	0,484774	0,462455	46,68402	52,28861	40,17411	49,12509	0,827305	1,977289
0,181063	0,190227	0,699464	0,16702	0,186124	0,334354	0,345211	0,503463	0,472438	68,23239	45,5034	49,91078	67,14954	0,803422	2,088153
0,200769	0,235255	0,772847	0,16473	0,206743	0,365434	0,379608	0,517439	0,526292	48,10953	43,75921	39,04141	53,24388	0,874007	2,028832
0,170707	0,170707	0,542147	0,238856	0,182506	0,363473	0,393611	0,578128	0,44206	69,12438	46,61016	50,24503	68,97341	0,840125	2,162698
0,177184	0,189669	0,939332	0,150208	0,191393	0,390824	0,388582	0,569651	0,668958	54,54298	44,40899	39,62623	70,03172	0,88487	2,077746
0,172195	0,172195	0,266744	0,380532	0,192603	0,313808	0,319303	0,44561	0,458218	64,98253	41,84222	47,40147	69,43691	0,798523	2,091274
0,172195	0,172195	0,629676	0,176694	0,215013	0,32503	0,333496	0,504754	0,455633	59,21516	42,7467	43,23236	60,53683	0,876101	2,135691
0,173765	0,185094	0,812613	0,345945	0,19514	0,365183	0,317632	0,478557	0,716005	58,93138	51,57234	42,20122	83,85227	0,817188	1,879074
0,173765	0,173765	0,88506	0,272332	0,199094	0,402607	0,347047	0,492226	0,664845	63,71075	58,65628	46,8211	91,97167	0,841968	2,104819
0,172195	0,172195	0,765302	0,37001	0,207121	0,364303	0,331683	0,543428	0,718359	59,57011	56,97497	41,69519	88,73322	0,85244	1,93623
0,177184	0,177184	0,733111	0,284289	0,192578	0,440517	0,468268	0,570679	0,587773	55,48454	64,38828	49,47285	68,56904	0,910005	2,056689
0,183169	0,183169	0,54722	0,172723	0,19988	0,371731	0,384185	0,562048	0,460121	41,95412	29,92149	31,54853	44,32935	0,863489	1,94678
0,183169	0,183169	0,601119	0,185365	0,201277	0,371779	0,393391	0,555752	0,471479	46,11027	33,55301	34,87798	49,02136	0,897617	1,968402
0,183017	0,192603	0,506686	0,216202	0,194534	0,356119	0,383774	0,565424	0,439293	64,66126	41,58986	46,85557	63,28287	0,942435	2,166139
0,177184	0,189669	0,579725	0,303835	0,199535	0,383941	0,398973	0,587424	0,490889	56,08977	42,3575	40,8391	63,36653	0,902789	2,083894
0,177184	0,177184	0,516246	0,251467	0,19815	0,425323	0,467881	0,564185	0,462091	53,24403	58,76898	47,56891	55,42247	0,88487	2,067528
0,177184	0,177184	0,418536	0,480466	0,22105	0,337151	0,341449	0,439878	0,505739	55,28527	49,40048	44,25888	67,28224	0,816442	1,988327
0,172195	0,221972	0,772356	0,187443	0,192429	0,343406	0,361302	0,505388	0,457144	54,39126	33,60003	40,82858	48,2629	0,769741	2,159621
0,175824	0,191898	0,849158	0,203305	0,183018	0,336839	0,355259	0,504634	0,484567	75,44928	46,91331	55,58503	67,8057	0,739569	2,153855
0,172195	0,192603	0,861412	0,310881	0,198827	0,440803	0,471112	0,550861	0,595789	64,69466	78,32184	58,98139	79,66542	0,832615	2,117592
0,172195	0,172195	0,927574	0,166875	0,184522	0,371846	0,404405	0,493515	0,516623	56,9696	59,00842	48,84875	54,64655	0,765388	2,142565
0,185892	0,211391	0,859389	0,171247	0,220242	0,323989	0,338768	0,489688	0,475418	64,87872	39,37232	47,44853	58,48804	0,776776	2,113525
0,167949	0,220422	0,625593	0,193669	0,204201	0,346244	0,371348	0,524604	0,428347	70,55473	41,44395	51,80472	61,82483	0,803422	2,218028
0,164272	0,164272	0,263258	0,310732	0,20697	0,313042	0,319376	0,440753	0,463077	86,48663	58,14116	65,28622	92,42342	0,727669	2,094891
0,177476	0,185892	0,759275	0,250592	0,195608	0,356622	0,336139	0,518374	0,657958	68,32276	61,01251	48,30499	94,59697	0,840036	2,083679
0,221972	0,221972	0,857055	0,152388	0,236098	0,382357	0,466785	0,47924	0,479773	56,81257	67,09932	54,73786	53,17643	0,691982	2,133866
0,172195	0,183017	1,001551	0,153235	0,197563	0,365825	0,384558	0,497289	0,555238	56,09668	47,76783	45,85549	56,73434	0,740073	2,150798
0,167949	0,185892	0,813025	0,16865	0,208258	0,329052	0,337152	0,475184	0,487421	86,49599	62,17673	64,0019	85,9952	0,829302	2,304683

H4u	H5u	H6u	H7u	HATS0u	HATS2u	HATS3u	HATS4u	HATS5u	HATS6u	HATS8u	H4m	H5m	H6m	H7m
0,483204	0,090131	0,042662	0,113057	0,458606	0,449745	0,716396	0,549056	0,356493	0,263405	0,52029	0,080269	0,020382	0,003588	0,002252
0,994993	0,353001	0,080175	0,150312	0,422334	0,423184	0,607053	0,588418	0,392493	0,199578	0,44013	0,144419	0,053742	0,007213	0,003441
0,536988	0,127664	0,043126	0,112483	0,490707	0,462986	0,765259	0,524279	0,315103	0,240963	0,523112	0,306328	0,034496	0,003876	0,001636
0,751331	0,505582	0,180991	0,170327	0,39772	0,414383	0,499086	0,462506	0,483647	0,307414	0,414	0,221681	0,091806	0,011762	0,004268
0,498892	0,100075	0,042565	0,119299	0,467061	0,450985	0,734368	0,540183	0,341553	0,255145	0,518336	0,174422	0,023524	0,00358	0,002258
0,741582	0,445708	0,097126	0,180743	0,399532	0,414549	0,497097	0,449263	0,434967	0,357914	0,406556	0,087781	0,029236	0,006775	0,007522
0,502681	0,078095	0,004818	0,133652	0,48638	0,414584	0,627839	0,573652	0,404656	0,29275	0,441715	0,120905	0,0083	0,000405	0,005037
0,690856	0,275785	0,178085	0,093639	0,484985	0,43814	0,495998	0,497423	0,346938	0,271294	0,514941	0,112964	0,065083	0,018198	0,001726
0,645192	0,337278	0,07152	0,163776	0,424894	0,44533	0,563822	0,495864	0,440878	0,262448	0,431571	0,13272	0,061344	0,010673	0,00469
0,971381	0,427176	0,109783	0,232639	0,467335	0,349484	0,557573	0,66322	0,464196	0,268835	0,392455	0,329115	0,138587	0,022395	0,04193
0,850564	0,13328	0,018725	0,065707	0,509419	0,418968	0,524426	0,533797	0,348896	0,296233	0,343375	0,162474	0,023658	0,002098	0,001742
0,991539	0,380306	0,080324	0,141199	0,426883	0,429811	0,577505	0,59076	0,389365	0,189514	0,427917	0,407689	0,123515	0,007369	0,003124
0,435728	0,045204	0,027153	0,10137	0,466457	0,41545	0,684045	0,562448	0,409131	0,290387	0,478833	0,131778	0,015203	0,002284	0,001788
0,467978	0,085033	0,007976	0,158338	0,568185	0,487232	0,698546	0,521896	0,329866	0,290594	0,509121	0,076865	0,009276	0,010625	0,011478
0,417657	0,05876	0,022704	0,193592	0,552499	0,490017	0,692684	0,51169	0,343337	0,309745	0,513652	0,062966	0,006559	0,043264	0,030427
0,813161	0,093568	0,081635	0,123032	0,413572	0,421365	0,535885	0,538739	0,436085	0,337354	0,355247	0,063995	0,029758	0,007625	0,005176
0,470926	0,057388	0,009172	0,13465	0,481882	0,405395	0,623187	0,585551	0,429346	0,297742	0,443243	0,06596	0,008132	0,000771	0,041331
0,436985	0,047239	0,028748	0,098473	0,468868	0,422872	0,684164	0,557817	0,403519	0,286652	0,499185	0,054409	0,017022	0,002418	0,001629
0,573295	0,239661	0,066251	0,12569	0,533725	0,429455	0,616804	0,577339	0,327422	0,241623	0,462534	0,512337	0,359709	0,005958	0,002233
0,65449	0,214676	0,103748	0,106516	0,408703	0,411707	0,639313	0,566554	0,415566	0,273287	0,383824	0,150619	0,033634	0,009769	0,001769
1,015121	0,697661	0,29627	0,21034	0,354971	0,373051	0,494874	0,506867	0,488401	0,304781	0,320121	0,294637	0,100569	0,01948	0,00861
0,602739	0,143061	0,034739	0,155988	0,426341	0,386673	0,642719	0,544291	0,399056	0,267282	0,365248	0,276446	0,194773	0,104366	0,007554
0,641387	0,212175	0,094785	0,122435	0,408934	0,408065	0,64596	0,566064	0,405716	0,272513	0,373677	0,401261	0,03299	0,008784	0,002024
1,164718	0,45662	0,133044	0,146693	0,373796	0,382102	0,556077	0,612725	0,437312	0,225985	0,330564	0,202289	0,066137	0,012605	0,004113
0,978745	0,191317	0,140003	0,155901	0,374054	0,401268	0,526589	0,540623	0,424246	0,292296	0,299225	0,115459	0,041371	0,013458	0,007866
1,128598	0,910841	0,256809	0,044697	0,41971	0,373272	0,546612	0,458806	0,332185	0,244305	0,266354	0,380269	0,218567	0,111096	0,010373
1,166996	0,491657	0,138688	0,15826	0,372852	0,386023	0,537611	0,609028	0,436575	0,21772	0,323718	0,472188	0,147953	0,013204	0,048184
0,644835	0,20026	0,083715	0,114679	0,41142	0,408142	0,652274	0,568214	0,400746	0,272211	0,374166	0,541295	0,030395	0,007705	0,001844
0,643197	0,196946	0,089535	0,11973	0,407744	0,408037	0,645532	0,567645	0,407696	0,274564	0,377258	0,254958	0,029748	0,008254	0,001961
0,729809	0,252139	0,049053	0,130809	0,379549	0,386972	0,493514	0,51998	0,501573	0,31223	0,323435	0,134729	0,01231	0,004125	0,003645

H8m	HATS0m	HATS3m	HATS4m	HATS6m	HATS8m	H0v	H1v	H2v	H4v	HATS1v	HATS5v	HATS6v	HATS7v	HATS8v
0,021322	0,253958	0,154016	0,16173	0,144523	0,115765	1,23537	1,140217	0,893736	0,112176	0,138013	0,129033	0,109677	0,102335	0,133885
0,040192	0,211189	0,135574	0,136251	0,125265	0,087609	1,139041	1,046944	0,862751	0,210079	0,112937	0,109366	0,087712	0,087238	0,10752
0,039325	1,606934	0,314548	0,187949	0,285141	0,188555	1,453553	1,187482	1,032153	0,174349	0,140784	0,117508	0,115566	0,124638	0,139329
0,033839	0,188949	0,133546	0,134981	0,11446	0,104978	1,165769	1,09338	0,908018	0,244039	0,111711	0,121861	0,088508	0,083918	0,111437
0,026689	0,486692	0,224966	0,17366	0,20646	0,144172	1,394571	1,204756	1,026702	0,152276	0,143183	0,125968	0,118281	0,121314	0,139707
0,016284	0,260323	0,143661	0,167432	0,175507	0,104122	1,238627	1,165255	0,94057	0,179279	0,129976	0,147275	0,121154	0,097159	0,115904
0,003006	0,459542	0,195991	0,193544	0,231191	0,161862	1,37454	1,237287	0,971067	0,126874	0,16309	0,153562	0,129859	0,100447	0,14492
0,001768	0,403525	0,141504	0,128051	0,092832	0,128581	1,26138	1,145613	0,891289	0,141667	0,149571	0,104126	0,084297	0,090532	0,140639
0,035521	0,25141	0,163849	0,16458	0,176063	0,112703	1,258411	1,198337	1,031427	0,181304	0,13173	0,131456	0,106714	0,100418	0,120558
0,054641	0,497167	0,216528	0,222304	0,234609	0,212761	1,350953	1,084168	0,837946	0,293625	0,132728	0,159782	0,123399	0,108037	0,130908
0,000506	0,604472	0,196535	0,216946	0,248224	0,160209	1,452742	1,266297	1,086668	0,201876	0,173258	0,149873	0,131744	0,104688	0,132394
0,031101	0,44431	0,223225	0,22068	0,135693	0,247966	1,297952	1,130868	0,984069	0,299741	0,125602	0,118849	0,08781	0,103338	0,131778
0,017859	1,204551	0,741182	0,278324	0,450966	0,230534	1,736988	1,362946	1,213706	0,122844	0,168134	0,180887	0,168869	0,131496	0,171971
0,004232	0,476731	0,170396	0,204908	0,189134	0,229897	1,305631	1,101709	0,733656	0,107377	0,17147	0,14405	0,118099	0,102619	0,158652
0,002885	0,603798	0,222623	0,277537	0,217709	0,429143	1,464571	1,198035	0,782385	0,094007	0,186961	0,155252	0,134716	0,123967	0,197368
0,024509	0,241111	0,14004	0,15629	0,161931	0,090804	1,221542	1,164789	0,967329	0,127103	0,128915	0,141432	0,118308	0,092492	0,109061
0,020345	0,463539	0,209526	0,267339	0,210895	0,190386	1,379799	1,236509	0,958195	0,102862	0,16066	0,172592	0,128965	0,099758	0,154301
0,011784	4,046081	0,423426	0,378183	0,640225	0,325595	1,698757	1,306759	1,116036	0,092832	0,163877	0,183531	0,162585	0,115526	0,177941
0,01613	0,934682	0,268984	0,323492	0,207034	0,277284	1,560704	1,233324	0,948523	0,220558	0,173381	0,152989	0,119055	0,120415	0,188046
0,001535	0,202116	0,128987	0,146058	0,144089	0,057245	1,227213	1,187479	0,99389	0,169468	0,126332	0,130328	0,109238	0,100554	0,093182
0,004119	0,170719	0,12402	0,129	0,12154	0,065544	1,163651	1,126834	0,97061	0,328997	0,102561	0,122212	0,090994	0,084074	0,085133
0,004317	0,97961	0,628857	0,222222	0,344702	0,140579	1,67076	1,384464	1,300874	0,195165	0,153911	0,149409	0,14157	0,125125	0,123919
0,00164	1,453742	0,298191	0,18746	0,293687	0,153138	1,476652	1,287123	1,173872	0,220028	0,136219	0,131131	0,122536	0,119597	0,10663
0,001828	0,172009	0,118343	0,126515	0,127727	0,05036	1,149075	1,115557	0,979035	0,263574	0,105381	0,114519	0,092298	0,090169	0,081016
0,000416	0,169652	0,113695	0,124848	0,135458	0,050417	1,179829	1,172015	1,035328	0,177624	0,113321	0,121896	0,101969	0,090073	0,084805
0,008204	0,322987	0,128729	0,112469	0,1015	0,061646	1,29185	1,199533	1,012758	0,363759	0,127748	0,100396	0,077668	0,078586	0,087088
0,001861	0,330536	0,194883	0,200129	0,139795	0,164211	1,289783	1,204277	1,113684	0,357094	0,117645	0,123873	0,093284	0,103701	0,098947
0,001414	3,765109	0,411916	0,21637	0,394207	0,219172	1,630737	1,314073	1,229267	0,232589	0,138607	0,131449	0,126891	0,126982	0,111661
0,001504	0,417413	0,199509	0,161991	0,204958	0,097007	1,393051	1,269856	1,140814	0,208091	0,134065	0,131392	0,119962	0,1156	0,103943
0,001864	0,263922	0,160179	0,167448	0,21011	0,070703	1,307106	1,307636	1,223097	0,186414	0,128538	0,144972	0,122641	0,113821	0,09108

H1e	H8e	HATS1e	HATS2e	HATS4e	HATS5e	H1p	H7p	HATS1p	HATS4p	HATS5p	HATS6p	HATS7p	HATS8p	HATS2i
2,200223	0,119219	0,277031	0,476072	0,610795	0,42047	1,123234	0,020832	0,134328	0,154267	0,113487	0,10381	0,129444	0,161732	0,560848
2,102153	0,139923	0,24221	0,440978	0,628555	0,434004	1,040471	0,028572	0,111081	0,157368	0,105584	0,080572	0,105182	0,128359	0,543716
2,120482	0,124477	0,264919	0,489657	0,597173	0,371215	1,223	0,018875	0,145491	0,169831	0,106384	0,113346	0,152593	0,175089	0,576218
2,225519	0,1307	0,245144	0,436789	0,504364	0,504818	1,07919	0,034064	0,111619	0,153174	0,133809	0,092123	0,097481	0,127075	0,541096
2,195614	0,122871	0,273172	0,483412	0,61551	0,402682	1,19671	0,021618	0,141606	0,167813	0,112295	0,111552	0,144269	0,169503	0,561479
2,358716	0,12459	0,2745	0,451624	0,512242	0,497876	1,105242	0,036918	0,12123	0,144542	0,137685	0,117005	0,113395	0,128348	0,538921
2,326778	0,132177	0,316307	0,489115	0,660314	0,496637	1,12262	0,031894	0,140015	0,1626	0,125105	0,105889	0,109645	0,153229	0,5286
2,209814	0,092796	0,298729	0,498416	0,553579	0,377263	1,134404	0,016827	0,137287	0,142327	0,103963	0,089918	0,111717	0,165179	0,570068
2,367433	0,115724	0,274999	0,497987	0,56586	0,494898	1,099997	0,03132	0,121373	0,156145	0,124376	0,09354	0,109998	0,133076	0,578246
2,184547	0,210787	0,284559	0,424933	0,777532	0,582368	0,953129	0,052765	0,106448	0,181571	0,128326	0,095225	0,101742	0,12084	0,450823
2,475158	0,063516	0,349888	0,537578	0,640393	0,453187	1,084825	0,013433	0,13494	0,151376	0,112887	0,101007	0,098208	0,129297	0,543518
2,196019	0,124763	0,257827	0,562691	0,722729	0,488703	1,004159	0,026969	0,105536	0,148778	0,098932	0,076084	0,099859	0,121257	0,647112
2,298175	0,094248	0,290096	0,466564	0,657622	0,511476	1,340643	0,017969	0,162815	0,220873	0,16454	0,148101	0,149381	0,206056	0,5109
2,188797	0,047389	0,343512	0,573993	0,619582	0,431048	0,988408	0,025721	0,148964	0,140053	0,109554	0,099436	0,11672	0,159116	0,625183
2,178144	0,032308	0,34321	0,55932	0,601845	0,444926	1,198375	0,092498	0,181584	0,162709	0,125896	0,136874	0,166744	0,207506	0,604242
2,306179	0,047223	0,273079	0,440077	0,580842	0,487026	1,154589	0,018984	0,125992	0,161949	0,134738	0,111058	0,108995	0,129772	0,539752
2,327838	0,211357	0,313311	0,469342	0,696749	0,563545	1,127822	0,030176	0,139136	0,164923	0,128854	0,107141	0,108895	0,150874	0,511969
2,254691	0,085282	0,284371	0,459002	0,631742	0,493812	1,328685	0,017126	0,16677	0,228141	0,18024	0,153384	0,145631	0,23386	0,517808
2,191307	0,121849	0,316391	0,516485	0,683677	0,425669	1,182482	0,022329	0,154069	0,204234	0,13288	0,109577	0,152128	0,207241	0,544829
2,260147	0,072803	0,252822	0,426646	0,583638	0,477305	1,202111	0,018545	0,128063	0,163916	0,122431	0,106038	0,116085	0,124056	0,511423
2,275123	0,164287	0,221625	0,387627	0,527265	0,517495	1,12811	0,052285	0,103724	0,161135	0,132733	0,093613	0,088529	0,103485	0,48176
2,322457	0,162372	0,262279	0,421816	0,603721	0,47486	1,384781	0,042353	0,152252	0,205244	0,142306	0,127517	0,130968	0,160326	0,47246
2,268479	0,078704	0,250741	0,428649	0,591349	0,466468	1,339641	0,021291	0,142639	0,189419	0,124783	0,121046	0,134864	0,141702	0,501798
2,207102	0,100105	0,223908	0,39033	0,616399	0,48079	1,138583	0,029159	0,107853	0,168754	0,114886	0,088291	0,098842	0,103991	0,486189
2,303035	0,052172	0,238917	0,407996	0,547135	0,463957	1,205256	0,028717	0,117926	0,159173	0,122908	0,099492	0,099975	0,111067	0,511332
2,18801	0,116367	0,2443	0,421246	0,507012	0,363209	1,207464	0,020495	0,120297	0,137465	0,106596	0,079689	0,080936	0,106979	0,470923
2,314554	0,095436	0,239918	0,478964	0,691709	0,528908	1,106075	0,03131	0,104141	0,161335	0,110164	0,084747	0,094984	0,099025	0,558119
2,239476	0,075413	0,245636	0,422204	0,585098	0,4601	1,487174	0,019781	0,160119	0,218151	0,129561	0,138686	0,15899	0,163157	0,497752
2,288329	0,077081	0,253037	0,430676	0,597054	0,468615	1,287843	0,020763	0,136563	0,179896	0,123895	0,115476	0,127333	0,134907	0,504399
2,537963	0,09935	0,266031	0,428562	0,568873	0,554556	1,215006	0,027285	0,117835	0,172156	0,142434	0,106641	0,106295	0,105918	0,496312

HATS7i	H1s	H2s	H3s	H6s	H8s	HATS0s	HATS3s	HATS5s	HATS6s	HATS7s	RARS	REIG	R1u	R2u
0,442941	8,915961	13,44514	5,577107	0,082054	0,330686	4,588094	2,383476	2,285086	1,631313	0,694154	0,73846	0,792268	1,921224	1,786303
0,388095	8,228057	12,13783	5,821372	0,179369	0,528912	3,868504	2,146525	2,003568	1,377472	0,672332	0,699997	0,757909	1,889439	1,860195
0,440492	8,408982	12,08392	6,094992	0,099444	0,504179	4,236486	2,685808	1,98949	1,521576	0,848233	0,717858	0,793415	1,825083	1,756099
0,309237	8,58076	12,89648	5,785186	0,363304	0,456811	3,222315	1,838777	1,850047	1,322015	0,623203	0,69468	0,73728	1,963553	1,899183
0,443082	9,102897	13,88612	6,789613	0,082553	0,385332	4,64652	2,728668	2,156926	1,72467	0,979361	0,72532	0,785837	1,857477	1,757243
0,4622	9,827749	15,80254	5,907788	0,167867	0,31388	4,348688	1,886429	2,528792	1,903085	0,788663	0,685069	0,737806	1,982623	1,874213
0,379291	11,44443	20,2013	6,530685	0,009637	0,17266	9,604905	2,898751	3,11017	2,752991	1,287076	0,708472	0,762601	1,875063	1,656337
0,312798	9,353891	17,89	4,101806	0,513222	0,117219	9,35614	1,937723	1,835399	1,066914	0,552321	0,675692	0,751149	1,92867	1,795998
0,390646	9,577067	15,74728	6,270101	0,165217	0,457305	4,052873	2,140013	2,302314	1,687527	0,806818	0,693227	0,749416	1,974294	1,940716
0,405001	11,43641	16,5042	7,373178	0,29997	0,735927	10,54031	2,633162	3,769653	2,676356	2,004828	0,673655	0,726576	1,789024	1,593296
0,33679	13,90918	29,66022	5,777836	0,065537	0,071609	14,0861	2,511747	3,344371	3,089012	1,695154	0,666522	0,74696	1,866011	1,633111
0,4145	10,16429	25,91621	9,61356	0,187644	0,426613	9,860277	2,856646	2,830298	1,401244	1,979714	0,682617	0,737292	1,799582	1,796074
0,38712	10,29341	15,80338	8,556097	0,054306	0,266535	6,323679	3,502229	3,082562	2,677136	1,052139	0,70496	0,752142	1,795764	1,666437
0,397775	10,44368	17,87494	2,274205	0,041872	0,096097	9,975891	2,810577	3,109999	2,358221	0,819049	0,728324	0,796743	1,847381	1,682891
0,384723	9,995679	16,69602	2,446763	0,055927	0,068609	9,085833	2,563116	3,142641	2,356737	0,736713	0,721868	0,782532	1,832671	1,66391
0,401287	9,117863	14,05616	5,887491	0,217502	0,281551	4,050898	1,907483	2,372594	1,844936	0,750049	0,70431	0,753798	1,984103	1,870211
0,395432	11,32888	19,11648	5,585053	0,018345	1,160204	9,531057	2,798734	4,202989	2,439459	1,059899	0,706837	0,759016	1,876128	1,647704
0,392676	9,470468	14,65688	5,953955	0,057496	0,199902	5,054841	2,45574	2,780917	2,147075	0,682415	0,714634	0,761651	1,839507	1,702758
0,403011	10,34906	18,54768	4,35512	0,14139	0,313085	11,46009	2,563034	3,006157	1,900279	0,942273	0,686094	0,755863	1,80581	1,63312
0,431203	8,49404	13,6382	5,963285	0,25717	0,093772	3,512304	1,861847	1,906272	1,638505	1,219369	0,746816	0,785818	1,989024	1,881132
0,316934	8,356464	12,75	7,009509	0,609551	0,219634	2,859906	1,576529	1,605757	1,420291	1,085608	0,701091	0,734313	2,001439	1,967864
0,375129	9,908637	16,45281	9,212178	0,39124	0,21668	5,906624	2,946408	2,072951	2,238198	1,590489	0,69923	0,739293	1,846269	1,758715
0,418522	8,594938	13,9837	6,573715	0,222487	0,101135	3,517684	2,032719	1,841109	1,704699	1,333832	0,733225	0,77356	1,927481	1,843765
0,395273	8,020539	12,92941	6,569561	0,332165	0,125473	3,012147	1,687736	1,692066	1,421647	1,177941	0,712782	0,755285	1,970759	1,944235
0,370372	8,253111	13,6219	6,364689	0,357801	0,058819	2,847168	1,601944	1,654363	1,541515	1,058989	0,709009	0,752586	2,027189	1,975421
0,298253	8,919297	16,65877	3,897326	1,74188	0,202742	7,304625	1,862301	1,372581	1,168354	1,136986	0,608163	0,713522	1,91498	1,764708
0,41512	10,04034	29,16828	10,485	0,351678	0,121072	7,065318	2,349935	2,432807	1,484865	2,235962	0,698052	0,739997	1,893392	1,884843
0,412923	8,36414	13,4655	6,217266	0,191836	0,094975	3,167823	1,966426	1,804577	1,632883	1,26668	0,730855	0,772485	1,9147	1,838248
0,423681	8,884924	14,43056	7,12674	0,206838	0,097791	3,593246	2,148729	1,844862	1,776426	1,427302	0,737052	0,776685	1,942523	1,851261
0,397411	9,859497	16,10083	7,031511	0,09163	0,125138	4,085972	1,653182	1,874574	2,054352	1,647989	0,683018	0,718124	2,051793	1,98372

R4u	R6u	R7u	R8u	R1u+	R2u+	R4m	R6m	R2m+	R4m+	R5m+	R8m+	R2v	R3v	R4v
1,104637	0,40159	0,430517	0,506549	0,13524	0,101014	0,399723	0,234866	0,156246	0,039695	0,062802	0,031945	0,778565	0,548491	0,370721
1,36861	0,36666	0,426981	0,502249	0,140192	0,1074	0,377543	0,228599	0,142653	0,035643	0,055529	0,024493	0,742265	0,55624	0,391074
1,061287	0,383452	0,424924	0,503359	0,159983	0,121607	0,484699	0,420623	0,292817	0,072966	0,06753	0,080413	0,837029	0,610206	0,381585
1,184279	0,517427	0,395453	0,50378	0,139056	0,102436	0,406599	0,232956	0,123492	0,031751	0,045789	0,025214	0,741895	0,550238	0,418678
1,083155	0,393688	0,42756	0,504387	0,143331	0,108872	0,438667	0,317451	0,148143	0,038071	0,059628	0,035279	0,836958	0,607392	0,386479
1,129898	0,561972	0,491337	0,482092	0,138028	0,087064	0,44842	0,292216	0,149491	0,041262	0,063685	0,031837	0,739278	0,527991	0,416905
1,087388	0,404329	0,39171	0,471644	0,170834	0,122249	0,433061	0,303454	0,216962	0,045685	0,071536	0,031598	0,802955	0,568849	0,380859
1,144189	0,49157	0,374664	0,545033	0,176849	0,13215	0,387456	0,200734	0,234534	0,041852	0,064665	0,027947	0,714216	0,510469	0,379638
1,137822	0,429855	0,428611	0,486704	0,138222	0,097788	0,454486	0,308145	0,141739	0,038213	0,05868	0,030428	0,844578	0,57946	0,420472
1,351393	0,392648	0,398716	0,430929	0,148092	0,104386	0,540498	0,31196	0,18526	0,050514	0,083823	0,039337	0,779674	0,606066	0,464586
1,158433	0,447586	0,381024	0,408806	0,185591	0,142269	0,524617	0,359218	0,252493	0,043916	0,072306	0,028602	0,804004	0,567818	0,427688
1,352355	0,358795	0,421505	0,491671	0,132301	0,098592	0,586308	0,268489	0,229948	0,038639	0,053655	0,040575	0,839425	0,616363	0,459745
1,071452	0,403434	0,403069	0,484052	0,133876	0,089182	0,594262	0,498542	0,158102	0,086643	0,12046	0,051802	0,909648	0,726329	0,439183
0,86987	0,366587	0,350603	0,415038	0,179656	0,135958	0,418698	0,235802	0,241293	0,047653	0,073536	0,056514	0,751764	0,45042	0,319146
0,861879	0,372292	0,350722	0,410709	0,183159	0,129058	0,5128	0,271633	0,229046	0,11361	0,074204	0,129417	0,81453	0,477605	0,341394
1,284522	0,515111	0,440167	0,435444	0,143144	0,097448	0,406029	0,261893	0,142749	0,039759	0,063145	0,032104	0,754411	0,5463	0,402336
1,08976	0,403753	0,393616	0,470165	0,161308	0,116186	0,54804	0,282354	0,206202	0,076408	0,078502	0,045164	0,79083	0,573925	0,402683
1,07808	0,404246	0,408926	0,490431	0,138065	0,091437	0,727167	0,61451	0,357625	0,194017	0,266463	0,11699	0,861307	0,630521	0,427433
1,076675	0,379581	0,38693	0,441373	0,184698	0,142844	0,724948	0,300272	0,253514	0,177151	0,146005	0,084121	0,801599	0,599864	0,44033
1,301318	0,510773	0,466893	0,457746	0,131828	0,102521	0,419313	0,301617	0,123898	0,047249	0,034196	0,016542	0,80244	0,577611	0,413642
1,375538	0,604884	0,433705	0,474538	0,117215	0,079121	0,420212	0,296236	0,093349	0,03535	0,03051	0,014714	0,764546	0,581927	0,451756
1,220745	0,447105	0,431072	0,448881	0,152437	0,072367	0,544038	0,479419	0,147771	0,07562	0,095211	0,037009	0,911807	0,728801	0,440638
1,285587	0,503465	0,458425	0,449711	0,12943	0,098825	0,526265	0,502511	0,290597	0,078655	0,065491	0,084645	0,876724	0,651672	0,437807
1,554255	0,481924	0,473529	0,459464	0,128785	0,09506	0,398616	0,292723	0,108289	0,043074	0,031718	0,01359	0,772739	0,590981	0,433828
1,444399	0,582347	0,465743	0,4099	0,128769	0,091529	0,404871	0,303712	0,111884	0,04366	0,031719	0,015925	0,771334	0,570608	0,428151
1,213621	0,52749	0,403103	0,412221	0,148564	0,118067	0,394455	0,256779	0,209541	0,038948	0,026685	0,011726	0,772	0,576709	0,419747
1,535236	0,475354	0,469699	0,450137	0,120699	0,093225	0,592902	0,333002	0,174901	0,04336	0,032387	0,030801	0,860571	0,648278	0,497742
1,281543	0,49877	0,456189	0,453098	0,135515	0,099694	0,585627	0,615347	0,442393	0,123762	0,10547	0,13551	0,893554	0,669787	0,442359
1,288469	0,504833	0,461237	0,454368	0,130323	0,098747	0,464651	0,384739	0,133366	0,046358	0,033407	0,037344	0,866237	0,639547	0,433499
1,289202	0,503119	0,453346	0,432981	0,132906	0,086732	0,460669	0,346356	0,105282	0,033013	0,032739	0,016084	0,874269	0,610488	0,452072

R5v	R6v	R7v	R8v	R2v+	R1e	R2e	R3e	R8e	RTe	R5e+	R4p	R5p	R6p	R7p
0,251449	0,185842	0,148532	0,160256	0,044982	2,026695	1,859863	1,866114	0,49799	19,59279	0,062341	0,363024	0,229149	0,178416	0,176618
0,242705	0,175155	0,147958	0,152179	0,041069	1,982365	1,907959	1,792363	0,504988	20,53137	0,055122	0,416895	0,237057	0,166778	0,170069
0,248662	0,197626	0,169805	0,166877	0,056717	1,933419	1,842051	1,88579	0,495361	19,29139	0,056338	0,391864	0,231566	0,193273	0,1997
0,282695	0,185464	0,152062	0,162704	0,039877	2,070881	1,998329	1,680893	0,509923	21,33746	0,04973	0,433423	0,30169	0,188602	0,168941
0,254613	0,198616	0,167292	0,167305	0,050648	1,980965	1,856493	1,900852	0,49868	19,64251	0,05919	0,386107	0,2338	0,189294	0,192036
0,309116	0,21893	0,158593	0,160584	0,043037	2,127915	1,99782	1,653491	0,500861	21,38293	0,063217	0,408452	0,303872	0,214709	0,179584
0,259831	0,196809	0,151146	0,165663	0,062462	2,064226	1,817517	1,831452	0,475501	19,77736	0,071011	0,357095	0,227447	0,173976	0,16338
0,268031	0,179233	0,143049	0,16609	0,067521	2,019489	1,878207	1,587185	0,528253	19,97489	0,06419	0,389054	0,261373	0,183736	0,169273
0,277505	0,200948	0,163811	0,164838	0,040806	2,154414	2,148248	1,762783	0,504632	21,40253	0,058249	0,405329	0,26178	0,179897	0,174412
0,289649	0,193743	0,154148	0,156786	0,053335	2,055409	1,802478	1,783274	0,46435	20,88769	0,083207	0,421632	0,245274	0,164933	0,153044
0,29434	0,214974	0,162437	0,163721	0,072691	2,16003	1,872025	1,678991	0,426998	20,88321	0,071775	0,376953	0,239758	0,178135	0,157872
0,264642	0,182876	0,167391	0,176219	0,03945	2,023397	2,175563	1,839582	0,54692	22,43153	0,053261	0,395778	0,227094	0,16139	0,163835
0,297206	0,235275	0,177387	0,189393	0,058432	1,970408	1,808172	1,888143	0,499504	19,77731	0,064347	0,444717	0,274857	0,216281	0,199316
0,22604	0,164541	0,132333	0,143753	0,069466	2,039864	1,862008	1,687926	0,449268	17,95863	0,072996	0,2767	0,189643	0,14592	0,141118
0,236735	0,181289	0,151181	0,167591	0,065941	1,994563	1,795752	1,633141	0,431016	17,47694	0,073659	0,316204	0,211284	0,18921	0,193159
0,281346	0,205355	0,150405	0,152824	0,041096	2,087226	1,920005	1,70516	0,42968	20,72625	0,062681	0,418364	0,273741	0,19724	0,173266
0,277581	0,195066	0,152934	0,174629	0,059364	2,062612	1,790398	1,811049	0,508253	19,86519	0,07191	0,354343	0,22594	0,172963	0,16105
0,295424	0,225837	0,160588	0,187118	0,069269	1,977639	1,801807	1,829045	0,496428	19,40394	0,063695	0,446329	0,284344	0,217882	0,191728
0,291687	0,193723	0,15908	0,18325	0,072985	1,964498	1,784065	1,751318	0,462192	19,10737	0,083613	0,430904	0,256319	0,182913	0,189318
0,302185	0,221972	0,174438	0,14886	0,039107	2,064416	1,933391	1,948254	0,435096	21,85897	0,064655	0,433739	0,28227	0,212947	0,186708
0,319297	0,219152	0,177119	0,157257	0,037903	2,091436	2,046419	1,819368	0,468214	23,51123	0,048512	0,4878	0,335399	0,218977	0,179634
0,301977	0,238718	0,19527	0,16951	0,054614	1,987284	1,865929	1,980274	0,444693	21,41297	0,04655	0,475574	0,286177	0,224231	0,2033
0,309469	0,238939	0,19422	0,158936	0,056287	2,018152	1,915014	1,955833	0,430219	21,75647	0,065845	0,476209	0,293102	0,232274	0,207939
0,29319	0,213788	0,176404	0,146199	0,038345	2,036685	1,971982	1,894159	0,448359	22,84289	0,060837	0,484947	0,288547	0,205123	0,184
0,312385	0,226839	0,171144	0,142548	0,037319	2,08561	1,998158	1,831532	0,390904	22,7007	0,0569	0,470317	0,306856	0,219614	0,181951
0,296359	0,197912	0,16175	0,14835	0,060325	1,984125	1,830047	1,827035	0,396572	21,52082	0,096419	0,444536	0,303032	0,196889	0,167205
0,314078	0,221815	0,196104	0,166189	0,037783	2,083061	2,202115	1,945916	0,483854	24,66383	0,059563	0,46491	0,279519	0,200418	0,178583
0,309373	0,241762	0,200009	0,163265	0,066161	1,993696	1,893057	1,926197	0,431115	21,45079	0,065477	0,517959	0,304252	0,252705	0,232379
0,307886	0,235441	0,191111	0,158003	0,04929	2,041651	1,930786	1,978701	0,435868	21,98855	0,064804	0,460753	0,28891	0,22487	0,200428
0,307491	0,223926	0,189791	0,147467	0,037522	2,226507	2,164698	1,812661	0,43718	23,00465	0,043203	0,460613	0,29876	0,2037	0,182571

R8p	R1i	R2i+	R3i+	R4i+	R5i+	R3s	R5s	R6s	R4s+	R6s+	R7s+	DP20	nCp	nArX
0,177844	2,263187	0,147308	0,122796	0,09929	0,060037	5,828921	3,789588	2,342884	0,475894	0,643613	0,141458	0,533121	0	0
0,16924	2,240021	0,156621	0,117889	0,096623	0,060869	5,706094	3,644173	2,191909	0,463111	0,584829	0,11255	2,002006	1	0
0,190175	2,139235	0,17734	0,139002	0,109595	0,065374	6,157002	3,603693	2,315706	0,525286	0,583768	0,171672	2,603429	0	1
0,173603	2,330171	0,149382	0,095357	0,081626	0,081762	5,529698	3,800596	2,297805	0,391231	0,48758	0,13562	2,874415	0	0
0,186053	2,18422	0,158768	0,123569	0,101269	0,06247	6,451286	3,723507	2,504939	0,48538	0,614412	0,264767	2,418001	0	1
0,169751	2,363782	0,126965	0,105676	0,07512	0,070774	5,49069	4,446059	2,834305	0,360049	0,649948	0,109987	3,687828	0	0
0,172153	2,243724	0,178807	0,132554	0,091025	0,058956	7,245677	4,11058	3,179267	0,436281	0,734429	0,556578	2,233202	0	1
0,189459	2,259925	0,193289	0,097184	0,093571	0,053293	5,244502	4,157829	2,152983	0,448482	0,54651	0,116327	1,194817	1	0
0,171341	2,349612	0,142604	0,108816	0,08495	0,069557	5,925105	4,115911	2,637577	0,407161	0,604134	0,169511	3,360532	0	0
0,148546	2,220852	0,15268	0,094867	0,11627	0,069082	7,217112	5,52964	3,092092	0,55728	0,909153	0,577499	5,218025	0	0
0,160549	2,302165	0,20809	0,1054	0,101835	0,05959	6,804899	5,209203	3,994416	0,488092	0,685761	0,517087	1,69858	0	0
0,162643	2,218796	0,219971	0,108675	0,115403	0,061439	8,09449	5,039547	2,446721	0,494094	0,565324	0,504072	4,101275	1	0
0,210756	2,113074	0,130054	0,107707	0,08581	0,057292	7,621525	4,313383	3,117389	0,411283	0,680388	0,290849	2,703005	0	2
0,141007	2,201244	0,198859	0,128482	0,104215	0,062443	5,933278	3,759609	2,543285	0,499501	0,747311	0,186853	0,452254	0	0
0,174509	2,150152	0,188766	0,125838	0,102841	0,063454	5,472253	3,761822	2,483996	0,492915	0,739693	0,180526	0,478741	0	0
0,170201	2,351986	0,142108	0,104631	0,074953	0,060529	5,427934	3,950985	2,658407	0,359246	0,651577	0,12738	1,750776	1	0
0,167478	2,24512	0,16994	0,144237	0,085521	0,069703	7,099459	5,344743	2,793981	0,99371	0,73801	0,250844	0,902507	0	1
0,220241	2,158193	0,133343	0,108068	0,087363	0,057604	5,967091	4,047354	2,664208	0,418728	0,66834	0,140698	2,364068	0	1
0,198856	2,119719	0,208931	0,103868	0,095368	0,069418	6,212289	4,895394	2,598215	0,634551	0,819231	0,139055	1,086546	0	1
0,179824	2,332124	0,149507	0,112564	0,076848	0,075539	5,47943	3,662309	3,258637	0,372402	0,6705	0,508411	0,301443	0	0
0,180219	2,369579	0,115382	0,108562	0,075238	0,074117	5,389367	3,517266	3,135262	0,360614	0,608112	0,49353	2,563388	0	0
0,204854	2,157258	0,105533	0,103195	0,081504	0,054386	7,209334	3,542549	3,300276	0,324616	0,685876	0,513641	2,43968	0	2
0,193773	2,250734	0,144117	0,112899	0,070797	0,076929	5,765405	3,656033	3,312188	0,372648	0,663648	0,49425	2,605783	0	1
0,174839	2,324309	0,138626	0,1121	0,077753	0,071078	5,393395	3,484373	3,047649	0,360736	0,630379	0,483304	1,658742	1	0
0,172799	2,383623	0,133477	0,105437	0,071981	0,066478	5,226906	3,62013	3,300832	0,344118	0,604259	0,425599	1,474595	1	0
0,177193	2,219162	0,172691	0,110725	0,092984	0,11265	5,427306	3,464379	2,681086	0,44567	0,616011	0,503764	4,976068	0	0
0,167895	2,311342	0,167312	0,107747	0,103381	0,069589	7,675873	4,780748	3,328911	0,442623	0,636414	0,490204	3,800837	1	0
0,211787	2,230068	0,145384	0,111292	0,07598	0,076499	5,59283	3,586615	3,1517	0,357376	0,630067	0,466768	2,838841	0	1
0,18935	2,274554	0,144002	0,112523	0,072084	0,075712	6,070537	3,657418	3,404175	0,365383	0,657269	0,489713	2,241317	0	1
0,165205	2,43777	0,126481	0,107329	0,063941	0,062289	5,504856	3,477378	3,105216	0,282777	0,699223	0,542288	2,677255	0	0

C-001	C-005	C-025	C-026	H-046	F-084	SssCH2	SaaCH	SaasC	SaaO	NaasC	CATS2D_0	CATS2D_0	CATS2D_0	CATS2D_0
0	0	1	0	0	0	0,081934	9,333762	1,613844	4,917233	3	3	2	0	6
1	0	2	0	3	0	0,080085	7,685027	2,774623	4,947473	4	3	2	0	6
0	0	1	1	0	0	0,063326	7,42461	2,524571	4,935754	4	3	2	0	6
0	1	1	1	0	0	0,037434	7,164193	2,217305	4,942554	4	3	4	0	8
0	0	1	1	0	0	0,032911	6,952002	2,070773	4,914487	4	3	2	0	6
0	1	1	1	0	0	0,026831	7,203621	2,116346	4,949929	4	3	3	0	8
0	0	1	1	0	1	-0,05399	5,601693	0,774206	4,853723	4	3	2	0	6
1	0	2	0	3	0	0,07998	7,657454	2,721854	4,972233	4	3	2	0	6
0	0	1	2	0	0	0,198958	5,283219	2,652056	4,964545	5	4	5	0	8
0	0	1	1	0	0	-0,12082	5,635027	0,943767	4,861053	4	4	4	2	8
0	0	1	1	0	0	-0,16584	5,762926	0,665732	4,847729	4	4	7	0	8
0	0	2	0	0	0	-0,25931	4,255443	-0,23654	4,792525	4	3	2	0	6
0	0	1	2	0	0	-0,02811	4,925889	2,033682	4,911274	5	3	2	0	6
0	0	0	0	0	0	0,023641	4,881404	1,053146	9,871422	3	3	2	2	6
0	0	0	0	0	0	0,103951	5,668441	1,721665	4,893287	3	3	2	0	4
1	0	2	0	3	0	0,07996	7,690704	2,740546	4,957104	4	3	2	0	6
0	0	1	1	0	1	-0,13622	6,000787	0,013521	4,805566	4	3	2	0	6
0	0	1	1	0	0	0,058982	7,447162	2,460865	4,941798	4	3	2	0	6
0	0	1	1	0	0	0,00391	7,074553	1,768922	4,913591	4	3	2	0	6
0	0	1	0	2	0	0,898433	9,457228	1,848661	5,026413	3	3	4	0	6
0	1	1	1	2	0	0,837265	7,270038	2,467869	5,051734	4	3	6	0	8
0	0	1	2	2	0	0,748144	5,008987	2,304817	5,020454	5	3	4	0	6
0	0	1	1	2	0	0,872827	7,530455	2,775136	5,044934	4	3	4	0	6
1	0	2	0	5	0	0,895785	7,790872	3,025188	5,056653	4	3	4	0	6
1	0	2	0	5	0	0,895574	7,791424	2,995934	5,066284	4	3	4	0	6
0	0	3	0	2	0	0,858364	13,90129	1,872625	5,175334	3	3	4	0	6
0	0	2	0	2	0	0,427169	4,361288	0,014028	4,901705	4	3	4	0	6
0	0	1	1	2	0	0,892111	7,749205	2,985179	5,054778	4	3	4	0	6
0	0	1	1	2	0	0,831163	7,057847	2,321337	5,023667	4	3	4	0	6
0	0	1	2	2	0	0,997896	5,366318	2,923191	5,073724	5	4	7	0	8

CATS2D_0	CATS2D_0	CATS2D_0	CATS2D_0	CATS2D_0	CATS2D_0	CATS2D_0	CATS2D_0	CATS2D_0	CATS2D_0	CATS2D_0	CATS2D_0	CATS2D_0	T(Cl..Cl)	B05[C-Br]
10	7	4	1	2	4	4	6	3	3	4	1	0	0	0
10	7	4	3	3	4	4	8	5	3	4	2	1	0	0
10	7	2	2	3	4	4	6	4	3	4	1	1	0	1
12	8	2	0	2	5	5	4	2	3	4	0	0	0	0
10	7	2	2	3	4	4	6	4	3	4	1	1	0	0
12	6	3	1	3	5	2	4	2	3	3	1	0	0	0
10	7	2	0	2	4	4	4	2	3	4	0	0	0	0
10	9	5	1	2	4	6	8	5	3	5	1	0	0	0
14	7	1	0	3	6	3	2	1	3	3	0	0	0	0
16	12	4	0	2	5	7	4	2	3	4	0	0	0	0
16	10	5	1	3	7	4	4	2	3	3	1	0	0	0
10	7	4	1	2	4	4	6	3	3	4	1	0	0	0
10	5	3	3	3	4	2	4	6	3	3	2	1	3	0
7	4	2	1	0	2	2	0	0	1	2	0	0	0	0
9	5	1	0	0	4	2	2	0	2	3	0	0	0	0
10	7	6	2	2	4	4	8	5	3	4	2	0	0	0
8	6	4	1	2	2	4	4	2	2	3	1	0	0	0
10	5	5	2	2	4	2	6	4	3	3	2	0	0	0
8	8	5	1	2	2	6	6	4	2	4	1	0	0	0
10	11	5	1	0	2	4	7	3	3	5	3	1	0	0
12	12	3	0	0	3	5	5	2	3	5	2	0	0	0
10	9	4	3	1	2	4	5	6	3	4	3	2	3	0
10	11	3	2	1	2	4	7	4	3	5	3	1	0	1
10	11	5	3	1	2	4	9	5	3	5	4	2	0	0
10	11	7	2	0	2	4	9	5	3	5	4	2	0	0
10	13	10	5	1	2	4	15	12	5	6	7	4	0	0
10	11	5	1	0	2	4	7	3	3	5	3	1	0	0
10	11	3	2	1	2	4	7	4	3	5	3	1	0	0
10	11	3	2	1	2	4	7	4	3	5	3	1	0	0
14	11	2	0	1	4	6	3	1	3	4	1	0	0	0

B06[C-N]	B06[C-F]	B06[C-Cl]	B06[N-Cl]	B06[O-O]	B07[O-O]	B09[C-F]	B10[C-C]	B10[O-O]	F03[C-N]	F04[C-N]	F05[C-C]	F05[C-N]	F05[N-O]	F06[C-N]
0	0	0	0	0	0	0	0	0	6	6	6	3	2	0
1	0	0	0	0	0	0	1	0	6	6	7	3	2	2
0	0	0	0	0	0	0	0	0	6	6	6	3	2	0
0	0	0	0	0	1	0	1	0	6	6	7	3	2	0
0	0	0	1	0	0	0	0	0	6	6	6	3	2	0
1	0	0	0	1	0	0	1	1	6	6	8	3	4	2
0	0	0	0	0	0	1	0	0	6	6	6	3	2	0
0	0	0	0	0	0	0	0	0	6	8	7	3	2	0
1	0	0	0	1	1	0	1	1	6	6	7	3	4	2
0	0	0	0	0	0	0	0	0	8	7	6	4	2	0
1	0	0	0	0	1	0	0	0	8	8	6	3	2	1
1	1	0	0	0	0	1	1	0	6	6	7	3	2	2
0	0	1	1	0	0	0	0	0	6	6	6	3	2	0
0	0	0	0	0	0	0	0	0	4	6	5	1	2	0
0	0	0	0	0	0	0	0	0	4	6	5	1	2	0
0	0	0	0	0	0	0	0	0	6	6	6	5	2	0
0	1	0	0	0	0	0	0	0	6	6	6	3	2	0
0	0	0	0	0	0	0	0	0	6	6	6	3	2	0
0	0	1	0	0	0	0	0	0	6	6	6	3	2	0
1	0	0	0	1	0	0	1	0	6	6	6	4	0	1
1	0	0	0	1	1	0	1	0	6	6	7	4	0	1
1	0	1	1	1	0	0	1	0	6	6	6	4	0	1
1	0	0	0	1	0	0	1	0	6	6	6	4	0	1
1	0	0	0	1	0	0	1	0	6	6	7	4	0	3
1	0	0	0	1	0	0	1	0	6	6	6	6	0	1
1	0	0	0	1	0	0	1	0	6	8	10	8	0	3
1	1	0	0	1	0	1	1	0	6	6	7	4	0	3
1	0	0	0	1	0	0	1	0	6	6	6	4	0	1
1	0	0	1	1	0	0	1	0	6	6	6	4	0	1
1	0	0	0	1	1	0	1	0	6	6	7	4	2	3

F06[C-O]	F06[N-O]	F07[C-N]	F07[C-O]	F07[N-O]	F08[C-O]	F09[C-O]	F10[C-C]	F10[C-O]	MLOGP	PDI	DLS_04	DLS_05	LLS_01	CATS3D_0
3	2	0	2	0	4	4	0	2	2,310081	0,941784	0,4	0	0,5	4
3	2	0	3	0	4	4	1	2	2,591121	0,937904	0,8	0,5	0,5	4
3	2	0	2	0	4	4	0	2	2,996116	0,951566	0,4	0	0,5	4
3	4	2	3	0	6	5	1	3	2,087164	0,923735	0,8	0	0,5	4
3	2	0	2	0	4	4	0	2	2,859121	0,942387	0,4	0	0,5	4
4	2	0	4	0	5	5	1	2	2,087164	0,923735	0,8	0	0,5	4
3	2	0	2	0	4	4	0	2	2,719823	0,942714	0,4	0	0,5	3
3	2	0	2	0	4	6	0	2	2,591121	0,937904	0,8	0,5	0,5	3
4	4	0	5	0	6	6	1	3	2,002029	0,961888	0,6	0	0,5	5
5	2	1	2	5	6	6	0	4	2,396659	0,919845	0,4	0	0,5	4
3	7	1	4	0	6	6	0	4	2,396659	0,919845	0,4	0	0,5	4
3	2	0	3	0	4	4	1	2	3,263696	0,940512	0,6	0,5	0,333333	4
3	2	0	2	0	4	4	0	2	3,398936	0,942907	0,4	0	0,333333	4
3	2	0	3	0	2	4	0	0	1,291068	0,928959	0,4	0	0,5	3
2	2	0	2	0	2	4	0	0	2,063025	0,947626	0,4	0	0,5	3
4	2	0	2	0	4	4	0	4	2,591121	0,937904	0,8	0,5	0,5	4
3	2	0	2	0	4	4	0	2	2,719823	0,942714	0,4	0	0,5	3
3	2	0	2	0	4	4	0	2	2,996116	0,951566	0,4	0	0,5	4
3	2	0	2	0	4	4	0	2	2,859121	0,942387	0,4	0	0,5	3
1	2	0	2	2	2	4	1	4	2,591121	0,937904	0,8	0,5	0,5	4
1	4	2	3	2	4	5	2	5	2,358979	0,921718	0,8	0,5	0,5	4
1	2	0	2	2	2	4	1	4	3,662504	0,939429	0,6	0,5	0,166667	4
1	2	0	2	2	2	4	1	4	3,263696	0,947232	0,6	0,5	0,166667	4
1	2	0	3	2	2	4	2	4	2,862936	0,93465	0,8	0,5	0,5	4
2	2	0	2	2	2	4	2	4	2,862936	0,93465	0,8	0,5	0,5	4
3	2	0	3	2	2	4	4	6	3,478874	0,986072	0,6	0,5	0,333333	3
1	2	0	3	2	2	4	2	4	3,523456	0,937136	0,6	0,5	0,333333	4
1	2	0	2	2	2	4	1	4	3,394504	0,96189	0,6	0,5	0,166667	4
1	2	0	2	2	2	4	1	4	3,130936	0,938718	0,6	0,5	0,333333	4
2	4	0	5	2	4	6	2	6	2,273843	0,956604	0,6	0,5	0,5	5

CATS3D_0	CATS3D_0	CATS3D_0	CATS3D_0	CATS3D_0	CATS3D_0	CATS3D_0	CATS3D_0	CATS3D_0	CATS3D_0	CATS3D_0	CATS3D_0	CATS3D_0	CATS3D_1	CATS3D_0	CATS3D_0
0	3	1	1	7	9	9	6	5	2	2	0	0	0	3	
0	2	2	1	9	7	9	6	7	4	2	1	0	2	3	
0	3	1	1	8	8	9	4	3	4	3	0	1	0	3	
0	3	1	3	11	9	10	4	3	2	1	2	0	0	3	
0	3	1	1	8	8	9	4	5	2	3	1	0	0	3	
0	3	2	3	8	12	8	5	4	2	3	0	0	0	4	
1	1	4	0	7	9	7	4	4	2	2	0	0	0	4	
1	4	1	0	9	8	9	5	6	3	5	0	0	2	2	
0	3	2	5	8	14	9	3	2	2	3	1	0	0	3	
2	3	1	2	9	15	13	5	3	3	2	3	3	0	3	
1	2	5	5	14	10	11	6	5	6	4	0	0	0	3	
0	3	1	1	8	8	9	6	5	2	2	0	0	0	3	
0	2	2	1	7	9	7	4	6	2	3	2	0	1	4	
3	2	4	1	7	6	4	3	1	2	1	0	0	0	0	
1	1	4	0	5	8	5	2	1	3	1	0	0	0	2	
0	2	2	1	7	9	9	7	7	3	2	1	0	2	4	
1	1	3	1	7	7	6	5	4	3	2	1	0	0	2	
0	2	2	1	7	9	7	6	6	2	2	0	1	0	4	
1	4	1	0	8	7	8	5	5	3	4	0	0	0	2	
0	3	2	0	8	14	10	8	2	3	0	0	0	0	4	
1	2	2	3	10	15	12	5	2	1	1	2	0	0	5	
0	3	0	2	8	11	8	5	7	3	1	2	0	1	5	
0	3	2	0	8	14	9	6	1	4	2	1	0	0	5	
0	3	2	0	9	12	11	8	5	4	1	0	0	2	5	
0	3	2	0	8	14	9	9	4	3	2	1	0	2	4	
0	2	4	0	11	8	13	7	4	5	5	5	5	6	4	
0	3	2	0	8	13	11	8	2	3	0	0	0	0	4	
0	3	1	1	10	11	10	5	2	4	2	1	0	2	4	
0	3	2	0	9	13	10	5	3	3	1	1	0	0	4	
0	3	2	5	10	14	11	4	2	2	4	2	0	0	4	

CATS3D_0(	CATS3D_0	CATS3D_0	CATS3D_0	CATS3D_10_LL
3	4	1	0	0
3	5	0	2	0
3	3	0	2	0
3	3	0	0	0
3	3	0	2	0
2	3	0	0	0
3	2	0	0	0
5	4	2	0	0
3	1	0	0	0
2	3	1	0	0
2	4	0	0	0
3	5	0	0	0
2	1	2	2	0
2	2	0	0	0
2	2	0	0	0
2	5	2	0	0
2	5	0	0	0
2	3	1	1	0
4	3	2	0	0
5	6	1	0	0
5	4	0	0	0
5	1	1	5	0
5	4	0	2	1
4	6	2	2	0
6	5	4	1	0
7	9	7	4	0
5	6	1	0	0
5	4	0	2	1
5	4	0	2	1
4	3	0	0	0

QSAR

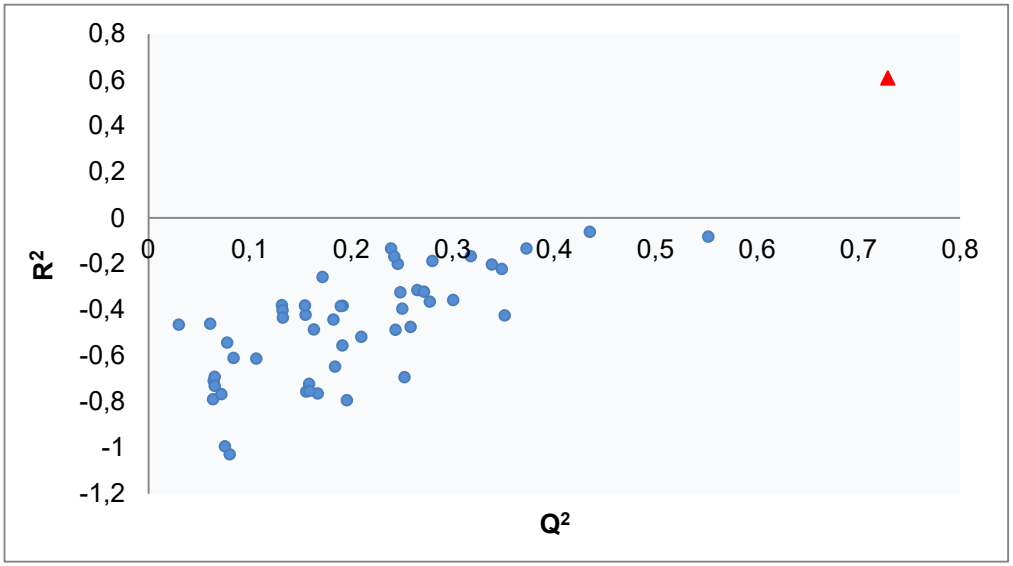
IC_{50} and pIC_{50} from Dragon

IC50uM	pIC50
139	3,857
73	4,137
119	3,924
35	4,456
85	4,071
157	3,804
124	3,907
339	3,47
83	4,081
76	4,119
85	4,071
42	4,377
86	4,066
84	4,076
68	4,167
110	3,959
116	3,936
61	4,215
77	4,114
72	4,143
101	3,996
64	4,194
110	3,959
88	4,056
54	4,268
63	4,201
70	4,155
42	4,377
294	3,532
87	4,06

QSAR

Y-scrambling

0,351225	-0,42588
0,245788	-0,20025
0,131557	-0,38015
0,43502	-0,0614
0,064254	-0,70894
0,155033	-0,42309
0,155614	-0,75661
0,348367	-0,22286
0,077591	-0,54344
0,158453	-0,7226
0,029899	-0,46599
0,551747	-0,08296
0,209912	-0,51829
0,250262	-0,39585
0,063704	-0,79056
0,132301	-0,40321
0,25236	-0,69435
0,163104	-0,48643
0,065393	-0,69208
0,258293	-0,4759
0,132566	-0,43489
0,317597	-0,16721
0,166906	-0,76449
0,154351	-0,38189
0,065342	-0,7317
0,080159	-1,02916
0,106389	-0,61379
0,191567	-0,38307
0,061001	-0,46198
0,08399	-0,6104
0,183838	-0,6476
0,071905	-0,76835
0,195519	-0,79365



0,23926	-0,13424
0,242255	-0,16958
0,372556	-0,13358
0,265145	-0,31491
0,171487	-0,25846
0,189549	-0,38532
0,158811	-0,75415
0,279925	-0,18887
0,191316	-0,55644
0,248409	-0,32483
0,277365	-0,36553
0,338471	-0,20353
0,243597	-0,48739
0,271607	-0,32267
0,300176	-0,35831
0,075305	-0,99442
0,182484	-0,44285
0,72901	0,608273

QSAR

External Validation

	Yexp	Ypred	(B-C)^2	(B-B6)^2	
3	3,924	4,063	0,019321	0,04906225	**1-(D6/F6)**
12	4,377	4,332	0,002025	0,05359225	0,768291
15	4,167	4,196	0,000841	0,00046225	
19	4,114	4,07	0,001936	0,00099225	
	4,1455		0,024123	0,104109	
	Mean		**Sum**	**Sum**	