Electronic Supporting Information

Efficient access to new thienobenzo-1,2,3-triazolium salts as preferred dual cholinesterase inhibitors

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1. ^{1}H and ^{13}C NMR spectra of compounds 1–31

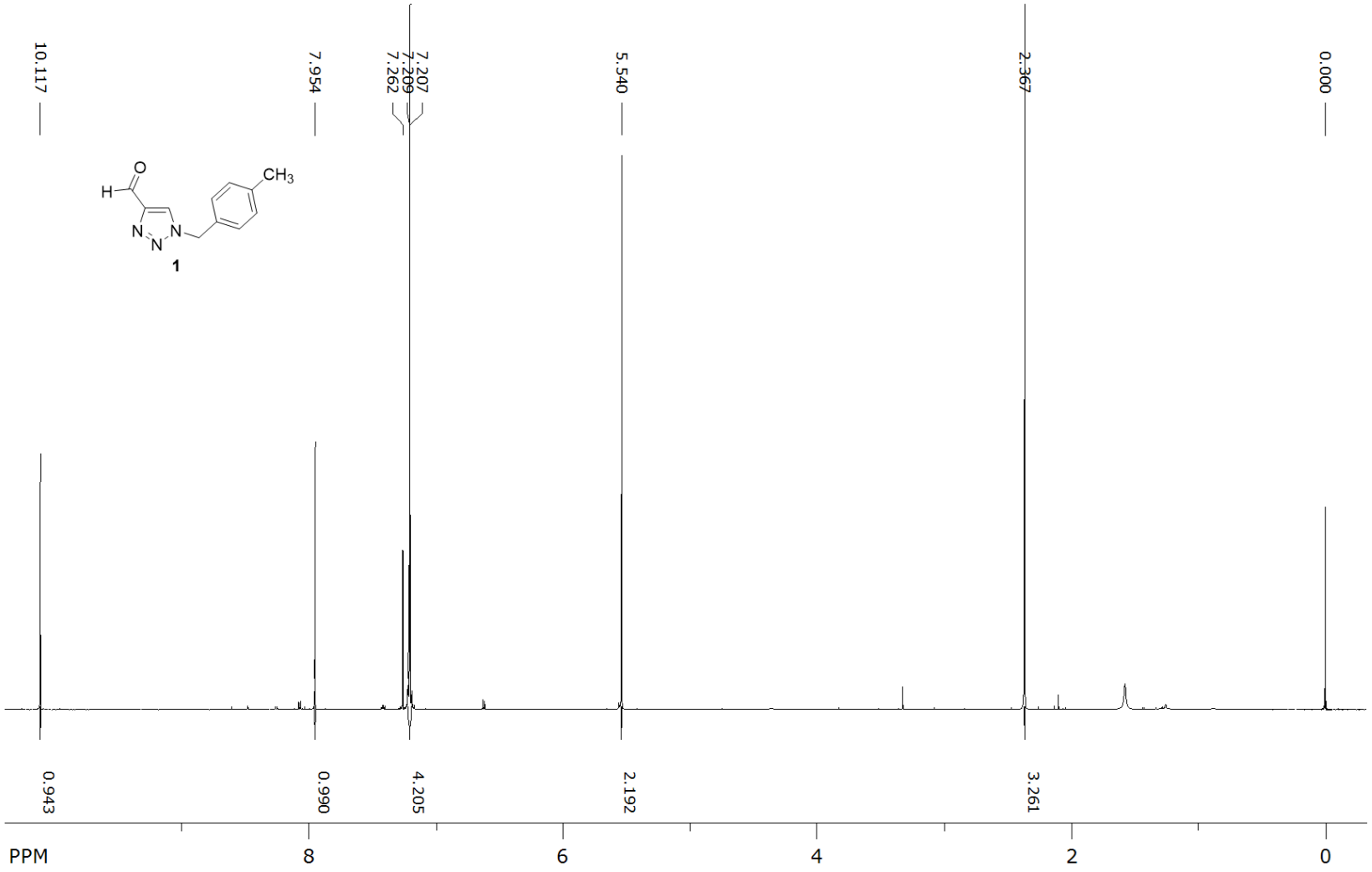


Figure S1. ^{1}H NMR ($CDCl_3$) spectrum of **1**.

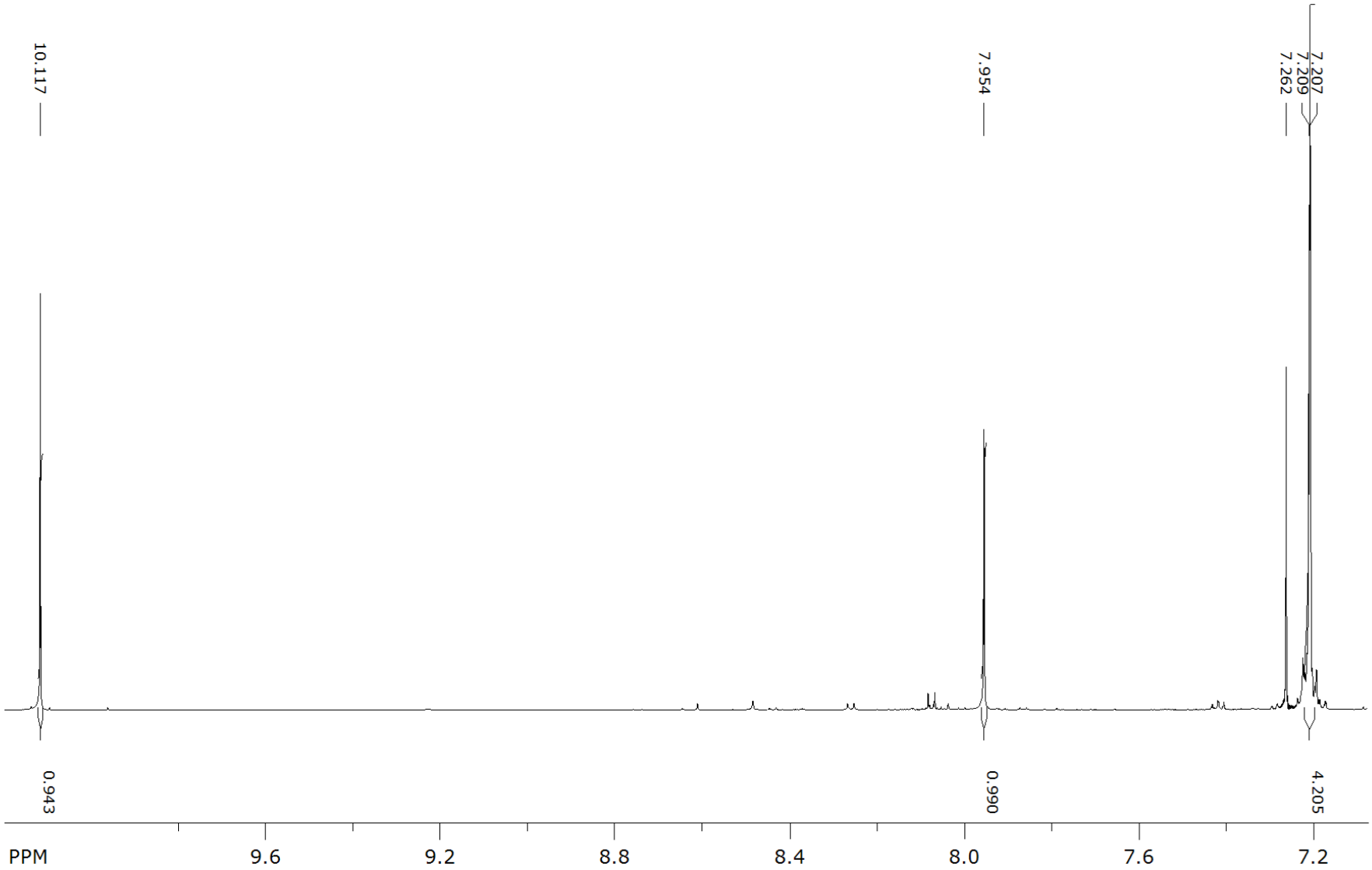


Figure S2. Part of the ^{1}H NMR ($CDCl_3$) spectrum of **1**.

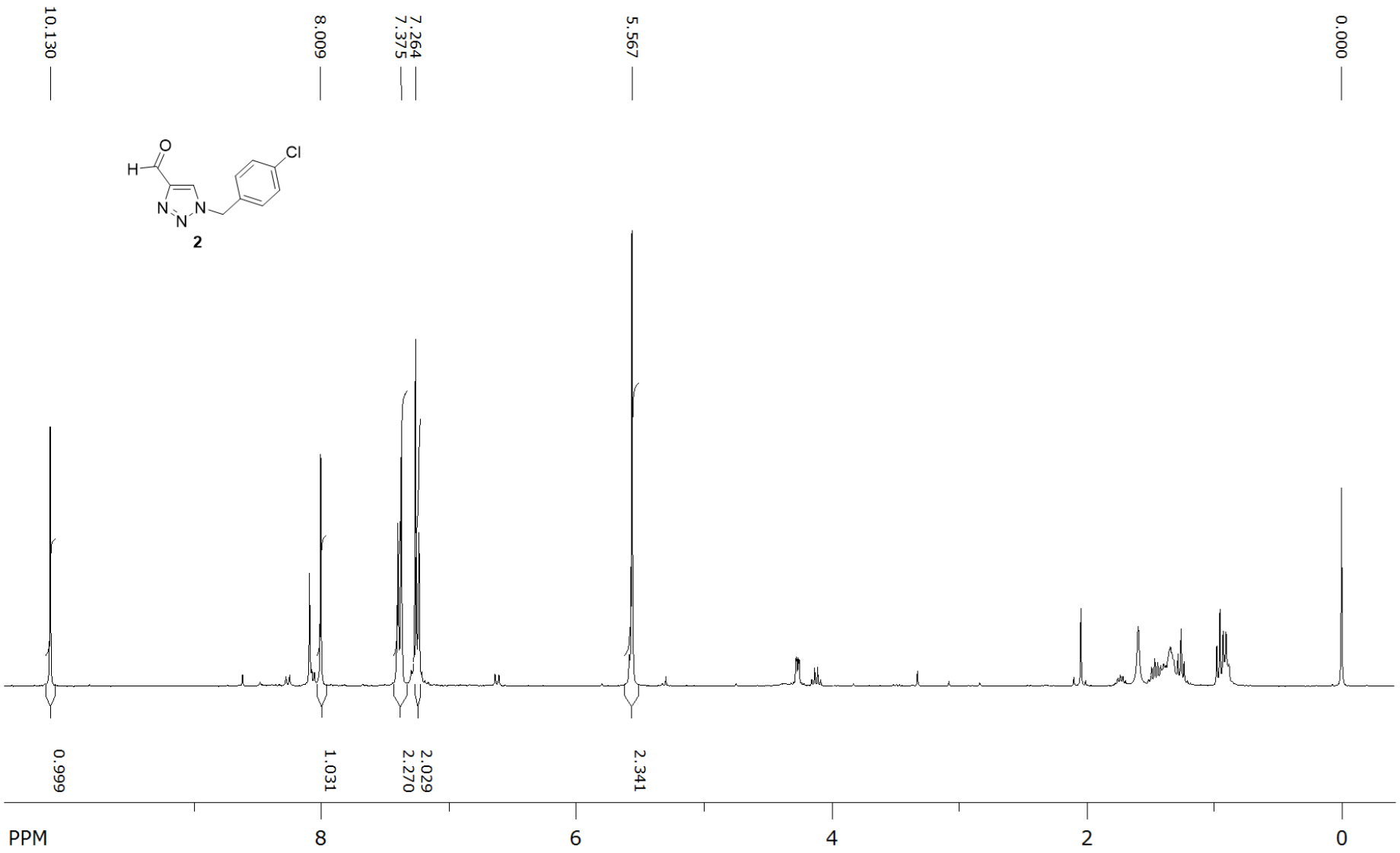


Figure S3. ^{1}H NMR ($CDCl_3$) spectrum of **2**.

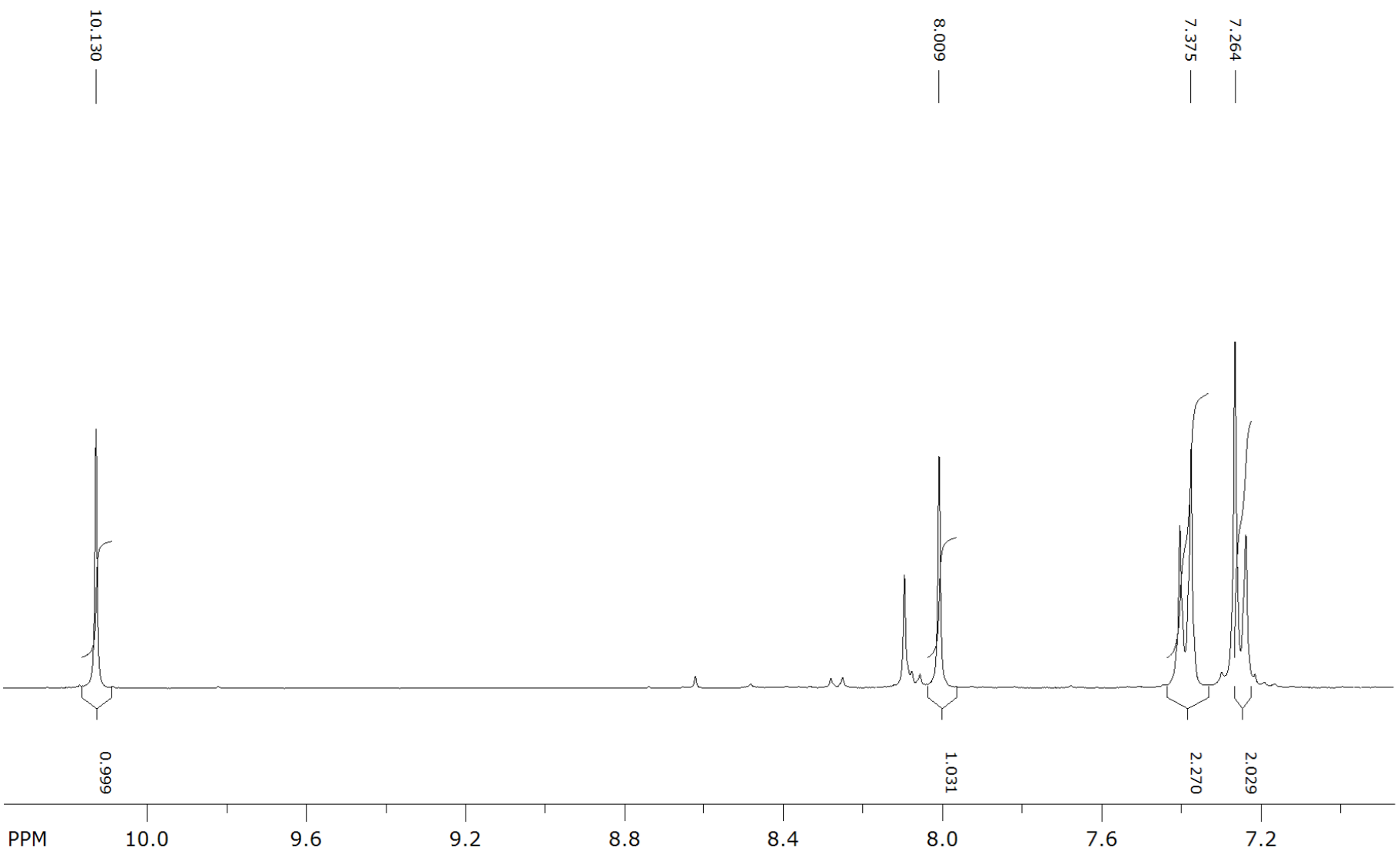


Figure S4. Part of the ^{1}H NMR ($CDCl_3$) spectrum of **2**.

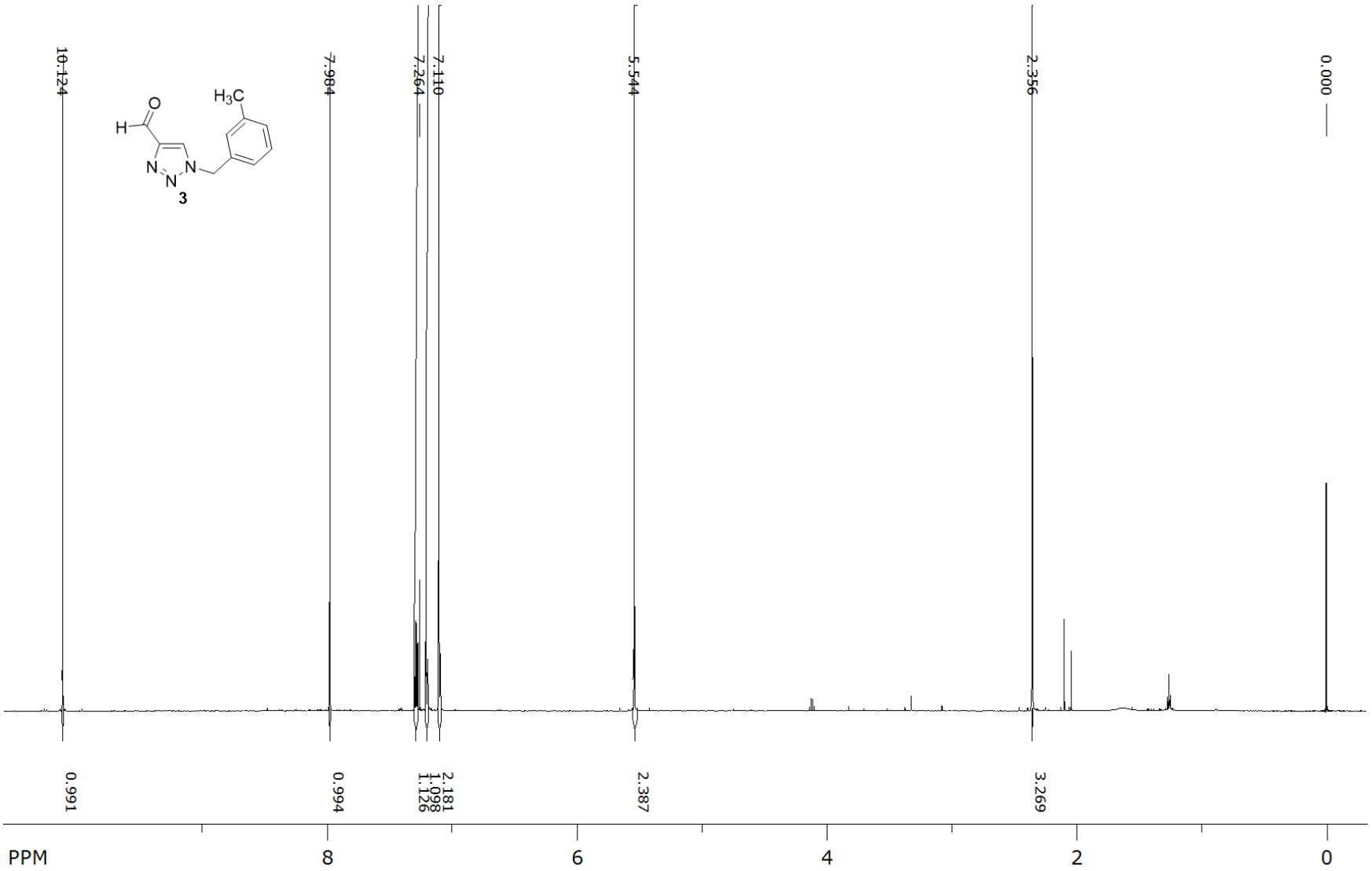


Figure S5. ^{1}H NMR ($CDCl_3$) spectrum of **3**.

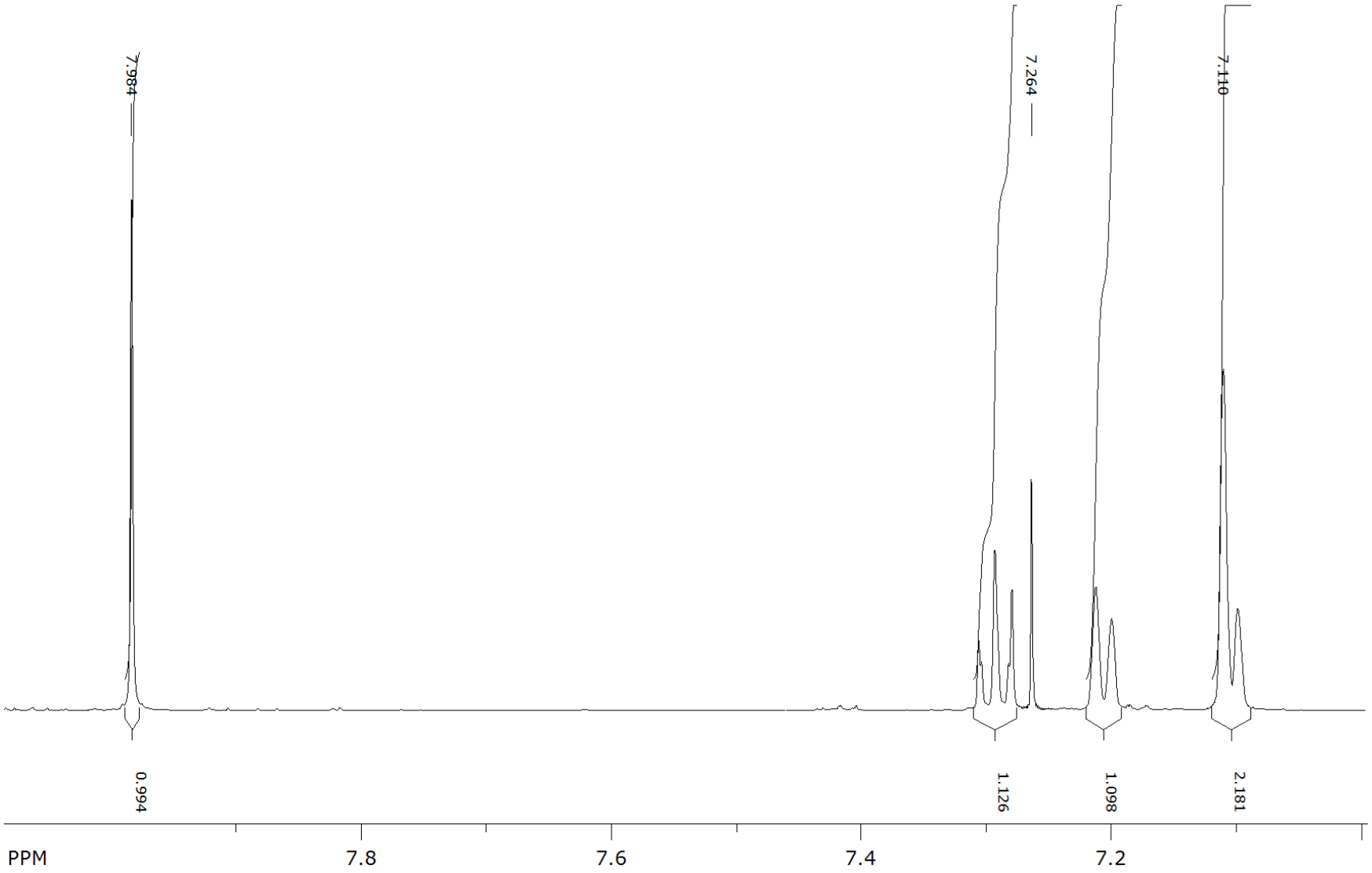


Figure S6. Part of the ^{1}H NMR ($CDCl_3$) spectrum of **3**.

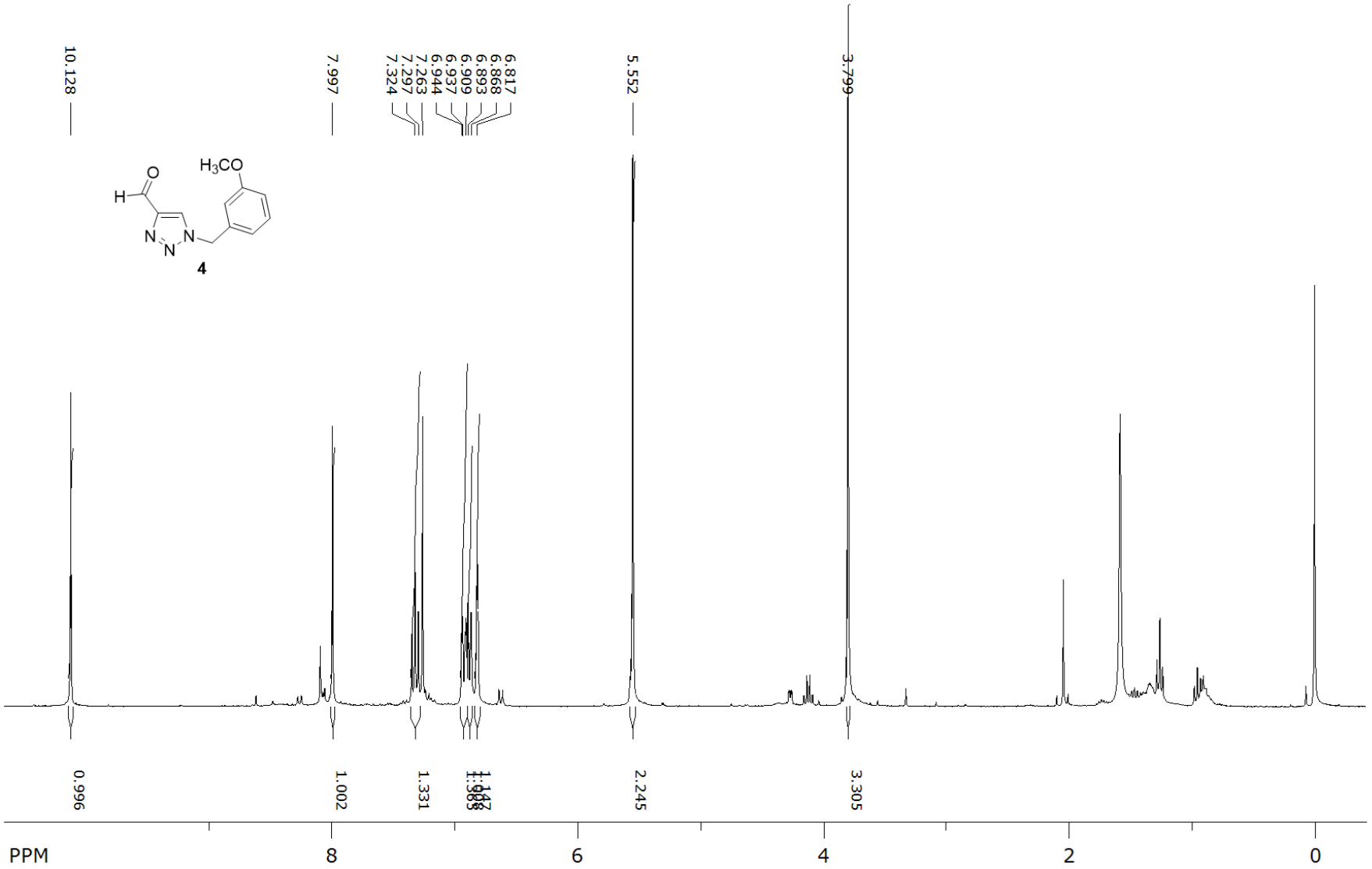


Figure S7. ^{1}H NMR ($CDCl_3$) spectrum of **4**.

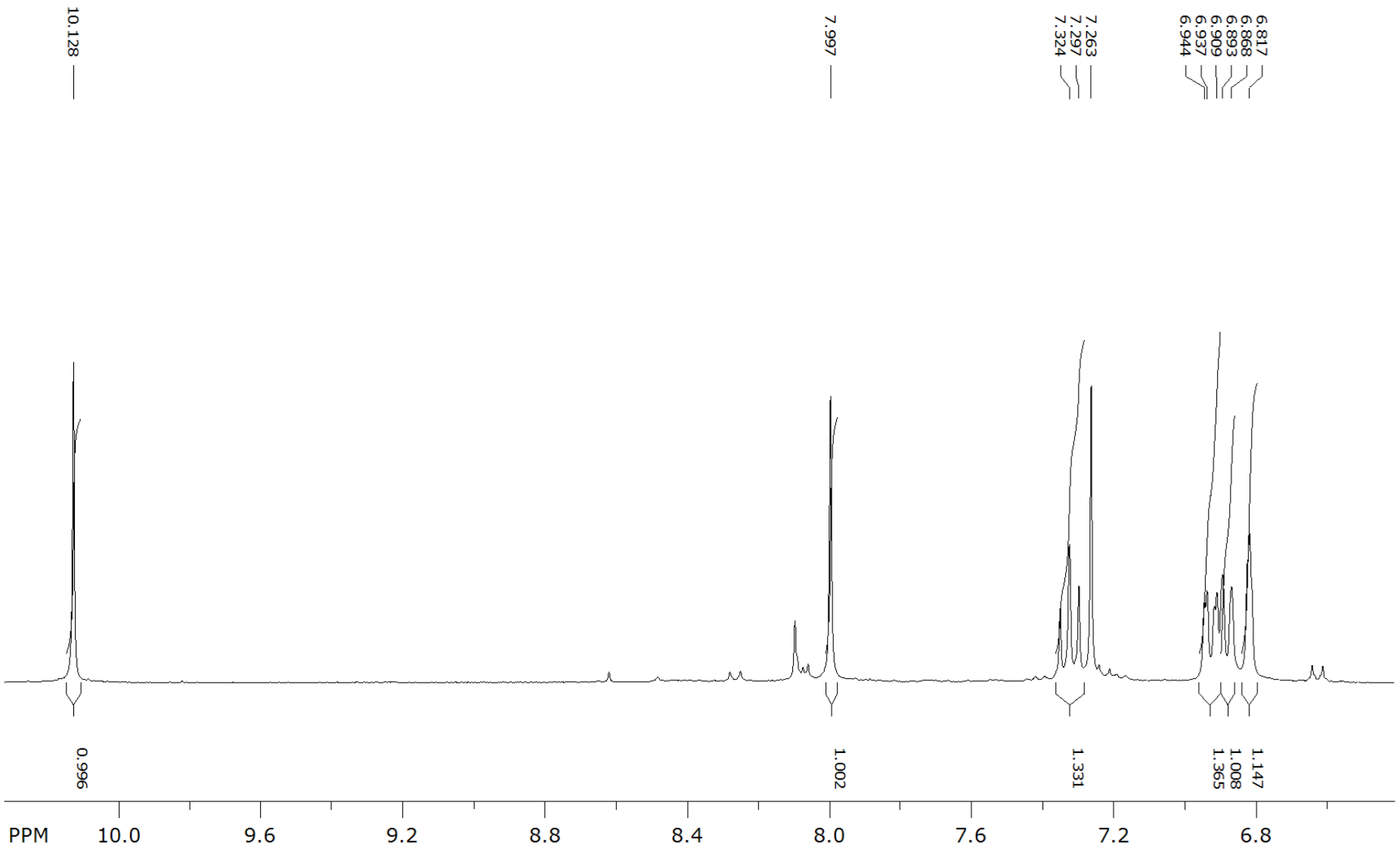


Figure S8. Part of the ^{1}H NMR ($CDCl_3$) spectrum of **4**.

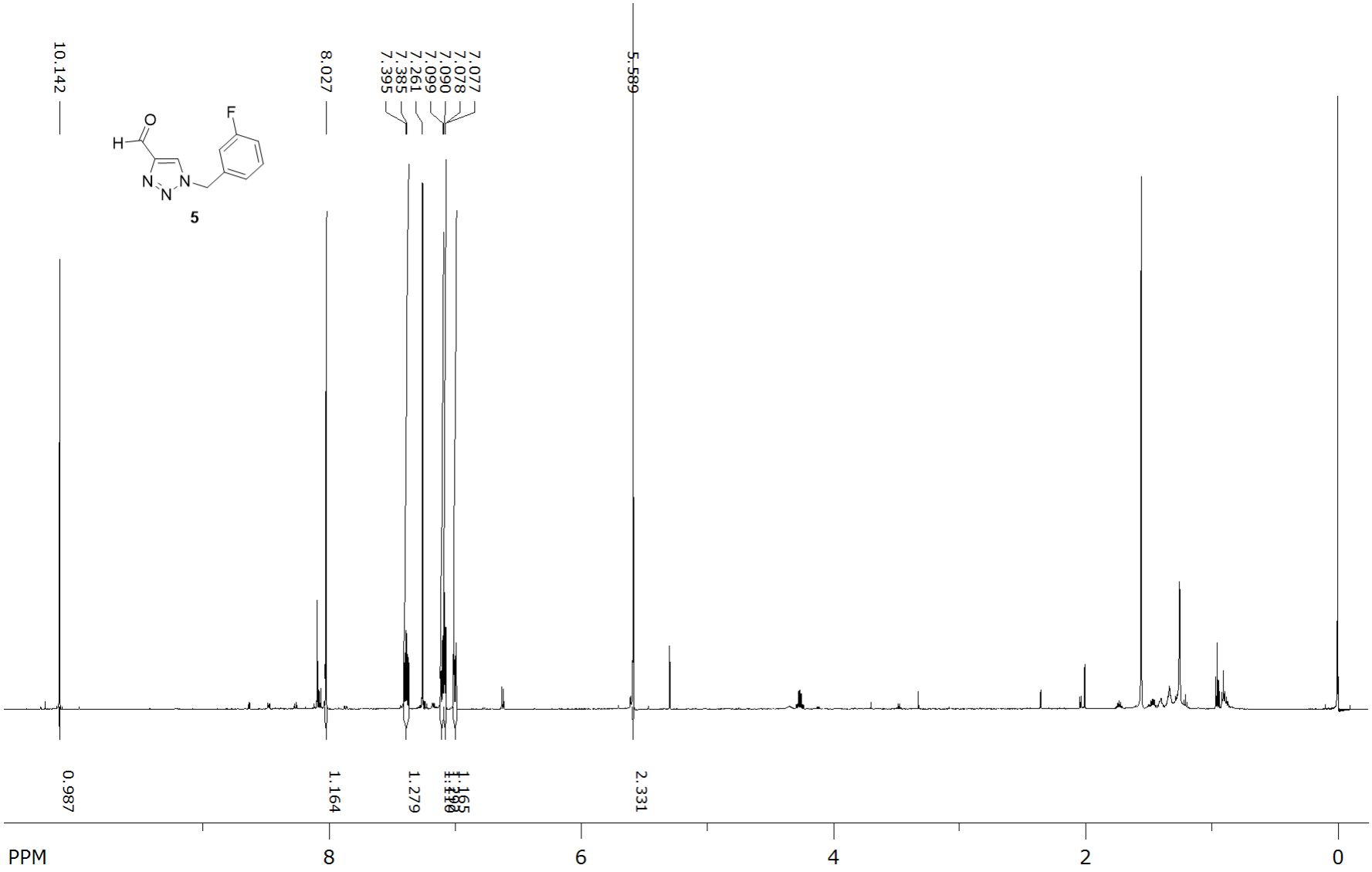


Figure S9. ^{1}H NMR ($CDCl_3$) spectrum of **5**.

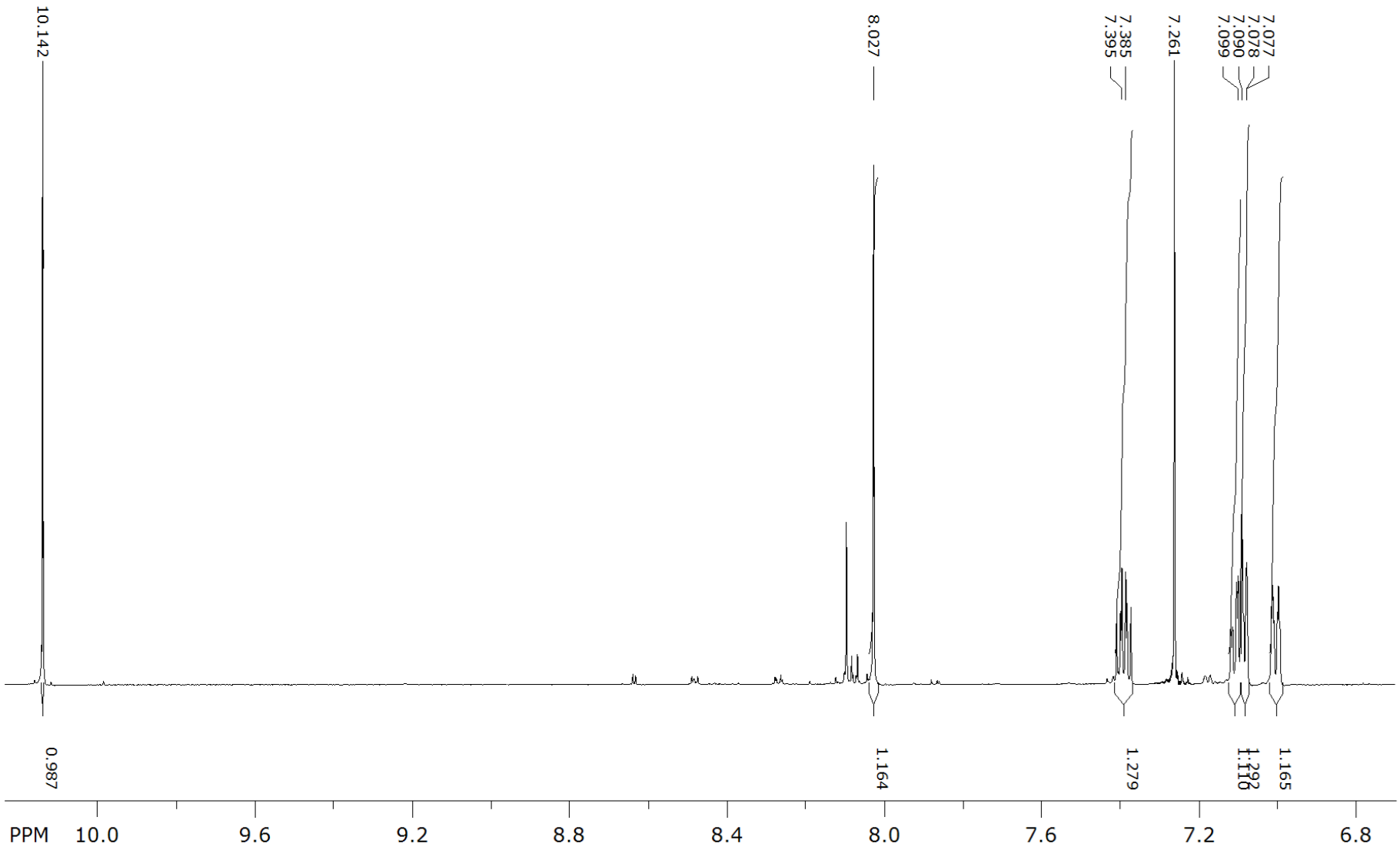


Figure S10. Part of the ^{1}H NMR ($CDCl_3$) spectrum of **5**.

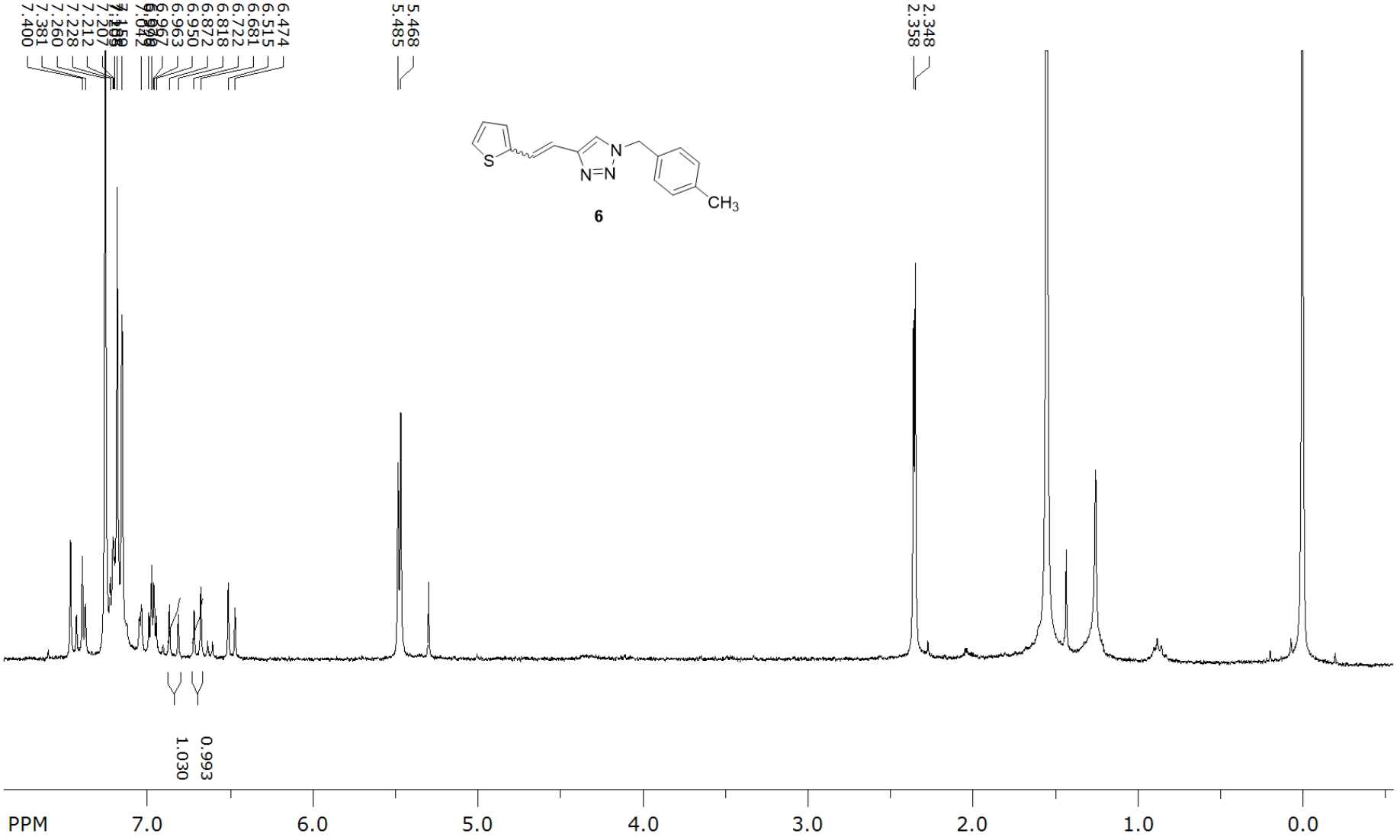


Figure S11. ^{1}H NMR ($CDCl_3$) spectrum of a mixture of isomers of **6**.

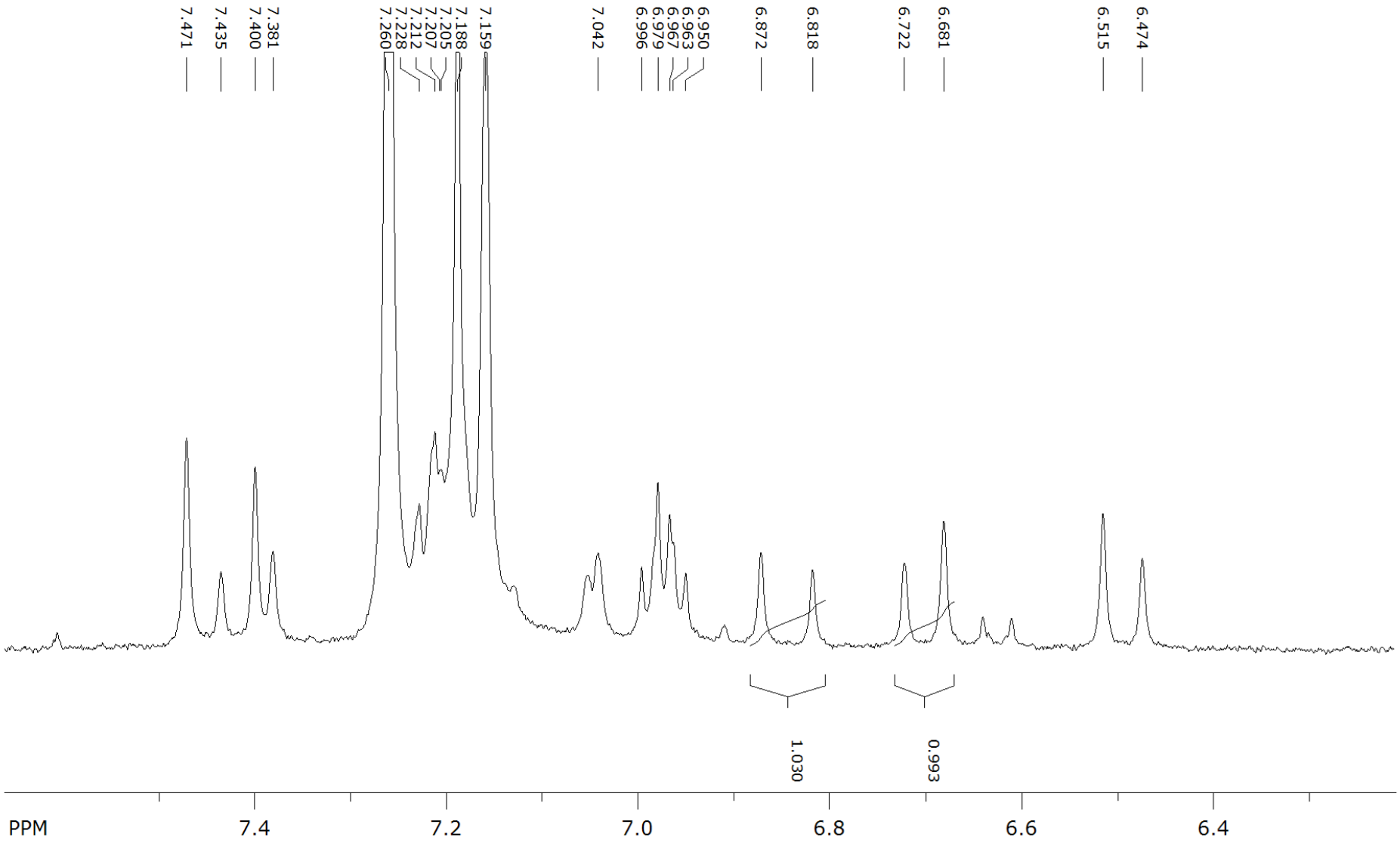


Figure S12. Unsaturated part of the ^{1}H NMR ($CDCl_3$) spectrum of a mixture of isomers of **6**.

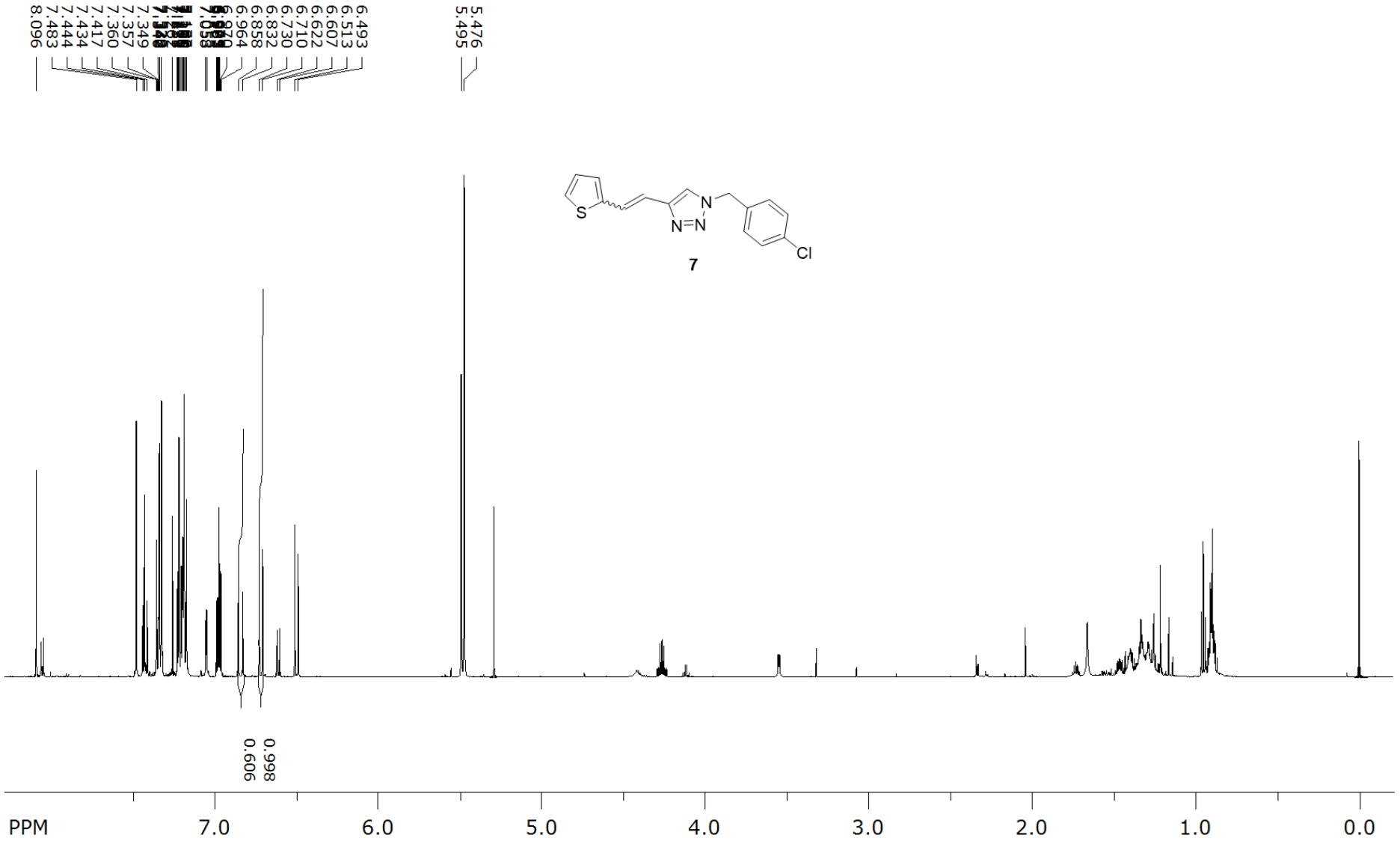


Figure S13. ^{1}H NMR ($CDCl_3$) spectrum of a mixture of isomers of **7**.

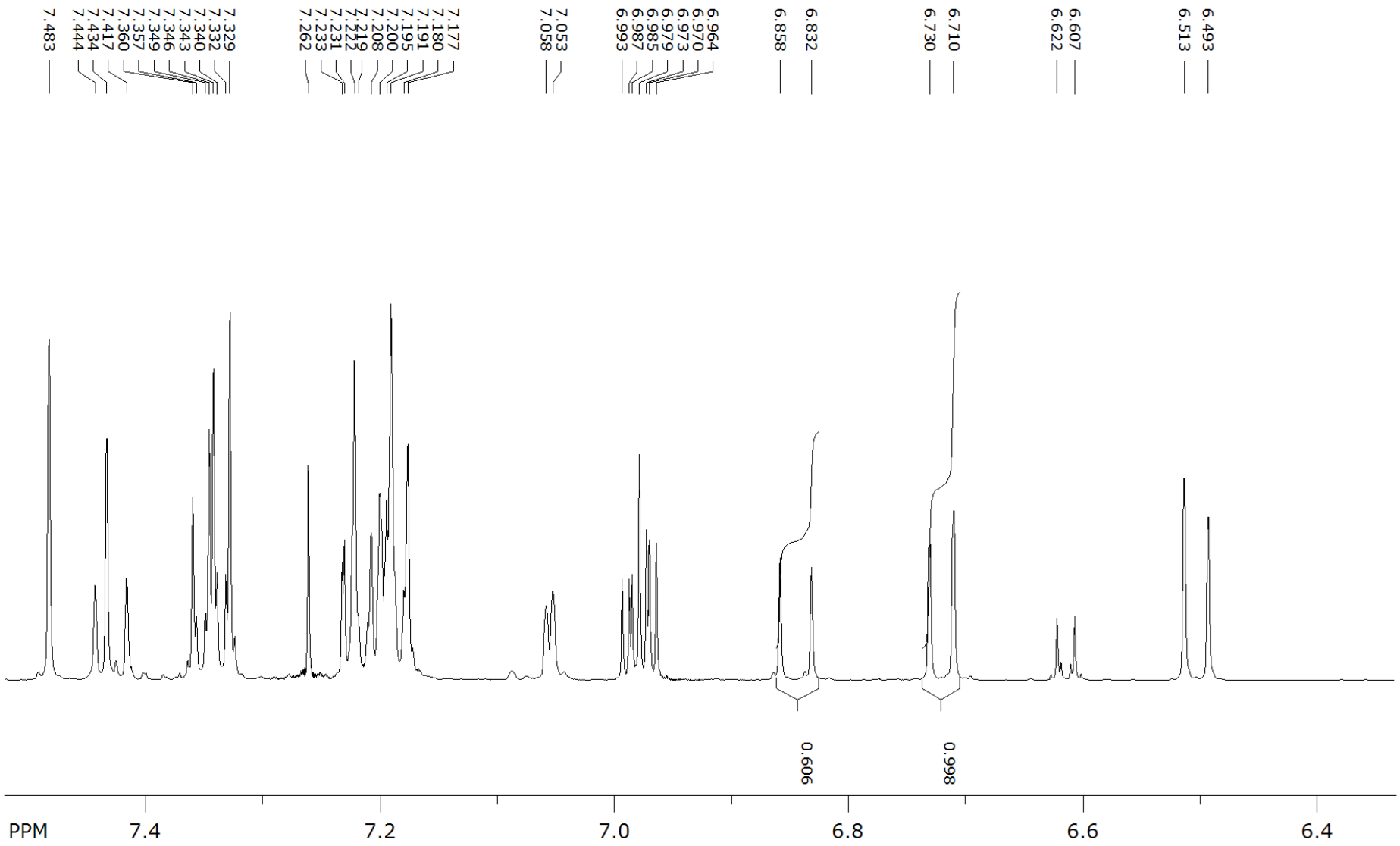


Figure S14. Unsaturated part of the ^{1}H NMR ($CDCl_3$) spectrum of a mixture of isomers of **7**.

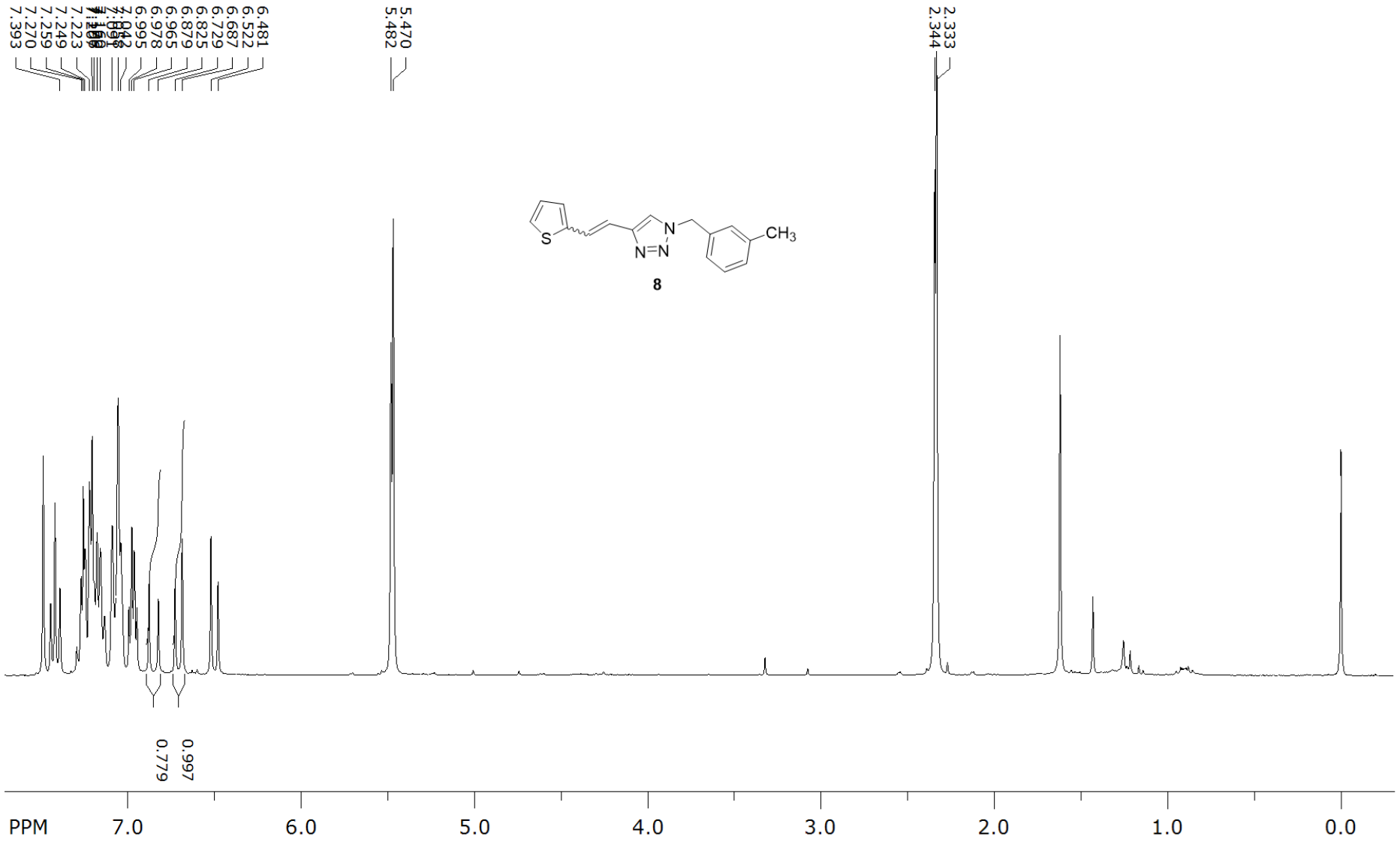


Figure S15. ^{1}H NMR ($CDCl_3$) spectrum of a mixture of isomers of **8**.

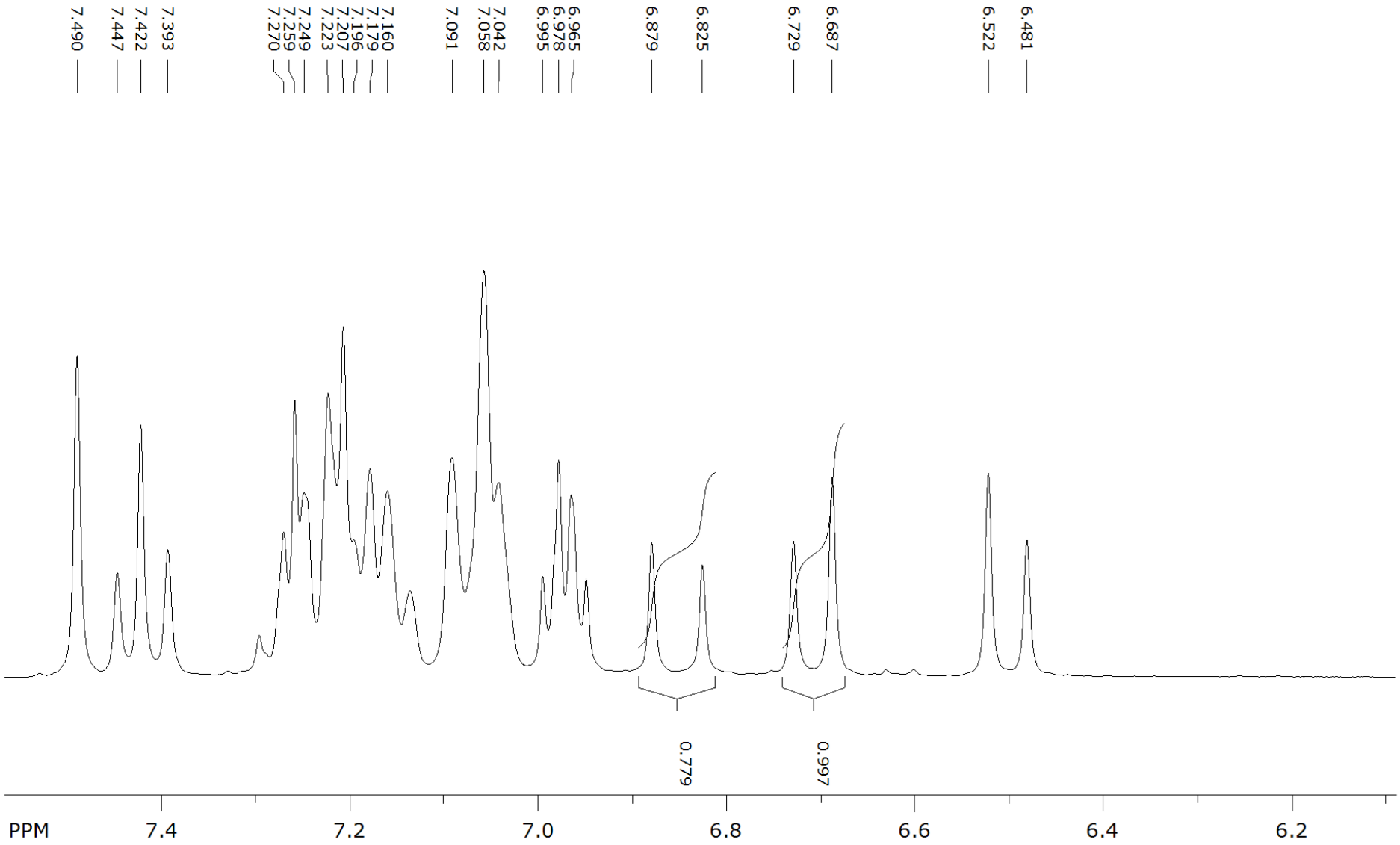


Figure S16. Unsaturated part of the ^{1}H NMR ($CDCl_3$) spectrum of a mixture of isomers of **8**.

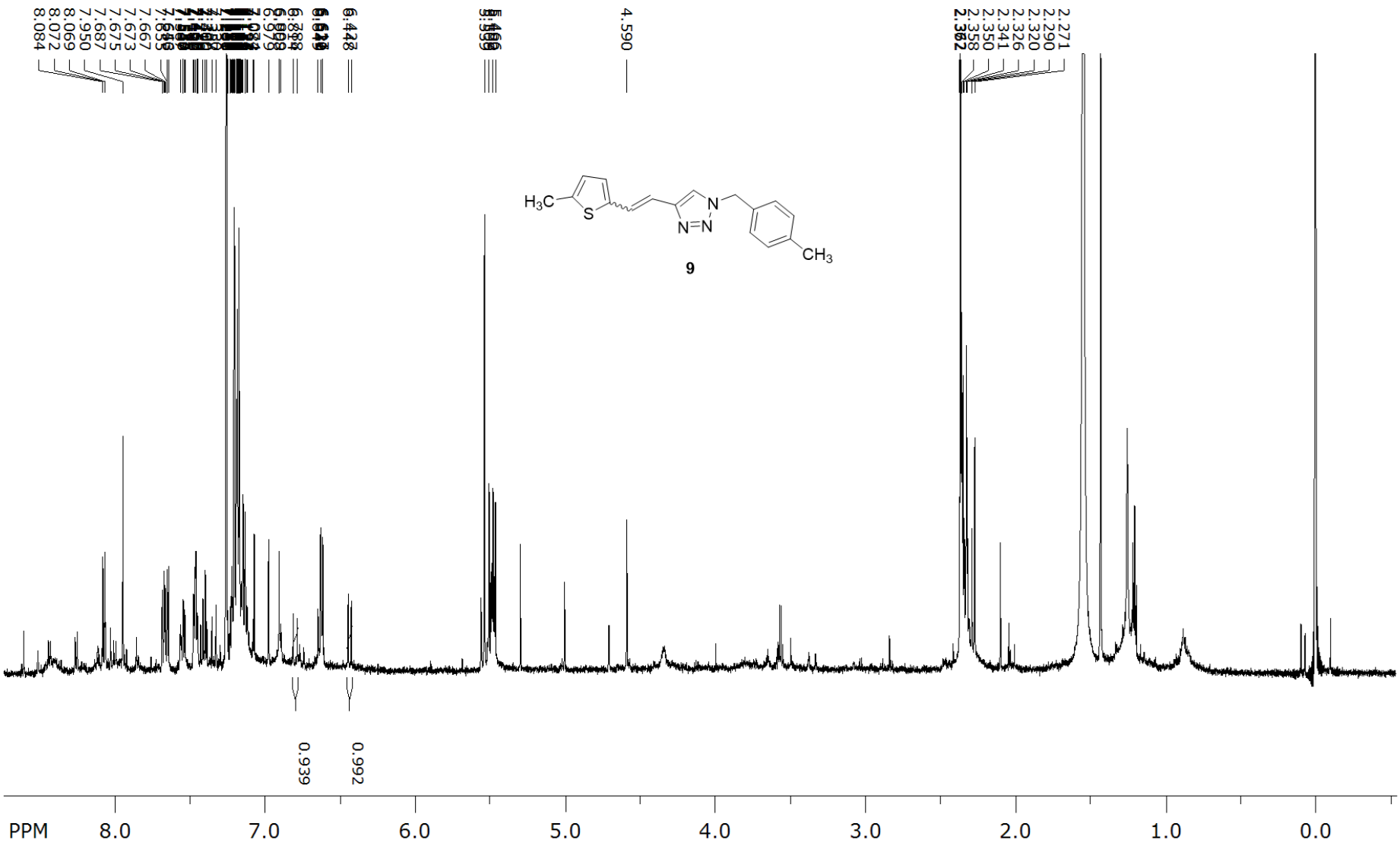


Figure S17. ^{1}H NMR ($CDCl_3$) spectrum of a mixture of isomers of **9**.

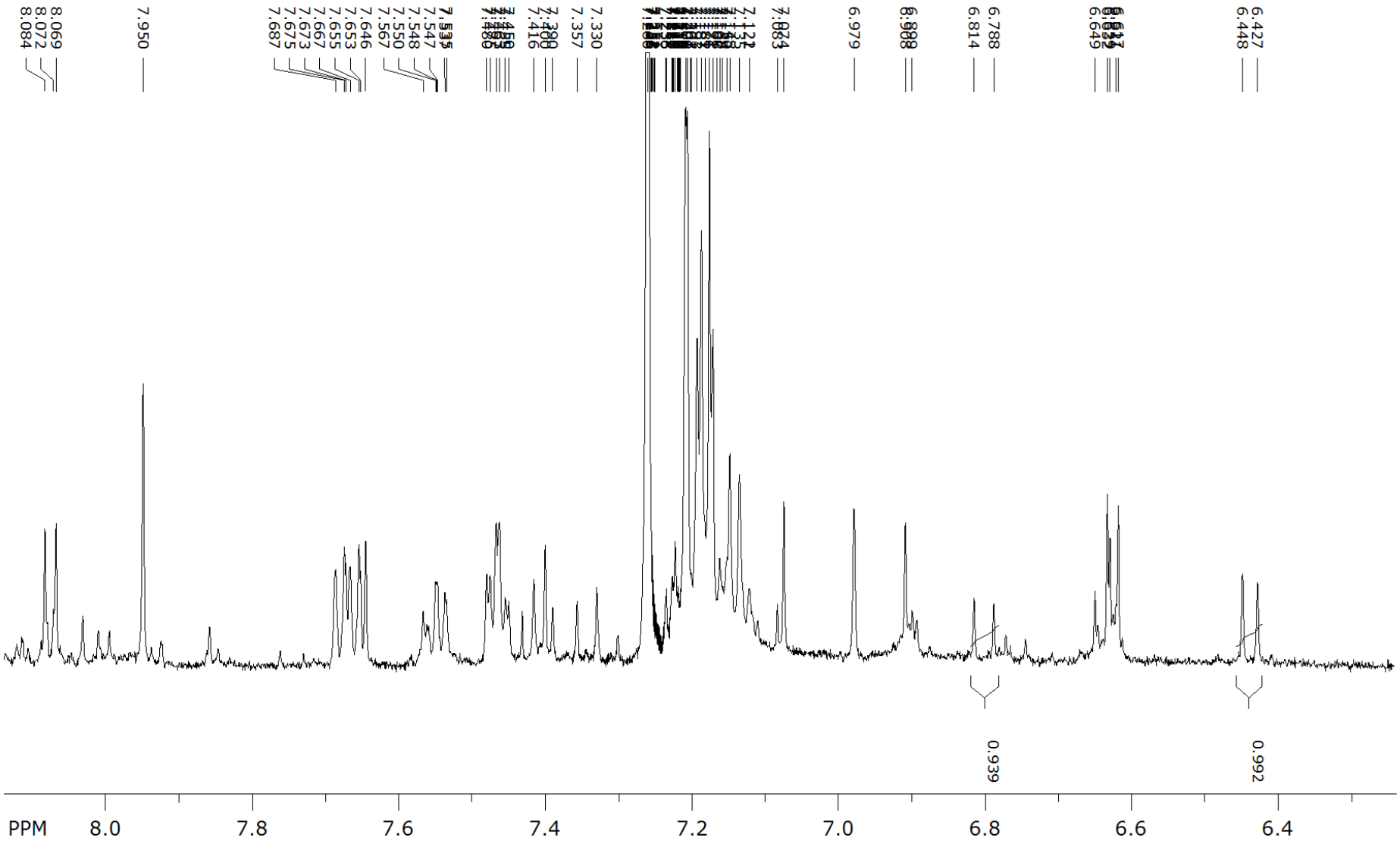


Figure S18. Unsaturated part of the ^{1}H NMR ($CDCl_3$) spectrum of a mixture of isomers of **9**.

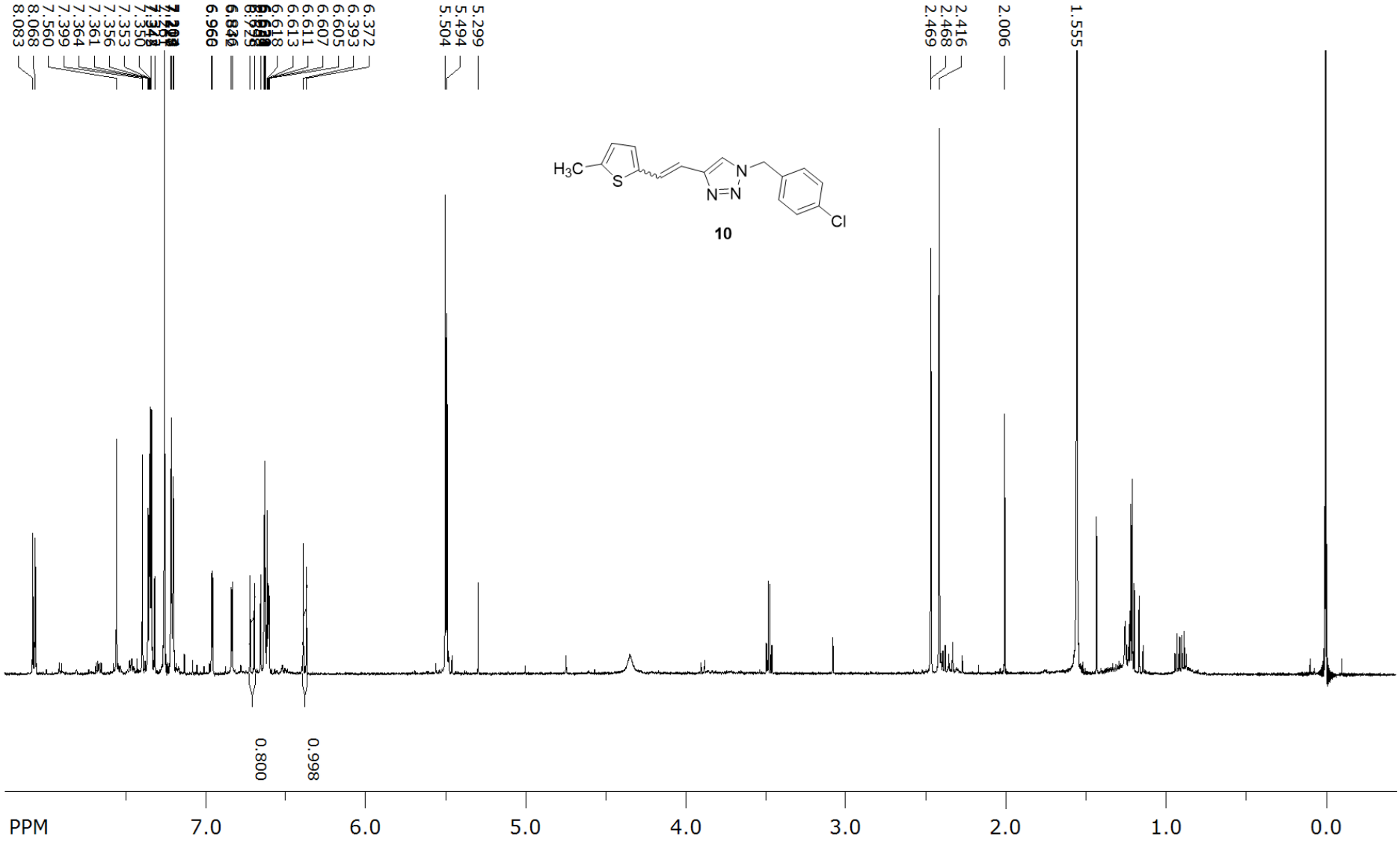


Figure S19. ^{1}H NMR ($CDCl_3$) spectrum of a mixture of isomers of **10**.

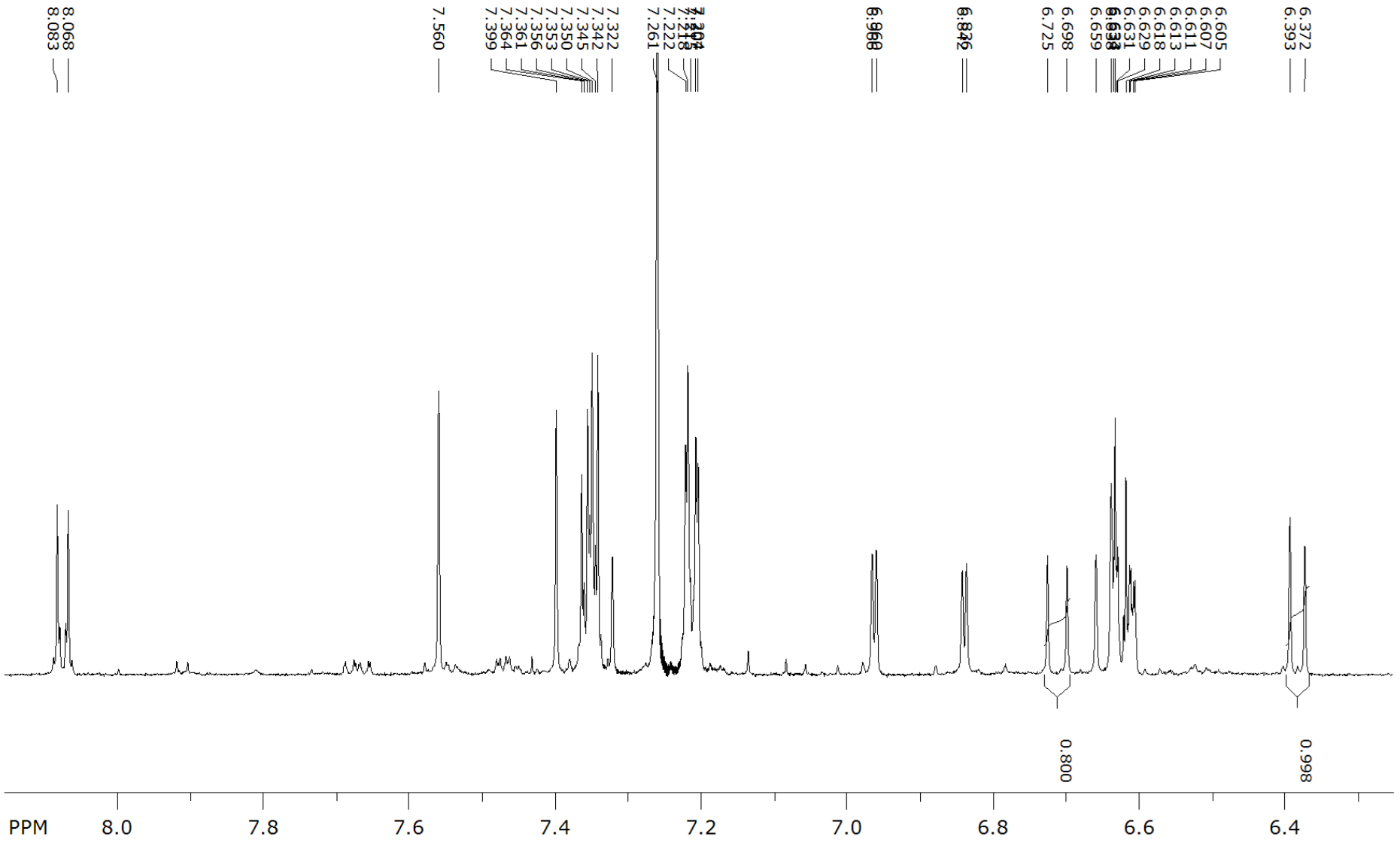


Figure S20. Unsaturated part of the ^{1}H NMR ($CDCl_3$) spectrum of a mixture of isomers of **10**.

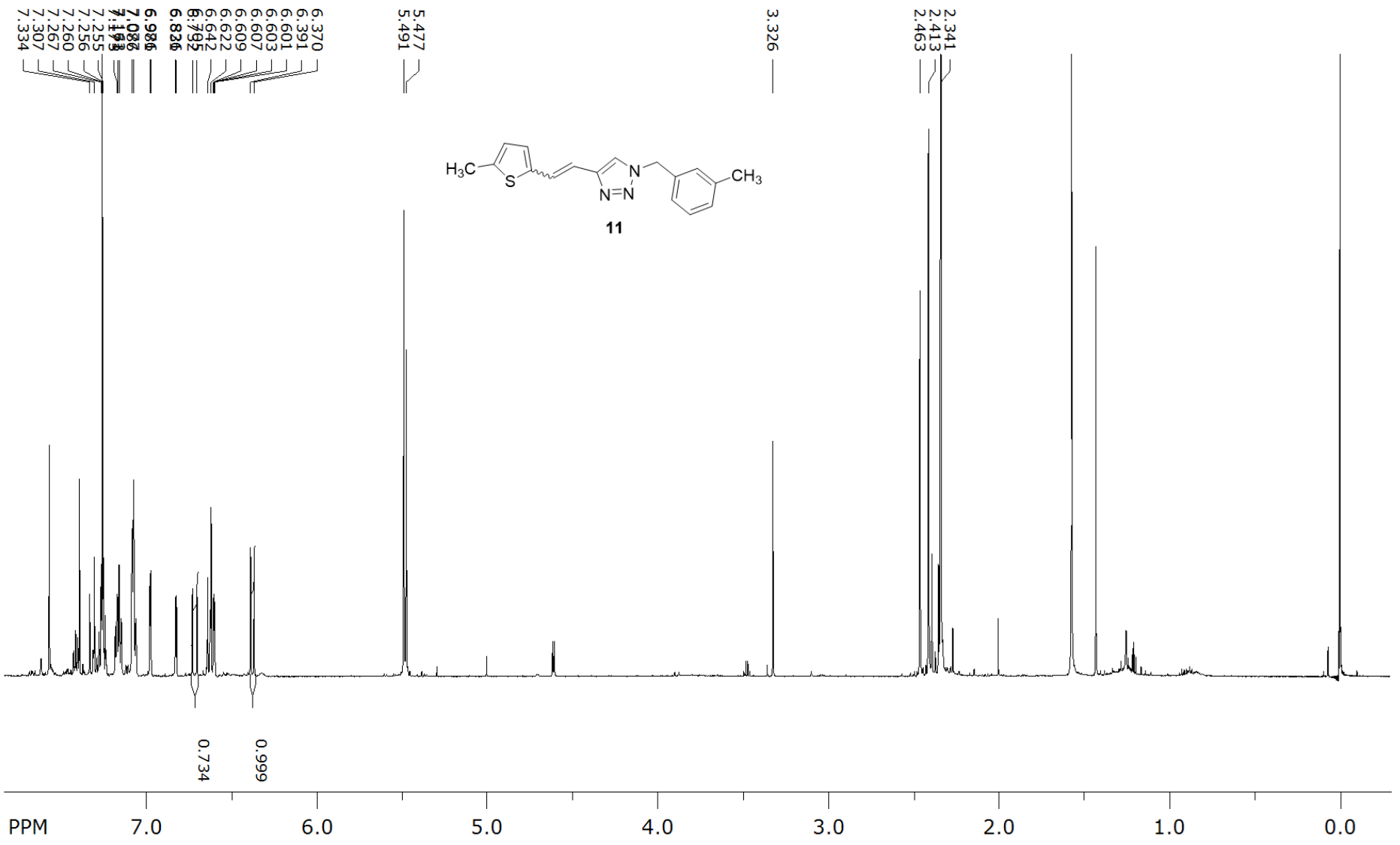


Figure S21. ^{1}H NMR ($CDCl_3$) spectrum of a mixture of isomers of **11**.

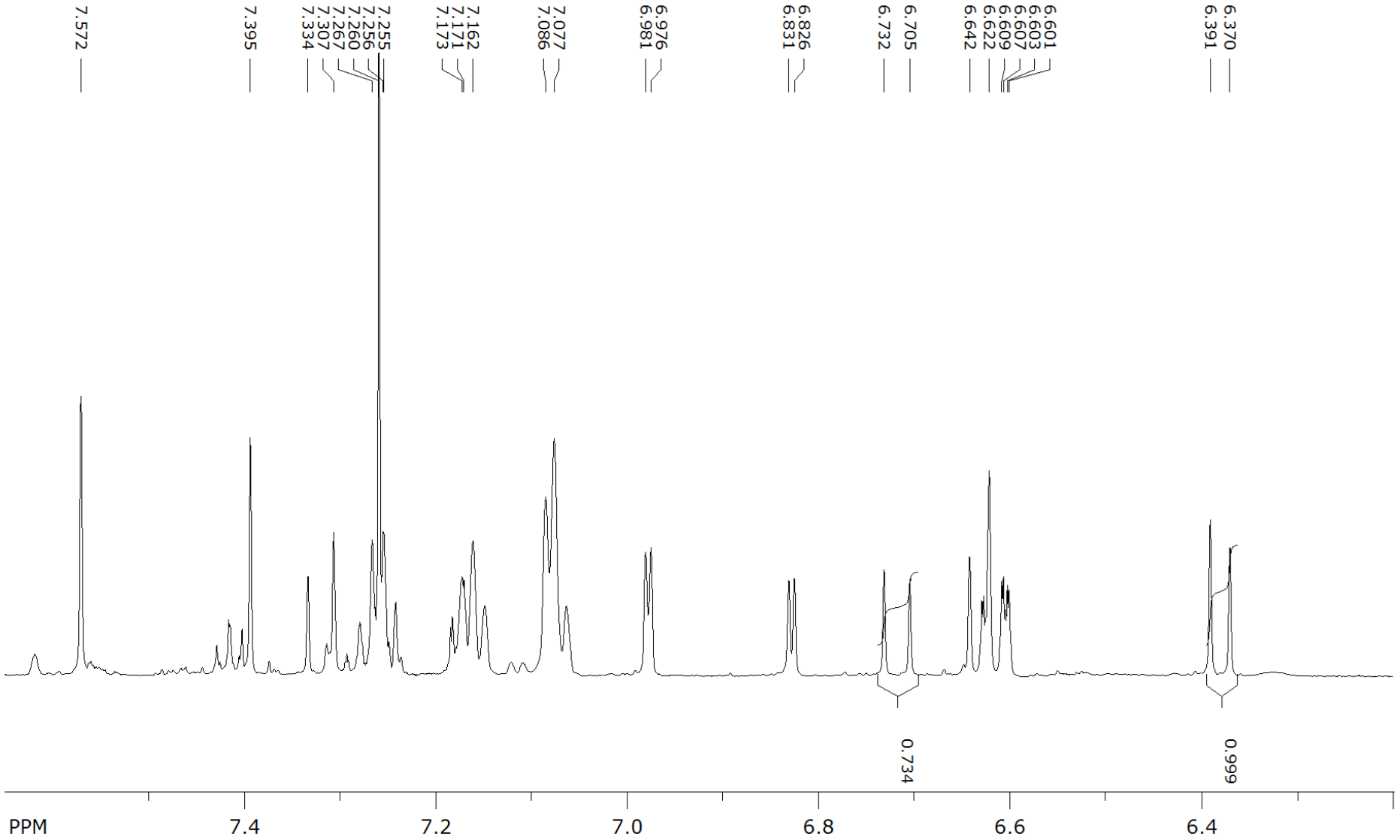


Figure S22. Unsaturated part of the ^{1}H NMR ($CDCl_3$) spectrum of a mixture of isomers of **11**.

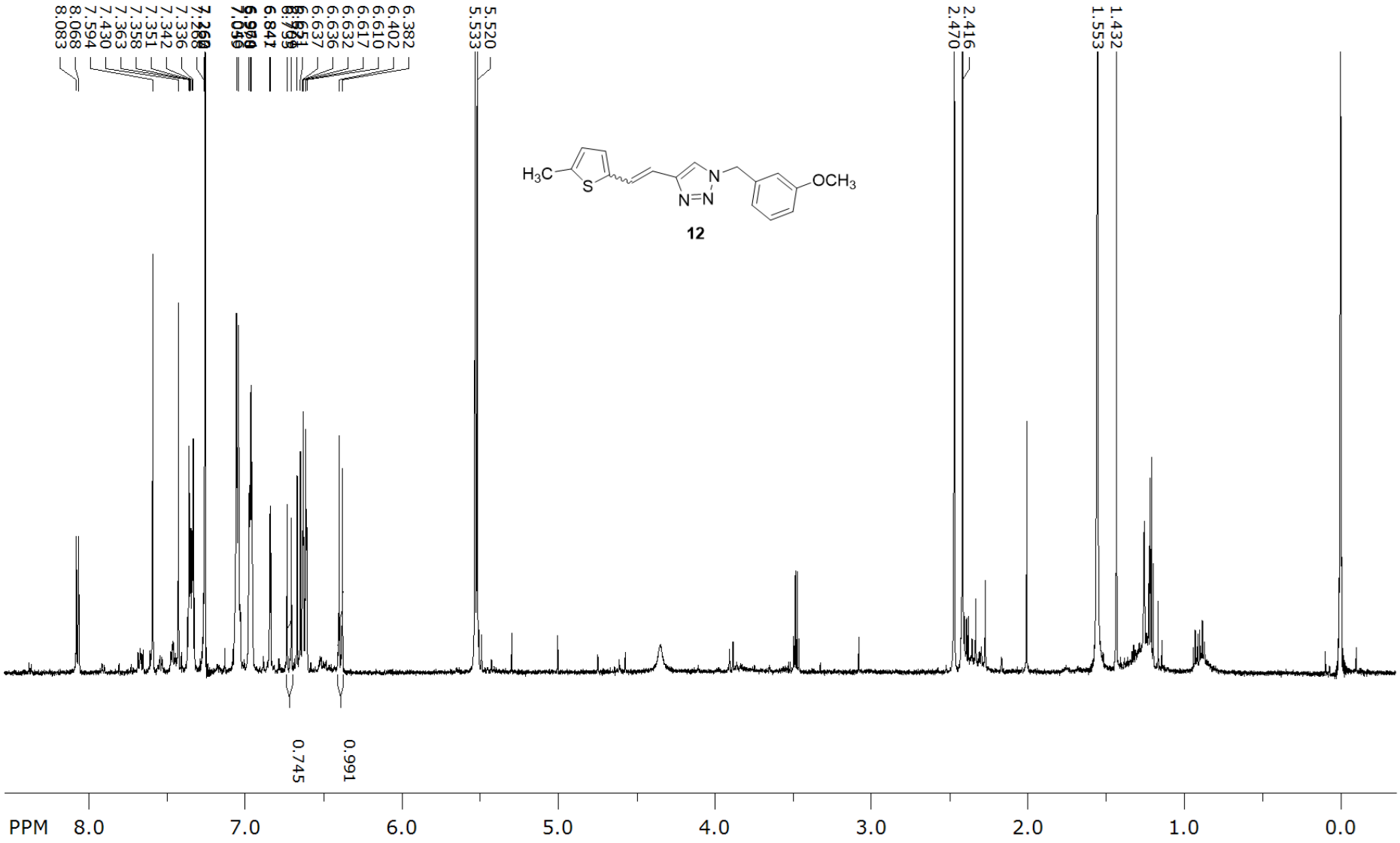


Figure S23. ^{1}H NMR ($CDCl_3$) spectrum of a mixture of isomers of **12**.

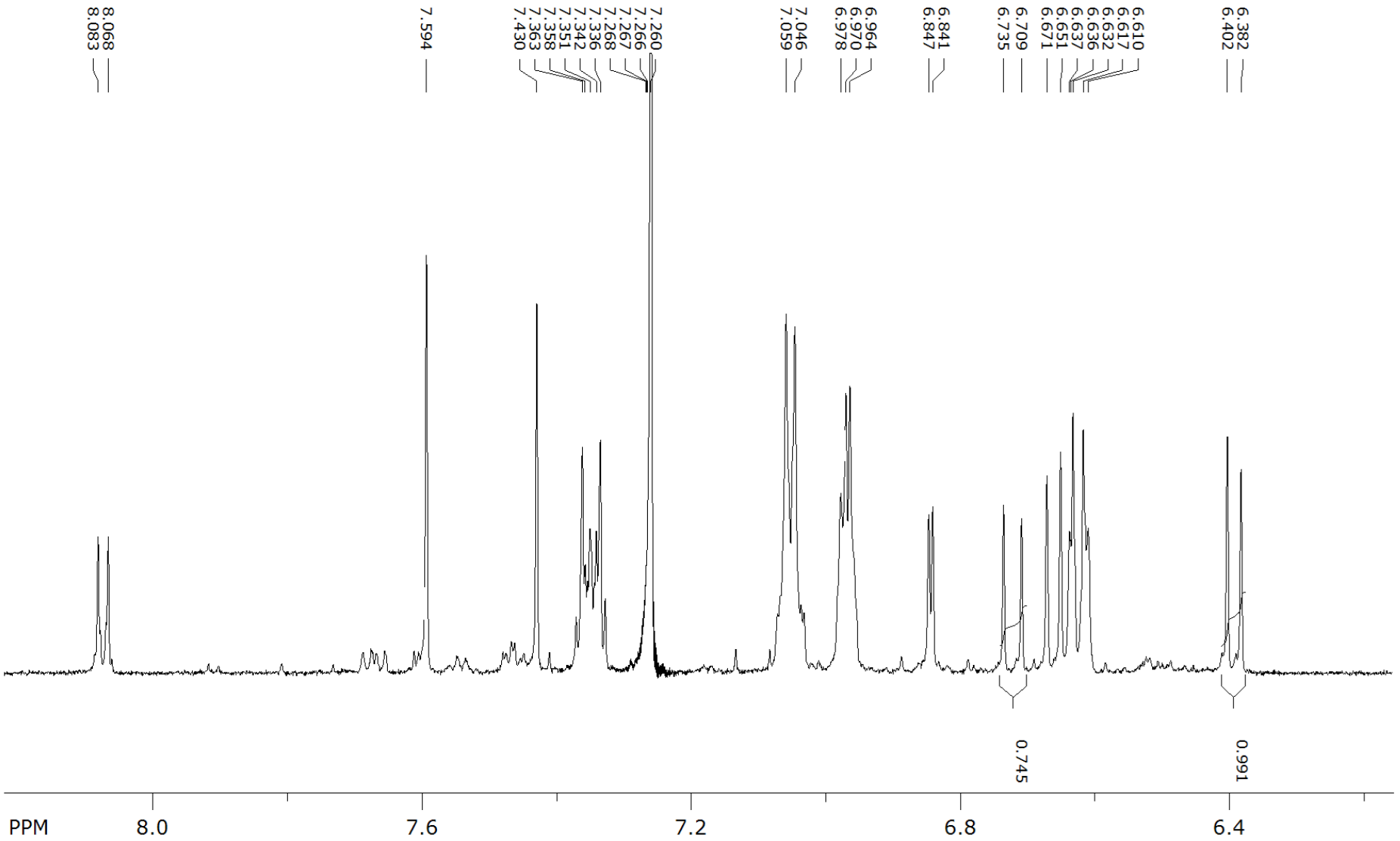


Figure S24. Unsaturated part of the ^{1}H NMR ($CDCl_3$) spectrum of a mixture of isomers of **12**.

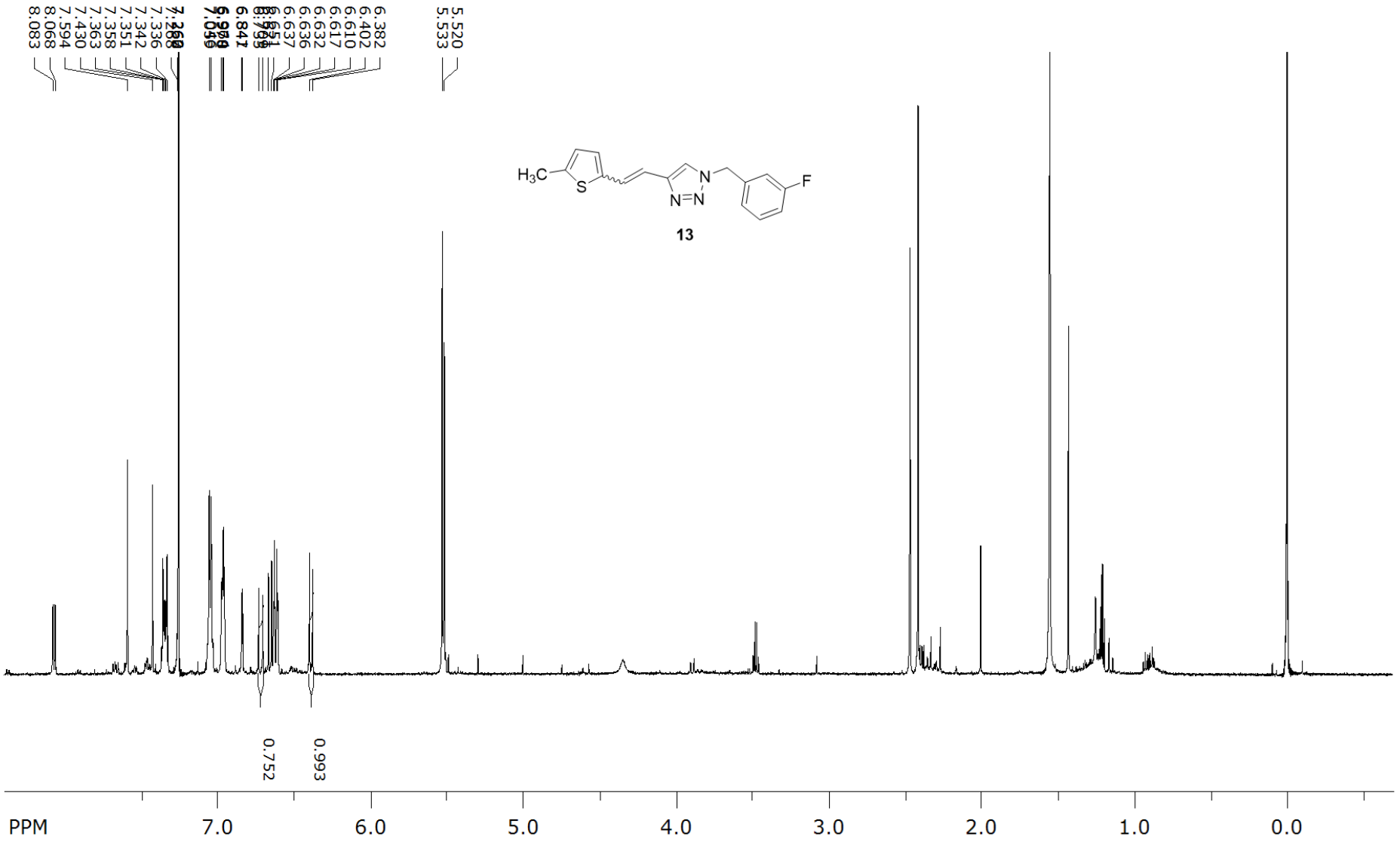


Figure S25. ^{1}H NMR ($CDCl_3$) spectrum of a mixture of isomers of **13**.

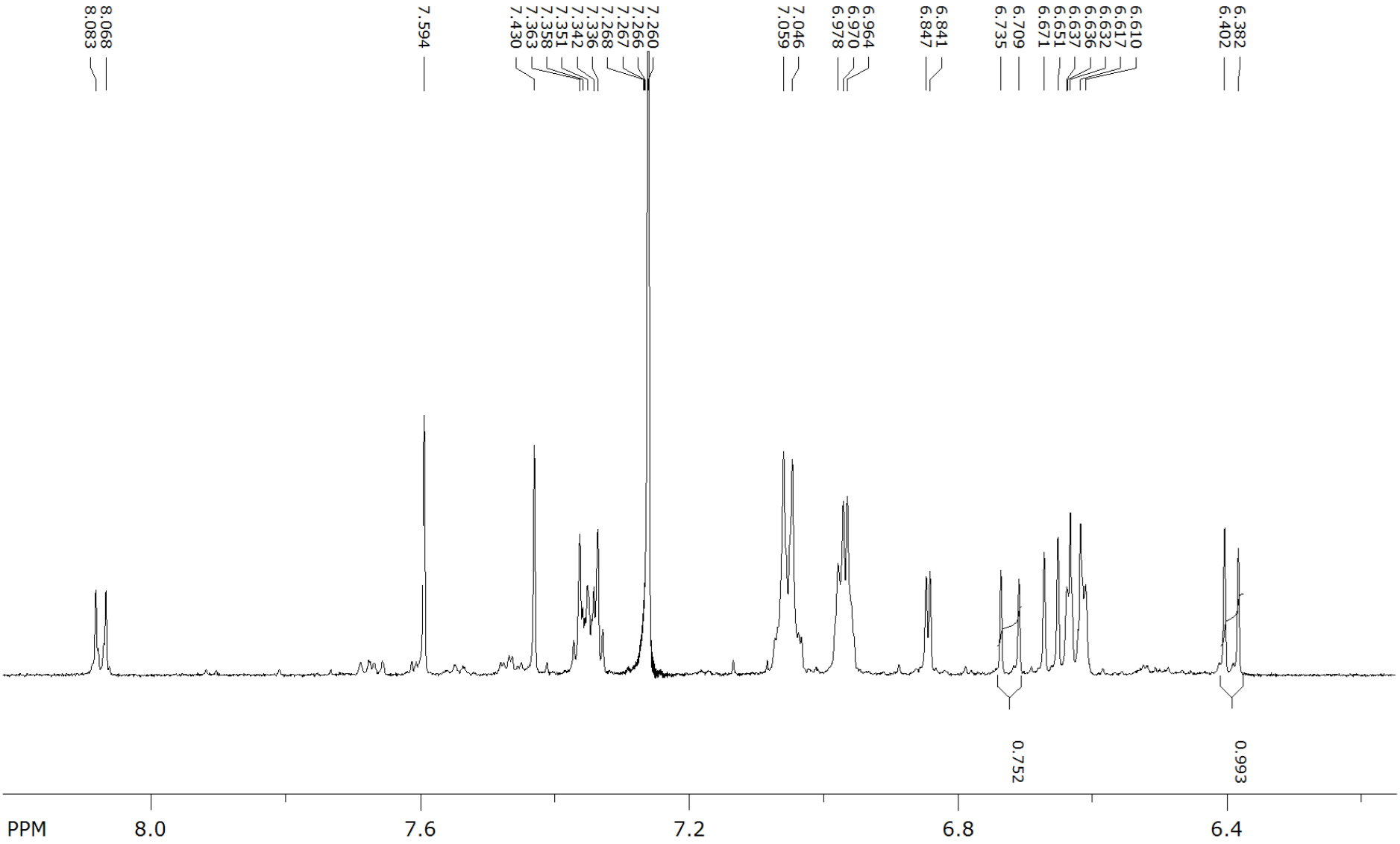


Figure S26. Unsaturated part of the ^{1}H NMR ($CDCl_3$) spectrum of a mixture of isomers of **13**.

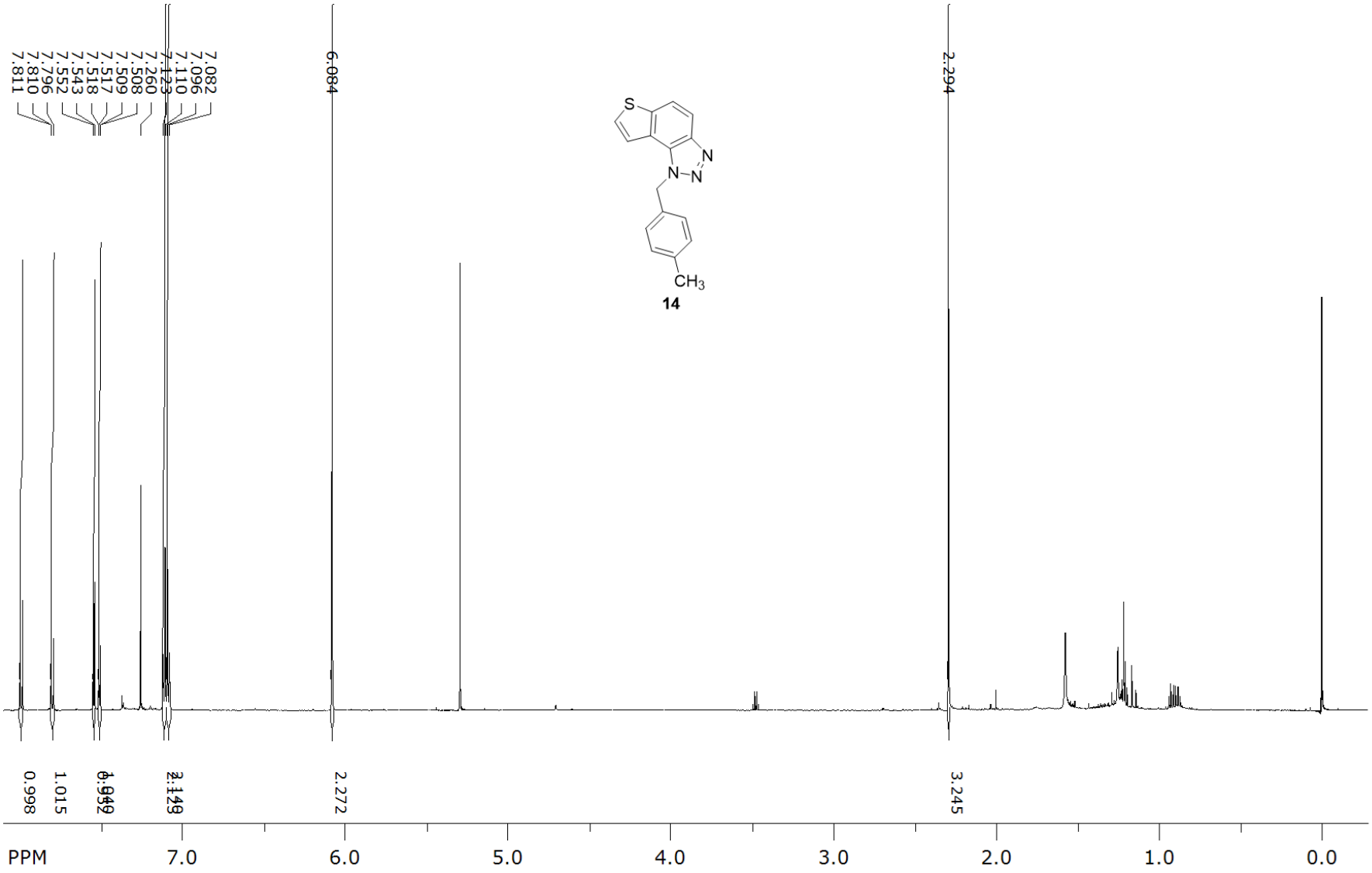


Figure S27. ^{1}H NMR ($CDCl_3$) spectrum of **14**.

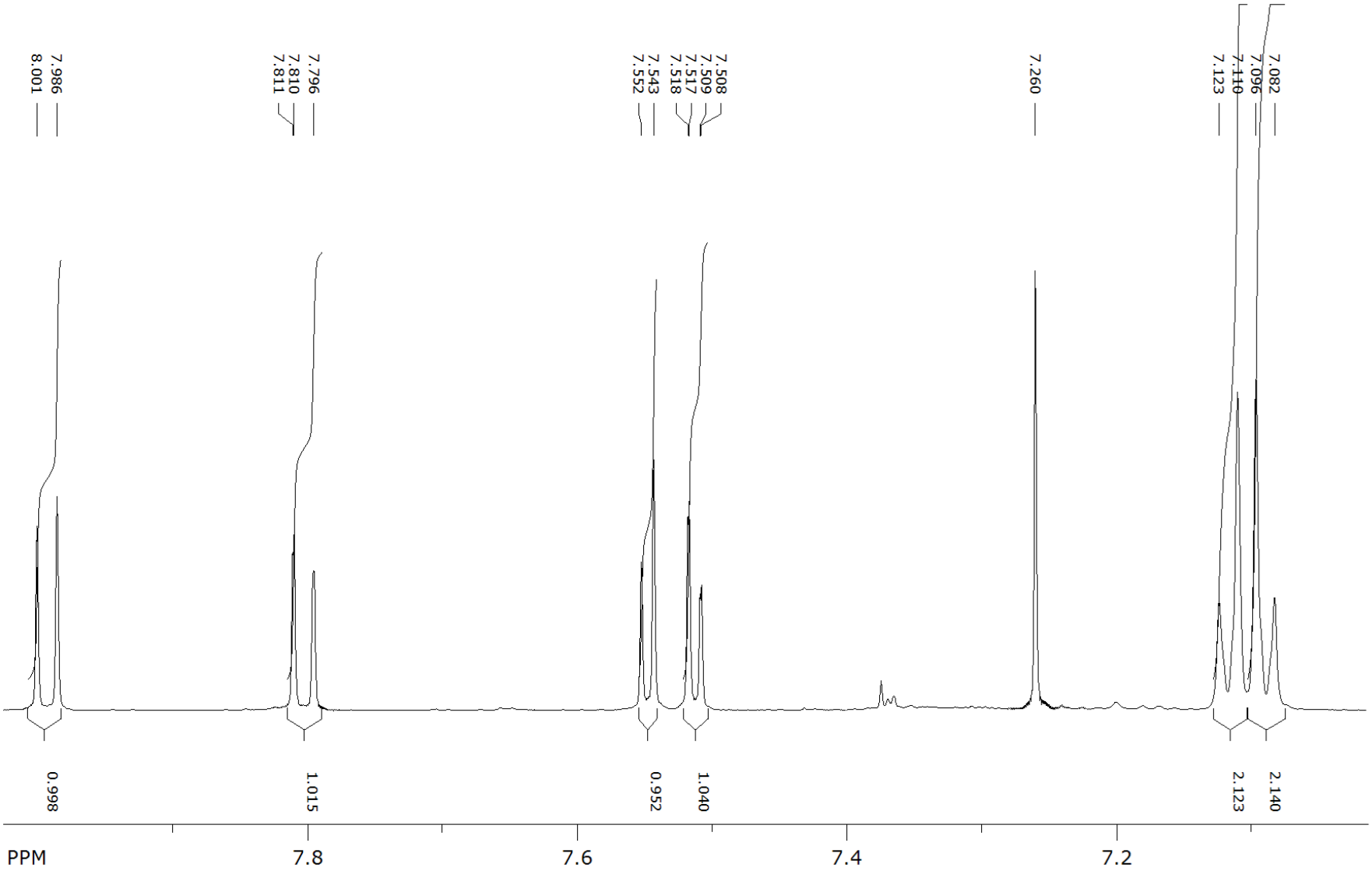


Figure S28. Aromatic part of the ^{1}H NMR ($CDCl_3$) spectrum of **14**.

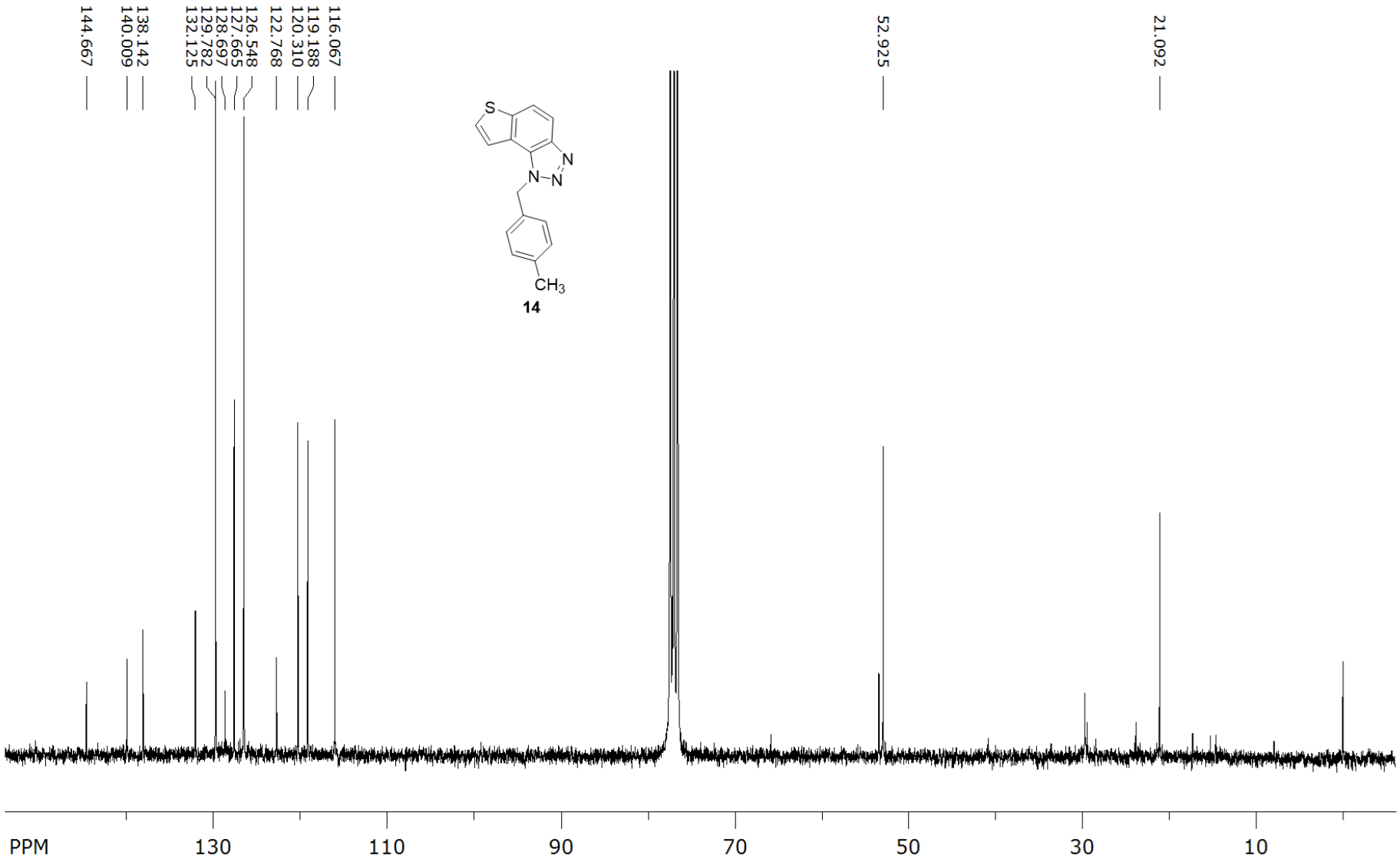


Figure S29. ^{13}C NMR ($CDCl_3$) spectrum of **14**.

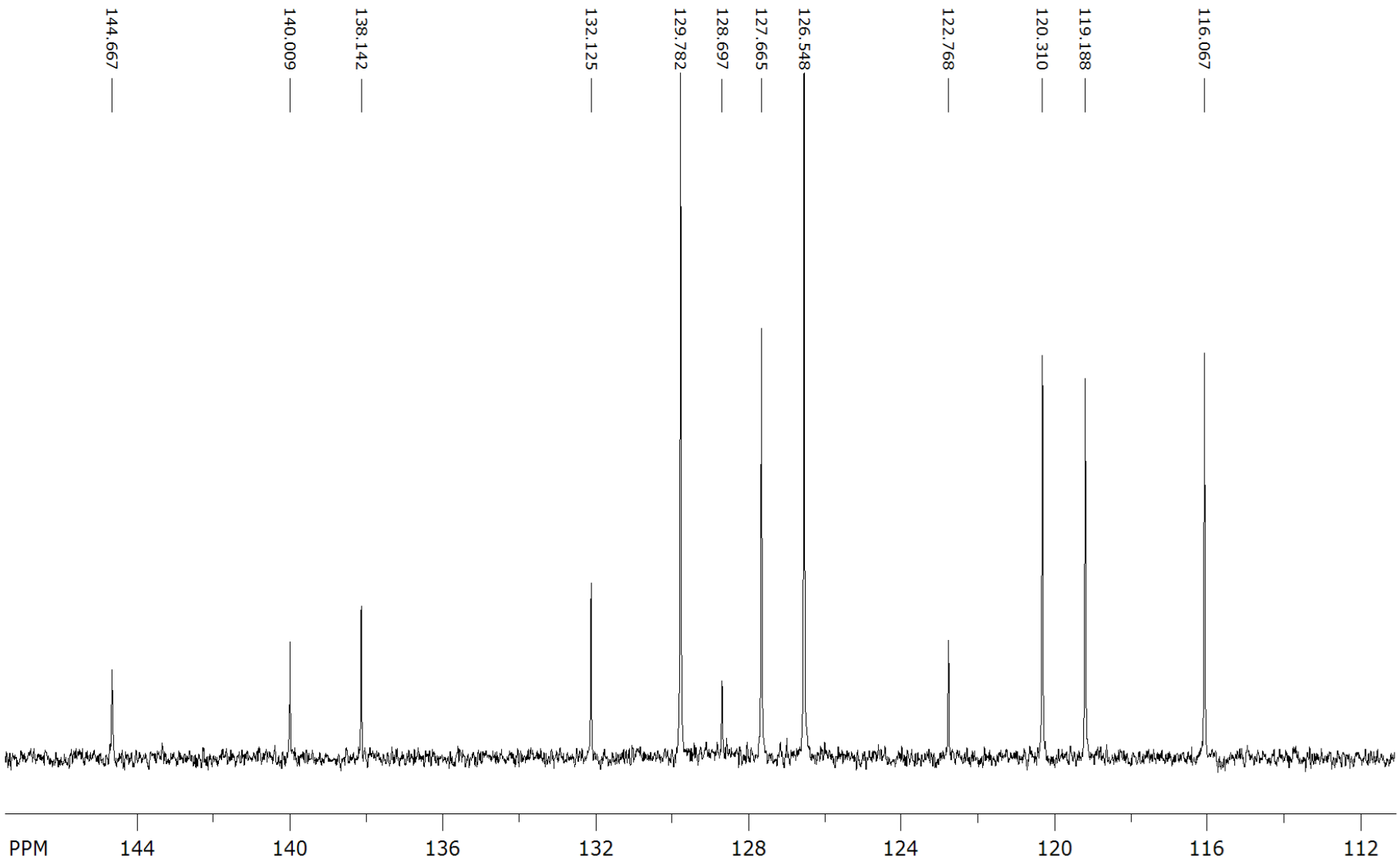


Figure S30. Aromatic part of the ^{13}C NMR ($CDCl_3$) spectrum of **14**.

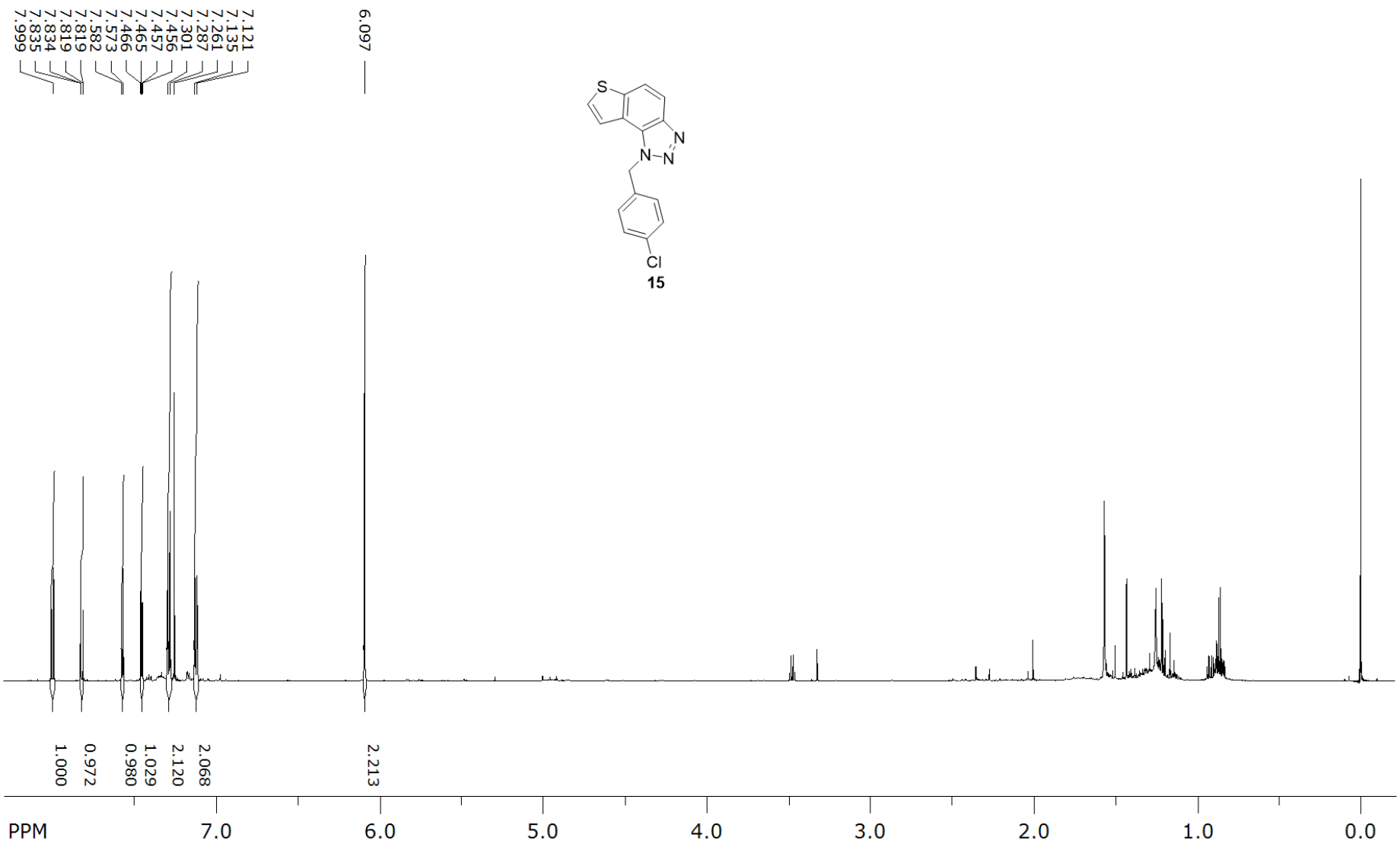


Figure S31. ^{1}H NMR ($CDCl_3$) spectrum of **15**.

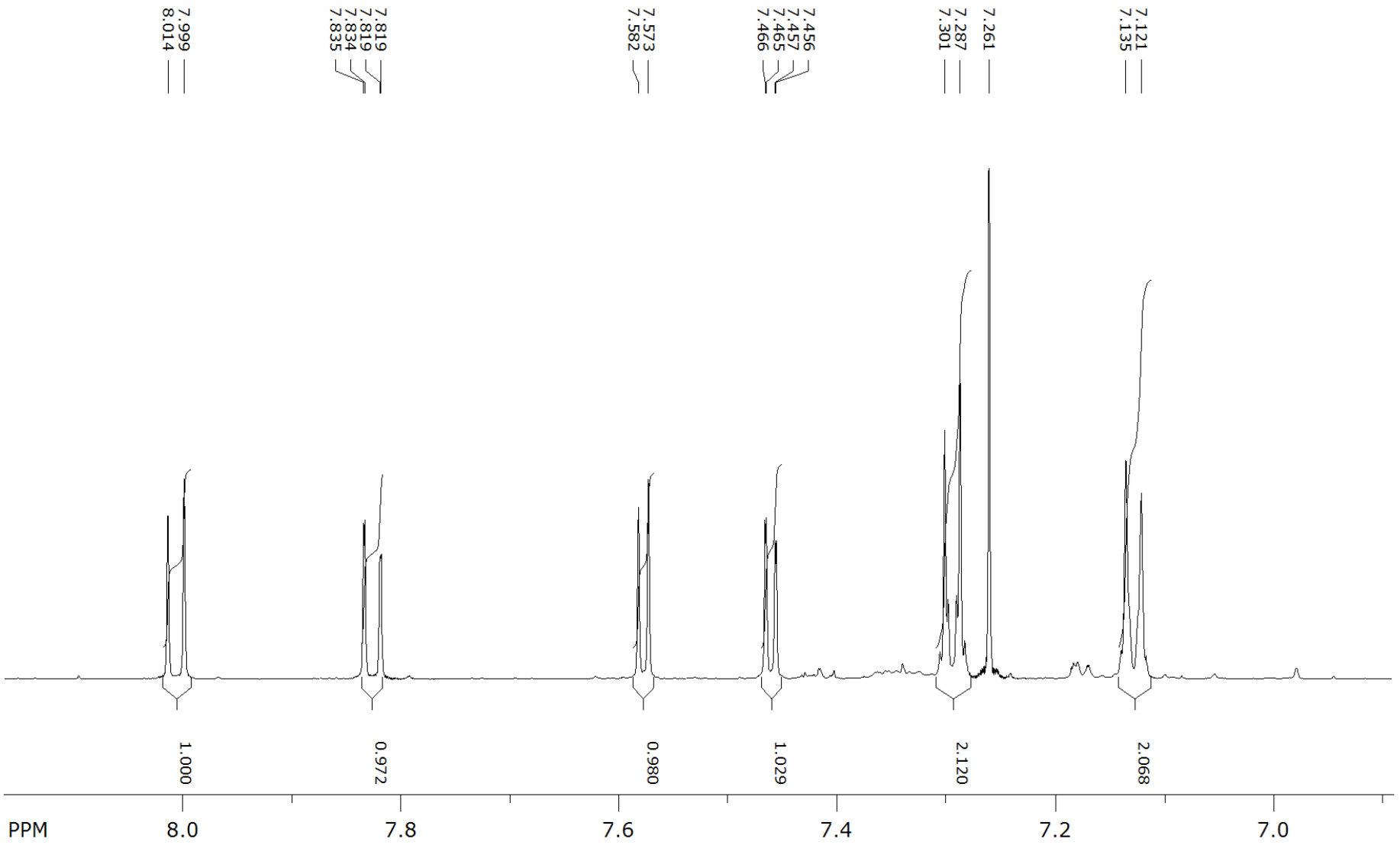


Figure S32. Aromatic part of the ^{1}H NMR ($CDCl_3$) spectrum of **15**.

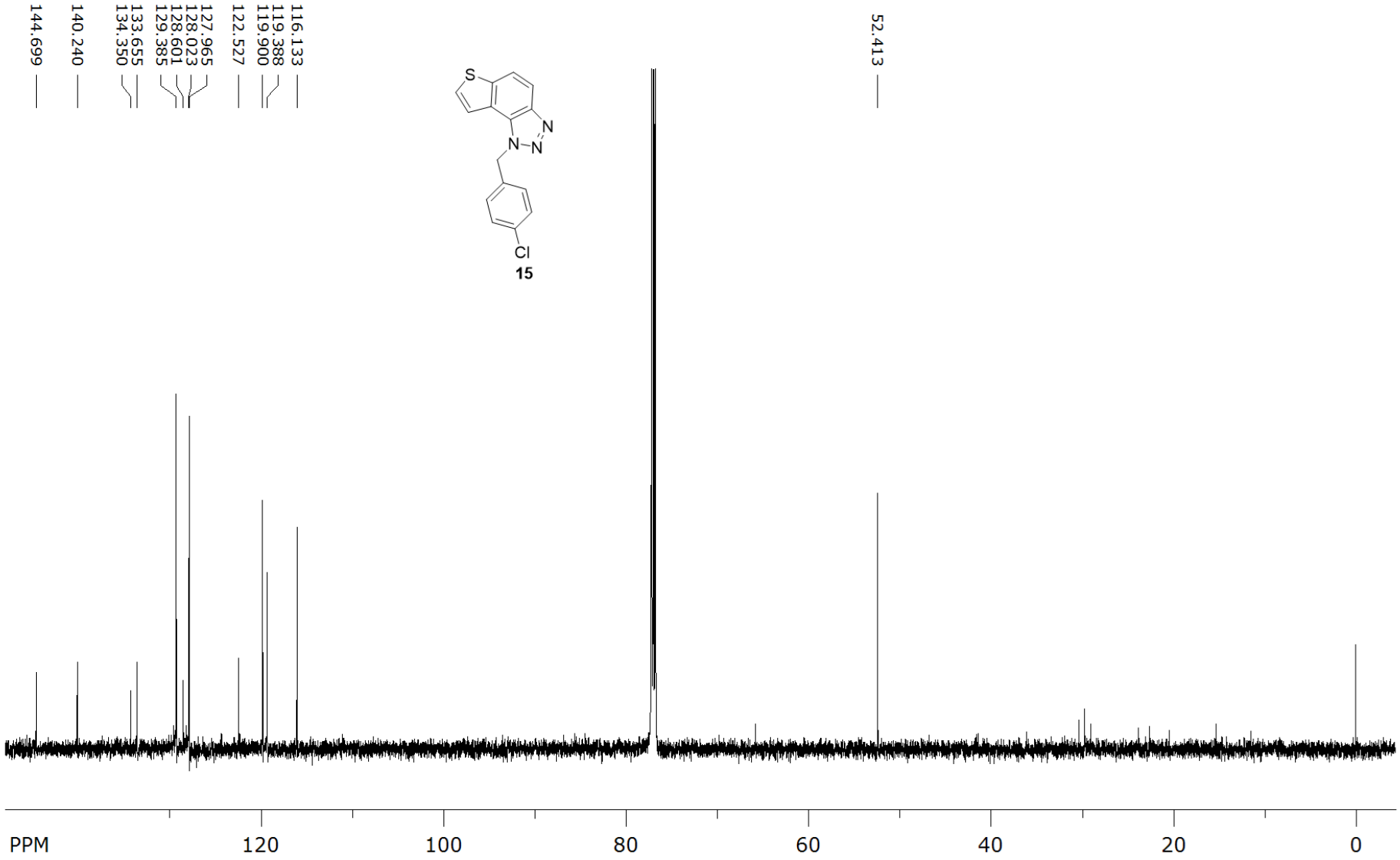


Figure S33. ^{13}C NMR ($CDCl_3$) spectrum of **15**.

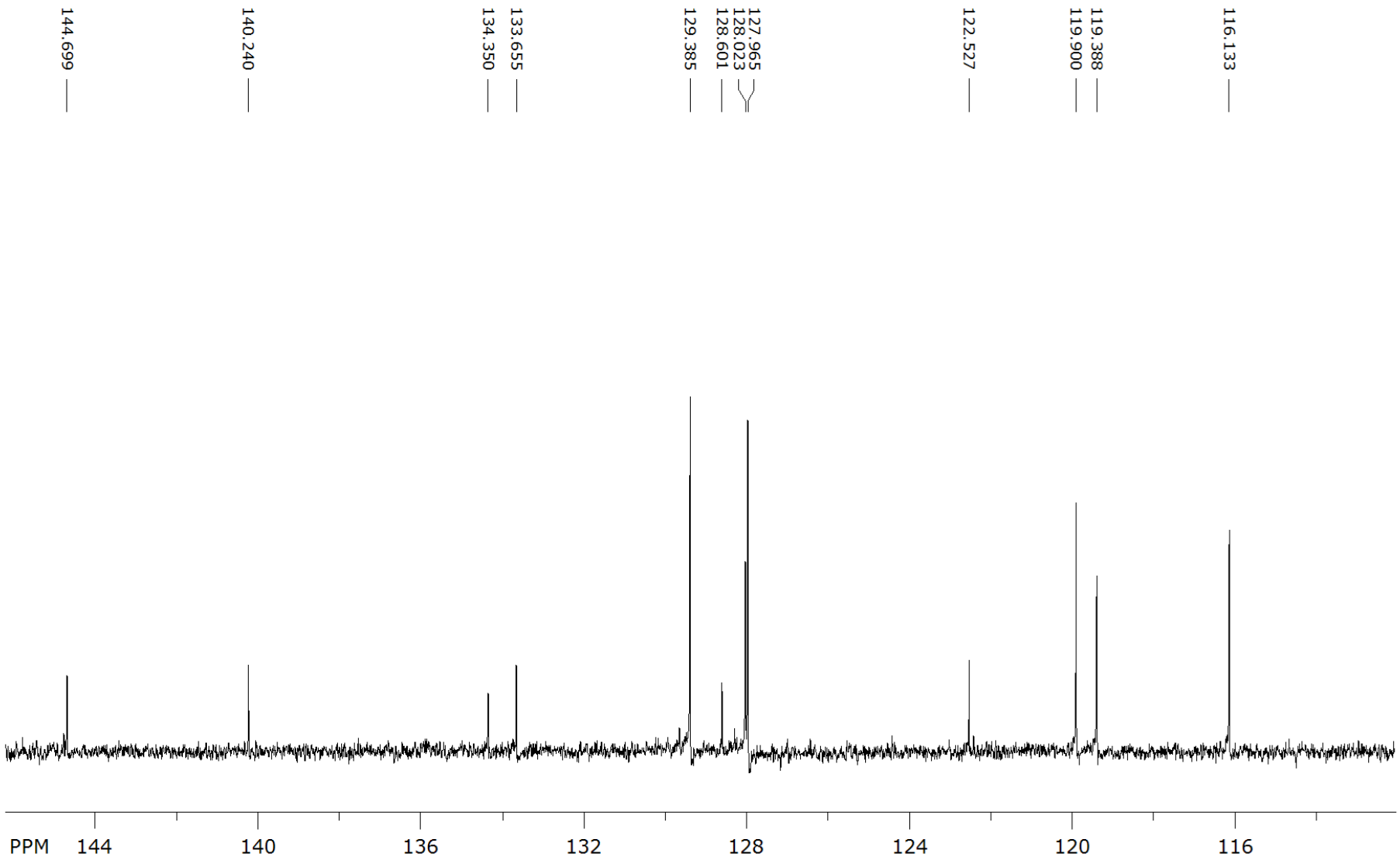


Figure S34. Aromatic part of the ^{13}C NMR ($CDCl_3$) spectrum of **15**.

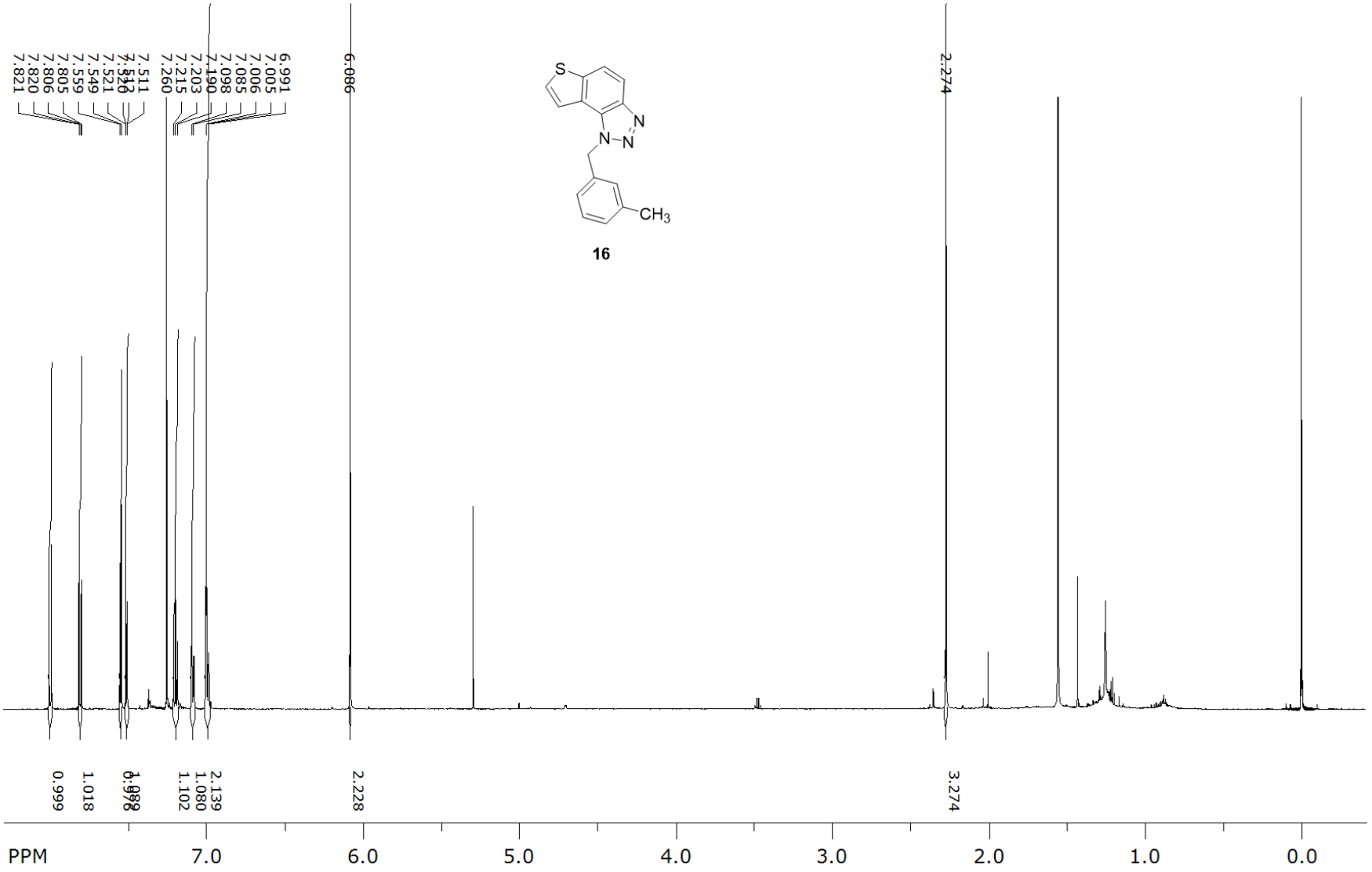


Figure S35. ^{1}H NMR ($CDCl_3$) spectrum of **16**.

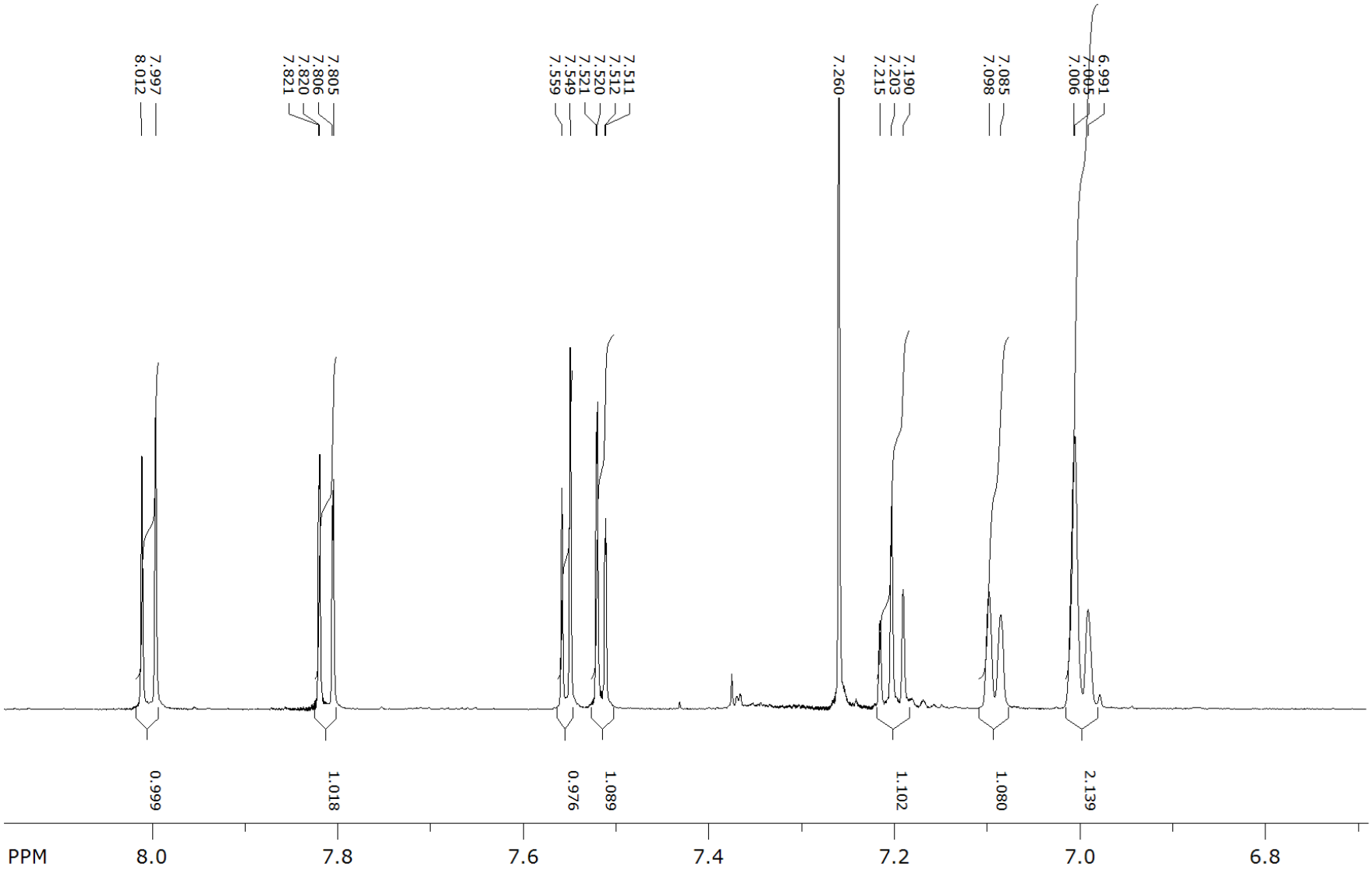


Figure S36. Aromatic part of the ^{1}H NMR ($CDCl_3$) spectrum of **16**.

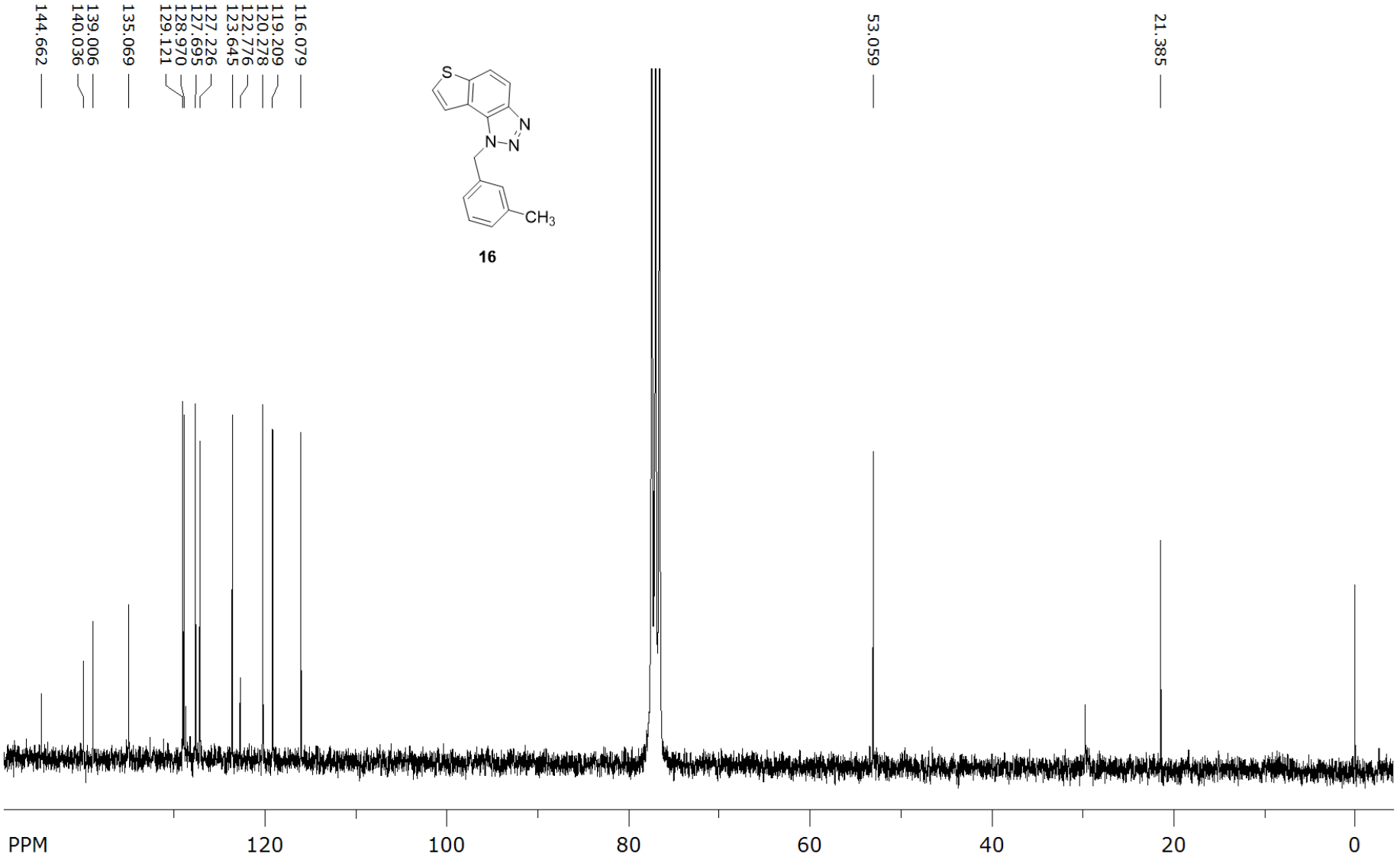


Figure S37. ^{13}C NMR ($CDCl_3$) spectrum of **16**.

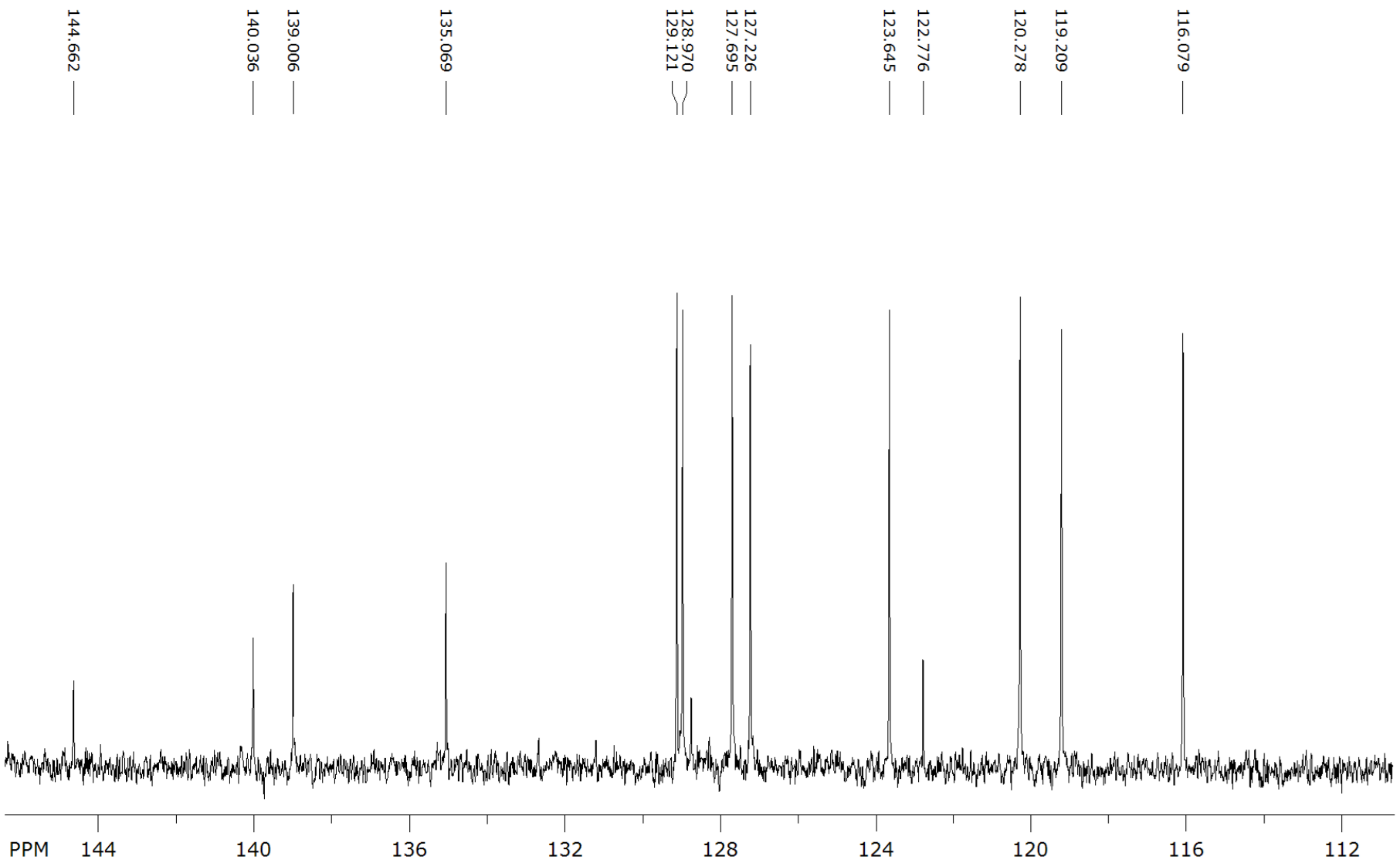


Figure S38. Aromatic part of the ^{13}C NMR ($CDCl_3$) spectrum of **16**.

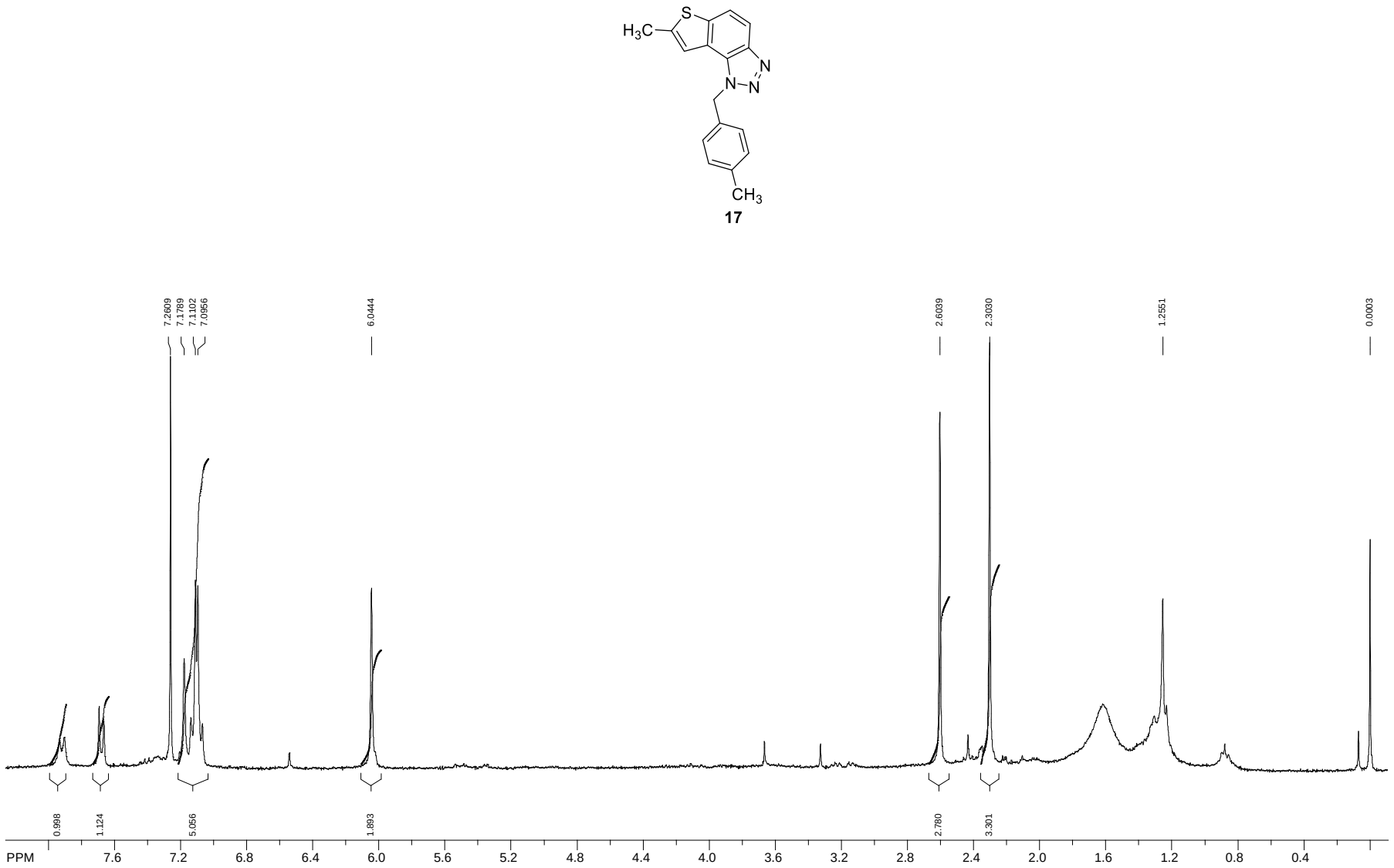


Figure S39. ^{1}H NMR ($CDCl_3$) spectrum of **17**.

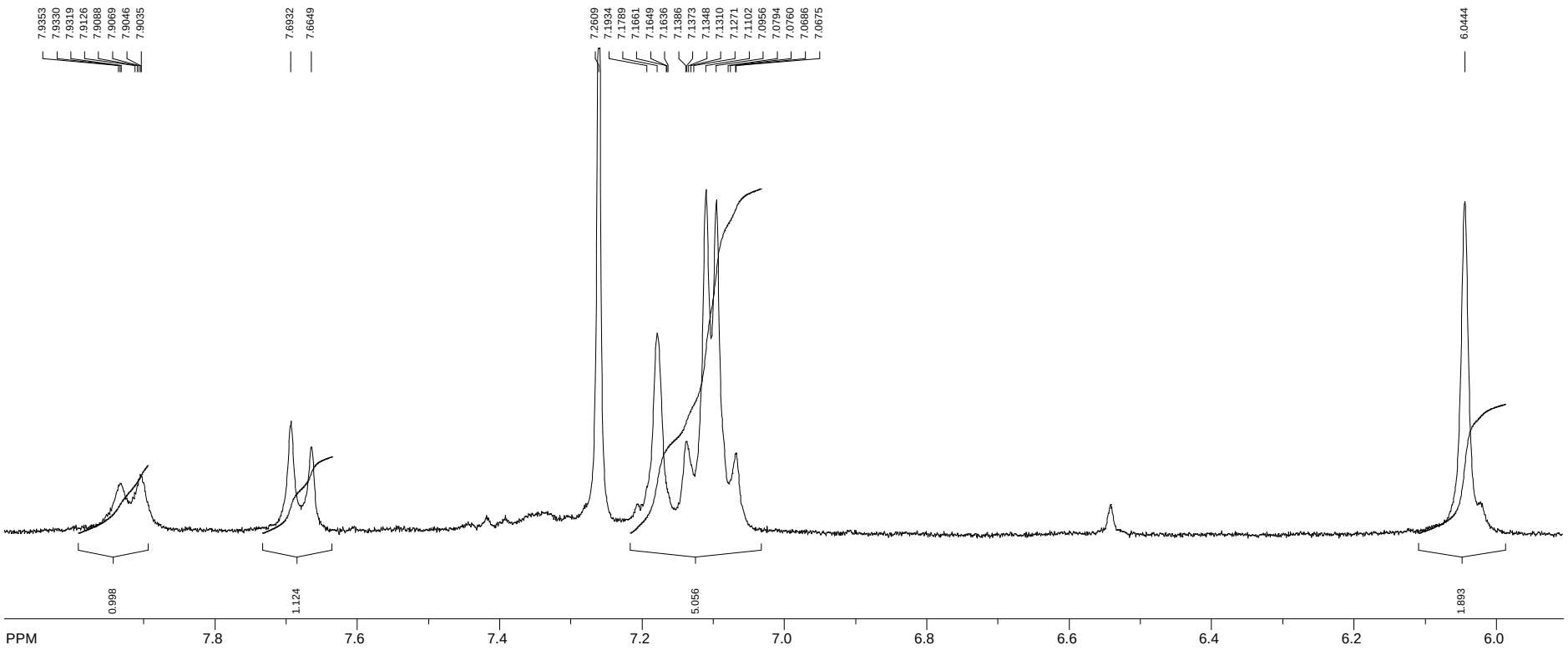


Figure S40. Aromatic part of the ^{1}H NMR ($CDCl_3$) spectrum of **17**.

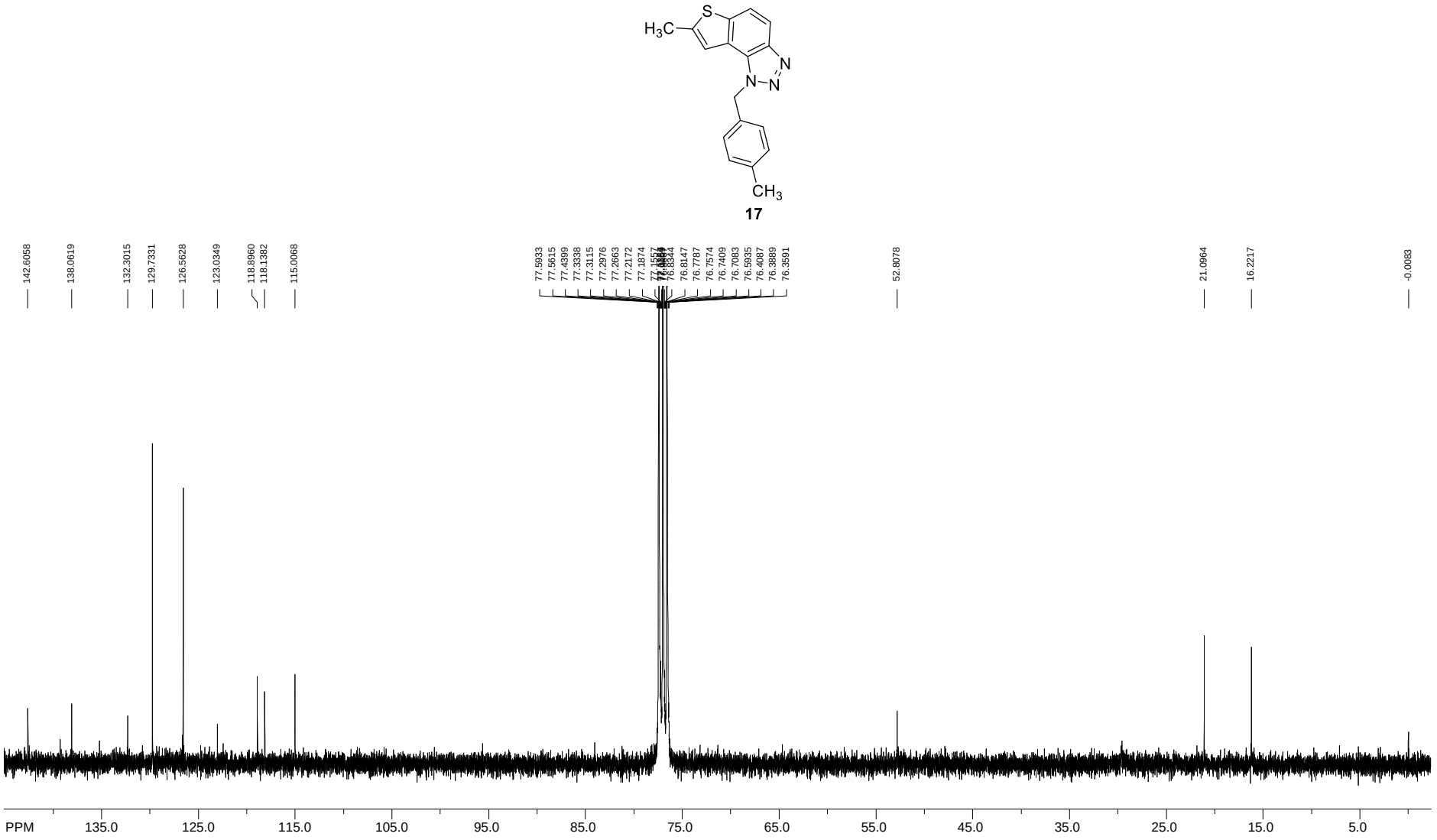


Figure S41. ^{13}C NMR ($CDCl_3$) spectrum of **17**.

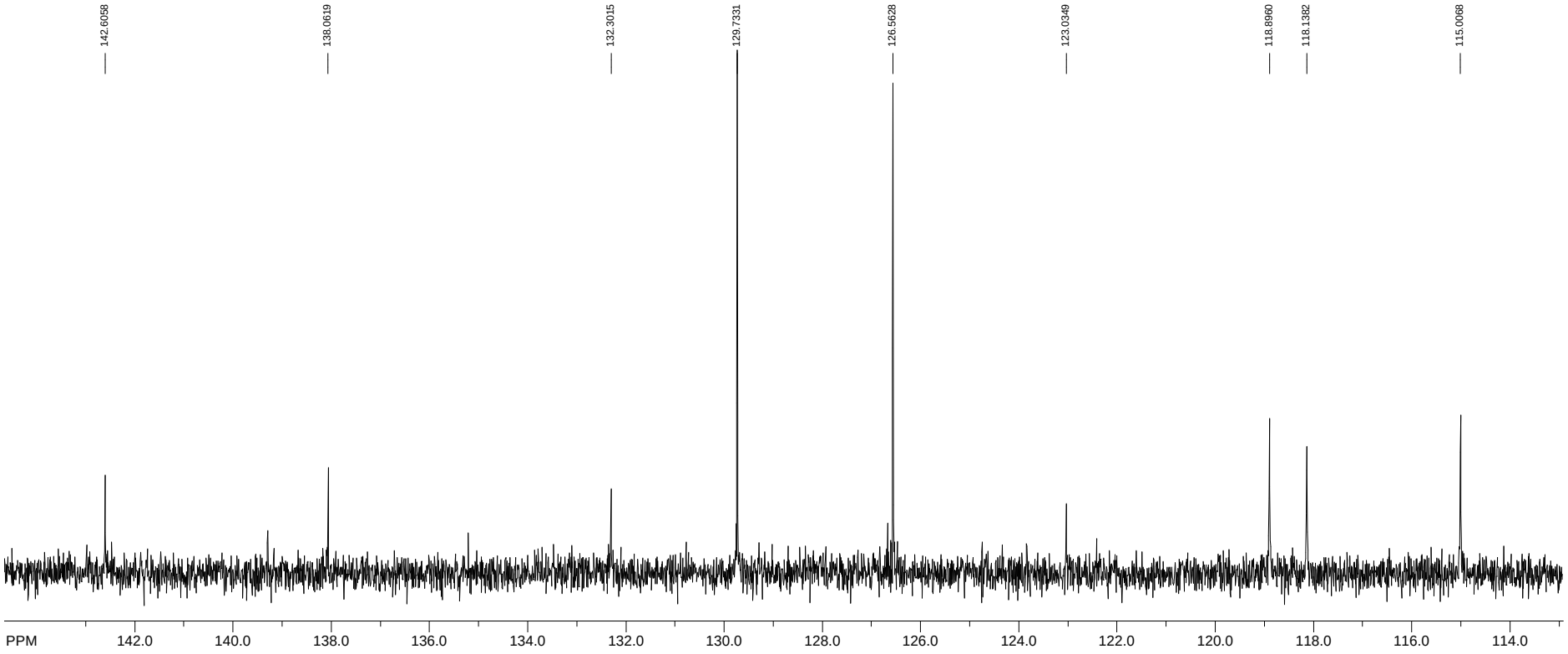


Figure S42. Aromatic part of the ^{13}C NMR ($CDCl_3$) spectrum of **17**.

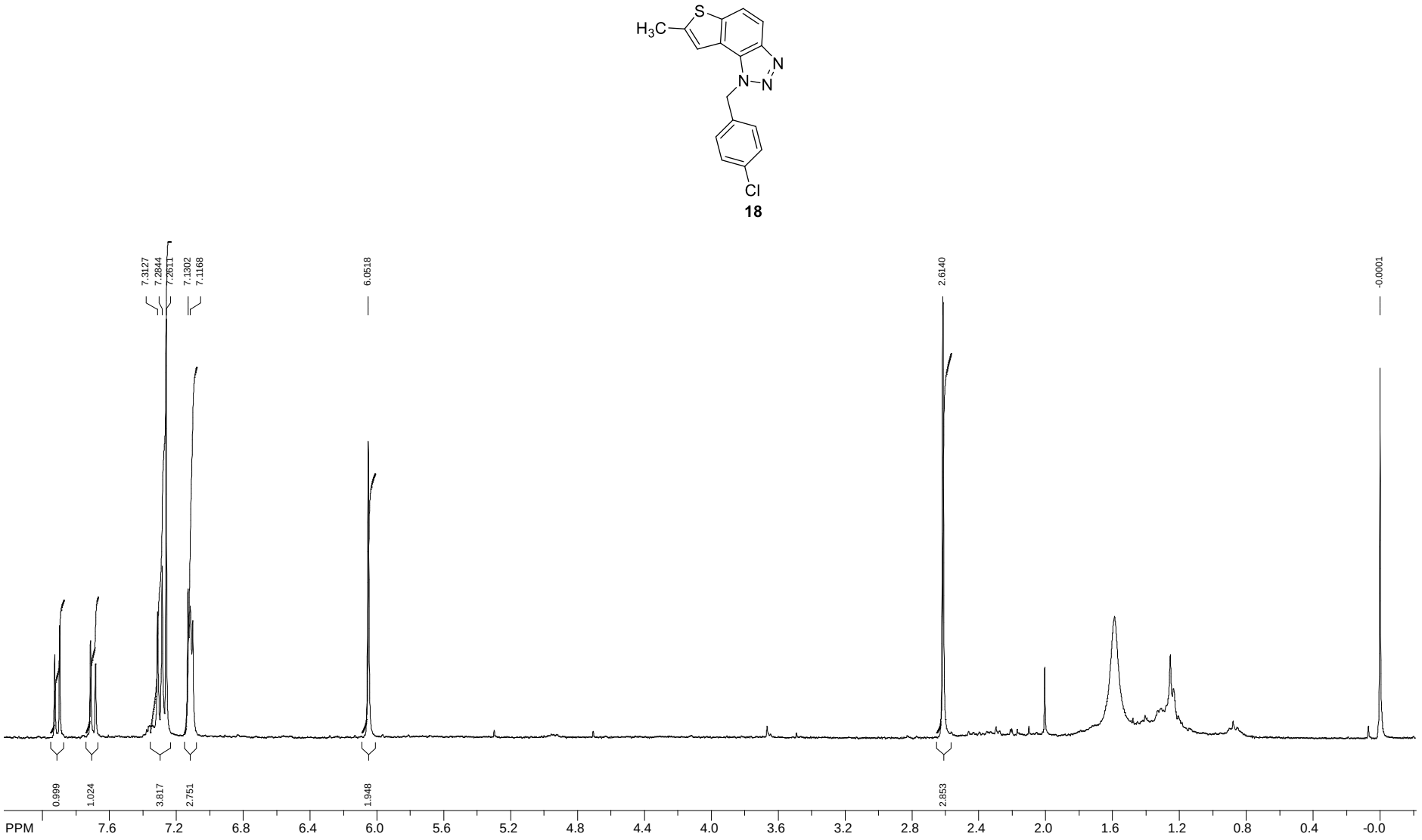


Figure S43. ^{1}H NMR ($CDCl_3$) spectrum of **18**.

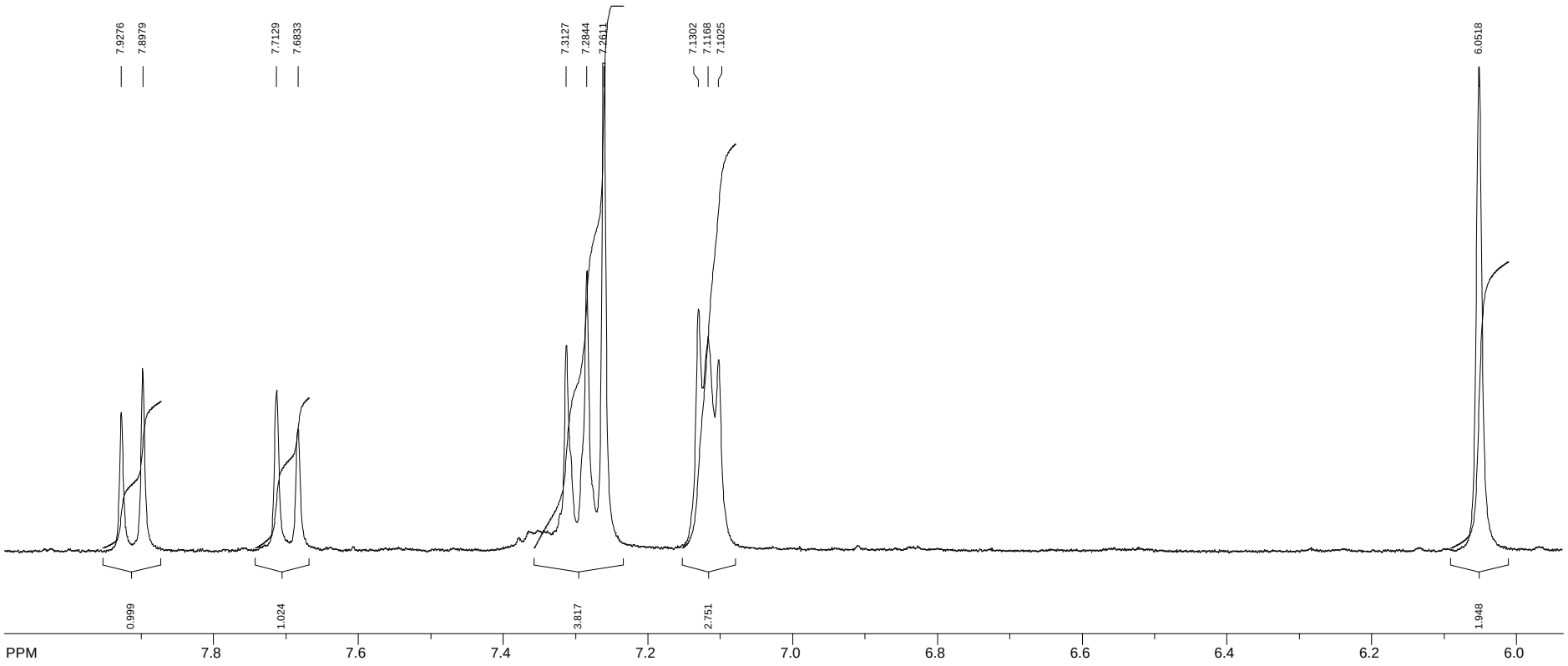


Figure S44. Aromatic part of the ^{1}H NMR ($CDCl_3$) spectrum of **18**.

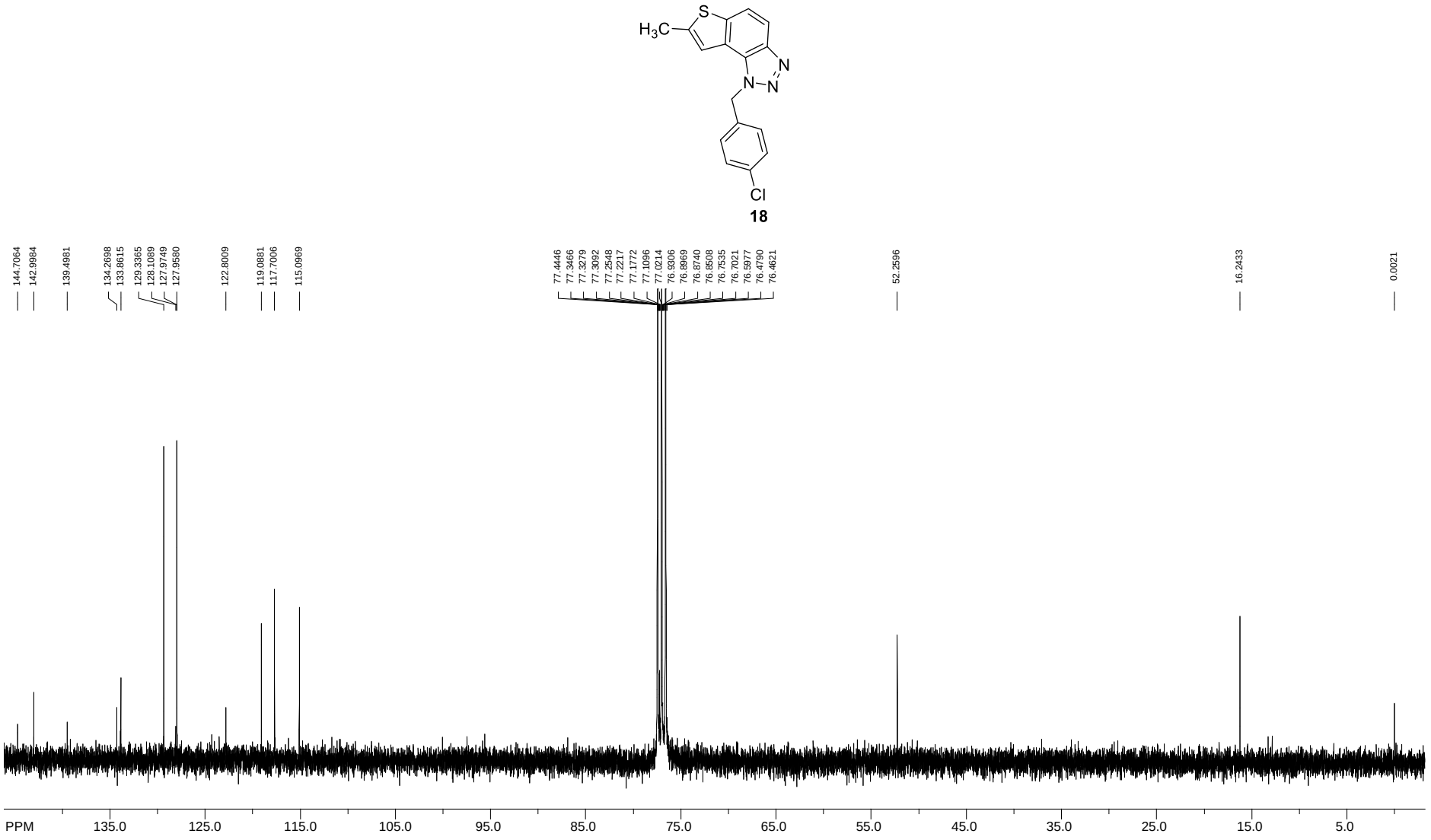


Figure S45. ^{13}C NMR ($CDCl_3$) spectrum of **18**.

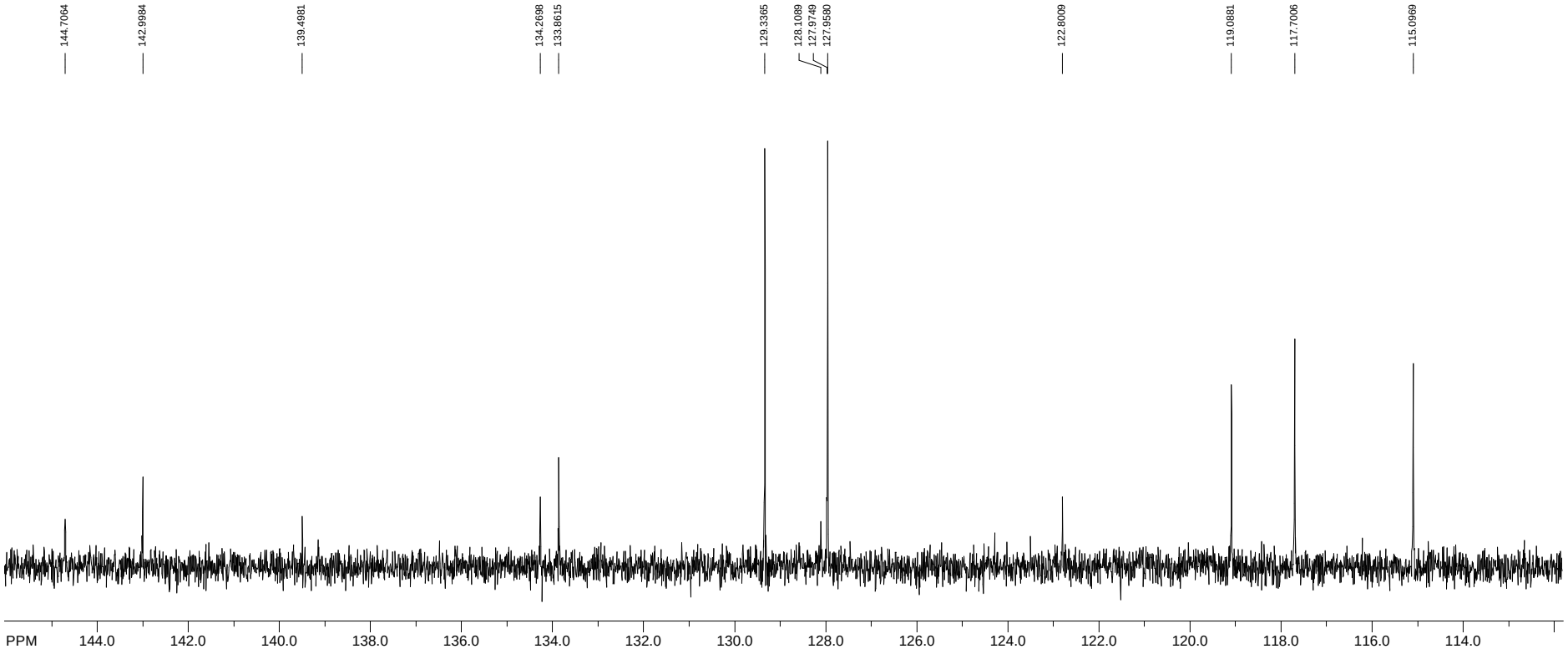


Figure S46. Aromatic part of the ^{13}C NMR ($CDCl_3$) spectrum of **18**.

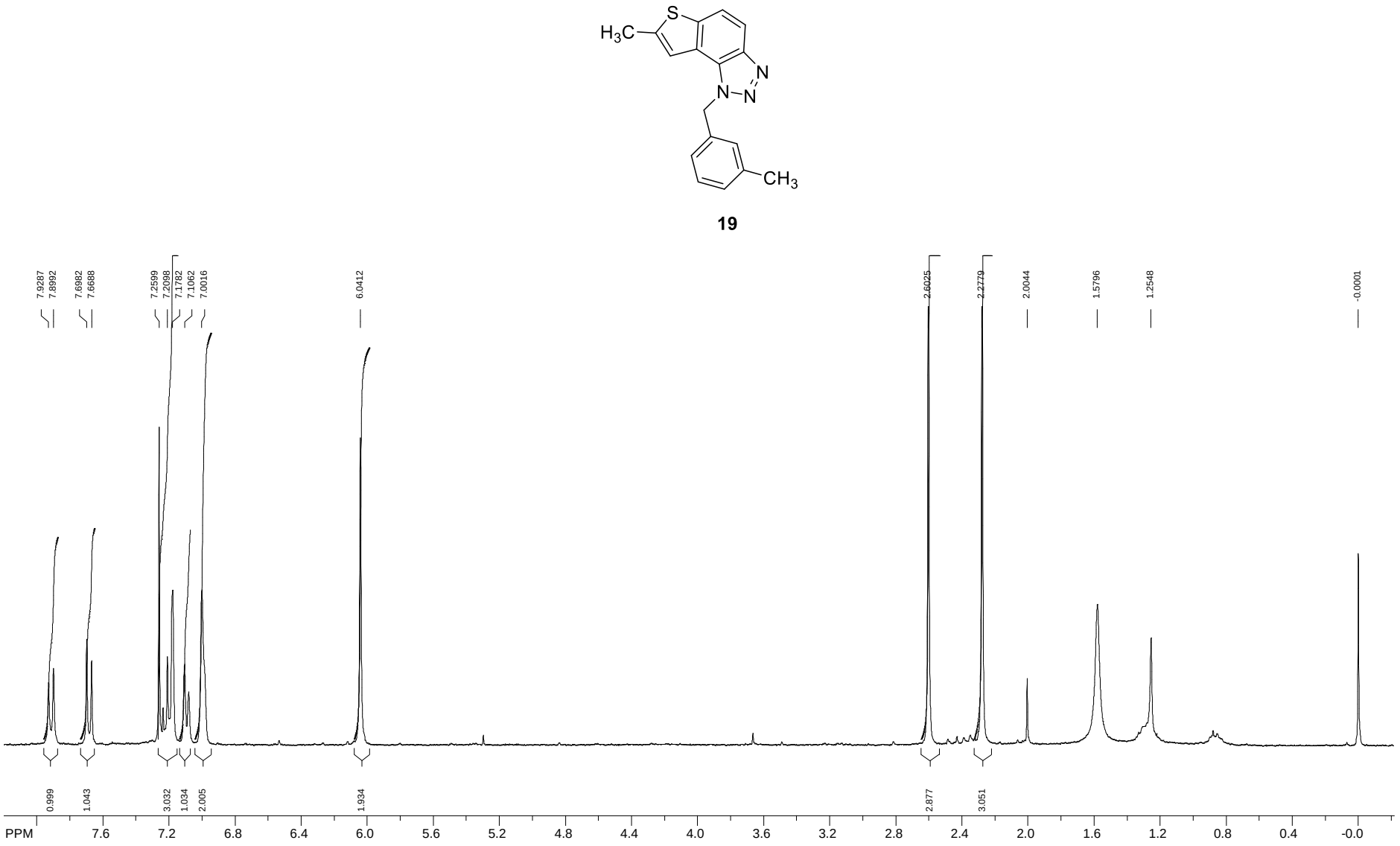


Figure S47. ^{1}H NMR ($CDCl_3$) spectrum of **19**.

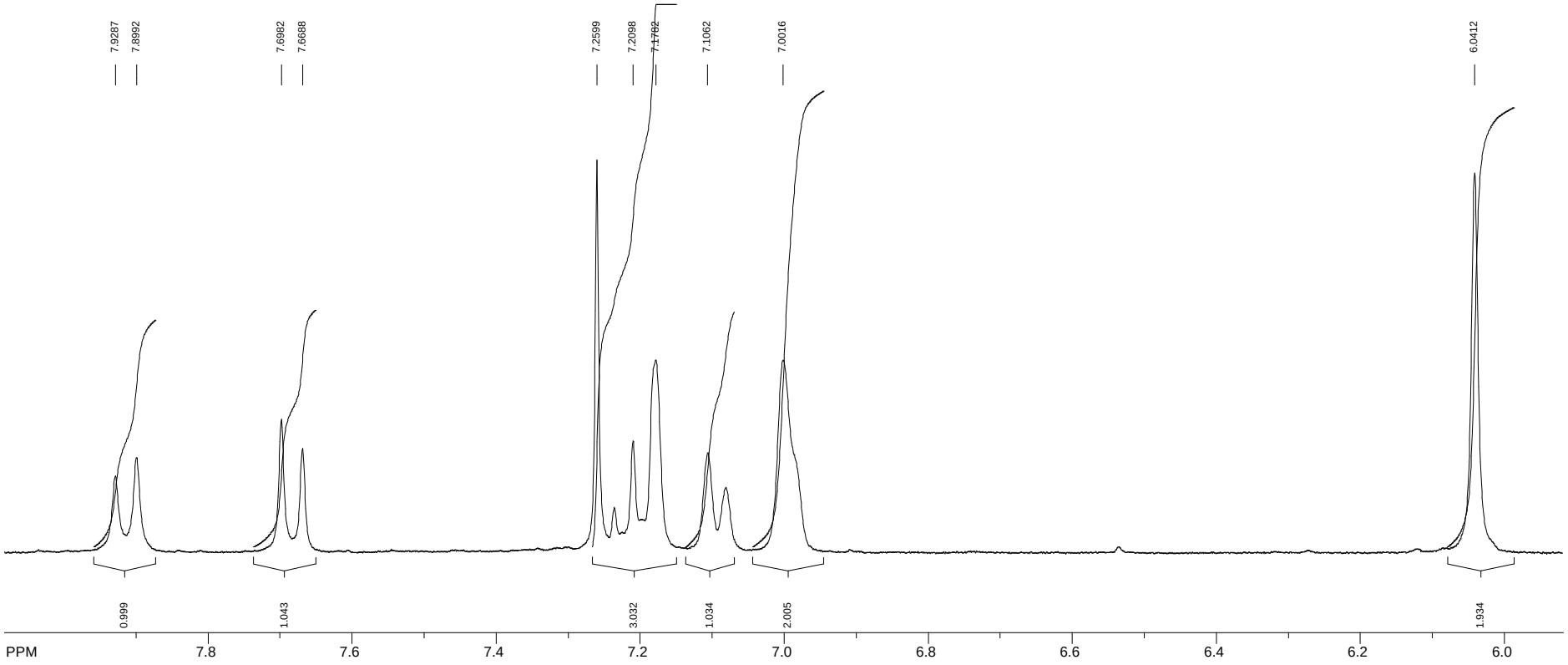


Figure S48. Aromatic part of the ^{1}H NMR ($CDCl_3$) spectrum of **19**.

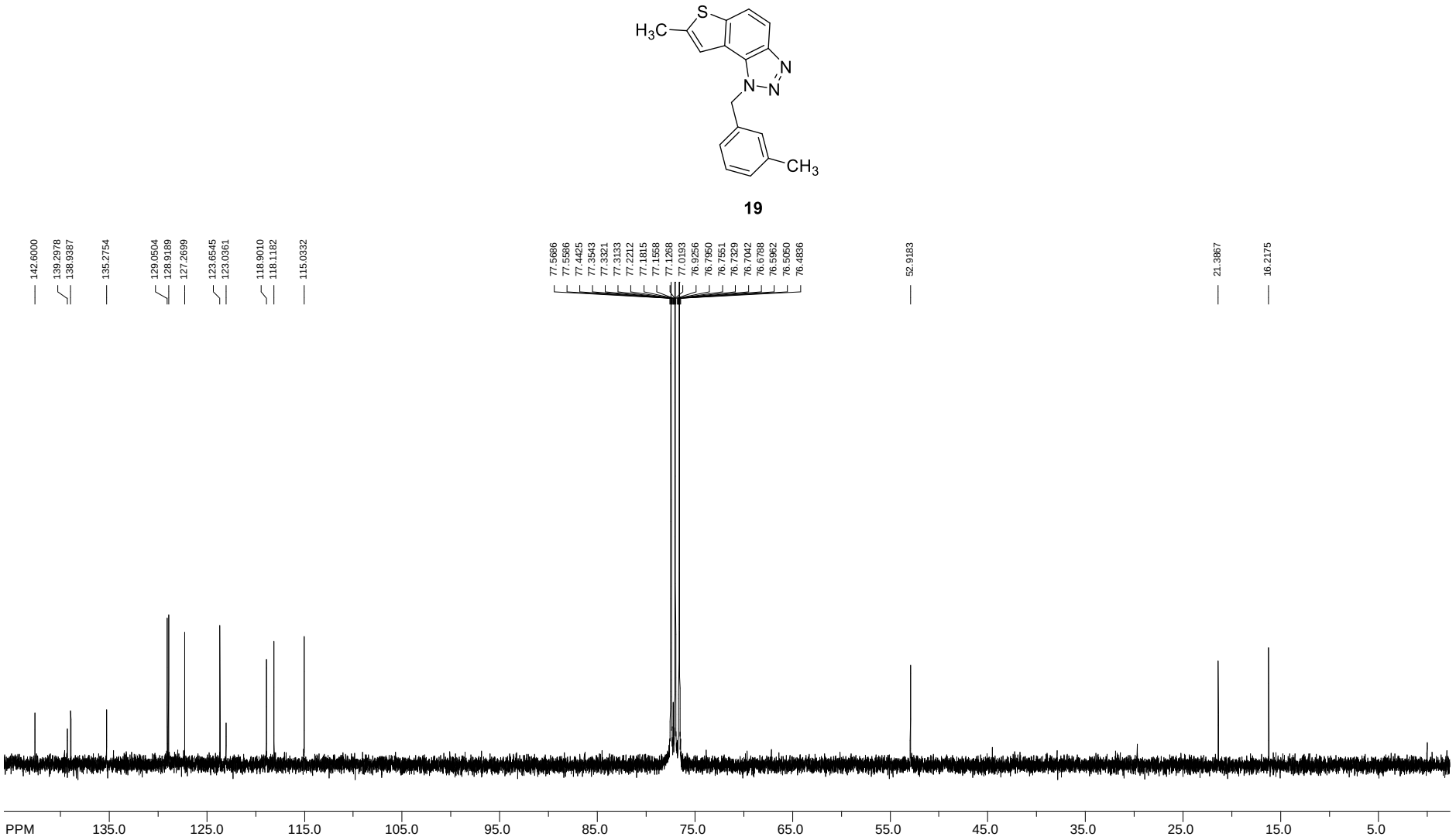


Figure S49. ^{13}C NMR ($CDCl_3$) spectrum of **19**.

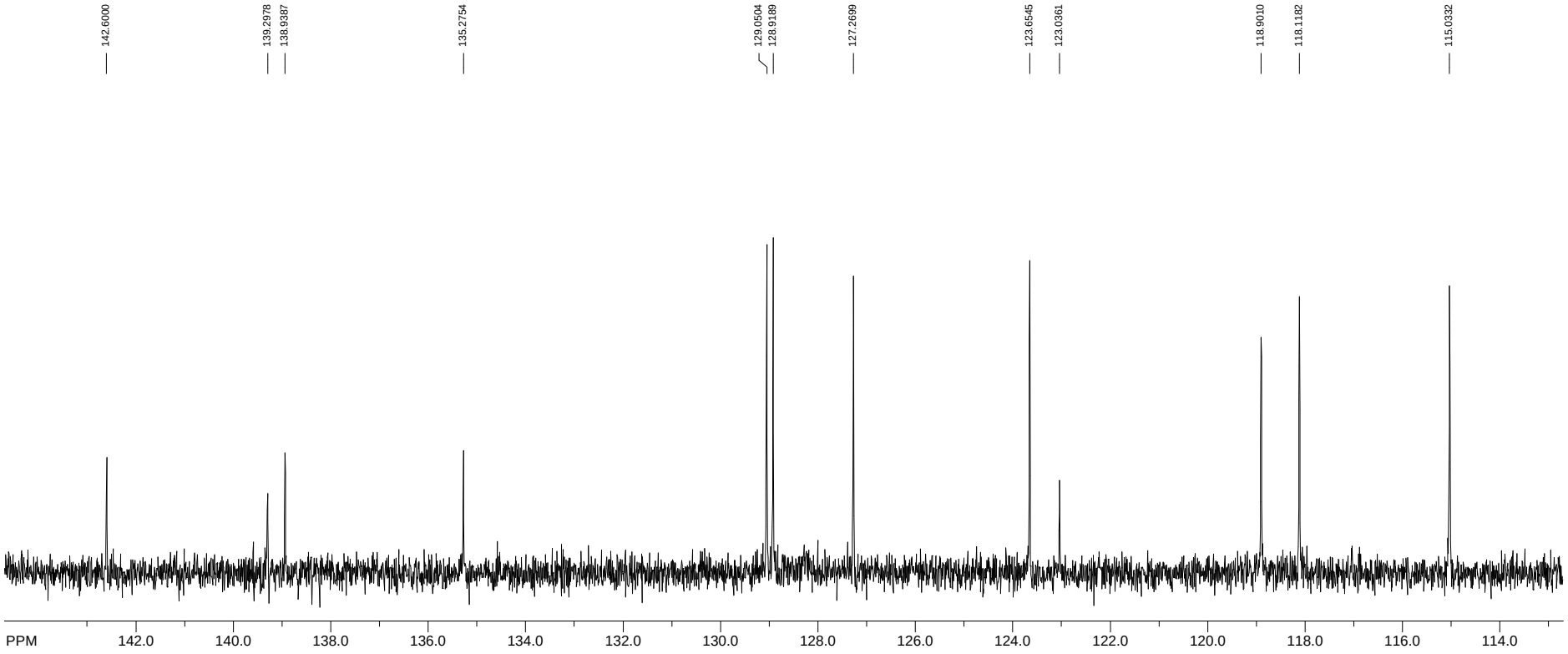


Figure S50. Aromatic part of the ^{13}C NMR ($CDCl_3$) spectrum of **19**.

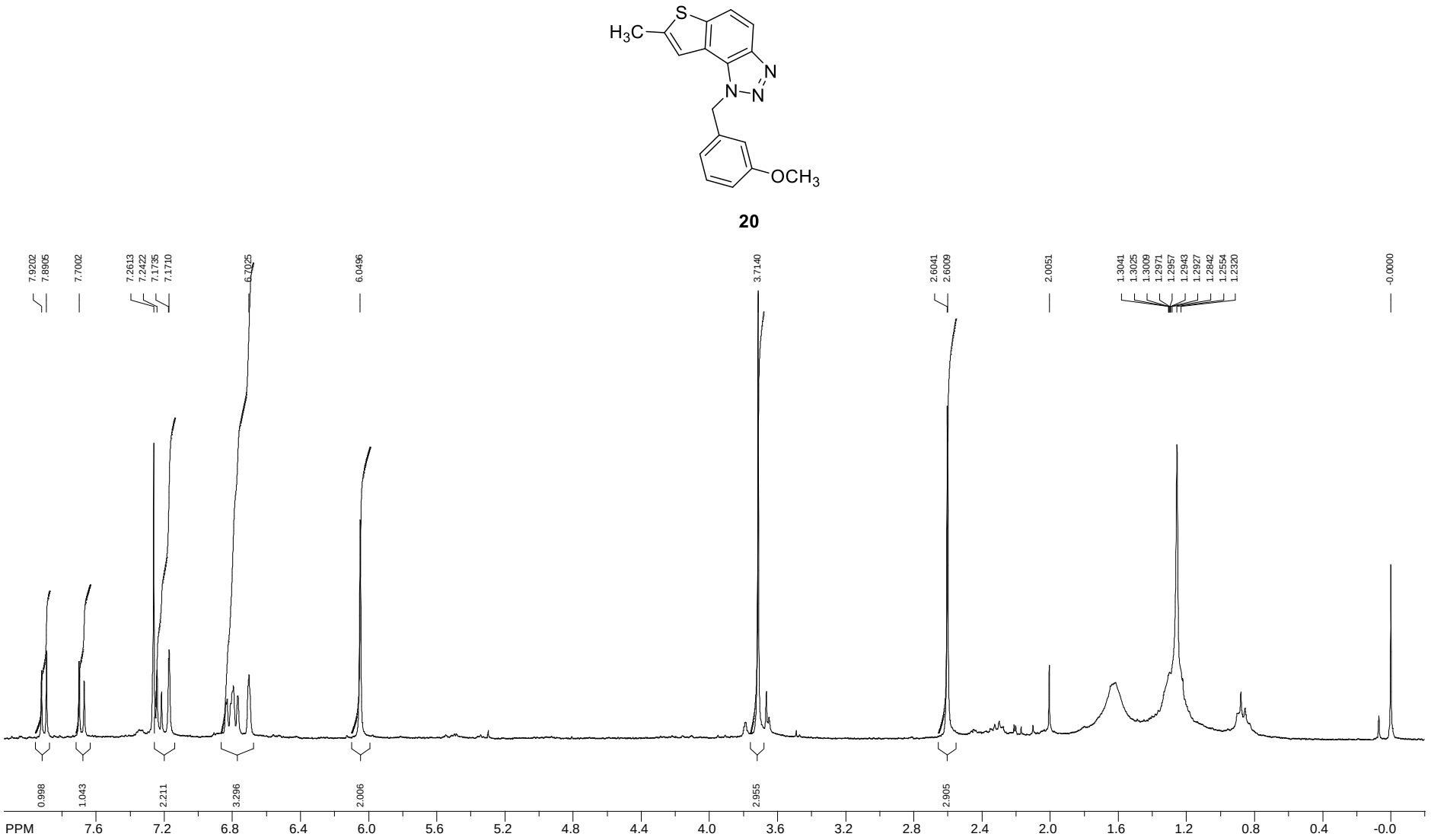


Figure S51. ^{1}H NMR ($CDCl_3$) spectrum of **20**.

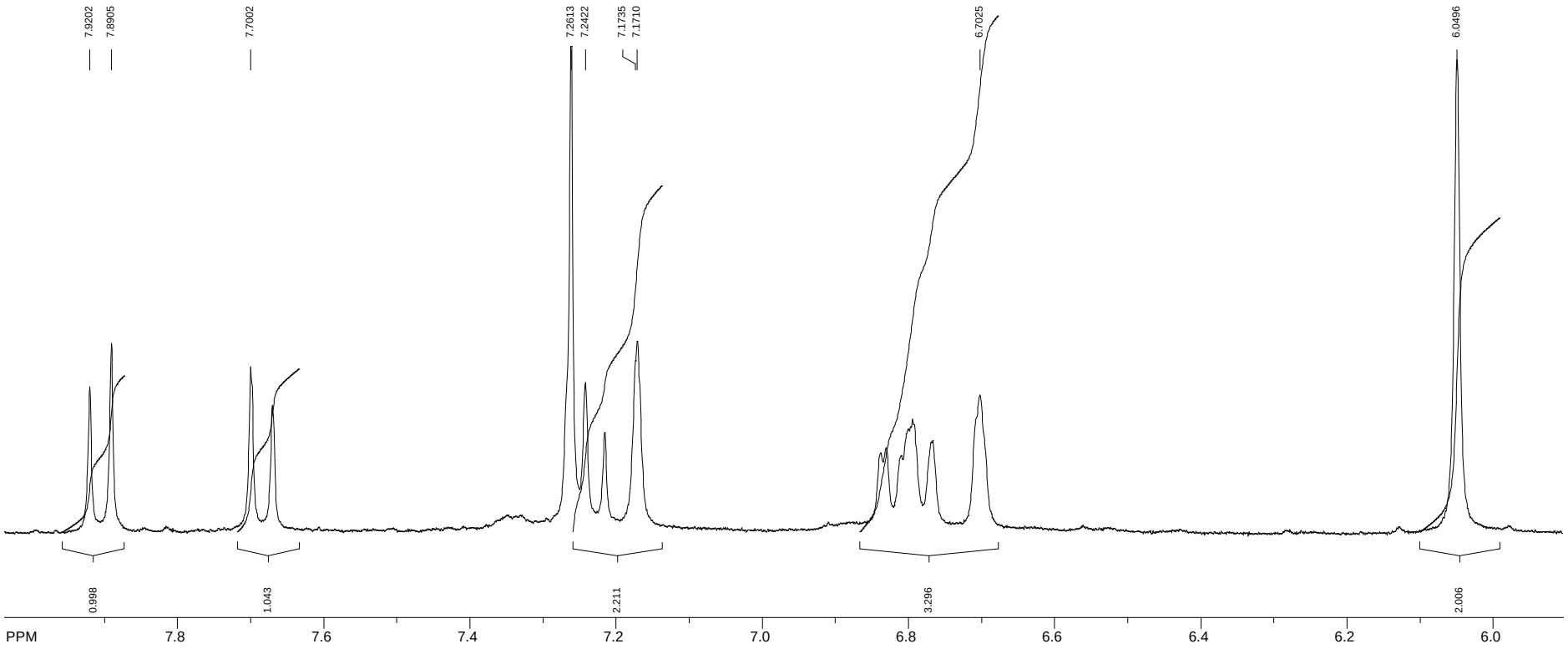
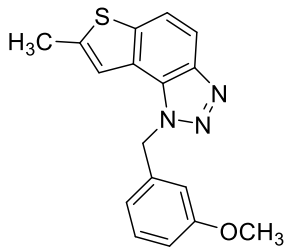


Figure S52. Aromatic part of the ^{1}H NMR ($CDCl_3$) spectrum of **20**.


S
H3C
N
N
N
OCH3

20

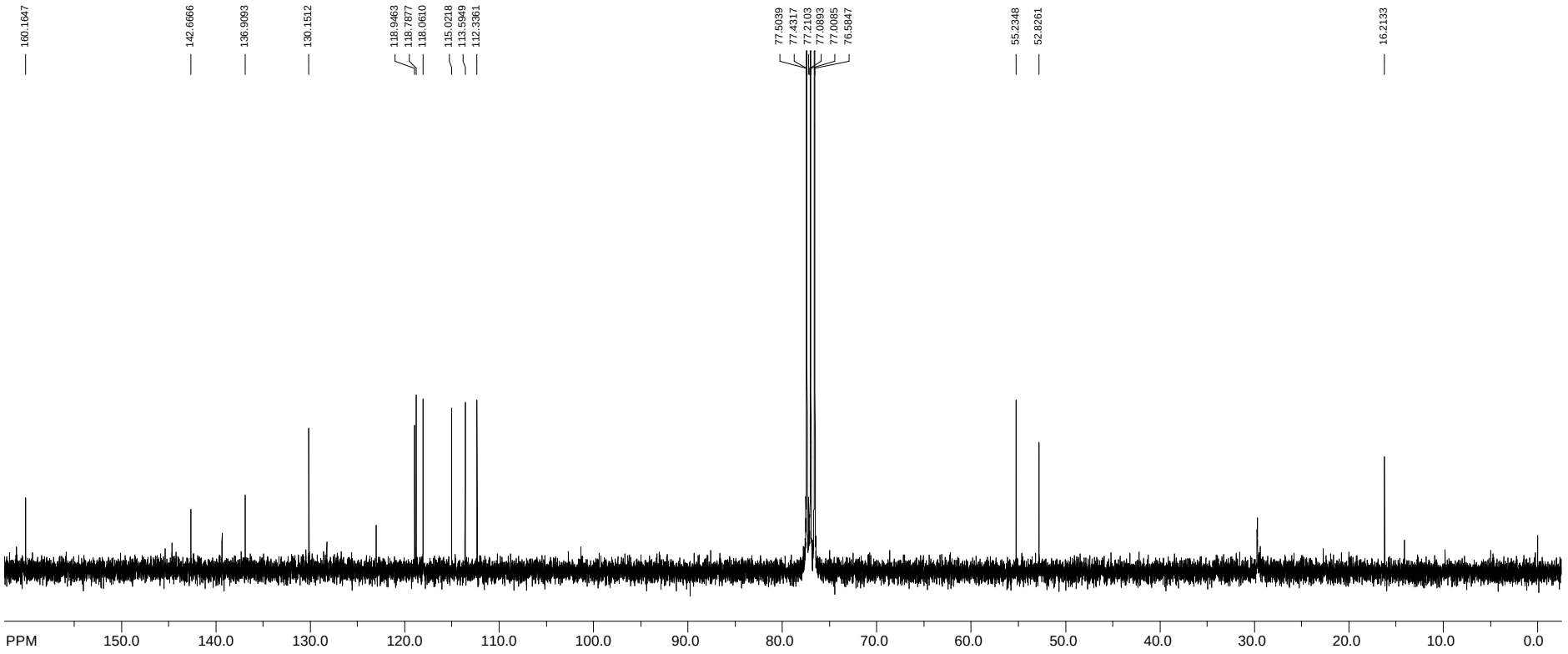

160.1647
142.6666
136.9093
130.1512
118.9463
118.7877
118.0610
115.0218
113.5949
112.3361
77.5039
77.4317
77.2103
77.0893
77.0085
76.5847
55.2348
52.8261
16.2133
PPM
150.0
140.0
130.0
120.0
110.0
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0

Figure S53. ^{13}C NMR ($CDCl_3$) spectrum of **20**.

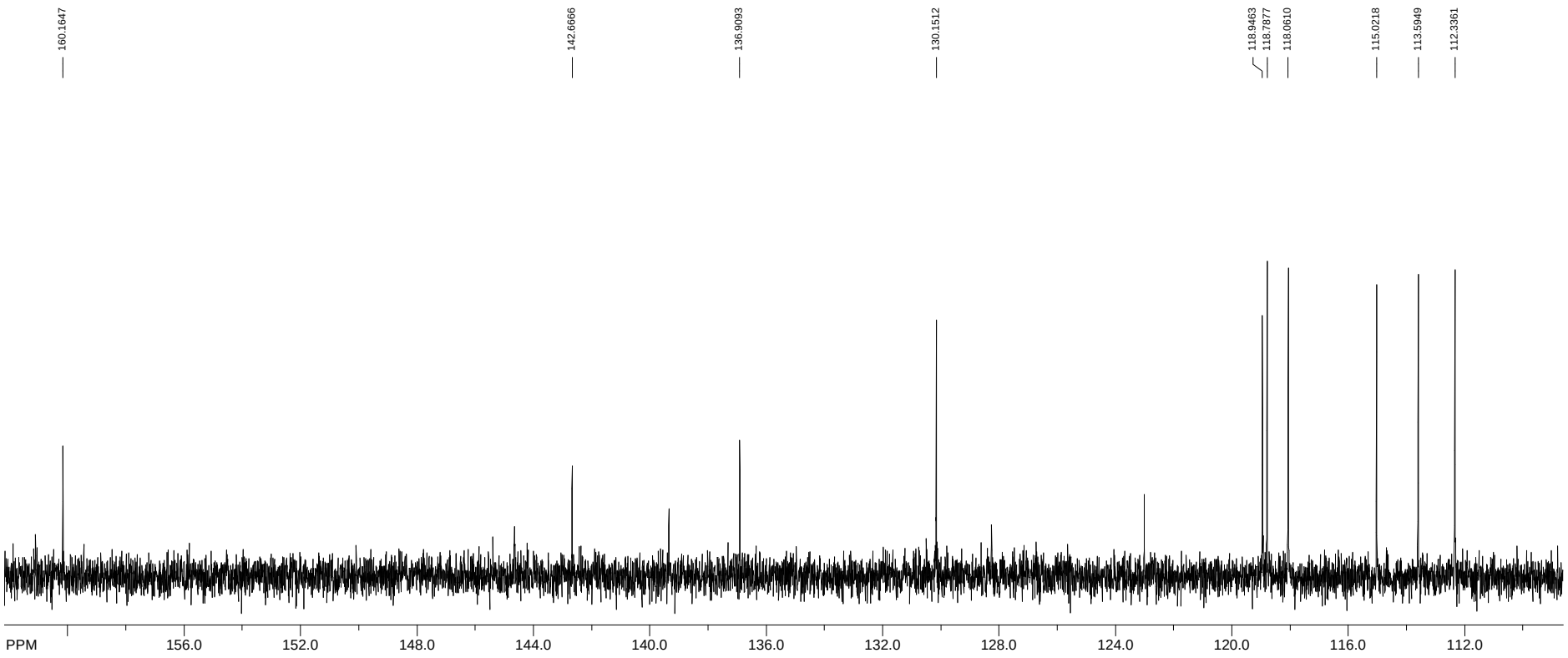
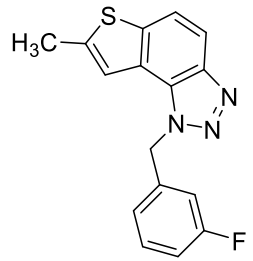


Figure S54. Aromatic part of the ^{13}C NMR ($CDCl_3$) spectrum of **20**.


S
H3C
N
N
N
F

21

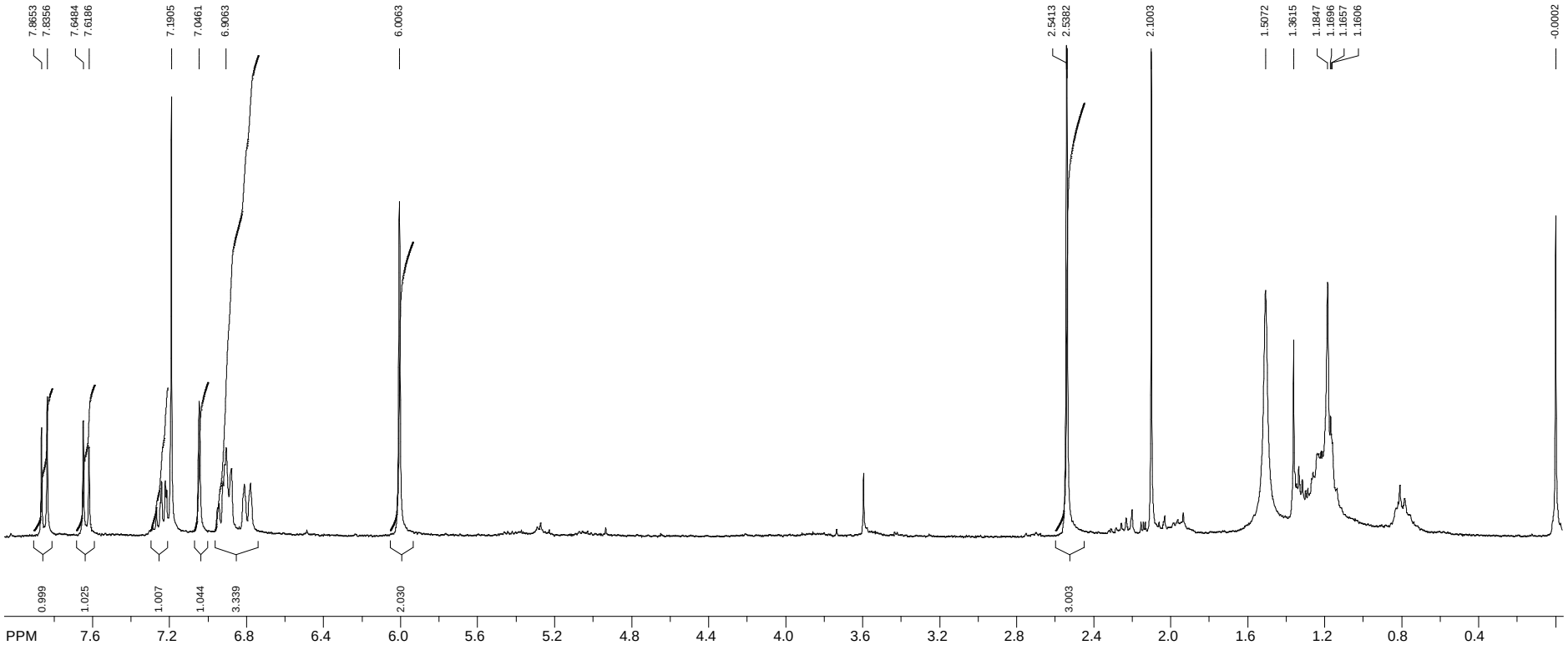

7.8653
7.8356
7.6484
7.6186
7.1905
7.0461
6.9063
6.0063
2.5413
2.5382
2.1003
1.5072
1.3615
1.1847
1.1696
1.1657
1.1606
-0.0002
0.999
1.025
1.007
1.044
3.339
2.030
3.003
PPM
7.6
7.2
6.8
6.4
6.0
5.6
5.2
4.8
4.4
4.0
3.6
3.2
2.8
2.4
2.0
1.6
1.2
0.8
0.4

Figure S55. ^{1}H NMR ($CDCl_3$) spectrum of **21**.

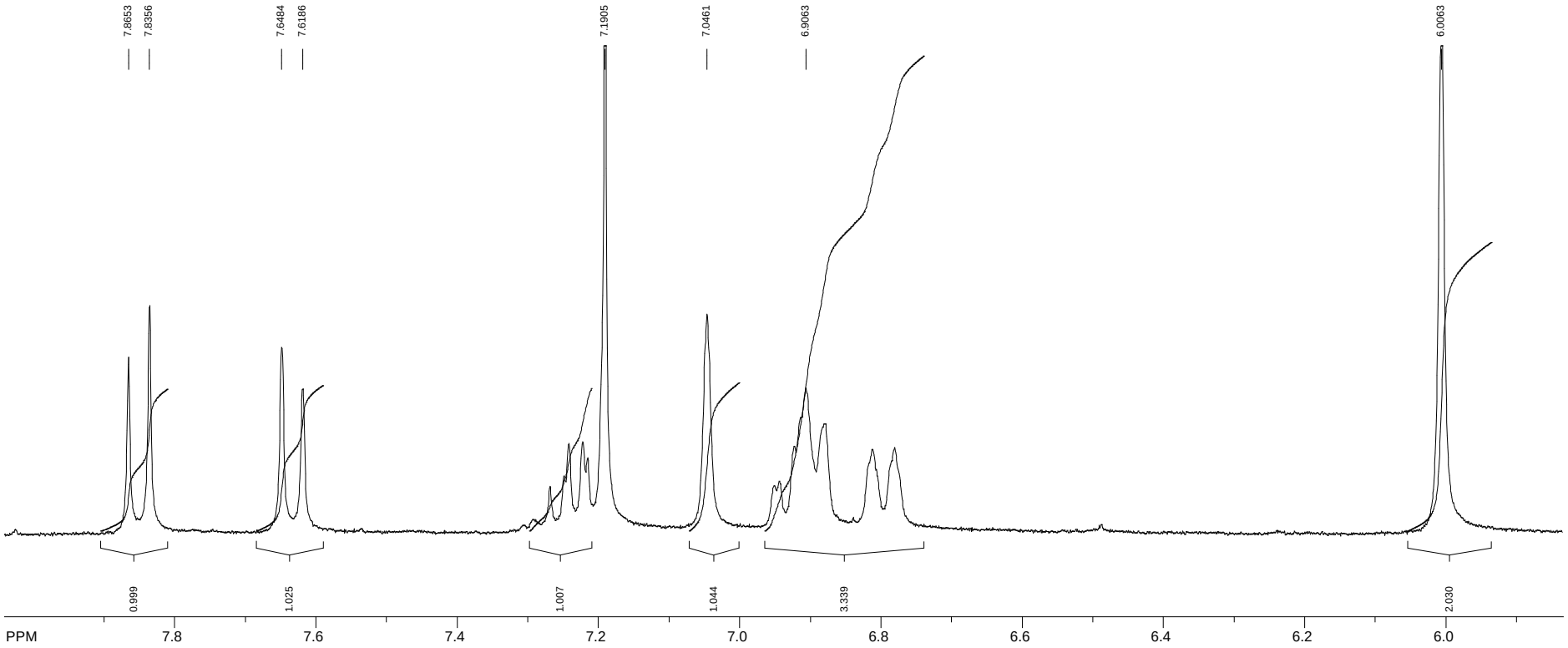
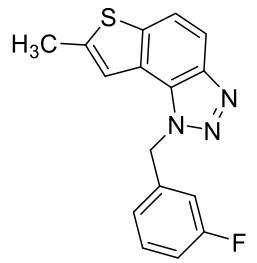


Figure S56. Aromatic part of the ^{1}H NMR ($CDCl_3$) spectrum of **21**.


S
H3C
N
N
N
F

21

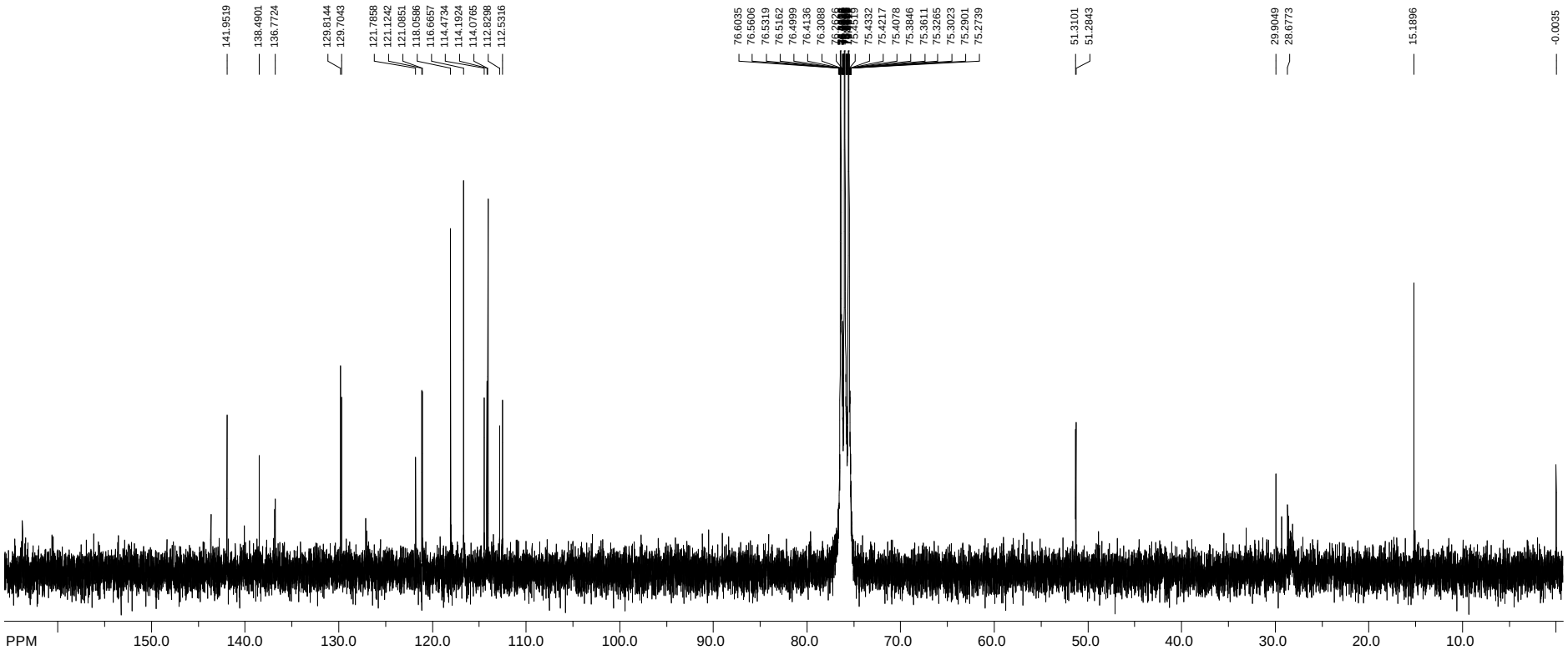

141.9519
138.4901
136.7724
129.8144
129.7043
121.7858
121.1242
121.0851
118.0596
116.6657
114.4734
114.1924
114.0765
112.8298
112.5316
76.6035
76.5606
76.5319
76.5162
76.4999
76.4136
76.3088
75.4332
75.4217
75.4078
75.3846
75.3611
75.3265
75.3023
75.2901
75.2739
51.3101
51.2843
29.9049
28.6773
15.1896
-0.0035
PPM
150.0
140.0
130.0
120.0
110.0
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0

Figure S57. ^{13}C NMR ($CDCl_3$) spectrum of **21**.

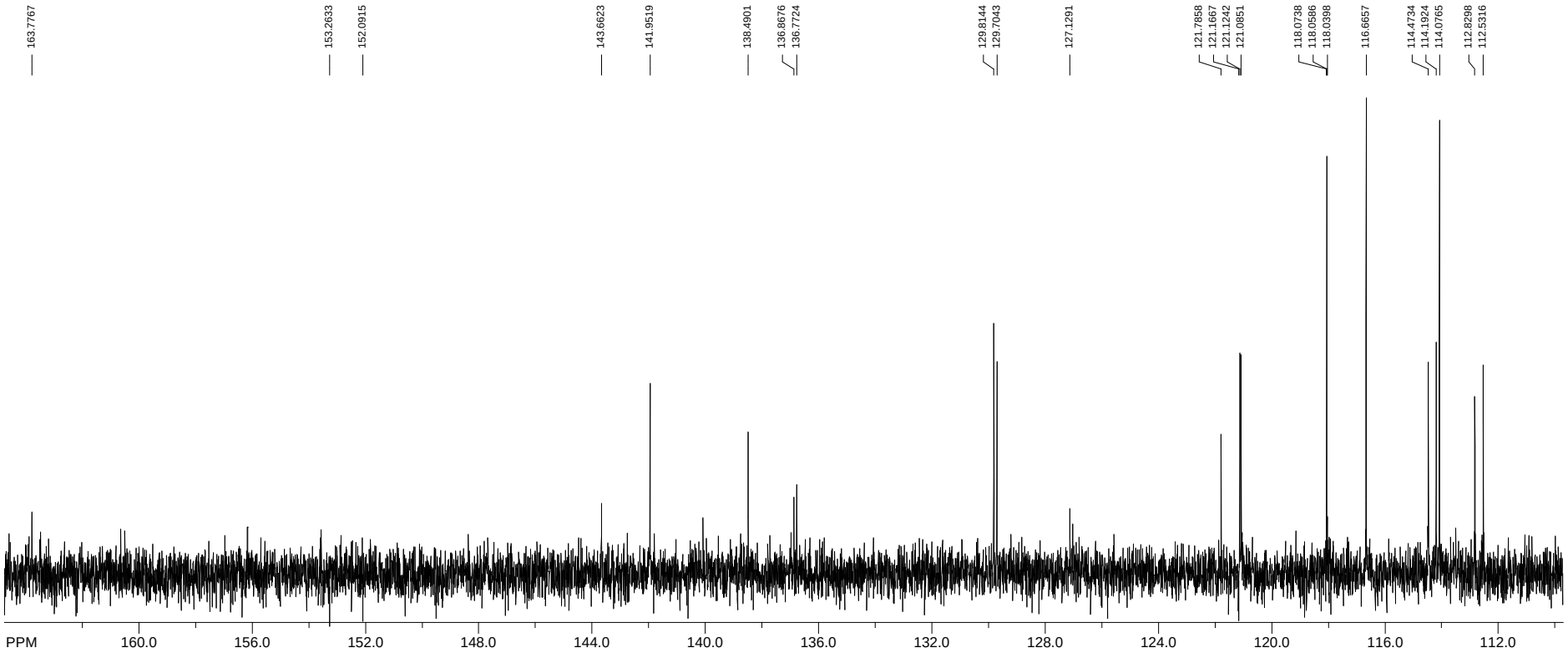
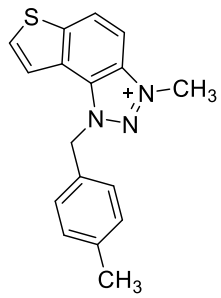


Figure S58. Aromatic part of the ^{13}C NMR ($CDCl_3$) spectrum of **21**.


S
+N–CH3
N–N
CH3

22

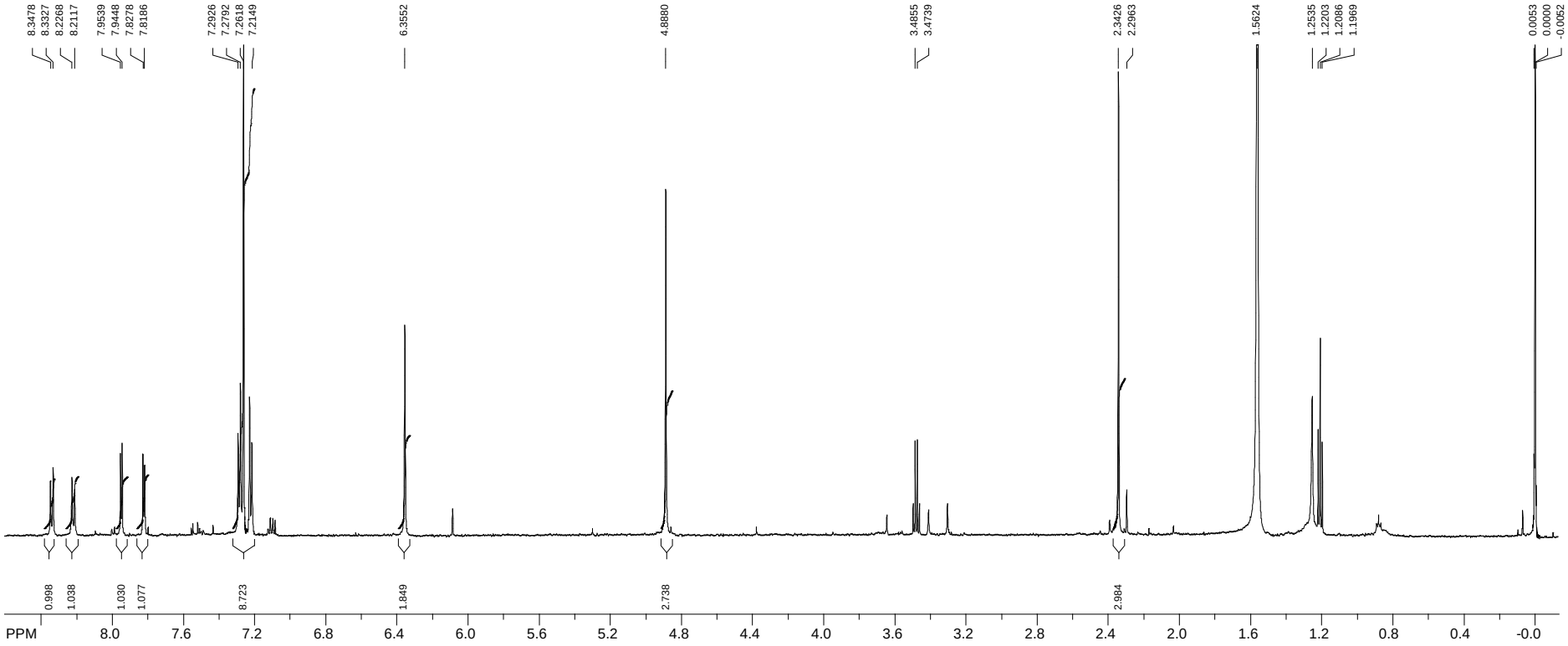

8.3478
8.3327
8.2268
8.2117
7.9539
7.9448
7.8278
7.8186
7.2926
7.2792
7.2618
7.2149
6.3552
4.8880
3.4855
3.4739
2.3426
2.2963
1.5624
1.2535
1.2203
1.2086
1.1969
0.0053
0.0000
-0.0052
0.998
1.038
1.030
1.077
8.723
1.849
2.738
2.984
PPM
8.0
7.6
7.2
6.8
6.4
6.0
5.6
5.2
4.8
4.4
4.0
3.6
3.2
2.8
2.4
2.0
1.6
1.2
0.8
0.4
-0.0

Figure S59. ^{1}H NMR ($CDCl_3$) spectrum of **22**.

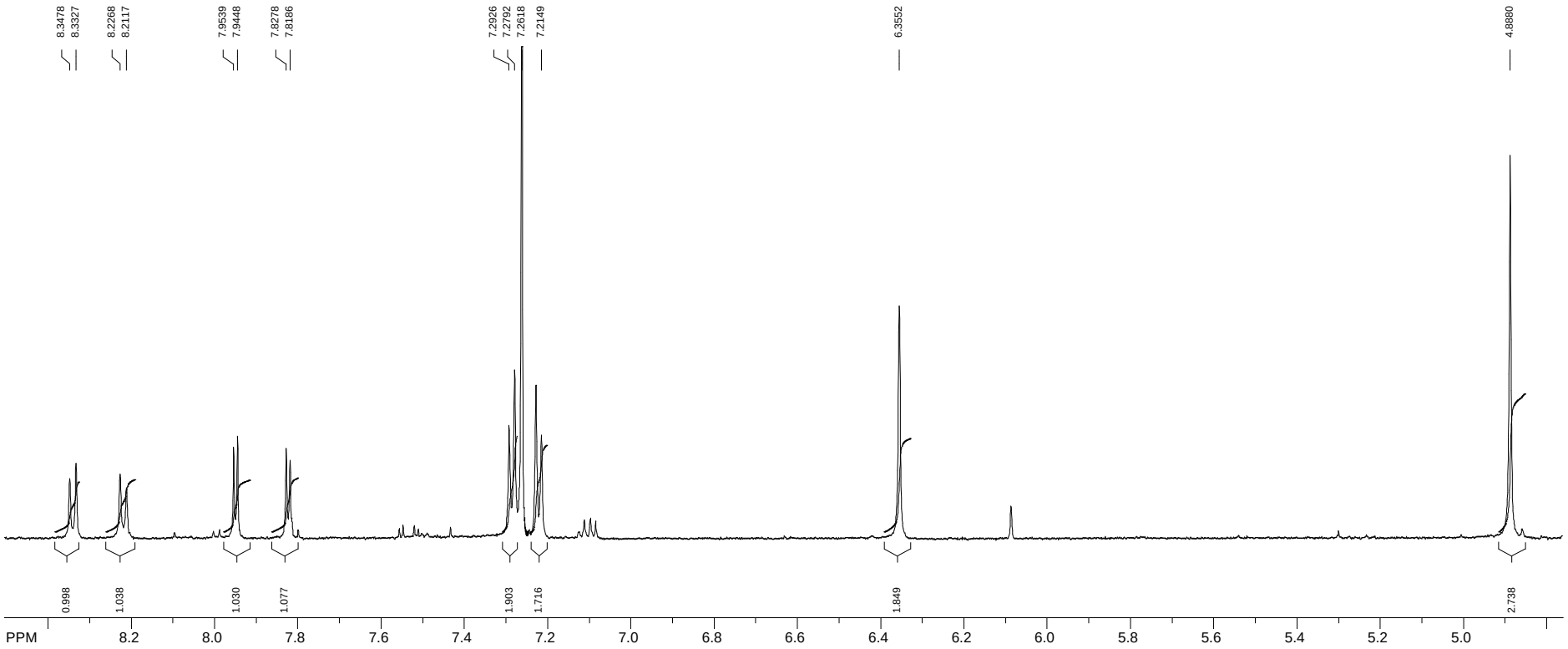


Figure S60. Aromatic part of the ^{1}H NMR ($CDCl_3$) spectrum of **22**.

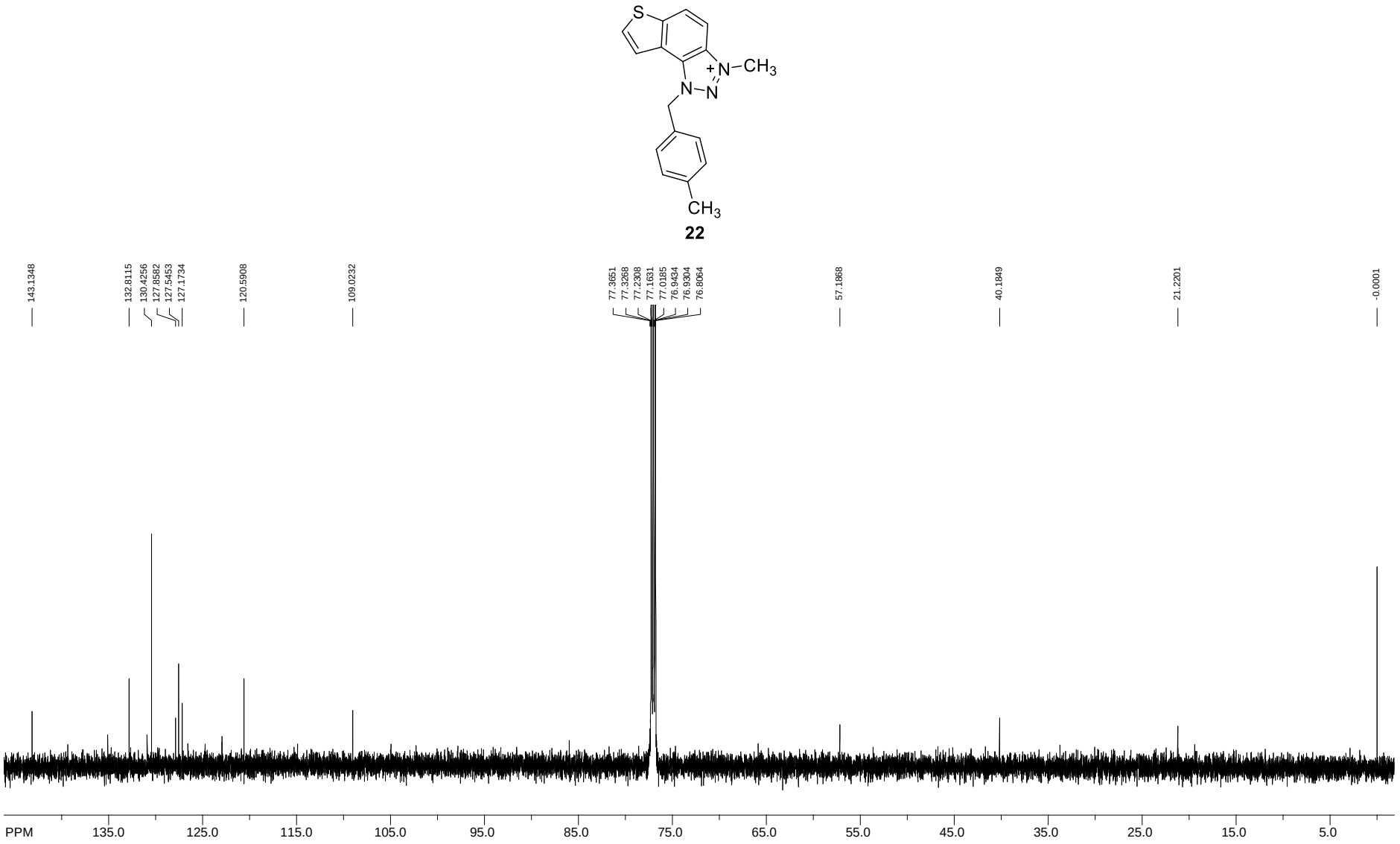


Figure S61. ^{13}C NMR ($CDCl_3$) spectrum of **22**.

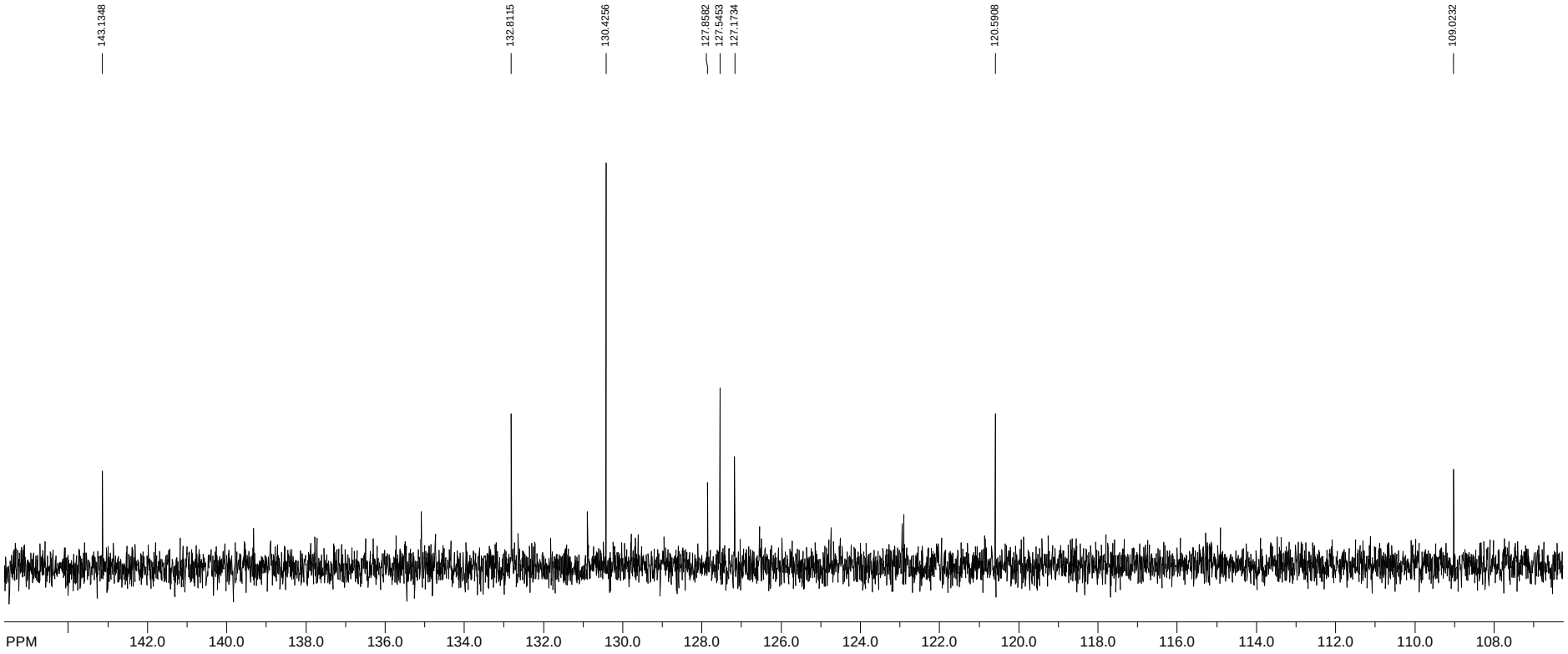


Figure S62. Aromatic part of the ^{13}C NMR ($CDCl_3$) spectrum of **22**.

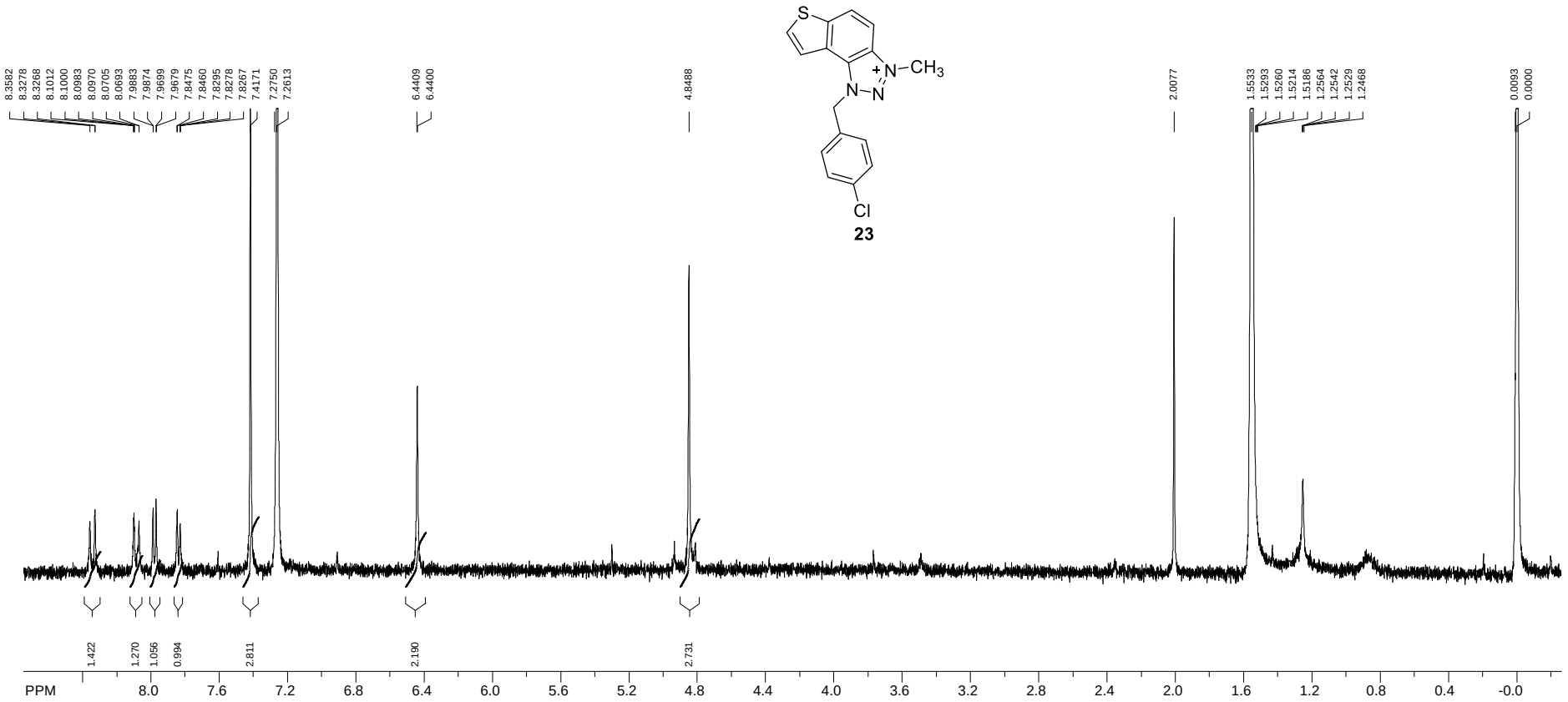


Figure S63. ^{1}H NMR ($CDCl_3$) spectrum of **23**.

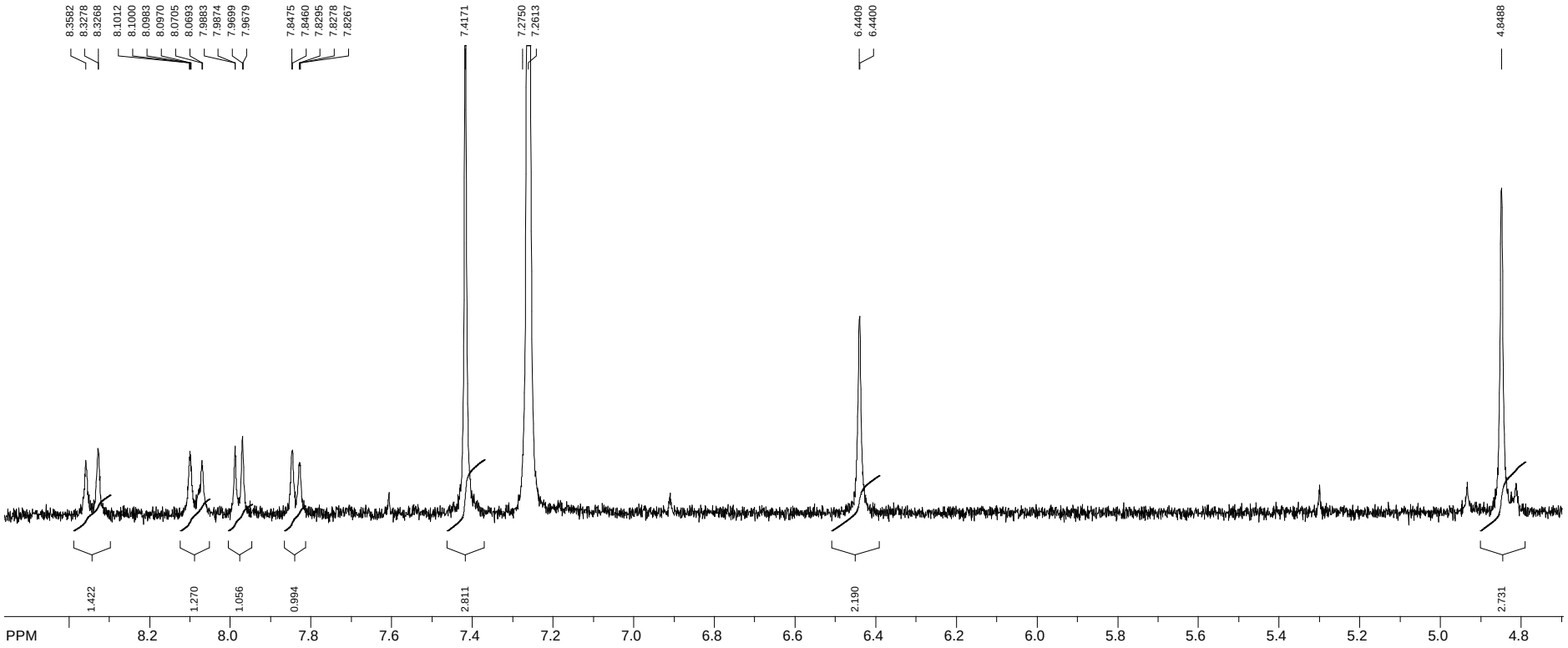


Figure S64. Part of the ^{1}H NMR ($CDCl_3$) spectrum of **23**.

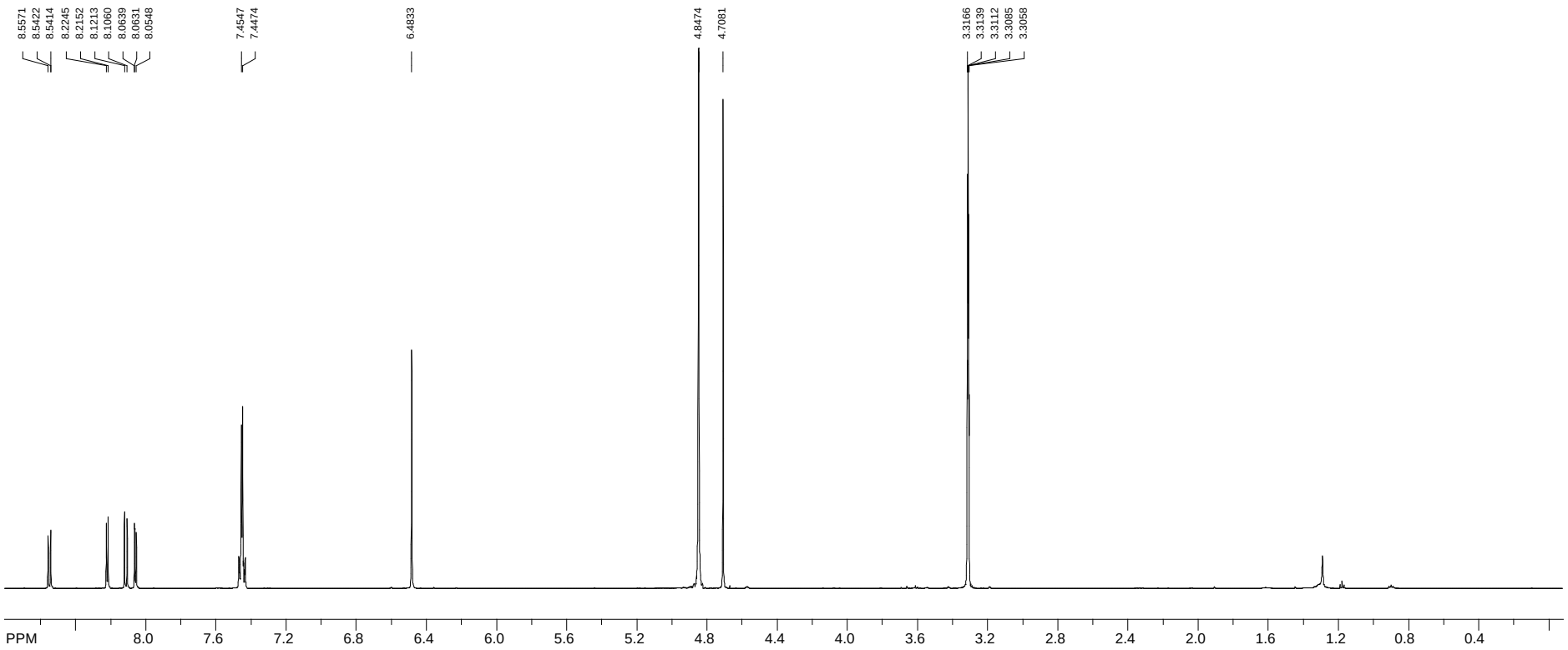


Figure S65. ^{1}H NMR (CD_3OD) spectrum of **23**.

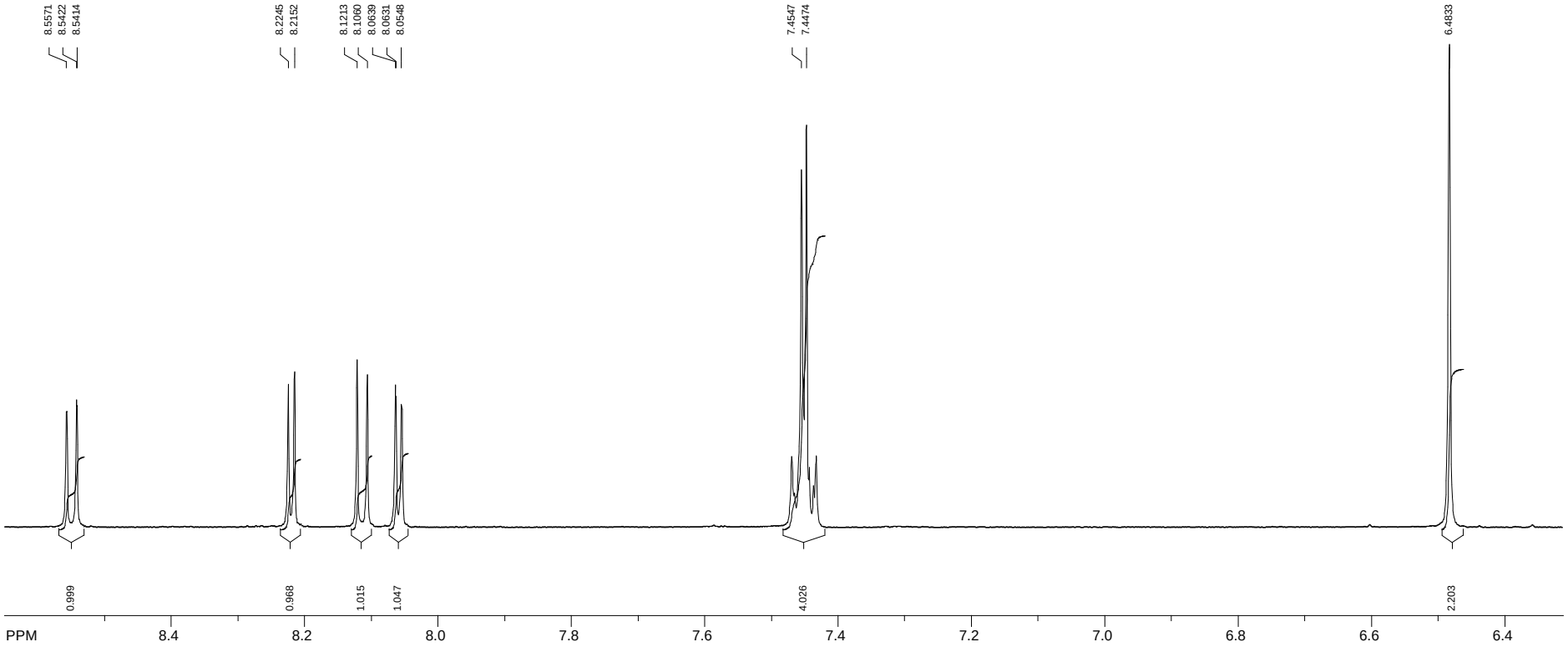


Figure S66. Part of the ^{1}H NMR (CD_3OD) spectrum of **23**.

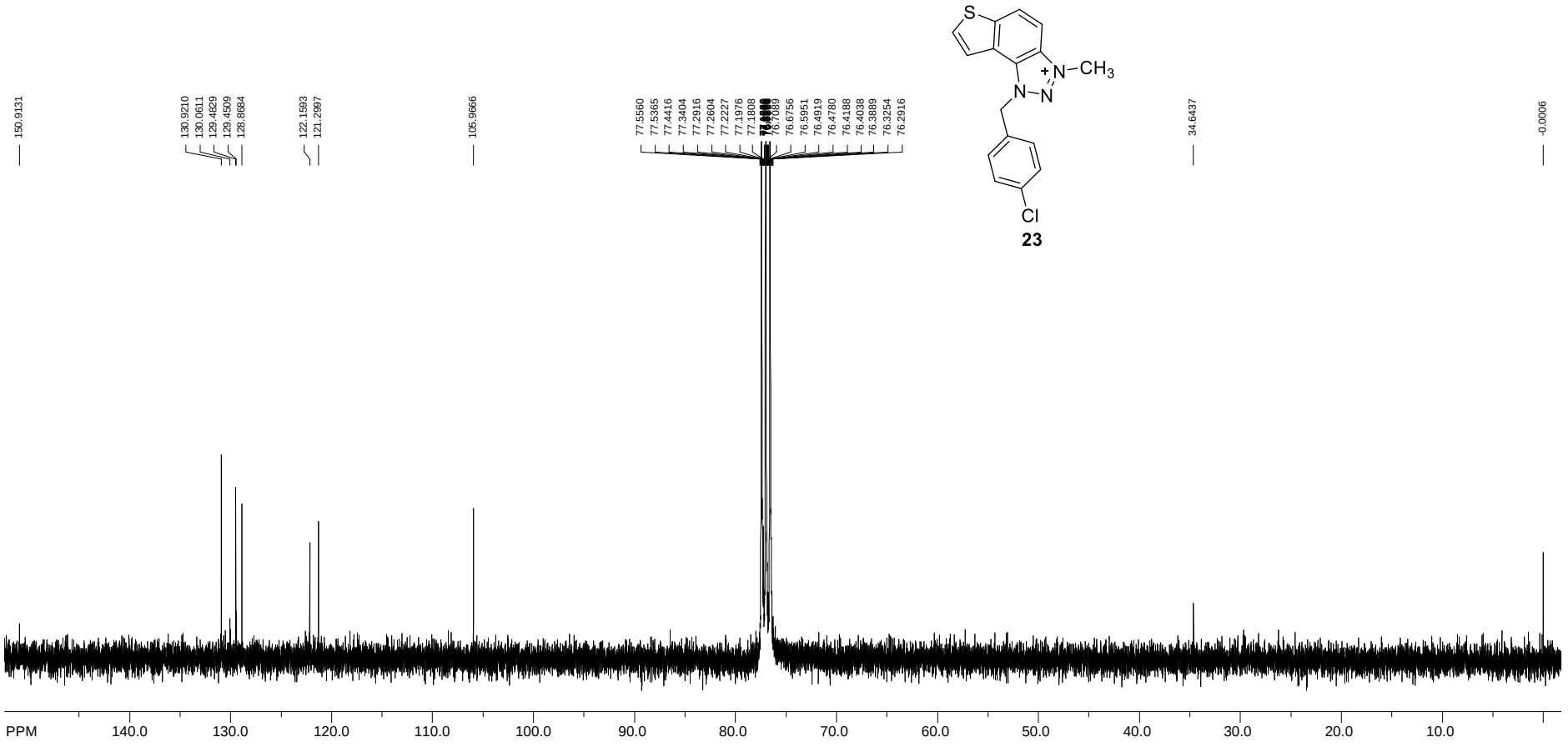


Figure S67. ^{13}C NMR ($CDCl_3$) spectrum of **23**.

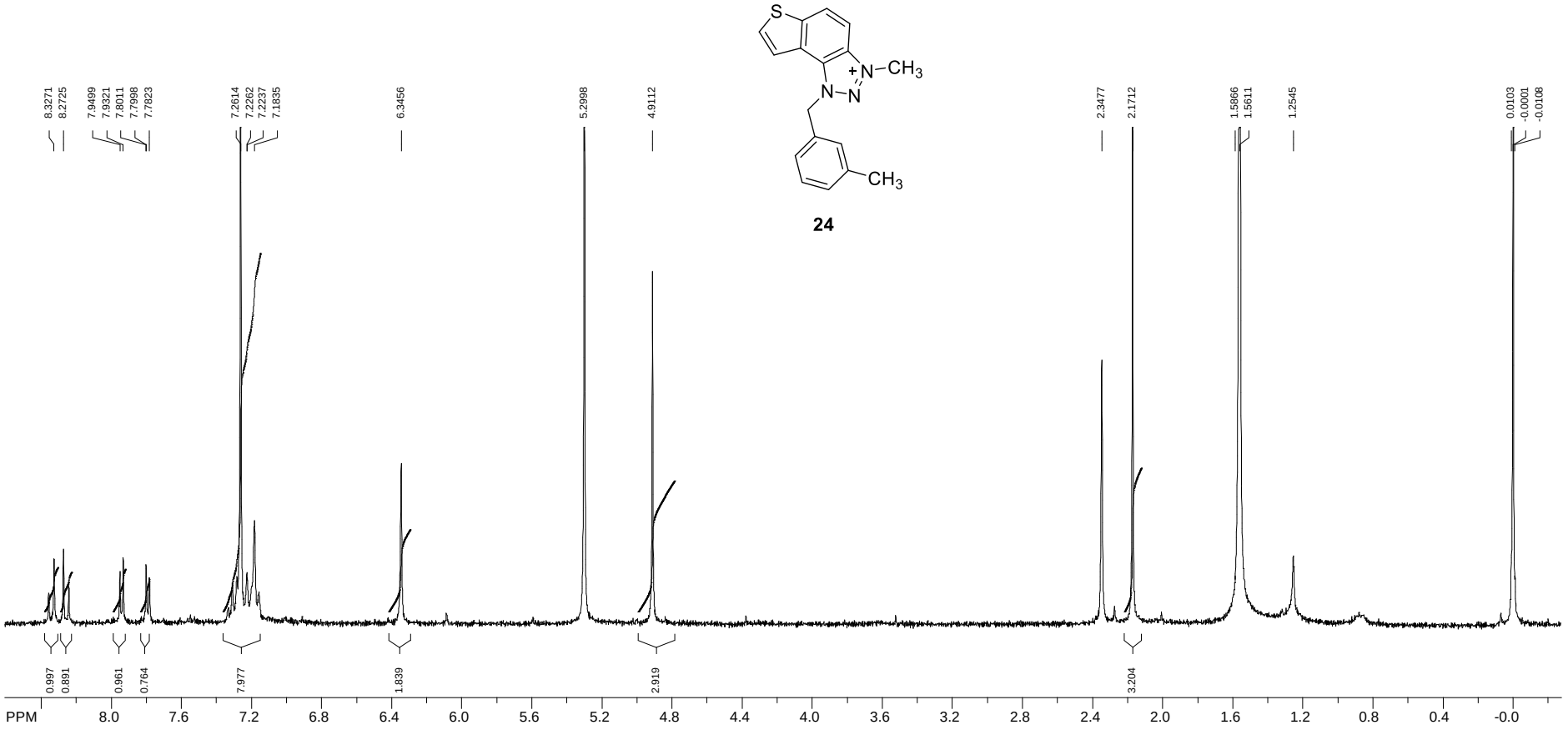


Figure S68. ^{1}H NMR ($CDCl_3$) spectrum of **24**.

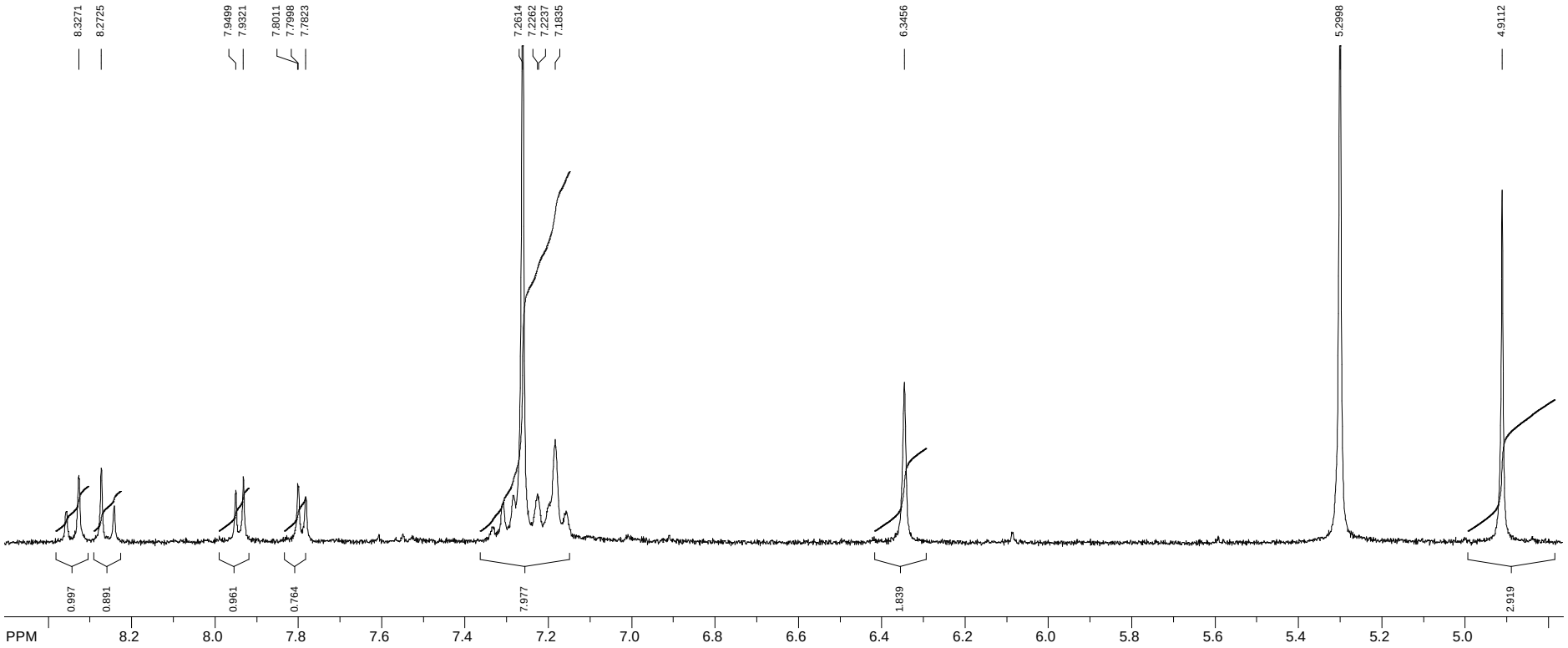


Figure S69. Part of the ^{1}H NMR ($CDCl_3$) spectrum of **24**.

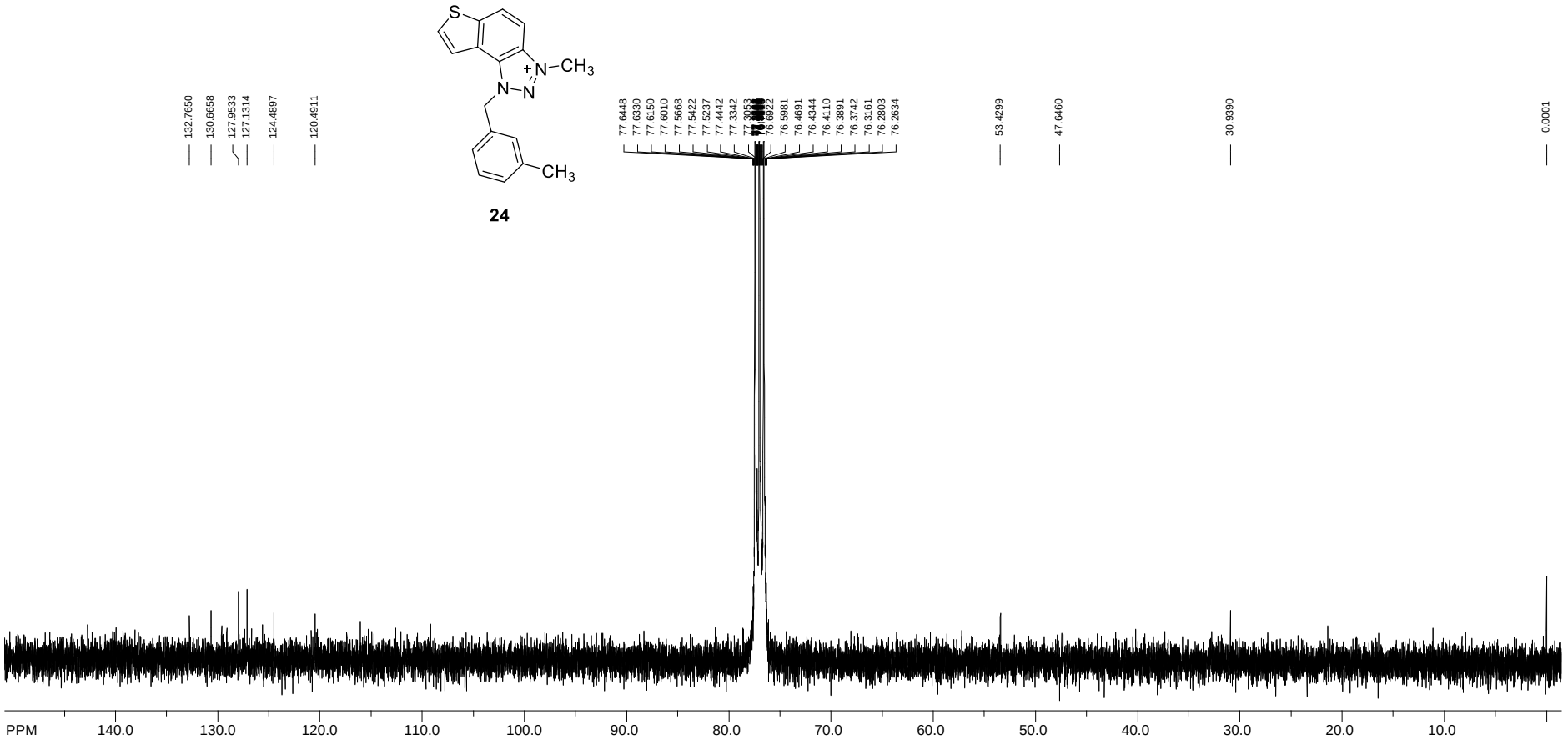


Figure S70. ^{13}C NMR ($CDCl_3$) spectrum of **24**.

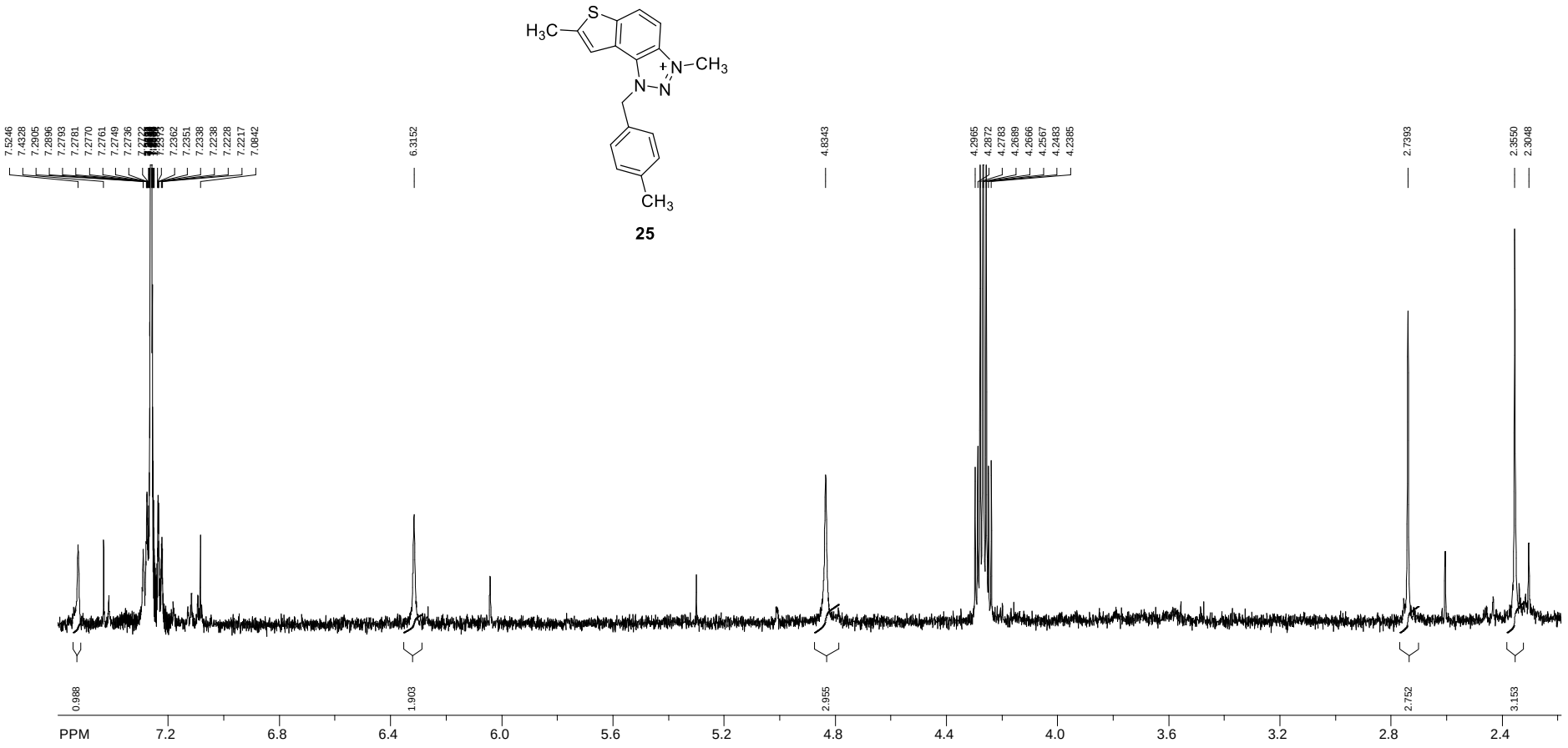


Figure S71. ^{1}H NMR ($CDCl_3$) spectrum of **25** (with traces of non-charged analogue **17**).

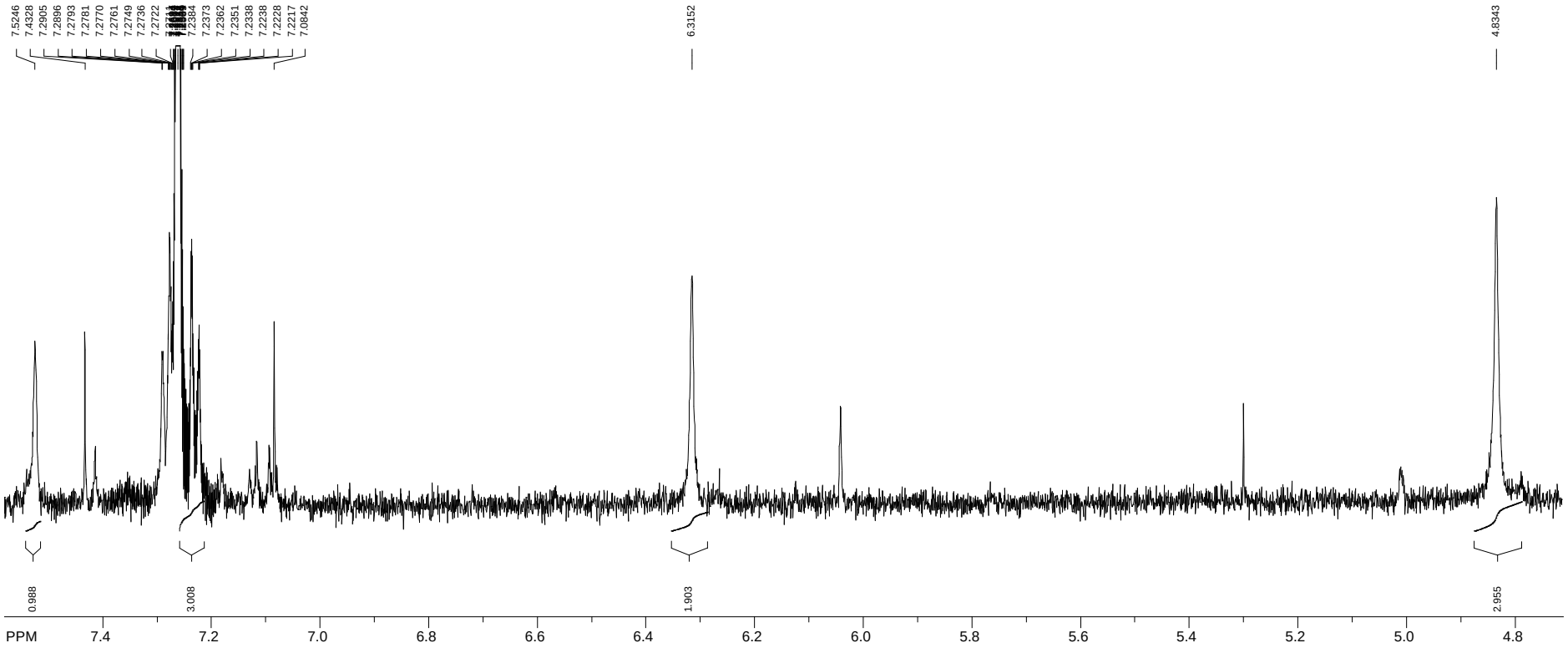


Figure S72. Part of the ^{1}H NMR ($CDCl_3$) spectrum of **25** (with traces of non-charged analogue **17**).

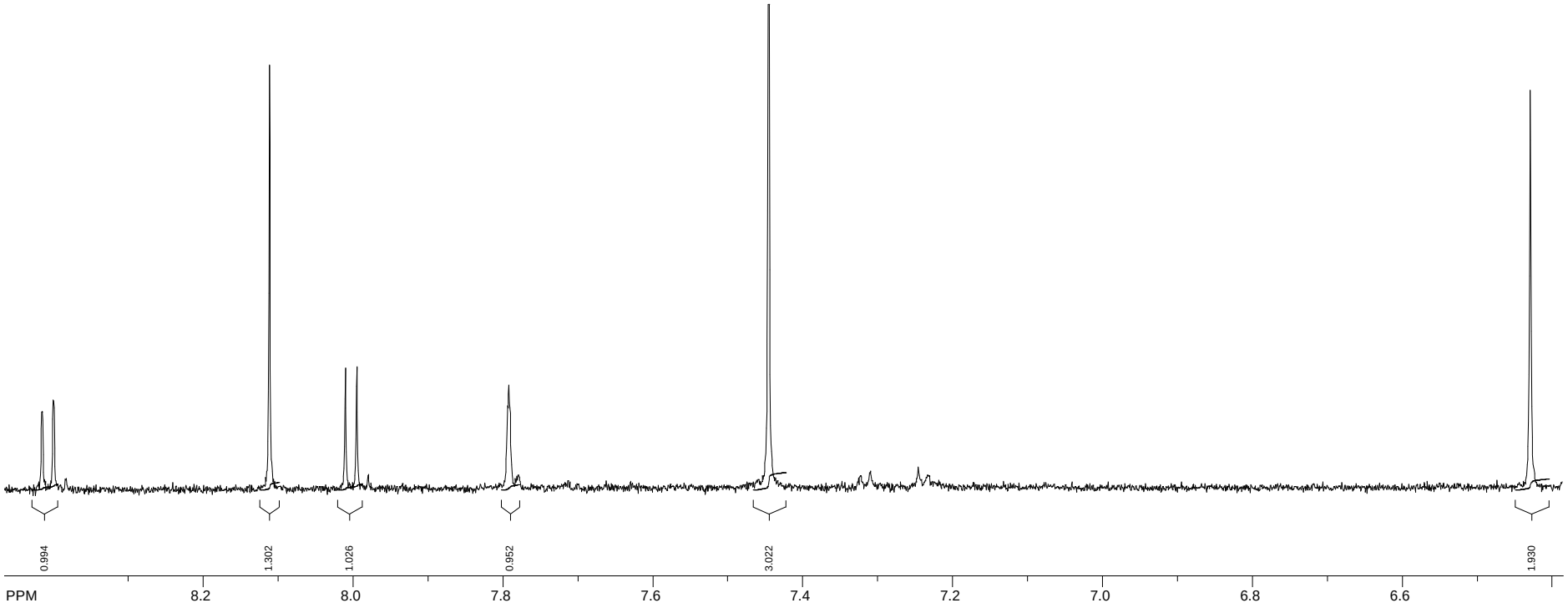


Figure S73. Part of the ^{1}H NMR (CD_3OD) spectrum of **25**.

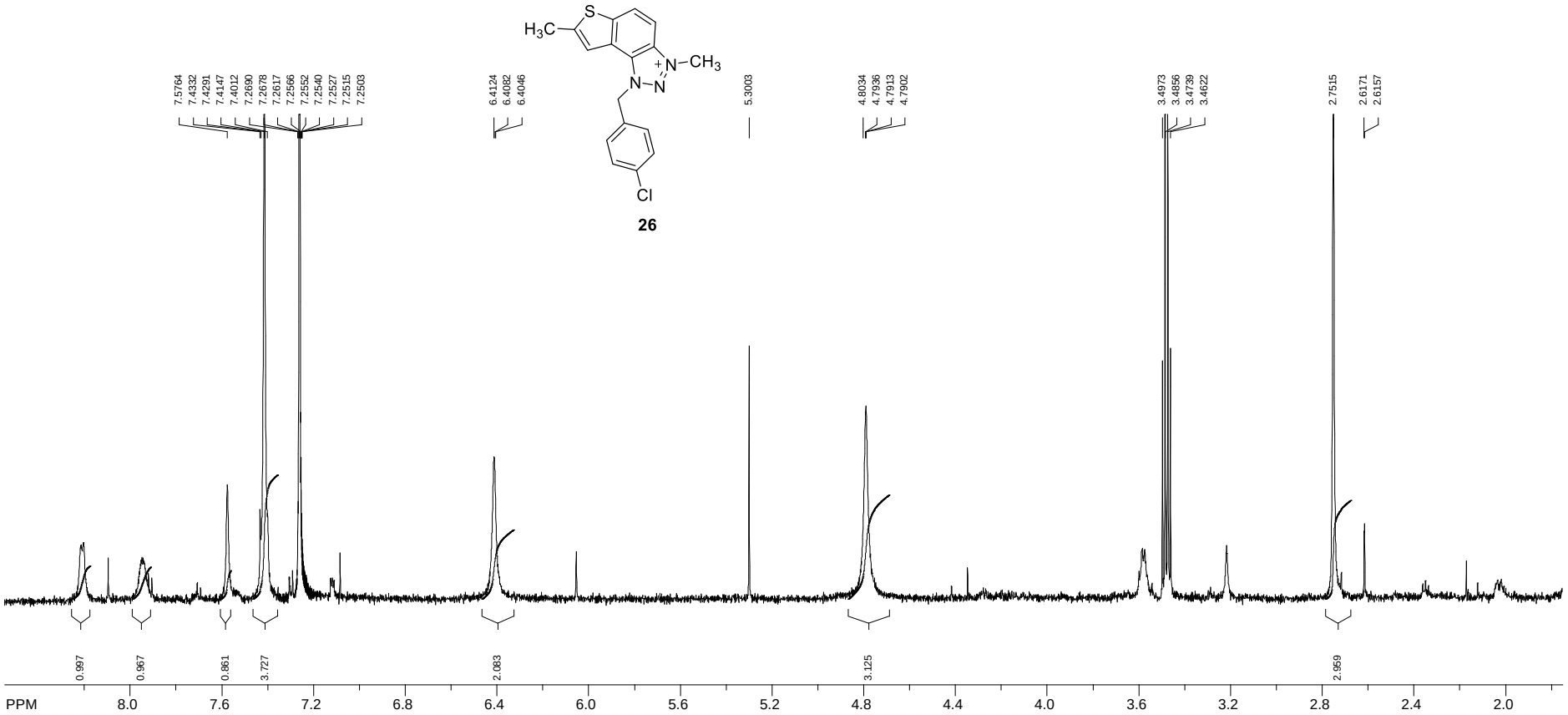


Figure S74. ^{1}H NMR ($CDCl_3$) spectrum of **26** (with traces of non-charged analogue **18**).

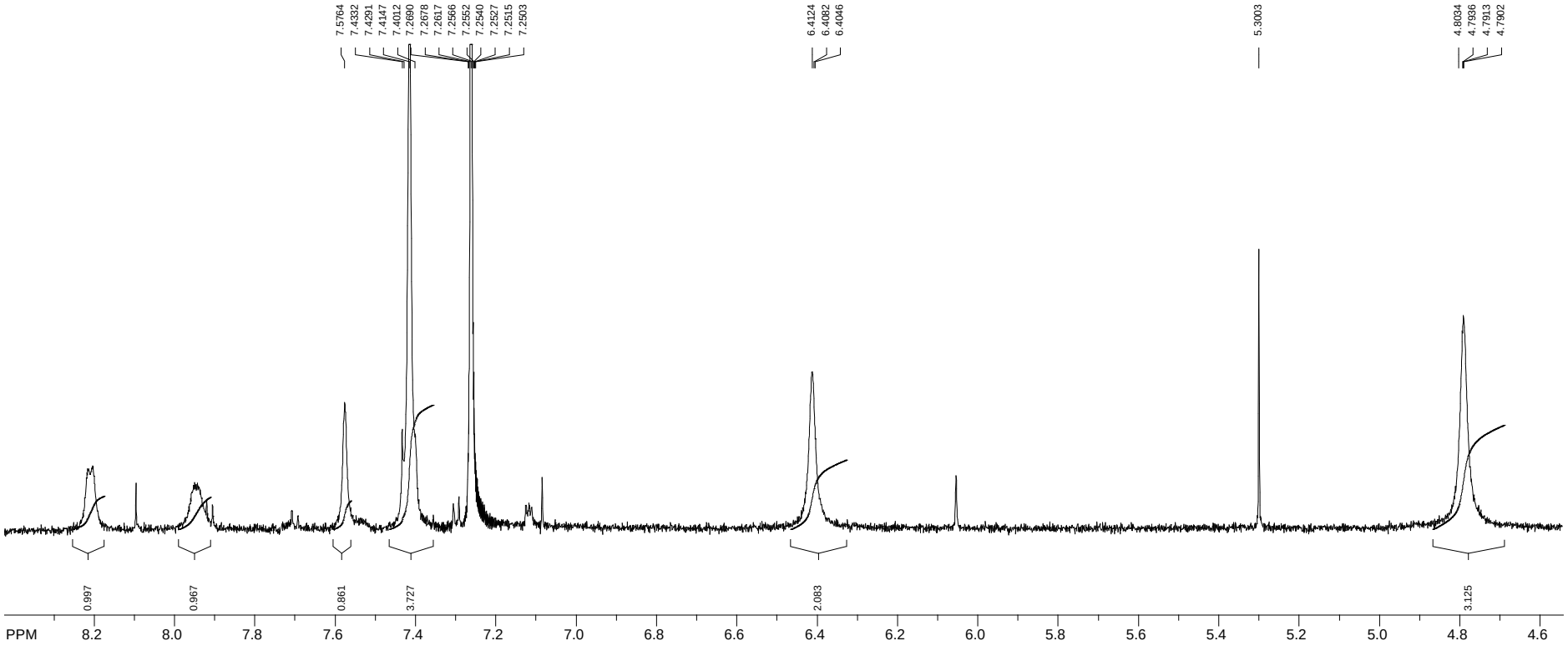


Figure S75. Part of the ^{1}H NMR ($CDCl_3$) spectrum of **26** (with traces of non-charged analogue **18**).

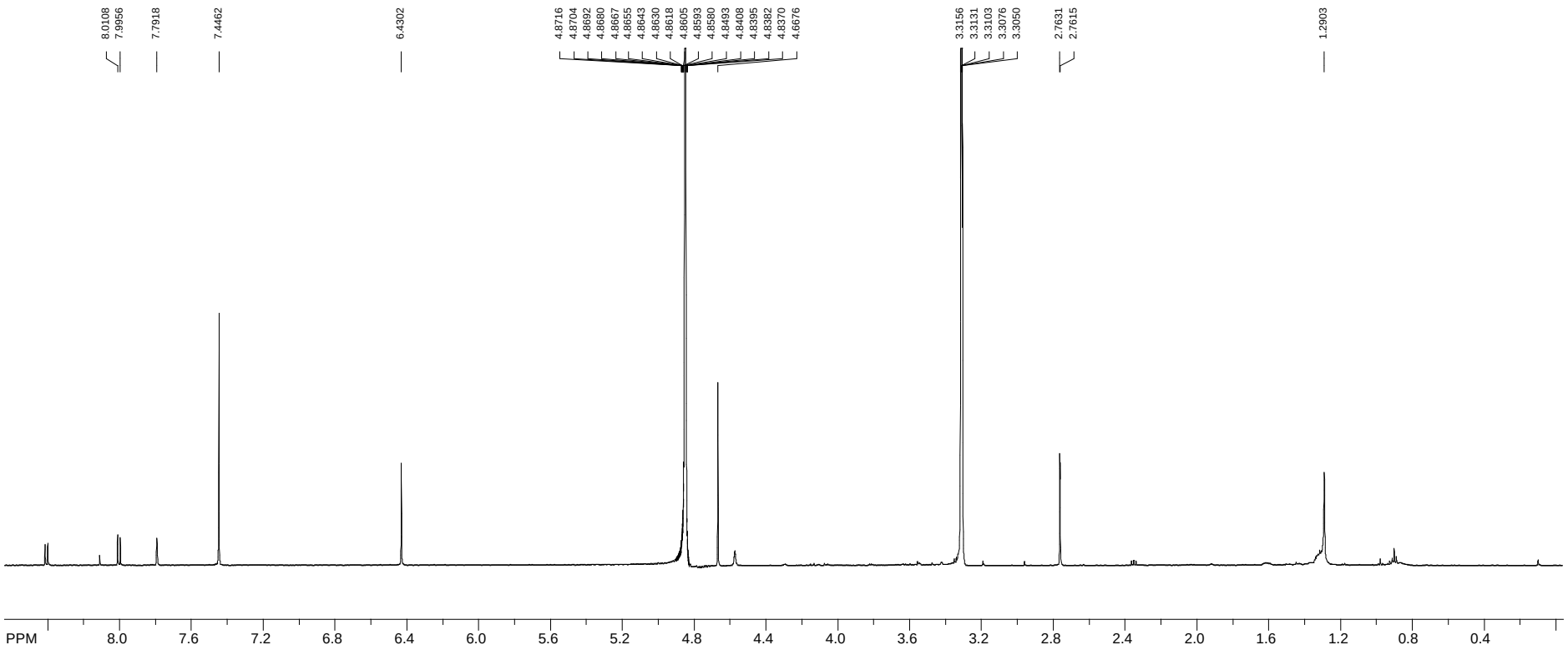


Figure S76. ^{1}H NMR (CD_3OD) spectrum of **26**.

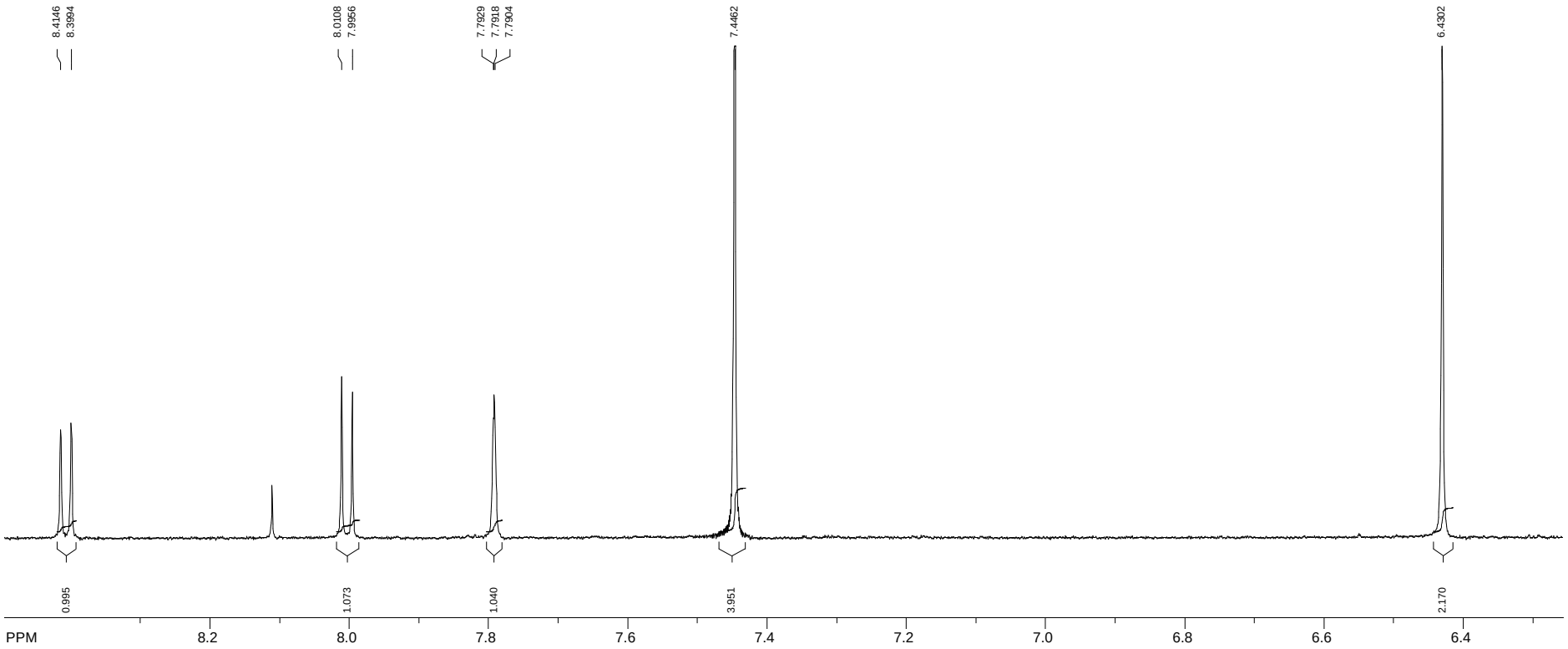


Figure S77. Part of the ^{1}H NMR (CD_3OD) spectrum of **26**.

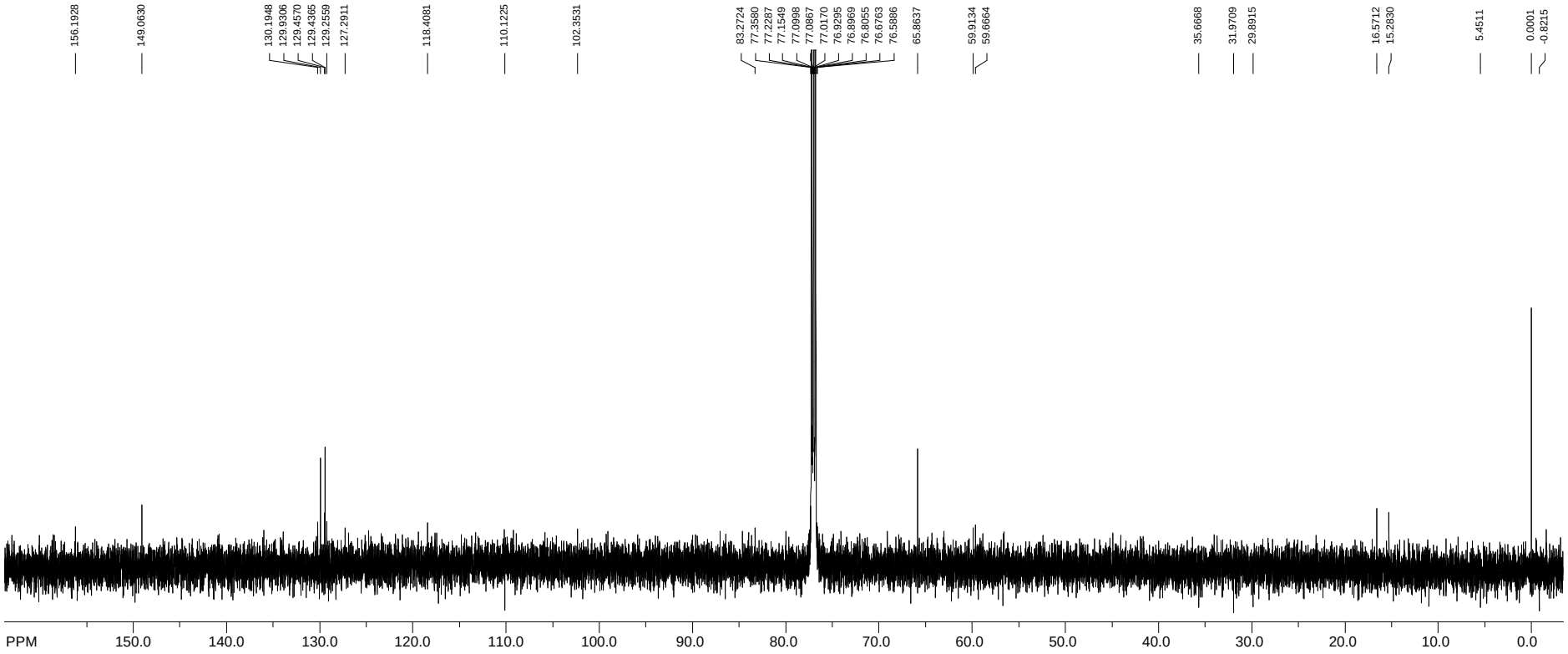


Figure S78. ^{13}C NMR ($CDCl_3$) spectrum of **26**.

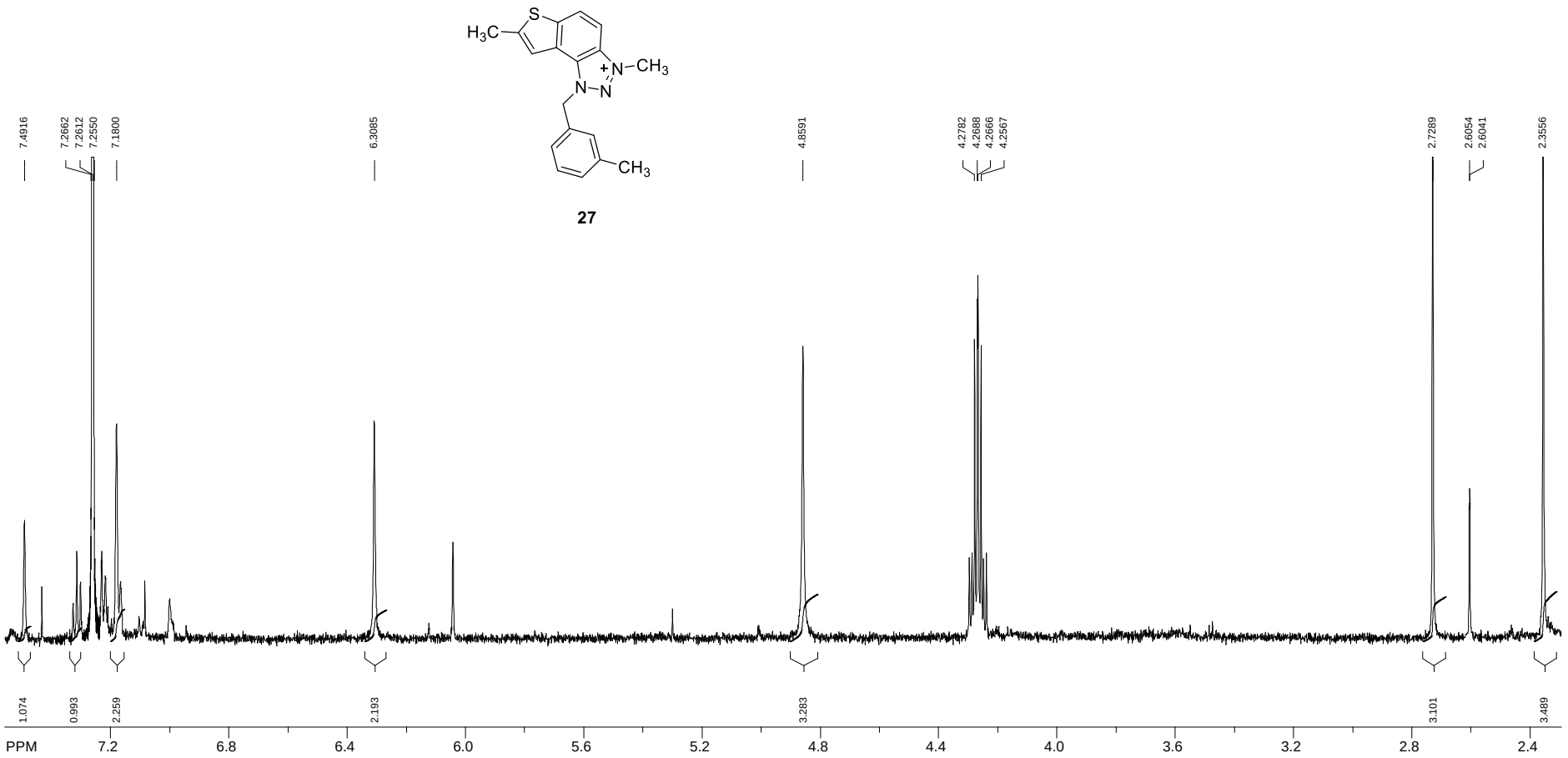


Figure S79. ^{1}H NMR ($CDCl_3$) spectrum of **27** (with traces of non-charged analogue **19**).

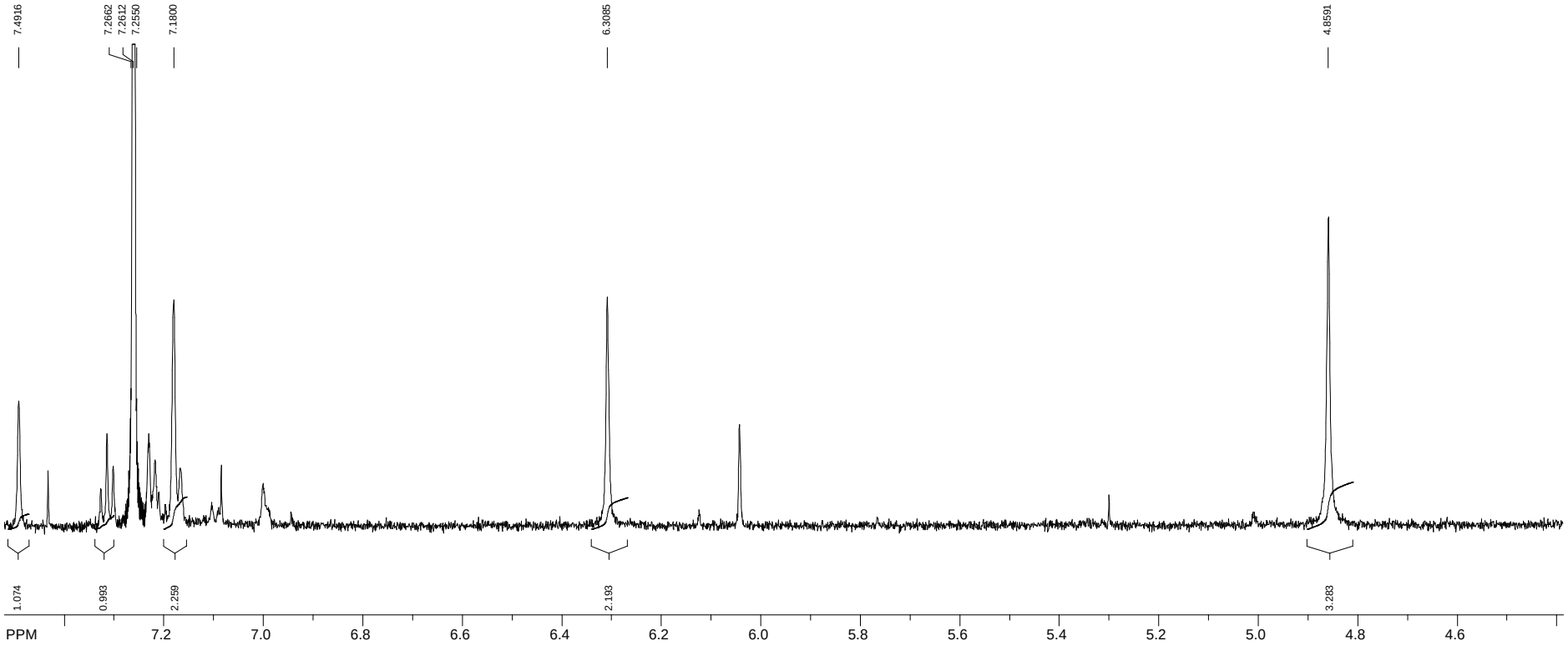
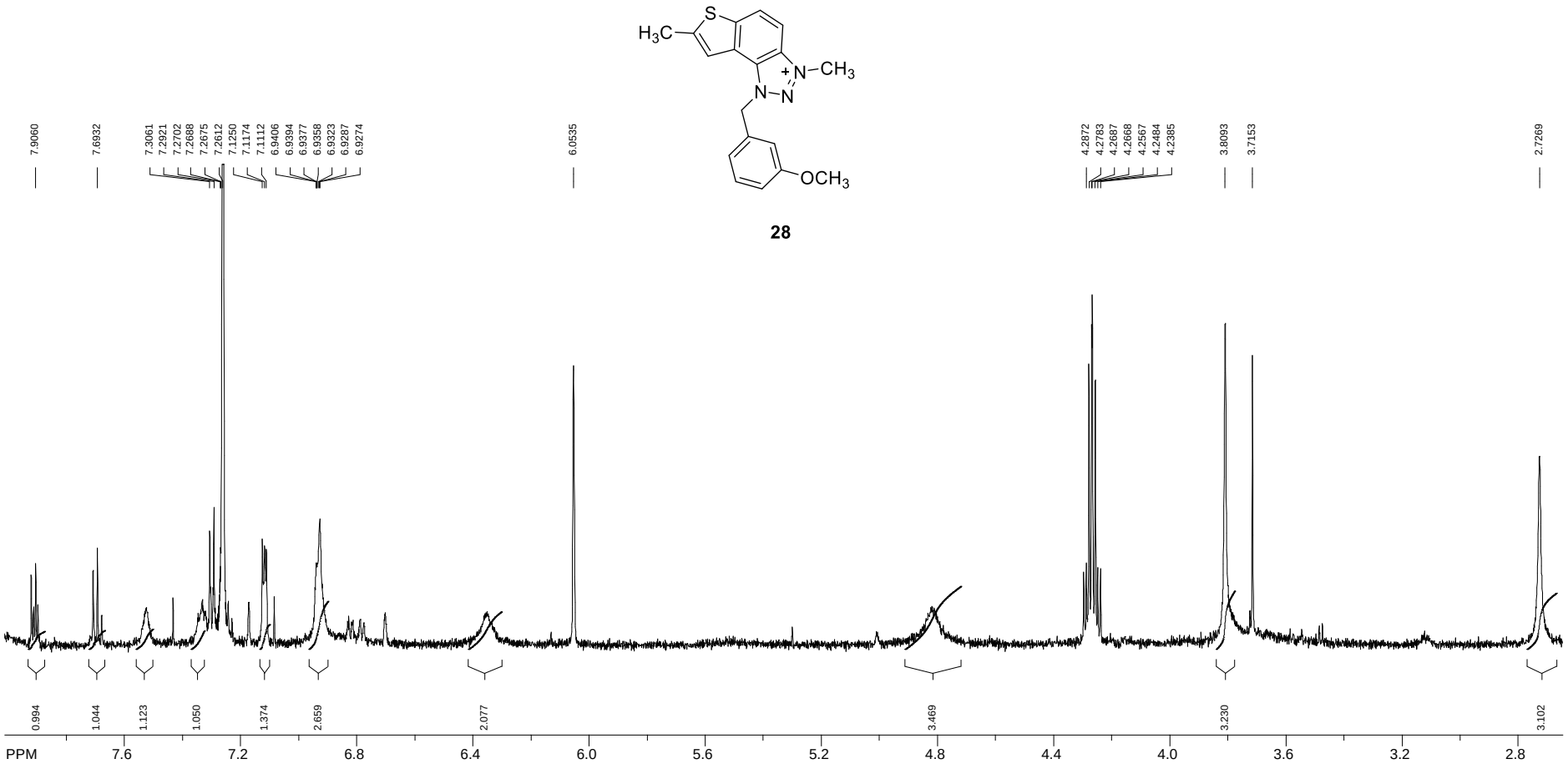


Figure S80. Part of the ^{1}H NMR ($CDCl_3$) spectrum of **27** (with traces of non-charged analogue **19**).



28

Figure S81. ^{1}H NMR ($CDCl_3$) spectrum of **28** (with certain proportion of non-charged analogue **20**).

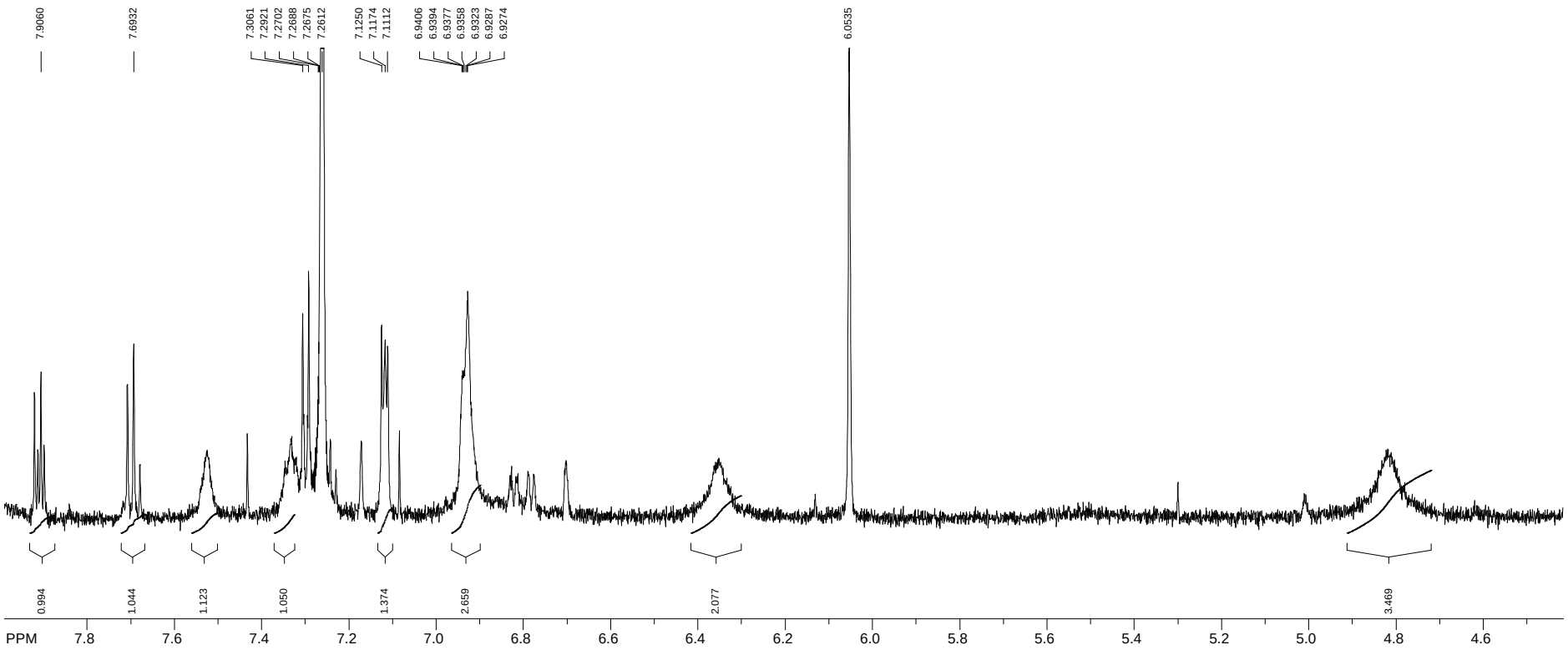


Figure S82. Part of the ^{1}H NMR ($CDCl_3$) spectrum of **28** (with certain proportion of non-charged analogue **20**).

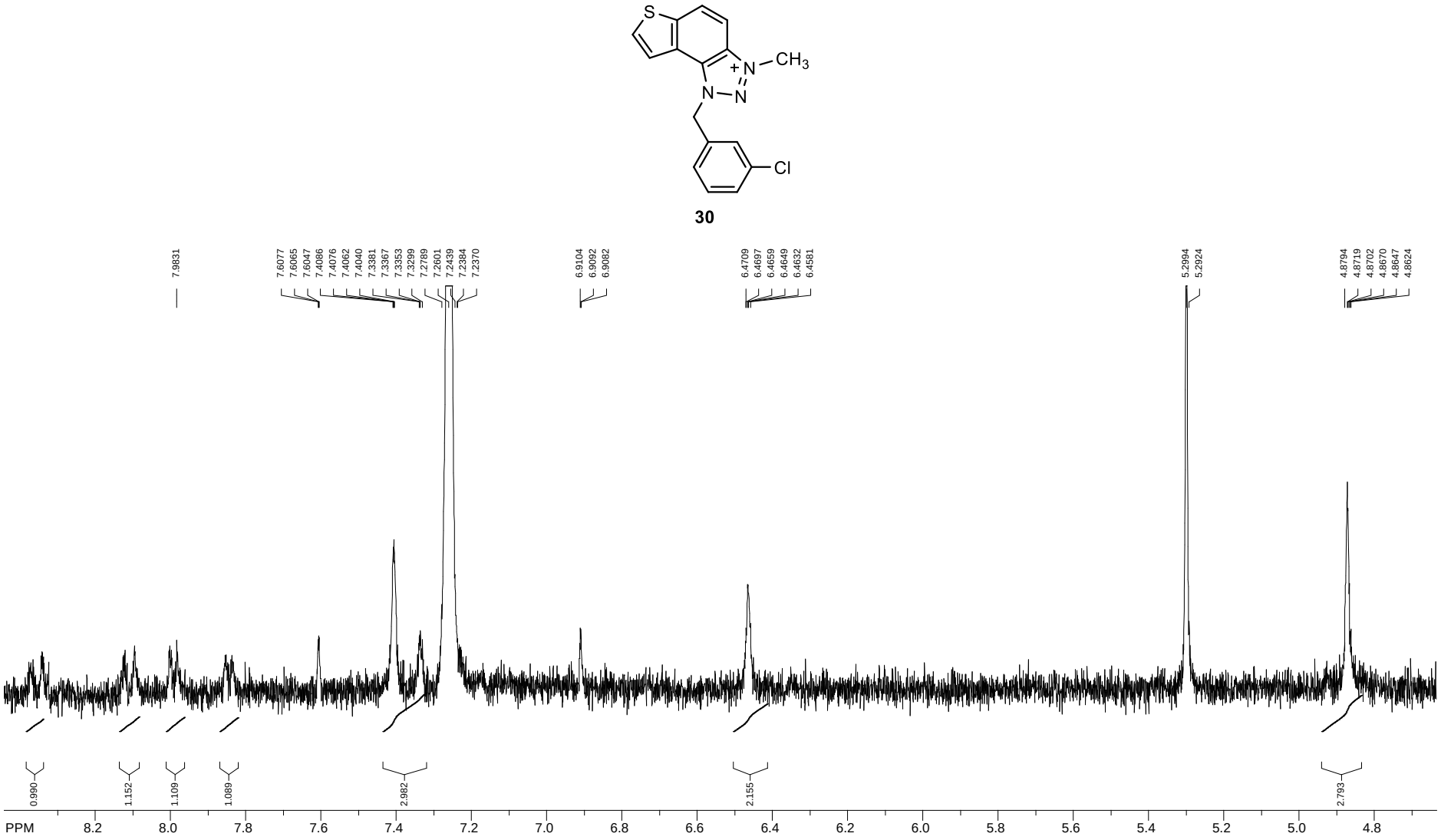


Figure S83. ^{1}H NMR ($CDCl_3$) spectrum of **30**.

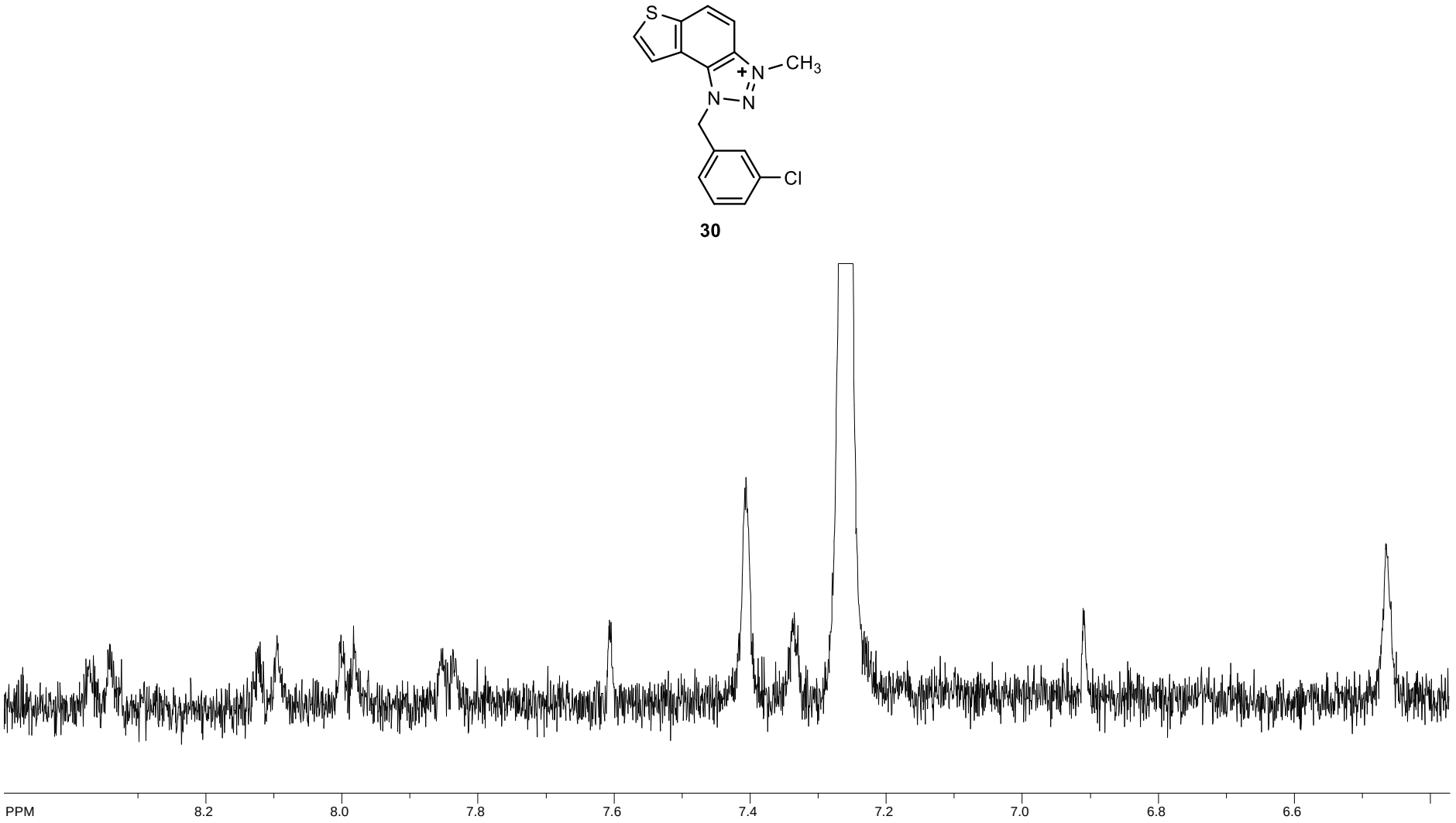


Figure S84. Aromatic part of the ^{1}H NMR ($CDCl_3$) spectrum of **30.**

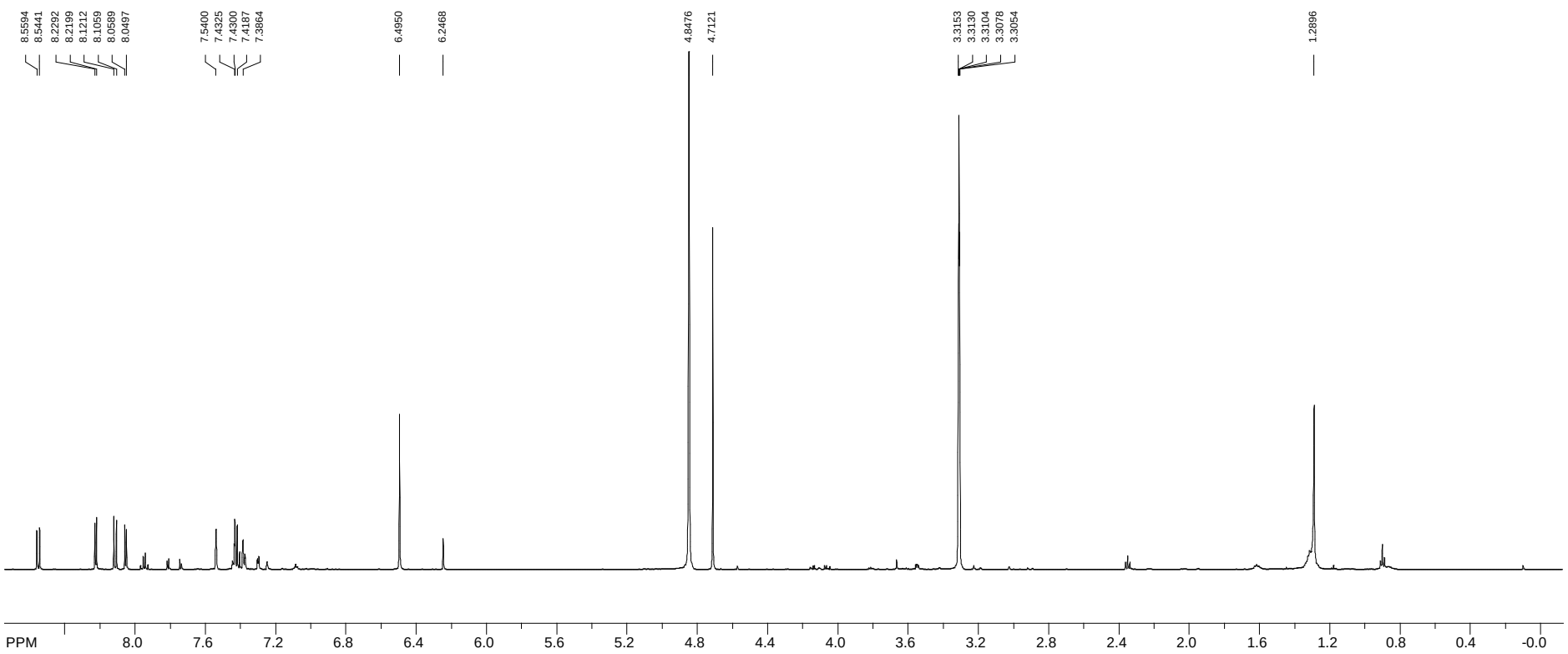


Figure S85. ^{1}H NMR (CD_3OD) spectrum of **30**.

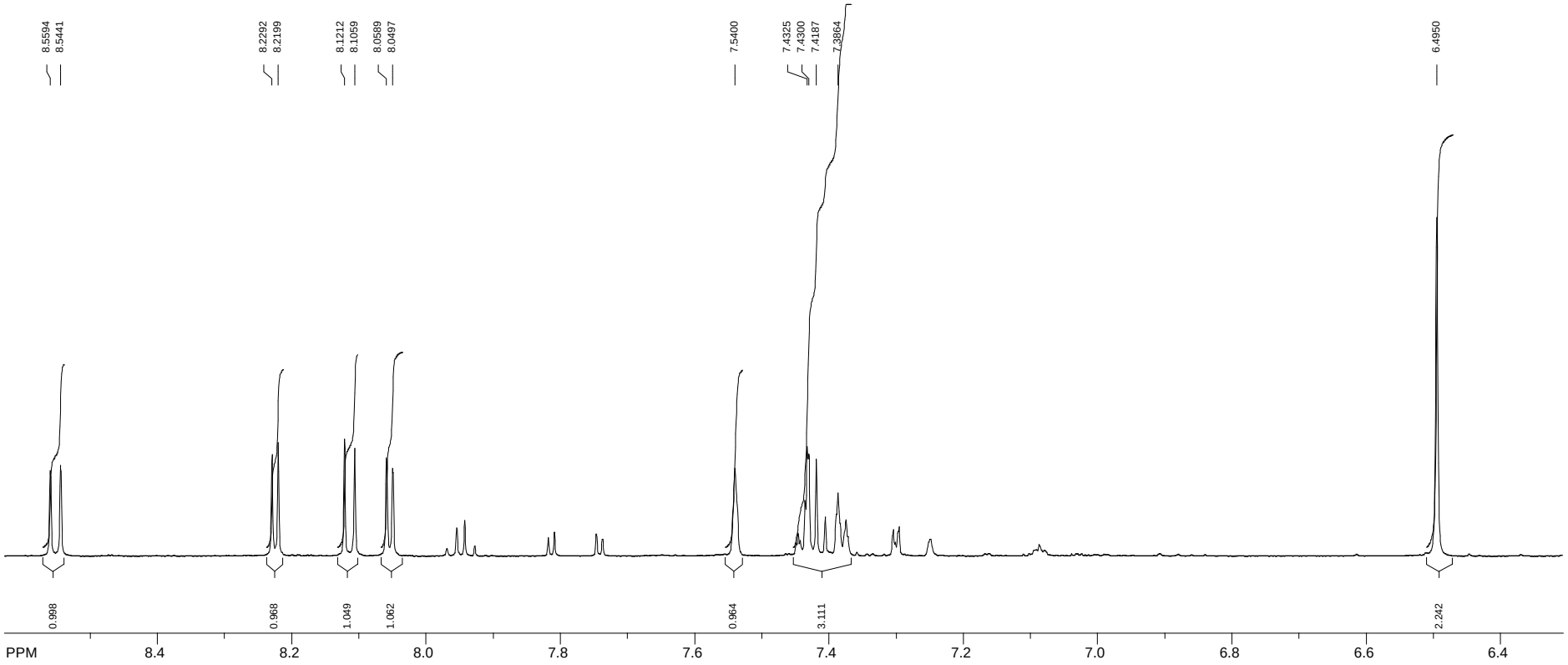


Figure S86. Part of the ^{1}H NMR (CD_3OD) spectrum of **30**.

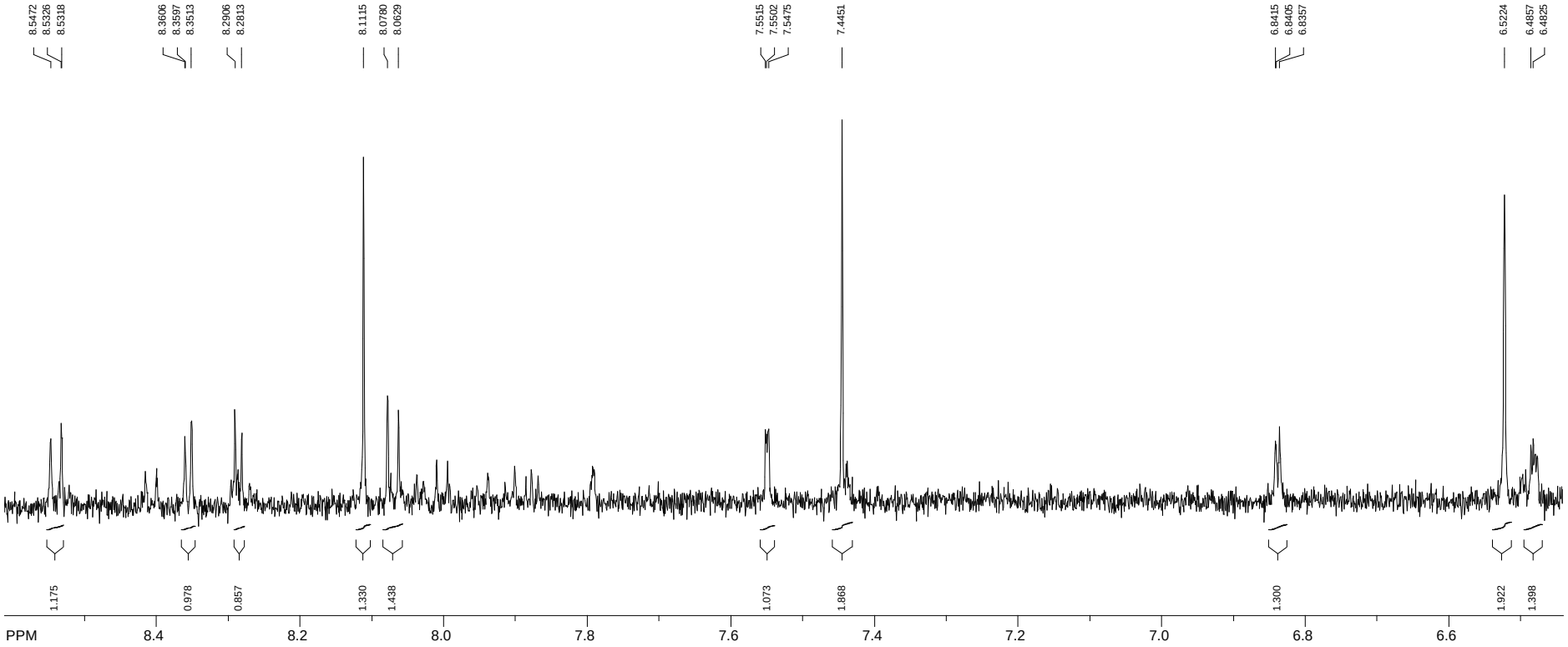
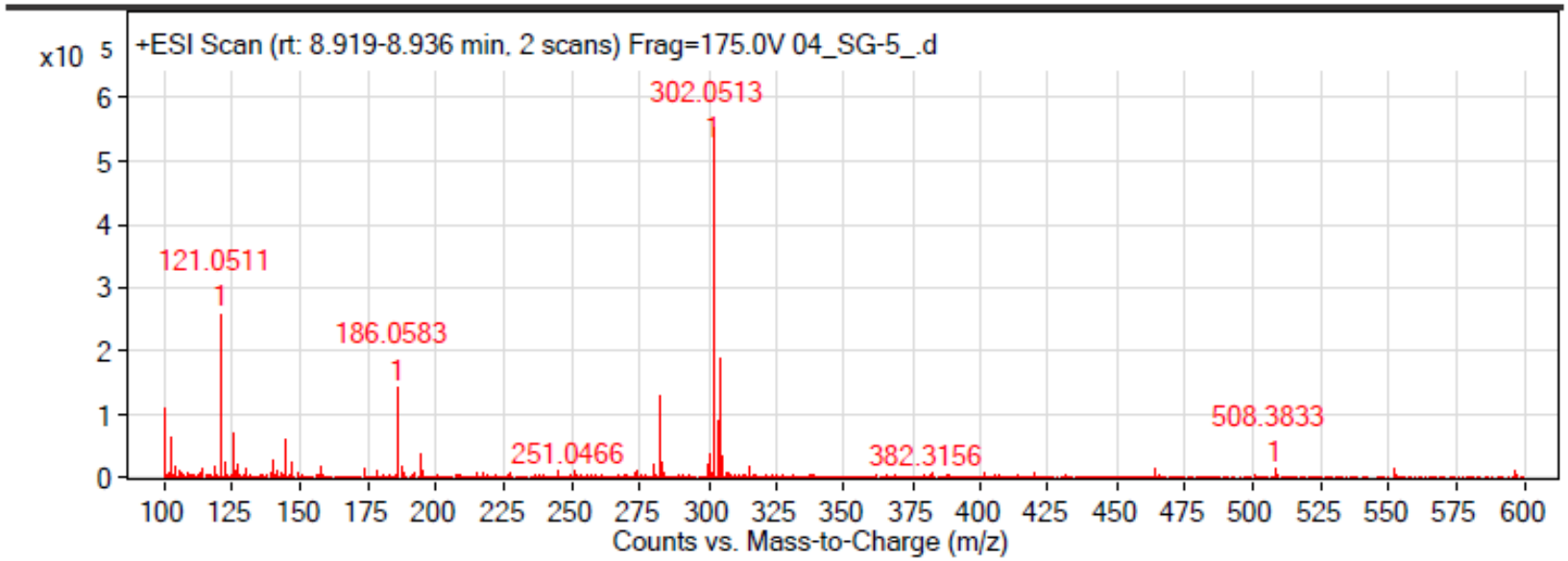


Figure S87. Part of the ^{1}H NMR (CD_3OD) spectrum of **31**.

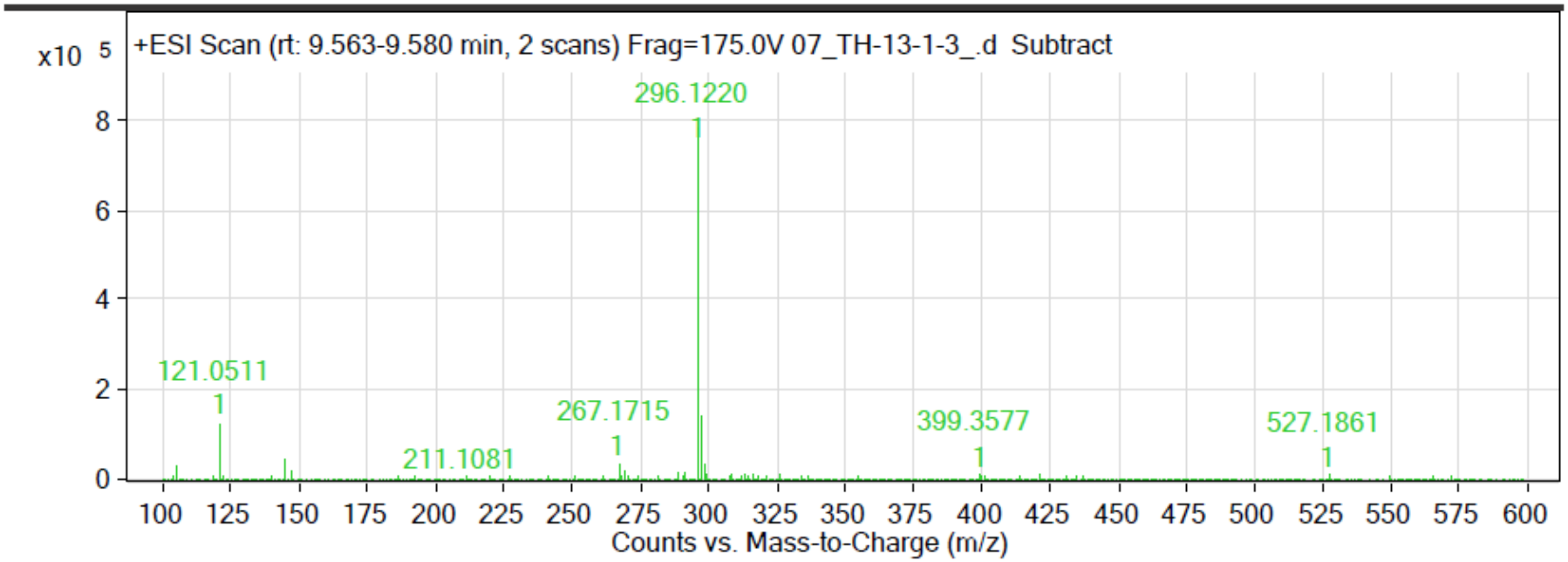
2. Mass spectra and HRMS analyses of compounds 1–31



Formula Calculator Results

Formula	Best	Mass	Tgt Mass	Diff (ppm)	Ion Species	Score
C15 H12 Cl N3 S	True	301.0441	301.044	-0.21	C15 H13 Cl N3 S	98.35

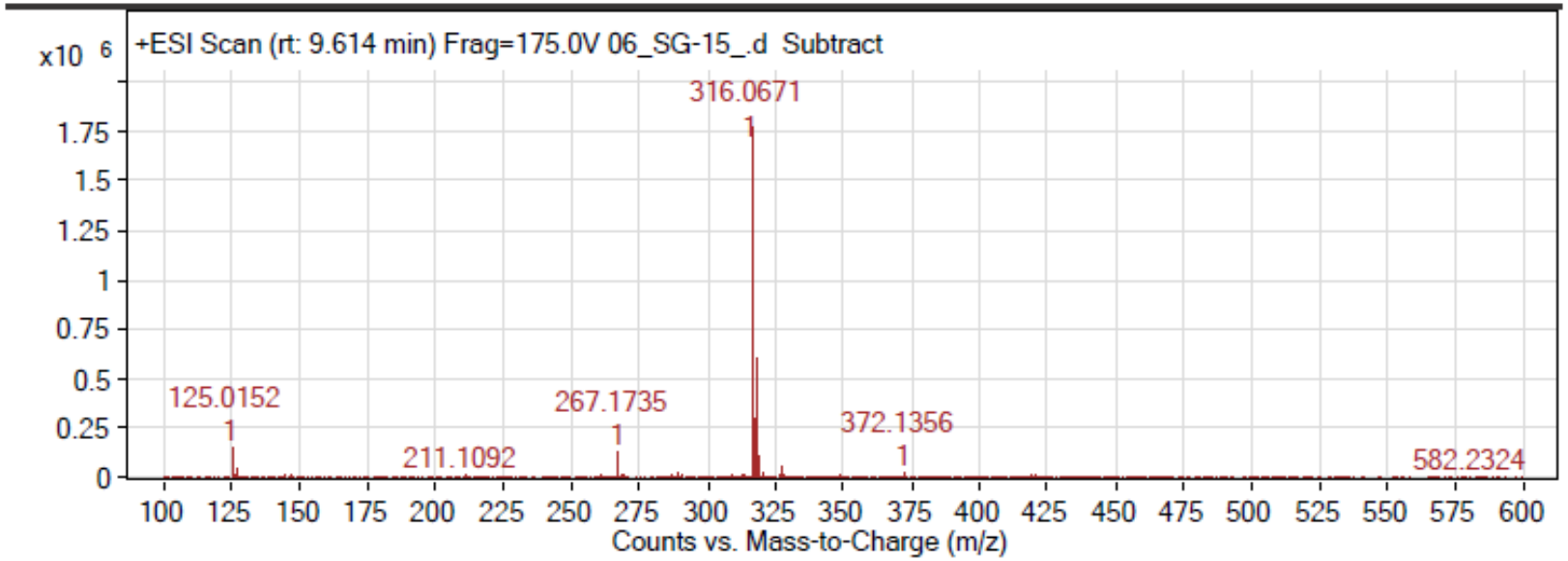
Figure S88. Mass spectrum and HRMS analysis of compound **7**.



Formula Calculator Results

Formula	Best	Mass	Tgt Mass	Diff (ppm)	Ion Species	Score
C17 H17 N3 S	True	295.1147	295.1143	-1.3	C17 H18 N3 S	96.91

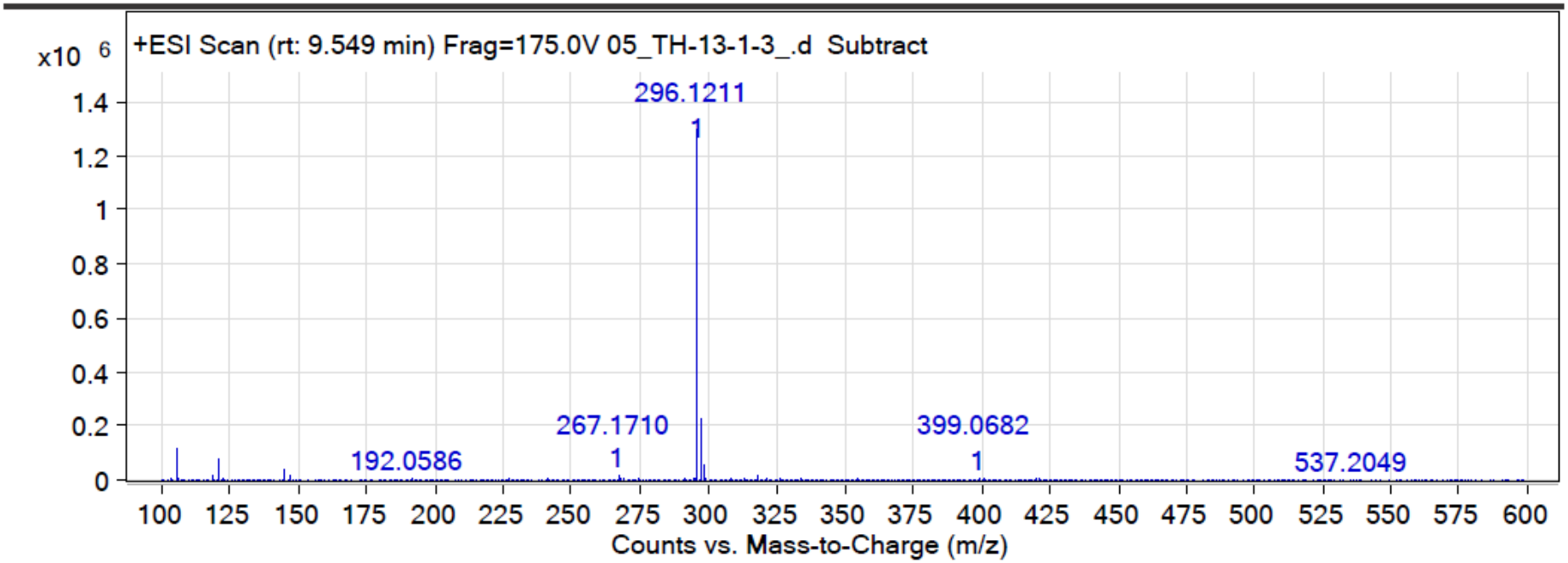
Figure S89. Mass spectrum and HRMS analysis of compound **9**.



Formula Calculator Results

Formula	Best	Mass	Tgt Mass	Diff (ppm)	Ion Species	Score
C16 H14 Cl N3 S	True	315.0599	315.0597	-0.66	C16 H15 Cl N3 S	97.81

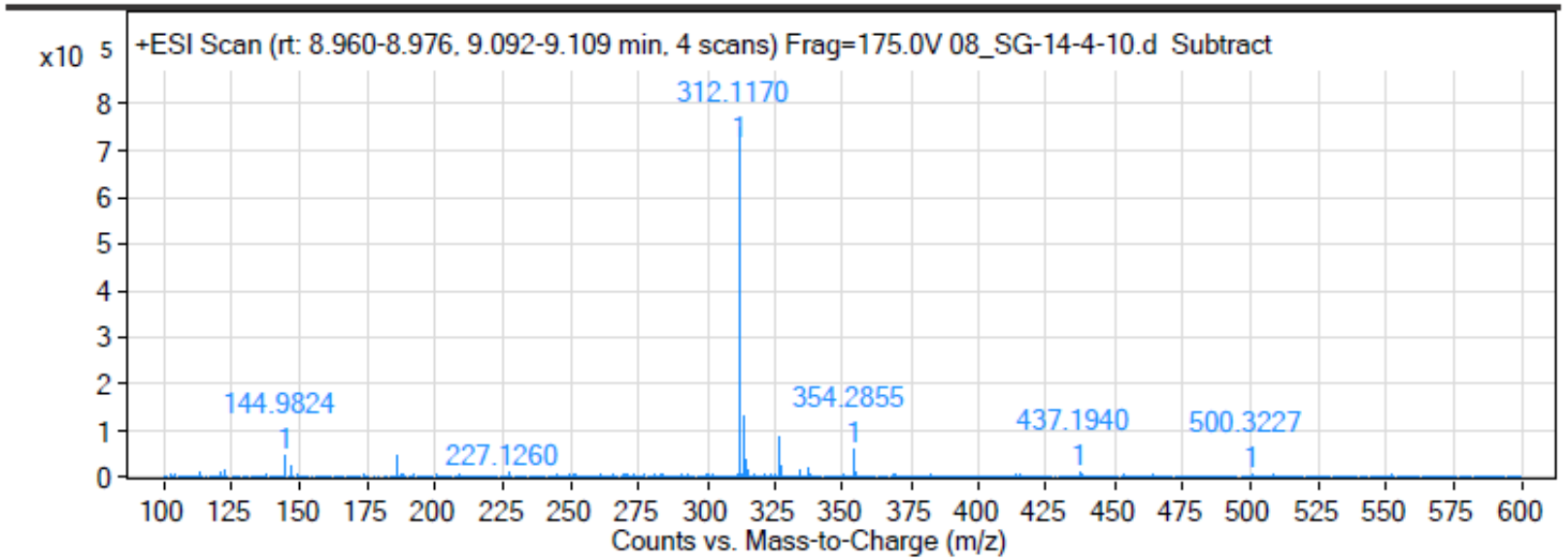
Figure S90. Mass spectrum and HRMS analysis of compound **10**.



Formula Calculator Results

Formula	Best	Mass	Tgt Mass	Diff (ppm)	Ion Species	Score
C17 H17 N3 S	True	295.1139	295.1143	1.55	C17 H18 N3 S	96.33

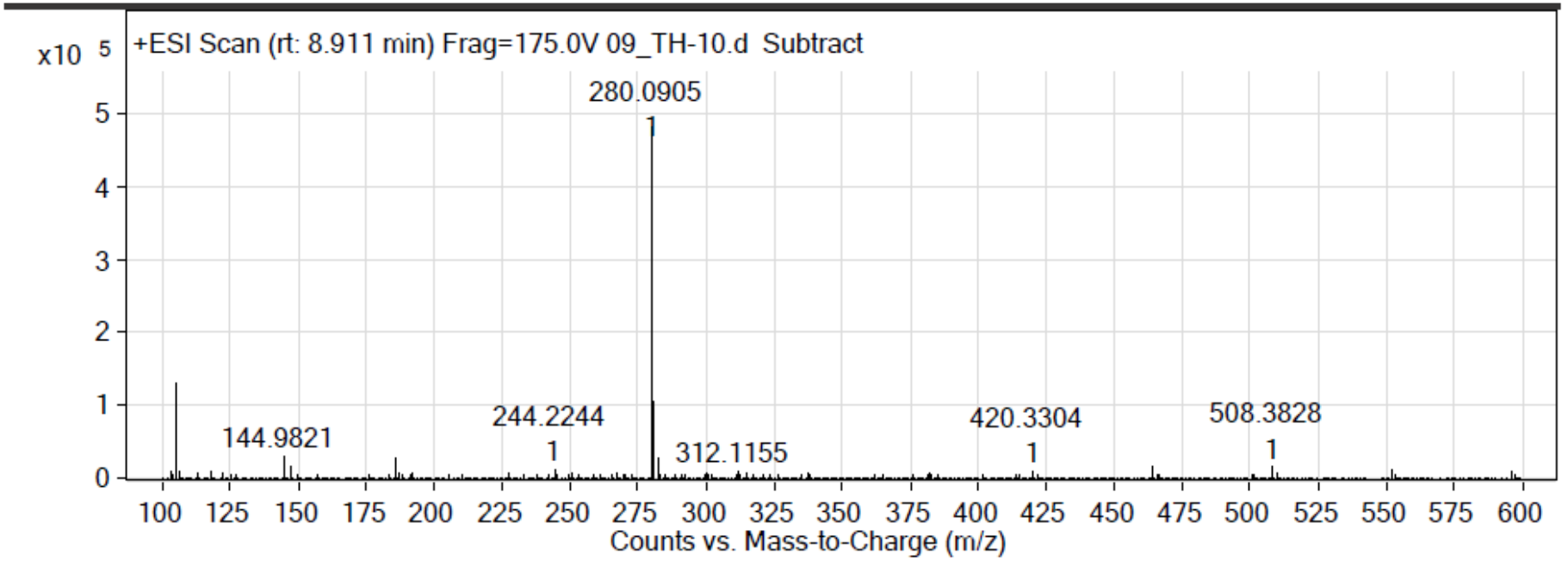
Figure S81. Mass spectrum and HRMS analysis of compound **11**.



Formula Calculator Results

Formula	Best	Mass	Tgt Mass	Diff (ppm)	Ion Species	Score
C17 H17 N3 O S	True	311.1098	311.1092	-1.75	C17 H18 N3 O S	96.36

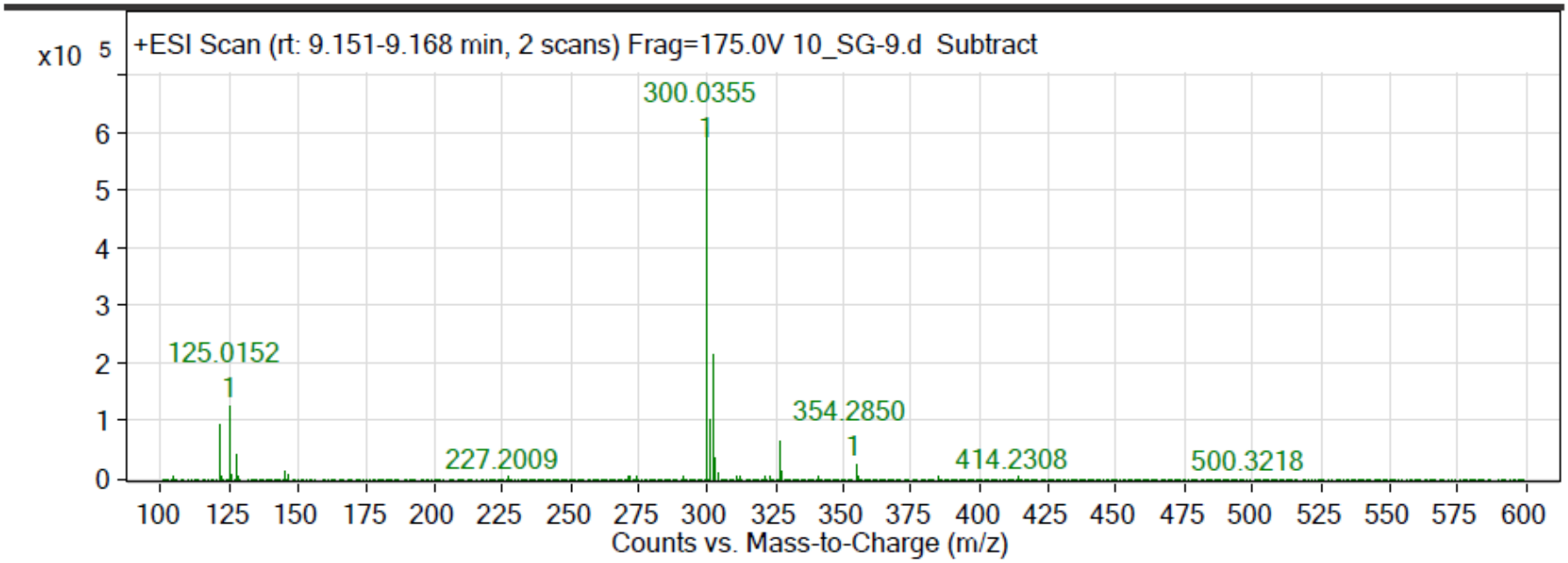
Figure S92. Mass spectrum and HRMS analysis of compound **12**.



Formula Calculator Results

Formula	Best	Mass	Tgt Mass	Diff (ppm)	Ion Species	Score
C16 H13 N3 S	True	279.0832	279.083	-0.5	C16 H14 N3 S	97.87

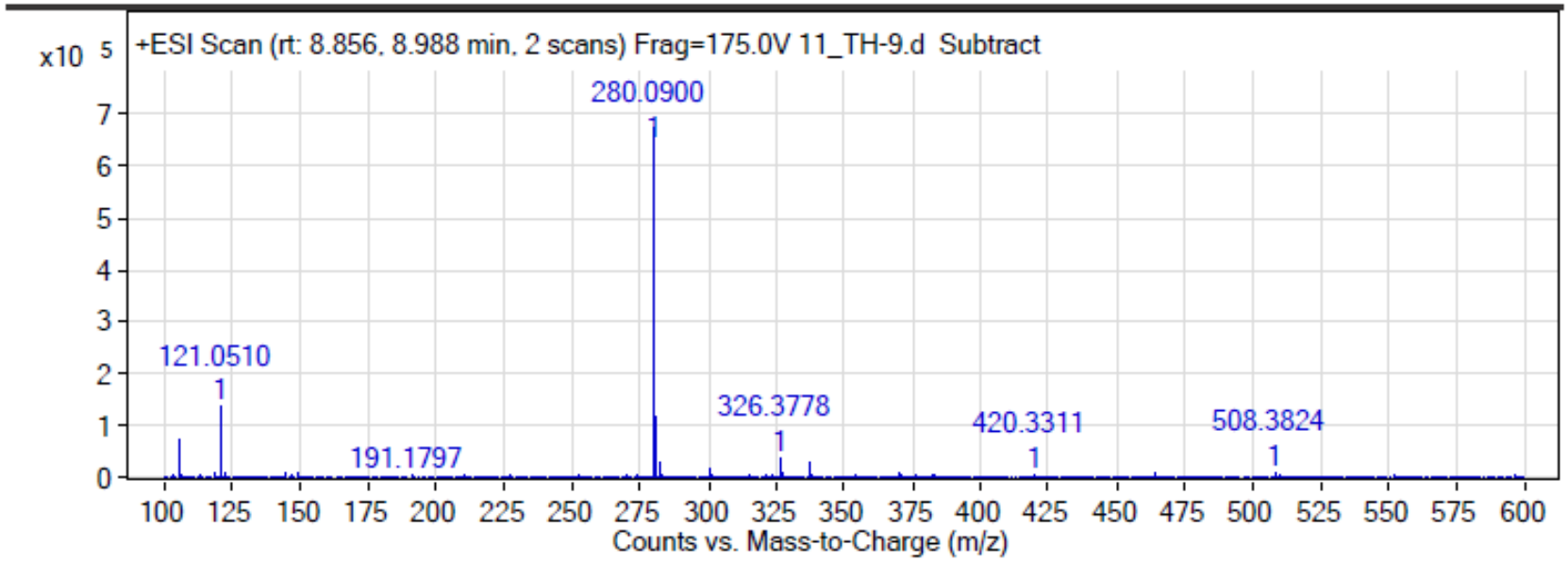
Figure S93. Mass spectrum and HRMS analysis of compound **14**.



Formula Calculator Results

Formula	Best	Mass	Tgt Mass	Diff (ppm)	Ion Species	Score
C15 H10 Cl N3 S	True	299.0283	299.0284	0.48	C15 H11 Cl N3 S	99.22

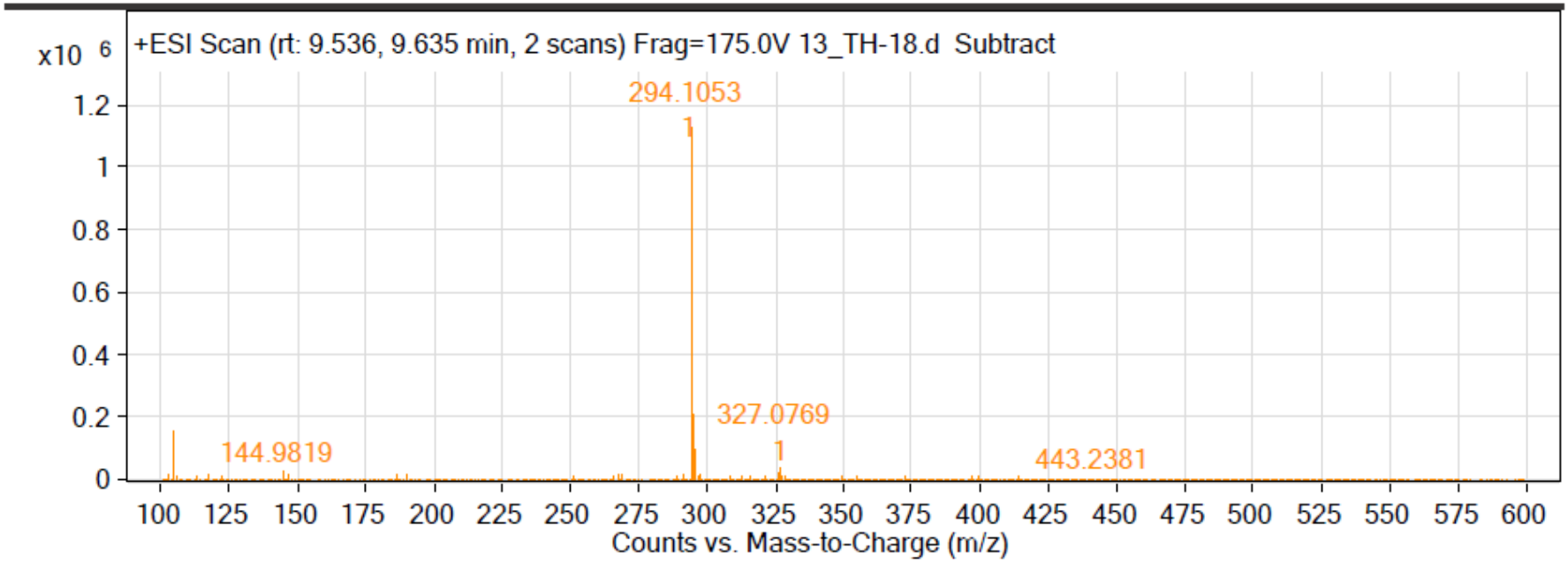
Figure S94. Mass spectrum and HRMS analysis of compound **15**.



Formula Calculator Results

Formula	Best	Mass	Tgt Mass	Diff (ppm)	Ion Species	Score
C16 H13 N3 S	True	279.0828	279.083	0.76	C16 H14 N3 S	97.63

Figure S95. Mass spectrum and HRMS analysis of compound **16**.

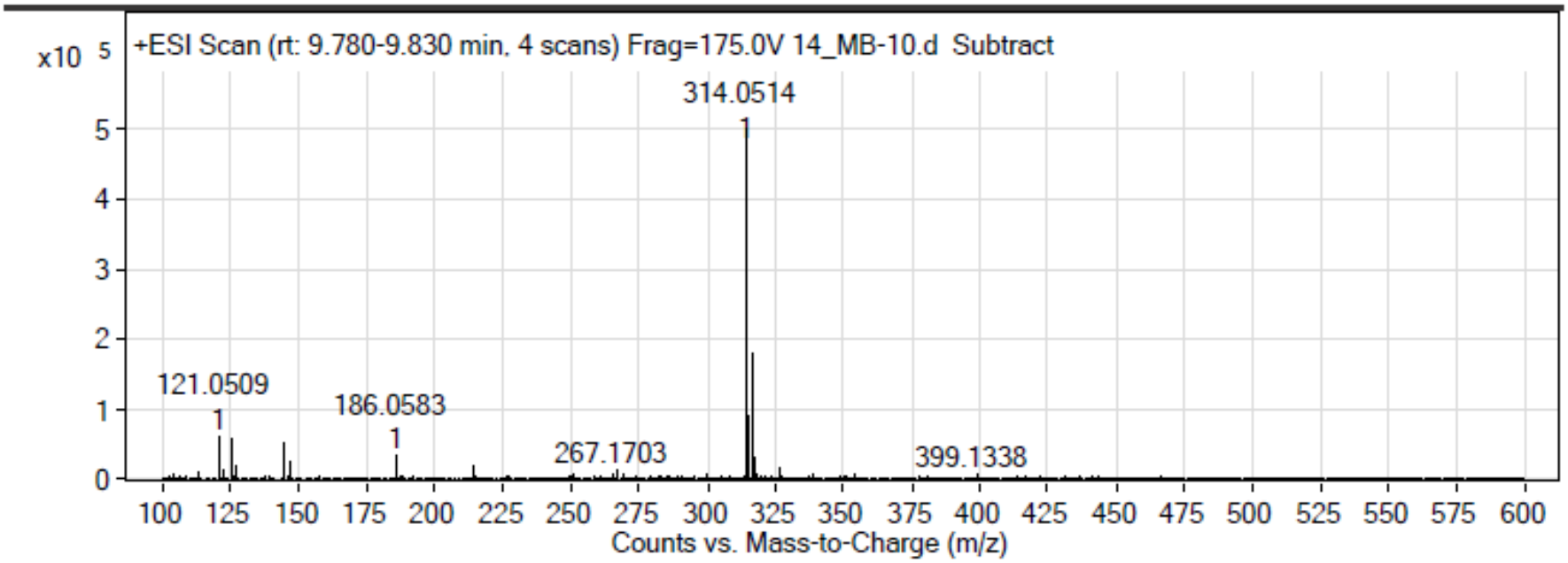


Peak List

Formula Calculator Results

Formula	Best	Mass	Tgt Mass	Diff (ppm)	Ion Species	Score
C17 H15 N3 S	True	293.0988	293.0987	-0.56	C17 H16 N3 S	87.86

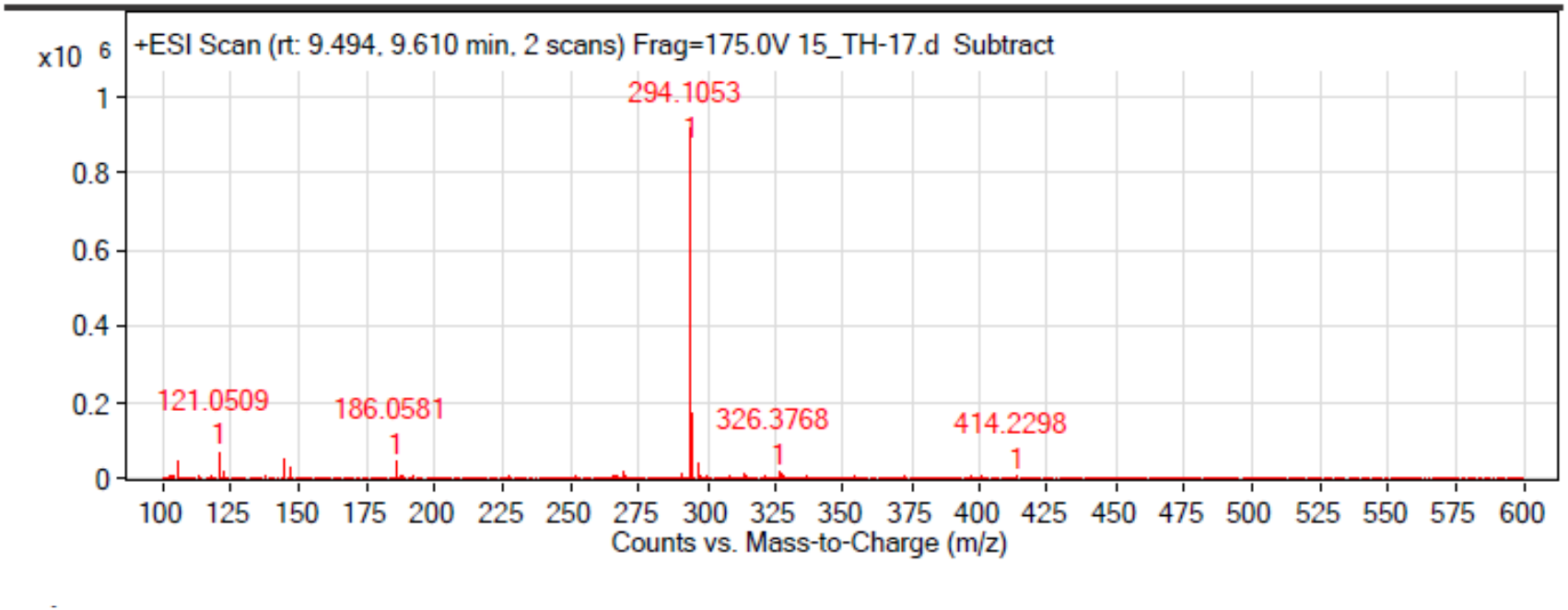
Figure S96. Mass spectrum and HRMS analysis of compound **17**.



Formula Calculator Results

Formula	Best	Mass	Tgt Mass	Diff (ppm)	Ion Species	Score
C16 H12 Cl N3 S	True	313.0441	313.044	-0.21	C16 H13 Cl N3 S	99.38

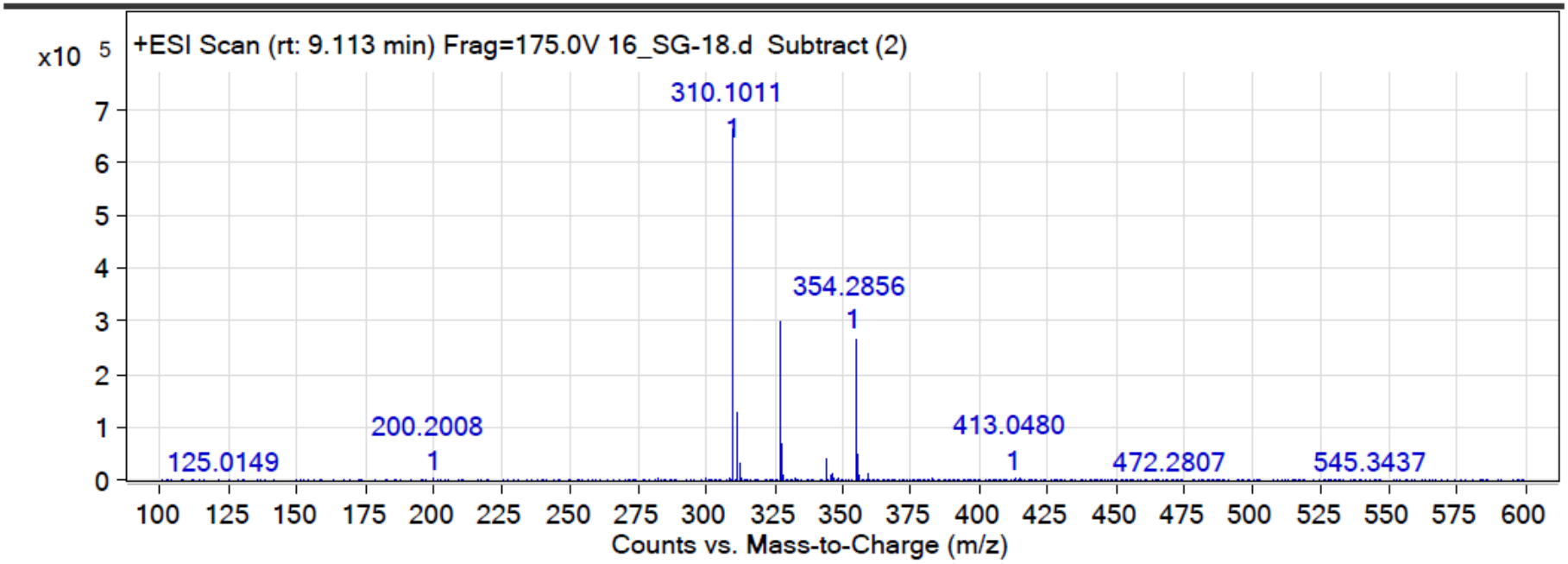
Figure S97. Mass spectrum and HRMS analysis of compound **18**.



Formula Calculator Results

Formula	Best	Mass	Tgt Mass	Diff (ppm)	Ion Species	Score
C17 H15 N3 S	True	293.0981	293.0987	1.85	C17 H16 N3 S	96.41

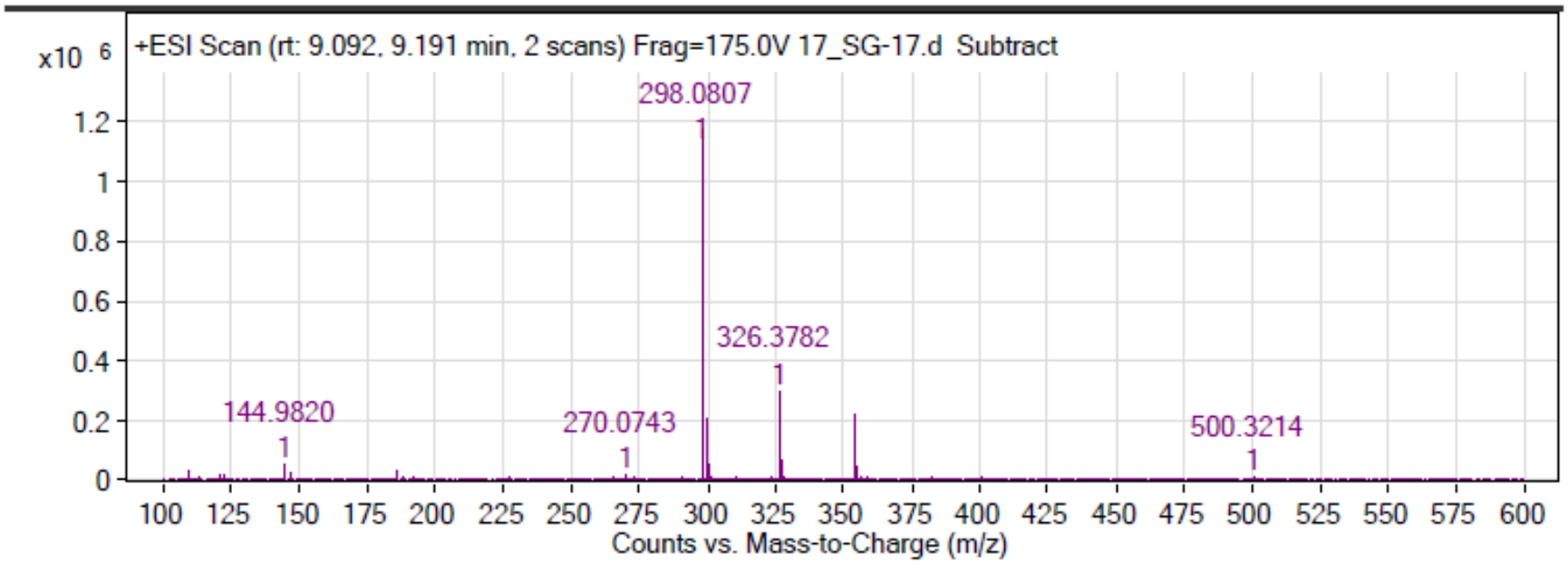
Figure S98. Mass spectrum and HRMS analysis of compound **19**.



Formula Calculator Results

Formula	Best	Mass	Tgt Mass	Diff (ppm)	Ion Species	Score
C17 H15 N3 O S	True	309.0939	309.0936	-1.08	C17 H16 N3 O S	98

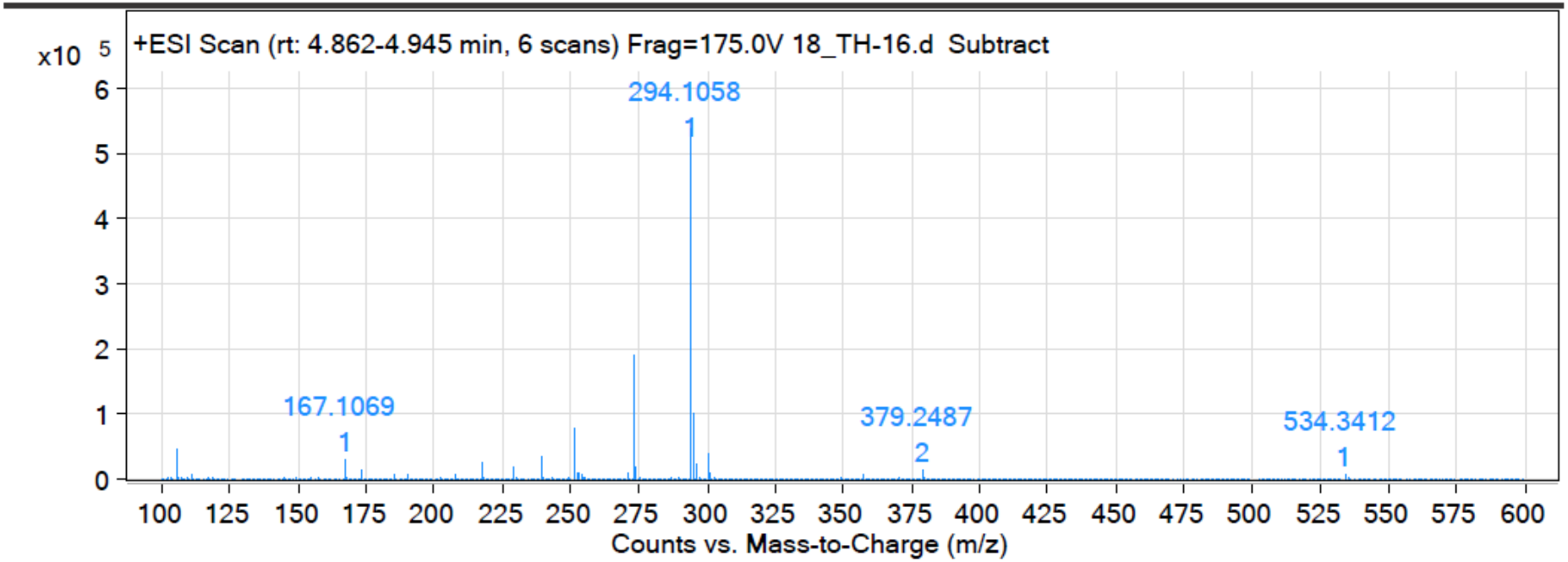
Figure S99. Mass spectrum and HRMS analysis of compound **20**.



Formula Calculator Results

Formula	Best	Mass	Tgt Mass	Diff (ppm)	Ion Species	Score
C16 H12 F N3 S	True	297.0734	297.0736	0.53	C16 H13 F N3 S	97.94

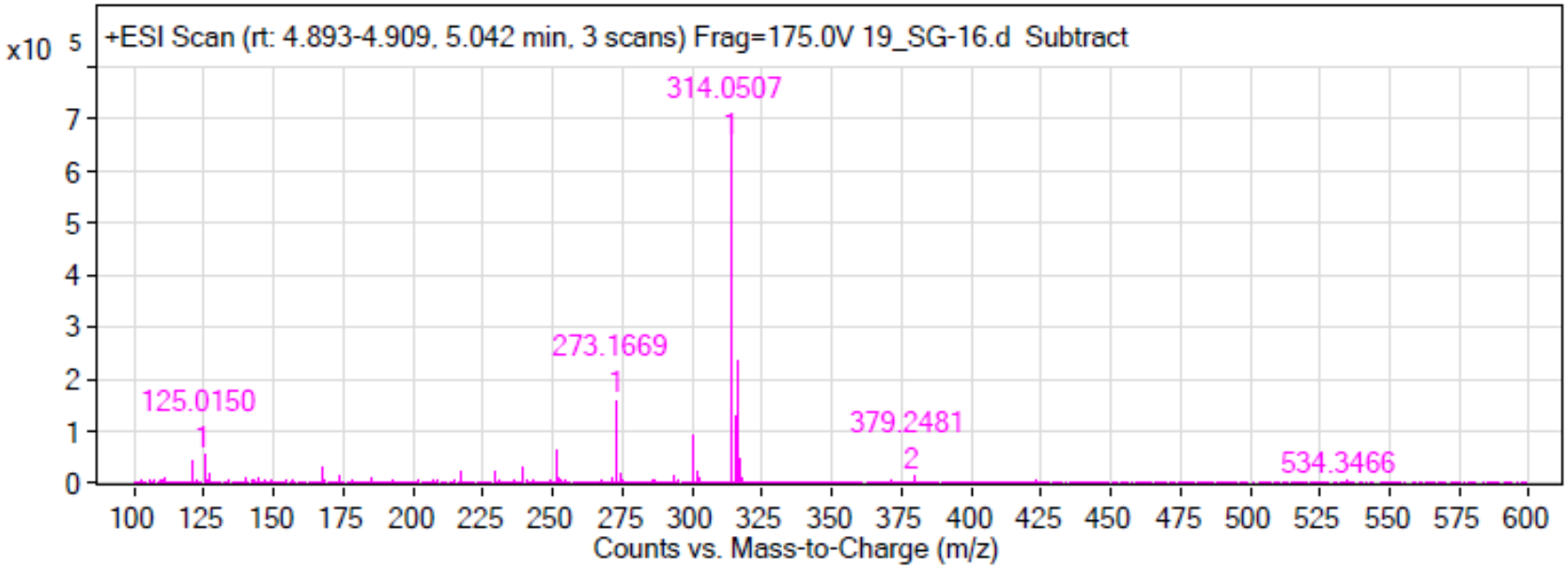
Figure S100. Mass spectrum and HRMS analysis of compound **21**.



Formula Calculator Results

Formula	Best	Mass	Tgt Mass	Diff (ppm)	Ion Species	Score
C17 H15 N3 S	True	293.0985	293.0987	0.4	C17 H16 N3 S	98.1

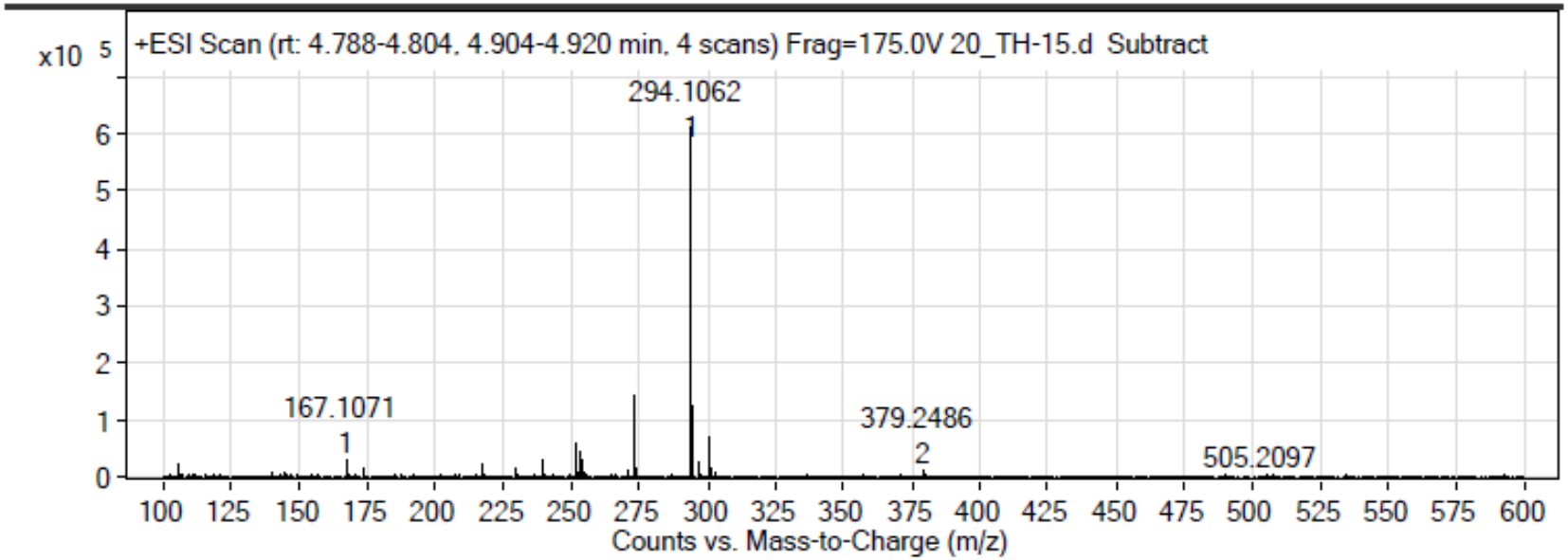
Figure S101. Mass spectrum and HRMS analysis of compound **22**.



Formula Calculator Results

Formula	Best	Mass	Tgt Mass	Diff (ppm)	Ion Species	Score
C16 H12 Cl N3 S	True	313.0436	313.044	1.4	C16 H13 Cl N3 S	97.24

Figure S102. Mass spectrum and HRMS analysis of compound **23**.



Formula Calculator Results

Formula	Best	Mass	Tgt Mass	Diff (ppm)	Ion Species	Score
C17 H15 N3 S	True	293.0991	293.0987	-1.38	C17 H16 N3 S	97.07

Figure S103. Mass spectrum and HRMS analysis of compound **24**.

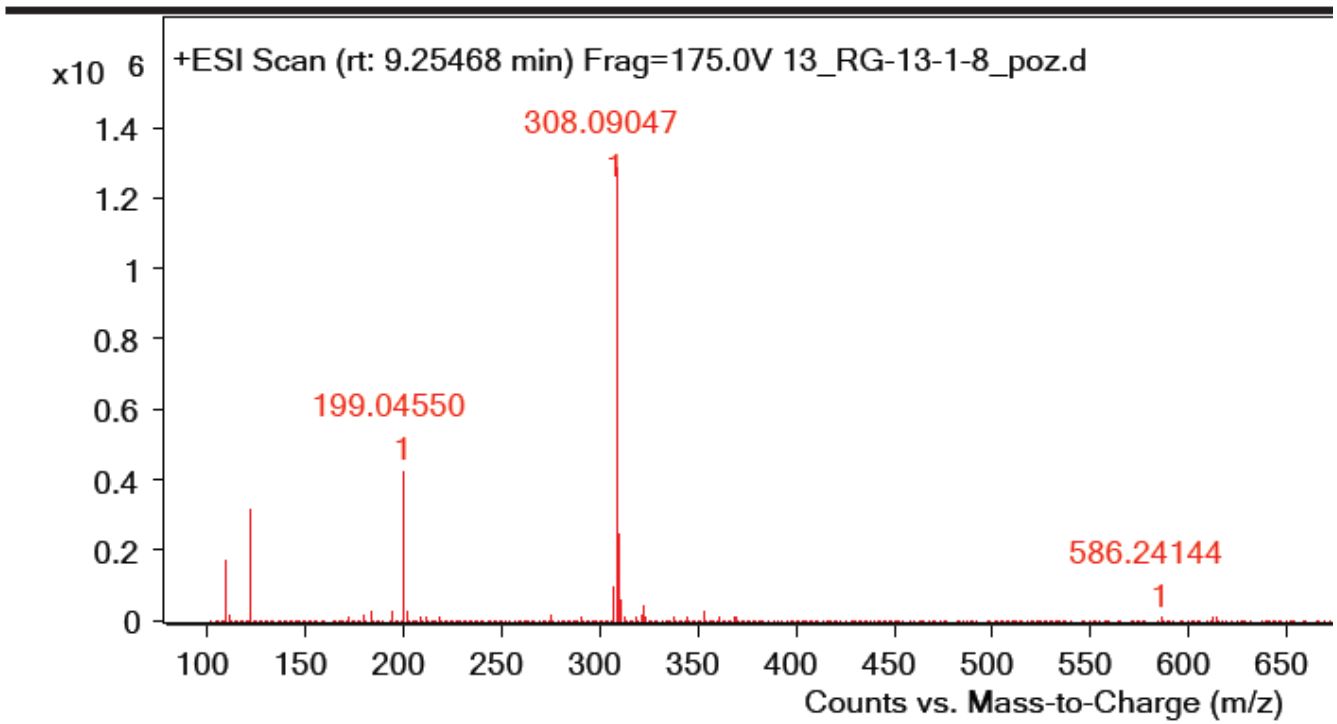


Figure S104. Mass spectrum of compound **25**.

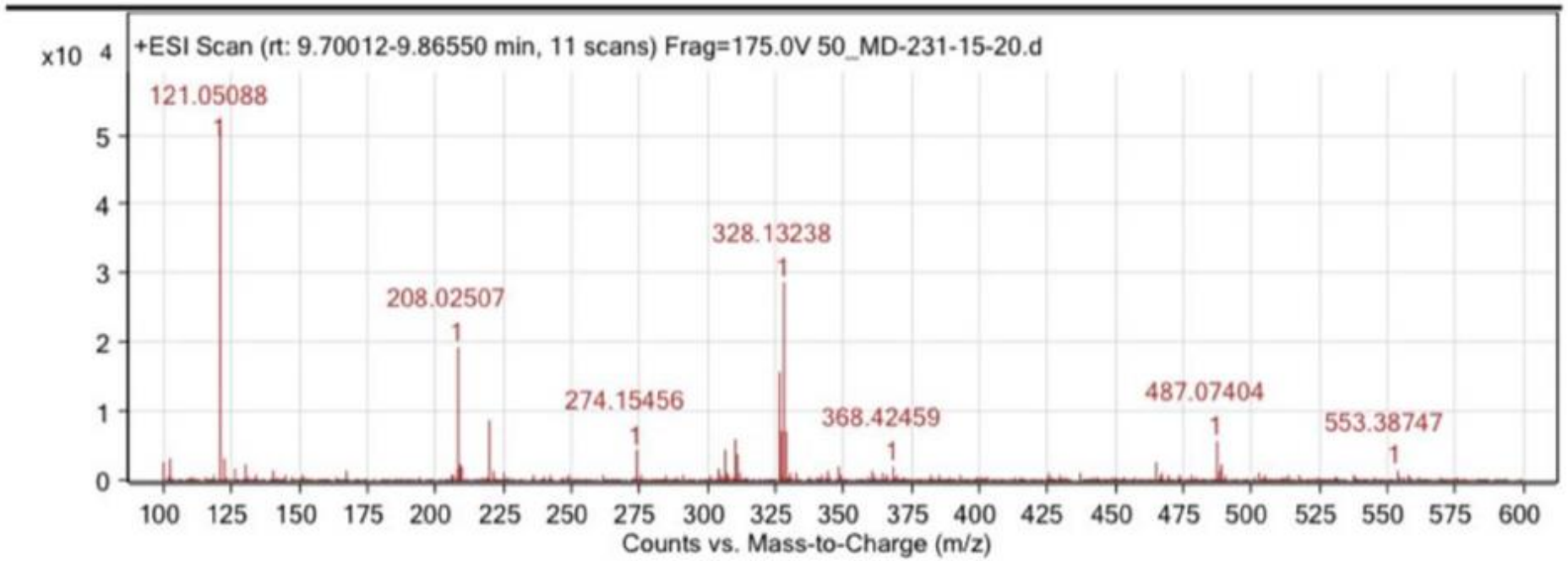


Figure S105. Mass spectrum of compound **26**.

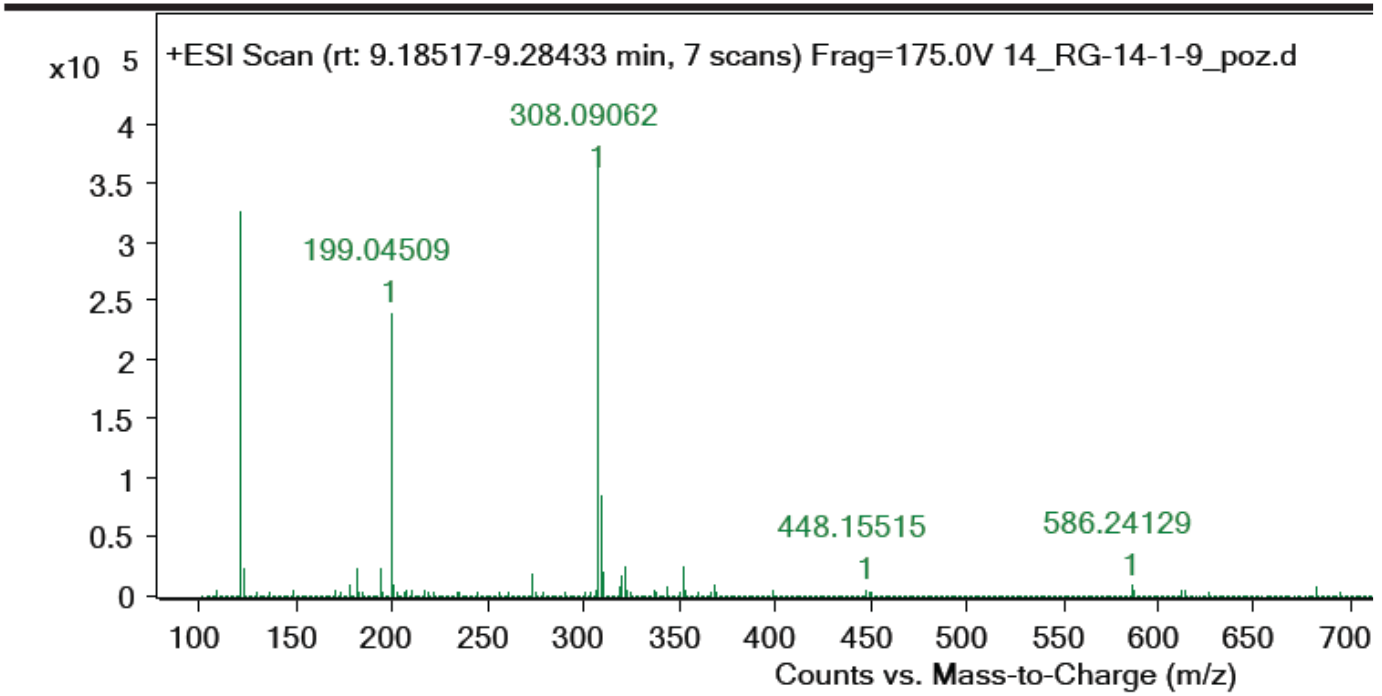
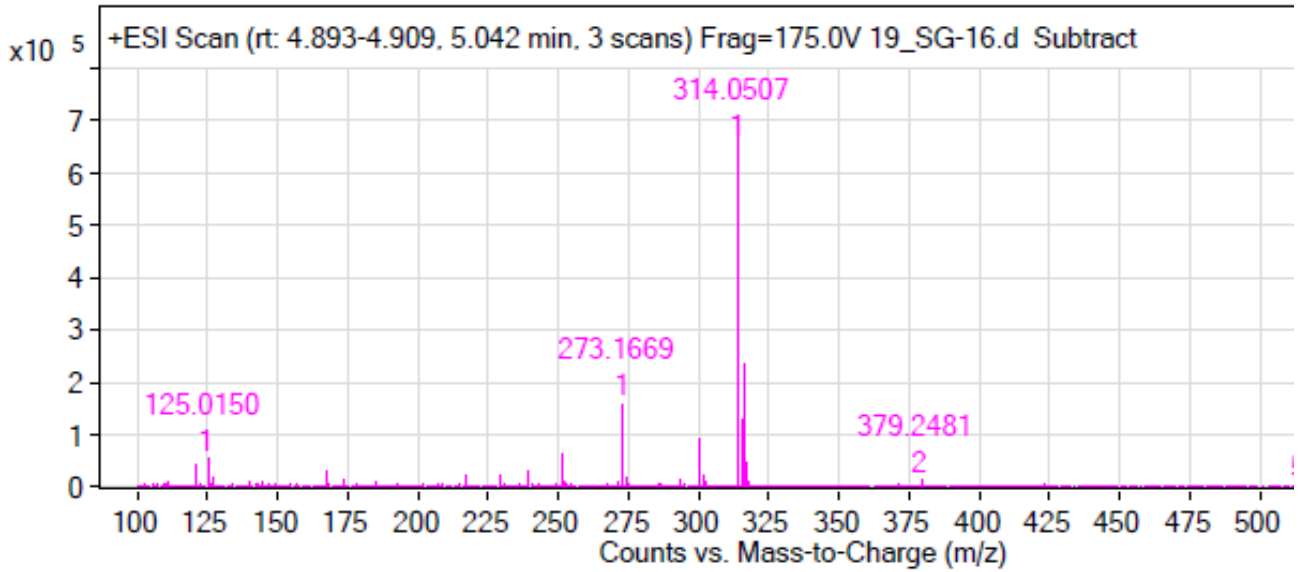


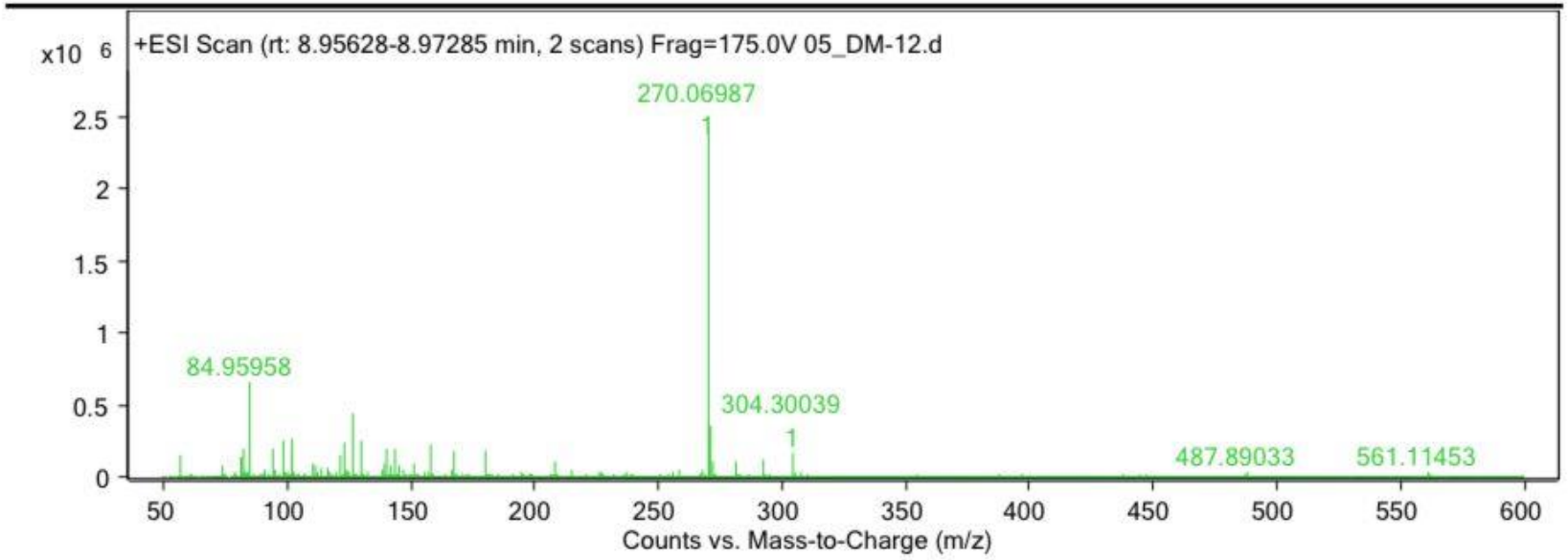
Figure S106. Mass spectrum of compound **27**.



Formula Calculator Results

Formula	Best	Mass	Tgt Mass	Diff (ppm)	Ion Species	Score
C16 H12 Cl N3 S	True	313.0436	313.044	1.4	C16 H13 Cl N3 S	97.24

Figure S107. Mass spectrum and HRMS analysis of compound **30**.



Formula Calculator Results

Formula	Best	Mass	Tgt Mass	Diff (ppm)	Ion Species	Score
C14 H11 N3 O S	True	269.06269	269.06228	-1.5	C14 H12 N3 O S	96.45

Figure S108. Mass spectrum and HRMS analysis of compound **31**.

3. Cartesian coordinates of docked ligands

Molecule 14 docked into the AChE

C	-13.573000	-45.130000	26.839000
H	-14.545000	-45.370000	26.376000
C	-13.199000	-43.793000	27.016000
C	-11.965000	-43.515000	27.610000
H	-11.654000	-42.467000	27.758000
C	-11.121000	-44.550000	28.018000
H	-10.154000	-44.308000	28.489000
C	-11.484000	-45.889000	27.838000
C	-12.726000	-46.159000	27.243000
H	-13.037000	-47.206000	27.092000
C	-10.562000	-47.013000	28.248000
H	-9.575000	-46.798000	28.721000
H	-10.387000	-47.661000	27.358000
H	-11.128000	-47.699000	28.921000
C	-14.133000	-42.659000	26.630000
H	-14.816000	-42.413000	27.476000
H	-13.570000	-41.700000	26.555000
N	-14.897000	-42.897000	25.412000
N	-14.227000	-43.254000	24.271000
N	-15.079000	-43.426000	23.314000
C	-16.342000	-43.187000	23.805000
C	-17.590000	-43.269000	23.149000
H	-17.652000	-43.545000	22.083000
C	-16.239000	-42.837000	25.165000
C	-18.728000	-42.995000	23.877000
H	-19.720000	-43.055000	23.399000
C	-18.616000	-42.635000	25.244000
S	-19.955000	-42.248000	26.307000
C	-17.387000	-42.534000	25.937000
C	-18.866000	-41.953000	27.638000
H	-19.202000	-41.648000	28.643000
C	-17.559000	-42.138000	27.307000
H	-16.723000	-41.999000	28.013000

Molecule 15 docked into the AChE

S	-19.956000	-42.346000	26.333000

C	-18.619000	-42.675000	25.250000
C	-17.385000	-42.529000	25.925000
C	-17.553000	-42.144000	27.300000
H	-16.713000	-41.974000	27.995000
C	-18.860000	-42.013000	27.650000
H	-19.193000	-41.726000	28.661000
C	-16.237000	-42.779000	25.134000
C	-16.345000	-43.129000	23.776000
C	-17.598000	-43.259000	23.137000
H	-17.665000	-43.534000	22.071000
C	-18.735000	-43.033000	23.883000
H	-19.731000	-43.130000	23.418000
N	-15.080000	-43.312000	23.265000
N	-14.221000	-43.107000	24.208000
N	-14.889000	-42.784000	25.363000
C	-14.117000	-42.510000	26.565000
H	-14.792000	-42.227000	27.406000
H	-13.545000	-41.560000	26.453000
C	-13.192000	-43.640000	26.984000
C	-11.962000	-43.354000	27.586000
H	-11.653000	-42.303000	27.716000
C	-11.120000	-44.376000	28.024000
H	-10.154000	-44.140000	28.500000
C	-11.518000	-45.700000	27.851000
Cl	-10.463000	-46.998000	28.391000
C	-12.740000	-46.010000	27.254000
H	-13.044000	-47.062000	27.122000
C	-13.572000	-44.978000	26.826000
H	-14.541000	-45.218000	26.357000

Cation 22 docked into the AChE

N	-14.696000	-44.324000	26.860000
C	-14.020000	-44.748000	27.983000
C	-14.775000	-44.261000	29.064000
N	-15.826000	-43.595000	28.483000
N	-15.775000	-43.635000	27.166000
C	-14.425000	-44.478000	30.413000
H	-15.036000	-44.085000	31.243000
C	-13.275000	-45.209000	30.638000
H	-12.950000	-45.410000	31.673000
C	-12.509000	-45.704000	29.554000

C	-12.839000	-45.501000	28.191000
S	-11.044000	-46.638000	29.699000
C	-10.894000	-46.742000	27.973000
H	-10.068000	-47.270000	27.468000
C	-11.897000	-46.107000	27.301000
H	-11.973000	-46.066000	26.201000
C	-16.928000	-42.889000	29.138000
H	-16.971000	-42.855000	30.252000
H	-17.892000	-43.300000	28.756000
H	-16.964000	-41.845000	28.748000
C	-14.325000	-44.569000	25.429000
H	-14.613000	-45.601000	25.121000
H	-13.218000	-44.642000	25.318000
C	-14.886000	-43.556000	24.472000
C	-14.344000	-42.267000	24.403000
H	-13.490000	-41.995000	25.046000
C	-14.878000	-41.326000	23.526000
H	-14.437000	-40.316000	23.480000
C	-15.967000	-41.641000	22.700000
C	-16.502000	-42.935000	22.777000
H	-17.355000	-43.208000	22.134000
C	-16.567000	-40.607000	21.780000
H	-16.142000	-39.578000	21.719000
H	-17.653000	-40.520000	22.018000
H	-16.593000	-41.033000	20.750000
C	-15.974000	-43.881000	23.652000
H	-16.415000	-44.891000	23.700000

Cation 23 docked into the AChE

N	-14.622000	-44.354000	26.920000
C	-13.945000	-44.767000	28.046000
C	-14.699000	-44.267000	29.122000
N	-15.750000	-43.606000	28.535000
N	-15.700000	-43.660000	27.218000
C	-14.348000	-44.469000	30.474000
H	-14.958000	-44.066000	31.300000
C	-13.200000	-45.199000	30.706000
H	-12.875000	-45.389000	31.743000
C	-12.434000	-45.707000	29.628000

C	-12.764000	-45.519000	28.262000
S	-10.970000	-46.640000	29.783000
C	-10.821000	-46.764000	28.058000
H	-9.996000	-47.300000	27.559000
C	-11.823000	-46.135000	27.378000
H	-11.898000	-46.105000	26.278000
C	-16.851000	-42.892000	29.183000
H	-16.893000	-42.846000	30.296000
H	-17.815000	-43.306000	28.806000
H	-16.887000	-41.852000	28.782000
C	-14.253000	-44.613000	25.492000
H	-14.534000	-45.650000	25.196000
H	-13.146000	-44.680000	25.378000
C	-14.825000	-43.613000	24.527000
C	-14.346000	-42.297000	24.504000
H	-13.537000	-41.999000	25.192000
C	-14.880000	-41.362000	23.622000
H	-14.497000	-40.328000	23.605000
C	-15.907000	-41.750000	22.758000
C	-16.404000	-43.055000	22.771000
H	-17.217000	-43.350000	22.087000
Cl	-16.585000	-40.583000	21.650000
C	-15.860000	-43.980000	23.659000
H	-16.249000	-45.012000	23.678000

Molecule 14 docked into the BChE

C	-18.671000	-14.597000	44.662000
H	-19.250000	-15.073000	43.853000
C	-18.472000	-13.212000	44.651000
C	-17.741000	-12.631000	45.691000
H	-17.575000	-11.541000	45.699000
C	-17.218000	-13.418000	46.720000
H	-16.647000	-12.939000	47.534000
C	-17.407000	-14.804000	46.734000
C	-18.144000	-15.378000	45.687000
H	-18.309000	-16.469000	45.676000
C	-16.817000	-15.664000	47.827000
H	-16.968000	-16.769000	47.838000
H	-17.161000	-15.259000	48.807000
H	-15.721000	-15.465000	47.868000

C	-19.085000	-12.339000	43.569000
H	-19.983000	-11.807000	43.961000
H	-19.564000	-12.970000	42.785000
N	-18.158000	-11.392000	42.963000
N	-16.820000	-11.689000	42.957000
N	-16.175000	-10.733000	42.371000
C	-17.080000	-9.776000	41.973000
C	-16.859000	-8.566000	41.278000
H	-15.841000	-8.259000	40.984000
C	-18.371000	-10.187000	42.356000
C	-17.950000	-7.779000	40.977000
H	-17.815000	-6.830000	40.431000
C	-19.246000	-8.195000	41.373000
S	-20.732000	-7.314000	41.079000
C	-19.511000	-9.394000	42.075000
C	-21.669000	-8.540000	41.894000
H	-22.764000	-8.490000	42.015000
C	-20.907000	-9.565000	42.365000
H	-21.317000	-10.432000	42.910000

Molecule 15 docked into the BChE

S	-20.706000	-7.362000	41.075000
C	-19.226000	-8.238000	41.411000
C	-19.513000	-9.478000	42.029000
C	-20.922000	-9.682000	42.224000
H	-21.351000	-10.583000	42.695000
C	-21.669000	-8.643000	41.764000
H	-22.770000	-8.613000	41.821000
C	-18.378000	-10.267000	42.339000
C	-17.075000	-9.820000	42.056000
C	-16.832000	-8.571000	41.442000
H	-15.803000	-8.236000	41.227000
C	-17.916000	-7.783000	41.119000
H	-17.765000	-6.803000	40.636000
N	-16.180000	-10.785000	42.460000
N	-16.840000	-11.778000	42.955000
N	-18.183000	-11.501000	42.894000
C	-19.125000	-12.487000	43.399000
H	-20.097000	-12.003000	43.652000
H	-19.458000	-13.164000	42.578000
C	-18.611000	-13.295000	44.579000

C	-17.929000	-12.659000	45.621000
H	-17.733000	-11.575000	45.559000
C	-17.492000	-13.373000	46.738000
H	-16.957000	-12.862000	47.556000
C	-17.742000	-14.742000	46.803000
Cl	-17.191000	-15.656000	48.200000
C	-18.421000	-15.399000	45.776000
H	-18.613000	-16.483000	45.839000
C	-18.854000	-14.671000	44.670000
H	-19.394000	-15.184000	43.857000

Cation 22 docked into BChE

N	-18.171000	-11.585000	42.584000
C	-18.879000	-10.445000	42.275000
C	-17.902000	-9.496000	41.926000
N	-16.708000	-10.161000	42.062000
N	-16.873000	-11.409000	42.456000
C	-18.208000	-8.176000	41.537000
H	-17.421000	-7.451000	41.268000
C	-19.547000	-7.840000	41.511000
H	-19.848000	-6.821000	41.216000
C	-20.538000	-8.789000	41.859000
C	-20.257000	-10.121000	42.254000
S	-22.257000	-8.495000	41.867000
C	-22.571000	-10.122000	42.387000
H	-23.586000	-10.514000	42.567000
C	-21.441000	-10.868000	42.551000
H	-21.440000	-11.923000	42.874000
C	-15.354000	-9.655000	41.828000
H	-15.215000	-8.600000	41.495000
H	-14.842000	-10.329000	41.102000
H	-14.747000	-9.822000	42.748000
C	-18.724000	-12.907000	43.023000
H	-19.824000	-12.949000	42.848000
H	-18.393000	-13.719000	42.334000
C	-18.402000	-13.260000	44.448000
C	-18.693000	-14.535000	44.947000
H	-19.150000	-15.291000	44.287000

C	-18.408000	-14.853000	46.272000
H	-18.639000	-15.864000	46.649000
C	-17.832000	-13.909000	47.136000
C	-17.545000	-12.635000	46.625000
H	-17.088000	-11.877000	47.283000
C	-17.562000	-14.245000	48.582000
H	-17.104000	-13.495000	49.268000
H	-16.939000	-15.169000	48.613000
H	-18.515000	-14.598000	49.040000
C	-17.827000	-12.310000	45.301000
H	-17.597000	-11.300000	44.922000

Cation 23 docked into BChE

N	-18.070000	-11.470000	41.949000
C	-18.889000	-10.366000	41.868000
C	-18.045000	-9.322000	41.449000
N	-16.807000	-9.905000	41.323000
N	-16.827000	-11.188000	41.622000
C	-18.492000	-8.001000	41.239000
H	-17.808000	-7.200000	40.911000
C	-19.833000	-7.765000	41.467000
H	-20.241000	-6.751000	41.319000
C	-20.692000	-8.810000	41.889000
C	-20.268000	-10.146000	42.107000
S	-22.396000	-8.647000	42.211000
C	-22.519000	-10.329000	42.624000
H	-23.463000	-10.809000	42.933000
C	-21.335000	-11.000000	42.529000
H	-21.215000	-12.074000	42.751000
C	-15.548000	-9.281000	40.913000
H	-14.544000	-9.754000	40.811000
H	-15.404000	-8.415000	41.601000
H	-15.757000	-8.803000	39.928000
C	-18.456000	-12.860000	42.351000
H	-17.926000	-13.612000	41.721000
H	-19.509000	-13.076000	42.055000
C	-18.246000	-13.149000	43.811000
C	-17.637000	-12.199000	44.641000
H	-17.320000	-11.230000	44.220000
C	-17.427000	-12.465000	45.991000
H	-16.950000	-11.712000	46.641000
C	-17.828000	-13.698000	46.512000

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 C   -18.429000   -14.662000    45.700000
 H   -18.738000   -15.633000    46.122000
Cl   -17.566000   -14.042000    48.203000
 C   -18.633000   -14.382000    44.351000
 H   -19.104000   -15.139000    43.701000
```

Coordinates of AChE (4ey7.pdb) used for the docking study.

The search region of the enzyme was determined by setting the grid box around the center of the active site, consisting of 5 subdomains: peripheral anionic site (Tyr72, Asp74, Tyr124, Trp286, Tyr341), anionic site (Trp86, Glu202, Phe338), oxyanion hole (Gly121, Gly122, Ala204), acyl pocket (Phe295, Phe297) and esteratic site (Ser203, Glu334, His447).

```
ATOM      1  N   GLU A   4       2.514 -35.401  69.696  1.00 63.34           N
ATOM      2  CA  GLU A   4       2.230 -35.193  68.280  1.00 69.93           C
ATOM      3  C   GLU A   4       3.436 -35.566  67.408  1.00 69.11           C
ATOM      4  O   GLU A   4       4.572 -35.606  67.889  1.00 68.26           O
ATOM      5  CB  GLU A   4       1.808 -33.745  68.027  1.00 75.30           C
ATOM      6  CG  GLU A   4       1.007 -33.544  66.749  1.00 72.83           C
ATOM      7  CD  GLU A   4       0.729 -32.081  66.462  1.00 85.00           C
ATOM      8  OE1 GLU A   4       1.240 -31.222  67.218  1.00 82.36           O
ATOM      9  OE2 GLU A   4       0.004 -31.791  65.480  1.00 82.44           O
ATOM     10  N   ASP A   5       3.181 -35.833  66.128  1.00 52.26           N
ATOM     11  CA  ASP A   5       4.201 -36.371  65.228  1.00 52.44           C
ATOM     12  C   ASP A   5       4.816 -35.290  64.335  1.00 54.45           C
ATOM     13  O   ASP A   5       4.158 -34.780  63.425  1.00 49.84           O
ATOM     14  CB  ASP A   5       3.594 -37.477  64.366  1.00 39.43           C
ATOM     15  CG  ASP A   5       4.644 -38.385  63.750  1.00 48.34           C
ATOM     16  OD1 ASP A   5       4.289 -39.534  63.394  1.00 48.09           O
ATOM     17  OD2 ASP A   5       5.819 -37.960  63.629  1.00 39.55           O
ATOM     18  N   ALA A   6       6.083 -34.963  64.591  1.00 49.41           N
ATOM     19  CA  ALA A   6       6.767 -33.874  63.893  1.00 47.25           C
ATOM     20  C   ALA A   6       6.999 -34.189  62.421  1.00 50.52           C
ATOM     21  O   ALA A   6       7.210 -33.285  61.609  1.00 49.69           O
ATOM     22  CB  ALA A   6       8.095 -33.552  64.569  1.00 39.15           C
ATOM     23  N   GLU A   7       6.976 -35.472  62.081  1.00 44.06           N
ATOM     24  CA  GLU A   7       7.172 -35.882  60.701  1.00 44.76           C
ATOM     25  C   GLU A   7       6.010 -35.441  59.803  1.00 43.05           C
ATOM     26  O   GLU A   7       6.171 -35.278  58.594  1.00 37.71           O
ATOM     27  CB  GLU A   7       7.350 -37.396  60.629  1.00 47.62           C
ATOM     28  CG  GLU A   7       8.570 -37.904  61.377  1.00 46.10           C
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ATOM     29  CD  GLU A   7       9.875 -37.419  60.768  1.00 51.67           C
ATOM     30  OE1 GLU A   7       9.880 -37.016  59.580  1.00 46.41           O
ATOM     31  OE2 GLU A   7      10.901 -37.451  61.480  1.00 47.54           O
ATOM     32  N   LEU A   8       4.848 -35.237  60.411  1.00 37.36           N
ATOM     33  CA  LEU A   8       3.632 -34.935  59.678  1.00 37.81           C
ATOM     34  C   LEU A   8       3.298 -33.450  59.708  1.00 37.82           C
ATOM     35  O   LEU A   8       2.201 -33.047  59.321  1.00 34.33           O
ATOM     36  CB  LEU A   8       2.471 -35.737  60.268  1.00 37.14           C
ATOM     37  CG  LEU A   8       2.729 -37.240  60.358  1.00 40.81           C
ATOM     38  CD1 LEU A   8       1.502 -37.949  60.910  1.00 36.15           C
ATOM     39  CD2 LEU A   8       3.125 -37.797  58.983  1.00 31.05           C
ATOM     40  N   LEU A   9       4.237 -32.644  60.192  1.00 37.67           N
ATOM     41  CA  LEU A   9       4.085 -31.195  60.163  1.00 33.55           C
ATOM     42  C   LEU A   9       5.075 -30.632  59.166  1.00 34.56           C
ATOM     43  O   LEU A   9       6.267 -30.920  59.239  1.00 36.14           O
ATOM     44  CB  LEU A   9       4.334 -30.587  61.543  1.00 38.69           C
ATOM     45  CG  LEU A   9       3.406 -31.057  62.662  1.00 44.18           C
ATOM     46  CD1 LEU A   9       3.760 -30.381  63.980  1.00 36.23           C
ATOM     47  CD2 LEU A   9       1.948 -30.806  62.293  1.00 39.51           C
ATOM     48  N   VAL A  10       4.569 -29.852  58.215  1.00 32.80           N
ATOM     49  CA  VAL A  10       5.402 -29.249  57.181  1.00 28.75           C
ATOM     50  C   VAL A  10       4.956 -27.810  56.965  1.00 28.14           C
ATOM     51  O   VAL A  10       3.764 -27.495  57.022  1.00 25.42           O
ATOM     52  CB  VAL A  10       5.265 -29.985  55.813  1.00 33.53           C
ATOM     53  CG1 VAL A  10       6.195 -29.378  54.770  1.00 33.30           C
ATOM     54  CG2 VAL A  10       5.555 -31.447  55.956  1.00 37.85           C
ATOM     55  N   THR A  11       5.913 -26.936  56.701  1.00 32.95           N
ATOM     56  CA  THR A  11       5.588 -25.570  56.351  1.00 33.65           C
ATOM     57  C   THR A  11       5.986 -25.337  54.909  1.00 29.68           C
ATOM     58  O   THR A  11       7.135 -25.543  54.530  1.00 32.40           O
ATOM     59  CB  THR A  11       6.300 -24.564  57.280  1.00 34.32           C
ATOM     60  OG1 THR A  11       5.942 -24.844  58.642  1.00 35.79           O
ATOM     61  CG2 THR A  11       5.894 -23.136  56.933  1.00 27.62           C
ATOM     62  N   VAL A  12       5.016 -24.941  54.098  1.00 26.59           N
ATOM     63  CA  VAL A  12       5.291 -24.567  52.720  1.00 33.50           C
ATOM     64  C   VAL A  12       5.092 -23.064  52.633  1.00 30.59           C
ATOM     65  O   VAL A  12       4.693 -22.436  53.611  1.00 37.88           O
ATOM     66  CB  VAL A  12       4.378 -25.323  51.718  1.00 29.54           C
ATOM     67  CG1 VAL A  12       4.746 -26.792  51.688  1.00 28.07           C
ATOM     68  CG2 VAL A  12       2.895 -25.152  52.078  1.00 22.96           C
ATOM     69  N   ARG A  13       5.365 -22.487  51.476  1.00 29.75           N
ATOM     70  CA  ARG A  13       5.316 -21.039  51.322  1.00 31.99           C
ATOM     71  C   ARG A  13       3.998 -20.406  51.748  1.00 30.74           C
ATOM     72  O   ARG A  13       3.981 -19.295  52.263  1.00 39.48           O
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ATOM     73  CB  ARG A  13       5.663 -20.643  49.883  1.00 27.11           C
ATOM     74  CG  ARG A  13       7.114 -20.909  49.557  1.00 34.49           C
ATOM     75  CD  ARG A  13       7.582 -20.190  48.308  1.00 46.28           C
ATOM     76  NE  ARG A  13       8.927 -20.623  47.931  1.00 55.78           N
ATOM     77  CZ  ARG A  13       9.582 -20.193  46.857  1.00 55.33           C
ATOM     78  NH1 ARG A  13       9.017 -19.309  46.046  1.00 55.82           N
ATOM     79  NH2 ARG A  13      10.802 -20.650  46.593  1.00 51.58           N
ATOM     80  N   GLY A  14       2.896 -21.112  51.541  1.00 33.97           N
ATOM     81  CA  GLY A  14       1.589 -20.553  51.824  1.00 28.80           C
ATOM     82  C   GLY A  14       1.136 -20.752  53.255  1.00 31.36           C
ATOM     83  O   GLY A  14       0.104 -20.219  53.662  1.00 35.36           O
ATOM     84  N   GLY A  15       1.900 -21.517  54.028  1.00 34.77           N
ATOM     85  CA  GLY A  15       1.525 -21.792  55.403  1.00 32.18           C
ATOM     86  C   GLY A  15       1.807 -23.214  55.846  1.00 29.53           C
ATOM     87  O   GLY A  15       2.558 -23.944  55.201  1.00 35.95           O
ATOM     88  N   ARG A  16       1.193 -23.602  56.957  1.00 34.28           N
ATOM     89  CA  ARG A  16       1.494 -24.870  57.609  1.00 36.24           C
ATOM     90  C   ARG A  16       0.532 -25.995  57.210  1.00 34.39           C
ATOM     91  O   ARG A  16      -0.656 -25.754  56.976  1.00 31.78           O
ATOM     92  CB  ARG A  16       1.481 -24.682  59.131  1.00 37.88           C
ATOM     93  CG  ARG A  16       2.704 -23.935  59.691  1.00 44.59           C
ATOM     94  CD  ARG A  16       2.591 -23.720  61.209  1.00 36.64           C
ATOM     95  NE  ARG A  16       1.441 -22.888  61.552  1.00 46.69           N
ATOM     96  CZ  ARG A  16       0.685 -23.055  62.635  1.00 52.46           C
ATOM     97  NH1 ARG A  16       0.949 -24.035  63.489  1.00 49.27           N
ATOM     98  NH2 ARG A  16      -0.344 -22.243  62.862  1.00 47.23           N
ATOM     99  N   LEU A  17       1.058 -27.222  57.162  1.00 28.61           N
ATOM    100  CA  LEU A  17       0.282 -28.410  56.796  1.00 32.47           C
ATOM    101  C   LEU A  17       0.421 -29.511  57.836  1.00 29.60           C
ATOM    102  O   LEU A  17       1.482 -29.678  58.442  1.00 28.51           O
ATOM    103  CB  LEU A  17       0.777 -28.993  55.462  1.00 29.75           C
ATOM    104  CG  LEU A  17       0.773 -28.112  54.223  1.00 27.85           C
ATOM    105  CD1 LEU A  17       1.429 -28.843  53.050  1.00 26.86           C
ATOM    106  CD2 LEU A  17      -0.655 -27.726  53.894  1.00 31.11           C
ATOM    107  N   ARG A  18      -0.645 -30.287  58.000  1.00 29.63           N
ATOM    108  CA  ARG A  18      -0.599 -31.514  58.787  1.00 35.47           C
ATOM    109  C   ARG A  18      -0.925 -32.725  57.902  1.00 39.58           C
ATOM    110  O   ARG A  18      -1.995 -32.798  57.288  1.00 30.43           O
ATOM    111  CB  ARG A  18      -1.578 -31.445  59.961  1.00 33.61           C
ATOM    112  CG  ARG A  18      -1.723 -32.753  60.736  1.00 43.66           C
ATOM    113  CD  ARG A  18      -2.697 -32.581  61.903  1.00 58.88           C
ATOM    114  NE  ARG A  18      -3.704 -31.551  61.620  1.00 65.15           N
ATOM    115  CZ  ARG A  18      -4.953 -31.796  61.222  1.00 61.20           C
ATOM    116  NH1 ARG A  18      -5.380 -33.048  61.071  1.00 56.33           N
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ATOM    117  NH2 ARG A  18      -5.785 -30.788  60.987  1.00 52.28           N
ATOM    118  N   GLY A  19       0.001 -33.676  57.848  1.00 32.94           N
ATOM    119  CA  GLY A  19      -0.203 -34.875  57.065  1.00 34.62           C
ATOM    120  C   GLY A  19      -0.705 -36.052  57.870  1.00 37.12           C
ATOM    121  O   GLY A  19      -1.248 -35.898  58.965  1.00 39.77           O
ATOM    122  N   ILE A  20      -0.520 -37.242  57.312  1.00 33.27           N
ATOM    123  CA  ILE A  20      -0.988 -38.460  57.942  1.00 27.99           C
ATOM    124  C   ILE A  20      -0.004 -39.577  57.646  1.00 31.46           C
ATOM    125  O   ILE A  20       0.595 -39.617  56.572  1.00 33.31           O
ATOM    126  CB  ILE A  20      -2.413 -38.832  57.476  1.00 33.65           C
ATOM    127  CG1 ILE A  20      -2.956 -40.016  58.282  1.00 33.66           C
ATOM    128  CG2 ILE A  20      -2.453 -39.123  55.957  1.00 30.57           C
ATOM    129  CD1 ILE A  20      -4.390 -40.384  57.929  1.00 29.74           C
ATOM    130  N   ARG A  21       0.186 -40.461  58.621  1.00 34.29           N
ATOM    131  CA  ARG A  21       1.048 -41.624  58.462  1.00 34.59           C
ATOM    132  C   ARG A  21       0.220 -42.748  57.857  1.00 34.51           C
ATOM    133  O   ARG A  21      -0.907 -42.999  58.289  1.00 29.00           O
ATOM    134  CB  ARG A  21       1.621 -42.053  59.820  1.00 32.91           C
ATOM    135  CG  ARG A  21       2.887 -42.897  59.731  1.00 35.53           C
ATOM    136  CD  ARG A  21       3.487 -43.168  61.131  1.00 45.17           C
ATOM    137  NE  ARG A  21       2.480 -43.667  62.065  1.00 42.00           N
ATOM    138  CZ  ARG A  21       2.027 -42.983  63.111  1.00 49.68           C
ATOM    139  NH1 ARG A  21       2.510 -41.771  63.388  1.00 41.69           N
ATOM    140  NH2 ARG A  21       1.094 -43.516  63.887  1.00 51.93           N
ATOM    141  N   LEU A  22       0.763 -43.407  56.839  1.00 30.03           N
ATOM    142  CA  LEU A  22       0.057 -44.505  56.199  1.00 29.84           C
ATOM    143  C   LEU A  22       0.880 -45.773  56.319  1.00 32.54           C
ATOM    144  O   LEU A  22       2.106 -45.708  56.371  1.00 32.66           O
ATOM    145  CB  LEU A  22      -0.186 -44.199  54.717  1.00 34.51           C
ATOM    146  CG  LEU A  22      -1.079 -42.996  54.426  1.00 41.05           C
ATOM    147  CD1 LEU A  22      -1.294 -42.827  52.928  1.00 32.75           C
ATOM    148  CD2 LEU A  22      -2.402 -43.136  55.160  1.00 34.25           C
ATOM    149  N   LYS A  23       0.206 -46.922  56.339  1.00 33.18           N
ATOM    150  CA  LYS A  23       0.886 -48.212  56.369  1.00 29.77           C
ATOM    151  C   LYS A  23       1.040 -48.798  54.968  1.00 28.39           C
ATOM    152  O   LYS A  23       0.213 -48.556  54.091  1.00 31.50           O
ATOM    153  CB  LYS A  23       0.095 -49.209  57.219  1.00 32.71           C
ATOM    154  CG  LYS A  23      -0.265 -48.730  58.611  1.00 32.52           C
ATOM    155  CD  LYS A  23      -1.009 -49.822  59.377  1.00 32.93           C
ATOM    156  CE  LYS A  23      -2.388 -50.093  58.783  1.00 42.37           C
ATOM    157  NZ  LYS A  23      -3.017 -51.331  59.345  1.00 45.50           N
ATOM    158  N   THR A  24       2.115 -49.557  54.772  1.00 26.18           N
ATOM    159  CA  THR A  24       2.275 -50.447  53.626  1.00 33.85           C
ATOM    160  C   THR A  24       2.872 -51.734  54.181  1.00 35.23           C
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ATOM    161  O   THR A  24       3.370 -51.749  55.305  1.00 29.03           O
ATOM    162  CB  THR A  24       3.274 -49.902  52.572  1.00 26.38           C
ATOM    163  OG1 THR A  24       4.615 -50.193  52.993  1.00 27.27           O
ATOM    164  CG2 THR A  24       3.098 -48.409  52.361  1.00 30.78           C
ATOM    165  N   PRO A  25       2.846 -52.817  53.391  1.00 36.40           N
ATOM    166  CA  PRO A  25       3.500 -54.059  53.813  1.00 31.77           C
ATOM    167  C   PRO A  25       5.007 -53.919  54.023  1.00 33.56           C
ATOM    168  O   PRO A  25       5.613 -54.793  54.642  1.00 44.91           O
ATOM    169  CB  PRO A  25       3.238 -55.000  52.641  1.00 34.71           C
ATOM    170  CG  PRO A  25       1.988 -54.492  52.033  1.00 38.21           C
ATOM    171  CD  PRO A  25       2.044 -53.005  52.170  1.00 35.26           C
ATOM    172  N   GLY A  26       5.603 -52.844  53.520  1.00 29.29           N
ATOM    173  CA  GLY A  26       7.031 -52.637  53.669  1.00 24.77           C
ATOM    174  C   GLY A  26       7.382 -51.623  54.743  1.00 30.64           C
ATOM    175  O   GLY A  26       8.557 -51.299  54.944  1.00 31.70           O
ATOM    176  N   GLY A  27       6.366 -51.118  55.439  1.00 28.81           N
ATOM    177  CA  GLY A  27       6.578 -50.081  56.431  1.00 28.06           C
ATOM    178  C   GLY A  27       5.834 -48.787  56.125  1.00 35.77           C
ATOM    179  O   GLY A  27       5.211 -48.647  55.065  1.00 34.74           O
ATOM    180  N   PRO A  28       5.894 -47.822  57.057  1.00 28.77           N
ATOM    181  CA  PRO A  28       5.105 -46.598  56.925  1.00 29.10           C
ATOM    182  C   PRO A  28       5.602 -45.621  55.859  1.00 26.94           C
ATOM    183  O   PRO A  28       6.704 -45.704  55.313  1.00 27.73           O
ATOM    184  CB  PRO A  28       5.231 -45.957  58.312  1.00 28.73           C
ATOM    185  CG  PRO A  28       6.532 -46.420  58.801  1.00 28.40           C
ATOM    186  CD  PRO A  28       6.694 -47.824  58.291  1.00 24.19           C
ATOM    187  N   VAL A  29       4.754 -44.645  55.601  1.00 24.78           N
ATOM    188  CA  VAL A  29       5.013 -43.664  54.584  1.00 25.61           C
ATOM    189  C   VAL A  29       4.299 -42.404  55.056  1.00 29.05           C
ATOM    190  O   VAL A  29       3.324 -42.498  55.820  1.00 29.22           O
ATOM    191  CB  VAL A  29       4.472 -44.203  53.235  1.00 31.92           C
ATOM    192  CG1 VAL A  29       3.634 -43.171  52.505  1.00 24.51           C
ATOM    193  CG2 VAL A  29       5.614 -44.772  52.385  1.00 27.21           C
ATOM    194  N   SER A  30       4.801 -41.232  54.657  1.00 27.29           N
ATOM    195  CA  SER A  30       4.151 -39.965  55.003  1.00 28.01           C
ATOM    196  C   SER A  30       3.345 -39.451  53.819  1.00 28.27           C
ATOM    197  O   SER A  30       3.831 -39.428  52.688  1.00 29.39           O
ATOM    198  CB  SER A  30       5.178 -38.903  55.405  1.00 32.65           C
ATOM    199  OG  SER A  30       6.116 -39.397  56.347  1.00 37.71           O
ATOM    200  N   ALA A  31       2.117 -39.029  54.092  1.00 27.82           N
ATOM    201  CA  ALA A  31       1.220 -38.556  53.060  1.00 30.49           C
ATOM    202  C   ALA A  31       0.639 -37.202  53.432  1.00 33.65           C
ATOM    203  O   ALA A  31       0.223 -36.975  54.569  1.00 29.88           O
ATOM    204  CB  ALA A  31       0.103 -39.559  52.819  1.00 26.08           C
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ATOM    205  N   PHE A  32       0.625 -36.309  52.452  1.00 27.48           N
ATOM    206  CA  PHE A  32       0.027 -34.997  52.594  1.00 25.43           C
ATOM    207  C   PHE A  32      -0.941 -34.851  51.428  1.00 28.56           C
ATOM    208  O   PHE A  32      -0.537 -34.703  50.258  1.00 27.10           O
ATOM    209  CB  PHE A  32       1.118 -33.924  52.596  1.00 23.49           C
ATOM    210  CG  PHE A  32       2.130 -34.111  53.696  1.00 28.30           C
ATOM    211  CD1 PHE A  32       3.219 -34.953  53.523  1.00 28.07           C
ATOM    212  CD2 PHE A  32       1.980 -33.464  54.914  1.00 29.85           C
ATOM    213  CE1 PHE A  32       4.146 -35.140  54.545  1.00 35.26           C
ATOM    214  CE2 PHE A  32       2.902 -33.650  55.938  1.00 33.86           C
ATOM    215  CZ  PHE A  32       3.984 -34.495  55.751  1.00 27.54           C
ATOM    216  N   LEU A  33      -2.222 -34.947  51.755  1.00 24.65           N
ATOM    217  CA  LEU A  33      -3.268 -35.064  50.759  1.00 25.47           C
ATOM    218  C   LEU A  33      -4.169 -33.858  50.829  1.00 27.68           C
ATOM    219  O   LEU A  33      -4.550 -33.437  51.916  1.00 27.95           O
ATOM    220  CB  LEU A  33      -4.094 -36.326  51.023  1.00 24.75           C
ATOM    221  CG  LEU A  33      -3.287 -37.615  51.213  1.00 26.93           C
ATOM    222  CD1 LEU A  33      -4.200 -38.801  51.538  1.00 23.65           C
ATOM    223  CD2 LEU A  33      -2.443 -37.909  49.971  1.00 27.62           C
ATOM    224  N   GLY A  34      -4.525 -33.308  49.671  1.00 21.27           N
ATOM    225  CA  GLY A  34      -5.476 -32.211  49.633  1.00 21.36           C
ATOM    226  C   GLY A  34      -4.857 -30.864  49.967  1.00 24.57           C
ATOM    227  O   GLY A  34      -5.498 -30.014  50.576  1.00 30.16           O
ATOM    228  N   ILE A  35      -3.604 -30.674  49.564  1.00 25.33           N
ATOM    229  CA  ILE A  35      -2.928 -29.388  49.684  1.00 25.24           C
ATOM    230  C   ILE A  35      -3.395 -28.440  48.587  1.00 27.40           C
ATOM    231  O   ILE A  35      -3.229 -28.731  47.402  1.00 26.75           O
ATOM    232  CB  ILE A  35      -1.429 -29.553  49.473  1.00 24.33           C
ATOM    233  CG1 ILE A  35      -0.859 -30.637  50.398  1.00 22.51           C
ATOM    234  CG2 ILE A  35      -0.736 -28.214  49.637  1.00 26.56           C
ATOM    235  CD1 ILE A  35       0.598 -31.003  50.093  1.00 18.98           C
ATOM    236  N   PRO A  36      -3.974 -27.297  48.968  1.00 27.84           N
ATOM    237  CA  PRO A  36      -4.423 -26.329  47.952  1.00 21.12           C
ATOM    238  C   PRO A  36      -3.253 -25.679  47.206  1.00 27.67           C
ATOM    239  O   PRO A  36      -2.332 -25.163  47.842  1.00 28.79           O
ATOM    240  CB  PRO A  36      -5.186 -25.286  48.772  1.00 25.38           C
ATOM    241  CG  PRO A  36      -4.573 -25.376  50.163  1.00 30.08           C
ATOM    242  CD  PRO A  36      -4.194 -26.827  50.349  1.00 27.02           C
ATOM    243  N   PHE A  37      -3.275 -25.707  45.875  1.00 22.83           N
ATOM    244  CA  PHE A  37      -2.206 -25.062  45.118  1.00 26.61           C
ATOM    245  C   PHE A  37      -2.674 -23.881  44.262  1.00 26.03           C
ATOM    246  O   PHE A  37      -1.858 -23.139  43.722  1.00 29.33           O
ATOM    247  CB  PHE A  37      -1.386 -26.079  44.301  1.00 29.84           C
ATOM    248  CG  PHE A  37      -2.120 -26.684  43.129  1.00 21.80           C
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ATOM    249  CD1 PHE A  37      -2.121 -26.050  41.889  1.00 24.95           C
ATOM    250  CD2 PHE A  37      -2.760 -27.915  43.253  1.00 21.93           C
ATOM    251  CE1 PHE A  37      -2.782 -26.620  40.788  1.00 26.08           C
ATOM    252  CE2 PHE A  37      -3.424 -28.500  42.160  1.00 21.82           C
ATOM    253  CZ  PHE A  37      -3.437 -27.847  40.928  1.00 22.95           C
ATOM    254  N   ALA A  38      -3.986 -23.703  44.155  1.00 22.72           N
ATOM    255  CA  ALA A  38      -4.544 -22.561  43.453  1.00 22.93           C
ATOM    256  C   ALA A  38      -5.753 -22.049  44.204  1.00 27.43           C
ATOM    257  O   ALA A  38      -6.320 -22.756  45.037  1.00 21.52           O
ATOM    258  CB  ALA A  38      -4.940 -22.941  42.019  1.00 21.83           C
ATOM    259  N   GLU A  39      -6.149 -20.815  43.907  1.00 30.23           N
ATOM    260  CA  GLU A  39      -7.433 -20.309  44.372  1.00 28.42           C
ATOM    261  C   GLU A  39      -8.532 -21.126  43.688  1.00 33.53           C
ATOM    262  O   GLU A  39      -8.376 -21.537  42.533  1.00 25.87           O
ATOM    263  CB  GLU A  39      -7.569 -18.816  44.041  1.00 26.70           C
ATOM    264  CG  GLU A  39      -6.706 -17.908  44.917  1.00 31.16           C
ATOM    265  CD  GLU A  39      -7.094 -17.992  46.392  1.00 39.36           C
ATOM    266  OE1 GLU A  39      -8.283 -17.771  46.707  1.00 44.15           O
ATOM    267  OE2 GLU A  39      -6.221 -18.304  47.232  1.00 36.49           O
ATOM    268  N   PRO A  40      -9.634 -21.394  44.402  1.00 30.29           N
ATOM    269  CA  PRO A  40     -10.712 -22.158  43.759  1.00 25.69           C
ATOM    270  C   PRO A  40     -11.230 -21.464  42.497  1.00 28.41           C
ATOM    271  O   PRO A  40     -11.714 -20.340  42.567  1.00 34.41           O
ATOM    272  CB  PRO A  40     -11.786 -22.216  44.844  1.00 28.73           C
ATOM    273  CG  PRO A  40     -10.988 -22.179  46.147  1.00 22.70           C
ATOM    274  CD  PRO A  40      -9.849 -21.225  45.850  1.00 27.33           C
ATOM    275  N   PRO A  41     -11.106 -22.128  41.341  1.00 29.22           N
ATOM    276  CA  PRO A  41     -11.497 -21.518  40.065  1.00 29.57           C
ATOM    277  C   PRO A  41     -13.022 -21.519  39.879  1.00 36.71           C
ATOM    278  O   PRO A  41     -13.547 -22.216  39.007  1.00 30.33           O
ATOM    279  CB  PRO A  41     -10.812 -22.413  39.034  1.00 24.51           C
ATOM    280  CG  PRO A  41     -10.733 -23.753  39.692  1.00 27.29           C
ATOM    281  CD  PRO A  41     -10.609 -23.507  41.176  1.00 25.77           C
ATOM    282  N   MET A  42     -13.710 -20.722  40.695  1.00 32.51           N
ATOM    283  CA  MET A  42     -15.171 -20.715  40.756  1.00 36.67           C
ATOM    284  C   MET A  42     -15.781 -19.361  40.374  1.00 38.40           C
ATOM    285  O   MET A  42     -15.095 -18.332  40.358  1.00 34.05           O
ATOM    286  CB  MET A  42     -15.630 -21.098  42.166  1.00 39.73           C
ATOM    287  CG  MET A  42     -15.072 -22.427  42.641  1.00 36.68           C
ATOM    288  SD  MET A  42     -16.137 -23.231  43.839  1.00 57.16           S
ATOM    289  CE  MET A  42     -16.049 -22.070  45.209  1.00 49.99           C
ATOM    290  N   GLY A  43     -17.080 -19.371  40.080  1.00 30.37           N
ATOM    291  CA  GLY A  43     -17.784 -18.161  39.699  1.00 33.05           C
ATOM    292  C   GLY A  43     -17.139 -17.463  38.516  1.00 34.49           C
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ATOM    293  O   GLY A  43     -17.038 -18.032  37.425  1.00 30.76           O
ATOM    294  N   PRO A  44     -16.685 -16.223  38.728  1.00 35.11           N
ATOM    295  CA  PRO A  44     -16.048 -15.464  37.643  1.00 31.66           C
ATOM    296  C   PRO A  44     -14.722 -16.085  37.197  1.00 35.68           C
ATOM    297  O   PRO A  44     -14.259 -15.773  36.103  1.00 33.51           O
ATOM    298  CB  PRO A  44     -15.832 -14.078  38.256  1.00 31.49           C
ATOM    299  CG  PRO A  44     -15.797 -14.326  39.755  1.00 35.04           C
ATOM    300  CD  PRO A  44     -16.721 -15.481  40.004  1.00 31.47           C
ATOM    301  N   ARG A  45     -14.139 -16.961  38.017  1.00 36.60           N
ATOM    302  CA  ARG A  45     -12.887 -17.638  37.666  1.00 34.54           C
ATOM    303  C   ARG A  45     -13.052 -18.905  36.811  1.00 32.23           C
ATOM    304  O   ARG A  45     -12.057 -19.465  36.349  1.00 30.53           O
ATOM    305  CB  ARG A  45     -12.069 -17.990  38.915  1.00 32.99           C
ATOM    306  CG  ARG A  45     -11.555 -16.810  39.738  1.00 43.08           C
ATOM    307  CD  ARG A  45     -10.804 -15.756  38.916  1.00 53.00           C
ATOM    308  NE  ARG A  45      -9.636 -16.262  38.188  1.00 59.27           N
ATOM    309  CZ  ARG A  45      -8.753 -15.481  37.561  1.00 65.17           C
ATOM    310  NH1 ARG A  45      -8.898 -14.159  37.589  1.00 56.69           N
ATOM    311  NH2 ARG A  45      -7.719 -16.013  36.910  1.00 53.00           N
ATOM    312  N   ARG A  46     -14.282 -19.375  36.620  1.00 29.33           N
ATOM    313  CA  ARG A  46     -14.516 -20.510  35.725  1.00 27.71           C
ATOM    314  C   ARG A  46     -13.998 -20.198  34.315  1.00 27.01           C
ATOM    315  O   ARG A  46     -14.216 -19.101  33.805  1.00 31.91           O
ATOM    316  CB  ARG A  46     -16.003 -20.878  35.676  1.00 28.48           C
ATOM    317  CG  ARG A  46     -16.322 -22.024  34.719  1.00 27.46           C
ATOM    318  CD  ARG A  46     -17.818 -22.264  34.580  1.00 26.70           C
ATOM    319  NE  ARG A  46     -18.384 -23.018  35.700  1.00 29.15           N
ATOM    320  CZ  ARG A  46     -19.688 -23.224  35.866  1.00 31.56           C
ATOM    321  NH1 ARG A  46     -20.541 -22.730  34.979  1.00 30.91           N
ATOM    322  NH2 ARG A  46     -20.144 -23.919  36.907  1.00 23.30           N
ATOM    323  N   PHE A  47     -13.301 -21.165  33.716  1.00 28.25           N
ATOM    324  CA  PHE A  47     -12.699 -21.055  32.371  1.00 31.69           C
ATOM    325  C   PHE A  47     -11.408 -20.228  32.329  1.00 29.70           C
ATOM    326  O   PHE A  47     -10.770 -20.118  31.273  1.00 27.89           O
ATOM    327  CB  PHE A  47     -13.672 -20.502  31.310  1.00 27.02           C
ATOM    328  CG  PHE A  47     -14.994 -21.212  31.238  1.00 27.00           C
ATOM    329  CD1 PHE A  47     -15.059 -22.575  31.007  1.00 24.51           C
ATOM    330  CD2 PHE A  47     -16.182 -20.494  31.349  1.00 28.87           C
ATOM    331  CE1 PHE A  47     -16.285 -23.220  30.916  1.00 27.39           C
ATOM    332  CE2 PHE A  47     -17.413 -21.126  31.256  1.00 21.67           C
ATOM    333  CZ  PHE A  47     -17.471 -22.490  31.044  1.00 24.31           C
ATOM    334  N   LEU A  48     -11.031 -19.638  33.460  1.00 26.60           N
ATOM    335  CA  LEU A  48      -9.857 -18.770  33.501  1.00 30.25           C
ATOM    336  C   LEU A  48      -8.620 -19.518  33.986  1.00 31.08           C
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ATOM    337  O   LEU A  48      -8.743 -20.533  34.676  1.00 25.38           O
ATOM    338  CB  LEU A  48     -10.112 -17.555  34.398  1.00 34.18           C
ATOM    339  CG  LEU A  48     -11.130 -16.505  33.940  1.00 35.89           C
ATOM    340  CD1 LEU A  48     -10.997 -15.238  34.787  1.00 34.69           C
ATOM    341  CD2 LEU A  48     -10.979 -16.192  32.467  1.00 34.23           C
ATOM    342  N   PRO A  49      -7.422 -19.023  33.617  1.00 29.00           N
ATOM    343  CA  PRO A  49      -6.164 -19.563  34.148  1.00 25.22           C
ATOM    344  C   PRO A  49      -6.186 -19.599  35.666  1.00 28.57           C
ATOM    345  O   PRO A  49      -6.831 -18.763  36.295  1.00 31.57           O
ATOM    346  CB  PRO A  49      -5.129 -18.537  33.691  1.00 23.67           C
ATOM    347  CG  PRO A  49      -5.695 -17.999  32.410  1.00 31.86           C
ATOM    348  CD  PRO A  49      -7.189 -17.964  32.616  1.00 26.41           C
ATOM    349  N   PRO A  50      -5.478 -20.558  36.258  1.00 26.46           N
ATOM    350  CA  PRO A  50      -5.453 -20.667  37.718  1.00 25.74           C
ATOM    351  C   PRO A  50      -4.658 -19.521  38.356  1.00 31.16           C
ATOM    352  O   PRO A  50      -3.694 -19.047  37.763  1.00 29.04           O
ATOM    353  CB  PRO A  50      -4.732 -21.998  37.944  1.00 25.39           C
ATOM    354  CG  PRO A  50      -3.815 -22.131  36.737  1.00 22.68           C
ATOM    355  CD  PRO A  50      -4.629 -21.570  35.598  1.00 23.59           C
ATOM    356  N   GLU A  51      -5.072 -19.078  39.540  1.00 29.94           N
ATOM    357  CA  GLU A  51      -4.303 -18.115  40.322  1.00 33.02           C
ATOM    358  C   GLU A  51      -3.632 -18.858  41.468  1.00 30.96           C
ATOM    359  O   GLU A  51      -4.231 -19.758  42.063  1.00 30.72           O
ATOM    360  CB  GLU A  51      -5.209 -17.032  40.920  1.00 32.89           C
ATOM    361  CG  GLU A  51      -6.167 -16.358  39.946  1.00 50.33           C
ATOM    362  CD  GLU A  51      -7.187 -15.475  40.663  1.00 65.18           C
ATOM    363  OE1 GLU A  51      -8.256 -15.991  41.078  1.00 61.78           O
ATOM    364  OE2 GLU A  51      -6.913 -14.263  40.820  1.00 71.56           O
ATOM    365  N   PRO A  52      -2.389 -18.484  41.788  1.00 29.16           N
ATOM    366  CA  PRO A  52      -1.691 -19.089  42.930  1.00 27.90           C
ATOM    367  C   PRO A  52      -2.517 -19.002  44.213  1.00 30.01           C
ATOM    368  O   PRO A  52      -3.206 -18.006  44.445  1.00 28.32           O
ATOM    369  CB  PRO A  52      -0.423 -18.244  43.038  1.00 27.69           C
ATOM    370  CG  PRO A  52      -0.161 -17.803  41.614  1.00 22.16           C
ATOM    371  CD  PRO A  52      -1.526 -17.556  41.031  1.00 24.99           C
ATOM    372  N   LYS A  53      -2.487 -20.060  45.013  1.00 27.89           N
ATOM    373  CA  LYS A  53      -3.222 -20.070  46.273  1.00 30.42           C
ATOM    374  C   LYS A  53      -2.661 -19.001  47.213  1.00 32.66           C
ATOM    375  O   LYS A  53      -1.449 -18.917  47.409  1.00 30.34           O
ATOM    376  CB  LYS A  53      -3.133 -21.453  46.930  1.00 26.75           C
ATOM    377  CG  LYS A  53      -3.696 -21.525  48.348  1.00 30.16           C
ATOM    378  CD  LYS A  53      -5.206 -21.372  48.350  1.00 31.12           C
ATOM    379  CE  LYS A  53      -5.789 -21.655  49.719  1.00 26.92           C
ATOM    380  NZ  LYS A  53      -7.259 -21.391  49.739  1.00 28.34           N
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ATOM    381  N   GLN A  54      -3.548 -18.196  47.787  0.43 31.53           N
ATOM    383  CA  GLN A  54      -3.155 -17.179  48.758  0.43 35.29           C
ATOM    385  C   GLN A  54      -2.765 -17.837  50.083  0.43 34.30           C
ATOM    387  O   GLN A  54      -3.389 -18.817  50.494  0.43 33.25           O
ATOM    389  CB  GLN A  54      -4.297 -16.172  48.966  0.43 34.67           C
ATOM    391  CG  GLN A  54      -4.604 -15.322  47.731  0.43 35.67           C
ATOM    393  CD  GLN A  54      -6.033 -14.794  47.700  0.43 38.48           C
ATOM    395  OE1 GLN A  54      -6.537 -14.406  46.643  0.43 38.77           O
ATOM    397  NE2 GLN A  54      -6.691 -14.780  48.855  0.43 33.35           N
ATOM    399  N   PRO A  55      -1.721 -17.312  50.747  1.00 33.15           N
ATOM    400  CA  PRO A  55      -1.291 -17.843  52.052  1.00 34.19           C
ATOM    401  C   PRO A  55      -2.418 -17.894  53.084  1.00 33.93           C
ATOM    402  O   PRO A  55      -3.324 -17.061  53.061  1.00 31.90           O
ATOM    403  CB  PRO A  55      -0.197 -16.866  52.492  1.00 30.69           C
ATOM    404  CG  PRO A  55       0.360 -16.351  51.208  1.00 36.57           C
ATOM    405  CD  PRO A  55      -0.825 -16.248  50.264  1.00 30.62           C
ATOM    406  N   TRP A  56      -2.361 -18.897  53.956  1.00 30.06           N
ATOM    407  CA  TRP A  56      -3.368 -19.114  54.985  1.00 31.65           C
ATOM    408  C   TRP A  56      -2.706 -19.075  56.366  1.00 37.29           C
ATOM    409  O   TRP A  56      -1.498 -19.319  56.505  1.00 29.83           O
ATOM    410  CB  TRP A  56      -4.045 -20.478  54.787  1.00 29.54           C
ATOM    411  CG  TRP A  56      -3.063 -21.622  54.828  1.00 30.99           C
ATOM    412  CD1 TRP A  56      -2.635 -22.296  55.935  1.00 31.93           C
ATOM    413  CD2 TRP A  56      -2.369 -22.200  53.715  1.00 31.44           C
ATOM    414  NE1 TRP A  56      -1.722 -23.257  55.582  1.00 33.07           N
ATOM    415  CE2 TRP A  56      -1.542 -23.221  54.224  1.00 30.32           C
ATOM    416  CE3 TRP A  56      -2.371 -21.956  52.336  1.00 31.14           C
ATOM    417  CZ2 TRP A  56      -0.727 -24.004  53.403  1.00 26.50           C
ATOM    418  CZ3 TRP A  56      -1.562 -22.735  51.521  1.00 28.31           C
ATOM    419  CH2 TRP A  56      -0.748 -23.744  52.060  1.00 28.66           C
ATOM    420  N   SER A  57      -3.495 -18.762  57.384  1.00 33.45           N
ATOM    421  CA  SER A  57      -3.008 -18.826  58.754  1.00 39.57           C
ATOM    422  C   SER A  57      -3.492 -20.140  59.348  1.00 41.61           C
ATOM    423  O   SER A  57      -4.399 -20.772  58.805  1.00 41.55           O
ATOM    424  CB  SER A  57      -3.533 -17.646  59.564  1.00 41.88           C
ATOM    425  OG  SER A  57      -4.948 -17.668  59.611  1.00 45.04           O
ATOM    426  N   GLY A  58      -2.888 -20.560  60.453  1.00 40.86           N
ATOM    427  CA  GLY A  58      -3.241 -21.838  61.043  1.00 37.53           C
ATOM    428  C   GLY A  58      -2.747 -23.020  60.219  1.00 44.22           C
ATOM    429  O   GLY A  58      -1.904 -22.871  59.331  1.00 41.44           O
ATOM    430  N   VAL A  59      -3.283 -24.201  60.507  1.00 39.11           N
ATOM    431  CA  VAL A  59      -2.763 -25.434  59.933  1.00 41.07           C
ATOM    432  C   VAL A  59      -3.782 -26.101  59.022  1.00 40.03           C
ATOM    433  O   VAL A  59      -4.849 -26.518  59.480  1.00 35.57           O
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ATOM    434  CB  VAL A  59      -2.387 -26.444  61.038  1.00 40.95           C
ATOM    435  CG1 VAL A  59      -1.654 -27.644  60.440  1.00 36.13           C
ATOM    436  CG2 VAL A  59      -1.544 -25.775  62.120  1.00 32.77           C
ATOM    437  N   VAL A  60      -3.450 -26.208  57.736  1.00 35.85           N
ATOM    438  CA  VAL A  60      -4.287 -26.952  56.792  1.00 32.06           C
ATOM    439  C   VAL A  60      -4.243 -28.457  57.071  1.00 34.95           C
ATOM    440  O   VAL A  60      -3.170 -29.067  57.178  1.00 32.51           O
ATOM    441  CB  VAL A  60      -3.909 -26.664  55.316  1.00 31.60           C
ATOM    442  CG1 VAL A  60      -4.473 -27.728  54.390  1.00 29.25           C
ATOM    443  CG2 VAL A  60      -4.410 -25.292  54.898  1.00 31.86           C
ATOM    444  N   ASP A  61      -5.428 -29.037  57.211  1.00 33.02           N
ATOM    445  CA  ASP A  61      -5.593 -30.470  57.374  1.00 38.98           C
ATOM    446  C   ASP A  61      -5.325 -31.192  56.052  1.00 41.18           C
ATOM    447  O   ASP A  61      -6.156 -31.171  55.146  1.00 42.08           O
ATOM    448  CB  ASP A  61      -7.020 -30.757  57.837  1.00 38.86           C
ATOM    449  CG  ASP A  61      -7.355 -32.230  57.821  1.00 47.45           C
ATOM    450  OD1 ASP A  61      -6.435 -33.057  57.981  1.00 52.46           O
ATOM    451  OD2 ASP A  61      -8.546 -32.563  57.655  1.00 57.14           O
ATOM    452  N   ALA A  62      -4.167 -31.829  55.940  1.00 33.88           N
ATOM    453  CA  ALA A  62      -3.833 -32.544  54.718  1.00 33.27           C
ATOM    454  C   ALA A  62      -3.819 -34.053  54.945  1.00 29.34           C
ATOM    455  O   ALA A  62      -2.835 -34.719  54.636  1.00 26.52           O
ATOM    456  CB  ALA A  62      -2.478 -32.074  54.169  1.00 28.50           C
ATOM    457  N   THR A  63      -4.911 -34.589  55.480  1.00 29.97           N
ATOM    458  CA  THR A  63      -4.940 -35.992  55.881  1.00 34.87           C
ATOM    459  C   THR A  63      -5.886 -36.800  55.006  1.00 34.98           C
ATOM    460  O   THR A  63      -6.021 -38.014  55.177  1.00 34.94           O
ATOM    461  CB  THR A  63      -5.381 -36.158  57.362  1.00 35.26           C
ATOM    462  OG1 THR A  63      -6.697 -35.620  57.530  1.00 32.20           O
ATOM    463  CG2 THR A  63      -4.432 -35.438  58.289  1.00 30.47           C
ATOM    464  N   THR A  64      -6.539 -36.127  54.067  1.00 32.28           N
ATOM    465  CA  THR A  64      -7.572 -36.774  53.273  1.00 29.96           C
ATOM    466  C   THR A  64      -7.635 -36.208  51.833  1.00 32.97           C
ATOM    467  O   THR A  64      -7.289 -35.046  51.599  1.00 31.19           O
ATOM    468  CB  THR A  64      -8.936 -36.683  54.021  1.00 31.00           C
ATOM    469  OG1 THR A  64      -9.899 -37.536  53.398  1.00 46.09           O
ATOM    470  CG2 THR A  64      -9.452 -35.252  54.050  1.00 25.37           C
ATOM    471  N   PHE A  65      -8.037 -37.035  50.868  1.00 26.42           N
ATOM    472  CA  PHE A  65      -8.167 -36.570  49.491  1.00 25.38           C
ATOM    473  C   PHE A  65      -9.244 -35.504  49.384  1.00 26.15           C
ATOM    474  O   PHE A  65     -10.265 -35.560  50.068  1.00 28.45           O
ATOM    475  CB  PHE A  65      -8.491 -37.719  48.529  1.00 25.63           C
ATOM    476  CG  PHE A  65      -7.315 -38.586  48.196  1.00 20.84           C
ATOM    477  CD1 PHE A  65      -6.187 -38.047  47.605  1.00 20.39           C
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ATOM    478  CD2 PHE A  65      -7.348 -39.946  48.448  1.00 20.16           C
ATOM    479  CE1 PHE A  65      -5.098 -38.849  47.292  1.00 21.43           C
ATOM    480  CE2 PHE A  65      -6.264 -40.761  48.134  1.00 18.76           C
ATOM    481  CZ  PHE A  65      -5.135 -40.205  47.556  1.00 22.11           C
ATOM    482  N   GLN A  66      -9.013 -34.532  48.514  1.00 24.40           N
ATOM    483  CA  GLN A  66      -9.978 -33.472  48.296  1.00 22.11           C
ATOM    484  C   GLN A  66     -10.901 -33.816  47.126  1.00 26.84           C
ATOM    485  O   GLN A  66     -10.762 -34.872  46.498  1.00 25.86           O
ATOM    486  CB  GLN A  66      -9.247 -32.159  48.026  1.00 27.01           C
ATOM    487  CG  GLN A  66      -9.063 -31.289  49.236  1.00 24.82           C
ATOM    488  CD  GLN A  66     -10.328 -30.532  49.594  1.00 35.60           C
ATOM    489  OE1 GLN A  66     -11.357 -30.645  48.914  1.00 35.85           O
ATOM    490  NE2 GLN A  66     -10.256 -29.742  50.657  1.00 26.54           N
ATOM    491  N   SER A  67     -11.824 -32.907  46.829  1.00 19.94           N
ATOM    492  CA  SER A  67     -12.853 -33.130  45.828  1.00 26.24           C
ATOM    493  C   SER A  67     -12.318 -33.430  44.418  1.00 29.68           C
ATOM    494  O   SER A  67     -11.234 -32.987  44.030  1.00 24.61           O
ATOM    495  CB  SER A  67     -13.773 -31.917  45.773  1.00 27.81           C
ATOM    496  OG  SER A  67     -14.263 -31.605  47.063  1.00 34.46           O
ATOM    497  N   VAL A  68     -13.099 -34.194  43.663  1.00 26.74           N
ATOM    498  CA  VAL A  68     -12.799 -34.471  42.265  1.00 22.55           C
ATOM    499  C   VAL A  68     -13.315 -33.322  41.400  1.00 23.76           C
ATOM    500  O   VAL A  68     -14.427 -32.828  41.615  1.00 23.36           O
ATOM    501  CB  VAL A  68     -13.425 -35.815  41.833  1.00 24.54           C
ATOM    502  CG1 VAL A  68     -13.235 -36.067  40.335  1.00 22.63           C
ATOM    503  CG2 VAL A  68     -12.828 -36.955  42.662  1.00 18.61           C
ATOM    504  N   CYS A  69     -12.492 -32.869  40.457  1.00 20.75           N
ATOM    505  CA  CYS A  69     -12.910 -31.827  39.515  1.00 24.58           C
ATOM    506  C   CYS A  69     -14.135 -32.299  38.768  1.00 26.10           C
ATOM    507  O   CYS A  69     -14.199 -33.463  38.367  1.00 24.20           O
ATOM    508  CB  CYS A  69     -11.790 -31.501  38.518  1.00 22.99           C
ATOM    509  SG  CYS A  69     -10.349 -30.673  39.265  1.00 27.26           S
ATOM    510  N   TYR A  70     -15.100 -31.398  38.589  1.00 25.05           N
ATOM    511  CA  TYR A  70     -16.350 -31.724  37.903  1.00 26.87           C
ATOM    512  C   TYR A  70     -16.167 -32.441  36.568  1.00 27.98           C
ATOM    513  O   TYR A  70     -15.441 -31.970  35.691  1.00 25.35           O
ATOM    514  CB  TYR A  70     -17.196 -30.471  37.701  1.00 30.15           C
ATOM    515  CG  TYR A  70     -18.461 -30.525  38.506  1.00 32.51           C
ATOM    516  CD1 TYR A  70     -18.555 -29.869  39.728  1.00 26.53           C
ATOM    517  CD2 TYR A  70     -19.557 -31.264  38.063  1.00 32.44           C
ATOM    518  CE1 TYR A  70     -19.713 -29.922  40.482  1.00 29.37           C
ATOM    519  CE2 TYR A  70     -20.725 -31.330  38.819  1.00 36.45           C
ATOM    520  CZ  TYR A  70     -20.789 -30.657  40.029  1.00 33.93           C
ATOM    521  OH  TYR A  70     -21.936 -30.706  40.787  1.00 52.19           O
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ATOM    522  N   GLN A  71     -16.843 -33.578  36.421  1.00 27.96           N
ATOM    523  CA  GLN A  71     -16.658 -34.421  35.255  1.00 25.32           C
ATOM    524  C   GLN A  71     -17.798 -35.417  35.074  1.00 31.39           C
ATOM    525  O   GLN A  71     -18.510 -35.747  36.032  1.00 24.05           O
ATOM    526  CB  GLN A  71     -15.346 -35.185  35.372  1.00 21.80           C
ATOM    527  CG  GLN A  71     -15.315 -36.174  36.519  1.00 20.79           C
ATOM    528  CD  GLN A  71     -13.930 -36.738  36.749  1.00 23.12           C
ATOM    529  OE1 GLN A  71     -13.699 -37.937  36.582  1.00 20.38           O
ATOM    530  NE2 GLN A  71     -12.998 -35.878  37.153  1.00 22.86           N
ATOM    531  N   TYR A  72     -17.955 -35.865  33.827  1.00 23.07           N
ATOM    532  CA  TYR A  72     -18.878 -36.918  33.444  1.00 21.23           C
ATOM    533  C   TYR A  72     -18.592 -38.187  34.233  1.00 25.36           C
ATOM    534  O   TYR A  72     -17.429 -38.491  34.518  1.00 28.13           O
ATOM    535  CB  TYR A  72     -18.747 -37.186  31.928  1.00 26.46           C
ATOM    536  CG  TYR A  72     -19.487 -38.417  31.457  1.00 25.78           C
ATOM    537  CD1 TYR A  72     -20.864 -38.394  31.276  1.00 25.20           C
ATOM    538  CD2 TYR A  72     -18.811 -39.607  31.202  1.00 22.40           C
ATOM    539  CE1 TYR A  72     -21.553 -39.523  30.851  1.00 26.16           C
ATOM    540  CE2 TYR A  72     -19.492 -40.739  30.777  1.00 27.90           C
ATOM    541  CZ  TYR A  72     -20.865 -40.691  30.609  1.00 27.12           C
ATOM    542  OH  TYR A  72     -21.555 -41.812  30.201  1.00 26.34           O
ATOM    543  N   VAL A  73     -19.651 -38.910  34.606  1.00 26.54           N
ATOM    544  CA  VAL A  73     -19.520 -40.178  35.330  1.00 25.16           C
ATOM    545  C   VAL A  73     -19.941 -41.323  34.410  1.00 25.01           C
ATOM    546  O   VAL A  73     -21.075 -41.362  33.938  1.00 31.16           O
ATOM    547  CB  VAL A  73     -20.364 -40.206  36.652  1.00 30.05           C
ATOM    548  CG1 VAL A  73     -20.243 -41.549  37.356  1.00 26.01           C
ATOM    549  CG2 VAL A  73     -19.937 -39.099  37.601  1.00 22.33           C
ATOM    550  N   ASP A  74     -19.015 -42.237  34.143  1.00 27.32           N
ATOM    551  CA  ASP A  74     -19.239 -43.349  33.218  1.00 31.49           C
ATOM    552  C   ASP A  74     -20.332 -44.301  33.714  1.00 29.08           C
ATOM    553  O   ASP A  74     -20.139 -45.000  34.694  1.00 30.74           O
ATOM    554  CB  ASP A  74     -17.932 -44.128  33.032  1.00 29.75           C
ATOM    555  CG  ASP A  74     -17.992 -45.135  31.878  1.00 34.55           C
ATOM    556  OD1 ASP A  74     -19.077 -45.335  31.303  1.00 32.93           O
ATOM    557  OD2 ASP A  74     -16.946 -45.737  31.549  1.00 37.02           O
ATOM    558  N   THR A  75     -21.461 -44.352  33.012  1.00 32.23           N
ATOM    559  CA  THR A  75     -22.558 -45.249  33.393  1.00 34.66           C
ATOM    560  C   THR A  75     -22.797 -46.421  32.429  1.00 40.32           C
ATOM    561  O   THR A  75     -23.882 -47.002  32.428  1.00 36.31           O
ATOM    562  CB  THR A  75     -23.891 -44.487  33.549  1.00 28.12           C
ATOM    563  OG1 THR A  75     -24.119 -43.667  32.391  1.00 33.41           O
ATOM    564  CG2 THR A  75     -23.874 -43.615  34.792  1.00 25.24           C
ATOM    565  N   LEU A  76     -21.796 -46.775  31.626  1.00 38.02           N
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ATOM    566  CA  LEU A  76     -21.956 -47.842  30.635  1.00 36.60           C
ATOM    567  C   LEU A  76     -22.394 -49.177  31.246  1.00 41.25           C
ATOM    568  O   LEU A  76     -23.337 -49.818  30.761  1.00 39.67           O
ATOM    569  CB  LEU A  76     -20.672 -48.048  29.828  1.00 33.09           C
ATOM    570  CG  LEU A  76     -20.762 -49.111  28.731  1.00 36.15           C
ATOM    571  CD1 LEU A  76     -21.778 -48.696  27.678  1.00 26.38           C
ATOM    572  CD2 LEU A  76     -19.404 -49.332  28.100  1.00 35.68           C
ATOM    573  N   TYR A  77     -21.700 -49.608  32.292  1.00 28.58           N
ATOM    574  CA  TYR A  77     -22.074 -50.846  32.959  1.00 31.33           C
ATOM    575  C   TYR A  77     -22.210 -50.600  34.460  1.00 33.33           C
ATOM    576  O   TYR A  77     -21.290 -50.885  35.217  1.00 31.60           O
ATOM    577  CB  TYR A  77     -21.044 -51.946  32.696  1.00 33.27           C
ATOM    578  CG  TYR A  77     -20.918 -52.391  31.245  1.00 42.31           C
ATOM    579  CD1 TYR A  77     -21.958 -53.057  30.601  1.00 40.46           C
ATOM    580  CD2 TYR A  77     -19.740 -52.171  30.530  1.00 37.43           C
ATOM    581  CE1 TYR A  77     -21.833 -53.473  29.276  1.00 41.00           C
ATOM    582  CE2 TYR A  77     -19.608 -52.580  29.213  1.00 34.21           C
ATOM    583  CZ  TYR A  77     -20.652 -53.229  28.587  1.00 41.56           C
ATOM    584  OH  TYR A  77     -20.507 -53.631  27.270  1.00 41.25           O
ATOM    585  N   PRO A  78     -23.362 -50.059  34.889  1.00 36.04           N
ATOM    586  CA  PRO A  78     -23.577 -49.661  36.292  1.00 34.13           C
ATOM    587  C   PRO A  78     -23.259 -50.776  37.272  1.00 32.92           C
ATOM    588  O   PRO A  78     -23.841 -51.854  37.185  1.00 37.25           O
ATOM    589  CB  PRO A  78     -25.069 -49.334  36.339  1.00 30.45           C
ATOM    590  CG  PRO A  78     -25.401 -48.916  34.934  1.00 39.15           C
ATOM    591  CD  PRO A  78     -24.541 -49.781  34.044  1.00 35.39           C
ATOM    592  N   GLY A  79     -22.323 -50.517  38.179  1.00 34.95           N
ATOM    593  CA  GLY A  79     -21.968 -51.476  39.207  1.00 34.30           C
ATOM    594  C   GLY A  79     -20.724 -52.271  38.873  1.00 35.32           C
ATOM    595  O   GLY A  79     -20.012 -52.739  39.755  1.00 36.39           O
ATOM    596  N   PHE A  80     -20.458 -52.418  37.585  1.00 37.05           N
ATOM    597  CA  PHE A  80     -19.299 -53.170  37.122  1.00 35.14           C
ATOM    598  C   PHE A  80     -17.994 -52.529  37.622  1.00 31.41           C
ATOM    599  O   PHE A  80     -17.756 -51.347  37.415  1.00 35.46           O
ATOM    600  CB  PHE A  80     -19.352 -53.251  35.594  1.00 29.41           C
ATOM    601  CG  PHE A  80     -18.248 -54.046  34.980  1.00 31.75           C
ATOM    602  CD1 PHE A  80     -17.980 -55.335  35.411  1.00 29.32           C
ATOM    603  CD2 PHE A  80     -17.495 -53.513  33.938  1.00 25.79           C
ATOM    604  CE1 PHE A  80     -16.965 -56.081  34.833  1.00 30.14           C
ATOM    605  CE2 PHE A  80     -16.477 -54.252  33.356  1.00 28.60           C
ATOM    606  CZ  PHE A  80     -16.211 -55.540  33.801  1.00 28.60           C
ATOM    607  N   GLU A  81     -17.166 -53.315  38.293  1.00 30.54           N
ATOM    608  CA  GLU A  81     -15.877 -52.852  38.793  1.00 32.97           C
ATOM    609  C   GLU A  81     -14.986 -52.267  37.688  1.00 39.81           C
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ATOM    610  O   GLU A  81     -14.229 -51.315  37.919  1.00 30.76           O
ATOM    611  CB  GLU A  81     -15.154 -54.004  39.509  1.00 38.53           C
ATOM    612  CG  GLU A  81     -13.671 -53.774  39.822  1.00 56.65           C
ATOM    613  CD  GLU A  81     -13.427 -52.791  40.971  1.00 71.31           C
ATOM    614  OE1 GLU A  81     -14.401 -52.162  41.456  1.00 67.23           O
ATOM    615  OE2 GLU A  81     -12.251 -52.648  41.390  1.00 64.44           O
ATOM    616  N   GLY A  82     -15.094 -52.829  36.485  1.00 33.07           N
ATOM    617  CA  GLY A  82     -14.231 -52.449  35.382  1.00 28.36           C
ATOM    618  C   GLY A  82     -14.406 -51.019  34.911  1.00 27.54           C
ATOM    619  O   GLY A  82     -13.452 -50.396  34.430  1.00 27.99           O
ATOM    620  N   THR A  83     -15.624 -50.500  35.029  1.00 27.68           N
ATOM    621  CA  THR A  83     -15.876 -49.098  34.724  1.00 31.99           C
ATOM    622  C   THR A  83     -15.816 -48.226  35.986  1.00 34.89           C
ATOM    623  O   THR A  83     -15.403 -47.062  35.927  1.00 32.43           O
ATOM    624  CB  THR A  83     -17.249 -48.879  34.048  1.00 30.33           C
ATOM    625  OG1 THR A  83     -18.263 -49.542  34.807  1.00 37.88           O
ATOM    626  CG2 THR A  83     -17.253 -49.406  32.629  1.00 30.97           C
ATOM    627  N   GLU A  84     -16.231 -48.781  37.121  1.00 28.50           N
ATOM    628  CA  GLU A  84     -16.363 -47.977  38.335  1.00 32.61           C
ATOM    629  C   GLU A  84     -15.026 -47.553  38.938  1.00 30.40           C
ATOM    630  O   GLU A  84     -14.926 -46.484  39.528  1.00 29.64           O
ATOM    631  CB  GLU A  84     -17.199 -48.701  39.393  1.00 33.86           C
ATOM    632  CG  GLU A  84     -18.646 -48.959  39.000  1.00 40.69           C
ATOM    633  CD  GLU A  84     -19.504 -47.712  38.947  1.00 46.33           C
ATOM    634  OE1 GLU A  84     -20.707 -47.849  38.608  1.00 46.73           O
ATOM    635  OE2 GLU A  84     -18.989 -46.606  39.249  1.00 45.89           O
ATOM    636  N   MET A  85     -14.003 -48.386  38.785  1.00 30.72           N
ATOM    637  CA  MET A  85     -12.683 -48.082  39.332  1.00 25.48           C
ATOM    638  C   MET A  85     -12.091 -46.765  38.783  1.00 29.58           C
ATOM    639  O   MET A  85     -11.140 -46.238  39.351  1.00 30.73           O
ATOM    640  CB  MET A  85     -11.716 -49.246  39.079  1.00 27.96           C
ATOM    641  CG  MET A  85     -11.437 -49.524  37.581  1.00 27.82           C
ATOM    642  SD  MET A  85     -10.164 -50.784  37.292  1.00 33.83           S
ATOM    643  CE  MET A  85      -8.659 -49.888  37.663  1.00 27.28           C
ATOM    644  N   TRP A  86     -12.660 -46.244  37.692  1.00 26.62           N
ATOM    645  CA  TRP A  86     -12.176 -45.014  37.048  1.00 25.70           C
ATOM    646  C   TRP A  86     -13.030 -43.797  37.384  1.00 24.34           C
ATOM    647  O   TRP A  86     -12.640 -42.661  37.113  1.00 23.76           O
ATOM    648  CB  TRP A  86     -12.137 -45.171  35.518  1.00 24.84           C
ATOM    649  CG  TRP A  86     -11.376 -46.368  35.055  1.00 25.07           C
ATOM    650  CD1 TRP A  86     -11.896 -47.527  34.553  1.00 23.51           C
ATOM    651  CD2 TRP A  86      -9.959 -46.541  35.075  1.00 25.54           C
ATOM    652  NE1 TRP A  86     -10.889 -48.407  34.255  1.00 20.31           N
ATOM    653  CE2 TRP A  86      -9.688 -47.829  34.564  1.00 23.69           C
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ATOM    654  CE3 TRP A  86      -8.888 -45.730  35.466  1.00 25.38           C
ATOM    655  CZ2 TRP A  86      -8.391 -48.321  34.422  1.00 22.04           C
ATOM    656  CZ3 TRP A  86      -7.600 -46.227  35.343  1.00 26.45           C
ATOM    657  CH2 TRP A  86      -7.364 -47.511  34.823  1.00 25.01           C
ATOM    658  N   ASN A  87     -14.209 -44.046  37.940  1.00 24.25           N
ATOM    659  CA  ASN A  87     -15.158 -42.989  38.269  1.00 22.72           C
ATOM    660  C   ASN A  87     -14.755 -42.226  39.532  1.00 22.74           C
ATOM    661  O   ASN A  87     -14.007 -42.748  40.370  1.00 20.93           O
ATOM    662  CB  ASN A  87     -16.561 -43.585  38.432  1.00 22.74           C
ATOM    663  CG  ASN A  87     -17.264 -43.825  37.085  1.00 32.22           C
ATOM    664  OD1 ASN A  87     -16.924 -43.217  36.066  1.00 25.54           O
ATOM    665  ND2 ASN A  87     -18.258 -44.706  37.090  1.00 29.46           N
ATOM    666  N   PRO A  88     -15.246 -40.984  39.674  1.00 20.33           N
ATOM    667  CA  PRO A  88     -14.957 -40.185  40.872  1.00 21.13           C
ATOM    668  C   PRO A  88     -15.208 -40.980  42.150  1.00 28.46           C
ATOM    669  O   PRO A  88     -16.250 -41.627  42.271  1.00 27.39           O
ATOM    670  CB  PRO A  88     -15.954 -39.031  40.766  1.00 20.21           C
ATOM    671  CG  PRO A  88     -16.189 -38.879  39.291  1.00 18.46           C
ATOM    672  CD  PRO A  88     -16.079 -40.251  38.700  1.00 20.52           C
ATOM    673  N   ASN A  89     -14.248 -40.964  43.069  1.00 27.58           N
ATOM    674  CA  ASN A  89     -14.415 -41.619  44.364  1.00 25.82           C
ATOM    675  C   ASN A  89     -14.413 -40.608  45.522  1.00 26.22           C
ATOM    676  O   ASN A  89     -14.214 -40.972  46.679  1.00 28.49           O
ATOM    677  CB  ASN A  89     -13.332 -42.683  44.577  1.00 22.93           C
ATOM    678  CG  ASN A  89     -11.947 -42.077  44.753  1.00 28.32           C
ATOM    679  OD1 ASN A  89     -11.722 -40.911  44.424  1.00 30.26           O
ATOM    680  ND2 ASN A  89     -11.012 -42.867  45.263  1.00 25.28           N
ATOM    681  N   ARG A  90     -14.596 -39.336  45.185  1.00 25.13           N
ATOM    682  CA  ARG A  90     -14.881 -38.278  46.157  1.00 25.19           C
ATOM    683  C   ARG A  90     -15.925 -37.377  45.521  1.00 25.05           C
ATOM    684  O   ARG A  90     -16.217 -37.504  44.326  1.00 31.53           O
ATOM    685  CB  ARG A  90     -13.626 -37.459  46.500  1.00 24.61           C
ATOM    686  CG  ARG A  90     -12.536 -38.221  47.257  1.00 26.05           C
ATOM    687  CD  ARG A  90     -13.006 -38.651  48.665  1.00 25.38           C
ATOM    688  NE  ARG A  90     -11.924 -39.244  49.452  1.00 26.77           N
ATOM    689  CZ  ARG A  90     -11.481 -40.495  49.307  1.00 33.02           C
ATOM    690  NH1 ARG A  90     -12.021 -41.297  48.398  1.00 26.91           N
ATOM    691  NH2 ARG A  90     -10.485 -40.950  50.064  1.00 24.76           N
ATOM    692  N   GLU A  91     -16.477 -36.455  46.294  1.00 22.20           N
ATOM    693  CA  GLU A  91     -17.515 -35.573  45.772  1.00 29.88           C
ATOM    694  C   GLU A  91     -17.000 -34.669  44.646  1.00 32.61           C
ATOM    695  O   GLU A  91     -15.830 -34.275  44.626  1.00 27.35           O
ATOM    696  CB  GLU A  91     -18.146 -34.734  46.891  1.00 33.85           C
ATOM    697  CG  GLU A  91     -17.294 -33.569  47.387  1.00 53.36           C
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ATOM    698  CD  GLU A  91     -18.077 -32.596  48.280  1.00 72.21           C
ATOM    699  OE1 GLU A  91     -19.113 -33.009  48.853  1.00 69.65           O
ATOM    700  OE2 GLU A  91     -17.657 -31.418  48.398  1.00 61.11           O
ATOM    701  N   LEU A  92     -17.882 -34.353  43.704  1.00 30.19           N
ATOM    702  CA  LEU A  92     -17.536 -33.464  42.608  1.00 27.87           C
ATOM    703  C   LEU A  92     -17.559 -32.021  43.081  1.00 26.09           C
ATOM    704  O   LEU A  92     -18.454 -31.614  43.816  1.00 32.14           O
ATOM    705  CB  LEU A  92     -18.514 -33.626  41.437  1.00 26.29           C
ATOM    706  CG  LEU A  92     -18.582 -34.960  40.699  1.00 27.83           C
ATOM    707  CD1 LEU A  92     -19.508 -34.844  39.499  1.00 22.55           C
ATOM    708  CD2 LEU A  92     -17.204 -35.397  40.264  1.00 27.36           C
ATOM    709  N   SER A  93     -16.587 -31.236  42.634  1.00 28.50           N
ATOM    710  CA  SER A  93     -16.592 -29.809  42.917  1.00 27.43           C
ATOM    711  C   SER A  93     -15.708 -29.052  41.931  1.00 24.88           C
ATOM    712  O   SER A  93     -14.727 -29.593  41.424  1.00 25.21           O
ATOM    713  CB  SER A  93     -16.097 -29.556  44.345  1.00 19.41           C
ATOM    714  OG  SER A  93     -16.065 -28.167  44.608  1.00 23.57           O
ATOM    715  N   GLU A  94     -16.041 -27.795  41.668  1.00 22.25           N
ATOM    716  CA  GLU A  94     -15.132 -26.944  40.909  1.00 24.77           C
ATOM    717  C   GLU A  94     -13.966 -26.481  41.792  1.00 27.92           C
ATOM    718  O   GLU A  94     -12.936 -26.034  41.296  1.00 28.79           O
ATOM    719  CB  GLU A  94     -15.875 -25.747  40.324  1.00 20.54           C
ATOM    720  CG  GLU A  94     -16.754 -26.107  39.129  1.00 27.26           C
ATOM    721  CD  GLU A  94     -17.412 -24.886  38.521  1.00 30.30           C
ATOM    722  OE1 GLU A  94     -16.768 -24.231  37.672  1.00 25.85           O
ATOM    723  OE2 GLU A  94     -18.564 -24.571  38.907  1.00 26.50           O
ATOM    724  N   ASP A  95     -14.147 -26.591  43.104  1.00 20.63           N
ATOM    725  CA  ASP A  95     -13.098 -26.291  44.063  1.00 24.68           C
ATOM    726  C   ASP A  95     -12.327 -27.582  44.178  1.00 25.21           C
ATOM    727  O   ASP A  95     -12.586 -28.392  45.074  1.00 22.07           O
ATOM    728  CB  ASP A  95     -13.734 -25.909  45.407  1.00 21.33           C
ATOM    729  CG  ASP A  95     -12.712 -25.551  46.489  1.00 28.16           C
ATOM    730  OD1 ASP A  95     -11.490 -25.728  46.302  1.00 27.58           O
ATOM    731  OD2 ASP A  95     -13.153 -25.086  47.560  1.00 35.93           O
ATOM    732  N   CYS A  96     -11.393 -27.796  43.256  1.00 23.66           N
ATOM    733  CA  CYS A  96     -10.767 -29.113  43.135  1.00 22.30           C
ATOM    734  C   CYS A  96      -9.269 -29.049  42.922  1.00 19.65           C
ATOM    735  O   CYS A  96      -8.622 -30.075  42.758  1.00 23.97           O
ATOM    736  CB  CYS A  96     -11.392 -29.885  41.976  1.00 20.41           C
ATOM    737  SG  CYS A  96     -11.112 -29.104  40.352  1.00 24.70           S
ATOM    738  N   LEU A  97      -8.711 -27.848  42.921  1.00 22.14           N
ATOM    739  CA  LEU A  97      -7.297 -27.700  42.619  1.00 21.12           C
ATOM    740  C   LEU A  97      -6.427 -27.946  43.854  1.00 24.73           C
ATOM    741  O   LEU A  97      -5.961 -27.016  44.513  1.00 23.74           O
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ATOM    742  CB  LEU A  97      -7.020 -26.348  41.958  1.00 19.83           C
ATOM    743  CG  LEU A  97      -7.642 -26.211  40.560  1.00 26.04           C
ATOM    744  CD1 LEU A  97      -7.196 -24.914  39.872  1.00 20.81           C
ATOM    745  CD2 LEU A  97      -7.341 -27.435  39.655  1.00 17.53           C
ATOM    746  N   TYR A  98      -6.223 -29.227  44.152  1.00 22.12           N
ATOM    747  CA  TYR A  98      -5.383 -29.656  45.251  1.00 22.08           C
ATOM    748  C   TYR A  98      -4.386 -30.662  44.717  1.00 22.84           C
ATOM    749  O   TYR A  98      -4.616 -31.267  43.671  1.00 22.52           O
ATOM    750  CB  TYR A  98      -6.239 -30.267  46.374  1.00 23.83           C
ATOM    751  CG  TYR A  98      -7.255 -29.279  46.895  1.00 26.59           C
ATOM    752  CD1 TYR A  98      -7.014 -28.550  48.055  1.00 26.95           C
ATOM    753  CD2 TYR A  98      -8.450 -29.051  46.208  1.00 27.25           C
ATOM    754  CE1 TYR A  98      -7.939 -27.624  48.527  1.00 22.26           C
ATOM    755  CE2 TYR A  98      -9.372 -28.125  46.659  1.00 24.41           C
ATOM    756  CZ  TYR A  98      -9.110 -27.416  47.824  1.00 27.13           C
ATOM    757  OH  TYR A  98     -10.025 -26.499  48.275  1.00 26.26           O
ATOM    758  N   LEU A  99      -3.267 -30.824  45.416  1.00 20.46           N
ATOM    759  CA  LEU A  99      -2.276 -31.823  45.034  1.00 20.90           C
ATOM    760  C   LEU A  99      -1.889 -32.652  46.264  1.00 23.93           C
ATOM    761  O   LEU A  99      -2.209 -32.285  47.398  1.00 25.12           O
ATOM    762  CB  LEU A  99      -1.050 -31.178  44.351  1.00 19.30           C
ATOM    763  CG  LEU A  99      -0.264 -30.036  45.026  1.00 25.48           C
ATOM    764  CD1 LEU A  99       0.584 -30.518  46.213  1.00 16.78           C
ATOM    765  CD2 LEU A  99       0.622 -29.301  44.026  1.00 22.19           C
ATOM    766  N   ASN A 100      -1.210 -33.769  46.032  1.00 21.81           N
ATOM    767  CA  ASN A 100      -0.840 -34.681  47.097  1.00 22.95           C
ATOM    768  C   ASN A 100       0.646 -34.957  47.050  1.00 23.15           C
ATOM    769  O   ASN A 100       1.223 -35.039  45.974  1.00 24.62           O
ATOM    770  CB  ASN A 100      -1.596 -35.990  46.943  1.00 18.27           C
ATOM    771  CG  ASN A 100      -3.021 -35.776  46.531  1.00 25.49           C
ATOM    772  OD1 ASN A 100      -3.840 -35.304  47.319  1.00 26.37           O
ATOM    773  ND2 ASN A 100      -3.336 -36.118  45.285  1.00 25.62           N
ATOM    774  N   VAL A 101       1.265 -35.078  48.220  1.00 24.66           N
ATOM    775  CA  VAL A 101       2.673 -35.450  48.311  1.00 24.05           C
ATOM    776  C   VAL A 101       2.805 -36.687  49.208  1.00 28.45           C
ATOM    777  O   VAL A 101       2.291 -36.703  50.333  1.00 26.83           O
ATOM    778  CB  VAL A 101       3.519 -34.312  48.930  1.00 23.98           C
ATOM    779  CG1 VAL A 101       4.999 -34.680  48.944  1.00 20.85           C
ATOM    780  CG2 VAL A 101       3.296 -33.012  48.194  1.00 21.09           C
ATOM    781  N   TRP A 102       3.464 -37.721  48.692  1.00 24.56           N
ATOM    782  CA  TRP A 102       3.835 -38.890  49.482  1.00 24.17           C
ATOM    783  C   TRP A 102       5.343 -38.871  49.626  1.00 26.87           C
ATOM    784  O   TRP A 102       6.058 -38.553  48.676  1.00 25.82           O
ATOM    785  CB  TRP A 102       3.479 -40.196  48.772  1.00 21.44           C
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ATOM    786  CG  TRP A 102       2.033 -40.561  48.736  1.00 25.82           C
ATOM    787  CD1 TRP A 102       1.366 -41.356  49.622  1.00 25.82           C
ATOM    788  CD2 TRP A 102       1.080 -40.183  47.739  1.00 23.43           C
ATOM    789  NE1 TRP A 102       0.054 -41.481  49.247  1.00 28.85           N
ATOM    790  CE2 TRP A 102      -0.148 -40.770  48.093  1.00 27.92           C
ATOM    791  CE3 TRP A 102       1.143 -39.395  46.587  1.00 26.59           C
ATOM    792  CZ2 TRP A 102      -1.305 -40.596  47.333  1.00 25.40           C
ATOM    793  CZ3 TRP A 102      -0.007 -39.228  45.831  1.00 22.89           C
ATOM    794  CH2 TRP A 102      -1.211 -39.827  46.207  1.00 22.77           C
ATOM    795  N   THR A 103       5.831 -39.237  50.804  1.00 27.75           N
ATOM    796  CA  THR A 103       7.265 -39.237  51.043  1.00 32.55           C
ATOM    797  C   THR A 103       7.603 -40.358  52.027  1.00 30.46           C
ATOM    798  O   THR A 103       6.726 -40.814  52.763  1.00 31.90           O
ATOM    799  CB  THR A 103       7.727 -37.842  51.545  1.00 34.98           C
ATOM    800  OG1 THR A 103       9.125 -37.675  51.294  1.00 48.36           O
ATOM    801  CG2 THR A 103       7.448 -37.669  53.018  1.00 28.61           C
ATOM    802  N   PRO A 104       8.849 -40.855  51.997  1.00 28.45           N
ATOM    803  CA  PRO A 104       9.242 -41.880  52.972  1.00 28.87           C
ATOM    804  C   PRO A 104       9.040 -41.441  54.427  1.00 36.11           C
ATOM    805  O   PRO A 104       8.895 -40.247  54.712  1.00 36.58           O
ATOM    806  CB  PRO A 104      10.729 -42.080  52.680  1.00 33.70           C
ATOM    807  CG  PRO A 104      10.855 -41.776  51.215  1.00 28.71           C
ATOM    808  CD  PRO A 104       9.895 -40.634  50.977  1.00 27.90           C
ATOM    809  N   TYR A 105       8.986 -42.416  55.330  1.00 33.82           N
ATOM    810  CA  TYR A 105       8.867 -42.151  56.761  1.00 36.45           C
ATOM    811  C   TYR A 105      10.060 -42.775  57.481  1.00 42.67           C
ATOM    812  O   TYR A 105      10.351 -43.962  57.298  1.00 35.72           O
ATOM    813  CB  TYR A 105       7.561 -42.707  57.324  1.00 34.13           C
ATOM    814  CG  TYR A 105       7.257 -42.273  58.746  1.00 37.23           C
ATOM    815  CD1 TYR A 105       7.881 -42.883  59.841  1.00 39.92           C
ATOM    816  CD2 TYR A 105       6.329 -41.265  59.000  1.00 41.58           C
ATOM    817  CE1 TYR A 105       7.591 -42.489  61.152  1.00 33.33           C
ATOM    818  CE2 TYR A 105       6.034 -40.863  60.299  1.00 36.54           C
ATOM    819  CZ  TYR A 105       6.668 -41.479  61.370  1.00 40.45           C
ATOM    820  OH  TYR A 105       6.375 -41.075  62.656  1.00 42.50           O
ATOM    821  N   PRO A 106      10.766 -41.973  58.292  1.00 45.43           N
ATOM    822  CA  PRO A 106      10.477 -40.550  58.489  1.00 45.26           C
ATOM    823  C   PRO A 106      10.917 -39.757  57.256  1.00 42.85           C
ATOM    824  O   PRO A 106      11.648 -40.317  56.431  1.00 38.81           O
ATOM    825  CB  PRO A 106      11.347 -40.194  59.701  1.00 40.79           C
ATOM    826  CG  PRO A 106      12.524 -41.109  59.581  1.00 38.96           C
ATOM    827  CD  PRO A 106      11.960 -42.405  59.046  1.00 39.69           C
ATOM    828  N   ARG A 107      10.464 -38.509  57.124  1.00 44.03           N
ATOM    829  CA  ARG A 107      10.788 -37.686  55.957  1.00 43.51           C
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ATOM    830  C   ARG A 107      12.267 -37.737  55.631  1.00 38.29           C
ATOM    831  O   ARG A 107      13.100 -37.692  56.527  1.00 52.90           O
ATOM    832  CB  ARG A 107      10.368 -36.227  56.166  1.00 42.66           C
ATOM    833  CG  ARG A 107       8.866 -36.014  56.289  1.00 46.41           C
ATOM    834  CD  ARG A 107       8.449 -34.700  55.627  1.00 48.08           C
ATOM    835  NE  ARG A 107       9.174 -33.536  56.151  1.00 43.80           N
ATOM    836  CZ  ARG A 107       8.753 -32.790  57.171  1.00 44.36           C
ATOM    837  NH1 ARG A 107       7.619 -33.086  57.799  1.00 36.87           N
ATOM    838  NH2 ARG A 107       9.469 -31.748  57.575  1.00 54.45           N
ATOM    839  N   PRO A 108      12.595 -37.849  54.343  1.00 43.44           N
ATOM    840  CA  PRO A 108      13.998 -37.835  53.926  1.00 46.55           C
ATOM    841  C   PRO A 108      14.636 -36.540  54.394  1.00 53.32           C
ATOM    842  O   PRO A 108      14.001 -35.484  54.334  1.00 49.91           O
ATOM    843  CB  PRO A 108      13.914 -37.846  52.397  1.00 42.34           C
ATOM    844  CG  PRO A 108      12.569 -38.406  52.089  1.00 39.04           C
ATOM    845  CD  PRO A 108      11.668 -37.987  53.207  1.00 39.43           C
ATOM    846  N   THR A 109      15.868 -36.618  54.877  1.00 58.25           N
ATOM    847  CA  THR A 109      16.555 -35.419  55.332  1.00 58.20           C
ATOM    848  C   THR A 109      17.589 -34.994  54.309  1.00 55.07           C
ATOM    849  O   THR A 109      18.404 -34.121  54.579  1.00 61.22           O
ATOM    850  CB  THR A 109      17.214 -35.606  56.720  1.00 51.78           C
ATOM    851  OG1 THR A 109      18.173 -36.672  56.670  1.00 52.58           O
ATOM    852  CG2 THR A 109      16.166 -35.902  57.783  1.00 46.11           C
ATOM    853  N   SER A 110      17.549 -35.621  53.135  1.00 51.00           N
ATOM    854  CA  SER A 110      18.417 -35.241  52.020  1.00 50.89           C
ATOM    855  C   SER A 110      17.648 -35.340  50.695  1.00 45.74           C
ATOM    856  O   SER A 110      16.722 -36.142  50.584  1.00 42.20           O
ATOM    857  CB  SER A 110      19.679 -36.110  52.004  1.00 45.77           C
ATOM    858  OG  SER A 110      19.348 -37.484  52.032  1.00 45.96           O
ATOM    859  N   PRO A 111      18.018 -34.515  49.698  1.00 44.51           N
ATOM    860  CA  PRO A 111      17.301 -34.414  48.415  1.00 39.67           C
ATOM    861  C   PRO A 111      16.971 -35.763  47.777  1.00 45.46           C
ATOM    862  O   PRO A 111      17.866 -36.512  47.381  1.00 46.20           O
ATOM    863  CB  PRO A 111      18.275 -33.627  47.537  1.00 35.63           C
ATOM    864  CG  PRO A 111      18.974 -32.732  48.505  1.00 42.97           C
ATOM    865  CD  PRO A 111      19.127 -33.548  49.771  1.00 40.34           C
ATOM    866  N   THR A 112      15.675 -36.053  47.698  1.00 41.07           N
ATOM    867  CA  THR A 112      15.157 -37.289  47.122  1.00 39.85           C
ATOM    868  C   THR A 112      14.520 -37.009  45.747  1.00 39.96           C
ATOM    869  O   THR A 112      13.786 -36.029  45.597  1.00 32.73           O
ATOM    870  CB  THR A 112      14.096 -37.867  48.063  1.00 38.25           C
ATOM    871  OG1 THR A 112      14.661 -38.023  49.371  1.00 42.56           O
ATOM    872  CG2 THR A 112      13.581 -39.202  47.569  1.00 36.47           C
ATOM    873  N   PRO A 113      14.805 -37.862  44.741  1.00 42.47           N
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ATOM    874  CA  PRO A 113      14.216 -37.720  43.395  1.00 33.41           C
ATOM    875  C   PRO A 113      12.693 -37.738  43.416  1.00 30.49           C
ATOM    876  O   PRO A 113      12.092 -38.541  44.133  1.00 29.75           O
ATOM    877  CB  PRO A 113      14.741 -38.948  42.637  1.00 31.72           C
ATOM    878  CG  PRO A 113      15.209 -39.902  43.698  1.00 40.75           C
ATOM    879  CD  PRO A 113      15.703 -39.027  44.819  1.00 46.30           C
ATOM    880  N   VAL A 114      12.090 -36.853  42.629  1.00 28.08           N
ATOM    881  CA  VAL A 114      10.646 -36.648  42.631  1.00 28.49           C
ATOM    882  C   VAL A 114       9.967 -37.217  41.380  1.00 26.63           C
ATOM    883  O   VAL A 114      10.411 -36.978  40.256  1.00 29.38           O
ATOM    884  CB  VAL A 114      10.323 -35.142  42.709  1.00 29.32           C
ATOM    885  CG1 VAL A 114       8.823 -34.909  42.703  1.00 20.87           C
ATOM    886  CG2 VAL A 114      10.973 -34.525  43.950  1.00 27.84           C
ATOM    887  N   LEU A 115       8.900 -37.979  41.590  1.00 28.70           N
ATOM    888  CA  LEU A 115       8.016 -38.416  40.511  1.00 25.93           C
ATOM    889  C   LEU A 115       6.714 -37.631  40.591  1.00 26.36           C
ATOM    890  O   LEU A 115       6.109 -37.530  41.669  1.00 24.66           O
ATOM    891  CB  LEU A 115       7.717 -39.911  40.631  1.00 24.33           C
ATOM    892  CG  LEU A 115       8.777 -40.849  40.051  1.00 27.85           C
ATOM    893  CD1 LEU A 115       8.684 -42.221  40.677  1.00 32.07           C
ATOM    894  CD2 LEU A 115       8.606 -40.940  38.538  1.00 30.14           C
ATOM    895  N   VAL A 116       6.290 -37.064  39.465  1.00 18.56           N
ATOM    896  CA  VAL A 116       5.025 -36.338  39.425  1.00 22.75           C
ATOM    897  C   VAL A 116       4.033 -37.030  38.505  1.00 22.84           C
ATOM    898  O   VAL A 116       4.291 -37.192  37.315  1.00 22.85           O
ATOM    899  CB  VAL A 116       5.203 -34.881  38.966  1.00 20.98           C
ATOM    900  CG1 VAL A 116       3.868 -34.155  39.033  1.00 17.02           C
ATOM    901  CG2 VAL A 116       6.238 -34.186  39.828  1.00 21.88           C
ATOM    902  N   TRP A 117       2.906 -37.448  39.064  1.00 21.82           N
ATOM    903  CA  TRP A 117       1.904 -38.192  38.309  1.00 22.55           C
ATOM    904  C   TRP A 117       0.821 -37.271  37.735  1.00 21.27           C
ATOM    905  O   TRP A 117       0.228 -36.470  38.459  1.00 20.97           O
ATOM    906  CB  TRP A 117       1.253 -39.269  39.197  1.00 20.20           C
ATOM    907  CG  TRP A 117       0.116 -39.996  38.505  1.00 24.63           C
ATOM    908  CD1 TRP A 117      -1.218 -39.871  38.763  1.00 22.18           C
ATOM    909  CD2 TRP A 117       0.226 -40.928  37.415  1.00 21.67           C
ATOM    910  NE1 TRP A 117      -1.945 -40.687  37.922  1.00 19.48           N
ATOM    911  CE2 TRP A 117      -1.084 -41.342  37.084  1.00 21.48           C
ATOM    912  CE3 TRP A 117       1.305 -41.462  36.695  1.00 22.53           C
ATOM    913  CZ2 TRP A 117      -1.345 -42.262  36.059  1.00 21.31           C
ATOM    914  CZ3 TRP A 117       1.042 -42.378  35.677  1.00 20.30           C
ATOM    915  CH2 TRP A 117      -0.271 -42.767  35.374  1.00 19.23           C
ATOM    916  N   ILE A 118       0.559 -37.397  36.438  1.00 20.06           N
ATOM    917  CA  ILE A 118      -0.572 -36.714  35.807  1.00 19.74           C
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ATOM    918  C   ILE A 118      -1.555 -37.755  35.270  1.00 20.69           C
ATOM    919  O   ILE A 118      -1.217 -38.500  34.353  1.00 22.31           O
ATOM    920  CB  ILE A 118      -0.110 -35.815  34.647  1.00 17.47           C
ATOM    921  CG1 ILE A 118       0.950 -34.821  35.131  1.00 25.61           C
ATOM    922  CG2 ILE A 118      -1.282 -35.076  34.039  1.00 15.42           C
ATOM    923  CD1 ILE A 118       1.513 -33.943  34.015  1.00 19.12           C
ATOM    924  N   TYR A 119      -2.764 -37.813  35.825  1.00 17.61           N
ATOM    925  CA  TYR A 119      -3.713 -38.855  35.425  1.00 18.62           C
ATOM    926  C   TYR A 119      -4.248 -38.619  34.026  1.00 20.26           C
ATOM    927  O   TYR A 119      -4.233 -37.493  33.533  1.00 18.75           O
ATOM    928  CB  TYR A 119      -4.896 -38.974  36.406  1.00 18.16           C
ATOM    929  CG  TYR A 119      -5.661 -37.679  36.665  1.00 21.50           C
ATOM    930  CD1 TYR A 119      -6.560 -37.158  35.727  1.00 18.60           C
ATOM    931  CD2 TYR A 119      -5.496 -36.988  37.866  1.00 17.24           C
ATOM    932  CE1 TYR A 119      -7.256 -35.965  35.976  1.00 15.59           C
ATOM    933  CE2 TYR A 119      -6.179 -35.809  38.121  1.00 19.43           C
ATOM    934  CZ  TYR A 119      -7.055 -35.294  37.184  1.00 21.42           C
ATOM    935  OH  TYR A 119      -7.722 -34.112  37.481  1.00 18.69           O
ATOM    936  N   GLY A 120      -4.743 -39.690  33.407  1.00 21.49           N
ATOM    937  CA  GLY A 120      -5.453 -39.607  32.142  1.00 19.47           C
ATOM    938  C   GLY A 120      -6.956 -39.647  32.367  1.00 22.29           C
ATOM    939  O   GLY A 120      -7.442 -39.397  33.474  1.00 21.22           O
ATOM    940  N   GLY A 121      -7.696 -39.975  31.317  1.00 21.32           N
ATOM    941  CA  GLY A 121      -9.143 -39.882  31.346  1.00 17.84           C
ATOM    942  C   GLY A 121      -9.629 -38.975  30.230  1.00 20.78           C
ATOM    943  O   GLY A 121     -10.609 -38.242  30.404  1.00 21.02           O
ATOM    944  N   GLY A 122      -8.926 -39.020  29.092  1.00 21.45           N
ATOM    945  CA  GLY A 122      -9.303 -38.289  27.887  1.00 21.75           C
ATOM    946  C   GLY A 122      -9.485 -36.782  27.999  1.00 19.32           C
ATOM    947  O   GLY A 122     -10.146 -36.180  27.157  1.00 20.07           O
ATOM    948  N   PHE A 123      -8.903 -36.170  29.032  1.00 19.52           N
ATOM    949  CA  PHE A 123      -9.117 -34.742  29.335  1.00 21.64           C
ATOM    950  C   PHE A 123     -10.551 -34.398  29.771  1.00 21.47           C
ATOM    951  O   PHE A 123     -10.869 -33.221  29.967  1.00 21.65           O
ATOM    952  CB  PHE A 123      -8.702 -33.824  28.162  1.00 19.28           C
ATOM    953  CG  PHE A 123      -7.232 -33.847  27.854  1.00 22.10           C
ATOM    954  CD1 PHE A 123      -6.309 -33.322  28.755  1.00 18.30           C
ATOM    955  CD2 PHE A 123      -6.768 -34.381  26.652  1.00 19.91           C
ATOM    956  CE1 PHE A 123      -4.945 -33.338  28.468  1.00 24.91           C
ATOM    957  CE2 PHE A 123      -5.399 -34.395  26.353  1.00 19.95           C
ATOM    958  CZ  PHE A 123      -4.490 -33.872  27.259  1.00 19.79           C
ATOM    959  N   TYR A 124     -11.412 -35.407  29.910  1.00 18.10           N
ATOM    960  CA  TYR A 124     -12.791 -35.177  30.356  1.00 21.68           C
ATOM    961  C   TYR A 124     -13.015 -35.740  31.769  1.00 22.16           C
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ATOM    962  O   TYR A 124     -14.054 -35.510  32.387  1.00 25.93           O
ATOM    963  CB  TYR A 124     -13.816 -35.787  29.374  1.00 19.93           C
ATOM    964  CG  TYR A 124     -13.866 -37.304  29.401  1.00 18.22           C
ATOM    965  CD1 TYR A 124     -14.653 -37.983  30.328  1.00 21.15           C
ATOM    966  CD2 TYR A 124     -13.118 -38.058  28.508  1.00 21.37           C
ATOM    967  CE1 TYR A 124     -14.677 -39.365  30.377  1.00 18.91           C
ATOM    968  CE2 TYR A 124     -13.146 -39.439  28.542  1.00 20.86           C
ATOM    969  CZ  TYR A 124     -13.927 -40.086  29.482  1.00 20.72           C
ATOM    970  OH  TYR A 124     -13.949 -41.461  29.515  1.00 25.00           O
ATOM    971  N   SER A 125     -12.057 -36.504  32.270  1.00 19.62           N
ATOM    972  CA  SER A 125     -12.240 -37.150  33.560  1.00 21.00           C
ATOM    973  C   SER A 125     -10.912 -37.485  34.223  1.00 19.97           C
ATOM    974  O   SER A 125      -9.848 -37.298  33.636  1.00 22.76           O
ATOM    975  CB  SER A 125     -13.029 -38.444  33.374  1.00 20.59           C
ATOM    976  OG  SER A 125     -12.295 -39.369  32.583  1.00 19.56           O
ATOM    977  N   GLY A 126     -10.998 -38.024  35.436  1.00 18.24           N
ATOM    978  CA  GLY A 126      -9.846 -38.504  36.170  1.00 19.93           C
ATOM    979  C   GLY A 126      -9.766 -37.803  37.506  1.00 20.03           C
ATOM    980  O   GLY A 126     -10.450 -36.807  37.724  1.00 21.13           O
ATOM    981  N   ALA A 127      -8.933 -38.328  38.395  1.00 21.21           N
ATOM    982  CA  ALA A 127      -8.707 -37.731  39.714  1.00 24.49           C
ATOM    983  C   ALA A 127      -7.443 -38.324  40.313  1.00 24.63           C
ATOM    984  O   ALA A 127      -7.107 -39.478  40.031  1.00 23.57           O
ATOM    985  CB  ALA A 127      -9.893 -37.986  40.641  1.00 20.04           C
ATOM    986  N   SER A 128      -6.742 -37.542  41.136  1.00 23.24           N
ATOM    987  CA  SER A 128      -5.556 -38.040  41.824  1.00 20.64           C
ATOM    988  C   SER A 128      -5.915 -38.997  42.966  1.00 24.81           C
ATOM    989  O   SER A 128      -5.056 -39.738  43.460  1.00 21.61           O
ATOM    990  CB  SER A 128      -4.709 -36.882  42.358  1.00 25.61           C
ATOM    991  OG  SER A 128      -5.448 -36.077  43.267  1.00 28.47           O
ATOM    992  N   SER A 129      -7.183 -38.987  43.372  1.00 20.56           N
ATOM    993  CA  SER A 129      -7.629 -39.772  44.526  1.00 23.61           C
ATOM    994  C   SER A 129      -7.990 -41.220  44.202  1.00 26.44           C
ATOM    995  O   SER A 129      -8.331 -41.986  45.101  1.00 24.53           O
ATOM    996  CB  SER A 129      -8.833 -39.107  45.181  1.00 21.54           C
ATOM    997  OG  SER A 129      -9.849 -38.847  44.232  1.00 22.74           O
ATOM    998  N   LEU A 130      -7.925 -41.594  42.927  1.00 24.76           N
ATOM    999  CA  LEU A 130      -8.286 -42.952  42.527  1.00 24.77           C
ATOM   1000  C   LEU A 130      -7.377 -43.984  43.188  1.00 25.28           C
ATOM   1001  O   LEU A 130      -6.176 -43.748  43.353  1.00 25.31           O
ATOM   1002  CB  LEU A 130      -8.243 -43.105  41.001  1.00 22.42           C
ATOM   1003  CG  LEU A 130      -9.219 -42.223  40.211  1.00 28.16           C
ATOM   1004  CD1 LEU A 130      -9.338 -42.651  38.725  1.00 19.46           C
ATOM   1005  CD2 LEU A 130     -10.589 -42.201  40.895  1.00 24.15           C
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ATOM   1006  N   ASP A 131      -7.959 -45.123  43.556  1.00 20.78           N
ATOM   1007  CA  ASP A 131      -7.232 -46.208  44.216  1.00 24.01           C
ATOM   1008  C   ASP A 131      -6.008 -46.645  43.425  1.00 25.55           C
ATOM   1009  O   ASP A 131      -4.954 -46.947  43.983  1.00 26.37           O
ATOM   1010  CB  ASP A 131      -8.147 -47.428  44.380  1.00 22.32           C
ATOM   1011  CG  ASP A 131      -9.060 -47.327  45.582  1.00 32.16           C
ATOM   1012  OD1 ASP A 131      -9.202 -46.221  46.161  1.00 27.06           O
ATOM   1013  OD2 ASP A 131      -9.643 -48.372  45.945  1.00 37.49           O
ATOM   1014  N   VAL A 132      -6.164 -46.706  42.112  1.00 23.20           N
ATOM   1015  CA  VAL A 132      -5.120 -47.242  41.263  1.00 23.96           C
ATOM   1016  C   VAL A 132      -3.898 -46.296  41.186  1.00 22.91           C
ATOM   1017  O   VAL A 132      -2.830 -46.696  40.737  1.00 23.80           O
ATOM   1018  CB  VAL A 132      -5.706 -47.610  39.875  1.00 27.08           C
ATOM   1019  CG1 VAL A 132      -6.107 -46.366  39.111  1.00 26.96           C
ATOM   1020  CG2 VAL A 132      -4.742 -48.440  39.080  1.00 30.55           C
ATOM   1021  N   TYR A 133      -4.054 -45.057  41.659  1.00 21.79           N
ATOM   1022  CA  TYR A 133      -2.953 -44.084  41.669  1.00 24.06           C
ATOM   1023  C   TYR A 133      -2.334 -43.870  43.064  1.00 26.48           C
ATOM   1024  O   TYR A 133      -1.618 -42.886  43.274  1.00 22.34           O
ATOM   1025  CB  TYR A 133      -3.408 -42.717  41.143  1.00 16.41           C
ATOM   1026  CG  TYR A 133      -4.092 -42.731  39.793  1.00 25.76           C
ATOM   1027  CD1 TYR A 133      -3.774 -43.689  38.840  1.00 18.04           C
ATOM   1028  CD2 TYR A 133      -5.062 -41.781  39.477  1.00 19.49           C
ATOM   1029  CE1 TYR A 133      -4.386 -43.696  37.622  1.00 22.10           C
ATOM   1030  CE2 TYR A 133      -5.686 -41.785  38.268  1.00 19.55           C
ATOM   1031  CZ  TYR A 133      -5.340 -42.747  37.333  1.00 24.09           C
ATOM   1032  OH  TYR A 133      -5.953 -42.767  36.107  1.00 17.97           O
ATOM   1033  N   ASP A 134      -2.615 -44.772  44.003  1.00 23.28           N
ATOM   1034  CA  ASP A 134      -2.073 -44.687  45.362  1.00 23.73           C
ATOM   1035  C   ASP A 134      -0.539 -44.685  45.371  1.00 23.54           C
ATOM   1036  O   ASP A 134       0.098 -45.678  45.029  1.00 21.34           O
ATOM   1037  CB  ASP A 134      -2.607 -45.847  46.205  1.00 25.23           C
ATOM   1038  CG  ASP A 134      -2.283 -45.705  47.693  1.00 33.25           C
ATOM   1039  OD1 ASP A 134      -1.488 -44.816  48.067  1.00 30.91           O
ATOM   1040  OD2 ASP A 134      -2.825 -46.498  48.494  1.00 35.15           O
ATOM   1041  N   GLY A 135       0.060 -43.574  45.788  1.00 22.67           N
ATOM   1042  CA  GLY A 135       1.511 -43.468  45.757  1.00 26.18           C
ATOM   1043  C   GLY A 135       2.289 -44.194  46.853  1.00 31.25           C
ATOM   1044  O   GLY A 135       3.527 -44.251  46.802  1.00 29.18           O
ATOM   1045  N   ARG A 136       1.593 -44.758  47.840  1.00 26.26           N
ATOM   1046  CA  ARG A 136       2.283 -45.274  49.029  1.00 28.24           C
ATOM   1047  C   ARG A 136       3.304 -46.387  48.739  1.00 28.73           C
ATOM   1048  O   ARG A 136       4.342 -46.457  49.396  1.00 29.29           O
ATOM   1049  CB  ARG A 136       1.282 -45.738  50.089  1.00 27.22           C
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ATOM   1050  CG  ARG A 136       0.788 -47.160  49.871  1.00 27.24           C
ATOM   1051  CD  ARG A 136      -0.184 -47.541  50.948  1.00 29.02           C
ATOM   1052  NE  ARG A 136      -1.386 -46.728  50.861  1.00 24.65           N
ATOM   1053  CZ  ARG A 136      -2.252 -46.591  51.852  1.00 33.82           C
ATOM   1054  NH1 ARG A 136      -2.030 -47.203  53.018  1.00 25.93           N
ATOM   1055  NH2 ARG A 136      -3.323 -45.832  51.683  1.00 25.70           N
ATOM   1056  N   PHE A 137       3.036 -47.241  47.753  1.00 25.48           N
ATOM   1057  CA  PHE A 137       3.912 -48.397  47.512  1.00 22.79           C
ATOM   1058  C   PHE A 137       5.217 -48.020  46.804  1.00 30.12           C
ATOM   1059  O   PHE A 137       6.271 -48.601  47.085  1.00 26.81           O
ATOM   1060  CB  PHE A 137       3.176 -49.508  46.743  1.00 24.61           C
ATOM   1061  CG  PHE A 137       1.874 -49.916  47.376  1.00 28.63           C
ATOM   1062  CD1 PHE A 137       0.668 -49.452  46.877  1.00 22.95           C
ATOM   1063  CD2 PHE A 137       1.859 -50.733  48.500  1.00 29.02           C
ATOM   1064  CE1 PHE A 137      -0.535 -49.810  47.479  1.00 29.01           C
ATOM   1065  CE2 PHE A 137       0.661 -51.093  49.112  1.00 27.77           C
ATOM   1066  CZ  PHE A 137      -0.534 -50.633  48.605  1.00 23.62           C
ATOM   1067  N   LEU A 138       5.140 -47.052  45.890  1.00 29.14           N
ATOM   1068  CA  LEU A 138       6.307 -46.622  45.121  1.00 27.70           C
ATOM   1069  C   LEU A 138       7.262 -45.881  46.034  1.00 24.34           C
ATOM   1070  O   LEU A 138       8.483 -46.032  45.967  1.00 23.16           O
ATOM   1071  CB  LEU A 138       5.885 -45.688  43.980  1.00 22.29           C
ATOM   1072  CG  LEU A 138       5.911 -46.248  42.566  1.00 28.58           C
ATOM   1073  CD1 LEU A 138       5.152 -45.309  41.634  1.00 30.97           C
ATOM   1074  CD2 LEU A 138       7.345 -46.429  42.100  1.00 26.56           C
ATOM   1075  N   VAL A 139       6.685 -45.046  46.878  1.00 21.58           N
ATOM   1076  CA  VAL A 139       7.477 -44.249  47.778  1.00 25.63           C
ATOM   1077  C   VAL A 139       8.220 -45.146  48.764  1.00 28.74           C
ATOM   1078  O   VAL A 139       9.421 -44.982  48.968  1.00 29.24           O
ATOM   1079  CB  VAL A 139       6.598 -43.235  48.495  1.00 32.22           C
ATOM   1080  CG1 VAL A 139       7.354 -42.597  49.603  1.00 28.29           C
ATOM   1081  CG2 VAL A 139       6.123 -42.187  47.496  1.00 27.28           C
ATOM   1082  N   GLN A 140       7.519 -46.119  49.341  1.00 31.83           N
ATOM   1083  CA  GLN A 140       8.149 -47.049  50.275  1.00 29.83           C
ATOM   1084  C   GLN A 140       9.234 -47.856  49.575  1.00 29.82           C
ATOM   1085  O   GLN A 140      10.373 -47.885  50.029  1.00 32.02           O
ATOM   1086  CB  GLN A 140       7.112 -47.984  50.915  1.00 30.02           C
ATOM   1087  CG  GLN A 140       7.581 -48.693  52.191  1.00 29.43           C
ATOM   1088  CD  GLN A 140       8.521 -49.856  51.914  1.00 33.84           C
ATOM   1089  OE1 GLN A 140       8.305 -50.643  50.988  1.00 33.49           O
ATOM   1090  NE2 GLN A 140       9.578 -49.963  52.708  1.00 30.37           N
ATOM   1091  N   ALA A 141       8.880 -48.493  48.461  1.00 29.27           N
ATOM   1092  CA  ALA A 141       9.766 -49.464  47.822  1.00 30.81           C
ATOM   1093  C   ALA A 141      10.978 -48.841  47.145  1.00 30.50           C
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ATOM   1094  O   ALA A 141      12.050 -49.446  47.085  1.00 30.33           O
ATOM   1095  CB  ALA A 141       8.984 -50.322  46.811  1.00 29.65           C
ATOM   1096  N   GLU A 142      10.810 -47.639  46.613  1.00 26.21           N
ATOM   1097  CA  GLU A 142      11.848 -47.079  45.772  1.00 25.36           C
ATOM   1098  C   GLU A 142      12.414 -45.791  46.333  1.00 28.97           C
ATOM   1099  O   GLU A 142      13.342 -45.212  45.758  1.00 24.98           O
ATOM   1100  CB  GLU A 142      11.338 -46.888  44.340  1.00 25.20           C
ATOM   1101  CG  GLU A 142      11.117 -48.200  43.613  1.00 27.04           C
ATOM   1102  CD  GLU A 142      12.392 -49.013  43.495  1.00 31.40           C
ATOM   1103  OE1 GLU A 142      13.473 -48.395  43.383  1.00 32.05           O
ATOM   1104  OE2 GLU A 142      12.320 -50.264  43.518  1.00 32.37           O
ATOM   1105  N   ARG A 143      11.857 -45.364  47.464  1.00 31.35           N
ATOM   1106  CA  ARG A 143      12.354 -44.204  48.202  1.00 31.83           C
ATOM   1107  C   ARG A 143      12.453 -42.952  47.353  1.00 29.37           C
ATOM   1108  O   ARG A 143      13.489 -42.312  47.273  1.00 35.35           O
ATOM   1109  CB  ARG A 143      13.660 -44.536  48.926  1.00 28.58           C
ATOM   1110  CG  ARG A 143      13.414 -45.552  50.039  1.00 35.03           C
ATOM   1111  CD  ARG A 143      14.567 -45.674  51.009  1.00 38.75           C
ATOM   1112  NE  ARG A 143      14.739 -44.482  51.836  1.00 46.42           N
ATOM   1113  CZ  ARG A 143      14.059 -44.239  52.954  1.00 45.47           C
ATOM   1114  NH1 ARG A 143      13.140 -45.098  53.381  1.00 32.13           N
ATOM   1115  NH2 ARG A 143      14.287 -43.127  53.639  1.00 46.82           N
ATOM   1116  N   THR A 144      11.344 -42.631  46.705  1.00 32.41           N
ATOM   1117  CA  THR A 144      11.202 -41.397  45.963  1.00 30.30           C
ATOM   1118  C   THR A 144      10.203 -40.522  46.698  1.00 27.99           C
ATOM   1119  O   THR A 144       9.533 -40.975  47.632  1.00 27.84           O
ATOM   1120  CB  THR A 144      10.597 -41.668  44.583  1.00 35.21           C
ATOM   1121  OG1 THR A 144       9.446 -42.511  44.744  1.00 38.23           O
ATOM   1122  CG2 THR A 144      11.603 -42.346  43.673  1.00 33.98           C
ATOM   1123  N   VAL A 145      10.100 -39.271  46.273  1.00 23.22           N
ATOM   1124  CA  VAL A 145       8.945 -38.454  46.618  1.00 29.04           C
ATOM   1125  C   VAL A 145       7.980 -38.472  45.423  1.00 32.40           C
ATOM   1126  O   VAL A 145       8.406 -38.376  44.263  1.00 26.72           O
ATOM   1127  CB  VAL A 145       9.366 -37.029  46.972  1.00 27.45           C
ATOM   1128  CG1 VAL A 145       8.156 -36.103  47.069  1.00 28.13           C
ATOM   1129  CG2 VAL A 145      10.157 -37.042  48.273  1.00 31.38           C
ATOM   1130  N   LEU A 146       6.690 -38.646  45.708  1.00 26.51           N
ATOM   1131  CA  LEU A 146       5.676 -38.760  44.666  1.00 26.15           C
ATOM   1132  C   LEU A 146       4.682 -37.642  44.858  1.00 26.71           C
ATOM   1133  O   LEU A 146       4.152 -37.457  45.959  1.00 29.11           O
ATOM   1134  CB  LEU A 146       4.959 -40.115  44.749  1.00 26.19           C
ATOM   1135  CG  LEU A 146       4.000 -40.630  43.655  1.00 32.46           C
ATOM   1136  CD1 LEU A 146       2.655 -39.907  43.594  1.00 31.30           C
ATOM   1137  CD2 LEU A 146       4.652 -40.560  42.320  1.00 28.97           C
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ATOM   1138  N   VAL A 147       4.429 -36.901  43.784  1.00 25.66           N
ATOM   1139  CA  VAL A 147       3.442 -35.828  43.799  1.00 24.44           C
ATOM   1140  C   VAL A 147       2.400 -36.105  42.725  1.00 23.48           C
ATOM   1141  O   VAL A 147       2.738 -36.539  41.625  1.00 22.06           O
ATOM   1142  CB  VAL A 147       4.102 -34.453  43.513  1.00 23.14           C
ATOM   1143  CG1 VAL A 147       3.066 -33.324  43.556  1.00 18.11           C
ATOM   1144  CG2 VAL A 147       5.232 -34.186  44.500  1.00 22.93           C
ATOM   1145  N   SER A 148       1.132 -35.862  43.038  1.00 22.93           N
ATOM   1146  CA  SER A 148       0.098 -35.901  42.011  1.00 25.29           C
ATOM   1147  C   SER A 148      -0.871 -34.752  42.235  1.00 24.52           C
ATOM   1148  O   SER A 148      -1.132 -34.372  43.380  1.00 21.58           O
ATOM   1149  CB  SER A 148      -0.642 -37.239  42.032  1.00 19.94           C
ATOM   1150  OG  SER A 148      -1.368 -37.388  43.228  1.00 22.02           O
ATOM   1151  N   MET A 149      -1.405 -34.195  41.149  1.00 18.38           N
ATOM   1152  CA  MET A 149      -2.322 -33.072  41.277  1.00 23.28           C
ATOM   1153  C   MET A 149      -3.648 -33.360  40.593  1.00 25.41           C
ATOM   1154  O   MET A 149      -3.714 -34.201  39.705  1.00 20.70           O
ATOM   1155  CB  MET A 149      -1.707 -31.792  40.693  1.00 20.59           C
ATOM   1156  CG  MET A 149      -1.941 -31.610  39.178  1.00 19.86           C
ATOM   1157  SD  MET A 149      -1.074 -32.876  38.213  1.00 23.30           S
ATOM   1158  CE  MET A 149       0.637 -32.422  38.502  1.00 17.15           C
ATOM   1159  N   ASN A 150      -4.701 -32.668  41.027  1.00 20.00           N
ATOM   1160  CA  ASN A 150      -5.922 -32.599  40.250  1.00 23.24           C
ATOM   1161  C   ASN A 150      -5.824 -31.413  39.297  1.00 24.90           C
ATOM   1162  O   ASN A 150      -5.271 -30.377  39.646  1.00 26.11           O
ATOM   1163  CB  ASN A 150      -7.154 -32.453  41.151  1.00 20.18           C
ATOM   1164  CG  ASN A 150      -7.679 -33.794  41.656  1.00 28.81           C
ATOM   1165  OD1 ASN A 150      -7.022 -34.830  41.507  1.00 25.52           O
ATOM   1166  ND2 ASN A 150      -8.866 -33.777  42.268  1.00 27.97           N
ATOM   1167  N   TYR A 151      -6.346 -31.571  38.089  1.00 20.20           N
ATOM   1168  CA  TYR A 151      -6.426 -30.460  37.154  1.00 19.93           C
ATOM   1169  C   TYR A 151      -7.798 -30.473  36.510  1.00 19.16           C
ATOM   1170  O   TYR A 151      -8.416 -31.531  36.388  1.00 20.88           O
ATOM   1171  CB  TYR A 151      -5.328 -30.565  36.094  1.00 20.27           C
ATOM   1172  CG  TYR A 151      -5.405 -31.813  35.252  1.00 17.59           C
ATOM   1173  CD1 TYR A 151      -4.756 -32.978  35.641  1.00 16.30           C
ATOM   1174  CD2 TYR A 151      -6.116 -31.820  34.060  1.00 19.29           C
ATOM   1175  CE1 TYR A 151      -4.820 -34.119  34.870  1.00 18.96           C
ATOM   1176  CE2 TYR A 151      -6.184 -32.956  33.275  1.00 18.48           C
ATOM   1177  CZ  TYR A 151      -5.542 -34.100  33.684  1.00 20.22           C
ATOM   1178  OH  TYR A 151      -5.618 -35.222  32.901  1.00 18.68           O
ATOM   1179  N   ARG A 152      -8.274 -29.305  36.098  1.00 19.03           N
ATOM   1180  CA  ARG A 152      -9.610 -29.194  35.511  1.00 21.54           C
ATOM   1181  C   ARG A 152      -9.756 -29.973  34.212  1.00 24.15           C
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ATOM   1182  O   ARG A 152      -8.868 -29.949  33.350  1.00 22.83           O
ATOM   1183  CB  ARG A 152      -9.984 -27.726  35.288  1.00 23.82           C
ATOM   1184  CG  ARG A 152     -10.372 -26.985  36.565  1.00 19.56           C
ATOM   1185  CD  ARG A 152     -10.517 -25.503  36.288  1.00 22.58           C
ATOM   1186  NE  ARG A 152      -9.218 -24.840  36.177  1.00 22.21           N
ATOM   1187  CZ  ARG A 152      -9.060 -23.549  35.899  1.00 23.75           C
ATOM   1188  NH1 ARG A 152     -10.124 -22.781  35.689  1.00 24.78           N
ATOM   1189  NH2 ARG A 152      -7.843 -23.025  35.828  1.00 20.31           N
ATOM   1190  N   VAL A 153     -10.886 -30.659  34.073  1.00 22.48           N
ATOM   1191  CA  VAL A 153     -11.145 -31.457  32.883  1.00 20.45           C
ATOM   1192  C   VAL A 153     -12.435 -31.007  32.217  1.00 24.96           C
ATOM   1193  O   VAL A 153     -13.138 -30.138  32.741  1.00 21.71           O
ATOM   1194  CB  VAL A 153     -11.195 -32.963  33.199  1.00 25.37           C
ATOM   1195  CG1 VAL A 153      -9.801 -33.473  33.577  1.00 19.61           C
ATOM   1196  CG2 VAL A 153     -12.196 -33.249  34.324  1.00 17.61           C
ATOM   1197  N   GLY A 154     -12.723 -31.572  31.045  1.00 22.57           N
ATOM   1198  CA  GLY A 154     -13.919 -31.222  30.296  1.00 20.33           C
ATOM   1199  C   GLY A 154     -13.950 -29.737  30.010  1.00 25.35           C
ATOM   1200  O   GLY A 154     -12.901 -29.091  29.975  1.00 24.22           O
ATOM   1201  N   ALA A 155     -15.147 -29.184  29.844  1.00 23.33           N
ATOM   1202  CA  ALA A 155     -15.290 -27.763  29.550  1.00 25.46           C
ATOM   1203  C   ALA A 155     -14.554 -26.872  30.556  1.00 27.25           C
ATOM   1204  O   ALA A 155     -13.980 -25.848  30.190  1.00 25.72           O
ATOM   1205  CB  ALA A 155     -16.773 -27.377  29.469  1.00 26.57           C
ATOM   1206  N   PHE A 156     -14.559 -27.279  31.822  1.00 25.39           N
ATOM   1207  CA  PHE A 156     -13.948 -26.479  32.880  1.00 23.14           C
ATOM   1208  C   PHE A 156     -12.451 -26.274  32.683  1.00 24.00           C
ATOM   1209  O   PHE A 156     -11.910 -25.232  33.051  1.00 27.09           O
ATOM   1210  CB  PHE A 156     -14.253 -27.108  34.239  1.00 21.78           C
ATOM   1211  CG  PHE A 156     -15.701 -27.388  34.424  1.00 24.35           C
ATOM   1212  CD1 PHE A 156     -16.208 -28.658  34.190  1.00 22.82           C
ATOM   1213  CD2 PHE A 156     -16.574 -26.363  34.768  1.00 20.78           C
ATOM   1214  CE1 PHE A 156     -17.554 -28.911  34.329  1.00 23.46           C
ATOM   1215  CE2 PHE A 156     -17.927 -26.611  34.927  1.00 24.75           C
ATOM   1216  CZ  PHE A 156     -18.417 -27.885  34.697  1.00 24.97           C
ATOM   1217  N   GLY A 157     -11.789 -27.257  32.083  1.00 22.51           N
ATOM   1218  CA  GLY A 157     -10.366 -27.155  31.837  1.00 20.74           C
ATOM   1219  C   GLY A 157      -9.983 -26.794  30.416  1.00 24.31           C
ATOM   1220  O   GLY A 157      -8.869 -26.320  30.188  1.00 27.21           O
ATOM   1221  N   PHE A 158     -10.891 -26.997  29.460  1.00 23.08           N
ATOM   1222  CA  PHE A 158     -10.503 -26.955  28.051  1.00 23.82           C
ATOM   1223  C   PHE A 158     -11.493 -26.327  27.072  1.00 26.67           C
ATOM   1224  O   PHE A 158     -11.243 -26.323  25.869  1.00 25.88           O
ATOM   1225  CB  PHE A 158     -10.061 -28.354  27.578  1.00 24.72           C
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ATOM   1226  CG  PHE A 158      -8.890 -28.887  28.349  1.00 23.29           C
ATOM   1227  CD1 PHE A 158      -9.074 -29.783  29.390  1.00 23.35           C
ATOM   1228  CD2 PHE A 158      -7.611 -28.423  28.090  1.00 25.46           C
ATOM   1229  CE1 PHE A 158      -7.998 -30.239  30.135  1.00 19.80           C
ATOM   1230  CE2 PHE A 158      -6.529 -28.875  28.833  1.00 27.06           C
ATOM   1231  CZ  PHE A 158      -6.727 -29.786  29.861  1.00 21.72           C
ATOM   1232  N   LEU A 159     -12.600 -25.780  27.566  1.00 27.43           N
ATOM   1233  CA  LEU A 159     -13.477 -25.028  26.682  1.00 24.70           C
ATOM   1234  C   LEU A 159     -12.711 -23.803  26.195  1.00 30.82           C
ATOM   1235  O   LEU A 159     -12.099 -23.085  26.979  1.00 32.86           O
ATOM   1236  CB  LEU A 159     -14.787 -24.628  27.363  1.00 24.52           C
ATOM   1237  CG  LEU A 159     -15.782 -23.842  26.488  1.00 30.30           C
ATOM   1238  CD1 LEU A 159     -17.230 -24.297  26.691  1.00 24.74           C
ATOM   1239  CD2 LEU A 159     -15.673 -22.353  26.755  1.00 27.05           C
ATOM   1240  N   ALA A 160     -12.727 -23.578  24.891  1.00 30.16           N
ATOM   1241  CA  ALA A 160     -11.931 -22.505  24.320  1.00 32.03           C
ATOM   1242  C   ALA A 160     -12.731 -21.704  23.305  1.00 35.94           C
ATOM   1243  O   ALA A 160     -13.374 -22.272  22.420  1.00 26.91           O
ATOM   1244  CB  ALA A 160     -10.669 -23.072  23.664  1.00 23.68           C
ATOM   1245  N   LEU A 161     -12.709 -20.385  23.468  1.00 29.61           N
ATOM   1246  CA  LEU A 161     -13.074 -19.468  22.401  1.00 33.91           C
ATOM   1247  C   LEU A 161     -11.794 -18.743  22.049  1.00 37.16           C
ATOM   1248  O   LEU A 161     -11.461 -17.737  22.672  1.00 40.25           O
ATOM   1249  CB  LEU A 161     -14.137 -18.478  22.860  1.00 30.90           C
ATOM   1250  CG  LEU A 161     -15.503 -19.125  23.074  1.00 36.25           C
ATOM   1251  CD1 LEU A 161     -16.367 -18.255  23.954  1.00 38.39           C
ATOM   1252  CD2 LEU A 161     -16.181 -19.401  21.737  1.00 25.71           C
ATOM   1253  N   PRO A 162     -11.050 -19.281  21.069  1.00 39.19           N
ATOM   1254  CA  PRO A 162      -9.697 -18.813  20.740  1.00 42.68           C
ATOM   1255  C   PRO A 162      -9.655 -17.315  20.457  1.00 41.58           C
ATOM   1256  O   PRO A 162     -10.478 -16.798  19.700  1.00 40.96           O
ATOM   1257  CB  PRO A 162      -9.347 -19.617  19.489  1.00 38.81           C
ATOM   1258  CG  PRO A 162     -10.157 -20.873  19.628  1.00 38.57           C
ATOM   1259  CD  PRO A 162     -11.455 -20.426  20.236  1.00 31.70           C
ATOM   1260  N   GLY A 163      -8.713 -16.627  21.089  1.00 42.18           N
ATOM   1261  CA  GLY A 163      -8.615 -15.187  20.965  1.00 40.57           C
ATOM   1262  C   GLY A 163      -9.237 -14.461  22.145  1.00 44.92           C
ATOM   1263  O   GLY A 163      -8.787 -13.378  22.515  1.00 42.80           O
ATOM   1264  N   SER A 164     -10.268 -15.055  22.742  1.00 42.86           N
ATOM   1265  CA  SER A 164     -10.985 -14.409  23.840  1.00 41.59           C
ATOM   1266  C   SER A 164     -10.200 -14.452  25.142  1.00 42.81           C
ATOM   1267  O   SER A 164      -9.379 -15.337  25.363  1.00 45.41           O
ATOM   1268  CB  SER A 164     -12.339 -15.069  24.067  1.00 43.22           C
ATOM   1269  OG  SER A 164     -12.201 -16.179  24.939  1.00 47.27           O
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ATOM   1270  N   ARG A 165     -10.472 -13.498  26.016  1.00 47.50           N
ATOM   1271  CA  ARG A 165      -9.806 -13.459  27.302  1.00 46.18           C
ATOM   1272  C   ARG A 165     -10.607 -14.254  28.319  1.00 41.15           C
ATOM   1273  O   ARG A 165     -10.052 -14.782  29.276  1.00 49.63           O
ATOM   1274  CB  ARG A 165      -9.632 -12.013  27.772  1.00 53.87           C
ATOM   1275  CG  ARG A 165      -8.841 -11.137  26.807  1.00 66.29           C
ATOM   1276  CD  ARG A 165      -8.257  -9.923  27.516  1.00 83.14           C
ATOM   1277  NE  ARG A 165      -7.479 -10.322  28.686  1.00102.11           N
ATOM   1278  CZ  ARG A 165      -6.827  -9.481  29.481  1.00102.00           C
ATOM   1279  NH1 ARG A 165      -6.851  -8.178  29.231  1.00101.62           N
ATOM   1280  NH2 ARG A 165      -6.148  -9.944  30.525  1.00 92.70           N
ATOM   1281  N   GLU A 166     -11.914 -14.348  28.094  1.00 45.29           N
ATOM   1282  CA  GLU A 166     -12.818 -14.986  29.049  1.00 43.35           C
ATOM   1283  C   GLU A 166     -12.761 -16.518  29.030  1.00 42.67           C
ATOM   1284  O   GLU A 166     -13.118 -17.162  30.015  1.00 44.50           O
ATOM   1285  CB  GLU A 166     -14.257 -14.502  28.840  1.00 42.48           C
ATOM   1286  CG  GLU A 166     -14.460 -13.003  29.051  1.00 45.32           C
ATOM   1287  CD  GLU A 166     -14.277 -12.190  27.766  1.00 58.15           C
ATOM   1288  OE1 GLU A 166     -13.923 -12.780  26.716  1.00 51.95           O
ATOM   1289  OE2 GLU A 166     -14.494 -10.956  27.808  1.00 60.65           O
ATOM   1290  N   ALA A 167     -12.315 -17.094  27.916  1.00 36.54           N
ATOM   1291  CA  ALA A 167     -12.119 -18.544  27.814  1.00 37.49           C
ATOM   1292  C   ALA A 167     -11.014 -18.879  26.812  1.00 35.29           C
ATOM   1293  O   ALA A 167     -11.290 -19.308  25.688  1.00 37.34           O
ATOM   1294  CB  ALA A 167     -13.418 -19.238  27.428  1.00 36.06           C
ATOM   1295  N   PRO A 168      -9.755 -18.684  27.220  1.00 31.87           N
ATOM   1296  CA  PRO A 168      -8.604 -18.764  26.313  1.00 30.40           C
ATOM   1297  C   PRO A 168      -8.223 -20.195  25.963  1.00 32.99           C
ATOM   1298  O   PRO A 168      -7.431 -20.402  25.048  1.00 33.75           O
ATOM   1299  CB  PRO A 168      -7.481 -18.118  27.125  1.00 28.22           C
ATOM   1300  CG  PRO A 168      -7.859 -18.392  28.546  1.00 29.58           C
ATOM   1301  CD  PRO A 168      -9.355 -18.359  28.600  1.00 28.38           C
ATOM   1302  N   GLY A 169      -8.774 -21.164  26.689  1.00 34.49           N
ATOM   1303  CA  GLY A 169      -8.441 -22.560  26.474  1.00 28.77           C
ATOM   1304  C   GLY A 169      -7.206 -22.994  27.246  1.00 29.61           C
ATOM   1305  O   GLY A 169      -6.448 -22.160  27.757  1.00 26.14           O
ATOM   1306  N   ASN A 170      -7.025 -24.310  27.334  1.00 23.30           N
ATOM   1307  CA  ASN A 170      -5.848 -24.922  27.939  1.00 23.17           C
ATOM   1308  C   ASN A 170      -5.658 -24.679  29.442  1.00 20.20           C
ATOM   1309  O   ASN A 170      -4.588 -24.960  29.977  1.00 19.47           O
ATOM   1310  CB  ASN A 170      -4.571 -24.525  27.179  1.00 23.14           C
ATOM   1311  CG  ASN A 170      -4.576 -25.000  25.741  1.00 28.93           C
ATOM   1312  OD1 ASN A 170      -5.194 -26.007  25.412  1.00 29.42           O
ATOM   1313  ND2 ASN A 170      -3.885 -24.272  24.872  1.00 26.40           N
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ATOM   1314  N   VAL A 171      -6.681 -24.191  30.136  1.00 23.36           N
ATOM   1315  CA  VAL A 171      -6.470 -23.843  31.546  1.00 25.34           C
ATOM   1316  C   VAL A 171      -6.166 -25.067  32.435  1.00 24.82           C
ATOM   1317  O   VAL A 171      -5.452 -24.963  33.428  1.00 22.81           O
ATOM   1318  CB  VAL A 171      -7.580 -22.912  32.125  1.00 26.79           C
ATOM   1319  CG1 VAL A 171      -7.583 -21.571  31.377  1.00 20.81           C
ATOM   1320  CG2 VAL A 171      -8.966 -23.577  32.105  1.00 22.54           C
ATOM   1321  N   GLY A 172      -6.670 -26.232  32.048  1.00 24.47           N
ATOM   1322  CA  GLY A 172      -6.340 -27.452  32.761  1.00 21.32           C
ATOM   1323  C   GLY A 172      -4.860 -27.778  32.650  1.00 22.42           C
ATOM   1324  O   GLY A 172      -4.252 -28.318  33.591  1.00 25.51           O
ATOM   1325  N   LEU A 173      -4.280 -27.467  31.492  1.00 21.66           N
ATOM   1326  CA  LEU A 173      -2.841 -27.618  31.293  1.00 20.92           C
ATOM   1327  C   LEU A 173      -2.092 -26.643  32.191  1.00 21.56           C
ATOM   1328  O   LEU A 173      -1.064 -27.004  32.778  1.00 20.64           O
ATOM   1329  CB  LEU A 173      -2.457 -27.396  29.833  1.00 22.08           C
ATOM   1330  CG  LEU A 173      -2.644 -28.580  28.887  1.00 21.24           C
ATOM   1331  CD1 LEU A 173      -2.318 -28.166  27.471  1.00 16.67           C
ATOM   1332  CD2 LEU A 173      -1.756 -29.739  29.324  1.00 19.26           C
ATOM   1333  N   LEU A 174      -2.620 -25.422  32.315  1.00 18.37           N
ATOM   1334  CA  LEU A 174      -2.036 -24.433  33.232  1.00 23.66           C
ATOM   1335  C   LEU A 174      -2.185 -24.849  34.701  1.00 20.11           C
ATOM   1336  O   LEU A 174      -1.313 -24.564  35.511  1.00 22.41           O
ATOM   1337  CB  LEU A 174      -2.590 -23.018  32.986  1.00 19.19           C
ATOM   1338  CG  LEU A 174      -2.312 -22.416  31.599  1.00 30.59           C
ATOM   1339  CD1 LEU A 174      -2.970 -21.061  31.435  1.00 23.97           C
ATOM   1340  CD2 LEU A 174      -0.818 -22.302  31.345  1.00 26.40           C
ATOM   1341  N   ASP A 175      -3.277 -25.535  35.039  1.00 24.57           N
ATOM   1342  CA  ASP A 175      -3.422 -26.105  36.378  1.00 19.23           C
ATOM   1343  C   ASP A 175      -2.235 -27.018  36.655  1.00 26.36           C
ATOM   1344  O   ASP A 175      -1.667 -26.985  37.749  1.00 25.22           O
ATOM   1345  CB  ASP A 175      -4.706 -26.923  36.520  1.00 18.11           C
ATOM   1346  CG  ASP A 175      -5.957 -26.082  36.431  1.00 24.05           C
ATOM   1347  OD1 ASP A 175      -5.859 -24.842  36.578  1.00 22.04           O
ATOM   1348  OD2 ASP A 175      -7.044 -26.672  36.214  1.00 23.53           O
ATOM   1349  N   GLN A 176      -1.857 -27.825  35.662  1.00 21.63           N
ATOM   1350  CA  GLN A 176      -0.713 -28.726  35.813  1.00 21.59           C
ATOM   1351  C   GLN A 176       0.612 -27.962  35.967  1.00 23.98           C
ATOM   1352  O   GLN A 176       1.465 -28.320  36.800  1.00 25.19           O
ATOM   1353  CB  GLN A 176      -0.610 -29.683  34.622  1.00 25.77           C
ATOM   1354  CG  GLN A 176      -1.755 -30.680  34.475  1.00 20.49           C
ATOM   1355  CD  GLN A 176      -1.713 -31.394  33.129  1.00 23.90           C
ATOM   1356  OE1 GLN A 176      -0.695 -31.364  32.423  1.00 21.15           O
ATOM   1357  NE2 GLN A 176      -2.822 -32.028  32.761  1.00 20.77           N
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ATOM   1358  N   ARG A 177       0.780 -26.909  35.168  1.00 21.47           N
ATOM   1359  CA  ARG A 177       2.002 -26.118  35.208  1.00 22.37           C
ATOM   1360  C   ARG A 177       2.157 -25.443  36.556  1.00 24.90           C
ATOM   1361  O   ARG A 177       3.255 -25.421  37.132  1.00 23.90           O
ATOM   1362  CB  ARG A 177       2.023 -25.062  34.102  1.00 24.55           C
ATOM   1363  CG  ARG A 177       3.244 -24.156  34.186  1.00 28.12           C
ATOM   1364  CD  ARG A 177       3.264 -23.126  33.088  1.00 25.82           C
ATOM   1365  NE  ARG A 177       3.475 -23.750  31.785  1.00 31.94           N
ATOM   1366  CZ  ARG A 177       3.263 -23.132  30.630  1.00 32.92           C
ATOM   1367  NH1 ARG A 177       2.834 -21.874  30.640  1.00 28.06           N
ATOM   1368  NH2 ARG A 177       3.474 -23.765  29.477  1.00 26.36           N
ATOM   1369  N   LEU A 178       1.053 -24.900  37.061  1.00 21.03           N
ATOM   1370  CA  LEU A 178       1.070 -24.249  38.363  1.00 24.07           C
ATOM   1371  C   LEU A 178       1.480 -25.259  39.437  1.00 23.99           C
ATOM   1372  O   LEU A 178       2.286 -24.939  40.315  1.00 26.85           O
ATOM   1373  CB  LEU A 178      -0.281 -23.593  38.680  1.00 22.34           C
ATOM   1374  CG  LEU A 178      -0.405 -22.944  40.064  1.00 26.94           C
ATOM   1375  CD1 LEU A 178       0.616 -21.827  40.244  1.00 22.05           C
ATOM   1376  CD2 LEU A 178      -1.812 -22.424  40.308  1.00 22.20           C
ATOM   1377  N   ALA A 179       0.964 -26.486  39.350  1.00 22.50           N
ATOM   1378  CA  ALA A 179       1.376 -27.535  40.295  1.00 24.01           C
ATOM   1379  C   ALA A 179       2.870 -27.854  40.175  1.00 22.18           C
ATOM   1380  O   ALA A 179       3.550 -28.065  41.180  1.00 24.04           O
ATOM   1381  CB  ALA A 179       0.534 -28.806  40.118  1.00 21.42           C
ATOM   1382  N   LEU A 180       3.381 -27.889  38.945  1.00 23.96           N
ATOM   1383  CA  LEU A 180       4.812 -28.114  38.740  1.00 24.42           C
ATOM   1384  C   LEU A 180       5.661 -26.967  39.319  1.00 26.59           C
ATOM   1385  O   LEU A 180       6.717 -27.202  39.907  1.00 28.51           O
ATOM   1386  CB  LEU A 180       5.124 -28.346  37.262  1.00 24.29           C
ATOM   1387  CG  LEU A 180       4.501 -29.602  36.639  1.00 23.58           C
ATOM   1388  CD1 LEU A 180       4.891 -29.726  35.171  1.00 23.58           C
ATOM   1389  CD2 LEU A 180       4.905 -30.835  37.404  1.00 24.75           C
ATOM   1390  N   GLN A 181       5.185 -25.735  39.165  1.00 24.40           N
ATOM   1391  CA  GLN A 181       5.803 -24.588  39.824  1.00 30.04           C
ATOM   1392  C   GLN A 181       5.723 -24.715  41.345  1.00 30.06           C
ATOM   1393  O   GLN A 181       6.678 -24.373  42.052  1.00 29.04           O
ATOM   1394  CB  GLN A 181       5.151 -23.279  39.372  1.00 25.71           C
ATOM   1395  CG  GLN A 181       5.426 -22.947  37.921  1.00 30.87           C
ATOM   1396  CD  GLN A 181       4.502 -21.876  37.386  1.00 35.16           C
ATOM   1397  OE1 GLN A 181       3.504 -21.532  38.018  1.00 36.01           O
ATOM   1398  NE2 GLN A 181       4.826 -21.343  36.209  1.00 35.85           N
ATOM   1399  N   TRP A 182       4.593 -25.210  41.846  1.00 27.52           N
ATOM   1400  CA  TRP A 182       4.445 -25.435  43.286  1.00 28.59           C
ATOM   1401  C   TRP A 182       5.521 -26.415  43.751  1.00 29.75           C
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ATOM   1402  O   TRP A 182       6.120 -26.243  44.811  1.00 27.53           O
ATOM   1403  CB  TRP A 182       3.047 -25.971  43.619  1.00 19.63           C
ATOM   1404  CG  TRP A 182       2.758 -26.089  45.095  1.00 25.81           C
ATOM   1405  CD1 TRP A 182       2.094 -25.179  45.879  1.00 20.03           C
ATOM   1406  CD2 TRP A 182       3.099 -27.185  45.960  1.00 21.26           C
ATOM   1407  NE1 TRP A 182       2.012 -25.639  47.164  1.00 25.43           N
ATOM   1408  CE2 TRP A 182       2.622 -26.864  47.246  1.00 22.71           C
ATOM   1409  CE3 TRP A 182       3.767 -28.401  45.772  1.00 21.88           C
ATOM   1410  CZ2 TRP A 182       2.790 -27.714  48.342  1.00 21.35           C
ATOM   1411  CZ3 TRP A 182       3.934 -29.244  46.859  1.00 25.21           C
ATOM   1412  CH2 TRP A 182       3.442 -28.901  48.128  1.00 19.84           C
ATOM   1413  N   VAL A 183       5.772 -27.437  42.938  1.00 30.41           N
ATOM   1414  CA  VAL A 183       6.763 -28.445  43.289  1.00 28.57           C
ATOM   1415  C   VAL A 183       8.161 -27.836  43.366  1.00 30.28           C
ATOM   1416  O   VAL A 183       8.889 -28.062  44.340  1.00 32.75           O
ATOM   1417  CB  VAL A 183       6.723 -29.642  42.322  1.00 24.72           C
ATOM   1418  CG1 VAL A 183       7.979 -30.489  42.455  1.00 21.77           C
ATOM   1419  CG2 VAL A 183       5.481 -30.480  42.592  1.00 18.01           C
ATOM   1420  N   GLN A 184       8.516 -27.043  42.360  1.00 25.98           N
ATOM   1421  CA  GLN A 184       9.790 -26.326  42.353  1.00 31.20           C
ATOM   1422  C   GLN A 184      10.019 -25.537  43.633  1.00 30.44           C
ATOM   1423  O   GLN A 184      11.121 -25.552  44.198  1.00 27.22           O
ATOM   1424  CB  GLN A 184       9.876 -25.389  41.150  1.00 23.87           C
ATOM   1425  CG  GLN A 184      10.146 -26.123  39.860  1.00 28.49           C
ATOM   1426  CD  GLN A 184      11.394 -26.977  39.954  1.00 34.11           C
ATOM   1427  OE1 GLN A 184      12.504 -26.462  40.108  1.00 38.97           O
ATOM   1428  NE2 GLN A 184      11.219 -28.288  39.882  1.00 33.18           N
ATOM   1429  N   GLU A 185       8.967 -24.880  44.102  1.00 25.84           N
ATOM   1430  CA  GLU A 185       9.074 -23.990  45.251  1.00 30.03           C
ATOM   1431  C   GLU A 185       8.917 -24.669  46.611  1.00 38.05           C
ATOM   1432  O   GLU A 185       9.407 -24.155  47.614  1.00 39.83           O
ATOM   1433  CB  GLU A 185       8.077 -22.835  45.109  1.00 30.10           C
ATOM   1434  CG  GLU A 185       8.438 -21.903  43.949  1.00 40.79           C
ATOM   1435  CD  GLU A 185       7.364 -20.881  43.639  1.00 51.06           C
ATOM   1436  OE1 GLU A 185       7.330 -20.395  42.485  1.00 48.71           O
ATOM   1437  OE2 GLU A 185       6.560 -20.561  44.544  1.00 55.46           O
ATOM   1438  N   ASN A 186       8.254 -25.823  46.651  1.00 34.64           N
ATOM   1439  CA  ASN A 186       7.857 -26.392  47.934  1.00 29.15           C
ATOM   1440  C   ASN A 186       8.298 -27.821  48.217  1.00 31.70           C
ATOM   1441  O   ASN A 186       8.195 -28.285  49.356  1.00 36.34           O
ATOM   1442  CB  ASN A 186       6.341 -26.287  48.106  1.00 24.31           C
ATOM   1443  CG  ASN A 186       5.857 -24.855  48.090  1.00 28.03           C
ATOM   1444  OD1 ASN A 186       6.114 -24.101  49.020  1.00 34.74           O
ATOM   1445  ND2 ASN A 186       5.152 -24.471  47.031  1.00 31.10           N
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ATOM   1446  N   VAL A 187       8.785 -28.530  47.206  1.00 28.96           N
ATOM   1447  CA  VAL A 187       8.974 -29.964  47.385  1.00 29.16           C
ATOM   1448  C   VAL A 187      10.131 -30.274  48.325  1.00 33.47           C
ATOM   1449  O   VAL A 187      10.126 -31.312  48.997  1.00 32.91           O
ATOM   1450  CB  VAL A 187       9.082 -30.740  46.038  1.00 32.40           C
ATOM   1451  CG1 VAL A 187      10.479 -30.622  45.434  1.00 21.52           C
ATOM   1452  CG2 VAL A 187       8.687 -32.211  46.240  1.00 25.93           C
ATOM   1453  N   ALA A 188      11.101 -29.361  48.394  1.00 33.21           N
ATOM   1454  CA  ALA A 188      12.245 -29.523  49.291  1.00 34.13           C
ATOM   1455  C   ALA A 188      11.784 -29.648  50.741  1.00 32.48           C
ATOM   1456  O   ALA A 188      12.394 -30.364  51.538  1.00 34.72           O
ATOM   1457  CB  ALA A 188      13.229 -28.363  49.137  1.00 25.47           C
ATOM   1458  N   ALA A 189      10.690 -28.971  51.078  1.00 29.35           N
ATOM   1459  CA  ALA A 189      10.181 -29.001  52.448  1.00 31.49           C
ATOM   1460  C   ALA A 189       9.713 -30.402  52.841  1.00 38.15           C
ATOM   1461  O   ALA A 189       9.433 -30.658  54.013  1.00 37.07           O
ATOM   1462  CB  ALA A 189       9.043 -27.995  52.625  1.00 26.13           C
ATOM   1463  N   PHE A 190       9.619 -31.298  51.857  1.00 33.91           N
ATOM   1464  CA  PHE A 190       9.188 -32.668  52.104  1.00 33.23           C
ATOM   1465  C   PHE A 190      10.342 -33.653  51.952  1.00 31.56           C
ATOM   1466  O   PHE A 190      10.177 -34.846  52.184  1.00 37.75           O
ATOM   1467  CB  PHE A 190       8.053 -33.058  51.150  1.00 30.12           C
ATOM   1468  CG  PHE A 190       6.829 -32.188  51.261  1.00 27.60           C
ATOM   1469  CD1 PHE A 190       6.756 -30.975  50.590  1.00 27.23           C
ATOM   1470  CD2 PHE A 190       5.741 -32.597  52.011  1.00 25.38           C
ATOM   1471  CE1 PHE A 190       5.632 -30.181  50.678  1.00 23.86           C
ATOM   1472  CE2 PHE A 190       4.606 -31.806  52.100  1.00 26.17           C
ATOM   1473  CZ  PHE A 190       4.554 -30.597  51.434  1.00 23.16           C
ATOM   1474  N   GLY A 191      11.509 -33.150  51.562  1.00 25.12           N
ATOM   1475  CA  GLY A 191      12.659 -34.002  51.327  1.00 31.32           C
ATOM   1476  C   GLY A 191      12.924 -34.229  49.851  1.00 35.18           C
ATOM   1477  O   GLY A 191      13.851 -34.947  49.475  1.00 36.31           O
ATOM   1478  N   GLY A 192      12.114 -33.603  49.004  1.00 31.45           N
ATOM   1479  CA  GLY A 192      12.225 -33.812  47.578  1.00 31.16           C
ATOM   1480  C   GLY A 192      13.257 -32.908  46.955  1.00 30.81           C
ATOM   1481  O   GLY A 192      13.529 -31.826  47.469  1.00 41.84           O
ATOM   1482  N   ASP A 193      13.822 -33.355  45.840  1.00 29.70           N
ATOM   1483  CA  ASP A 193      14.846 -32.611  45.120  1.00 30.22           C
ATOM   1484  C   ASP A 193      14.242 -31.998  43.858  1.00 35.83           C
ATOM   1485  O   ASP A 193      14.036 -32.694  42.866  1.00 37.04           O
ATOM   1486  CB  ASP A 193      16.003 -33.559  44.780  1.00 32.05           C
ATOM   1487  CG  ASP A 193      17.044 -32.943  43.858  1.00 31.24           C
ATOM   1488  OD1 ASP A 193      16.996 -31.734  43.560  1.00 35.77           O
ATOM   1489  OD2 ASP A 193      17.940 -33.690  43.425  1.00 39.32           O
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ATOM   1490  N   PRO A 194      13.979 -30.681  43.888  1.00 40.39           N
ATOM   1491  CA  PRO A 194      13.401 -29.929  42.760  1.00 28.55           C
ATOM   1492  C   PRO A 194      14.256 -29.965  41.494  1.00 36.30           C
ATOM   1493  O   PRO A 194      13.759 -29.658  40.398  1.00 31.78           O
ATOM   1494  CB  PRO A 194      13.302 -28.494  43.297  1.00 34.98           C
ATOM   1495  CG  PRO A 194      14.241 -28.449  44.485  1.00 31.68           C
ATOM   1496  CD  PRO A 194      14.195 -29.830  45.073  1.00 27.86           C
ATOM   1497  N   THR A 195      15.522 -30.345  41.642  1.00 38.88           N
ATOM   1498  CA  THR A 195      16.428 -30.470  40.496  1.00 39.65           C
ATOM   1499  C   THR A 195      16.359 -31.869  39.873  1.00 38.04           C
ATOM   1500  O   THR A 195      17.034 -32.145  38.877  1.00 43.83           O
ATOM   1501  CB  THR A 195      17.900 -30.162  40.888  1.00 42.76           C
ATOM   1502  OG1 THR A 195      18.397 -31.195  41.755  1.00 40.81           O
ATOM   1503  CG2 THR A 195      18.009 -28.810  41.598  1.00 30.20           C
ATOM   1504  N   SER A 196      15.549 -32.750  40.458  1.00 31.70           N
ATOM   1505  CA  SER A 196      15.331 -34.083  39.879  1.00 37.92           C
ATOM   1506  C   SER A 196      13.843 -34.470  39.850  1.00 36.52           C
ATOM   1507  O   SER A 196      13.366 -35.254  40.680  1.00 32.26           O
ATOM   1508  CB  SER A 196      16.130 -35.143  40.634  1.00 34.48           C
ATOM   1509  OG  SER A 196      15.994 -36.408  40.005  1.00 47.57           O
ATOM   1510  N   VAL A 197      13.117 -33.915  38.888  1.00 30.36           N
ATOM   1511  CA  VAL A 197      11.680 -34.125  38.791  1.00 27.23           C
ATOM   1512  C   VAL A 197      11.342 -34.880  37.510  1.00 28.07           C
ATOM   1513  O   VAL A 197      11.629 -34.412  36.407  1.00 25.39           O
ATOM   1514  CB  VAL A 197      10.918 -32.781  38.817  1.00 28.35           C
ATOM   1515  CG1 VAL A 197       9.448 -32.977  38.406  1.00 25.43           C
ATOM   1516  CG2 VAL A 197      11.022 -32.137  40.194  1.00 24.24           C
ATOM   1517  N   THR A 198      10.745 -36.058  37.662  1.00 29.77           N
ATOM   1518  CA  THR A 198      10.326 -36.859  36.513  1.00 26.83           C
ATOM   1519  C   THR A 198       8.802 -36.861  36.407  1.00 24.98           C
ATOM   1520  O   THR A 198       8.106 -37.212  37.364  1.00 22.26           O
ATOM   1521  CB  THR A 198      10.843 -38.320  36.609  1.00 29.00           C
ATOM   1522  OG1 THR A 198      12.275 -38.332  36.717  1.00 27.34           O
ATOM   1523  CG2 THR A 198      10.430 -39.124  35.381  1.00 22.34           C
ATOM   1524  N   LEU A 199       8.288 -36.446  35.249  1.00 23.95           N
ATOM   1525  CA  LEU A 199       6.853 -36.498  34.977  1.00 21.52           C
ATOM   1526  C   LEU A 199       6.470 -37.862  34.417  1.00 27.34           C
ATOM   1527  O   LEU A 199       7.131 -38.377  33.509  1.00 23.45           O
ATOM   1528  CB  LEU A 199       6.462 -35.454  33.934  1.00 27.87           C
ATOM   1529  CG  LEU A 199       6.779 -33.989  34.185  1.00 24.15           C
ATOM   1530  CD1 LEU A 199       6.178 -33.142  33.068  1.00 23.75           C
ATOM   1531  CD2 LEU A 199       6.234 -33.583  35.533  1.00 27.88           C
ATOM   1532  N   PHE A 200       5.403 -38.446  34.953  1.00 21.41           N
ATOM   1533  CA  PHE A 200       4.821 -39.632  34.339  1.00 22.36           C
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ATOM   1534  C   PHE A 200       3.306 -39.531  34.310  1.00 22.29           C
ATOM   1535  O   PHE A 200       2.690 -38.943  35.203  1.00 21.52           O
ATOM   1536  CB  PHE A 200       5.344 -40.970  34.926  1.00 19.85           C
ATOM   1537  CG  PHE A 200       4.913 -41.279  36.359  1.00 22.87           C
ATOM   1538  CD1 PHE A 200       4.960 -40.319  37.362  1.00 21.29           C
ATOM   1539  CD2 PHE A 200       4.522 -42.572  36.698  1.00 20.88           C
ATOM   1540  CE1 PHE A 200       4.596 -40.635  38.674  1.00 23.94           C
ATOM   1541  CE2 PHE A 200       4.161 -42.896  37.999  1.00 26.67           C
ATOM   1542  CZ  PHE A 200       4.196 -41.919  38.995  1.00 24.32           C
ATOM   1543  N   GLY A 201       2.717 -40.074  33.254  1.00 18.09           N
ATOM   1544  CA  GLY A 201       1.294 -39.931  33.037  1.00 18.76           C
ATOM   1545  C   GLY A 201       0.840 -40.993  32.067  1.00 22.17           C
ATOM   1546  O   GLY A 201       1.650 -41.569  31.344  1.00 19.77           O
ATOM   1547  N   GLU A 202      -0.460 -41.263  32.059  1.00 23.99           N
ATOM   1548  CA  GLU A 202      -1.006 -42.292  31.192  1.00 21.05           C
ATOM   1549  C   GLU A 202      -2.154 -41.708  30.386  1.00 21.75           C
ATOM   1550  O   GLU A 202      -2.861 -40.819  30.867  1.00 20.07           O
ATOM   1551  CB  GLU A 202      -1.439 -43.509  32.013  1.00 21.86           C
ATOM   1552  CG  GLU A 202      -1.869 -44.715  31.196  1.00 20.21           C
ATOM   1553  CD  GLU A 202      -3.337 -44.662  30.840  1.00 22.32           C
ATOM   1554  OE1 GLU A 202      -4.014 -43.731  31.319  1.00 21.71           O
ATOM   1555  OE2 GLU A 202      -3.809 -45.533  30.073  1.00 22.82           O
ATOM   1556  N   SER A 203      -2.317 -42.208  29.160  1.00 22.58           N
ATOM   1557  CA  SER A 203      -3.281 -41.676  28.192  1.00 21.40           C
ATOM   1558  C   SER A 203      -3.263 -40.140  28.139  1.00 19.08           C
ATOM   1559  O   SER A 203      -2.223 -39.555  27.830  1.00 20.56           O
ATOM   1560  CB  SER A 203      -4.691 -42.256  28.395  1.00 21.10           C
ATOM   1561  OG  SER A 203      -5.337 -41.735  29.543  1.00 34.01           O
ATOM   1562  N   ALA A 204      -4.380 -39.482  28.438  1.00 15.74           N
ATOM   1563  CA  ALA A 204      -4.387 -38.013  28.414  1.00 19.38           C
ATOM   1564  C   ALA A 204      -3.310 -37.401  29.332  1.00 23.32           C
ATOM   1565  O   ALA A 204      -2.815 -36.298  29.071  1.00 21.56           O
ATOM   1566  CB  ALA A 204      -5.772 -37.456  28.740  1.00 18.12           C
ATOM   1567  N   GLY A 205      -2.942 -38.133  30.388  1.00 18.85           N
ATOM   1568  CA  GLY A 205      -1.814 -37.768  31.224  1.00 17.67           C
ATOM   1569  C   GLY A 205      -0.475 -37.816  30.495  1.00 20.64           C
ATOM   1570  O   GLY A 205       0.366 -36.933  30.661  1.00 20.49           O
ATOM   1571  N   ALA A 206      -0.275 -38.866  29.704  1.00 20.64           N
ATOM   1572  CA  ALA A 206       0.900 -38.992  28.854  1.00 24.30           C
ATOM   1573  C   ALA A 206       0.931 -37.856  27.828  1.00 23.06           C
ATOM   1574  O   ALA A 206       1.968 -37.248  27.594  1.00 24.65           O
ATOM   1575  CB  ALA A 206       0.912 -40.366  28.150  1.00 18.92           C
ATOM   1576  N   ALA A 207      -0.220 -37.563  27.238  1.00 23.17           N
ATOM   1577  CA  ALA A 207      -0.316 -36.500  26.248  1.00 25.42           C
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ATOM   1578  C   ALA A 207       0.049 -35.176  26.898  1.00 25.87           C
ATOM   1579  O   ALA A 207       0.704 -34.327  26.281  1.00 26.50           O
ATOM   1580  CB  ALA A 207      -1.732 -36.442  25.653  1.00 19.41           C
ATOM   1581  N   SER A 208      -0.375 -35.020  28.151  1.00 23.04           N
ATOM   1582  CA  SER A 208      -0.065 -33.838  28.945  1.00 20.93           C
ATOM   1583  C   SER A 208       1.435 -33.692  29.162  1.00 24.54           C
ATOM   1584  O   SER A 208       1.991 -32.612  28.944  1.00 22.45           O
ATOM   1585  CB  SER A 208      -0.779 -33.896  30.301  1.00 20.63           C
ATOM   1586  OG  SER A 208      -2.160 -33.591  30.172  1.00 22.78           O
ATOM   1587  N   VAL A 209       2.077 -34.771  29.617  1.00 23.12           N
ATOM   1588  CA  VAL A 209       3.531 -34.801  29.755  1.00 18.91           C
ATOM   1589  C   VAL A 209       4.188 -34.315  28.465  1.00 21.45           C
ATOM   1590  O   VAL A 209       5.019 -33.409  28.488  1.00 24.76           O
ATOM   1591  CB  VAL A 209       4.052 -36.218  30.081  1.00 19.87           C
ATOM   1592  CG1 VAL A 209       5.556 -36.276  29.927  1.00 19.06           C
ATOM   1593  CG2 VAL A 209       3.633 -36.659  31.495  1.00 19.18           C
ATOM   1594  N   GLY A 210       3.785 -34.899  27.340  1.00 20.80           N
ATOM   1595  CA  GLY A 210       4.320 -34.518  26.045  1.00 22.46           C
ATOM   1596  C   GLY A 210       4.125 -33.043  25.729  1.00 25.68           C
ATOM   1597  O   GLY A 210       4.988 -32.402  25.130  1.00 26.72           O
ATOM   1598  N   MET A 211       2.989 -32.494  26.138  1.00 25.06           N
ATOM   1599  CA  MET A 211       2.700 -31.097  25.851  1.00 22.88           C
ATOM   1600  C   MET A 211       3.578 -30.177  26.665  1.00 25.46           C
ATOM   1601  O   MET A 211       4.002 -29.127  26.174  1.00 23.84           O
ATOM   1602  CB  MET A 211       1.219 -30.785  26.061  1.00 25.67           C
ATOM   1603  CG  MET A 211       0.393 -31.141  24.831  1.00 29.35           C
ATOM   1604  SD  MET A 211      -1.360 -31.087  25.155  1.00 36.97           S
ATOM   1605  CE  MET A 211      -1.944 -32.463  24.149  1.00 23.81           C
ATOM   1606  N   HIS A 212       3.861 -30.577  27.902  1.00 21.18           N
ATOM   1607  CA  HIS A 212       4.811 -29.850  28.730  1.00 24.51           C
ATOM   1608  C   HIS A 212       6.221 -29.879  28.125  1.00 27.22           C
ATOM   1609  O   HIS A 212       6.968 -28.917  28.270  1.00 25.11           O
ATOM   1610  CB  HIS A 212       4.817 -30.380  30.169  1.00 20.21           C
ATOM   1611  CG  HIS A 212       3.569 -30.052  30.928  1.00 26.06           C
ATOM   1612  ND1 HIS A 212       3.224 -28.762  31.266  1.00 23.58           N
ATOM   1613  CD2 HIS A 212       2.579 -30.845  31.404  1.00 23.66           C
ATOM   1614  CE1 HIS A 212       2.074 -28.772  31.917  1.00 23.73           C
ATOM   1615  NE2 HIS A 212       1.663 -30.024  32.017  1.00 24.95           N
ATOM   1616  N   LEU A 213       6.573 -30.978  27.453  1.00 20.63           N
ATOM   1617  CA  LEU A 213       7.838 -31.070  26.731  1.00 28.26           C
ATOM   1618  C   LEU A 213       7.926 -30.039  25.611  1.00 32.08           C
ATOM   1619  O   LEU A 213       9.008 -29.540  25.305  1.00 29.91           O
ATOM   1620  CB  LEU A 213       8.008 -32.454  26.104  1.00 26.59           C
ATOM   1621  CG  LEU A 213       8.497 -33.568  27.015  1.00 28.06           C
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ATOM   1622  CD1 LEU A 213       8.501 -34.869  26.245  1.00 27.31           C
ATOM   1623  CD2 LEU A 213       9.879 -33.238  27.537  1.00 33.82           C
ATOM   1624  N   LEU A 214       6.787 -29.730  24.998  1.00 25.69           N
ATOM   1625  CA  LEU A 214       6.775 -28.911  23.786  1.00 25.95           C
ATOM   1626  C   LEU A 214       6.418 -27.464  24.083  1.00 27.71           C
ATOM   1627  O   LEU A 214       6.328 -26.640  23.175  1.00 30.83           O
ATOM   1628  CB  LEU A 214       5.801 -29.499  22.766  1.00 20.80           C
ATOM   1629  CG  LEU A 214       6.011 -30.992  22.510  1.00 29.24           C
ATOM   1630  CD1 LEU A 214       4.891 -31.569  21.665  1.00 27.64           C
ATOM   1631  CD2 LEU A 214       7.371 -31.244  21.858  1.00 31.70           C
ATOM   1632  N   SER A 215       6.209 -27.157  25.360  1.00 26.20           N
ATOM   1633  CA  SER A 215       5.897 -25.793  25.765  1.00 28.91           C
ATOM   1634  C   SER A 215       7.016 -25.256  26.648  1.00 24.75           C
ATOM   1635  O   SER A 215       7.187 -25.721  27.767  1.00 33.26           O
ATOM   1636  CB  SER A 215       4.561 -25.756  26.506  1.00 27.70           C
ATOM   1637  OG  SER A 215       4.174 -24.428  26.796  1.00 28.17           O
ATOM   1638  N   PRO A 216       7.794 -24.282  26.141  1.00 32.91           N
ATOM   1639  CA  PRO A 216       8.973 -23.768  26.867  1.00 29.19           C
ATOM   1640  C   PRO A 216       8.752 -23.309  28.323  1.00 27.95           C
ATOM   1641  O   PRO A 216       9.626 -23.571  29.147  1.00 31.79           O
ATOM   1642  CB  PRO A 216       9.465 -22.615  25.977  1.00 30.22           C
ATOM   1643  CG  PRO A 216       8.999 -23.011  24.574  1.00 29.81           C
ATOM   1644  CD  PRO A 216       7.665 -23.687  24.792  1.00 30.86           C
ATOM   1645  N   PRO A 217       7.624 -22.644  28.648  1.00 28.03           N
ATOM   1646  CA  PRO A 217       7.472 -22.285  30.073  1.00 24.13           C
ATOM   1647  C   PRO A 217       7.367 -23.474  31.040  1.00 28.02           C
ATOM   1648  O   PRO A 217       7.576 -23.284  32.237  1.00 32.27           O
ATOM   1649  CB  PRO A 217       6.171 -21.479  30.097  1.00 22.50           C
ATOM   1650  CG  PRO A 217       6.063 -20.899  28.709  1.00 26.89           C
ATOM   1651  CD  PRO A 217       6.621 -21.971  27.798  1.00 25.03           C
ATOM   1652  N   SER A 218       7.035 -24.663  30.542  1.00 26.88           N
ATOM   1653  CA  SER A 218       6.979 -25.860  31.384  1.00 32.13           C
ATOM   1654  C   SER A 218       8.309 -26.586  31.418  1.00 30.74           C
ATOM   1655  O   SER A 218       8.635 -27.243  32.398  1.00 31.85           O
ATOM   1656  CB  SER A 218       5.914 -26.843  30.890  1.00 28.56           C
ATOM   1657  OG  SER A 218       4.613 -26.300  30.992  1.00 30.46           O
ATOM   1658  N   ARG A 219       9.067 -26.462  30.337  1.00 34.04           N
ATOM   1659  CA  ARG A 219      10.268 -27.261  30.126  1.00 38.21           C
ATOM   1660  C   ARG A 219      11.298 -27.079  31.253  1.00 35.64           C
ATOM   1661  O   ARG A 219      12.076 -27.987  31.552  1.00 36.49           O
ATOM   1662  CB  ARG A 219      10.849 -26.973  28.728  1.00 42.02           C
ATOM   1663  CG  ARG A 219      11.927 -27.940  28.247  1.00 49.52           C
ATOM   1664  CD  ARG A 219      11.431 -29.371  28.107  1.00 45.99           C
ATOM   1665  NE  ARG A 219      12.547 -30.316  27.990  1.00 57.13           N
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ATOM   1666  CZ  ARG A 219      13.133 -30.939  29.019  1.00 58.51           C
ATOM   1667  NH1 ARG A 219      12.722 -30.741  30.277  1.00 37.69           N
ATOM   1668  NH2 ARG A 219      14.140 -31.775  28.790  1.00 50.40           N
ATOM   1669  N   GLY A 220      11.266 -25.931  31.917  1.00 36.05           N
ATOM   1670  CA  GLY A 220      12.149 -25.706  33.049  1.00 24.05           C
ATOM   1671  C   GLY A 220      11.633 -26.209  34.383  1.00 34.44           C
ATOM   1672  O   GLY A 220      12.254 -25.963  35.417  1.00 40.09           O
ATOM   1673  N   LEU A 221      10.507 -26.918  34.374  1.00 30.35           N
ATOM   1674  CA  LEU A 221       9.896 -27.385  35.616  1.00 27.02           C
ATOM   1675  C   LEU A 221      10.130 -28.865  35.894  1.00 32.58           C
ATOM   1676  O   LEU A 221       9.657 -29.396  36.902  1.00 35.22           O
ATOM   1677  CB  LEU A 221       8.399 -27.095  35.613  1.00 26.15           C
ATOM   1678  CG  LEU A 221       8.101 -25.615  35.399  1.00 29.41           C
ATOM   1679  CD1 LEU A 221       6.598 -25.378  35.348  1.00 26.24           C
ATOM   1680  CD2 LEU A 221       8.761 -24.796  36.511  1.00 27.01           C
ATOM   1681  N   PHE A 222      10.860 -29.532  35.007  1.00 27.81           N
ATOM   1682  CA  PHE A 222      11.101 -30.959  35.170  1.00 30.04           C
ATOM   1683  C   PHE A 222      12.283 -31.395  34.313  1.00 30.60           C
ATOM   1684  O   PHE A 222      12.796 -30.618  33.511  1.00 32.94           O
ATOM   1685  CB  PHE A 222       9.841 -31.771  34.834  1.00 27.84           C
ATOM   1686  CG  PHE A 222       9.457 -31.735  33.374  1.00 28.10           C
ATOM   1687  CD1 PHE A 222       8.780 -30.647  32.845  1.00 28.25           C
ATOM   1688  CD2 PHE A 222       9.776 -32.794  32.533  1.00 24.84           C
ATOM   1689  CE1 PHE A 222       8.419 -30.616  31.494  1.00 30.36           C
ATOM   1690  CE2 PHE A 222       9.426 -32.771  31.191  1.00 29.01           C
ATOM   1691  CZ  PHE A 222       8.742 -31.677  30.670  1.00 27.17           C
ATOM   1692  N   HIS A 223      12.700 -32.645  34.473  1.00 28.47           N
ATOM   1693  CA  HIS A 223      13.957 -33.090  33.894  1.00 31.69           C
ATOM   1694  C   HIS A 223      13.828 -34.330  33.010  1.00 29.60           C
ATOM   1695  O   HIS A 223      14.529 -34.454  32.007  1.00 37.05           O
ATOM   1696  CB  HIS A 223      14.990 -33.259  35.016  1.00 29.79           C
ATOM   1697  CG  HIS A 223      15.061 -32.062  35.912  1.00 45.46           C
ATOM   1698  ND1 HIS A 223      14.280 -31.930  37.044  1.00 40.67           N
ATOM   1699  CD2 HIS A 223      15.750 -30.900  35.793  1.00 35.56           C
ATOM   1700  CE1 HIS A 223      14.513 -30.755  37.601  1.00 40.14           C
ATOM   1701  NE2 HIS A 223      15.405 -30.113  36.864  1.00 43.12           N
ATOM   1702  N   ARG A 224      12.926 -35.236  33.370  1.00 29.77           N
ATOM   1703  CA  ARG A 224      12.688 -36.435  32.566  1.00 27.23           C
ATOM   1704  C   ARG A 224      11.204 -36.674  32.383  1.00 24.10           C
ATOM   1705  O   ARG A 224      10.386 -36.159  33.145  1.00 26.13           O
ATOM   1706  CB  ARG A 224      13.308 -37.660  33.223  1.00 30.12           C
ATOM   1707  CG  ARG A 224      14.802 -37.650  33.246  1.00 33.12           C
ATOM   1708  CD  ARG A 224      15.323 -38.643  34.271  1.00 36.19           C
ATOM   1709  NE  ARG A 224      16.742 -38.419  34.531  1.00 51.26           N
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ATOM   1710  CZ  ARG A 224      17.205 -37.529  35.404  1.00 55.21           C
ATOM   1711  NH1 ARG A 224      16.359 -36.777  36.111  1.00 47.85           N
ATOM   1712  NH2 ARG A 224      18.517 -37.392  35.571  1.00 63.45           N
ATOM   1713  N   ALA A 225      10.865 -37.482  31.387  1.00 25.41           N
ATOM   1714  CA  ALA A 225       9.473 -37.697  31.033  1.00 24.82           C
ATOM   1715  C   ALA A 225       9.137 -39.168  30.781  1.00 24.15           C
ATOM   1716  O   ALA A 225       9.933 -39.910  30.205  1.00 25.74           O
ATOM   1717  CB  ALA A 225       9.111 -36.853  29.823  1.00 21.94           C
ATOM   1718  N   VAL A 226       7.951 -39.577  31.223  1.00 23.69           N
ATOM   1719  CA  VAL A 226       7.438 -40.913  30.963  1.00 21.01           C
ATOM   1720  C   VAL A 226       6.061 -40.776  30.347  1.00 25.43           C
ATOM   1721  O   VAL A 226       5.182 -40.152  30.945  1.00 24.61           O
ATOM   1722  CB  VAL A 226       7.295 -41.740  32.259  1.00 21.84           C
ATOM   1723  CG1 VAL A 226       6.736 -43.133  31.955  1.00 17.34           C
ATOM   1724  CG2 VAL A 226       8.623 -41.829  32.998  1.00 21.56           C
ATOM   1725  N   LEU A 227       5.876 -41.356  29.160  1.00 18.91           N
ATOM   1726  CA  LEU A 227       4.595 -41.301  28.471  1.00 20.51           C
ATOM   1727  C   LEU A 227       4.004 -42.692  28.289  1.00 24.42           C
ATOM   1728  O   LEU A 227       4.478 -43.478  27.456  1.00 26.58           O
ATOM   1729  CB  LEU A 227       4.737 -40.620  27.112  1.00 21.42           C
ATOM   1730  CG  LEU A 227       4.964 -39.112  27.120  1.00 23.98           C
ATOM   1731  CD1 LEU A 227       6.417 -38.782  27.344  1.00 23.66           C
ATOM   1732  CD2 LEU A 227       4.465 -38.510  25.816  1.00 27.24           C
ATOM   1733  N   GLN A 228       2.962 -42.990  29.059  1.00 22.02           N
ATOM   1734  CA  GLN A 228       2.325 -44.304  29.021  1.00 23.82           C
ATOM   1735  C   GLN A 228       1.033 -44.258  28.198  1.00 23.00           C
ATOM   1736  O   GLN A 228       0.072 -43.573  28.579  1.00 19.83           O
ATOM   1737  CB  GLN A 228       2.021 -44.791  30.451  1.00 19.01           C
ATOM   1738  CG  GLN A 228       3.251 -44.841  31.361  1.00 20.54           C
ATOM   1739  CD  GLN A 228       2.925 -45.164  32.813  1.00 23.77           C
ATOM   1740  OE1 GLN A 228       3.687 -44.821  33.719  1.00 26.24           O
ATOM   1741  NE2 GLN A 228       1.798 -45.828  33.042  1.00 20.98           N
ATOM   1742  N   SER A 229       1.015 -44.987  27.079  1.00 22.61           N
ATOM   1743  CA  SER A 229      -0.201 -45.156  26.266  1.00 19.15           C
ATOM   1744  C   SER A 229      -0.809 -43.825  25.850  1.00 18.53           C
ATOM   1745  O   SER A 229      -2.021 -43.637  25.922  1.00 23.59           O
ATOM   1746  CB  SER A 229      -1.261 -45.974  27.021  1.00 17.97           C
ATOM   1747  OG  SER A 229      -0.832 -47.306  27.249  1.00 19.68           O
ATOM   1748  N   GLY A 230       0.027 -42.885  25.440  1.00 15.93           N
ATOM   1749  CA  GLY A 230      -0.495 -41.587  25.064  1.00 20.78           C
ATOM   1750  C   GLY A 230       0.601 -40.679  24.566  1.00 23.83           C
ATOM   1751  O   GLY A 230       1.770 -40.873  24.894  1.00 22.17           O
ATOM   1752  N   ALA A 231       0.217 -39.697  23.761  1.00 17.39           N
ATOM   1753  CA  ALA A 231       1.165 -38.792  23.153  1.00 24.73           C
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ATOM   1754  C   ALA A 231       0.425 -37.520  22.770  1.00 23.26           C
ATOM   1755  O   ALA A 231      -0.754 -37.568  22.447  1.00 24.81           O
ATOM   1756  CB  ALA A 231       1.814 -39.450  21.931  1.00 20.06           C
ATOM   1757  N   PRO A 232       1.113 -36.374  22.820  1.00 22.85           N
ATOM   1758  CA  PRO A 232       0.480 -35.093  22.486  1.00 22.54           C
ATOM   1759  C   PRO A 232       0.042 -35.016  21.026  1.00 26.55           C
ATOM   1760  O   PRO A 232      -0.850 -34.222  20.695  1.00 26.09           O
ATOM   1761  CB  PRO A 232       1.587 -34.060  22.777  1.00 23.04           C
ATOM   1762  CG  PRO A 232       2.876 -34.842  22.740  1.00 19.68           C
ATOM   1763  CD  PRO A 232       2.522 -36.218  23.226  1.00 20.79           C
ATOM   1764  N   ASN A 233       0.661 -35.825  20.169  1.00 27.72           N
ATOM   1765  CA  ASN A 233       0.337 -35.831  18.744  1.00 27.94           C
ATOM   1766  C   ASN A 233      -0.800 -36.793  18.391  1.00 29.49           C
ATOM   1767  O   ASN A 233      -1.177 -36.928  17.223  1.00 28.32           O
ATOM   1768  CB  ASN A 233       1.580 -36.127  17.893  1.00 23.40           C
ATOM   1769  CG  ASN A 233       2.361 -37.329  18.392  1.00 22.31           C
ATOM   1770  OD1 ASN A 233       2.768 -37.370  19.547  1.00 27.33           O
ATOM   1771  ND2 ASN A 233       2.548 -38.324  17.533  1.00 21.42           N
ATOM   1772  N   GLY A 234      -1.363 -37.457  19.395  1.00 24.31           N
ATOM   1773  CA  GLY A 234      -2.566 -38.250  19.154  1.00 39.31           C
ATOM   1774  C   GLY A 234      -3.712 -37.445  18.532  1.00 41.70           C
ATOM   1775  O   GLY A 234      -3.952 -36.296  18.932  1.00 40.00           O
ATOM   1776  N   PRO A 235      -4.438 -38.044  17.563  1.00 31.73           N
ATOM   1777  CA  PRO A 235      -5.580 -37.408  16.882  1.00 22.65           C
ATOM   1778  C   PRO A 235      -6.712 -36.988  17.835  1.00 25.71           C
ATOM   1779  O   PRO A 235      -7.572 -36.193  17.459  1.00 32.78           O
ATOM   1780  CB  PRO A 235      -6.081 -38.506  15.940  1.00 19.87           C
ATOM   1781  CG  PRO A 235      -5.653 -39.782  16.603  1.00 27.35           C
ATOM   1782  CD  PRO A 235      -4.313 -39.467  17.204  1.00 26.00           C
ATOM   1783  N   TRP A 236      -6.709 -37.506  19.055  1.00 23.29           N
ATOM   1784  CA  TRP A 236      -7.689 -37.098  20.059  1.00 24.88           C
ATOM   1785  C   TRP A 236      -7.192 -36.013  21.025  1.00 25.87           C
ATOM   1786  O   TRP A 236      -8.004 -35.375  21.705  1.00 25.72           O
ATOM   1787  CB  TRP A 236      -8.109 -38.313  20.876  1.00 23.50           C
ATOM   1788  CG  TRP A 236      -6.932 -39.054  21.405  1.00 25.15           C
ATOM   1789  CD1 TRP A 236      -6.260 -40.069  20.785  1.00 23.19           C
ATOM   1790  CD2 TRP A 236      -6.263 -38.830  22.654  1.00 20.13           C
ATOM   1791  NE1 TRP A 236      -5.221 -40.494  21.571  1.00 25.00           N
ATOM   1792  CE2 TRP A 236      -5.200 -39.753  22.726  1.00 22.86           C
ATOM   1793  CE3 TRP A 236      -6.462 -37.941  23.720  1.00 25.16           C
ATOM   1794  CZ2 TRP A 236      -4.332 -39.819  23.824  1.00 20.80           C
ATOM   1795  CZ3 TRP A 236      -5.604 -38.011  24.819  1.00 20.96           C
ATOM   1796  CH2 TRP A 236      -4.552 -38.946  24.859  1.00 24.81           C
ATOM   1797  N   ALA A 237      -5.875 -35.812  21.094  1.00 24.38           N
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ATOM   1798  CA  ALA A 237      -5.271 -35.015  22.179  1.00 26.50           C
ATOM   1799  C   ALA A 237      -5.281 -33.500  21.963  1.00 25.74           C
ATOM   1800  O   ALA A 237      -5.074 -32.733  22.904  1.00 23.31           O
ATOM   1801  CB  ALA A 237      -3.847 -35.497  22.482  1.00 22.07           C
ATOM   1802  N   THR A 238      -5.496 -33.066  20.726  1.00 23.24           N
ATOM   1803  CA  THR A 238      -5.653 -31.640  20.457  1.00 23.58           C
ATOM   1804  C   THR A 238      -6.810 -31.386  19.504  1.00 24.76           C
ATOM   1805  O   THR A 238      -7.292 -32.292  18.825  1.00 21.78           O
ATOM   1806  CB  THR A 238      -4.373 -30.994  19.867  1.00 25.12           C
ATOM   1807  OG1 THR A 238      -4.022 -31.652  18.643  1.00 21.53           O
ATOM   1808  CG2 THR A 238      -3.214 -31.094  20.852  1.00 21.89           C
ATOM   1809  N   VAL A 239      -7.252 -30.141  19.462  1.00 23.54           N
ATOM   1810  CA  VAL A 239      -8.286 -29.741  18.524  1.00 26.73           C
ATOM   1811  C   VAL A 239      -7.891 -28.387  17.927  1.00 28.32           C
ATOM   1812  O   VAL A 239      -7.179 -27.602  18.573  1.00 26.17           O
ATOM   1813  CB  VAL A 239      -9.676 -29.686  19.212  1.00 26.08           C
ATOM   1814  CG1 VAL A 239      -9.764 -28.516  20.211  1.00 22.06           C
ATOM   1815  CG2 VAL A 239     -10.763 -29.588  18.192  1.00 30.33           C
ATOM   1816  N   GLY A 240      -8.318 -28.127  16.689  1.00 28.90           N
ATOM   1817  CA  GLY A 240      -8.033 -26.860  16.038  1.00 23.29           C
ATOM   1818  C   GLY A 240      -8.874 -25.728  16.607  1.00 32.93           C
ATOM   1819  O   GLY A 240      -9.912 -25.976  17.239  1.00 29.27           O
ATOM   1820  N   MET A 241      -8.424 -24.491  16.391  1.00 32.83           N
ATOM   1821  CA  MET A 241      -9.133 -23.309  16.883  1.00 32.56           C
ATOM   1822  C   MET A 241     -10.577 -23.249  16.385  1.00 34.99           C
ATOM   1823  O   MET A 241     -11.506 -23.018  17.169  1.00 33.14           O
ATOM   1824  CB  MET A 241      -8.405 -22.032  16.465  1.00 34.59           C
ATOM   1825  CG  MET A 241      -7.134 -21.754  17.227  1.00 38.47           C
ATOM   1826  SD  MET A 241      -6.380 -20.195  16.703  1.00 49.09           S
ATOM   1827  CE  MET A 241      -6.073 -20.555  14.974  1.00 40.60           C
ATOM   1828  N   GLY A 242     -10.755 -23.457  15.081  1.00 33.86           N
ATOM   1829  CA  GLY A 242     -12.071 -23.443  14.466  1.00 27.42           C
ATOM   1830  C   GLY A 242     -13.051 -24.407  15.121  1.00 33.65           C
ATOM   1831  O   GLY A 242     -14.164 -24.025  15.483  1.00 32.26           O
ATOM   1832  N   GLU A 243     -12.628 -25.657  15.286  1.00 30.49           N
ATOM   1833  CA  GLU A 243     -13.480 -26.686  15.863  1.00 27.82           C
ATOM   1834  C   GLU A 243     -13.697 -26.476  17.372  1.00 34.86           C
ATOM   1835  O   GLU A 243     -14.773 -26.777  17.890  1.00 33.61           O
ATOM   1836  CB  GLU A 243     -12.908 -28.078  15.560  1.00 26.00           C
ATOM   1837  CG  GLU A 243     -13.644 -29.261  16.200  1.00 27.00           C
ATOM   1838  CD  GLU A 243     -15.042 -29.464  15.650  1.00 33.40           C
ATOM   1839  OE1 GLU A 243     -15.393 -28.784  14.664  1.00 39.97           O
ATOM   1840  OE2 GLU A 243     -15.793 -30.304  16.201  1.00 31.18           O
ATOM   1841  N   ALA A 244     -12.691 -25.956  18.075  1.00 31.11           N
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ATOM   1842  CA  ALA A 244     -12.866 -25.642  19.494  1.00 28.48           C
ATOM   1843  C   ALA A 244     -13.965 -24.605  19.654  1.00 31.19           C
ATOM   1844  O   ALA A 244     -14.820 -24.734  20.530  1.00 27.55           O
ATOM   1845  CB  ALA A 244     -11.577 -25.132  20.110  1.00 27.75           C
ATOM   1846  N   ARG A 245     -13.942 -23.585  18.794  1.00 31.51           N
ATOM   1847  CA  ARG A 245     -14.944 -22.525  18.828  1.00 30.37           C
ATOM   1848  C   ARG A 245     -16.325 -23.075  18.523  1.00 29.80           C
ATOM   1849  O   ARG A 245     -17.311 -22.694  19.150  1.00 32.55           O
ATOM   1850  CB  ARG A 245     -14.612 -21.399  17.842  1.00 30.24           C
ATOM   1851  CG  ARG A 245     -15.741 -20.378  17.694  1.00 28.78           C
ATOM   1852  CD  ARG A 245     -15.287 -19.123  16.952  1.00 25.30           C
ATOM   1853  NE  ARG A 245     -14.302 -18.372  17.720  1.00 29.68           N
ATOM   1854  CZ  ARG A 245     -14.612 -17.503  18.677  1.00 32.73           C
ATOM   1855  NH1 ARG A 245     -15.884 -17.283  18.990  1.00 34.23           N
ATOM   1856  NH2 ARG A 245     -13.654 -16.858  19.326  1.00 30.01           N
ATOM   1857  N   ARG A 246     -16.397 -23.987  17.566  1.00 28.84           N
ATOM   1858  CA  ARG A 246     -17.687 -24.547  17.215  1.00 38.52           C
ATOM   1859  C   ARG A 246     -18.268 -25.338  18.382  1.00 31.98           C
ATOM   1860  O   ARG A 246     -19.444 -25.199  18.705  1.00 27.93           O
ATOM   1861  CB  ARG A 246     -17.601 -25.432  15.977  1.00 30.00           C
ATOM   1862  CG  ARG A 246     -18.975 -25.795  15.449  1.00 33.64           C
ATOM   1863  CD  ARG A 246     -18.947 -27.029  14.578  1.00 37.66           C
ATOM   1864  NE  ARG A 246     -18.481 -28.215  15.293  1.00 37.55           N
ATOM   1865  CZ  ARG A 246     -19.240 -28.945  16.106  1.00 35.58           C
ATOM   1866  NH1 ARG A 246     -20.502 -28.599  16.338  1.00 38.99           N
ATOM   1867  NH2 ARG A 246     -18.733 -30.016  16.697  1.00 28.18           N
ATOM   1868  N   ARG A 247     -17.433 -26.169  18.999  1.00 36.20           N
ATOM   1869  CA  ARG A 247     -17.860 -27.009  20.111  1.00 32.90           C
ATOM   1870  C   ARG A 247     -18.295 -26.184  21.313  1.00 27.90           C
ATOM   1871  O   ARG A 247     -19.280 -26.517  21.975  1.00 29.59           O
ATOM   1872  CB  ARG A 247     -16.747 -27.965  20.514  1.00 33.98           C
ATOM   1873  CG  ARG A 247     -16.510 -29.064  19.496  1.00 33.61           C
ATOM   1874  CD  ARG A 247     -15.437 -30.005  19.985  1.00 29.17           C
ATOM   1875  NE  ARG A 247     -14.993 -30.889  18.921  1.00 26.50           N
ATOM   1876  CZ  ARG A 247     -14.099 -31.847  19.092  1.00 28.59           C
ATOM   1877  NH1 ARG A 247     -13.562 -32.034  20.294  1.00 24.41           N
ATOM   1878  NH2 ARG A 247     -13.746 -32.614  18.065  1.00 26.25           N
ATOM   1879  N   ALA A 248     -17.563 -25.106  21.579  1.00 29.19           N
ATOM   1880  CA  ALA A 248     -17.895 -24.202  22.676  1.00 31.39           C
ATOM   1881  C   ALA A 248     -19.220 -23.525  22.375  1.00 36.90           C
ATOM   1882  O   ALA A 248     -20.063 -23.353  23.261  1.00 35.05           O
ATOM   1883  CB  ALA A 248     -16.799 -23.154  22.863  1.00 23.03           C
ATOM   1884  N   THR A 249     -19.402 -23.149  21.111  1.00 28.81           N
ATOM   1885  CA  THR A 249     -20.601 -22.436  20.705  1.00 28.17           C
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ATOM   1886  C   THR A 249     -21.819 -23.349  20.757  1.00 28.49           C
ATOM   1887  O   THR A 249     -22.890 -22.926  21.184  1.00 29.08           O
ATOM   1888  CB  THR A 249     -20.437 -21.784  19.319  1.00 39.46           C
ATOM   1889  OG1 THR A 249     -19.357 -20.843  19.372  1.00 38.83           O
ATOM   1890  CG2 THR A 249     -21.716 -21.050  18.909  1.00 34.47           C
ATOM   1891  N   GLN A 250     -21.648 -24.607  20.359  1.00 27.63           N
ATOM   1892  CA  GLN A 250     -22.745 -25.562  20.439  1.00 28.63           C
ATOM   1893  C   GLN A 250     -23.111 -25.898  21.880  1.00 31.94           C
ATOM   1894  O   GLN A 250     -24.277 -26.164  22.182  1.00 32.14           O
ATOM   1895  CB  GLN A 250     -22.440 -26.859  19.684  1.00 26.22           C
ATOM   1896  CG  GLN A 250     -23.709 -27.687  19.470  1.00 33.51           C
ATOM   1897  CD  GLN A 250     -23.455 -29.058  18.885  1.00 45.75           C
ATOM   1898  OE1 GLN A 250     -22.408 -29.317  18.276  1.00 51.28           O
ATOM   1899  NE2 GLN A 250     -24.420 -29.952  19.063  1.00 41.59           N
ATOM   1900  N   LEU A 251     -22.119 -25.910  22.768  1.00 31.00           N
ATOM   1901  CA  LEU A 251     -22.409 -26.165  24.174  1.00 35.41           C
ATOM   1902  C   LEU A 251     -23.253 -25.028  24.725  1.00 30.24           C
ATOM   1903  O   LEU A 251     -24.200 -25.264  25.466  1.00 28.35           O
ATOM   1904  CB  LEU A 251     -21.139 -26.330  25.014  1.00 29.75           C
ATOM   1905  CG  LEU A 251     -21.411 -26.693  26.480  1.00 30.41           C
ATOM   1906  CD1 LEU A 251     -21.999 -28.104  26.598  1.00 22.37           C
ATOM   1907  CD2 LEU A 251     -20.164 -26.548  27.351  1.00 29.82           C
ATOM   1908  N   ALA A 252     -22.916 -23.798  24.351  1.00 31.40           N
ATOM   1909  CA  ALA A 252     -23.669 -22.653  24.845  1.00 35.39           C
ATOM   1910  C   ALA A 252     -25.115 -22.778  24.394  1.00 38.42           C
ATOM   1911  O   ALA A 252     -26.037 -22.633  25.198  1.00 35.04           O
ATOM   1912  CB  ALA A 252     -23.054 -21.336  24.381  1.00 26.33           C
ATOM   1913  N   HIS A 253     -25.302 -23.090  23.113  1.00 36.18           N
ATOM   1914  CA  HIS A 253     -26.640 -23.300  22.568  1.00 38.15           C
ATOM   1915  C   HIS A 253     -27.430 -24.387  23.312  1.00 33.08           C
ATOM   1916  O   HIS A 253     -28.600 -24.195  23.636  1.00 36.39           O
ATOM   1917  CB  HIS A 253     -26.582 -23.625  21.067  1.00 37.06           C
ATOM   1918  CG  HIS A 253     -27.920 -23.948  20.474  1.00 46.47           C
ATOM   1919  ND1 HIS A 253     -28.380 -25.241  20.332  1.00 46.39           N
ATOM   1920  CD2 HIS A 253     -28.908 -23.145  20.009  1.00 49.04           C
ATOM   1921  CE1 HIS A 253     -29.588 -25.221  19.797  1.00 47.51           C
ATOM   1922  NE2 HIS A 253     -29.931 -23.962  19.591  1.00 55.79           N
ATOM   1923  N   LEU A 254     -26.787 -25.520  23.577  1.00 31.13           N
ATOM   1924  CA  LEU A 254     -27.450 -26.653  24.220  1.00 28.49           C
ATOM   1925  C   LEU A 254     -27.881 -26.390  25.662  1.00 34.16           C
ATOM   1926  O   LEU A 254     -28.754 -27.085  26.186  1.00 35.71           O
ATOM   1927  CB  LEU A 254     -26.558 -27.896  24.184  1.00 31.68           C
ATOM   1928  CG  LEU A 254     -26.323 -28.573  22.832  1.00 39.90           C
ATOM   1929  CD1 LEU A 254     -25.276 -29.674  22.974  1.00 33.30           C
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ATOM   1930  CD2 LEU A 254     -27.636 -29.132  22.289  1.00 29.11           C
ATOM   1931  N   VAL A 255     -27.261 -25.408  26.309  1.00 32.47           N
ATOM   1932  CA  VAL A 255     -27.612 -25.078  27.686  1.00 31.34           C
ATOM   1933  C   VAL A 255     -28.302 -23.712  27.796  1.00 36.46           C
ATOM   1934  O   VAL A 255     -28.388 -23.131  28.885  1.00 33.49           O
ATOM   1935  CB  VAL A 255     -26.393 -25.149  28.632  1.00 29.29           C
ATOM   1936  CG1 VAL A 255     -25.708 -26.496  28.495  1.00 27.72           C
ATOM   1937  CG2 VAL A 255     -25.425 -24.004  28.364  1.00 26.70           C
ATOM   1938  N   GLY A 256     -28.798 -23.213  26.663  1.00 29.86           N
ATOM   1939  CA  GLY A 256     -29.640 -22.030  26.660  1.00 31.66           C
ATOM   1940  C   GLY A 256     -28.937 -20.687  26.660  1.00 31.79           C
ATOM   1941  O   GLY A 256     -29.554 -19.668  26.966  1.00 32.31           O
ATOM   1942  N   CYS A 257     -27.659 -20.672  26.292  1.00 35.91           N
ATOM   1943  CA  CYS A 257     -26.896 -19.427  26.221  1.00 37.16           C
ATOM   1944  C   CYS A 257     -26.729 -18.942  24.782  1.00 41.86           C
ATOM   1945  O   CYS A 257     -26.718 -19.747  23.857  1.00 44.43           O
ATOM   1946  CB  CYS A 257     -25.532 -19.610  26.891  1.00 36.38           C
ATOM   1947  SG  CYS A 257     -25.676 -19.935  28.655  1.00 36.74           S
ATOM   1948  N   PRO A 258     -26.598 -17.619  24.593  1.00 49.86           N
ATOM   1949  CA  PRO A 258     -26.408 -17.033  23.260  1.00 51.14           C
ATOM   1950  C   PRO A 258     -25.035 -17.347  22.667  1.00 51.83           C
ATOM   1951  O   PRO A 258     -24.894 -17.340  21.438  1.00 71.72           O
ATOM   1952  CB  PRO A 258     -26.526 -15.531  23.525  1.00 51.45           C
ATOM   1953  CG  PRO A 258     -26.113 -15.370  24.959  1.00 47.94           C
ATOM   1954  CD  PRO A 258     -26.646 -16.587  25.647  1.00 47.82           C
ATOM   1955  N   ASN A 265     -20.581 -12.339  20.298  1.00 55.41           N
ATOM   1956  CA  ASN A 265     -19.863 -11.725  21.411  1.00 50.12           C
ATOM   1957  C   ASN A 265     -19.414 -12.763  22.449  1.00 53.70           C
ATOM   1958  O   ASN A 265     -20.218 -13.262  23.241  1.00 51.66           O
ATOM   1959  CB  ASN A 265     -20.725 -10.637  22.056  1.00 58.06           C
ATOM   1960  CG  ASN A 265     -19.933  -9.727  22.986  1.00 63.59           C
ATOM   1961  OD1 ASN A 265     -18.993 -10.162  23.648  1.00 66.72           O
ATOM   1962  ND2 ASN A 265     -20.321  -8.453  23.044  1.00 68.68           N
ATOM   1963  N   ASP A 266     -18.121 -13.076  22.440  1.00 46.74           N
ATOM   1964  CA  ASP A 266     -17.560 -14.072  23.345  1.00 44.11           C
ATOM   1965  C   ASP A 266     -17.824 -13.743  24.824  1.00 49.38           C
ATOM   1966  O   ASP A 266     -18.161 -14.633  25.616  1.00 43.46           O
ATOM   1967  CB  ASP A 266     -16.052 -14.225  23.110  1.00 42.99           C
ATOM   1968  CG  ASP A 266     -15.714 -14.788  21.732  1.00 39.96           C
ATOM   1969  OD1 ASP A 266     -16.539 -15.515  21.147  1.00 39.30           O
ATOM   1970  OD2 ASP A 266     -14.603 -14.508  21.240  1.00 49.48           O
ATOM   1971  N   THR A 267     -17.666 -12.471  25.188  1.00 40.97           N
ATOM   1972  CA  THR A 267     -17.893 -12.027  26.561  1.00 38.54           C
ATOM   1973  C   THR A 267     -19.263 -12.457  27.096  1.00 42.88           C
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ATOM   1974  O   THR A 267     -19.360 -13.011  28.196  1.00 43.48           O
ATOM   1975  CB  THR A 267     -17.765 -10.499  26.690  1.00 47.27           C
ATOM   1976  OG1 THR A 267     -16.505 -10.074  26.157  1.00 50.74           O
ATOM   1977  CG2 THR A 267     -17.865 -10.069  28.155  1.00 43.24           C
ATOM   1978  N   GLU A 268     -20.312 -12.210  26.313  1.00 45.62           N
ATOM   1979  CA  GLU A 268     -21.675 -12.562  26.707  1.00 43.71           C
ATOM   1980  C   GLU A 268     -21.853 -14.068  26.791  1.00 42.01           C
ATOM   1981  O   GLU A 268     -22.501 -14.586  27.709  1.00 42.76           O
ATOM   1982  CB  GLU A 268     -22.689 -12.003  25.713  1.00 43.94           C
ATOM   1983  CG  GLU A 268     -22.824 -10.492  25.719  1.00 64.17           C
ATOM   1984  CD  GLU A 268     -23.896 -10.008  24.749  1.00 87.59           C
ATOM   1985  OE1 GLU A 268     -24.858 -10.772  24.491  1.00 84.71           O
ATOM   1986  OE2 GLU A 268     -23.769  -8.871  24.240  1.00 90.79           O
ATOM   1987  N   LEU A 269     -21.282 -14.762  25.816  1.00 39.77           N
ATOM   1988  CA  LEU A 269     -21.390 -16.210  25.732  1.00 39.41           C
ATOM   1989  C   LEU A 269     -20.791 -16.857  26.985  1.00 34.90           C
ATOM   1990  O   LEU A 269     -21.435 -17.677  27.635  1.00 39.60           O
ATOM   1991  CB  LEU A 269     -20.717 -16.714  24.443  1.00 35.72           C
ATOM   1992  CG  LEU A 269     -20.946 -18.150  23.964  1.00 39.66           C
ATOM   1993  CD1 LEU A 269     -20.628 -18.279  22.482  1.00 40.94           C
ATOM   1994  CD2 LEU A 269     -20.090 -19.132  24.750  1.00 40.14           C
ATOM   1995  N   VAL A 270     -19.567 -16.475  27.333  1.00 34.23           N
ATOM   1996  CA  VAL A 270     -18.921 -17.036  28.514  1.00 39.46           C
ATOM   1997  C   VAL A 270     -19.651 -16.635  29.802  1.00 37.00           C
ATOM   1998  O   VAL A 270     -19.777 -17.438  30.729  1.00 34.61           O
ATOM   1999  CB  VAL A 270     -17.431 -16.642  28.592  1.00 42.61           C
ATOM   2000  CG1 VAL A 270     -16.775 -17.258  29.817  1.00 35.28           C
ATOM   2001  CG2 VAL A 270     -16.703 -17.087  27.330  1.00 42.78           C
ATOM   2002  N   ALA A 271     -20.138 -15.400  29.849  1.00 33.48           N
ATOM   2003  CA  ALA A 271     -20.826 -14.905  31.035  1.00 36.74           C
ATOM   2004  C   ALA A 271     -22.095 -15.714  31.296  1.00 35.70           C
ATOM   2005  O   ALA A 271     -22.411 -16.041  32.438  1.00 39.78           O
ATOM   2006  CB  ALA A 271     -21.152 -13.424  30.892  1.00 31.07           C
ATOM   2007  N   CYS A 272     -22.815 -16.045  30.232  1.00 37.01           N
ATOM   2008  CA  CYS A 272     -23.983 -16.899  30.361  1.00 35.60           C
ATOM   2009  C   CYS A 272     -23.590 -18.320  30.785  1.00 32.05           C
ATOM   2010  O   CYS A 272     -24.254 -18.919  31.635  1.00 35.48           O
ATOM   2011  CB  CYS A 272     -24.793 -16.919  29.059  1.00 37.02           C
ATOM   2012  SG  CYS A 272     -26.238 -18.006  29.127  1.00 40.95           S
ATOM   2013  N   LEU A 273     -22.521 -18.855  30.196  1.00 29.52           N
ATOM   2014  CA  LEU A 273     -21.999 -20.166  30.598  1.00 31.53           C
ATOM   2015  C   LEU A 273     -21.621 -20.194  32.081  1.00 34.00           C
ATOM   2016  O   LEU A 273     -21.840 -21.195  32.772  1.00 31.46           O
ATOM   2017  CB  LEU A 273     -20.776 -20.550  29.767  1.00 25.65           C
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ATOM   2018  CG  LEU A 273     -20.996 -20.974  28.313  1.00 31.64           C
ATOM   2019  CD1 LEU A 273     -19.658 -21.246  27.648  1.00 28.58           C
ATOM   2020  CD2 LEU A 273     -21.890 -22.207  28.218  1.00 27.01           C
ATOM   2021  N   ARG A 274     -21.060 -19.091  32.570  1.00 31.47           N
ATOM   2022  CA  ARG A 274     -20.639 -19.025  33.966  1.00 36.88           C
ATOM   2023  C   ARG A 274     -21.810 -19.091  34.954  1.00 32.63           C
ATOM   2024  O   ARG A 274     -21.609 -19.405  36.119  1.00 27.59           O
ATOM   2025  CB  ARG A 274     -19.757 -17.796  34.231  1.00 32.84           C
ATOM   2026  CG  ARG A 274     -18.362 -17.910  33.632  1.00 35.67           C
ATOM   2027  CD  ARG A 274     -17.367 -16.976  34.304  1.00 34.38           C
ATOM   2028  NE  ARG A 274     -16.993 -15.844  33.458  1.00 50.29           N
ATOM   2029  CZ  ARG A 274     -15.815 -15.714  32.845  1.00 50.27           C
ATOM   2030  NH1 ARG A 274     -14.876 -16.647  32.973  1.00 40.60           N
ATOM   2031  NH2 ARG A 274     -15.570 -14.640  32.105  1.00 47.98           N
ATOM   2032  N   THR A 275     -23.027 -18.823  34.488  1.00 32.00           N
ATOM   2033  CA  THR A 275     -24.190 -18.851  35.378  1.00 30.23           C
ATOM   2034  C   THR A 275     -24.767 -20.256  35.501  1.00 34.45           C
ATOM   2035  O   THR A 275     -25.651 -20.505  36.315  1.00 38.79           O
ATOM   2036  CB  THR A 275     -25.322 -17.926  34.890  1.00 37.83           C
ATOM   2037  OG1 THR A 275     -25.919 -18.481  33.711  1.00 40.74           O
ATOM   2038  CG2 THR A 275     -24.803 -16.525  34.593  1.00 38.98           C
ATOM   2039  N   ARG A 276     -24.271 -21.180  34.691  1.00 26.87           N
ATOM   2040  CA  ARG A 276     -24.842 -22.513  34.667  1.00 24.97           C
ATOM   2041  C   ARG A 276     -24.202 -23.399  35.729  1.00 30.39           C
ATOM   2042  O   ARG A 276     -22.997 -23.314  35.967  1.00 29.98           O
ATOM   2043  CB  ARG A 276     -24.661 -23.130  33.278  1.00 29.51           C
ATOM   2044  CG  ARG A 276     -25.428 -22.412  32.177  1.00 28.92           C
ATOM   2045  CD  ARG A 276     -26.913 -22.594  32.371  1.00 33.03           C
ATOM   2046  NE  ARG A 276     -27.701 -22.127  31.235  1.00 32.87           N
ATOM   2047  CZ  ARG A 276     -28.236 -20.912  31.144  1.00 38.01           C
ATOM   2048  NH1 ARG A 276     -28.056 -20.027  32.117  1.00 38.64           N
ATOM   2049  NH2 ARG A 276     -28.947 -20.578  30.077  1.00 34.54           N
ATOM   2050  N   PRO A 277     -25.012 -24.232  36.395  1.00 30.00           N
ATOM   2051  CA  PRO A 277     -24.432 -25.218  37.308  1.00 28.67           C
ATOM   2052  C   PRO A 277     -23.463 -26.109  36.540  1.00 33.99           C
ATOM   2053  O   PRO A 277     -23.763 -26.480  35.403  1.00 31.93           O
ATOM   2054  CB  PRO A 277     -25.649 -26.038  37.757  1.00 23.85           C
ATOM   2055  CG  PRO A 277     -26.801 -25.093  37.625  1.00 29.45           C
ATOM   2056  CD  PRO A 277     -26.487 -24.243  36.420  1.00 28.32           C
ATOM   2057  N   ALA A 278     -22.327 -26.429  37.150  1.00 31.40           N
ATOM   2058  CA  ALA A 278     -21.328 -27.308  36.553  1.00 28.42           C
ATOM   2059  C   ALA A 278     -21.934 -28.547  35.908  1.00 28.93           C
ATOM   2060  O   ALA A 278     -21.587 -28.907  34.765  1.00 25.96           O
ATOM   2061  CB  ALA A 278     -20.298 -27.720  37.598  1.00 26.96           C
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ATOM   2062  N   GLN A 279     -22.840 -29.190  36.641  1.00 28.41           N
ATOM   2063  CA  GLN A 279     -23.475 -30.427  36.186  1.00 30.33           C
ATOM   2064  C   GLN A 279     -24.206 -30.255  34.847  1.00 33.06           C
ATOM   2065  O   GLN A 279     -24.290 -31.191  34.046  1.00 29.64           O
ATOM   2066  CB  GLN A 279     -24.437 -30.961  37.254  1.00 23.47           C
ATOM   2067  CG  GLN A 279     -24.907 -32.399  37.007  1.00 23.74           C
ATOM   2068  CD  GLN A 279     -23.750 -33.377  36.850  1.00 33.49           C
ATOM   2069  OE1 GLN A 279     -22.853 -33.431  37.688  1.00 42.40           O
ATOM   2070  NE2 GLN A 279     -23.768 -34.155  35.770  1.00 30.82           N
ATOM   2071  N   VAL A 280     -24.735 -29.061  34.609  1.00 24.82           N
ATOM   2072  CA  VAL A 280     -25.454 -28.803  33.376  1.00 33.54           C
ATOM   2073  C   VAL A 280     -24.508 -28.851  32.173  1.00 31.38           C
ATOM   2074  O   VAL A 280     -24.846 -29.428  31.140  1.00 33.93           O
ATOM   2075  CB  VAL A 280     -26.234 -27.466  33.440  1.00 34.75           C
ATOM   2076  CG1 VAL A 280     -26.623 -26.984  32.040  1.00 30.77           C
ATOM   2077  CG2 VAL A 280     -27.462 -27.627  34.314  1.00 25.24           C
ATOM   2078  N   LEU A 281     -23.318 -28.272  32.312  1.00 30.01           N
ATOM   2079  CA  LEU A 281     -22.334 -28.346  31.234  1.00 30.05           C
ATOM   2080  C   LEU A 281     -21.954 -29.801  30.986  1.00 27.76           C
ATOM   2081  O   LEU A 281     -21.879 -30.251  29.842  1.00 33.36           O
ATOM   2082  CB  LEU A 281     -21.087 -27.512  31.551  1.00 26.59           C
ATOM   2083  CG  LEU A 281     -21.304 -26.053  31.966  1.00 28.04           C
ATOM   2084  CD1 LEU A 281     -20.003 -25.268  31.900  1.00 27.45           C
ATOM   2085  CD2 LEU A 281     -22.375 -25.376  31.132  1.00 24.18           C
ATOM   2086  N   VAL A 282     -21.732 -30.539  32.065  1.00 24.60           N
ATOM   2087  CA  VAL A 282     -21.397 -31.952  31.956  1.00 30.33           C
ATOM   2088  C   VAL A 282     -22.473 -32.754  31.201  1.00 33.63           C
ATOM   2089  O   VAL A 282     -22.152 -33.613  30.382  1.00 34.80           O
ATOM   2090  CB  VAL A 282     -21.120 -32.575  33.348  1.00 23.95           C
ATOM   2091  CG1 VAL A 282     -20.963 -34.077  33.250  1.00 24.10           C
ATOM   2092  CG2 VAL A 282     -19.884 -31.961  33.951  1.00 23.86           C
ATOM   2093  N   ASN A 283     -23.744 -32.457  31.459  1.00 32.75           N
ATOM   2094  CA  ASN A 283     -24.842 -33.215  30.857  1.00 32.23           C
ATOM   2095  C   ASN A 283     -24.951 -33.109  29.328  1.00 31.93           C
ATOM   2096  O   ASN A 283     -25.569 -33.953  28.687  1.00 31.18           O
ATOM   2097  CB  ASN A 283     -26.174 -32.838  31.510  1.00 30.33           C
ATOM   2098  CG  ASN A 283     -26.283 -33.353  32.927  1.00 33.60           C
ATOM   2099  OD1 ASN A 283     -25.520 -34.226  33.338  1.00 33.22           O
ATOM   2100  ND2 ASN A 283     -27.230 -32.817  33.684  1.00 30.13           N
ATOM   2101  N   HIS A 284     -24.357 -32.075  28.749  1.00 24.43           N
ATOM   2102  CA  HIS A 284     -24.416 -31.905  27.308  1.00 33.00           C
ATOM   2103  C   HIS A 284     -23.055 -32.094  26.632  1.00 34.33           C
ATOM   2104  O   HIS A 284     -22.925 -31.848  25.441  1.00 34.18           O
ATOM   2105  CB  HIS A 284     -24.994 -30.528  26.968  1.00 32.38           C
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ATOM   2106  CG  HIS A 284     -26.403 -30.347  27.432  1.00 42.07           C
ATOM   2107  ND1 HIS A 284     -27.488 -30.745  26.680  1.00 44.72           N
ATOM   2108  CD2 HIS A 284     -26.906 -29.843  28.584  1.00 31.89           C
ATOM   2109  CE1 HIS A 284     -28.600 -30.480  27.342  1.00 38.32           C
ATOM   2110  NE2 HIS A 284     -28.275 -29.931  28.499  1.00 40.01           N
ATOM   2111  N   GLU A 285     -22.059 -32.542  27.394  1.00 34.17           N
ATOM   2112  CA  GLU A 285     -20.674 -32.571  26.927  1.00 33.28           C
ATOM   2113  C   GLU A 285     -20.484 -33.393  25.645  1.00 31.74           C
ATOM   2114  O   GLU A 285     -19.929 -32.905  24.664  1.00 26.88           O
ATOM   2115  CB  GLU A 285     -19.738 -33.102  28.025  1.00 28.94           C
ATOM   2116  CG  GLU A 285     -18.272 -33.115  27.598  1.00 30.34           C
ATOM   2117  CD  GLU A 285     -17.333 -33.711  28.646  1.00 34.90           C
ATOM   2118  OE1 GLU A 285     -17.528 -33.466  29.854  1.00 33.45           O
ATOM   2119  OE2 GLU A 285     -16.390 -34.425  28.255  1.00 30.99           O
ATOM   2120  N   TRP A 286     -20.958 -34.634  25.668  1.00 26.72           N
ATOM   2121  CA  TRP A 286     -20.742 -35.557  24.574  1.00 32.01           C
ATOM   2122  C   TRP A 286     -21.473 -35.145  23.298  1.00 35.78           C
ATOM   2123  O   TRP A 286     -21.116 -35.581  22.201  1.00 32.35           O
ATOM   2124  CB  TRP A 286     -21.107 -36.977  25.009  1.00 26.15           C
ATOM   2125  CG  TRP A 286     -20.213 -37.456  26.110  1.00 30.54           C
ATOM   2126  CD1 TRP A 286     -20.468 -37.417  27.456  1.00 30.84           C
ATOM   2127  CD2 TRP A 286     -18.899 -38.013  25.968  1.00 26.55           C
ATOM   2128  NE1 TRP A 286     -19.401 -37.930  28.155  1.00 25.87           N
ATOM   2129  CE2 TRP A 286     -18.423 -38.300  27.268  1.00 28.66           C
ATOM   2130  CE3 TRP A 286     -18.079 -38.300  24.868  1.00 26.79           C
ATOM   2131  CZ2 TRP A 286     -17.161 -38.859  27.499  1.00 23.83           C
ATOM   2132  CZ3 TRP A 286     -16.829 -38.865  25.099  1.00 25.35           C
ATOM   2133  CH2 TRP A 286     -16.382 -39.137  26.406  1.00 24.43           C
ATOM   2134  N   HIS A 287     -22.454 -34.261  23.444  1.00 36.28           N
ATOM   2135  CA  HIS A 287     -23.293 -33.846  22.326  1.00 34.94           C
ATOM   2136  C   HIS A 287     -22.669 -32.815  21.396  1.00 34.99           C
ATOM   2137  O   HIS A 287     -23.234 -32.526  20.349  1.00 44.11           O
ATOM   2138  CB  HIS A 287     -24.658 -33.367  22.831  1.00 37.41           C
ATOM   2139  CG  HIS A 287     -25.461 -34.449  23.488  1.00 49.46           C
ATOM   2140  ND1 HIS A 287     -26.178 -34.249  24.652  1.00 54.02           N
ATOM   2141  CD2 HIS A 287     -25.645 -35.748  23.150  1.00 46.20           C
ATOM   2142  CE1 HIS A 287     -26.773 -35.377  24.999  1.00 52.51           C
ATOM   2143  NE2 HIS A 287     -26.468 -36.302  24.103  1.00 59.58           N
ATOM   2144  N   VAL A 288     -21.513 -32.258  21.746  1.00 36.90           N
ATOM   2145  CA  VAL A 288     -20.858 -31.331  20.812  1.00 30.26           C
ATOM   2146  C   VAL A 288     -19.875 -32.031  19.869  1.00 30.86           C
ATOM   2147  O   VAL A 288     -19.295 -31.403  18.987  1.00 34.34           O
ATOM   2148  CB  VAL A 288     -20.181 -30.128  21.508  1.00 31.90           C
ATOM   2149  CG1 VAL A 288     -21.210 -29.341  22.318  1.00 34.01           C
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ATOM   2150  CG2 VAL A 288     -19.009 -30.582  22.372  1.00 22.44           C
ATOM   2151  N   LEU A 289     -19.695 -33.333  20.046  1.00 28.61           N
ATOM   2152  CA  LEU A 289     -18.910 -34.092  19.090  1.00 31.47           C
ATOM   2153  C   LEU A 289     -19.657 -34.111  17.752  1.00 35.32           C
ATOM   2154  O   LEU A 289     -20.843 -34.431  17.707  1.00 34.79           O
ATOM   2155  CB  LEU A 289     -18.620 -35.501  19.609  1.00 22.19           C
ATOM   2156  CG  LEU A 289     -17.607 -35.556  20.769  1.00 26.54           C
ATOM   2157  CD1 LEU A 289     -17.383 -36.977  21.262  1.00 16.75           C
ATOM   2158  CD2 LEU A 289     -16.268 -34.906  20.391  1.00 25.36           C
ATOM   2159  N   PRO A 290     -18.966 -33.741  16.662  1.00 34.08           N
ATOM   2160  CA  PRO A 290     -19.576 -33.592  15.327  1.00 33.67           C
ATOM   2161  C   PRO A 290     -20.065 -34.902  14.712  1.00 34.58           C
ATOM   2162  O   PRO A 290     -21.027 -34.868  13.958  1.00 41.20           O
ATOM   2163  CB  PRO A 290     -18.445 -33.001  14.481  1.00 31.84           C
ATOM   2164  CG  PRO A 290     -17.184 -33.437  15.180  1.00 40.19           C
ATOM   2165  CD  PRO A 290     -17.518 -33.464  16.651  1.00 32.87           C
ATOM   2166  N   GLN A 291     -19.430 -36.031  15.017  1.00 37.51           N
ATOM   2167  CA  GLN A 291     -19.866 -37.309  14.442  1.00 34.40           C
ATOM   2168  C   GLN A 291     -19.796 -38.430  15.460  1.00 32.41           C
ATOM   2169  O   GLN A 291     -19.104 -38.323  16.473  1.00 36.76           O
ATOM   2170  CB  GLN A 291     -19.018 -37.693  13.215  1.00 41.43           C
ATOM   2171  CG  GLN A 291     -19.040 -36.692  12.049  1.00 43.40           C
ATOM   2172  CD  GLN A 291     -20.368 -36.667  11.292  1.00 53.77           C
ATOM   2173  OE1 GLN A 291     -21.100 -37.661  11.262  1.00 48.56           O
ATOM   2174  NE2 GLN A 291     -20.682 -35.523  10.679  1.00 42.95           N
ATOM   2175  N   GLU A 292     -20.518 -39.506  15.175  1.00 32.38           N
ATOM   2176  CA  GLU A 292     -20.495 -40.727  15.971  1.00 29.72           C
ATOM   2177  C   GLU A 292     -19.053 -41.230  16.041  1.00 35.49           C
ATOM   2178  O   GLU A 292     -18.367 -41.267  15.020  1.00 37.52           O
ATOM   2179  CB  GLU A 292     -21.397 -41.767  15.297  1.00 33.26           C
ATOM   2180  CG  GLU A 292     -21.564 -43.087  16.031  1.00 48.14           C
ATOM   2181  CD  GLU A 292     -22.407 -44.102  15.245  1.00 55.58           C
ATOM   2182  OE1 GLU A 292     -22.631 -43.894  14.029  1.00 50.51           O
ATOM   2183  OE2 GLU A 292     -22.841 -45.111  15.846  1.00 61.30           O
ATOM   2184  N   SER A 293     -18.589 -41.611  17.232  1.00 27.52           N
ATOM   2185  CA  SER A 293     -17.175 -41.946  17.415  1.00 25.58           C
ATOM   2186  C   SER A 293     -16.864 -42.749  18.683  1.00 27.39           C
ATOM   2187  O   SER A 293     -17.731 -42.980  19.522  1.00 32.07           O
ATOM   2188  CB  SER A 293     -16.330 -40.665  17.415  1.00 24.93           C
ATOM   2189  OG  SER A 293     -16.588 -39.881  18.573  1.00 27.41           O
ATOM   2190  N   VAL A 294     -15.624 -43.217  18.783  1.00 27.30           N
ATOM   2191  CA  VAL A 294     -15.042 -43.613  20.059  1.00 23.38           C
ATOM   2192  C   VAL A 294     -13.657 -42.982  20.117  1.00 24.64           C
ATOM   2193  O   VAL A 294     -13.134 -42.544  19.081  1.00 23.18           O
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ATOM   2194  CB  VAL A 294     -14.968 -45.150  20.261  1.00 24.79           C
ATOM   2195  CG1 VAL A 294     -16.369 -45.755  20.300  1.00 26.24           C
ATOM   2196  CG2 VAL A 294     -14.095 -45.829  19.198  1.00 23.02           C
ATOM   2197  N   PHE A 295     -13.082 -42.905  21.317  1.00 24.25           N
ATOM   2198  CA  PHE A 295     -11.747 -42.328  21.522  1.00 18.76           C
ATOM   2199  C   PHE A 295     -11.675 -40.869  21.051  1.00 22.92           C
ATOM   2200  O   PHE A 295     -10.644 -40.418  20.525  1.00 24.32           O
ATOM   2201  CB  PHE A 295     -10.652 -43.189  20.849  1.00 17.57           C
ATOM   2202  CG  PHE A 295      -9.384 -43.324  21.671  1.00 20.30           C
ATOM   2203  CD1 PHE A 295      -8.837 -42.226  22.326  1.00 17.45           C
ATOM   2204  CD2 PHE A 295      -8.749 -44.553  21.800  1.00 18.14           C
ATOM   2205  CE1 PHE A 295      -7.681 -42.343  23.089  1.00 18.18           C
ATOM   2206  CE2 PHE A 295      -7.585 -44.671  22.551  1.00 19.72           C
ATOM   2207  CZ  PHE A 295      -7.059 -43.565  23.212  1.00 15.67           C
ATOM   2208  N   ARG A 296     -12.780 -40.142  21.217  1.00 18.05           N
ATOM   2209  CA  ARG A 296     -12.815 -38.712  20.905  1.00 21.16           C
ATOM   2210  C   ARG A 296     -13.485 -37.991  22.052  1.00 23.12           C
ATOM   2211  O   ARG A 296     -14.506 -38.440  22.563  1.00 20.28           O
ATOM   2212  CB  ARG A 296     -13.585 -38.410  19.614  1.00 18.49           C
ATOM   2213  CG  ARG A 296     -12.884 -38.822  18.327  1.00 23.57           C
ATOM   2214  CD  ARG A 296     -11.617 -38.016  18.095  1.00 25.95           C
ATOM   2215  NE  ARG A 296     -10.946 -38.439  16.875  1.00 28.30           N
ATOM   2216  CZ  ARG A 296     -10.158 -39.506  16.775  1.00 27.16           C
ATOM   2217  NH1 ARG A 296      -9.926 -40.272  17.837  1.00 21.89           N
ATOM   2218  NH2 ARG A 296      -9.602 -39.807  15.606  1.00 22.49           N
ATOM   2219  N   PHE A 297     -12.929 -36.854  22.443  1.00 21.88           N
ATOM   2220  CA  PHE A 297     -13.447 -36.146  23.604  1.00 22.59           C
ATOM   2221  C   PHE A 297     -13.655 -34.683  23.267  1.00 24.31           C
ATOM   2222  O   PHE A 297     -12.880 -34.095  22.510  1.00 25.76           O
ATOM   2223  CB  PHE A 297     -12.491 -36.340  24.775  1.00 18.27           C
ATOM   2224  CG  PHE A 297     -11.853 -37.684  24.782  1.00 17.67           C
ATOM   2225  CD1 PHE A 297     -12.599 -38.811  25.074  1.00 18.03           C
ATOM   2226  CD2 PHE A 297     -10.518 -37.833  24.451  1.00 19.89           C
ATOM   2227  CE1 PHE A 297     -12.019 -40.074  25.055  1.00 20.47           C
ATOM   2228  CE2 PHE A 297      -9.926 -39.093  24.438  1.00 19.79           C
ATOM   2229  CZ  PHE A 297     -10.678 -40.212  24.739  1.00 19.51           C
ATOM   2230  N   SER A 298     -14.709 -34.105  23.829  1.00 24.71           N
ATOM   2231  CA  SER A 298     -15.180 -32.792  23.404  1.00 27.45           C
ATOM   2232  C   SER A 298     -14.209 -31.652  23.674  1.00 26.14           C
ATOM   2233  O   SER A 298     -13.908 -30.873  22.777  1.00 28.28           O
ATOM   2234  CB  SER A 298     -16.536 -32.487  24.040  1.00 23.34           C
ATOM   2235  OG  SER A 298     -17.525 -33.332  23.482  1.00 30.43           O
ATOM   2236  N   PHE A 299     -13.732 -31.547  24.911  1.00 23.00           N
ATOM   2237  CA  PHE A 299     -12.884 -30.426  25.292  1.00 23.92           C
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ATOM   2238  C   PHE A 299     -11.469 -30.868  25.630  1.00 27.99           C
ATOM   2239  O   PHE A 299     -11.217 -31.479  26.679  1.00 21.70           O
ATOM   2240  CB  PHE A 299     -13.542 -29.610  26.410  1.00 23.64           C
ATOM   2241  CG  PHE A 299     -14.891 -29.098  26.026  1.00 25.23           C
ATOM   2242  CD1 PHE A 299     -15.009 -28.039  25.132  1.00 27.98           C
ATOM   2243  CD2 PHE A 299     -16.045 -29.718  26.490  1.00 22.29           C
ATOM   2244  CE1 PHE A 299     -16.264 -27.578  24.722  1.00 23.47           C
ATOM   2245  CE2 PHE A 299     -17.301 -29.269  26.091  1.00 25.92           C
ATOM   2246  CZ  PHE A 299     -17.410 -28.194  25.205  1.00 24.79           C
ATOM   2247  N   VAL A 300     -10.557 -30.572  24.704  1.00 22.10           N
ATOM   2248  CA  VAL A 300      -9.169 -31.009  24.807  1.00 22.42           C
ATOM   2249  C   VAL A 300      -8.245 -29.814  24.563  1.00 20.22           C
ATOM   2250  O   VAL A 300      -8.722 -28.744  24.198  1.00 21.24           O
ATOM   2251  CB  VAL A 300      -8.880 -32.171  23.819  1.00 23.10           C
ATOM   2252  CG1 VAL A 300      -9.770 -33.376  24.139  1.00 18.44           C
ATOM   2253  CG2 VAL A 300      -9.051 -31.711  22.373  1.00 20.54           C
ATOM   2254  N   PRO A 301      -6.930 -29.975  24.799  1.00 24.37           N
ATOM   2255  CA  PRO A 301      -6.001 -28.882  24.476  1.00 25.07           C
ATOM   2256  C   PRO A 301      -6.172 -28.327  23.056  1.00 30.22           C
ATOM   2257  O   PRO A 301      -6.373 -29.073  22.094  1.00 25.83           O
ATOM   2258  CB  PRO A 301      -4.633 -29.550  24.613  1.00 23.26           C
ATOM   2259  CG  PRO A 301      -4.846 -30.567  25.681  1.00 26.00           C
ATOM   2260  CD  PRO A 301      -6.234 -31.101  25.456  1.00 19.57           C
ATOM   2261  N   VAL A 302      -6.110 -27.007  22.939  1.00 28.76           N
ATOM   2262  CA  VAL A 302      -6.291 -26.349  21.661  1.00 28.19           C
ATOM   2263  C   VAL A 302      -4.948 -25.784  21.180  1.00 34.31           C
ATOM   2264  O   VAL A 302      -4.133 -25.318  21.977  1.00 32.40           O
ATOM   2265  CB  VAL A 302      -7.398 -25.249  21.744  1.00 33.01           C
ATOM   2266  CG1 VAL A 302      -6.977 -24.107  22.667  1.00 33.69           C
ATOM   2267  CG2 VAL A 302      -7.748 -24.719  20.361  1.00 35.82           C
ATOM   2268  N   VAL A 303      -4.693 -25.881  19.880  1.00 38.19           N
ATOM   2269  CA  VAL A 303      -3.486 -25.296  19.306  1.00 37.52           C
ATOM   2270  C   VAL A 303      -3.826 -23.879  18.893  1.00 38.56           C
ATOM   2271  O   VAL A 303      -4.544 -23.668  17.914  1.00 42.58           O
ATOM   2272  CB  VAL A 303      -3.012 -26.067  18.062  1.00 39.71           C
ATOM   2273  CG1 VAL A 303      -1.689 -25.508  17.568  1.00 36.03           C
ATOM   2274  CG2 VAL A 303      -2.895 -27.554  18.365  1.00 37.39           C
ATOM   2275  N   ASP A 304      -3.334 -22.903  19.640  1.00 38.42           N
ATOM   2276  CA  ASP A 304      -3.734 -21.524  19.396  1.00 42.73           C
ATOM   2277  C   ASP A 304      -2.540 -20.575  19.307  1.00 44.58           C
ATOM   2278  O   ASP A 304      -2.713 -19.360  19.237  1.00 50.09           O
ATOM   2279  CB  ASP A 304      -4.710 -21.057  20.481  1.00 41.11           C
ATOM   2280  CG  ASP A 304      -4.028 -20.813  21.819  1.00 40.98           C
ATOM   2281  OD1 ASP A 304      -2.955 -21.396  22.071  1.00 40.45           O
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ATOM   2282  OD2 ASP A 304      -4.573 -20.033  22.626  1.00 50.49           O
ATOM   2283  N   GLY A 305      -1.333 -21.132  19.326  1.00 39.12           N
ATOM   2284  CA  GLY A 305      -0.131 -20.328  19.225  1.00 37.31           C
ATOM   2285  C   GLY A 305       0.471 -19.929  20.559  1.00 44.74           C
ATOM   2286  O   GLY A 305       1.592 -19.420  20.602  1.00 46.74           O
ATOM   2287  N   ASP A 306      -0.259 -20.173  21.647  1.00 41.02           N
ATOM   2288  CA  ASP A 306       0.175 -19.763  22.983  1.00 38.02           C
ATOM   2289  C   ASP A 306       0.905 -20.882  23.754  1.00 43.86           C
ATOM   2290  O   ASP A 306       2.128 -20.998  23.641  1.00 40.78           O
ATOM   2291  CB  ASP A 306      -1.010 -19.205  23.781  1.00 37.18           C
ATOM   2292  CG  ASP A 306      -0.587 -18.573  25.098  1.00 47.53           C
ATOM   2293  OD1 ASP A 306       0.637 -18.480  25.358  1.00 39.59           O
ATOM   2294  OD2 ASP A 306      -1.484 -18.151  25.866  1.00 52.97           O
ATOM   2295  N   PHE A 307       0.175 -21.678  24.546  1.00 38.70           N
ATOM   2296  CA  PHE A 307       0.764 -22.843  25.224  1.00 31.70           C
ATOM   2297  C   PHE A 307       1.490 -23.724  24.205  1.00 37.55           C
ATOM   2298  O   PHE A 307       2.623 -24.152  24.424  1.00 40.20           O
ATOM   2299  CB  PHE A 307      -0.313 -23.669  25.934  1.00 35.00           C
ATOM   2300  CG  PHE A 307       0.235 -24.683  26.915  1.00 30.59           C
ATOM   2301  CD1 PHE A 307       0.795 -25.877  26.472  1.00 27.47           C
ATOM   2302  CD2 PHE A 307       0.175 -24.444  28.281  1.00 30.22           C
ATOM   2303  CE1 PHE A 307       1.299 -26.807  27.375  1.00 29.22           C
ATOM   2304  CE2 PHE A 307       0.671 -25.372  29.199  1.00 26.08           C
ATOM   2305  CZ  PHE A 307       1.232 -26.553  28.747  1.00 26.19           C
ATOM   2306  N   LEU A 308       0.818 -23.992  23.091  1.00 33.65           N
ATOM   2307  CA  LEU A 308       1.422 -24.691  21.972  1.00 39.58           C
ATOM   2308  C   LEU A 308       1.545 -23.719  20.798  1.00 40.30           C
ATOM   2309  O   LEU A 308       0.539 -23.333  20.202  1.00 44.59           O
ATOM   2310  CB  LEU A 308       0.552 -25.881  21.575  1.00 35.62           C
ATOM   2311  CG  LEU A 308       0.276 -26.911  22.669  1.00 41.43           C
ATOM   2312  CD1 LEU A 308      -0.815 -27.867  22.213  1.00 33.84           C
ATOM   2313  CD2 LEU A 308       1.556 -27.670  23.051  1.00 30.55           C
ATOM   2314  N   SER A 309       2.769 -23.316  20.471  1.00 34.30           N
ATOM   2315  CA  SER A 309       2.984 -22.352  19.393  1.00 44.40           C
ATOM   2316  C   SER A 309       2.684 -22.954  18.016  1.00 43.27           C
ATOM   2317  O   SER A 309       2.444 -22.233  17.058  1.00 50.15           O
ATOM   2318  CB  SER A 309       4.402 -21.784  19.442  1.00 38.91           C
ATOM   2319  OG  SER A 309       5.361 -22.812  19.320  1.00 45.78           O
ATOM   2320  N   ASP A 310       2.684 -24.277  17.930  1.00 45.10           N
ATOM   2321  CA  ASP A 310       2.293 -24.967  16.708  1.00 44.33           C
ATOM   2322  C   ASP A 310       1.636 -26.284  17.110  1.00 40.79           C
ATOM   2323  O   ASP A 310       1.514 -26.575  18.291  1.00 40.13           O
ATOM   2324  CB  ASP A 310       3.524 -25.236  15.841  1.00 47.92           C
ATOM   2325  CG  ASP A 310       3.201 -25.304  14.352  1.00 52.63           C
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ATOM   2326  OD1 ASP A 310       2.064 -25.683  13.986  1.00 45.33           O
ATOM   2327  OD2 ASP A 310       4.100 -24.977  13.546  1.00 53.26           O
ATOM   2328  N   THR A 311       1.204 -27.073  16.134  1.00 40.30           N
ATOM   2329  CA  THR A 311       0.721 -28.417  16.418  1.00 39.03           C
ATOM   2330  C   THR A 311       1.837 -29.230  17.080  1.00 39.52           C
ATOM   2331  O   THR A 311       3.022 -28.968  16.855  1.00 41.00           O
ATOM   2332  CB  THR A 311       0.263 -29.139  15.134  1.00 44.58           C
ATOM   2333  OG1 THR A 311       1.405 -29.486  14.341  1.00 44.53           O
ATOM   2334  CG2 THR A 311      -0.671 -28.251  14.326  1.00 34.09           C
ATOM   2335  N   PRO A 312       1.469 -30.206  17.921  1.00 38.37           N
ATOM   2336  CA  PRO A 312       2.517 -31.029  18.533  1.00 36.87           C
ATOM   2337  C   PRO A 312       3.323 -31.781  17.473  1.00 37.32           C
ATOM   2338  O   PRO A 312       4.529 -31.954  17.629  1.00 37.83           O
ATOM   2339  CB  PRO A 312       1.724 -31.998  19.417  1.00 32.85           C
ATOM   2340  CG  PRO A 312       0.467 -31.243  19.758  1.00 32.08           C
ATOM   2341  CD  PRO A 312       0.140 -30.472  18.503  1.00 36.52           C
ATOM   2342  N   GLU A 313       2.655 -32.216  16.408  0.45 40.47           N
ATOM   2344  CA  GLU A 313       3.334 -32.884  15.301  0.45 41.44           C
ATOM   2346  C   GLU A 313       4.456 -32.011  14.730  0.45 43.11           C
ATOM   2348  O   GLU A 313       5.579 -32.479  14.542  0.45 44.39           O
ATOM   2350  CB  GLU A 313       2.339 -33.281  14.202  0.45 40.97           C
ATOM   2352  CG  GLU A 313       1.476 -34.508  14.527  0.45 40.40           C
ATOM   2354  CD  GLU A 313       0.140 -34.159  15.185  0.45 41.13           C
ATOM   2356  OE1 GLU A 313      -0.814 -34.955  15.036  0.45 41.54           O
ATOM   2358  OE2 GLU A 313       0.040 -33.102  15.849  0.45 34.24           O
ATOM   2360  N   ALA A 314       4.152 -30.742  14.474  1.00 39.34           N
ATOM   2361  CA  ALA A 314       5.153 -29.801  13.988  1.00 40.75           C
ATOM   2362  C   ALA A 314       6.260 -29.591  15.016  1.00 43.85           C
ATOM   2363  O   ALA A 314       7.445 -29.706  14.692  1.00 43.87           O
ATOM   2364  CB  ALA A 314       4.502 -28.463  13.629  1.00 41.36           C
ATOM   2365  N   LEU A 315       5.864 -29.286  16.255  1.00 45.66           N
ATOM   2366  CA  LEU A 315       6.813 -29.002  17.330  1.00 37.09           C
ATOM   2367  C   LEU A 315       7.752 -30.178  17.567  1.00 38.04           C
ATOM   2368  O   LEU A 315       8.937 -29.996  17.862  1.00 38.97           O
ATOM   2369  CB  LEU A 315       6.077 -28.655  18.624  1.00 40.59           C
ATOM   2370  CG  LEU A 315       5.332 -27.326  18.646  1.00 43.56           C
ATOM   2371  CD1 LEU A 315       4.705 -27.097  20.012  1.00 36.99           C
ATOM   2372  CD2 LEU A 315       6.274 -26.188  18.281  1.00 44.42           C
ATOM   2373  N   ILE A 316       7.207 -31.381  17.439  1.00 36.19           N
ATOM   2374  CA  ILE A 316       7.998 -32.597  17.537  1.00 39.95           C
ATOM   2375  C   ILE A 316       9.003 -32.670  16.393  1.00 40.32           C
ATOM   2376  O   ILE A 316      10.207 -32.723  16.629  1.00 44.96           O
ATOM   2377  CB  ILE A 316       7.098 -33.857  17.579  1.00 37.42           C
ATOM   2378  CG1 ILE A 316       6.490 -34.014  18.969  1.00 38.94           C
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ATOM   2379  CG2 ILE A 316       7.889 -35.106  17.281  1.00 34.48           C
ATOM   2380  CD1 ILE A 316       5.203 -34.798  18.976  1.00 33.67           C
ATOM   2381  N   ASN A 317       8.507 -32.641  15.157  1.00 51.63           N
ATOM   2382  CA  ASN A 317       9.365 -32.749  13.973  1.00 48.94           C
ATOM   2383  C   ASN A 317      10.510 -31.735  13.913  1.00 47.69           C
ATOM   2384  O   ASN A 317      11.550 -32.015  13.323  1.00 56.86           O
ATOM   2385  CB  ASN A 317       8.536 -32.675  12.690  1.00 46.15           C
ATOM   2386  CG  ASN A 317       7.544 -33.812  12.572  1.00 52.93           C
ATOM   2387  OD1 ASN A 317       7.688 -34.857  13.215  1.00 56.06           O
ATOM   2388  ND2 ASN A 317       6.522 -33.615  11.746  1.00 55.78           N
ATOM   2389  N   ALA A 318      10.328 -30.580  14.551  1.00 50.93           N
ATOM   2390  CA  ALA A 318      11.292 -29.484  14.467  1.00 46.95           C
ATOM   2391  C   ALA A 318      12.130 -29.262  15.730  1.00 51.65           C
ATOM   2392  O   ALA A 318      12.915 -28.309  15.799  1.00 52.04           O
ATOM   2393  CB  ALA A 318      10.569 -28.188  14.093  1.00 43.38           C
ATOM   2394  N   GLY A 319      11.976 -30.128  16.726  1.00 49.62           N
ATOM   2395  CA  GLY A 319      12.622 -29.905  18.012  1.00 37.36           C
ATOM   2396  C   GLY A 319      14.026 -30.474  18.144  1.00 41.98           C
ATOM   2397  O   GLY A 319      14.385 -31.442  17.470  1.00 45.58           O
ATOM   2398  N   ASP A 320      14.821 -29.854  19.016  1.00 37.58           N
ATOM   2399  CA  ASP A 320      16.143 -30.348  19.379  1.00 43.63           C
ATOM   2400  C   ASP A 320      15.984 -30.960  20.767  1.00 44.73           C
ATOM   2401  O   ASP A 320      15.701 -30.250  21.733  1.00 42.42           O
ATOM   2402  CB  ASP A 320      17.158 -29.187  19.385  1.00 40.28           C
ATOM   2403  CG  ASP A 320      18.551 -29.591  19.894  1.00 51.11           C
ATOM   2404  OD1 ASP A 320      18.715 -30.688  20.473  1.00 52.23           O
ATOM   2405  OD2 ASP A 320      19.500 -28.782  19.732  1.00 57.71           O
ATOM   2406  N   PHE A 321      16.168 -32.275  20.866  1.00 40.53           N
ATOM   2407  CA  PHE A 321      15.905 -32.976  22.121  1.00 34.15           C
ATOM   2408  C   PHE A 321      17.144 -33.622  22.734  1.00 41.70           C
ATOM   2409  O   PHE A 321      17.039 -34.611  23.472  1.00 38.14           O
ATOM   2410  CB  PHE A 321      14.792 -34.012  21.937  1.00 31.78           C
ATOM   2411  CG  PHE A 321      13.473 -33.412  21.531  1.00 37.41           C
ATOM   2412  CD1 PHE A 321      12.650 -32.809  22.473  1.00 30.90           C
ATOM   2413  CD2 PHE A 321      13.065 -33.435  20.206  1.00 34.59           C
ATOM   2414  CE1 PHE A 321      11.441 -32.253  22.106  1.00 30.60           C
ATOM   2415  CE2 PHE A 321      11.854 -32.871  19.826  1.00 37.44           C
ATOM   2416  CZ  PHE A 321      11.041 -32.282  20.784  1.00 38.03           C
ATOM   2417  N   HIS A 322      18.317 -33.073  22.426  1.00 39.99           N
ATOM   2418  CA  HIS A 322      19.525 -33.477  23.137  1.00 45.55           C
ATOM   2419  C   HIS A 322      19.363 -33.092  24.600  1.00 42.42           C
ATOM   2420  O   HIS A 322      18.813 -32.030  24.912  1.00 41.22           O
ATOM   2421  CB  HIS A 322      20.780 -32.827  22.535  1.00 43.13           C
ATOM   2422  CG  HIS A 322      21.186 -33.419  21.222  1.00 40.16           C
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ATOM   2423  ND1 HIS A 322      20.806 -32.879  20.012  1.00 37.83           N
ATOM   2424  CD2 HIS A 322      21.907 -34.529  20.930  1.00 35.53           C
ATOM   2425  CE1 HIS A 322      21.285 -33.623  19.030  1.00 40.44           C
ATOM   2426  NE2 HIS A 322      21.958 -34.629  19.562  1.00 38.10           N
ATOM   2427  N   GLY A 323      19.816 -33.968  25.492  1.00 38.52           N
ATOM   2428  CA  GLY A 323      19.698 -33.726  26.919  1.00 41.24           C
ATOM   2429  C   GLY A 323      18.464 -34.369  27.530  1.00 40.91           C
ATOM   2430  O   GLY A 323      18.336 -34.450  28.749  1.00 45.29           O
ATOM   2431  N   LEU A 324      17.557 -34.834  26.675  1.00 37.18           N
ATOM   2432  CA  LEU A 324      16.309 -35.438  27.124  1.00 34.07           C
ATOM   2433  C   LEU A 324      16.358 -36.977  27.181  1.00 26.56           C
ATOM   2434  O   LEU A 324      16.871 -37.641  26.274  1.00 30.78           O
ATOM   2435  CB  LEU A 324      15.152 -34.962  26.229  1.00 34.43           C
ATOM   2436  CG  LEU A 324      13.732 -35.476  26.505  1.00 31.32           C
ATOM   2437  CD1 LEU A 324      13.255 -35.053  27.890  1.00 27.23           C
ATOM   2438  CD2 LEU A 324      12.767 -34.983  25.441  1.00 26.28           C
ATOM   2439  N   GLN A 325      15.833 -37.537  28.263  1.00 26.91           N
ATOM   2440  CA  GLN A 325      15.576 -38.973  28.318  1.00 32.12           C
ATOM   2441  C   GLN A 325      14.080 -39.192  28.516  1.00 29.99           C
ATOM   2442  O   GLN A 325      13.443 -38.505  29.311  1.00 29.51           O
ATOM   2443  CB  GLN A 325      16.364 -39.658  29.440  1.00 33.24           C
ATOM   2444  CG  GLN A 325      17.874 -39.504  29.349  1.00 35.15           C
ATOM   2445  CD  GLN A 325      18.376 -38.316  30.136  1.00 42.38           C
ATOM   2446  OE1 GLN A 325      17.997 -38.113  31.296  1.00 44.08           O
ATOM   2447  NE2 GLN A 325      19.221 -37.509  29.506  1.00 48.06           N
ATOM   2448  N   VAL A 326      13.516 -40.136  27.774  1.00 29.09           N
ATOM   2449  CA  VAL A 326      12.082 -40.376  27.818  1.00 27.12           C
ATOM   2450  C   VAL A 326      11.825 -41.872  27.895  1.00 29.09           C
ATOM   2451  O   VAL A 326      12.536 -42.664  27.267  1.00 30.47           O
ATOM   2452  CB  VAL A 326      11.367 -39.840  26.545  1.00 30.99           C
ATOM   2453  CG1 VAL A 326       9.958 -39.413  26.878  1.00 31.05           C
ATOM   2454  CG2 VAL A 326      12.115 -38.675  25.947  1.00 36.39           C
ATOM   2455  N   LEU A 327      10.805 -42.254  28.659  1.00 26.83           N
ATOM   2456  CA  LEU A 327      10.331 -43.639  28.694  1.00 25.10           C
ATOM   2457  C   LEU A 327       8.918 -43.669  28.123  1.00 24.82           C
ATOM   2458  O   LEU A 327       8.028 -42.968  28.613  1.00 26.01           O
ATOM   2459  CB  LEU A 327      10.338 -44.170  30.127  1.00 23.82           C
ATOM   2460  CG  LEU A 327       9.793 -45.573  30.423  1.00 26.62           C
ATOM   2461  CD1 LEU A 327      10.617 -46.626  29.746  1.00 27.61           C
ATOM   2462  CD2 LEU A 327       9.789 -45.827  31.926  1.00 30.20           C
ATOM   2463  N   VAL A 328       8.711 -44.453  27.070  1.00 23.86           N
ATOM   2464  CA  VAL A 328       7.391 -44.523  26.441  1.00 24.94           C
ATOM   2465  C   VAL A 328       6.961 -45.969  26.226  1.00 24.06           C
ATOM   2466  O   VAL A 328       7.790 -46.871  26.137  1.00 21.42           O
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ATOM   2467  CB  VAL A 328       7.339 -43.779  25.081  1.00 23.74           C
ATOM   2468  CG1 VAL A 328       7.850 -42.351  25.224  1.00 22.32           C
ATOM   2469  CG2 VAL A 328       8.127 -44.532  24.028  1.00 21.83           C
ATOM   2470  N   GLY A 329       5.659 -46.190  26.137  1.00 18.02           N
ATOM   2471  CA  GLY A 329       5.168 -47.531  25.917  1.00 18.90           C
ATOM   2472  C   GLY A 329       3.666 -47.604  25.796  1.00 22.66           C
ATOM   2473  O   GLY A 329       2.954 -46.598  25.932  1.00 19.46           O
ATOM   2474  N   VAL A 330       3.188 -48.815  25.540  1.00 17.93           N
ATOM   2475  CA  VAL A 330       1.794 -49.051  25.241  1.00 18.46           C
ATOM   2476  C   VAL A 330       1.434 -50.371  25.884  1.00 24.94           C
ATOM   2477  O   VAL A 330       2.332 -51.153  26.220  1.00 21.09           O
ATOM   2478  CB  VAL A 330       1.590 -49.197  23.714  1.00 21.64           C
ATOM   2479  CG1 VAL A 330       1.900 -47.890  22.993  1.00 20.24           C
ATOM   2480  CG2 VAL A 330       2.471 -50.312  23.162  1.00 19.18           C
ATOM   2481  N   VAL A 331       0.135 -50.628  26.056  1.00 21.32           N
ATOM   2482  CA  VAL A 331      -0.324 -51.980  26.393  1.00 23.09           C
ATOM   2483  C   VAL A 331      -0.492 -52.833  25.129  1.00 26.05           C
ATOM   2484  O   VAL A 331      -0.491 -52.312  24.011  1.00 23.57           O
ATOM   2485  CB  VAL A 331      -1.639 -51.976  27.197  1.00 25.63           C
ATOM   2486  CG1 VAL A 331      -1.446 -51.243  28.530  1.00 18.82           C
ATOM   2487  CG2 VAL A 331      -2.775 -51.358  26.382  1.00 21.06           C
ATOM   2488  N   LYS A 332      -0.631 -54.142  25.317  1.00 26.90           N
ATOM   2489  CA  LYS A 332      -0.742 -55.082  24.208  1.00 29.99           C
ATOM   2490  C   LYS A 332      -1.955 -54.817  23.316  1.00 29.15           C
ATOM   2491  O   LYS A 332      -1.874 -54.967  22.099  1.00 27.12           O
ATOM   2492  CB  LYS A 332      -0.779 -56.524  24.724  1.00 31.15           C
ATOM   2493  CG  LYS A 332      -0.633 -57.589  23.628  1.00 27.70           C
ATOM   2494  CD  LYS A 332      -0.439 -58.970  24.254  1.00 34.51           C
ATOM   2495  CE  LYS A 332      -0.093 -60.025  23.220  1.00 35.15           C
ATOM   2496  NZ  LYS A 332      -1.231 -60.356  22.302  1.00 46.13           N
ATOM   2497  N   ASP A 333      -3.070 -54.413  23.918  1.00 23.08           N
ATOM   2498  CA  ASP A 333      -4.297 -54.190  23.157  1.00 26.75           C
ATOM   2499  C   ASP A 333      -4.918 -52.822  23.424  1.00 26.56           C
ATOM   2500  O   ASP A 333      -5.945 -52.723  24.091  1.00 27.52           O
ATOM   2501  CB  ASP A 333      -5.309 -55.308  23.453  1.00 25.08           C
ATOM   2502  CG  ASP A 333      -4.737 -56.698  23.172  1.00 29.59           C
ATOM   2503  OD1 ASP A 333      -4.718 -57.108  21.986  1.00 32.00           O
ATOM   2504  OD2 ASP A 333      -4.283 -57.367  24.133  1.00 26.66           O
ATOM   2505  N   GLU A 334      -4.300 -51.775  22.881  1.00 26.23           N
ATOM   2506  CA  GLU A 334      -4.741 -50.397  23.106  1.00 24.52           C
ATOM   2507  C   GLU A 334      -6.187 -50.119  22.706  1.00 26.78           C
ATOM   2508  O   GLU A 334      -6.872 -49.321  23.358  1.00 25.34           O
ATOM   2509  CB  GLU A 334      -3.815 -49.398  22.387  1.00 21.93           C
ATOM   2510  CG  GLU A 334      -2.406 -49.284  22.993  1.00 19.96           C
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ATOM   2511  CD  GLU A 334      -2.412 -48.616  24.371  1.00 26.36           C
ATOM   2512  OE1 GLU A 334      -3.469 -48.069  24.763  1.00 24.03           O
ATOM   2513  OE2 GLU A 334      -1.366 -48.632  25.063  1.00 23.90           O
ATOM   2514  N   GLY A 335      -6.660 -50.764  21.644  1.00 23.90           N
ATOM   2515  CA  GLY A 335      -7.946 -50.388  21.077  1.00 22.42           C
ATOM   2516  C   GLY A 335      -9.174 -51.090  21.634  1.00 23.54           C
ATOM   2517  O   GLY A 335     -10.283 -50.564  21.555  1.00 20.98           O
ATOM   2518  N   SER A 336      -8.978 -52.274  22.202  1.00 23.11           N
ATOM   2519  CA  SER A 336     -10.095 -53.149  22.543  1.00 26.70           C
ATOM   2520  C   SER A 336     -11.143 -52.500  23.458  1.00 27.34           C
ATOM   2521  O   SER A 336     -12.338 -52.562  23.183  1.00 29.04           O
ATOM   2522  CB  SER A 336      -9.577 -54.460  23.137  1.00 27.44           C
ATOM   2523  OG  SER A 336      -9.049 -54.263  24.429  1.00 28.54           O
ATOM   2524  N   TYR A 337     -10.674 -51.866  24.526  1.00 27.57           N
ATOM   2525  CA  TYR A 337     -11.517 -51.200  25.516  1.00 24.96           C
ATOM   2526  C   TYR A 337     -12.529 -50.254  24.877  1.00 25.09           C
ATOM   2527  O   TYR A 337     -13.702 -50.228  25.244  1.00 28.42           O
ATOM   2528  CB  TYR A 337     -10.600 -50.402  26.438  1.00 29.14           C
ATOM   2529  CG  TYR A 337     -11.082 -50.168  27.846  1.00 28.05           C
ATOM   2530  CD1 TYR A 337     -12.430 -49.969  28.136  1.00 28.74           C
ATOM   2531  CD2 TYR A 337     -10.172 -50.123  28.895  1.00 27.72           C
ATOM   2532  CE1 TYR A 337     -12.852 -49.747  29.439  1.00 26.86           C
ATOM   2533  CE2 TYR A 337     -10.584 -49.896  30.196  1.00 27.01           C
ATOM   2534  CZ  TYR A 337     -11.918 -49.705  30.464  1.00 25.53           C
ATOM   2535  OH  TYR A 337     -12.304 -49.478  31.766  1.00 26.03           O
ATOM   2536  N   PHE A 338     -12.075 -49.474  23.912  1.00 22.82           N
ATOM   2537  CA  PHE A 338     -12.919 -48.443  23.325  1.00 21.85           C
ATOM   2538  C   PHE A 338     -14.076 -48.966  22.462  1.00 26.20           C
ATOM   2539  O   PHE A 338     -15.075 -48.265  22.273  1.00 20.06           O
ATOM   2540  CB  PHE A 338     -12.050 -47.443  22.553  1.00 24.01           C
ATOM   2541  CG  PHE A 338     -11.095 -46.704  23.432  1.00 20.39           C
ATOM   2542  CD1 PHE A 338      -9.901 -47.288  23.815  1.00 21.01           C
ATOM   2543  CD2 PHE A 338     -11.414 -45.447  23.922  1.00 19.20           C
ATOM   2544  CE1 PHE A 338      -9.031 -46.624  24.675  1.00 22.38           C
ATOM   2545  CE2 PHE A 338     -10.542 -44.773  24.761  1.00 19.97           C
ATOM   2546  CZ  PHE A 338      -9.352 -45.367  25.140  1.00 17.92           C
ATOM   2547  N   LEU A 339     -13.961 -50.200  21.973  1.00 26.33           N
ATOM   2548  CA  LEU A 339     -14.969 -50.754  21.065  1.00 29.21           C
ATOM   2549  C   LEU A 339     -16.361 -50.880  21.693  1.00 32.14           C
ATOM   2550  O   LEU A 339     -17.372 -50.764  20.987  1.00 30.47           O
ATOM   2551  CB  LEU A 339     -14.507 -52.102  20.497  1.00 24.76           C
ATOM   2552  CG  LEU A 339     -13.170 -51.983  19.763  1.00 24.66           C
ATOM   2553  CD1 LEU A 339     -12.638 -53.315  19.253  1.00 25.37           C
ATOM   2554  CD2 LEU A 339     -13.305 -50.990  18.645  1.00 21.23           C
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ATOM   2555  N   VAL A 340     -16.421 -51.096  23.009  1.00 25.61           N
ATOM   2556  CA  VAL A 340     -17.715 -51.247  23.671  1.00 24.07           C
ATOM   2557  C   VAL A 340     -18.429 -49.922  23.928  1.00 30.99           C
ATOM   2558  O   VAL A 340     -19.548 -49.916  24.438  1.00 33.06           O
ATOM   2559  CB  VAL A 340     -17.623 -52.051  24.973  1.00 30.08           C
ATOM   2560  CG1 VAL A 340     -17.162 -53.483  24.680  1.00 28.51           C
ATOM   2561  CG2 VAL A 340     -16.701 -51.359  25.972  1.00 27.77           C
ATOM   2562  N   TYR A 341     -17.801 -48.806  23.556  1.00 24.57           N
ATOM   2563  CA  TYR A 341     -18.427 -47.492  23.731  1.00 20.56           C
ATOM   2564  C   TYR A 341     -18.986 -46.895  22.441  1.00 24.89           C
ATOM   2565  O   TYR A 341     -19.209 -45.680  22.384  1.00 23.54           O
ATOM   2566  CB  TYR A 341     -17.440 -46.484  24.352  1.00 23.39           C
ATOM   2567  CG  TYR A 341     -17.145 -46.710  25.820  1.00 23.42           C
ATOM   2568  CD1 TYR A 341     -17.801 -45.975  26.804  1.00 23.97           C
ATOM   2569  CD2 TYR A 341     -16.228 -47.668  26.220  1.00 21.18           C
ATOM   2570  CE1 TYR A 341     -17.545 -46.184  28.145  1.00 22.86           C
ATOM   2571  CE2 TYR A 341     -15.967 -47.889  27.555  1.00 25.11           C
ATOM   2572  CZ  TYR A 341     -16.625 -47.140  28.514  1.00 23.75           C
ATOM   2573  OH  TYR A 341     -16.354 -47.356  29.841  1.00 24.33           O
ATOM   2574  N   GLY A 342     -19.203 -47.718  21.411  1.00 25.46           N
ATOM   2575  CA  GLY A 342     -19.739 -47.204  20.158  1.00 25.99           C
ATOM   2576  C   GLY A 342     -19.644 -48.051  18.893  1.00 28.24           C
ATOM   2577  O   GLY A 342     -20.348 -47.795  17.918  1.00 29.98           O
ATOM   2578  N   ALA A 343     -18.775 -49.050  18.883  1.00 31.23           N
ATOM   2579  CA  ALA A 343     -18.662 -49.902  17.711  1.00 31.05           C
ATOM   2580  C   ALA A 343     -19.840 -50.870  17.668  1.00 31.62           C
ATOM   2581  O   ALA A 343     -20.101 -51.567  18.645  1.00 35.06           O
ATOM   2582  CB  ALA A 343     -17.348 -50.659  17.725  1.00 28.45           C
ATOM   2583  N   PRO A 344     -20.561 -50.907  16.534  1.00 29.97           N
ATOM   2584  CA  PRO A 344     -21.691 -51.831  16.365  1.00 30.94           C
ATOM   2585  C   PRO A 344     -21.275 -53.283  16.550  1.00 33.09           C
ATOM   2586  O   PRO A 344     -20.244 -53.714  16.023  1.00 29.48           O
ATOM   2587  CB  PRO A 344     -22.139 -51.590  14.915  1.00 30.57           C
ATOM   2588  CG  PRO A 344     -20.971 -50.917  14.243  1.00 35.11           C
ATOM   2589  CD  PRO A 344     -20.330 -50.091  15.328  1.00 30.43           C
ATOM   2590  N   GLY A 345     -22.064 -54.020  17.323  1.00 32.04           N
ATOM   2591  CA  GLY A 345     -21.825 -55.433  17.520  1.00 33.17           C
ATOM   2592  C   GLY A 345     -20.965 -55.780  18.721  1.00 34.90           C
ATOM   2593  O   GLY A 345     -20.758 -56.959  19.007  1.00 34.40           O
ATOM   2594  N   PHE A 346     -20.468 -54.777  19.439  1.00 32.75           N
ATOM   2595  CA  PHE A 346     -19.559 -55.072  20.554  1.00 31.69           C
ATOM   2596  C   PHE A 346     -20.222 -55.103  21.925  1.00 30.22           C
ATOM   2597  O   PHE A 346     -21.126 -54.323  22.214  1.00 37.20           O
ATOM   2598  CB  PHE A 346     -18.372 -54.108  20.561  1.00 25.90           C
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ATOM   2599  CG  PHE A 346     -17.315 -54.457  19.557  1.00 30.40           C
ATOM   2600  CD1 PHE A 346     -16.212 -55.204  19.926  1.00 26.14           C
ATOM   2601  CD2 PHE A 346     -17.430 -54.043  18.238  1.00 27.66           C
ATOM   2602  CE1 PHE A 346     -15.246 -55.530  19.002  1.00 26.44           C
ATOM   2603  CE2 PHE A 346     -16.466 -54.363  17.315  1.00 29.07           C
ATOM   2604  CZ  PHE A 346     -15.377 -55.108  17.694  1.00 25.30           C
ATOM   2605  N   SER A 347     -19.751 -56.007  22.774  1.00 36.78           N
ATOM   2606  CA  SER A 347     -20.181 -56.034  24.167  1.00 32.82           C
ATOM   2607  C   SER A 347     -19.114 -56.690  25.025  1.00 30.94           C
ATOM   2608  O   SER A 347     -18.376 -57.556  24.564  1.00 30.27           O
ATOM   2609  CB  SER A 347     -21.512 -56.782  24.320  1.00 37.63           C
ATOM   2610  OG  SER A 347     -21.906 -56.870  25.684  1.00 44.65           O
ATOM   2611  N   LYS A 348     -19.029 -56.284  26.283  1.00 30.04           N
ATOM   2612  CA  LYS A 348     -18.106 -56.942  27.185  1.00 31.61           C
ATOM   2613  C   LYS A 348     -18.701 -58.289  27.569  1.00 30.55           C
ATOM   2614  O   LYS A 348     -18.005 -59.162  28.086  1.00 32.59           O
ATOM   2615  CB  LYS A 348     -17.876 -56.093  28.440  1.00 36.30           C
ATOM   2616  CG  LYS A 348     -18.929 -56.293  29.533  1.00 26.56           C
ATOM   2617  CD  LYS A 348     -18.602 -55.505  30.795  1.00 32.36           C
ATOM   2618  CE  LYS A 348     -19.544 -55.881  31.936  1.00 28.29           C
ATOM   2619  NZ  LYS A 348     -19.302 -57.290  32.403  1.00 24.87           N
ATOM   2620  N   ASP A 349     -20.000 -58.443  27.317  1.00 32.19           N
ATOM   2621  CA  ASP A 349     -20.740 -59.623  27.772  1.00 39.76           C
ATOM   2622  C   ASP A 349     -20.886 -60.733  26.726  1.00 42.12           C
ATOM   2623  O   ASP A 349     -21.442 -61.785  27.026  1.00 42.87           O
ATOM   2624  CB  ASP A 349     -22.116 -59.229  28.318  1.00 32.87           C
ATOM   2625  CG  ASP A 349     -22.028 -58.456  29.625  1.00 34.27           C
ATOM   2626  OD1 ASP A 349     -21.254 -58.877  30.518  1.00 31.14           O
ATOM   2627  OD2 ASP A 349     -22.733 -57.427  29.751  1.00 30.90           O
ATOM   2628  N   ASN A 350     -20.410 -60.501  25.504  1.00 36.31           N
ATOM   2629  CA  ASN A 350     -20.195 -61.614  24.575  1.00 40.40           C
ATOM   2630  C   ASN A 350     -18.822 -61.593  23.912  1.00 39.83           C
ATOM   2631  O   ASN A 350     -17.955 -60.783  24.273  1.00 34.61           O
ATOM   2632  CB  ASN A 350     -21.328 -61.766  23.546  1.00 32.02           C
ATOM   2633  CG  ASN A 350     -21.565 -60.517  22.736  1.00 36.99           C
ATOM   2634  OD1 ASN A 350     -20.627 -59.890  22.245  1.00 41.10           O
ATOM   2635  ND2 ASN A 350     -22.837 -60.144  22.598  1.00 32.34           N
ATOM   2636  N   GLU A 351     -18.623 -62.499  22.959  1.00 31.05           N
ATOM   2637  CA  GLU A 351     -17.339 -62.624  22.282  1.00 34.11           C
ATOM   2638  C   GLU A 351     -17.119 -61.509  21.261  1.00 27.96           C
ATOM   2639  O   GLU A 351     -16.048 -61.406  20.675  1.00 28.93           O
ATOM   2640  CB  GLU A 351     -17.203 -63.998  21.608  1.00 37.14           C
ATOM   2641  CG  GLU A 351     -16.947 -65.147  22.565  1.00 37.42           C
ATOM   2642  CD  GLU A 351     -15.819 -64.838  23.542  1.00 54.91           C
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ATOM   2643  OE1 GLU A 351     -14.647 -65.142  23.223  1.00 53.57           O
ATOM   2644  OE2 GLU A 351     -16.102 -64.286  24.634  1.00 58.71           O
ATOM   2645  N   SER A 352     -18.137 -60.682  21.062  1.00 26.02           N
ATOM   2646  CA  SER A 352     -18.083 -59.606  20.080  1.00 36.19           C
ATOM   2647  C   SER A 352     -17.534 -60.081  18.728  1.00 36.49           C
ATOM   2648  O   SER A 352     -16.680 -59.430  18.127  1.00 32.39           O
ATOM   2649  CB  SER A 352     -17.258 -58.435  20.619  1.00 33.77           C
ATOM   2650  OG  SER A 352     -17.900 -57.848  21.737  1.00 32.52           O
ATOM   2651  N   LEU A 353     -18.016 -61.229  18.267  1.00 35.45           N
ATOM   2652  CA  LEU A 353     -17.618 -61.758  16.969  1.00 33.17           C
ATOM   2653  C   LEU A 353     -18.418 -61.063  15.885  1.00 32.82           C
ATOM   2654  O   LEU A 353     -19.489 -61.528  15.516  1.00 41.45           O
ATOM   2655  CB  LEU A 353     -17.880 -63.256  16.925  1.00 29.84           C
ATOM   2656  CG  LEU A 353     -17.030 -64.044  17.915  1.00 31.06           C
ATOM   2657  CD1 LEU A 353     -17.513 -65.483  18.006  1.00 27.72           C
ATOM   2658  CD2 LEU A 353     -15.571 -63.985  17.499  1.00 29.65           C
ATOM   2659  N   ILE A 354     -17.908 -59.942  15.384  1.00 32.32           N
ATOM   2660  CA  ILE A 354     -18.671 -59.105  14.453  1.00 33.21           C
ATOM   2661  C   ILE A 354     -18.651 -59.584  12.995  1.00 40.34           C
ATOM   2662  O   ILE A 354     -17.822 -60.407  12.592  1.00 33.08           O
ATOM   2663  CB  ILE A 354     -18.182 -57.649  14.475  1.00 32.94           C
ATOM   2664  CG1 ILE A 354     -16.689 -57.588  14.117  1.00 31.25           C
ATOM   2665  CG2 ILE A 354     -18.448 -57.022  15.833  1.00 35.62           C
ATOM   2666  CD1 ILE A 354     -16.155 -56.188  13.984  1.00 25.38           C
ATOM   2667  N   SER A 355     -19.581 -59.041  12.217  1.00 33.65           N
ATOM   2668  CA  SER A 355     -19.701 -59.337  10.800  1.00 31.88           C
ATOM   2669  C   SER A 355     -18.866 -58.337  10.015  1.00 35.78           C
ATOM   2670  O   SER A 355     -18.407 -57.322  10.565  1.00 30.30           O
ATOM   2671  CB  SER A 355     -21.164 -59.210  10.365  1.00 24.45           C
ATOM   2672  OG  SER A 355     -21.570 -57.847  10.390  1.00 27.73           O
ATOM   2673  N   ARG A 356     -18.691 -58.610   8.724  1.00 30.95           N
ATOM   2674  CA  ARG A 356     -17.917 -57.729   7.864  1.00 26.47           C
ATOM   2675  C   ARG A 356     -18.580 -56.363   7.787  1.00 26.84           C
ATOM   2676  O   ARG A 356     -17.909 -55.330   7.876  1.00 32.00           O
ATOM   2677  CB  ARG A 356     -17.739 -58.340   6.473  1.00 34.45           C
ATOM   2678  CG  ARG A 356     -17.099 -57.404   5.445  1.00 35.75           C
ATOM   2679  CD  ARG A 356     -15.615 -57.652   5.345  1.00 33.66           C
ATOM   2680  NE  ARG A 356     -14.957 -56.715   4.445  1.00 33.44           N
ATOM   2681  CZ  ARG A 356     -13.680 -56.362   4.554  1.00 34.14           C
ATOM   2682  NH1 ARG A 356     -12.934 -56.875   5.530  1.00 30.29           N
ATOM   2683  NH2 ARG A 356     -13.153 -55.488   3.701  1.00 24.27           N
ATOM   2684  N   ALA A 357     -19.902 -56.353   7.656  1.00 28.18           N
ATOM   2685  CA  ALA A 357     -20.644 -55.094   7.617  1.00 30.52           C
ATOM   2686  C   ALA A 357     -20.457 -54.276   8.903  1.00 33.44           C
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ATOM   2687  O   ALA A 357     -20.321 -53.054   8.853  1.00 35.10           O
ATOM   2688  CB  ALA A 357     -22.119 -55.352   7.350  1.00 23.37           C
ATOM   2689  N   GLU A 358     -20.445 -54.946  10.053  1.00 32.97           N
ATOM   2690  CA  GLU A 358     -20.228 -54.252  11.320  1.00 33.01           C
ATOM   2691  C   GLU A 358     -18.795 -53.725  11.393  1.00 31.64           C
ATOM   2692  O   GLU A 358     -18.557 -52.607  11.845  1.00 28.43           O
ATOM   2693  CB  GLU A 358     -20.523 -55.170  12.507  1.00 30.45           C
ATOM   2694  CG  GLU A 358     -21.997 -55.464  12.697  1.00 30.65           C
ATOM   2695  CD  GLU A 358     -22.265 -56.532  13.752  1.00 34.65           C
ATOM   2696  OE1 GLU A 358     -21.491 -57.510  13.854  1.00 35.45           O
ATOM   2697  OE2 GLU A 358     -23.263 -56.388  14.484  1.00 42.45           O
ATOM   2698  N   PHE A 359     -17.848 -54.531  10.929  1.00 28.58           N
ATOM   2699  CA  PHE A 359     -16.465 -54.087  10.844  1.00 33.25           C
ATOM   2700  C   PHE A 359     -16.362 -52.813  10.003  1.00 31.16           C
ATOM   2701  O   PHE A 359     -15.742 -51.838  10.424  1.00 35.53           O
ATOM   2702  CB  PHE A 359     -15.566 -55.205  10.295  1.00 32.11           C
ATOM   2703  CG  PHE A 359     -14.183 -54.746   9.915  1.00 34.27           C
ATOM   2704  CD1 PHE A 359     -13.169 -54.690  10.861  1.00 32.84           C
ATOM   2705  CD2 PHE A 359     -13.894 -54.384   8.605  1.00 31.73           C
ATOM   2706  CE1 PHE A 359     -11.884 -54.278  10.512  1.00 27.55           C
ATOM   2707  CE2 PHE A 359     -12.612 -53.966   8.245  1.00 31.88           C
ATOM   2708  CZ  PHE A 359     -11.607 -53.911   9.202  1.00 34.61           C
ATOM   2709  N   LEU A 360     -16.991 -52.812   8.832  1.00 30.77           N
ATOM   2710  CA  LEU A 360     -16.969 -51.641   7.956  1.00 27.06           C
ATOM   2711  C   LEU A 360     -17.576 -50.396   8.612  1.00 28.39           C
ATOM   2712  O   LEU A 360     -17.021 -49.303   8.519  1.00 29.80           O
ATOM   2713  CB  LEU A 360     -17.668 -51.944   6.626  1.00 29.49           C
ATOM   2714  CG  LEU A 360     -16.979 -52.942   5.686  1.00 36.32           C
ATOM   2715  CD1 LEU A 360     -17.721 -53.020   4.349  1.00 25.45           C
ATOM   2716  CD2 LEU A 360     -15.504 -52.589   5.469  1.00 25.35           C
ATOM   2717  N   ALA A 361     -18.721 -50.555   9.265  1.00 28.87           N
ATOM   2718  CA  ALA A 361     -19.323 -49.448   9.997  1.00 29.54           C
ATOM   2719  C   ALA A 361     -18.423 -49.047  11.173  1.00 34.49           C
ATOM   2720  O   ALA A 361     -18.246 -47.859  11.458  1.00 32.83           O
ATOM   2721  CB  ALA A 361     -20.707 -49.837  10.500  1.00 31.49           C
ATOM   2722  N   GLY A 362     -17.856 -50.044  11.848  1.00 23.72           N
ATOM   2723  CA  GLY A 362     -16.938 -49.798  12.948  1.00 28.52           C
ATOM   2724  C   GLY A 362     -15.755 -48.912  12.575  1.00 31.24           C
ATOM   2725  O   GLY A 362     -15.322 -48.079  13.376  1.00 25.92           O
ATOM   2726  N   VAL A 363     -15.241 -49.085  11.357  1.00 31.03           N
ATOM   2727  CA  VAL A 363     -14.105 -48.303  10.870  1.00 25.40           C
ATOM   2728  C   VAL A 363     -14.417 -46.805  10.811  1.00 25.29           C
ATOM   2729  O   VAL A 363     -13.567 -45.986  11.148  1.00 29.50           O
ATOM   2730  CB  VAL A 363     -13.608 -48.813   9.488  1.00 26.46           C
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ATOM   2731  CG1 VAL A 363     -12.699 -47.786   8.796  1.00 22.87           C
ATOM   2732  CG2 VAL A 363     -12.897 -50.140   9.637  1.00 21.44           C
ATOM   2733  N   ARG A 364     -15.626 -46.433  10.394  1.00 28.11           N
ATOM   2734  CA  ARG A 364     -15.975 -45.011  10.354  1.00 24.72           C
ATOM   2735  C   ARG A 364     -16.128 -44.451  11.768  1.00 29.34           C
ATOM   2736  O   ARG A 364     -15.956 -43.254  11.984  1.00 29.49           O
ATOM   2737  CB  ARG A 364     -17.262 -44.744   9.570  1.00 26.64           C
ATOM   2738  CG  ARG A 364     -17.302 -45.278   8.136  1.00 34.70           C
ATOM   2739  CD  ARG A 364     -16.034 -45.001   7.338  1.00 26.86           C
ATOM   2740  NE  ARG A 364     -15.756 -43.586   7.089  1.00 32.05           N
ATOM   2741  CZ  ARG A 364     -16.067 -42.946   5.964  1.00 34.02           C
ATOM   2742  NH1 ARG A 364     -16.701 -43.582   4.991  1.00 29.08           N
ATOM   2743  NH2 ARG A 364     -15.754 -41.665   5.814  1.00 28.57           N
ATOM   2744  N   VAL A 365     -16.457 -45.315  12.726  1.00 26.09           N
ATOM   2745  CA  VAL A 365     -16.607 -44.879  14.111  1.00 32.56           C
ATOM   2746  C   VAL A 365     -15.237 -44.736  14.774  1.00 28.28           C
ATOM   2747  O   VAL A 365     -14.977 -43.773  15.496  1.00 29.22           O
ATOM   2748  CB  VAL A 365     -17.532 -45.819  14.918  1.00 26.99           C
ATOM   2749  CG1 VAL A 365     -17.577 -45.410  16.386  1.00 25.61           C
ATOM   2750  CG2 VAL A 365     -18.937 -45.796  14.332  1.00 27.11           C
ATOM   2751  N   GLY A 366     -14.355 -45.687  14.498  1.00 26.78           N
ATOM   2752  CA  GLY A 366     -13.009 -45.645  15.027  1.00 25.34           C
ATOM   2753  C   GLY A 366     -12.141 -44.594  14.362  1.00 27.53           C
ATOM   2754  O   GLY A 366     -11.157 -44.147  14.939  1.00 29.70           O
ATOM   2755  N   VAL A 367     -12.485 -44.208  13.134  1.00 33.98           N
ATOM   2756  CA  VAL A 367     -11.718 -43.184  12.422  1.00 27.43           C
ATOM   2757  C   VAL A 367     -12.651 -42.101  11.907  1.00 27.81           C
ATOM   2758  O   VAL A 367     -12.831 -41.949  10.690  1.00 29.82           O
ATOM   2759  CB  VAL A 367     -10.900 -43.780  11.246  1.00 29.63           C
ATOM   2760  CG1 VAL A 367      -9.855 -42.783  10.756  1.00 26.38           C
ATOM   2761  CG2 VAL A 367     -10.225 -45.074  11.666  1.00 25.98           C
ATOM   2762  N   PRO A 368     -13.235 -41.323  12.835  1.00 30.81           N
ATOM   2763  CA  PRO A 368     -14.275 -40.358  12.468  1.00 26.43           C
ATOM   2764  C   PRO A 368     -13.747 -39.202  11.613  1.00 29.52           C
ATOM   2765  O   PRO A 368     -12.557 -38.898  11.630  1.00 33.13           O
ATOM   2766  CB  PRO A 368     -14.767 -39.848  13.832  1.00 28.83           C
ATOM   2767  CG  PRO A 368     -13.597 -40.019  14.744  1.00 26.00           C
ATOM   2768  CD  PRO A 368     -12.931 -41.285  14.284  1.00 26.00           C
ATOM   2769  N   GLN A 369     -14.645 -38.584  10.857  1.00 29.14           N
ATOM   2770  CA  GLN A 369     -14.317 -37.416  10.035  1.00 37.95           C
ATOM   2771  C   GLN A 369     -13.113 -37.516   9.082  1.00 37.72           C
ATOM   2772  O   GLN A 369     -12.355 -36.555   8.928  1.00 35.60           O
ATOM   2773  CB  GLN A 369     -14.185 -36.177  10.917  1.00 41.01           C
ATOM   2774  CG  GLN A 369     -15.512 -35.680  11.475  1.00 39.17           C
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ATOM   2775  CD  GLN A 369     -15.305 -34.529  12.412  1.00 43.50           C
ATOM   2776  OE1 GLN A 369     -14.681 -34.686  13.463  1.00 52.78           O
ATOM   2777  NE2 GLN A 369     -15.797 -33.352  12.035  1.00 35.79           N
ATOM   2778  N   VAL A 370     -12.941 -38.661   8.433  1.00 34.38           N
ATOM   2779  CA  VAL A 370     -12.026 -38.721   7.304  1.00 28.71           C
ATOM   2780  C   VAL A 370     -12.837 -39.050   6.068  1.00 32.20           C
ATOM   2781  O   VAL A 370     -13.960 -39.547   6.165  1.00 31.56           O
ATOM   2782  CB  VAL A 370     -10.885 -39.763   7.480  1.00 30.10           C
ATOM   2783  CG1 VAL A 370     -10.027 -39.438   8.703  1.00 22.84           C
ATOM   2784  CG2 VAL A 370     -11.439 -41.184   7.543  1.00 22.56           C
ATOM   2785  N   SER A 371     -12.260 -38.777   4.906  1.00 28.81           N
ATOM   2786  CA  SER A 371     -12.924 -39.048   3.640  1.00 32.80           C
ATOM   2787  C   SER A 371     -13.165 -40.535   3.448  1.00 35.63           C
ATOM   2788  O   SER A 371     -12.501 -41.377   4.076  1.00 32.38           O
ATOM   2789  CB  SER A 371     -12.065 -38.536   2.492  1.00 31.59           C
ATOM   2790  OG  SER A 371     -10.817 -39.210   2.483  1.00 39.99           O
ATOM   2791  N   ASP A 372     -14.121 -40.849   2.577  1.00 34.78           N
ATOM   2792  CA  ASP A 372     -14.367 -42.224   2.157  1.00 37.81           C
ATOM   2793  C   ASP A 372     -13.090 -42.885   1.635  1.00 35.69           C
ATOM   2794  O   ASP A 372     -12.801 -44.040   1.963  1.00 32.05           O
ATOM   2795  CB  ASP A 372     -15.458 -42.271   1.081  1.00 38.64           C
ATOM   2796  CG  ASP A 372     -16.815 -41.838   1.603  1.00 44.44           C
ATOM   2797  OD1 ASP A 372     -16.997 -41.790   2.844  1.00 44.99           O
ATOM   2798  OD2 ASP A 372     -17.701 -41.548   0.769  1.00 47.59           O
ATOM   2799  N   LEU A 373     -12.327 -42.155   0.824  1.00 33.87           N
ATOM   2800  CA  LEU A 373     -11.060 -42.688   0.338  1.00 36.02           C
ATOM   2801  C   LEU A 373     -10.138 -43.109   1.496  1.00 33.76           C
ATOM   2802  O   LEU A 373      -9.591 -44.213   1.489  1.00 31.73           O
ATOM   2803  CB  LEU A 373     -10.348 -41.687  -0.569  1.00 28.18           C
ATOM   2804  CG  LEU A 373      -9.114 -42.294  -1.239  1.00 32.22           C
ATOM   2805  CD1 LEU A 373      -9.514 -43.482  -2.118  1.00 31.60           C
ATOM   2806  CD2 LEU A 373      -8.356 -41.252  -2.041  1.00 34.94           C
ATOM   2807  N   ALA A 374      -9.983 -42.237   2.489  1.00 32.17           N
ATOM   2808  CA  ALA A 374      -9.138 -42.539   3.646  1.00 26.49           C
ATOM   2809  C   ALA A 374      -9.651 -43.768   4.382  1.00 27.42           C
ATOM   2810  O   ALA A 374      -8.868 -44.643   4.773  1.00 25.71           O
ATOM   2811  CB  ALA A 374      -9.063 -41.349   4.579  1.00 24.26           C
ATOM   2812  N   ALA A 375     -10.967 -43.842   4.555  1.00 25.32           N
ATOM   2813  CA  ALA A 375     -11.583 -45.009   5.185  1.00 25.32           C
ATOM   2814  C   ALA A 375     -11.312 -46.288   4.386  1.00 32.41           C
ATOM   2815  O   ALA A 375     -11.023 -47.341   4.968  1.00 32.15           O
ATOM   2816  CB  ALA A 375     -13.074 -44.796   5.355  1.00 23.99           C
ATOM   2817  N   GLU A 376     -11.411 -46.189   3.058  1.00 31.81           N
ATOM   2818  CA  GLU A 376     -11.112 -47.309   2.166  1.00 28.20           C
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ATOM   2819  C   GLU A 376      -9.687 -47.798   2.371  1.00 25.95           C
ATOM   2820  O   GLU A 376      -9.428 -49.001   2.432  1.00 27.84           O
ATOM   2821  CB  GLU A 376     -11.289 -46.896   0.699  1.00 34.23           C
ATOM   2822  CG  GLU A 376     -12.732 -46.803   0.227  1.00 41.94           C
ATOM   2823  CD  GLU A 376     -13.493 -48.088   0.461  1.00 49.51           C
ATOM   2824  OE1 GLU A 376     -12.938 -49.174   0.186  1.00 52.84           O
ATOM   2825  OE2 GLU A 376     -14.646 -48.013   0.933  1.00 66.88           O
ATOM   2826  N   ALA A 377      -8.757 -46.855   2.468  1.00 24.20           N
ATOM   2827  CA  ALA A 377      -7.366 -47.201   2.720  1.00 25.54           C
ATOM   2828  C   ALA A 377      -7.208 -47.950   4.048  1.00 31.40           C
ATOM   2829  O   ALA A 377      -6.424 -48.900   4.132  1.00 32.08           O
ATOM   2830  CB  ALA A 377      -6.495 -45.960   2.693  1.00 26.18           C
ATOM   2831  N   VAL A 378      -7.950 -47.536   5.079  1.00 22.64           N
ATOM   2832  CA  VAL A 378      -7.901 -48.250   6.349  1.00 27.13           C
ATOM   2833  C   VAL A 378      -8.371 -49.696   6.172  1.00 26.04           C
ATOM   2834  O   VAL A 378      -7.703 -50.640   6.603  1.00 27.58           O
ATOM   2835  CB  VAL A 378      -8.736 -47.558   7.447  1.00 29.30           C
ATOM   2836  CG1 VAL A 378      -8.714 -48.396   8.725  1.00 23.62           C
ATOM   2837  CG2 VAL A 378      -8.217 -46.149   7.711  1.00 22.47           C
ATOM   2838  N   VAL A 379      -9.512 -49.859   5.515  1.00 26.25           N
ATOM   2839  CA  VAL A 379     -10.075 -51.180   5.259  1.00 27.00           C
ATOM   2840  C   VAL A 379      -9.117 -52.069   4.468  1.00 32.46           C
ATOM   2841  O   VAL A 379      -9.012 -53.274   4.730  1.00 31.44           O
ATOM   2842  CB  VAL A 379     -11.410 -51.064   4.507  1.00 31.31           C
ATOM   2843  CG1 VAL A 379     -11.891 -52.427   4.065  1.00 32.95           C
ATOM   2844  CG2 VAL A 379     -12.449 -50.397   5.390  1.00 27.37           C
ATOM   2845  N   LEU A 380      -8.410 -51.470   3.512  1.00 25.49           N
ATOM   2846  CA  LEU A 380      -7.421 -52.202   2.726  1.00 29.31           C
ATOM   2847  C   LEU A 380      -6.313 -52.773   3.600  1.00 29.31           C
ATOM   2848  O   LEU A 380      -6.029 -53.975   3.555  1.00 26.14           O
ATOM   2849  CB  LEU A 380      -6.796 -51.311   1.636  1.00 28.14           C
ATOM   2850  CG  LEU A 380      -5.532 -51.888   0.982  1.00 28.32           C
ATOM   2851  CD1 LEU A 380      -5.861 -53.039   0.016  1.00 25.95           C
ATOM   2852  CD2 LEU A 380      -4.702 -50.800   0.301  1.00 26.95           C
ATOM   2853  N   HIS A 381      -5.689 -51.901   4.386  0.54 27.06           N
ATOM   2855  CA  HIS A 381      -4.569 -52.295   5.229  0.54 29.28           C
ATOM   2857  C   HIS A 381      -4.988 -53.341   6.258  0.54 30.41           C
ATOM   2859  O   HIS A 381      -4.246 -54.287   6.539  0.54 30.39           O
ATOM   2861  CB  HIS A 381      -3.989 -51.068   5.940  0.54 29.71           C
ATOM   2863  CG  HIS A 381      -2.559 -51.225   6.354  0.54 29.59           C
ATOM   2865  ND1 HIS A 381      -1.511 -51.116   5.464  0.54 29.53           N
ATOM   2867  CD2 HIS A 381      -2.001 -51.478   7.563  0.54 30.53           C
ATOM   2869  CE1 HIS A 381      -0.370 -51.297   6.106  0.54 32.85           C
ATOM   2871  NE2 HIS A 381      -0.639 -51.523   7.380  0.54 32.75           N
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ATOM   2873  N   TYR A 382      -6.190 -53.179   6.802  1.00 27.90           N
ATOM   2874  CA  TYR A 382      -6.626 -53.988   7.940  1.00 28.68           C
ATOM   2875  C   TYR A 382      -7.486 -55.204   7.607  1.00 29.15           C
ATOM   2876  O   TYR A 382      -7.926 -55.925   8.505  1.00 27.00           O
ATOM   2877  CB  TYR A 382      -7.295 -53.109   9.003  1.00 24.67           C
ATOM   2878  CG  TYR A 382      -6.291 -52.326   9.802  1.00 26.18           C
ATOM   2879  CD1 TYR A 382      -5.755 -52.841  10.980  1.00 20.42           C
ATOM   2880  CD2 TYR A 382      -5.856 -51.079   9.369  1.00 25.68           C
ATOM   2881  CE1 TYR A 382      -4.820 -52.127  11.707  1.00 21.55           C
ATOM   2882  CE2 TYR A 382      -4.922 -50.358  10.086  1.00 24.46           C
ATOM   2883  CZ  TYR A 382      -4.410 -50.884  11.260  1.00 26.20           C
ATOM   2884  OH  TYR A 382      -3.478 -50.161  11.973  1.00 21.98           O
ATOM   2885  N   THR A 383      -7.719 -55.443   6.323  1.00 30.28           N
ATOM   2886  CA  THR A 383      -8.404 -56.661   5.920  1.00 24.73           C
ATOM   2887  C   THR A 383      -7.377 -57.734   5.594  1.00 26.99           C
ATOM   2888  O   THR A 383      -6.368 -57.454   4.952  1.00 27.46           O
ATOM   2889  CB  THR A 383      -9.326 -56.413   4.712  1.00 27.08           C
ATOM   2890  OG1 THR A 383     -10.399 -55.543   5.100  1.00 26.64           O
ATOM   2891  CG2 THR A 383      -9.916 -57.717   4.189  1.00 25.21           C
ATOM   2892  N   ASP A 384      -7.618 -58.953   6.068  1.00 26.97           N
ATOM   2893  CA  ASP A 384      -6.903 -60.121   5.574  1.00 24.93           C
ATOM   2894  C   ASP A 384      -7.712 -60.638   4.387  1.00 31.27           C
ATOM   2895  O   ASP A 384      -8.774 -61.231   4.574  1.00 27.91           O
ATOM   2896  CB  ASP A 384      -6.817 -61.185   6.665  1.00 28.57           C
ATOM   2897  CG  ASP A 384      -6.093 -62.454   6.212  1.00 35.35           C
ATOM   2898  OD1 ASP A 384      -6.041 -62.742   4.998  1.00 31.44           O
ATOM   2899  OD2 ASP A 384      -5.580 -63.179   7.089  1.00 34.54           O
ATOM   2900  N   TRP A 385      -7.216 -60.424   3.169  1.00 26.91           N
ATOM   2901  CA  TRP A 385      -8.004 -60.757   1.974  1.00 30.08           C
ATOM   2902  C   TRP A 385      -8.095 -62.255   1.650  1.00 27.91           C
ATOM   2903  O   TRP A 385      -8.741 -62.652   0.677  1.00 34.23           O
ATOM   2904  CB  TRP A 385      -7.572 -59.918   0.762  1.00 25.55           C
ATOM   2905  CG  TRP A 385      -7.767 -58.457   1.015  1.00 24.41           C
ATOM   2906  CD1 TRP A 385      -6.837 -57.573   1.491  1.00 22.44           C
ATOM   2907  CD2 TRP A 385      -8.980 -57.711   0.848  1.00 22.18           C
ATOM   2908  NE1 TRP A 385      -7.395 -56.322   1.614  1.00 23.17           N
ATOM   2909  CE2 TRP A 385      -8.707 -56.380   1.223  1.00 20.76           C
ATOM   2910  CE3 TRP A 385     -10.266 -58.037   0.403  1.00 22.99           C
ATOM   2911  CZ2 TRP A 385      -9.675 -55.376   1.170  1.00 24.80           C
ATOM   2912  CZ3 TRP A 385     -11.222 -57.039   0.346  1.00 22.72           C
ATOM   2913  CH2 TRP A 385     -10.923 -55.724   0.731  1.00 24.41           C
ATOM   2914  N   LEU A 386      -7.468 -63.082   2.478  1.00 29.02           N
ATOM   2915  CA  LEU A 386      -7.731 -64.522   2.448  1.00 32.41           C
ATOM   2916  C   LEU A 386      -8.857 -64.926   3.424  1.00 37.64           C
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ATOM   2917  O   LEU A 386      -9.390 -66.036   3.348  1.00 33.76           O
ATOM   2918  CB  LEU A 386      -6.452 -65.304   2.748  1.00 30.71           C
ATOM   2919  CG  LEU A 386      -5.417 -65.281   1.617  1.00 38.59           C
ATOM   2920  CD1 LEU A 386      -4.138 -65.965   2.030  1.00 36.26           C
ATOM   2921  CD2 LEU A 386      -5.997 -65.946   0.402  1.00 31.53           C
ATOM   2922  N   HIS A 387      -9.203 -64.021   4.340  1.00 35.19           N
ATOM   2923  CA  HIS A 387     -10.253 -64.263   5.334  1.00 32.55           C
ATOM   2924  C   HIS A 387     -11.030 -62.979   5.591  1.00 30.04           C
ATOM   2925  O   HIS A 387     -11.087 -62.514   6.725  1.00 39.05           O
ATOM   2926  CB  HIS A 387      -9.640 -64.735   6.661  1.00 23.66           C
ATOM   2927  CG  HIS A 387      -8.718 -65.904   6.524  1.00 29.35           C
ATOM   2928  ND1 HIS A 387      -9.170 -67.206   6.452  1.00 32.01           N
ATOM   2929  CD2 HIS A 387      -7.368 -65.969   6.434  1.00 33.28           C
ATOM   2930  CE1 HIS A 387      -8.138 -68.022   6.324  1.00 30.25           C
ATOM   2931  NE2 HIS A 387      -7.033 -67.296   6.306  1.00 31.34           N
ATOM   2932  N   PRO A 388     -11.629 -62.395   4.544  1.00 31.59           N
ATOM   2933  CA  PRO A 388     -12.196 -61.049   4.697  1.00 32.84           C
ATOM   2934  C   PRO A 388     -13.389 -60.983   5.645  1.00 36.58           C
ATOM   2935  O   PRO A 388     -13.710 -59.894   6.126  1.00 36.04           O
ATOM   2936  CB  PRO A 388     -12.651 -60.695   3.272  1.00 29.02           C
ATOM   2937  CG  PRO A 388     -12.934 -62.014   2.631  1.00 25.80           C
ATOM   2938  CD  PRO A 388     -11.900 -62.960   3.206  1.00 33.70           C
ATOM   2939  N   GLU A 389     -14.020 -62.121   5.922  1.00 32.03           N
ATOM   2940  CA  GLU A 389     -15.290 -62.117   6.646  1.00 36.97           C
ATOM   2941  C   GLU A 389     -15.254 -62.881   7.967  1.00 33.58           C
ATOM   2942  O   GLU A 389     -16.291 -63.072   8.600  1.00 35.49           O
ATOM   2943  CB  GLU A 389     -16.406 -62.679   5.755  1.00 35.32           C
ATOM   2944  CG  GLU A 389     -16.495 -62.017   4.387  1.00 38.11           C
ATOM   2945  CD  GLU A 389     -17.889 -61.516   4.052  1.00 53.90           C
ATOM   2946  OE1 GLU A 389     -18.863 -61.988   4.681  1.00 52.88           O
ATOM   2947  OE2 GLU A 389     -18.010 -60.640   3.161  1.00 59.79           O
ATOM   2948  N   ASP A 390     -14.069 -63.321   8.377  1.00 27.50           N
ATOM   2949  CA  ASP A 390     -13.924 -64.078   9.611  1.00 31.12           C
ATOM   2950  C   ASP A 390     -14.103 -63.182  10.845  1.00 34.26           C
ATOM   2951  O   ASP A 390     -13.291 -62.291  11.098  1.00 32.21           O
ATOM   2952  CB  ASP A 390     -12.568 -64.783   9.646  1.00 30.62           C
ATOM   2953  CG  ASP A 390     -12.340 -65.525  10.947  1.00 40.77           C
ATOM   2954  OD1 ASP A 390     -13.344 -65.885  11.595  1.00 47.65           O
ATOM   2955  OD2 ASP A 390     -11.167 -65.750  11.328  1.00 44.78           O
ATOM   2956  N   PRO A 391     -15.174 -63.424  11.616  1.00 39.33           N
ATOM   2957  CA  PRO A 391     -15.560 -62.585  12.763  1.00 34.43           C
ATOM   2958  C   PRO A 391     -14.439 -62.303  13.761  1.00 30.94           C
ATOM   2959  O   PRO A 391     -14.198 -61.133  14.075  1.00 27.53           O
ATOM   2960  CB  PRO A 391     -16.686 -63.392  13.413  1.00 36.25           C
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ATOM   2961  CG  PRO A 391     -17.340 -64.074  12.222  1.00 34.30           C
ATOM   2962  CD  PRO A 391     -16.165 -64.486  11.361  1.00 33.40           C
ATOM   2963  N   ALA A 392     -13.758 -63.339  14.240  1.00 27.80           N
ATOM   2964  CA  ALA A 392     -12.677 -63.133  15.196  1.00 32.06           C
ATOM   2965  C   ALA A 392     -11.577 -62.212  14.647  1.00 34.94           C
ATOM   2966  O   ALA A 392     -11.106 -61.308  15.350  1.00 30.08           O
ATOM   2967  CB  ALA A 392     -12.098 -64.465  15.659  1.00 33.37           C
ATOM   2968  N   ARG A 393     -11.182 -62.431  13.394  1.00 29.19           N
ATOM   2969  CA  ARG A 393     -10.152 -61.602  12.776  1.00 26.17           C
ATOM   2970  C   ARG A 393     -10.628 -60.161  12.610  1.00 28.86           C
ATOM   2971  O   ARG A 393      -9.851 -59.223  12.789  1.00 30.19           O
ATOM   2972  CB  ARG A 393      -9.711 -62.186  11.433  1.00 28.84           C
ATOM   2973  CG  ARG A 393      -8.782 -63.395  11.537  1.00 31.37           C
ATOM   2974  CD  ARG A 393      -8.332 -63.781  10.130  1.00 34.11           C
ATOM   2975  NE  ARG A 393      -7.380 -64.890  10.061  1.00 30.40           N
ATOM   2976  CZ  ARG A 393      -7.740 -66.168   9.957  1.00 36.71           C
ATOM   2977  NH1 ARG A 393      -9.027 -66.495   9.951  1.00 35.78           N
ATOM   2978  NH2 ARG A 393      -6.819 -67.120   9.868  1.00 29.88           N
ATOM   2979  N   LEU A 394     -11.909 -59.993  12.283  1.00 24.13           N
ATOM   2980  CA  LEU A 394     -12.510 -58.668  12.178  1.00 24.22           C
ATOM   2981  C   LEU A 394     -12.495 -57.947  13.522  1.00 29.21           C
ATOM   2982  O   LEU A 394     -12.227 -56.743  13.588  1.00 26.61           O
ATOM   2983  CB  LEU A 394     -13.945 -58.764  11.659  1.00 23.20           C
ATOM   2984  CG  LEU A 394     -14.093 -59.263  10.219  1.00 33.56           C
ATOM   2985  CD1 LEU A 394     -15.546 -59.581   9.895  1.00 28.58           C
ATOM   2986  CD2 LEU A 394     -13.553 -58.230   9.256  1.00 23.66           C
ATOM   2987  N   ARG A 395     -12.791 -58.688  14.588  1.00 29.48           N
ATOM   2988  CA  ARG A 395     -12.766 -58.135  15.937  1.00 29.95           C
ATOM   2989  C   ARG A 395     -11.362 -57.636  16.277  1.00 27.14           C
ATOM   2990  O   ARG A 395     -11.179 -56.463  16.603  1.00 23.89           O
ATOM   2991  CB  ARG A 395     -13.224 -59.180  16.952  1.00 26.84           C
ATOM   2992  CG  ARG A 395     -13.375 -58.651  18.369  1.00 31.70           C
ATOM   2993  CD  ARG A 395     -13.586 -59.801  19.326  1.00 27.33           C
ATOM   2994  NE  ARG A 395     -12.485 -60.755  19.253  1.00 30.33           N
ATOM   2995  CZ  ARG A 395     -12.579 -62.040  19.583  1.00 32.82           C
ATOM   2996  NH1 ARG A 395     -13.734 -62.546  19.994  1.00 31.24           N
ATOM   2997  NH2 ARG A 395     -11.514 -62.825  19.496  1.00 33.27           N
ATOM   2998  N   GLU A 396     -10.377 -58.528  16.174  1.00 27.45           N
ATOM   2999  CA  GLU A 396      -8.971 -58.175  16.366  1.00 28.72           C
ATOM   3000  C   GLU A 396      -8.525 -57.009  15.479  1.00 28.62           C
ATOM   3001  O   GLU A 396      -7.791 -56.126  15.925  1.00 30.19           O
ATOM   3002  CB  GLU A 396      -8.065 -59.389  16.120  1.00 27.94           C
ATOM   3003  CG  GLU A 396      -7.624 -60.154  17.368  1.00 36.37           C
ATOM   3004  CD  GLU A 396      -8.782 -60.783  18.149  1.00 46.91           C
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ATOM   3005  OE1 GLU A 396      -9.597 -60.033  18.738  1.00 49.83           O
ATOM   3006  OE2 GLU A 396      -8.869 -62.034  18.194  1.00 44.31           O
ATOM   3007  N   ALA A 397      -8.974 -56.995  14.230  1.00 29.47           N
ATOM   3008  CA  ALA A 397      -8.507 -55.972  13.300  1.00 27.17           C
ATOM   3009  C   ALA A 397      -9.067 -54.601  13.653  1.00 23.41           C
ATOM   3010  O   ALA A 397      -8.372 -53.597  13.532  1.00 23.74           O
ATOM   3011  CB  ALA A 397      -8.843 -56.346  11.842  1.00 22.82           C
ATOM   3012  N   LEU A 398     -10.323 -54.551  14.084  1.00 21.22           N
ATOM   3013  CA  LEU A 398     -10.900 -53.268  14.443  1.00 20.80           C
ATOM   3014  C   LEU A 398     -10.261 -52.745  15.740  1.00 27.40           C
ATOM   3015  O   LEU A 398     -10.060 -51.539  15.902  1.00 23.80           O
ATOM   3016  CB  LEU A 398     -12.413 -53.351  14.584  1.00 24.83           C
ATOM   3017  CG  LEU A 398     -13.073 -51.977  14.745  1.00 25.96           C
ATOM   3018  CD1 LEU A 398     -12.880 -51.154  13.479  1.00 24.09           C
ATOM   3019  CD2 LEU A 398     -14.540 -52.112  15.090  1.00 29.22           C
ATOM   3020  N   SER A 399      -9.934 -53.661  16.648  1.00 24.53           N
ATOM   3021  CA  SER A 399      -9.189 -53.312  17.846  1.00 27.36           C
ATOM   3022  C   SER A 399      -7.867 -52.660  17.442  1.00 28.12           C
ATOM   3023  O   SER A 399      -7.511 -51.589  17.950  1.00 25.55           O
ATOM   3024  CB  SER A 399      -8.931 -54.560  18.690  1.00 27.84           C
ATOM   3025  OG  SER A 399      -8.081 -54.273  19.791  1.00 30.97           O
ATOM   3026  N   ASP A 400      -7.160 -53.311  16.518  1.00 23.60           N
ATOM   3027  CA  ASP A 400      -5.918 -52.790  15.947  1.00 23.90           C
ATOM   3028  C   ASP A 400      -6.094 -51.414  15.311  1.00 24.80           C
ATOM   3029  O   ASP A 400      -5.243 -50.545  15.467  1.00 23.04           O
ATOM   3030  CB  ASP A 400      -5.375 -53.738  14.877  1.00 27.32           C
ATOM   3031  CG  ASP A 400      -4.716 -54.958  15.461  1.00 31.10           C
ATOM   3032  OD1 ASP A 400      -4.458 -54.963  16.682  1.00 34.65           O
ATOM   3033  OD2 ASP A 400      -4.434 -55.902  14.692  1.00 40.27           O
ATOM   3034  N   VAL A 401      -7.184 -51.217  14.578  1.00 22.86           N
ATOM   3035  CA  VAL A 401      -7.410 -49.920  13.945  1.00 25.06           C
ATOM   3036  C   VAL A 401      -7.458 -48.816  15.002  1.00 24.94           C
ATOM   3037  O   VAL A 401      -6.664 -47.881  14.964  1.00 24.27           O
ATOM   3038  CB  VAL A 401      -8.699 -49.894  13.091  1.00 20.50           C
ATOM   3039  CG1 VAL A 401      -9.069 -48.456  12.722  1.00 17.07           C
ATOM   3040  CG2 VAL A 401      -8.529 -50.746  11.849  1.00 20.91           C
ATOM   3041  N   VAL A 402      -8.380 -48.948  15.952  1.00 24.59           N
ATOM   3042  CA  VAL A 402      -8.568 -47.955  16.998  1.00 25.75           C
ATOM   3043  C   VAL A 402      -7.288 -47.745  17.811  1.00 25.08           C
ATOM   3044  O   VAL A 402      -6.901 -46.611  18.085  1.00 20.68           O
ATOM   3045  CB  VAL A 402      -9.737 -48.349  17.921  1.00 26.04           C
ATOM   3046  CG1 VAL A 402      -9.846 -47.383  19.095  1.00 18.44           C
ATOM   3047  CG2 VAL A 402     -11.040 -48.401  17.115  1.00 23.97           C
ATOM   3048  N   GLY A 403      -6.619 -48.842  18.152  1.00 24.74           N
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ATOM   3049  CA  GLY A 403      -5.397 -48.788  18.937  1.00 26.13           C
ATOM   3050  C   GLY A 403      -4.174 -48.207  18.241  1.00 25.68           C
ATOM   3051  O   GLY A 403      -3.400 -47.459  18.862  1.00 21.02           O
ATOM   3052  N   ASP A 404      -3.992 -48.547  16.962  1.00 20.79           N
ATOM   3053  CA  ASP A 404      -2.836 -48.074  16.205  1.00 20.06           C
ATOM   3054  C   ASP A 404      -2.997 -46.591  15.923  1.00 24.12           C
ATOM   3055  O   ASP A 404      -2.082 -45.782  16.130  1.00 23.52           O
ATOM   3056  CB  ASP A 404      -2.690 -48.832  14.874  1.00 20.13           C
ATOM   3057  CG  ASP A 404      -2.412 -50.321  15.064  1.00 23.47           C
ATOM   3058  OD1 ASP A 404      -2.054 -50.742  16.190  1.00 25.85           O
ATOM   3059  OD2 ASP A 404      -2.566 -51.078  14.081  1.00 25.17           O
ATOM   3060  N   HIS A 405      -4.188 -46.254  15.456  1.00 19.39           N
ATOM   3061  CA  HIS A 405      -4.552 -44.895  15.112  1.00 22.74           C
ATOM   3062  C   HIS A 405      -4.479 -43.947  16.319  1.00 24.69           C
ATOM   3063  O   HIS A 405      -3.904 -42.861  16.239  1.00 26.36           O
ATOM   3064  CB  HIS A 405      -5.961 -44.913  14.510  1.00 19.16           C
ATOM   3065  CG  HIS A 405      -6.535 -43.558  14.258  1.00 26.56           C
ATOM   3066  ND1 HIS A 405      -5.855 -42.580  13.564  1.00 25.09           N
ATOM   3067  CD2 HIS A 405      -7.731 -43.019  14.604  1.00 26.60           C
ATOM   3068  CE1 HIS A 405      -6.611 -41.496  13.486  1.00 25.88           C
ATOM   3069  NE2 HIS A 405      -7.754 -41.737  14.107  1.00 29.98           N
ATOM   3070  N   ASN A 406      -5.052 -44.358  17.439  1.00 21.07           N
ATOM   3071  CA  ASN A 406      -5.116 -43.473  18.597  1.00 25.47           C
ATOM   3072  C   ASN A 406      -3.896 -43.493  19.517  1.00 21.80           C
ATOM   3073  O   ASN A 406      -3.554 -42.468  20.100  1.00 22.88           O
ATOM   3074  CB  ASN A 406      -6.394 -43.714  19.410  1.00 18.56           C
ATOM   3075  CG  ASN A 406      -7.644 -43.260  18.674  1.00 21.51           C
ATOM   3076  OD1 ASN A 406      -7.854 -42.065  18.457  1.00 18.76           O
ATOM   3077  ND2 ASN A 406      -8.482 -44.215  18.291  1.00 19.22           N
ATOM   3078  N   VAL A 407      -3.239 -44.640  19.653  1.00 20.47           N
ATOM   3079  CA  VAL A 407      -2.162 -44.737  20.637  1.00 19.47           C
ATOM   3080  C   VAL A 407      -0.805 -45.177  20.102  1.00 22.42           C
ATOM   3081  O   VAL A 407       0.176 -44.434  20.203  1.00 21.81           O
ATOM   3082  CB  VAL A 407      -2.536 -45.677  21.797  1.00 20.93           C
ATOM   3083  CG1 VAL A 407      -1.385 -45.751  22.799  1.00 19.76           C
ATOM   3084  CG2 VAL A 407      -3.820 -45.200  22.468  1.00 22.32           C
ATOM   3085  N   VAL A 408      -0.747 -46.393  19.562  1.00 17.97           N
ATOM   3086  CA  VAL A 408       0.528 -47.004  19.189  1.00 20.12           C
ATOM   3087  C   VAL A 408       1.324 -46.163  18.183  1.00 23.83           C
ATOM   3088  O   VAL A 408       2.511 -45.887  18.378  1.00 21.98           O
ATOM   3089  CB  VAL A 408       0.335 -48.430  18.616  1.00 21.63           C
ATOM   3090  CG1 VAL A 408       1.671 -49.010  18.211  1.00 20.13           C
ATOM   3091  CG2 VAL A 408      -0.363 -49.339  19.638  1.00 19.04           C
ATOM   3092  N   CYS A 409       0.671 -45.753  17.104  1.00 21.73           N
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ATOM   3093  CA  CYS A 409       1.383 -45.014  16.069  1.00 24.08           C
ATOM   3094  C   CYS A 409       1.729 -43.578  16.463  1.00 24.52           C
ATOM   3095  O   CYS A 409       2.785 -43.079  16.072  1.00 24.47           O
ATOM   3096  CB  CYS A 409       0.651 -45.093  14.721  1.00 20.37           C
ATOM   3097  SG  CYS A 409       0.455 -46.808  14.161  1.00 21.78           S
ATOM   3098  N   PRO A 410       0.846 -42.897  17.221  1.00 25.26           N
ATOM   3099  CA  PRO A 410       1.335 -41.609  17.730  1.00 23.93           C
ATOM   3100  C   PRO A 410       2.529 -41.747  18.689  1.00 23.85           C
ATOM   3101  O   PRO A 410       3.424 -40.898  18.651  1.00 23.22           O
ATOM   3102  CB  PRO A 410       0.111 -41.028  18.439  1.00 24.24           C
ATOM   3103  CG  PRO A 410      -1.039 -41.583  17.673  1.00 20.33           C
ATOM   3104  CD  PRO A 410      -0.624 -42.993  17.317  1.00 19.27           C
ATOM   3105  N   VAL A 411       2.557 -42.797  19.508  1.00 21.90           N
ATOM   3106  CA  VAL A 411       3.678 -43.015  20.422  1.00 23.44           C
ATOM   3107  C   VAL A 411       4.941 -43.378  19.634  1.00 25.90           C
ATOM   3108  O   VAL A 411       6.028 -42.873  19.910  1.00 23.81           O
ATOM   3109  CB  VAL A 411       3.359 -44.099  21.490  1.00 24.76           C
ATOM   3110  CG1 VAL A 411       4.626 -44.562  22.212  1.00 22.20           C
ATOM   3111  CG2 VAL A 411       2.347 -43.583  22.486  1.00 16.43           C
ATOM   3112  N   ALA A 412       4.783 -44.236  18.635  1.00 24.47           N
ATOM   3113  CA  ALA A 412       5.903 -44.631  17.783  1.00 26.37           C
ATOM   3114  C   ALA A 412       6.522 -43.425  17.088  1.00 23.66           C
ATOM   3115  O   ALA A 412       7.741 -43.255  17.066  1.00 28.37           O
ATOM   3116  CB  ALA A 412       5.453 -45.661  16.757  1.00 24.17           C
ATOM   3117  N   GLN A 413       5.676 -42.578  16.525  1.00 24.46           N
ATOM   3118  CA  GLN A 413       6.150 -41.378  15.861  1.00 24.19           C
ATOM   3119  C   GLN A 413       6.882 -40.453  16.830  1.00 27.61           C
ATOM   3120  O   GLN A 413       7.942 -39.921  16.505  1.00 25.97           O
ATOM   3121  CB  GLN A 413       4.985 -40.632  15.221  1.00 28.47           C
ATOM   3122  CG  GLN A 413       5.304 -39.183  14.902  1.00 28.52           C
ATOM   3123  CD  GLN A 413       5.042 -38.848  13.465  1.00 36.45           C
ATOM   3124  OE1 GLN A 413       4.047 -38.201  13.145  1.00 53.07           O
ATOM   3125  NE2 GLN A 413       5.930 -39.295  12.577  1.00 42.93           N
ATOM   3126  N   LEU A 414       6.308 -40.253  18.016  1.00 26.71           N
ATOM   3127  CA  LEU A 414       6.975 -39.469  19.050  1.00 23.78           C
ATOM   3128  C   LEU A 414       8.352 -40.048  19.383  1.00 25.72           C
ATOM   3129  O   LEU A 414       9.340 -39.321  19.456  1.00 25.03           O
ATOM   3130  CB  LEU A 414       6.134 -39.416  20.322  1.00 24.33           C
ATOM   3131  CG  LEU A 414       6.836 -38.645  21.442  1.00 28.17           C
ATOM   3132  CD1 LEU A 414       6.942 -37.178  21.073  1.00 28.96           C
ATOM   3133  CD2 LEU A 414       6.100 -38.792  22.719  1.00 30.66           C
ATOM   3134  N   ALA A 415       8.410 -41.362  19.570  1.00 19.11           N
ATOM   3135  CA  ALA A 415       9.648 -42.017  19.964  1.00 21.51           C
ATOM   3136  C   ALA A 415      10.714 -41.909  18.869  1.00 30.91           C
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ATOM   3137  O   ALA A 415      11.889 -41.670  19.159  1.00 27.97           O
ATOM   3138  CB  ALA A 415       9.384 -43.473  20.312  1.00 23.90           C
ATOM   3139  N   GLY A 416      10.297 -42.071  17.615  1.00 27.27           N
ATOM   3140  CA  GLY A 416      11.217 -42.012  16.494  1.00 22.95           C
ATOM   3141  C   GLY A 416      11.812 -40.634  16.304  1.00 22.46           C
ATOM   3142  O   GLY A 416      13.024 -40.470  16.176  1.00 30.69           O
ATOM   3143  N   ARG A 417      10.959 -39.625  16.293  1.00 25.00           N
ATOM   3144  CA  ARG A 417      11.434 -38.264  16.130  1.00 26.73           C
ATOM   3145  C   ARG A 417      12.311 -37.822  17.296  1.00 34.63           C
ATOM   3146  O   ARG A 417      13.356 -37.207  17.083  1.00 39.13           O
ATOM   3147  CB  ARG A 417      10.263 -37.305  15.938  1.00 30.99           C
ATOM   3148  CG  ARG A 417       9.570 -37.457  14.595  1.00 37.21           C
ATOM   3149  CD  ARG A 417      10.598 -37.612  13.486  1.00 36.81           C
ATOM   3150  NE  ARG A 417      10.101 -37.140  12.199  1.00 62.44           N
ATOM   3151  CZ  ARG A 417      10.375 -35.942  11.693  1.00 56.80           C
ATOM   3152  NH1 ARG A 417      11.145 -35.097  12.367  1.00 59.03           N
ATOM   3153  NH2 ARG A 417       9.880 -35.590  10.514  1.00 49.35           N
ATOM   3154  N   LEU A 418      11.897 -38.130  18.524  1.00 28.64           N
ATOM   3155  CA  LEU A 418      12.686 -37.719  19.685  1.00 30.44           C
ATOM   3156  C   LEU A 418      14.071 -38.364  19.632  1.00 26.99           C
ATOM   3157  O   LEU A 418      15.077 -37.682  19.780  1.00 32.27           O
ATOM   3158  CB  LEU A 418      11.983 -38.033  21.019  1.00 21.13           C
ATOM   3159  CG  LEU A 418      10.696 -37.288  21.418  1.00 31.55           C
ATOM   3160  CD1 LEU A 418      10.337 -37.511  22.886  1.00 24.60           C
ATOM   3161  CD2 LEU A 418      10.769 -35.814  21.142  1.00 32.52           C
ATOM   3162  N   ALA A 419      14.117 -39.675  19.414  1.00 25.08           N
ATOM   3163  CA  ALA A 419      15.390 -40.392  19.302  1.00 28.50           C
ATOM   3164  C   ALA A 419      16.276 -39.856  18.169  1.00 37.35           C
ATOM   3165  O   ALA A 419      17.477 -39.650  18.359  1.00 38.50           O
ATOM   3166  CB  ALA A 419      15.150 -41.892  19.119  1.00 22.50           C
ATOM   3167  N   ALA A 420      15.686 -39.630  16.996  1.00 31.96           N
ATOM   3168  CA  ALA A 420      16.450 -39.135  15.849  1.00 34.66           C
ATOM   3169  C   ALA A 420      16.887 -37.686  16.020  1.00 35.33           C
ATOM   3170  O   ALA A 420      17.733 -37.204  15.275  1.00 40.38           O
ATOM   3171  CB  ALA A 420      15.651 -39.290  14.564  1.00 27.80           C
ATOM   3172  N   GLN A 421      16.314 -36.991  16.999  1.00 35.89           N
ATOM   3173  CA  GLN A 421      16.633 -35.582  17.204  1.00 25.77           C
ATOM   3174  C   GLN A 421      17.297 -35.315  18.543  1.00 31.19           C
ATOM   3175  O   GLN A 421      17.222 -34.205  19.089  1.00 31.62           O
ATOM   3176  CB  GLN A 421      15.396 -34.717  16.991  1.00 31.03           C
ATOM   3177  CG  GLN A 421      14.917 -34.821  15.551  1.00 39.90           C
ATOM   3178  CD  GLN A 421      13.504 -34.331  15.343  1.00 44.93           C
ATOM   3179  OE1 GLN A 421      12.762 -34.884  14.527  1.00 45.53           O
ATOM   3180  NE2 GLN A 421      13.124 -33.284  16.070  1.00 42.40           N
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ATOM   3181  N   GLY A 422      17.951 -36.347  19.069  1.00 33.24           N
ATOM   3182  CA  GLY A 422      18.866 -36.157  20.177  1.00 39.92           C
ATOM   3183  C   GLY A 422      18.486 -36.726  21.527  1.00 38.93           C
ATOM   3184  O   GLY A 422      19.282 -36.663  22.453  1.00 37.16           O
ATOM   3185  N   ALA A 423      17.286 -37.278  21.656  1.00 35.51           N
ATOM   3186  CA  ALA A 423      16.861 -37.795  22.949  1.00 32.75           C
ATOM   3187  C   ALA A 423      17.227 -39.258  23.080  1.00 28.54           C
ATOM   3188  O   ALA A 423      17.340 -39.958  22.082  1.00 32.18           O
ATOM   3189  CB  ALA A 423      15.365 -37.609  23.132  1.00 32.19           C
ATOM   3190  N   ARG A 424      17.411 -39.715  24.317  1.00 28.73           N
ATOM   3191  CA  ARG A 424      17.542 -41.139  24.586  1.00 29.17           C
ATOM   3192  C   ARG A 424      16.173 -41.682  24.968  1.00 29.84           C
ATOM   3193  O   ARG A 424      15.577 -41.256  25.960  1.00 35.05           O
ATOM   3194  CB  ARG A 424      18.551 -41.421  25.707  1.00 28.38           C
ATOM   3195  CG  ARG A 424      18.873 -42.912  25.845  1.00 32.89           C
ATOM   3196  CD  ARG A 424      20.250 -43.163  26.457  1.00 38.46           C
ATOM   3197  NE  ARG A 424      20.187 -43.229  27.919  1.00 57.58           N
ATOM   3198  CZ  ARG A 424      20.693 -42.316  28.744  1.00 50.14           C
ATOM   3199  NH1 ARG A 424      21.319 -41.249  28.261  1.00 56.71           N
ATOM   3200  NH2 ARG A 424      20.578 -42.475  30.056  1.00 46.64           N
ATOM   3201  N   VAL A 425      15.680 -42.625  24.176  1.00 26.01           N
ATOM   3202  CA  VAL A 425      14.344 -43.151  24.358  1.00 22.30           C
ATOM   3203  C   VAL A 425      14.362 -44.624  24.769  1.00 30.22           C
ATOM   3204  O   VAL A 425      15.113 -45.422  24.212  1.00 29.02           O
ATOM   3205  CB  VAL A 425      13.535 -42.994  23.054  1.00 25.52           C
ATOM   3206  CG1 VAL A 425      12.112 -43.527  23.225  1.00 19.82           C
ATOM   3207  CG2 VAL A 425      13.540 -41.528  22.596  1.00 19.93           C
ATOM   3208  N   TYR A 426      13.540 -44.982  25.752  1.00 24.33           N
ATOM   3209  CA  TYR A 426      13.262 -46.388  26.030  1.00 25.70           C
ATOM   3210  C   TYR A 426      11.791 -46.699  25.747  1.00 26.68           C
ATOM   3211  O   TYR A 426      10.903 -45.916  26.104  1.00 27.55           O
ATOM   3212  CB  TYR A 426      13.617 -46.738  27.478  1.00 24.33           C
ATOM   3213  CG  TYR A 426      15.073 -46.513  27.786  1.00 28.82           C
ATOM   3214  CD1 TYR A 426      16.006 -47.538  27.633  1.00 26.87           C
ATOM   3215  CD2 TYR A 426      15.525 -45.266  28.212  1.00 23.25           C
ATOM   3216  CE1 TYR A 426      17.350 -47.326  27.907  1.00 27.11           C
ATOM   3217  CE2 TYR A 426      16.857 -45.048  28.487  1.00 26.98           C
ATOM   3218  CZ  TYR A 426      17.766 -46.076  28.332  1.00 28.04           C
ATOM   3219  OH  TYR A 426      19.092 -45.842  28.610  1.00 29.63           O
ATOM   3220  N   ALA A 427      11.539 -47.843  25.117  1.00 23.25           N
ATOM   3221  CA  ALA A 427      10.184 -48.237  24.737  1.00 22.32           C
ATOM   3222  C   ALA A 427       9.814 -49.614  25.283  1.00 26.38           C
ATOM   3223  O   ALA A 427      10.665 -50.503  25.372  1.00 28.09           O
ATOM   3224  CB  ALA A 427      10.037 -48.216  23.209  1.00 23.11           C
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ATOM   3225  N   TYR A 428       8.543 -49.797  25.630  1.00 19.79           N
ATOM   3226  CA  TYR A 428       8.066 -51.081  26.138  1.00 23.49           C
ATOM   3227  C   TYR A 428       6.696 -51.375  25.560  1.00 23.32           C
ATOM   3228  O   TYR A 428       5.969 -50.460  25.171  1.00 23.74           O
ATOM   3229  CB  TYR A 428       7.949 -51.078  27.687  1.00 19.45           C
ATOM   3230  CG  TYR A 428       6.884 -50.118  28.201  1.00 21.92           C
ATOM   3231  CD1 TYR A 428       5.538 -50.489  28.263  1.00 20.04           C
ATOM   3232  CD2 TYR A 428       7.222 -48.836  28.607  1.00 19.87           C
ATOM   3233  CE1 TYR A 428       4.563 -49.602  28.708  1.00 20.35           C
ATOM   3234  CE2 TYR A 428       6.256 -47.942  29.058  1.00 20.99           C
ATOM   3235  CZ  TYR A 428       4.930 -48.327  29.102  1.00 25.04           C
ATOM   3236  OH  TYR A 428       3.977 -47.424  29.540  1.00 24.46           O
ATOM   3237  N   VAL A 429       6.341 -52.652  25.533  1.00 22.88           N
ATOM   3238  CA  VAL A 429       4.954 -53.060  25.393  1.00 23.42           C
ATOM   3239  C   VAL A 429       4.617 -53.885  26.611  1.00 22.55           C
ATOM   3240  O   VAL A 429       5.364 -54.789  26.987  1.00 24.57           O
ATOM   3241  CB  VAL A 429       4.701 -53.905  24.126  1.00 25.90           C
ATOM   3242  CG1 VAL A 429       3.231 -54.269  24.035  1.00 24.83           C
ATOM   3243  CG2 VAL A 429       5.107 -53.125  22.888  1.00 26.71           C
ATOM   3244  N   PHE A 430       3.498 -53.561  27.239  1.00 26.81           N
ATOM   3245  CA  PHE A 430       3.118 -54.204  28.485  1.00 25.15           C
ATOM   3246  C   PHE A 430       2.136 -55.319  28.150  1.00 24.50           C
ATOM   3247  O   PHE A 430       1.063 -55.071  27.614  1.00 25.87           O
ATOM   3248  CB  PHE A 430       2.518 -53.164  29.426  1.00 20.68           C
ATOM   3249  CG  PHE A 430       2.097 -53.710  30.760  1.00 25.71           C
ATOM   3250  CD1 PHE A 430       2.961 -53.671  31.841  1.00 26.20           C
ATOM   3251  CD2 PHE A 430       0.829 -54.239  30.940  1.00 25.24           C
ATOM   3252  CE1 PHE A 430       2.568 -54.161  33.075  1.00 28.16           C
ATOM   3253  CE2 PHE A 430       0.434 -54.735  32.170  1.00 23.94           C
ATOM   3254  CZ  PHE A 430       1.304 -54.693  33.235  1.00 26.33           C
ATOM   3255  N   GLU A 431       2.515 -56.551  28.465  1.00 27.95           N
ATOM   3256  CA  GLU A 431       1.838 -57.715  27.899  1.00 30.59           C
ATOM   3257  C   GLU A 431       1.282 -58.664  28.943  1.00 33.80           C
ATOM   3258  O   GLU A 431       1.007 -59.825  28.644  1.00 34.48           O
ATOM   3259  CB  GLU A 431       2.790 -58.486  26.978  1.00 25.93           C
ATOM   3260  CG  GLU A 431       3.159 -57.743  25.707  1.00 25.92           C
ATOM   3261  CD  GLU A 431       3.789 -58.652  24.659  1.00 35.29           C
ATOM   3262  OE1 GLU A 431       3.304 -58.659  23.514  1.00 47.00           O
ATOM   3263  OE2 GLU A 431       4.765 -59.362  24.976  1.00 48.81           O
ATOM   3264  N   HIS A 432       1.131 -58.183  30.169  1.00 25.24           N
ATOM   3265  CA  HIS A 432       0.569 -59.020  31.207  1.00 29.29           C
ATOM   3266  C   HIS A 432      -0.885 -58.670  31.482  1.00 30.75           C
ATOM   3267  O   HIS A 432      -1.215 -57.515  31.748  1.00 29.88           O
ATOM   3268  CB  HIS A 432       1.374 -58.934  32.499  1.00 27.69           C
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ATOM   3269  CG  HIS A 432       0.780 -59.739  33.607  1.00 37.42           C
ATOM   3270  ND1 HIS A 432       0.824 -61.117  33.626  1.00 42.63           N
ATOM   3271  CD2 HIS A 432       0.078 -59.367  34.705  1.00 30.57           C
ATOM   3272  CE1 HIS A 432       0.201 -61.557  34.706  1.00 41.80           C
ATOM   3273  NE2 HIS A 432      -0.269 -60.515  35.371  1.00 33.49           N
ATOM   3274  N   ARG A 433      -1.753 -59.673  31.400  1.00 29.51           N
ATOM   3275  CA  ARG A 433      -3.156 -59.496  31.744  1.00 33.23           C
ATOM   3276  C   ARG A 433      -3.329 -59.813  33.224  1.00 30.15           C
ATOM   3277  O   ARG A 433      -3.005 -60.917  33.668  1.00 32.68           O
ATOM   3278  CB  ARG A 433      -4.044 -60.411  30.890  1.00 31.06           C
ATOM   3279  CG  ARG A 433      -5.525 -60.134  31.052  1.00 35.10           C
ATOM   3280  CD  ARG A 433      -6.382 -61.102  30.249  1.00 32.15           C
ATOM   3281  NE  ARG A 433      -7.730 -61.217  30.812  1.00 28.67           N
ATOM   3282  CZ  ARG A 433      -8.790 -60.572  30.338  1.00 35.27           C
ATOM   3283  NH1 ARG A 433      -8.661 -59.770  29.279  1.00 29.47           N
ATOM   3284  NH2 ARG A 433      -9.979 -60.733  30.914  1.00 28.71           N
ATOM   3285  N   ALA A 434      -3.811 -58.839  33.989  1.00 31.61           N
ATOM   3286  CA  ALA A 434      -3.958 -58.996  35.436  1.00 33.89           C
ATOM   3287  C   ALA A 434      -4.873 -60.167  35.762  1.00 38.84           C
ATOM   3288  O   ALA A 434      -5.935 -60.322  35.147  1.00 33.93           O
ATOM   3289  CB  ALA A 434      -4.506 -57.720  36.057  1.00 32.59           C
ATOM   3290  N   SER A 435      -4.466 -60.987  36.729  1.00 30.25           N
ATOM   3291  CA  SER A 435      -5.301 -62.104  37.174  1.00 31.51           C
ATOM   3292  C   SER A 435      -6.645 -61.600  37.687  1.00 35.89           C
ATOM   3293  O   SER A 435      -7.644 -62.313  37.652  1.00 35.40           O
ATOM   3294  CB  SER A 435      -4.596 -62.909  38.266  1.00 35.53           C
ATOM   3295  OG  SER A 435      -4.572 -62.189  39.486  1.00 44.45           O
ATOM   3296  N   THR A 436      -6.663 -60.353  38.142  1.00 37.53           N
ATOM   3297  CA  THR A 436      -7.854 -59.764  38.736  1.00 36.39           C
ATOM   3298  C   THR A 436      -8.744 -59.061  37.719  1.00 35.08           C
ATOM   3299  O   THR A 436      -9.791 -58.520  38.073  1.00 38.96           O
ATOM   3300  CB  THR A 436      -7.468 -58.747  39.824  1.00 37.13           C
ATOM   3301  OG1 THR A 436      -6.523 -57.806  39.287  1.00 36.28           O
ATOM   3302  CG2 THR A 436      -6.844 -59.464  41.017  1.00 41.75           C
ATOM   3303  N   LEU A 437      -8.329 -59.052  36.458  1.00 32.01           N
ATOM   3304  CA  LEU A 437      -9.047 -58.275  35.452  1.00 31.37           C
ATOM   3305  C   LEU A 437     -10.445 -58.835  35.207  1.00 34.16           C
ATOM   3306  O   LEU A 437     -10.623 -60.044  35.042  1.00 37.61           O
ATOM   3307  CB  LEU A 437      -8.248 -58.201  34.148  1.00 34.59           C
ATOM   3308  CG  LEU A 437      -8.800 -57.277  33.058  1.00 36.68           C
ATOM   3309  CD1 LEU A 437      -8.745 -55.841  33.511  1.00 29.03           C
ATOM   3310  CD2 LEU A 437      -8.037 -57.463  31.746  1.00 28.90           C
ATOM   3311  N   SER A 438     -11.434 -57.949  35.180  1.00 32.38           N
ATOM   3312  CA  SER A 438     -12.823 -58.365  35.067  1.00 33.09           C
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ATOM   3313  C   SER A 438     -13.446 -58.062  33.707  1.00 37.59           C
ATOM   3314  O   SER A 438     -14.601 -58.415  33.465  1.00 38.50           O
ATOM   3315  CB  SER A 438     -13.655 -57.702  36.158  1.00 34.90           C
ATOM   3316  OG  SER A 438     -13.671 -56.302  35.964  1.00 43.42           O
ATOM   3317  N   TRP A 439     -12.704 -57.384  32.832  1.00 31.13           N
ATOM   3318  CA  TRP A 439     -13.107 -57.283  31.434  1.00 29.80           C
ATOM   3319  C   TRP A 439     -12.856 -58.642  30.772  1.00 28.87           C
ATOM   3320  O   TRP A 439     -11.956 -59.379  31.196  1.00 28.19           O
ATOM   3321  CB  TRP A 439     -12.341 -56.162  30.707  1.00 31.64           C
ATOM   3322  CG  TRP A 439     -12.640 -54.799  31.252  1.00 26.49           C
ATOM   3323  CD1 TRP A 439     -11.927 -54.120  32.202  1.00 23.10           C
ATOM   3324  CD2 TRP A 439     -13.742 -53.956  30.901  1.00 22.21           C
ATOM   3325  NE1 TRP A 439     -12.518 -52.908  32.458  1.00 23.88           N
ATOM   3326  CE2 TRP A 439     -13.633 -52.781  31.674  1.00 24.58           C
ATOM   3327  CE3 TRP A 439     -14.814 -54.083  30.022  1.00 23.78           C
ATOM   3328  CZ2 TRP A 439     -14.553 -51.737  31.582  1.00 23.44           C
ATOM   3329  CZ3 TRP A 439     -15.725 -53.042  29.927  1.00 24.91           C
ATOM   3330  CH2 TRP A 439     -15.587 -51.886  30.700  1.00 25.50           C
ATOM   3331  N   PRO A 440     -13.643 -58.977  29.730  1.00 26.32           N
ATOM   3332  CA  PRO A 440     -13.551 -60.299  29.102  1.00 27.99           C
ATOM   3333  C   PRO A 440     -12.177 -60.591  28.511  1.00 30.91           C
ATOM   3334  O   PRO A 440     -11.389 -59.682  28.278  1.00 31.87           O
ATOM   3335  CB  PRO A 440     -14.594 -60.227  27.977  1.00 29.76           C
ATOM   3336  CG  PRO A 440     -14.756 -58.785  27.694  1.00 28.39           C
ATOM   3337  CD  PRO A 440     -14.604 -58.109  29.027  1.00 28.82           C
ATOM   3338  N   LEU A 441     -11.913 -61.866  28.263  1.00 33.53           N
ATOM   3339  CA  LEU A 441     -10.656 -62.308  27.674  1.00 34.83           C
ATOM   3340  C   LEU A 441     -10.390 -61.731  26.274  1.00 34.71           C
ATOM   3341  O   LEU A 441      -9.232 -61.508  25.904  1.00 34.83           O
ATOM   3342  CB  LEU A 441     -10.624 -63.836  27.625  1.00 39.37           C
ATOM   3343  CG  LEU A 441      -9.255 -64.491  27.798  1.00 49.18           C
ATOM   3344  CD1 LEU A 441      -8.790 -64.386  29.245  1.00 41.01           C
ATOM   3345  CD2 LEU A 441      -9.299 -65.943  27.351  1.00 51.15           C
ATOM   3346  N   TRP A 442     -11.441 -61.489  25.490  1.00 27.33           N
ATOM   3347  CA  TRP A 442     -11.222 -61.007  24.125  1.00 29.30           C
ATOM   3348  C   TRP A 442     -10.586 -59.619  24.090  1.00 31.09           C
ATOM   3349  O   TRP A 442     -10.003 -59.219  23.081  1.00 30.58           O
ATOM   3350  CB  TRP A 442     -12.493 -61.062  23.251  1.00 27.33           C
ATOM   3351  CG  TRP A 442     -13.592 -60.077  23.595  1.00 26.60           C
ATOM   3352  CD1 TRP A 442     -14.735 -60.338  24.295  1.00 28.60           C
ATOM   3353  CD2 TRP A 442     -13.661 -58.691  23.222  1.00 26.83           C
ATOM   3354  NE1 TRP A 442     -15.505 -59.202  24.392  1.00 26.49           N
ATOM   3355  CE2 TRP A 442     -14.868 -58.178  23.743  1.00 23.68           C
ATOM   3356  CE3 TRP A 442     -12.821 -57.835  22.496  1.00 26.62           C
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ATOM   3357  CZ2 TRP A 442     -15.249 -56.845  23.572  1.00 23.08           C
ATOM   3358  CZ3 TRP A 442     -13.204 -56.515  22.326  1.00 23.66           C
ATOM   3359  CH2 TRP A 442     -14.407 -56.032  22.864  1.00 25.81           C
ATOM   3360  N   MET A 443     -10.689 -58.886  25.192  1.00 34.31           N
ATOM   3361  CA  MET A 443     -10.089 -57.563  25.250  1.00 27.89           C
ATOM   3362  C   MET A 443      -8.570 -57.610  25.422  1.00 27.47           C
ATOM   3363  O   MET A 443      -7.892 -56.622  25.161  1.00 28.28           O
ATOM   3364  CB  MET A 443     -10.746 -56.710  26.324  1.00 24.93           C
ATOM   3365  CG  MET A 443     -12.050 -56.066  25.877  1.00 29.79           C
ATOM   3366  SD  MET A 443     -12.603 -54.899  27.134  1.00 33.82           S
ATOM   3367  CE  MET A 443     -14.163 -54.333  26.495  1.00 22.84           C
ATOM   3368  N   GLY A 444      -8.038 -58.763  25.821  1.00 25.08           N
ATOM   3369  CA  GLY A 444      -6.607 -58.912  26.019  1.00 22.89           C
ATOM   3370  C   GLY A 444      -6.109 -58.037  27.163  1.00 31.72           C
ATOM   3371  O   GLY A 444      -6.690 -58.046  28.253  1.00 28.49           O
ATOM   3372  N   VAL A 445      -5.032 -57.289  26.923  1.00 27.33           N
ATOM   3373  CA  VAL A 445      -4.538 -56.317  27.904  1.00 28.59           C
ATOM   3374  C   VAL A 445      -5.016 -54.902  27.536  1.00 24.00           C
ATOM   3375  O   VAL A 445      -4.408 -54.235  26.705  1.00 25.21           O
ATOM   3376  CB  VAL A 445      -2.994 -56.323  27.987  1.00 26.29           C
ATOM   3377  CG1 VAL A 445      -2.520 -55.452  29.145  1.00 24.82           C
ATOM   3378  CG2 VAL A 445      -2.460 -57.746  28.120  1.00 21.36           C
ATOM   3379  N   PRO A 446      -6.107 -54.436  28.158  1.00 24.45           N
ATOM   3380  CA  PRO A 446      -6.711 -53.181  27.696  1.00 28.19           C
ATOM   3381  C   PRO A 446      -6.008 -51.928  28.209  1.00 24.69           C
ATOM   3382  O   PRO A 446      -5.273 -51.970  29.196  1.00 22.78           O
ATOM   3383  CB  PRO A 446      -8.143 -53.238  28.265  1.00 22.28           C
ATOM   3384  CG  PRO A 446      -8.317 -54.654  28.782  1.00 26.81           C
ATOM   3385  CD  PRO A 446      -6.934 -55.088  29.182  1.00 22.91           C
ATOM   3386  N   HIS A 447      -6.254 -50.831  27.499  1.00 22.67           N
ATOM   3387  CA  HIS A 447      -5.836 -49.479  27.849  1.00 25.93           C
ATOM   3388  C   HIS A 447      -6.039 -49.227  29.338  1.00 24.45           C
ATOM   3389  O   HIS A 447      -7.115 -49.484  29.866  1.00 25.45           O
ATOM   3390  CB  HIS A 447      -6.711 -48.524  27.046  1.00 18.26           C
ATOM   3391  CG  HIS A 447      -6.275 -47.093  27.072  1.00 23.82           C
ATOM   3392  ND1 HIS A 447      -5.134 -46.649  26.439  1.00 22.30           N
ATOM   3393  CD2 HIS A 447      -6.871 -45.992  27.590  1.00 21.83           C
ATOM   3394  CE1 HIS A 447      -5.034 -45.339  26.585  1.00 17.15           C
ATOM   3395  NE2 HIS A 447      -6.075 -44.917  27.280  1.00 23.47           N
ATOM   3396  N   GLY A 448      -5.001 -48.751  30.017  1.00 24.01           N
ATOM   3397  CA  GLY A 448      -5.108 -48.415  31.431  1.00 21.59           C
ATOM   3398  C   GLY A 448      -4.660 -49.484  32.420  1.00 25.57           C
ATOM   3399  O   GLY A 448      -4.444 -49.180  33.585  1.00 26.49           O
ATOM   3400  N   TYR A 449      -4.491 -50.728  31.977  1.00 23.96           N
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ATOM   3401  CA  TYR A 449      -4.279 -51.813  32.937  1.00 22.61           C
ATOM   3402  C   TYR A 449      -2.835 -52.187  33.254  1.00 24.00           C
ATOM   3403  O   TYR A 449      -2.586 -53.223  33.863  1.00 29.24           O
ATOM   3404  CB  TYR A 449      -5.162 -53.033  32.623  1.00 19.78           C
ATOM   3405  CG  TYR A 449      -6.584 -52.725  33.006  1.00 25.70           C
ATOM   3406  CD1 TYR A 449      -6.970 -52.744  34.338  1.00 21.66           C
ATOM   3407  CD2 TYR A 449      -7.527 -52.351  32.050  1.00 22.02           C
ATOM   3408  CE1 TYR A 449      -8.256 -52.429  34.713  1.00 23.90           C
ATOM   3409  CE2 TYR A 449      -8.821 -52.031  32.419  1.00 22.58           C
ATOM   3410  CZ  TYR A 449      -9.177 -52.069  33.757  1.00 25.36           C
ATOM   3411  OH  TYR A 449     -10.453 -51.748  34.153  1.00 24.77           O
ATOM   3412  N   GLU A 450      -1.896 -51.325  32.872  1.00 25.52           N
ATOM   3413  CA  GLU A 450      -0.521 -51.426  33.365  1.00 24.39           C
ATOM   3414  C   GLU A 450      -0.306 -50.550  34.607  1.00 24.17           C
ATOM   3415  O   GLU A 450       0.578 -50.823  35.409  1.00 25.41           O
ATOM   3416  CB  GLU A 450       0.483 -51.024  32.277  1.00 22.35           C
ATOM   3417  CG  GLU A 450       0.839 -49.552  32.246  1.00 14.42           C
ATOM   3418  CD  GLU A 450      -0.260 -48.671  31.693  1.00 23.59           C
ATOM   3419  OE1 GLU A 450      -1.420 -49.132  31.569  1.00 25.15           O
ATOM   3420  OE2 GLU A 450       0.041 -47.502  31.366  1.00 24.11           O
ATOM   3421  N   ILE A 451      -1.120 -49.502  34.751  1.00 23.20           N
ATOM   3422  CA  ILE A 451      -0.949 -48.513  35.809  1.00 24.91           C
ATOM   3423  C   ILE A 451      -0.863 -49.120  37.219  1.00 28.74           C
ATOM   3424  O   ILE A 451       0.044 -48.784  37.982  1.00 27.00           O
ATOM   3425  CB  ILE A 451      -2.076 -47.455  35.776  1.00 26.35           C
ATOM   3426  CG1 ILE A 451      -2.164 -46.819  34.389  1.00 19.96           C
ATOM   3427  CG2 ILE A 451      -1.853 -46.375  36.848  1.00 19.76           C
ATOM   3428  CD1 ILE A 451      -3.311 -45.835  34.235  1.00 16.46           C
ATOM   3429  N   GLU A 452      -1.790 -50.015  37.554  1.00 24.77           N
ATOM   3430  CA  GLU A 452      -1.818 -50.631  38.881  1.00 27.00           C
ATOM   3431  C   GLU A 452      -0.510 -51.364  39.197  1.00 28.81           C
ATOM   3432  O   GLU A 452      -0.100 -51.452  40.360  1.00 27.33           O
ATOM   3433  CB  GLU A 452      -3.022 -51.575  39.031  1.00 25.32           C
ATOM   3434  CG  GLU A 452      -3.048 -52.720  38.010  1.00 30.83           C
ATOM   3435  CD  GLU A 452      -4.454 -53.257  37.784  1.00 35.75           C
ATOM   3436  OE1 GLU A 452      -4.697 -54.444  38.089  1.00 37.28           O
ATOM   3437  OE2 GLU A 452      -5.322 -52.490  37.309  1.00 36.52           O
ATOM   3438  N   PHE A 453       0.149 -51.866  38.158  1.00 24.75           N
ATOM   3439  CA  PHE A 453       1.438 -52.526  38.329  1.00 26.89           C
ATOM   3440  C   PHE A 453       2.587 -51.549  38.550  1.00 28.55           C
ATOM   3441  O   PHE A 453       3.462 -51.797  39.386  1.00 28.27           O
ATOM   3442  CB  PHE A 453       1.716 -53.472  37.157  1.00 24.87           C
ATOM   3443  CG  PHE A 453       0.864 -54.696  37.190  1.00 28.57           C
ATOM   3444  CD1 PHE A 453      -0.363 -54.717  36.547  1.00 28.16           C
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ATOM   3445  CD2 PHE A 453       1.253 -55.802  37.930  1.00 26.18           C
ATOM   3446  CE1 PHE A 453      -1.175 -55.840  36.611  1.00 35.94           C
ATOM   3447  CE2 PHE A 453       0.444 -56.931  37.999  1.00 31.42           C
ATOM   3448  CZ  PHE A 453      -0.771 -56.948  37.341  1.00 30.45           C
ATOM   3449  N   ILE A 454       2.579 -50.445  37.808  1.00 19.99           N
ATOM   3450  CA  ILE A 454       3.572 -49.399  37.986  1.00 23.42           C
ATOM   3451  C   ILE A 454       3.478 -48.841  39.418  1.00 27.75           C
ATOM   3452  O   ILE A 454       4.499 -48.580  40.052  1.00 25.18           O
ATOM   3453  CB  ILE A 454       3.383 -48.247  36.958  1.00 29.93           C
ATOM   3454  CG1 ILE A 454       3.342 -48.783  35.515  1.00 23.48           C
ATOM   3455  CG2 ILE A 454       4.454 -47.163  37.133  1.00 24.96           C
ATOM   3456  CD1 ILE A 454       4.511 -49.665  35.141  1.00 25.38           C
ATOM   3457  N   PHE A 455       2.257 -48.685  39.932  1.00 24.15           N
ATOM   3458  CA  PHE A 455       2.062 -48.144  41.283  1.00 24.82           C
ATOM   3459  C   PHE A 455       2.202 -49.187  42.379  1.00 27.72           C
ATOM   3460  O   PHE A 455       2.072 -48.870  43.549  1.00 27.40           O
ATOM   3461  CB  PHE A 455       0.709 -47.440  41.418  1.00 20.92           C
ATOM   3462  CG  PHE A 455       0.715 -46.023  40.912  1.00 29.29           C
ATOM   3463  CD1 PHE A 455       0.568 -45.752  39.560  1.00 20.10           C
ATOM   3464  CD2 PHE A 455       0.892 -44.963  41.786  1.00 25.52           C
ATOM   3465  CE1 PHE A 455       0.581 -44.446  39.087  1.00 22.52           C
ATOM   3466  CE2 PHE A 455       0.905 -43.656  41.321  1.00 26.99           C
ATOM   3467  CZ  PHE A 455       0.741 -43.395  39.969  1.00 24.45           C
ATOM   3468  N   GLY A 456       2.455 -50.433  41.999  1.00 30.51           N
ATOM   3469  CA  GLY A 456       2.703 -51.471  42.979  1.00 29.98           C
ATOM   3470  C   GLY A 456       1.472 -51.850  43.783  1.00 29.41           C
ATOM   3471  O   GLY A 456       1.590 -52.385  44.880  1.00 30.16           O
ATOM   3472  N   ILE A 457       0.294 -51.569  43.234  1.00 29.62           N
ATOM   3473  CA  ILE A 457      -0.970 -51.995  43.833  1.00 28.84           C
ATOM   3474  C   ILE A 457      -1.044 -53.505  44.162  1.00 33.09           C
ATOM   3475  O   ILE A 457      -1.663 -53.887  45.155  1.00 31.64           O
ATOM   3476  CB  ILE A 457      -2.179 -51.584  42.956  1.00 30.31           C
ATOM   3477  CG1 ILE A 457      -2.151 -50.080  42.675  1.00 28.30           C
ATOM   3478  CG2 ILE A 457      -3.488 -51.977  43.617  1.00 27.50           C
ATOM   3479  CD1 ILE A 457      -2.206 -49.211  43.930  1.00 23.56           C
ATOM   3480  N   PRO A 458      -0.416 -54.372  43.340  1.00 34.06           N
ATOM   3481  CA  PRO A 458      -0.442 -55.780  43.763  1.00 31.55           C
ATOM   3482  C   PRO A 458       0.147 -56.067  45.147  1.00 35.51           C
ATOM   3483  O   PRO A 458      -0.169 -57.113  45.710  1.00 37.58           O
ATOM   3484  CB  PRO A 458       0.373 -56.481  42.675  1.00 29.43           C
ATOM   3485  CG  PRO A 458       0.050 -55.688  41.441  1.00 30.52           C
ATOM   3486  CD  PRO A 458      -0.026 -54.248  41.919  1.00 32.10           C
ATOM   3487  N   LEU A 459       0.967 -55.170  45.687  1.00 32.98           N
ATOM   3488  CA  LEU A 459       1.537 -55.380  47.019  1.00 34.67           C
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ATOM   3489  C   LEU A 459       0.494 -55.250  48.129  1.00 34.41           C
ATOM   3490  O   LEU A 459       0.733 -55.662  49.260  1.00 36.84           O
ATOM   3491  CB  LEU A 459       2.710 -54.428  47.279  1.00 33.18           C
ATOM   3492  CG  LEU A 459       3.931 -54.671  46.389  1.00 41.36           C
ATOM   3493  CD1 LEU A 459       5.082 -53.757  46.783  1.00 35.73           C
ATOM   3494  CD2 LEU A 459       4.348 -56.130  46.462  1.00 40.34           C
ATOM   3495  N   ASP A 460      -0.659 -54.677  47.800  1.00 34.30           N
ATOM   3496  CA  ASP A 460      -1.735 -54.521  48.765  1.00 35.20           C
ATOM   3497  C   ASP A 460      -2.271 -55.903  49.150  1.00 46.66           C
ATOM   3498  O   ASP A 460      -2.867 -56.594  48.326  1.00 36.09           O
ATOM   3499  CB  ASP A 460      -2.846 -53.644  48.188  1.00 32.48           C
ATOM   3500  CG  ASP A 460      -3.900 -53.270  49.220  1.00 44.35           C
ATOM   3501  OD1 ASP A 460      -3.980 -53.937  50.277  1.00 46.90           O
ATOM   3502  OD2 ASP A 460      -4.658 -52.312  48.969  1.00 44.80           O
ATOM   3503  N   PRO A 461      -2.065 -56.301  50.419  1.00 48.95           N
ATOM   3504  CA  PRO A 461      -2.403 -57.646  50.906  1.00 49.71           C
ATOM   3505  C   PRO A 461      -3.895 -57.947  50.793  1.00 49.28           C
ATOM   3506  O   PRO A 461      -4.278 -59.100  50.585  1.00 53.09           O
ATOM   3507  CB  PRO A 461      -1.985 -57.605  52.381  1.00 48.53           C
ATOM   3508  CG  PRO A 461      -1.001 -56.489  52.470  1.00 55.07           C
ATOM   3509  CD  PRO A 461      -1.473 -55.466  51.476  1.00 40.71           C
ATOM   3510  N   SER A 462      -4.721 -56.914  50.911  1.00 39.53           N
ATOM   3511  CA  SER A 462      -6.165 -57.080  50.838  1.00 43.50           C
ATOM   3512  C   SER A 462      -6.692 -57.187  49.407  1.00 49.18           C
ATOM   3513  O   SER A 462      -7.895 -57.089  49.181  1.00 48.60           O
ATOM   3514  CB  SER A 462      -6.861 -55.921  51.544  1.00 50.23           C
ATOM   3515  OG  SER A 462      -6.816 -54.757  50.744  1.00 50.68           O
ATOM   3516  N   ARG A 463      -5.802 -57.375  48.440  1.00 47.02           N
ATOM   3517  CA  ARG A 463      -6.235 -57.611  47.065  1.00 43.66           C
ATOM   3518  C   ARG A 463      -5.742 -58.979  46.587  1.00 43.96           C
ATOM   3519  O   ARG A 463      -4.924 -59.611  47.253  1.00 49.62           O
ATOM   3520  CB  ARG A 463      -5.775 -56.487  46.137  1.00 44.77           C
ATOM   3521  CG  ARG A 463      -6.397 -55.140  46.454  1.00 40.49           C
ATOM   3522  CD  ARG A 463      -5.929 -54.074  45.474  1.00 38.83           C
ATOM   3523  NE  ARG A 463      -6.307 -52.735  45.915  1.00 46.88           N
ATOM   3524  CZ  ARG A 463      -7.382 -52.082  45.486  1.00 42.63           C
ATOM   3525  NH1 ARG A 463      -8.188 -52.637  44.593  1.00 52.05           N
ATOM   3526  NH2 ARG A 463      -7.649 -50.870  45.949  1.00 47.43           N
ATOM   3527  N   ASN A 464      -6.233 -59.430  45.438  1.00 43.08           N
ATOM   3528  CA  ASN A 464      -6.145 -60.850  45.102  1.00 50.05           C
ATOM   3529  C   ASN A 464      -5.069 -61.223  44.091  1.00 47.44           C
ATOM   3530  O   ASN A 464      -5.183 -62.244  43.406  1.00 50.70           O
ATOM   3531  CB  ASN A 464      -7.512 -61.378  44.635  1.00 44.69           C
ATOM   3532  CG  ASN A 464      -8.585 -61.250  45.705  1.00 57.54           C
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ATOM   3533  OD1 ASN A 464      -8.280 -61.078  46.889  1.00 63.53           O
ATOM   3534  ND2 ASN A 464      -9.848 -61.340  45.295  1.00 62.13           N
ATOM   3535  N   TYR A 465      -4.019 -60.414  44.004  1.00 42.27           N
ATOM   3536  CA  TYR A 465      -2.960 -60.666  43.031  1.00 39.46           C
ATOM   3537  C   TYR A 465      -2.122 -61.876  43.447  1.00 35.90           C
ATOM   3538  O   TYR A 465      -2.090 -62.232  44.612  1.00 39.41           O
ATOM   3539  CB  TYR A 465      -2.072 -59.430  42.880  1.00 32.20           C
ATOM   3540  CG  TYR A 465      -2.747 -58.241  42.226  1.00 30.93           C
ATOM   3541  CD1 TYR A 465      -3.422 -57.295  42.984  1.00 26.64           C
ATOM   3542  CD2 TYR A 465      -2.693 -58.061  40.844  1.00 27.68           C
ATOM   3543  CE1 TYR A 465      -4.021 -56.204  42.392  1.00 29.55           C
ATOM   3544  CE2 TYR A 465      -3.294 -56.986  40.245  1.00 28.13           C
ATOM   3545  CZ  TYR A 465      -3.949 -56.053  41.018  1.00 31.24           C
ATOM   3546  OH  TYR A 465      -4.546 -54.976  40.406  1.00 26.63           O
ATOM   3547  N   THR A 466      -1.441 -62.497  42.493  1.00 37.96           N
ATOM   3548  CA  THR A 466      -0.609 -63.660  42.784  1.00 33.69           C
ATOM   3549  C   THR A 466       0.777 -63.244  43.240  1.00 35.24           C
ATOM   3550  O   THR A 466       1.176 -62.092  43.074  1.00 40.92           O
ATOM   3551  CB  THR A 466      -0.428 -64.551  41.537  1.00 37.32           C
ATOM   3552  OG1 THR A 466       0.375 -63.863  40.567  1.00 41.73           O
ATOM   3553  CG2 THR A 466      -1.773 -64.898  40.926  1.00 32.49           C
ATOM   3554  N   ALA A 467       1.513 -64.199  43.797  1.00 34.84           N
ATOM   3555  CA  ALA A 467       2.878 -63.966  44.249  1.00 41.85           C
ATOM   3556  C   ALA A 467       3.767 -63.480  43.107  1.00 38.26           C
ATOM   3557  O   ALA A 467       4.582 -62.578  43.292  1.00 39.48           O
ATOM   3558  CB  ALA A 467       3.456 -65.235  44.877  1.00 30.93           C
ATOM   3559  N   GLU A 468       3.601 -64.077  41.930  1.00 34.97           N
ATOM   3560  CA  GLU A 468       4.366 -63.674  40.755  1.00 42.81           C
ATOM   3561  C   GLU A 468       4.022 -62.246  40.346  1.00 38.69           C
ATOM   3562  O   GLU A 468       4.887 -61.491  39.895  1.00 32.63           O
ATOM   3563  CB  GLU A 468       4.093 -64.609  39.574  1.00 39.89           C
ATOM   3564  CG  GLU A 468       4.448 -66.066  39.804  1.00 53.65           C
ATOM   3565  CD  GLU A 468       4.070 -66.946  38.617  1.00 84.36           C
ATOM   3566  OE1 GLU A 468       3.056 -66.647  37.933  1.00 70.30           O
ATOM   3567  OE2 GLU A 468       4.792 -67.936  38.365  1.00 91.22           O
ATOM   3568  N   GLU A 469       2.750 -61.887  40.487  1.00 33.82           N
ATOM   3569  CA  GLU A 469       2.304 -60.558  40.119  1.00 31.00           C
ATOM   3570  C   GLU A 469       2.950 -59.510  41.024  1.00 41.01           C
ATOM   3571  O   GLU A 469       3.314 -58.416  40.563  1.00 31.83           O
ATOM   3572  CB  GLU A 469       0.775 -60.472  40.109  1.00 31.48           C
ATOM   3573  CG  GLU A 469       0.167 -61.024  38.810  1.00 34.20           C
ATOM   3574  CD  GLU A 469      -1.359 -61.027  38.799  1.00 37.65           C
ATOM   3575  OE1 GLU A 469      -1.969 -61.263  39.864  1.00 38.30           O
ATOM   3576  OE2 GLU A 469      -1.950 -60.804  37.719  1.00 36.38           O
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ATOM   3577  N   LYS A 470       3.134 -59.861  42.296  1.00 35.28           N
ATOM   3578  CA  LYS A 470       3.796 -58.961  43.234  1.00 32.43           C
ATOM   3579  C   LYS A 470       5.246 -58.725  42.836  1.00 32.92           C
ATOM   3580  O   LYS A 470       5.716 -57.586  42.807  1.00 33.00           O
ATOM   3581  CB  LYS A 470       3.709 -59.492  44.669  1.00 32.31           C
ATOM   3582  CG  LYS A 470       2.290 -59.587  45.193  1.00 37.54           C
ATOM   3583  CD  LYS A 470       2.252 -60.150  46.608  1.00 46.37           C
ATOM   3584  CE  LYS A 470       0.824 -60.280  47.127  1.00 40.76           C
ATOM   3585  NZ  LYS A 470       0.792 -60.222  48.620  1.00 52.35           N
ATOM   3586  N   ILE A 471       5.955 -59.804  42.529  1.00 30.15           N
ATOM   3587  CA  ILE A 471       7.335 -59.694  42.067  1.00 33.02           C
ATOM   3588  C   ILE A 471       7.443 -58.811  40.810  1.00 31.76           C
ATOM   3589  O   ILE A 471       8.330 -57.959  40.721  1.00 31.86           O
ATOM   3590  CB  ILE A 471       7.949 -61.097  41.829  1.00 39.83           C
ATOM   3591  CG1 ILE A 471       8.188 -61.793  43.175  1.00 39.25           C
ATOM   3592  CG2 ILE A 471       9.248 -61.014  41.013  1.00 27.70           C
ATOM   3593  CD1 ILE A 471       8.386 -63.286  43.060  1.00 40.13           C
ATOM   3594  N   PHE A 472       6.520 -59.010  39.869  1.00 29.20           N
ATOM   3595  CA  PHE A 472       6.438 -58.234  38.628  1.00 32.71           C
ATOM   3596  C   PHE A 472       6.258 -56.744  38.916  1.00 30.00           C
ATOM   3597  O   PHE A 472       6.960 -55.898  38.350  1.00 26.98           O
ATOM   3598  CB  PHE A 472       5.278 -58.762  37.765  1.00 31.81           C
ATOM   3599  CG  PHE A 472       5.112 -58.063  36.431  1.00 33.80           C
ATOM   3600  CD1 PHE A 472       6.194 -57.878  35.576  1.00 31.63           C
ATOM   3601  CD2 PHE A 472       3.855 -57.635  36.013  1.00 29.77           C
ATOM   3602  CE1 PHE A 472       6.032 -57.249  34.342  1.00 30.14           C
ATOM   3603  CE2 PHE A 472       3.680 -57.003  34.776  1.00 25.32           C
ATOM   3604  CZ  PHE A 472       4.771 -56.816  33.938  1.00 25.93           C
ATOM   3605  N   ALA A 473       5.316 -56.426  39.798  1.00 27.67           N
ATOM   3606  CA  ALA A 473       5.088 -55.039  40.178  1.00 26.07           C
ATOM   3607  C   ALA A 473       6.384 -54.443  40.717  1.00 30.39           C
ATOM   3608  O   ALA A 473       6.756 -53.314  40.370  1.00 26.17           O
ATOM   3609  CB  ALA A 473       3.986 -54.940  41.202  1.00 25.01           C
ATOM   3610  N   GLN A 474       7.092 -55.230  41.522  1.00 25.20           N
ATOM   3611  CA  GLN A 474       8.337 -54.776  42.118  1.00 29.82           C
ATOM   3612  C   GLN A 474       9.398 -54.487  41.061  1.00 27.88           C
ATOM   3613  O   GLN A 474      10.139 -53.506  41.176  1.00 27.53           O
ATOM   3614  CB  GLN A 474       8.836 -55.768  43.185  1.00 29.59           C
ATOM   3615  CG  GLN A 474       7.972 -55.760  44.449  1.00 33.85           C
ATOM   3616  CD  GLN A 474       8.425 -56.758  45.511  1.00 40.20           C
ATOM   3617  OE1 GLN A 474       8.754 -57.911  45.216  1.00 42.75           O
ATOM   3618  NE2 GLN A 474       8.443 -56.310  46.758  1.00 36.28           N
ATOM   3619  N   ARG A 475       9.462 -55.332  40.033  1.00 26.86           N
ATOM   3620  CA  ARG A 475      10.363 -55.102  38.912  1.00 28.86           C
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ATOM   3621  C   ARG A 475      10.015 -53.798  38.203  1.00 29.12           C
ATOM   3622  O   ARG A 475      10.901 -53.032  37.816  1.00 27.91           O
ATOM   3623  CB  ARG A 475      10.250 -56.224  37.884  1.00 34.20           C
ATOM   3624  CG  ARG A 475      10.961 -57.512  38.202  1.00 34.85           C
ATOM   3625  CD  ARG A 475      10.714 -58.500  37.052  1.00 39.28           C
ATOM   3626  NE  ARG A 475      11.138 -57.941  35.768  1.00 37.71           N
ATOM   3627  CZ  ARG A 475      10.576 -58.226  34.596  1.00 40.54           C
ATOM   3628  NH1 ARG A 475       9.548 -59.066  34.534  1.00 36.14           N
ATOM   3629  NH2 ARG A 475      11.041 -57.665  33.482  1.00 29.23           N
ATOM   3630  N   LEU A 476       8.718 -53.569  38.011  1.00 23.61           N
ATOM   3631  CA  LEU A 476       8.263 -52.412  37.250  1.00 28.36           C
ATOM   3632  C   LEU A 476       8.591 -51.131  37.991  1.00 27.63           C
ATOM   3633  O   LEU A 476       9.069 -50.153  37.394  1.00 27.93           O
ATOM   3634  CB  LEU A 476       6.761 -52.499  36.964  1.00 26.97           C
ATOM   3635  CG  LEU A 476       6.377 -53.590  35.956  1.00 34.32           C
ATOM   3636  CD1 LEU A 476       4.902 -53.551  35.649  1.00 32.76           C
ATOM   3637  CD2 LEU A 476       7.174 -53.460  34.675  1.00 25.37           C
ATOM   3638  N   MET A 477       8.346 -51.150  39.299  1.00 27.14           N
ATOM   3639  CA  MET A 477       8.607 -49.996  40.142  1.00 24.45           C
ATOM   3640  C   MET A 477      10.085 -49.668  40.094  1.00 24.66           C
ATOM   3641  O   MET A 477      10.462 -48.502  40.034  1.00 27.59           O
ATOM   3642  CB  MET A 477       8.161 -50.264  41.582  1.00 25.29           C
ATOM   3643  CG  MET A 477       6.654 -50.283  41.768  1.00 25.66           C
ATOM   3644  SD  MET A 477       6.149 -50.206  43.510  1.00 32.43           S
ATOM   3645  CE  MET A 477       6.906 -51.699  44.156  1.00 24.62           C
ATOM   3646  N   ARG A 478      10.918 -50.705  40.091  1.00 25.39           N
ATOM   3647  CA  ARG A 478      12.368 -50.524  40.005  1.00 26.99           C
ATOM   3648  C   ARG A 478      12.789 -49.931  38.650  1.00 29.83           C
ATOM   3649  O   ARG A 478      13.630 -49.021  38.607  1.00 25.83           O
ATOM   3650  CB  ARG A 478      13.099 -51.846  40.291  1.00 25.28           C
ATOM   3651  CG  ARG A 478      14.621 -51.771  40.241  1.00 27.48           C
ATOM   3652  CD  ARG A 478      15.194 -50.802  41.280  1.00 30.70           C
ATOM   3653  NE  ARG A 478      14.768 -51.151  42.631  1.00 32.52           N
ATOM   3654  CZ  ARG A 478      15.281 -52.156  43.337  1.00 38.35           C
ATOM   3655  NH1 ARG A 478      16.237 -52.917  42.815  1.00 30.62           N
ATOM   3656  NH2 ARG A 478      14.833 -52.405  44.561  1.00 35.06           N
ATOM   3657  N   TYR A 479      12.208 -50.427  37.551  1.00 22.03           N
ATOM   3658  CA  TYR A 479      12.502 -49.847  36.233  1.00 24.29           C
ATOM   3659  C   TYR A 479      12.146 -48.363  36.229  1.00 27.25           C
ATOM   3660  O   TYR A 479      12.948 -47.524  35.813  1.00 26.50           O
ATOM   3661  CB  TYR A 479      11.728 -50.538  35.094  1.00 27.15           C
ATOM   3662  CG  TYR A 479      12.195 -51.927  34.734  1.00 22.83           C
ATOM   3663  CD1 TYR A 479      13.544 -52.232  34.652  1.00 23.39           C
ATOM   3664  CD2 TYR A 479      11.277 -52.938  34.473  1.00 26.78           C
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ATOM   3665  CE1 TYR A 479      13.968 -53.510  34.316  1.00 28.76           C
ATOM   3666  CE2 TYR A 479      11.689 -54.217  34.146  1.00 24.10           C
ATOM   3667  CZ  TYR A 479      13.034 -54.498  34.067  1.00 25.13           C
ATOM   3668  OH  TYR A 479      13.446 -55.771  33.741  1.00 34.94           O
ATOM   3669  N   TRP A 480      10.940 -48.045  36.699  1.00 24.54           N
ATOM   3670  CA  TRP A 480      10.443 -46.674  36.634  1.00 24.17           C
ATOM   3671  C   TRP A 480      11.271 -45.719  37.494  1.00 26.89           C
ATOM   3672  O   TRP A 480      11.618 -44.616  37.067  1.00 27.20           O
ATOM   3673  CB  TRP A 480       8.969 -46.623  37.044  1.00 22.42           C
ATOM   3674  CG  TRP A 480       8.006 -46.489  35.887  1.00 26.25           C
ATOM   3675  CD1 TRP A 480       7.135 -45.463  35.665  1.00 23.10           C
ATOM   3676  CD2 TRP A 480       7.821 -47.416  34.803  1.00 21.45           C
ATOM   3677  NE1 TRP A 480       6.417 -45.694  34.519  1.00 21.76           N
ATOM   3678  CE2 TRP A 480       6.816 -46.885  33.970  1.00 23.24           C
ATOM   3679  CE3 TRP A 480       8.400 -48.650  34.464  1.00 21.48           C
ATOM   3680  CZ2 TRP A 480       6.381 -47.537  32.803  1.00 19.76           C
ATOM   3681  CZ3 TRP A 480       7.966 -49.298  33.316  1.00 22.23           C
ATOM   3682  CH2 TRP A 480       6.966 -48.737  32.496  1.00 19.06           C
ATOM   3683  N   ALA A 481      11.600 -46.157  38.702  1.00 28.09           N
ATOM   3684  CA  ALA A 481      12.350 -45.321  39.633  1.00 27.33           C
ATOM   3685  C   ALA A 481      13.820 -45.198  39.227  1.00 27.15           C
ATOM   3686  O   ALA A 481      14.445 -44.152  39.446  1.00 23.91           O
ATOM   3687  CB  ALA A 481      12.216 -45.852  41.042  1.00 23.02           C
ATOM   3688  N   ASN A 482      14.364 -46.259  38.628  1.00 23.70           N
ATOM   3689  CA  ASN A 482      15.715 -46.193  38.077  1.00 25.11           C
ATOM   3690  C   ASN A 482      15.743 -45.107  37.033  1.00 29.68           C
ATOM   3691  O   ASN A 482      16.675 -44.297  36.978  1.00 28.76           O
ATOM   3692  CB  ASN A 482      16.141 -47.522  37.435  1.00 25.27           C
ATOM   3693  CG  ASN A 482      16.683 -48.522  38.447  1.00 27.86           C
ATOM   3694  OD1 ASN A 482      16.720 -48.250  39.646  1.00 33.86           O
ATOM   3695  ND2 ASN A 482      17.091 -49.692  37.968  1.00 29.67           N
ATOM   3696  N   PHE A 483      14.711 -45.098  36.193  1.00 25.96           N
ATOM   3697  CA  PHE A 483      14.640 -44.120  35.126  1.00 26.05           C
ATOM   3698  C   PHE A 483      14.540 -42.719  35.708  1.00 22.26           C
ATOM   3699  O   PHE A 483      15.206 -41.803  35.243  1.00 25.85           O
ATOM   3700  CB  PHE A 483      13.473 -44.393  34.169  1.00 26.10           C
ATOM   3701  CG  PHE A 483      13.280 -43.313  33.152  1.00 23.19           C
ATOM   3702  CD1 PHE A 483      14.090 -43.258  32.017  1.00 23.62           C
ATOM   3703  CD2 PHE A 483      12.320 -42.324  33.343  1.00 17.43           C
ATOM   3704  CE1 PHE A 483      13.929 -42.247  31.073  1.00 20.16           C
ATOM   3705  CE2 PHE A 483      12.155 -41.311  32.410  1.00 23.53           C
ATOM   3706  CZ  PHE A 483      12.963 -41.273  31.270  1.00 23.72           C
ATOM   3707  N   ALA A 484      13.710 -42.554  36.731  1.00 23.45           N
ATOM   3708  CA  ALA A 484      13.603 -41.263  37.399  1.00 29.16           C
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ATOM   3709  C   ALA A 484      14.951 -40.789  37.968  1.00 29.25           C
ATOM   3710  O   ALA A 484      15.270 -39.598  37.940  1.00 32.60           O
ATOM   3711  CB  ALA A 484      12.547 -41.321  38.492  1.00 21.04           C
ATOM   3712  N   ARG A 485      15.739 -41.732  38.471  1.00 26.79           N
ATOM   3713  CA  ARG A 485      16.995 -41.409  39.145  1.00 28.99           C
ATOM   3714  C   ARG A 485      18.135 -41.140  38.183  1.00 31.97           C
ATOM   3715  O   ARG A 485      18.966 -40.281  38.455  1.00 33.66           O
ATOM   3716  CB  ARG A 485      17.406 -42.527  40.110  1.00 25.28           C
ATOM   3717  CG  ARG A 485      16.640 -42.521  41.427  1.00 28.48           C
ATOM   3718  CD  ARG A 485      17.159 -43.590  42.390  1.00 25.28           C
ATOM   3719  NE  ARG A 485      16.870 -44.939  41.907  1.00 30.49           N
ATOM   3720  CZ  ARG A 485      15.861 -45.684  42.344  1.00 25.28           C
ATOM   3721  NH1 ARG A 485      15.051 -45.209  43.275  1.00 22.07           N
ATOM   3722  NH2 ARG A 485      15.662 -46.898  41.850  1.00 23.96           N
ATOM   3723  N   THR A 486      18.173 -41.862  37.062  1.00 25.50           N
ATOM   3724  CA  THR A 486      19.358 -41.844  36.200  1.00 29.27           C
ATOM   3725  C   THR A 486      19.074 -41.582  34.729  1.00 32.71           C
ATOM   3726  O   THR A 486      20.002 -41.377  33.945  1.00 35.12           O
ATOM   3727  CB  THR A 486      20.110 -43.192  36.240  1.00 29.91           C
ATOM   3728  OG1 THR A 486      19.317 -44.199  35.598  1.00 31.78           O
ATOM   3729  CG2 THR A 486      20.426 -43.618  37.675  1.00 25.34           C
ATOM   3730  N   GLY A 487      17.804 -41.611  34.347  1.00 29.49           N
ATOM   3731  CA  GLY A 487      17.447 -41.552  32.943  1.00 32.73           C
ATOM   3732  C   GLY A 487      17.634 -42.891  32.251  1.00 30.26           C
ATOM   3733  O   GLY A 487      17.620 -42.973  31.025  1.00 32.67           O
ATOM   3734  N   ASP A 488      17.778 -43.952  33.037  1.00 30.84           N
ATOM   3735  CA  ASP A 488      18.014 -45.285  32.480  1.00 29.60           C
ATOM   3736  C   ASP A 488      17.330 -46.331  33.364  1.00 28.21           C
ATOM   3737  O   ASP A 488      17.704 -46.501  34.525  1.00 34.25           O
ATOM   3738  CB  ASP A 488      19.525 -45.529  32.427  1.00 28.42           C
ATOM   3739  CG  ASP A 488      19.905 -46.816  31.735  1.00 32.19           C
ATOM   3740  OD1 ASP A 488      19.074 -47.750  31.652  1.00 34.36           O
ATOM   3741  OD2 ASP A 488      21.070 -46.892  31.287  1.00 39.74           O
ATOM   3742  N   PRO A 489      16.339 -47.050  32.816  1.00 25.19           N
ATOM   3743  CA  PRO A 489      15.582 -48.004  33.636  1.00 27.20           C
ATOM   3744  C   PRO A 489      16.403 -49.220  34.072  1.00 26.45           C
ATOM   3745  O   PRO A 489      16.061 -49.853  35.070  1.00 30.78           O
ATOM   3746  CB  PRO A 489      14.450 -48.435  32.703  1.00 22.05           C
ATOM   3747  CG  PRO A 489      15.042 -48.301  31.332  1.00 24.29           C
ATOM   3748  CD  PRO A 489      15.927 -47.089  31.401  1.00 26.32           C
ATOM   3749  N   ASN A 490      17.478 -49.526  33.353  1.00 26.51           N
ATOM   3750  CA  ASN A 490      18.256 -50.735  33.617  1.00 28.38           C
ATOM   3751  C   ASN A 490      18.865 -50.876  35.013  1.00 38.06           C
ATOM   3752  O   ASN A 490      19.470 -49.939  35.545  1.00 35.96           O
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ATOM   3753  CB  ASN A 490      19.372 -50.889  32.589  1.00 33.66           C
ATOM   3754  CG  ASN A 490      18.855 -51.239  31.227  1.00 29.57           C
ATOM   3755  OD1 ASN A 490      18.514 -52.391  30.955  1.00 30.73           O
ATOM   3756  ND2 ASN A 490      18.793 -50.251  30.355  1.00 26.79           N
ATOM   3757  N   GLU A 491      18.692 -52.070  35.579  1.00 36.91           N
ATOM   3758  CA  GLU A 491      19.430 -52.545  36.741  1.00 47.06           C
ATOM   3759  C   GLU A 491      20.857 -52.927  36.318  1.00 56.09           C
ATOM   3760  O   GLU A 491      21.156 -52.975  35.122  1.00 55.45           O
ATOM   3761  CB  GLU A 491      18.718 -53.781  37.302  1.00 54.15           C
ATOM   3762  CG  GLU A 491      17.444 -53.496  38.089  1.00 50.58           C
ATOM   3763  CD  GLU A 491      17.732 -53.137  39.534  1.00 47.29           C
ATOM   3764  OE1 GLU A 491      18.425 -52.127  39.768  1.00 48.14           O
ATOM   3765  OE2 GLU A 491      17.279 -53.873  40.437  1.00 55.32           O
ATOM   3766  N   PRO A 492      21.749 -53.190  37.295  1.00 64.54           N
ATOM   3767  CA  PRO A 492      23.075 -53.744  36.969  1.00 68.23           C
ATOM   3768  C   PRO A 492      23.011 -55.049  36.159  1.00 72.66           C
ATOM   3769  O   PRO A 492      22.128 -55.876  36.394  1.00 72.80           O
ATOM   3770  CB  PRO A 492      23.687 -54.002  38.346  1.00 54.34           C
ATOM   3771  CG  PRO A 492      23.086 -52.934  39.210  1.00 59.22           C
ATOM   3772  CD  PRO A 492      21.671 -52.748  38.703  1.00 61.59           C
ATOM   3773  N   ARG A 493      23.955 -55.221  35.232  1.00 71.22           N
ATOM   3774  CA  ARG A 493      23.938 -56.325  34.266  1.00 77.82           C
ATOM   3775  C   ARG A 493      23.827 -57.712  34.901  1.00 83.29           C
ATOM   3776  O   ARG A 493      24.351 -57.954  35.993  1.00 79.84           O
ATOM   3777  CB  ARG A 493      25.168 -56.265  33.353  1.00 66.68           C
ATOM   3778  CG  ARG A 493      25.714 -54.862  33.142  1.00 80.52           C
ATOM   3779  CD  ARG A 493      26.641 -54.798  31.939  1.00 84.61           C
ATOM   3780  NE  ARG A 493      25.890 -54.696  30.692  1.00 89.10           N
ATOM   3781  CZ  ARG A 493      26.441 -54.693  29.482  1.00102.39           C
ATOM   3782  NH1 ARG A 493      27.758 -54.794  29.350  1.00104.92           N
ATOM   3783  NH2 ARG A 493      25.673 -54.593  28.402  1.00 94.94           N
ATOM   3784  N   ASP A 494      23.148 -58.613  34.192  1.00 83.07           N
ATOM   3785  CA  ASP A 494      22.843 -59.951  34.688  1.00 87.34           C
ATOM   3786  C   ASP A 494      22.234 -60.800  33.571  1.00 86.15           C
ATOM   3787  O   ASP A 494      22.606 -61.959  33.375  1.00 83.72           O
ATOM   3788  CB  ASP A 494      21.873 -59.864  35.872  1.00 94.18           C
ATOM   3789  CG  ASP A 494      21.521 -61.224  36.451  1.00 94.94           C
ATOM   3790  OD1 ASP A 494      22.326 -62.166  36.299  1.00 94.47           O
ATOM   3791  OD2 ASP A 494      20.438 -61.347  37.066  1.00 90.21           O
ATOM   3792  N   PRO A 498      19.131 -59.506  31.313  1.00 63.12           N
ATOM   3793  CA  PRO A 498      19.066 -58.993  29.934  1.00 66.77           C
ATOM   3794  C   PRO A 498      18.794 -57.489  29.924  1.00 55.82           C
ATOM   3795  O   PRO A 498      17.949 -57.016  30.692  1.00 49.71           O
ATOM   3796  CB  PRO A 498      17.880 -59.756  29.318  1.00 64.10           C
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ATOM   3797  CG  PRO A 498      17.603 -60.897  30.261  1.00 67.85           C
ATOM   3798  CD  PRO A 498      18.011 -60.410  31.620  1.00 63.57           C
ATOM   3799  N   GLN A 499      19.502 -56.748  29.077  1.00 39.26           N
ATOM   3800  CA  GLN A 499      19.427 -55.293  29.123  1.00 42.50           C
ATOM   3801  C   GLN A 499      18.319 -54.703  28.241  1.00 42.99           C
ATOM   3802  O   GLN A 499      17.989 -55.236  27.176  1.00 38.38           O
ATOM   3803  CB  GLN A 499      20.780 -54.664  28.774  1.00 41.69           C
ATOM   3804  CG  GLN A 499      21.881 -54.944  29.794  1.00 55.30           C
ATOM   3805  CD  GLN A 499      21.565 -54.409  31.189  1.00 52.96           C
ATOM   3806  OE1 GLN A 499      21.734 -53.218  31.467  1.00 50.39           O
ATOM   3807  NE2 GLN A 499      21.115 -55.292  32.073  1.00 49.34           N
ATOM   3808  N   TRP A 500      17.760 -53.594  28.713  1.00 33.96           N
ATOM   3809  CA  TRP A 500      16.747 -52.842  27.999  1.00 27.88           C
ATOM   3810  C   TRP A 500      17.475 -51.791  27.177  1.00 29.91           C
ATOM   3811  O   TRP A 500      17.979 -50.818  27.725  1.00 31.03           O
ATOM   3812  CB  TRP A 500      15.802 -52.195  29.019  1.00 31.86           C
ATOM   3813  CG  TRP A 500      14.600 -51.482  28.464  1.00 31.86           C
ATOM   3814  CD1 TRP A 500      14.399 -51.068  27.172  1.00 28.00           C
ATOM   3815  CD2 TRP A 500      13.427 -51.091  29.195  1.00 30.66           C
ATOM   3816  NE1 TRP A 500      13.178 -50.446  27.061  1.00 26.59           N
ATOM   3817  CE2 TRP A 500      12.559 -50.450  28.283  1.00 28.29           C
ATOM   3818  CE3 TRP A 500      13.025 -51.230  30.530  1.00 26.84           C
ATOM   3819  CZ2 TRP A 500      11.313 -49.948  28.665  1.00 23.19           C
ATOM   3820  CZ3 TRP A 500      11.796 -50.727  30.909  1.00 24.10           C
ATOM   3821  CH2 TRP A 500      10.951 -50.093  29.980  1.00 25.67           C
ATOM   3822  N   PRO A 501      17.539 -51.993  25.851  1.00 31.98           N
ATOM   3823  CA  PRO A 501      18.247 -51.097  24.932  1.00 29.37           C
ATOM   3824  C   PRO A 501      17.417 -49.880  24.564  1.00 27.98           C
ATOM   3825  O   PRO A 501      16.193 -49.964  24.530  1.00 31.20           O
ATOM   3826  CB  PRO A 501      18.441 -51.957  23.672  1.00 29.46           C
ATOM   3827  CG  PRO A 501      17.643 -53.216  23.890  1.00 35.99           C
ATOM   3828  CD  PRO A 501      16.817 -53.049  25.127  1.00 28.00           C
ATOM   3829  N   PRO A 502      18.077 -48.759  24.266  1.00 27.69           N
ATOM   3830  CA  PRO A 502      17.372 -47.566  23.784  1.00 25.13           C
ATOM   3831  C   PRO A 502      16.678 -47.790  22.424  1.00 33.90           C
ATOM   3832  O   PRO A 502      17.188 -48.499  21.549  1.00 27.98           O
ATOM   3833  CB  PRO A 502      18.494 -46.530  23.641  1.00 30.60           C
ATOM   3834  CG  PRO A 502      19.579 -47.012  24.579  1.00 32.65           C
ATOM   3835  CD  PRO A 502      19.511 -48.511  24.492  1.00 28.87           C
ATOM   3836  N   TYR A 503      15.504 -47.185  22.272  1.00 28.46           N
ATOM   3837  CA  TYR A 503      14.759 -47.208  21.027  1.00 28.73           C
ATOM   3838  C   TYR A 503      15.367 -46.205  20.063  1.00 24.32           C
ATOM   3839  O   TYR A 503      15.677 -45.090  20.445  1.00 24.28           O
ATOM   3840  CB  TYR A 503      13.297 -46.839  21.292  1.00 29.16           C
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ATOM   3841  CG  TYR A 503      12.396 -46.838  20.070  1.00 26.35           C
ATOM   3842  CD1 TYR A 503      12.233 -45.688  19.297  1.00 28.54           C
ATOM   3843  CD2 TYR A 503      11.684 -47.976  19.710  1.00 24.26           C
ATOM   3844  CE1 TYR A 503      11.403 -45.683  18.186  1.00 25.71           C
ATOM   3845  CE2 TYR A 503      10.846 -47.980  18.608  1.00 24.90           C
ATOM   3846  CZ  TYR A 503      10.710 -46.835  17.851  1.00 25.92           C
ATOM   3847  OH  TYR A 503       9.878 -46.845  16.755  1.00 32.62           O
ATOM   3848  N   THR A 504      15.539 -46.605  18.812  1.00 23.47           N
ATOM   3849  CA  THR A 504      16.037 -45.696  17.778  1.00 30.76           C
ATOM   3850  C   THR A 504      15.178 -45.822  16.526  1.00 26.81           C
ATOM   3851  O   THR A 504      14.515 -46.846  16.325  1.00 25.17           O
ATOM   3852  CB  THR A 504      17.495 -46.010  17.407  1.00 27.90           C
ATOM   3853  OG1 THR A 504      17.595 -47.391  17.048  1.00 29.77           O
ATOM   3854  CG2 THR A 504      18.421 -45.744  18.591  1.00 28.51           C
ATOM   3855  N   ALA A 505      15.190 -44.787  15.689  1.00 32.27           N
ATOM   3856  CA  ALA A 505      14.382 -44.779  14.464  1.00 29.23           C
ATOM   3857  C   ALA A 505      14.706 -45.953  13.539  1.00 28.05           C
ATOM   3858  O   ALA A 505      13.829 -46.460  12.848  1.00 32.22           O
ATOM   3859  CB  ALA A 505      14.538 -43.462  13.725  1.00 25.35           C
ATOM   3860  N   GLY A 506      15.959 -46.398  13.546  1.00 27.54           N
ATOM   3861  CA  GLY A 506      16.358 -47.520  12.717  1.00 23.18           C
ATOM   3862  C   GLY A 506      16.062 -48.897  13.281  1.00 27.55           C
ATOM   3863  O   GLY A 506      15.261 -49.657  12.724  1.00 28.33           O
ATOM   3864  N   ALA A 507      16.727 -49.246  14.377  1.00 26.56           N
ATOM   3865  CA  ALA A 507      16.548 -50.578  14.956  1.00 27.12           C
ATOM   3866  C   ALA A 507      15.188 -50.745  15.640  1.00 23.57           C
ATOM   3867  O   ALA A 507      14.659 -51.853  15.700  1.00 26.83           O
ATOM   3868  CB  ALA A 507      17.693 -50.918  15.904  1.00 18.80           C
ATOM   3869  N   GLN A 508      14.634 -49.644  16.148  1.00 24.61           N
ATOM   3870  CA  GLN A 508      13.268 -49.634  16.684  1.00 27.10           C
ATOM   3871  C   GLN A 508      13.062 -50.643  17.813  1.00 27.62           C
ATOM   3872  O   GLN A 508      12.025 -51.305  17.894  1.00 27.55           O
ATOM   3873  CB  GLN A 508      12.254 -49.899  15.565  1.00 24.57           C
ATOM   3874  CG  GLN A 508      12.266 -48.861  14.446  1.00 28.27           C
ATOM   3875  CD  GLN A 508      11.436 -49.292  13.244  1.00 31.38           C
ATOM   3876  OE1 GLN A 508      10.214 -49.382  13.319  1.00 32.07           O
ATOM   3877  NE2 GLN A 508      12.102 -49.576  12.138  1.00 28.93           N
ATOM   3878  N   GLN A 509      14.057 -50.773  18.681  1.00 27.85           N
ATOM   3879  CA  GLN A 509      14.005 -51.796  19.718  1.00 29.36           C
ATOM   3880  C   GLN A 509      13.170 -51.376  20.925  1.00 25.85           C
ATOM   3881  O   GLN A 509      13.183 -50.217  21.339  1.00 22.12           O
ATOM   3882  CB  GLN A 509      15.416 -52.195  20.149  1.00 28.51           C
ATOM   3883  CG  GLN A 509      16.133 -53.106  19.159  1.00 29.19           C
ATOM   3884  CD  GLN A 509      17.601 -53.312  19.512  1.00 30.77           C
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ATOM   3885  OE1 GLN A 509      18.357 -52.351  19.649  1.00 36.45           O
ATOM   3886  NE2 GLN A 509      18.005 -54.566  19.659  1.00 28.18           N
ATOM   3887  N   TYR A 510      12.433 -52.333  21.472  1.00 25.86           N
ATOM   3888  CA  TYR A 510      11.661 -52.112  22.686  1.00 27.98           C
ATOM   3889  C   TYR A 510      11.641 -53.433  23.446  1.00 28.62           C
ATOM   3890  O   TYR A 510      12.032 -54.458  22.888  1.00 28.55           O
ATOM   3891  CB  TYR A 510      10.238 -51.689  22.330  1.00 27.05           C
ATOM   3892  CG  TYR A 510       9.455 -52.770  21.627  1.00 29.50           C
ATOM   3893  CD1 TYR A 510       9.493 -52.899  20.236  1.00 28.48           C
ATOM   3894  CD2 TYR A 510       8.687 -53.676  22.350  1.00 24.20           C
ATOM   3895  CE1 TYR A 510       8.773 -53.891  19.594  1.00 24.00           C
ATOM   3896  CE2 TYR A 510       7.975 -54.672  21.714  1.00 28.06           C
ATOM   3897  CZ  TYR A 510       8.018 -54.772  20.341  1.00 27.12           C
ATOM   3898  OH  TYR A 510       7.303 -55.770  19.729  1.00 35.61           O
ATOM   3899  N   VAL A 511      11.187 -53.424  24.699  1.00 24.76           N
ATOM   3900  CA  VAL A 511      11.057 -54.673  25.458  1.00 22.25           C
ATOM   3901  C   VAL A 511       9.611 -55.033  25.753  1.00 23.39           C
ATOM   3902  O   VAL A 511       8.739 -54.168  25.803  1.00 24.42           O
ATOM   3903  CB  VAL A 511      11.817 -54.644  26.807  1.00 28.67           C
ATOM   3904  CG1 VAL A 511      13.320 -54.515  26.583  1.00 25.52           C
ATOM   3905  CG2 VAL A 511      11.278 -53.532  27.701  1.00 20.79           C
ATOM   3906  N   SER A 512       9.361 -56.321  25.952  1.00 22.83           N
ATOM   3907  CA  SER A 512       8.063 -56.768  26.428  1.00 24.93           C
ATOM   3908  C   SER A 512       8.090 -56.818  27.952  1.00 31.13           C
ATOM   3909  O   SER A 512       9.027 -57.339  28.550  1.00 26.63           O
ATOM   3910  CB  SER A 512       7.722 -58.143  25.853  1.00 29.55           C
ATOM   3911  OG  SER A 512       8.750 -59.069  26.151  1.00 40.37           O
ATOM   3912  N   LEU A 513       7.065 -56.255  28.576  1.00 31.52           N
ATOM   3913  CA  LEU A 513       6.943 -56.295  30.020  1.00 25.58           C
ATOM   3914  C   LEU A 513       5.878 -57.301  30.433  1.00 31.83           C
ATOM   3915  O   LEU A 513       4.678 -57.064  30.235  1.00 29.08           O
ATOM   3916  CB  LEU A 513       6.599 -54.905  30.567  1.00 22.76           C
ATOM   3917  CG  LEU A 513       7.677 -53.833  30.392  1.00 29.66           C
ATOM   3918  CD1 LEU A 513       7.238 -52.492  31.005  1.00 21.14           C
ATOM   3919  CD2 LEU A 513       9.002 -54.315  30.984  1.00 23.57           C
ATOM   3920  N   ASP A 514       6.320 -58.428  30.988  1.00 25.47           N
ATOM   3921  CA  ASP A 514       5.407 -59.412  31.565  1.00 33.20           C
ATOM   3922  C   ASP A 514       6.122 -60.273  32.604  1.00 34.83           C
ATOM   3923  O   ASP A 514       7.216 -59.925  33.050  1.00 35.18           O
ATOM   3924  CB  ASP A 514       4.743 -60.278  30.485  1.00 34.97           C
ATOM   3925  CG  ASP A 514       5.746 -61.020  29.618  1.00 40.28           C
ATOM   3926  OD1 ASP A 514       6.953 -61.034  29.951  1.00 38.65           O
ATOM   3927  OD2 ASP A 514       5.313 -61.605  28.603  1.00 45.51           O
ATOM   3928  N   LEU A 515       5.512 -61.394  32.978  1.00 35.40           N
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ATOM   3929  CA  LEU A 515       6.066 -62.252  34.030  1.00 36.59           C
ATOM   3930  C   LEU A 515       7.409 -62.867  33.650  1.00 34.58           C
ATOM   3931  O   LEU A 515       8.247 -63.104  34.514  1.00 45.52           O
ATOM   3932  CB  LEU A 515       5.080 -63.351  34.403  1.00 30.84           C
ATOM   3933  CG  LEU A 515       3.721 -62.889  34.918  1.00 33.74           C
ATOM   3934  CD1 LEU A 515       2.898 -64.101  35.332  1.00 35.09           C
ATOM   3935  CD2 LEU A 515       3.876 -61.912  36.078  1.00 35.24           C
ATOM   3936  N   ARG A 516       7.606 -63.117  32.359  1.00 38.46           N
ATOM   3937  CA  ARG A 516       8.869 -63.634  31.834  1.00 36.84           C
ATOM   3938  C   ARG A 516       9.934 -62.550  31.883  1.00 34.70           C
ATOM   3939  O   ARG A 516       9.610 -61.373  31.950  1.00 35.38           O
ATOM   3940  CB  ARG A 516       8.693 -64.059  30.373  1.00 38.63           C
ATOM   3941  CG  ARG A 516       7.643 -65.126  30.114  1.00 48.11           C
ATOM   3942  CD  ARG A 516       7.464 -65.341  28.604  1.00 55.91           C
ATOM   3943  NE  ARG A 516       7.071 -64.110  27.910  1.00 65.65           N
ATOM   3944  CZ  ARG A 516       7.782 -63.509  26.954  1.00 60.23           C
ATOM   3945  NH1 ARG A 516       8.939 -64.023  26.548  1.00 54.11           N
ATOM   3946  NH2 ARG A 516       7.327 -62.392  26.394  1.00 54.91           N
ATOM   3947  N   PRO A 517      11.216 -62.940  31.827  1.00 41.57           N
ATOM   3948  CA  PRO A 517      12.293 -61.945  31.740  1.00 39.46           C
ATOM   3949  C   PRO A 517      12.139 -61.051  30.508  1.00 40.76           C
ATOM   3950  O   PRO A 517      11.484 -61.461  29.541  1.00 33.73           O
ATOM   3951  CB  PRO A 517      13.547 -62.807  31.585  1.00 36.37           C
ATOM   3952  CG  PRO A 517      13.188 -64.105  32.210  1.00 37.49           C
ATOM   3953  CD  PRO A 517      11.738 -64.315  31.912  1.00 37.69           C
ATOM   3954  N   LEU A 518      12.731 -59.856  30.553  1.00 36.34           N
ATOM   3955  CA  LEU A 518      12.713 -58.928  29.425  1.00 34.47           C
ATOM   3956  C   LEU A 518      13.071 -59.643  28.136  1.00 39.53           C
ATOM   3957  O   LEU A 518      13.956 -60.494  28.107  1.00 40.55           O
ATOM   3958  CB  LEU A 518      13.716 -57.791  29.621  1.00 34.68           C
ATOM   3959  CG  LEU A 518      13.444 -56.626  30.564  1.00 38.57           C
ATOM   3960  CD1 LEU A 518      14.541 -55.587  30.396  1.00 37.22           C
ATOM   3961  CD2 LEU A 518      12.067 -56.014  30.324  1.00 35.34           C
ATOM   3962  N   GLU A 519      12.369 -59.289  27.073  1.00 36.10           N
ATOM   3963  CA  GLU A 519      12.646 -59.822  25.756  1.00 38.36           C
ATOM   3964  C   GLU A 519      12.696 -58.634  24.809  1.00 33.00           C
ATOM   3965  O   GLU A 519      11.774 -57.820  24.782  1.00 28.01           O
ATOM   3966  CB  GLU A 519      11.549 -60.800  25.352  1.00 37.76           C
ATOM   3967  CG  GLU A 519      11.774 -61.472  24.016  1.00 53.61           C
ATOM   3968  CD  GLU A 519      10.568 -62.286  23.569  1.00 64.78           C
ATOM   3969  OE1 GLU A 519       9.978 -62.997  24.419  1.00 64.60           O
ATOM   3970  OE2 GLU A 519      10.208 -62.203  22.370  1.00 59.40           O
ATOM   3971  N   VAL A 520      13.795 -58.506  24.072  1.00 33.56           N
ATOM   3972  CA  VAL A 520      13.960 -57.395  23.144  1.00 29.57           C
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ATOM   3973  C   VAL A 520      13.329 -57.734  21.803  1.00 33.97           C
ATOM   3974  O   VAL A 520      13.506 -58.835  21.297  1.00 36.71           O
ATOM   3975  CB  VAL A 520      15.436 -57.060  22.925  1.00 32.54           C
ATOM   3976  CG1 VAL A 520      15.583 -55.932  21.906  1.00 28.80           C
ATOM   3977  CG2 VAL A 520      16.079 -56.674  24.242  1.00 29.32           C
ATOM   3978  N   ARG A 521      12.574 -56.789  21.249  1.00 34.38           N
ATOM   3979  CA  ARG A 521      11.919 -56.966  19.961  1.00 29.48           C
ATOM   3980  C   ARG A 521      12.092 -55.720  19.117  1.00 30.63           C
ATOM   3981  O   ARG A 521      12.625 -54.715  19.591  1.00 37.34           O
ATOM   3982  CB  ARG A 521      10.441 -57.264  20.156  1.00 33.43           C
ATOM   3983  CG  ARG A 521      10.190 -58.522  20.942  1.00 36.19           C
ATOM   3984  CD  ARG A 521       8.721 -58.693  21.243  1.00 42.05           C
ATOM   3985  NE  ARG A 521       8.508 -59.858  22.093  1.00 47.35           N
ATOM   3986  CZ  ARG A 521       7.366 -60.134  22.707  1.00 53.69           C
ATOM   3987  NH1 ARG A 521       6.326 -59.320  22.564  1.00 51.75           N
ATOM   3988  NH2 ARG A 521       7.268 -61.221  23.466  1.00 51.57           N
ATOM   3989  N   ARG A 522      11.644 -55.791  17.868  1.00 31.29           N
ATOM   3990  CA  ARG A 522      11.818 -54.695  16.919  1.00 35.65           C
ATOM   3991  C   ARG A 522      10.484 -54.244  16.341  1.00 30.66           C
ATOM   3992  O   ARG A 522       9.683 -55.066  15.902  1.00 35.43           O
ATOM   3993  CB  ARG A 522      12.736 -55.109  15.758  1.00 31.85           C
ATOM   3994  CG  ARG A 522      14.173 -55.426  16.134  1.00 34.39           C
ATOM   3995  CD  ARG A 522      15.060 -55.463  14.889  1.00 27.26           C
ATOM   3996  NE  ARG A 522      15.037 -54.170  14.211  1.00 29.66           N
ATOM   3997  CZ  ARG A 522      14.858 -54.007  12.903  1.00 39.97           C
ATOM   3998  NH1 ARG A 522      14.705 -55.067  12.109  1.00 30.68           N
ATOM   3999  NH2 ARG A 522      14.842 -52.777  12.392  1.00 32.57           N
ATOM   4000  N   GLY A 523      10.258 -52.936  16.337  1.00 28.85           N
ATOM   4001  CA  GLY A 523       9.123 -52.362  15.639  1.00 29.20           C
ATOM   4002  C   GLY A 523       7.855 -52.220  16.451  1.00 29.85           C
ATOM   4003  O   GLY A 523       7.238 -53.207  16.853  1.00 27.16           O
ATOM   4004  N   LEU A 524       7.461 -50.976  16.695  1.00 26.31           N
ATOM   4005  CA  LEU A 524       6.166 -50.719  17.300  1.00 29.51           C
ATOM   4006  C   LEU A 524       5.114 -50.739  16.195  1.00 30.59           C
ATOM   4007  O   LEU A 524       4.674 -49.677  15.726  1.00 26.81           O
ATOM   4008  CB  LEU A 524       6.161 -49.369  18.019  1.00 21.81           C
ATOM   4009  CG  LEU A 524       7.065 -49.275  19.247  1.00 27.97           C
ATOM   4010  CD1 LEU A 524       7.188 -47.822  19.702  1.00 26.48           C
ATOM   4011  CD2 LEU A 524       6.517 -50.156  20.360  1.00 22.04           C
ATOM   4012  N   ARG A 525       4.719 -51.949  15.800  0.44 27.08           N
ATOM   4014  CA  ARG A 525       3.777 -52.159  14.706  0.44 30.14           C
ATOM   4016  C   ARG A 525       4.170 -51.315  13.504  0.44 29.07           C
ATOM   4018  O   ARG A 525       3.381 -50.519  12.988  0.44 28.48           O
ATOM   4020  CB  ARG A 525       2.344 -51.877  15.155  0.44 29.15           C
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ATOM   4022  CG  ARG A 525       1.892 -52.791  16.282  0.44 27.15           C
ATOM   4024  CD  ARG A 525       0.393 -52.727  16.507  0.44 24.02           C
ATOM   4026  NE  ARG A 525      -0.006 -53.576  17.625  0.44 26.68           N
ATOM   4028  CZ  ARG A 525      -1.264 -53.845  17.952  0.44 28.56           C
ATOM   4030  NH1 ARG A 525      -2.261 -53.328  17.244  0.44 24.69           N
ATOM   4032  NH2 ARG A 525      -1.523 -54.635  18.990  0.44 26.19           N
ATOM   4034  N   ALA A 526       5.417 -51.500  13.088  1.00 28.97           N
ATOM   4035  CA  ALA A 526       6.027 -50.732  12.014  1.00 26.01           C
ATOM   4036  C   ALA A 526       5.239 -50.714  10.698  1.00 25.97           C
ATOM   4037  O   ALA A 526       5.096 -49.662  10.081  1.00 22.97           O
ATOM   4038  CB  ALA A 526       7.460 -51.220  11.781  1.00 25.78           C
ATOM   4039  N   GLN A 527       4.734 -51.869  10.276  1.00 25.99           N
ATOM   4040  CA  GLN A 527       3.961 -51.931   9.041  1.00 28.75           C
ATOM   4041  C   GLN A 527       2.699 -51.092   9.132  1.00 23.13           C
ATOM   4042  O   GLN A 527       2.440 -50.275   8.261  1.00 31.77           O
ATOM   4043  CB  GLN A 527       3.618 -53.372   8.655  1.00 21.52           C
ATOM   4044  CG  GLN A 527       4.809 -54.324   8.650  1.00 31.69           C
ATOM   4045  CD  GLN A 527       6.011 -53.840   7.818  1.00 36.82           C
ATOM   4046  OE1 GLN A 527       7.166 -54.109   8.174  1.00 45.76           O
ATOM   4047  NE2 GLN A 527       5.745 -53.162   6.703  1.00 24.42           N
ATOM   4048  N   ALA A 528       1.924 -51.277  10.192  1.00 27.42           N
ATOM   4049  CA  ALA A 528       0.703 -50.498  10.375  1.00 24.78           C
ATOM   4050  C   ALA A 528       1.007 -49.014  10.589  1.00 25.74           C
ATOM   4051  O   ALA A 528       0.308 -48.145  10.071  1.00 30.15           O
ATOM   4052  CB  ALA A 528      -0.110 -51.048  11.540  1.00 26.45           C
ATOM   4053  N   CYS A 529       2.053 -48.714  11.344  1.00 21.23           N
ATOM   4054  CA  CYS A 529       2.338 -47.315  11.661  1.00 22.48           C
ATOM   4055  C   CYS A 529       2.937 -46.528  10.486  1.00 26.74           C
ATOM   4056  O   CYS A 529       2.814 -45.299  10.425  1.00 23.49           O
ATOM   4057  CB  CYS A 529       3.186 -47.202  12.935  1.00 25.75           C
ATOM   4058  SG  CYS A 529       2.258 -47.695  14.454  1.00 26.72           S
ATOM   4059  N   ALA A 530       3.561 -47.233   9.543  1.00 22.48           N
ATOM   4060  CA  ALA A 530       3.980 -46.601   8.295  1.00 24.24           C
ATOM   4061  C   ALA A 530       2.763 -46.008   7.602  1.00 24.53           C
ATOM   4062  O   ALA A 530       2.827 -44.914   7.036  1.00 24.08           O
ATOM   4063  CB  ALA A 530       4.660 -47.603   7.385  1.00 21.84           C
ATOM   4064  N   PHE A 531       1.650 -46.736   7.657  1.00 21.27           N
ATOM   4065  CA  PHE A 531       0.407 -46.265   7.052  1.00 23.07           C
ATOM   4066  C   PHE A 531      -0.102 -44.981   7.721  1.00 27.44           C
ATOM   4067  O   PHE A 531      -0.340 -43.984   7.042  1.00 27.79           O
ATOM   4068  CB  PHE A 531      -0.664 -47.365   7.078  1.00 25.82           C
ATOM   4069  CG  PHE A 531      -2.056 -46.864   6.803  1.00 25.95           C
ATOM   4070  CD1 PHE A 531      -2.458 -46.569   5.508  1.00 25.61           C
ATOM   4071  CD2 PHE A 531      -2.963 -46.693   7.840  1.00 23.77           C
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ATOM   4072  CE1 PHE A 531      -3.741 -46.099   5.248  1.00 29.73           C
ATOM   4073  CE2 PHE A 531      -4.243 -46.222   7.592  1.00 28.02           C
ATOM   4074  CZ  PHE A 531      -4.636 -45.923   6.289  1.00 30.35           C
ATOM   4075  N   TRP A 532      -0.242 -45.002   9.047  1.00 21.54           N
ATOM   4076  CA  TRP A 532      -0.804 -43.863   9.776  1.00 23.16           C
ATOM   4077  C   TRP A 532       0.125 -42.664   9.798  1.00 26.60           C
ATOM   4078  O   TRP A 532      -0.333 -41.515   9.741  1.00 25.43           O
ATOM   4079  CB  TRP A 532      -1.175 -44.248  11.223  1.00 19.76           C
ATOM   4080  CG  TRP A 532      -2.256 -45.287  11.302  1.00 18.42           C
ATOM   4081  CD1 TRP A 532      -2.101 -46.627  11.524  1.00 20.41           C
ATOM   4082  CD2 TRP A 532      -3.660 -45.071  11.130  1.00 18.93           C
ATOM   4083  NE1 TRP A 532      -3.322 -47.257  11.508  1.00 18.50           N
ATOM   4084  CE2 TRP A 532      -4.296 -46.318  11.277  1.00 21.68           C
ATOM   4085  CE3 TRP A 532      -4.442 -43.941  10.868  1.00 19.57           C
ATOM   4086  CZ2 TRP A 532      -5.677 -46.465  11.167  1.00 23.43           C
ATOM   4087  CZ3 TRP A 532      -5.813 -44.092  10.762  1.00 18.85           C
ATOM   4088  CH2 TRP A 532      -6.414 -45.338  10.910  1.00 18.05           C
ATOM   4089  N   ASN A 533       1.426 -42.930   9.882  1.00 26.46           N
ATOM   4090  CA  ASN A 533       2.406 -41.866  10.085  1.00 23.38           C
ATOM   4091  C   ASN A 533       3.015 -41.328   8.791  1.00 23.77           C
ATOM   4092  O   ASN A 533       3.359 -40.153   8.710  1.00 24.32           O
ATOM   4093  CB  ASN A 533       3.510 -42.301  11.070  1.00 22.14           C
ATOM   4094  CG  ASN A 533       2.974 -42.568  12.487  1.00 27.69           C
ATOM   4095  OD1 ASN A 533       1.935 -42.039  12.880  1.00 26.73           O
ATOM   4096  ND2 ASN A 533       3.691 -43.392  13.252  1.00 21.16           N
ATOM   4097  N   ARG A 534       3.149 -42.178   7.778  1.00 24.48           N
ATOM   4098  CA  ARG A 534       3.812 -41.757   6.540  1.00 25.46           C
ATOM   4099  C   ARG A 534       2.856 -41.520   5.382  1.00 24.93           C
ATOM   4100  O   ARG A 534       2.909 -40.478   4.742  1.00 36.43           O
ATOM   4101  CB  ARG A 534       4.875 -42.768   6.125  1.00 26.52           C
ATOM   4102  CG  ARG A 534       5.956 -42.942   7.167  1.00 28.43           C
ATOM   4103  CD  ARG A 534       6.888 -44.096   6.831  1.00 31.59           C
ATOM   4104  NE  ARG A 534       7.785 -44.316   7.955  1.00 39.95           N
ATOM   4105  CZ  ARG A 534       8.942 -43.685   8.117  1.00 40.83           C
ATOM   4106  NH1 ARG A 534       9.359 -42.813   7.201  1.00 34.71           N
ATOM   4107  NH2 ARG A 534       9.688 -43.940   9.186  1.00 40.23           N
ATOM   4108  N   PHE A 535       1.983 -42.483   5.113  1.00 25.85           N
ATOM   4109  CA  PHE A 535       1.089 -42.384   3.960  1.00 27.73           C
ATOM   4110  C   PHE A 535      -0.180 -41.566   4.193  1.00 29.52           C
ATOM   4111  O   PHE A 535      -0.463 -40.645   3.438  1.00 32.74           O
ATOM   4112  CB  PHE A 535       0.696 -43.765   3.411  1.00 24.39           C
ATOM   4113  CG  PHE A 535      -0.233 -43.685   2.238  1.00 26.16           C
ATOM   4114  CD1 PHE A 535       0.227 -43.235   1.012  1.00 27.67           C
ATOM   4115  CD2 PHE A 535      -1.571 -44.016   2.367  1.00 26.36           C
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ATOM   4116  CE1 PHE A 535      -0.633 -43.125  -0.075  1.00 29.19           C
ATOM   4117  CE2 PHE A 535      -2.436 -43.917   1.289  1.00 32.17           C
ATOM   4118  CZ  PHE A 535      -1.967 -43.471   0.065  1.00 31.02           C
ATOM   4119  N   LEU A 536      -0.955 -41.918   5.216  1.00 32.97           N
ATOM   4120  CA  LEU A 536      -2.271 -41.301   5.409  1.00 33.83           C
ATOM   4121  C   LEU A 536      -2.303 -39.759   5.453  1.00 34.18           C
ATOM   4122  O   LEU A 536      -3.211 -39.159   4.888  1.00 37.39           O
ATOM   4123  CB  LEU A 536      -3.011 -41.909   6.600  1.00 27.61           C
ATOM   4124  CG  LEU A 536      -4.518 -41.661   6.565  1.00 36.86           C
ATOM   4125  CD1 LEU A 536      -5.148 -42.390   5.400  1.00 37.05           C
ATOM   4126  CD2 LEU A 536      -5.172 -42.084   7.852  1.00 32.33           C
ATOM   4127  N   PRO A 537      -1.322 -39.115   6.118  1.00 35.13           N
ATOM   4128  CA  PRO A 537      -1.260 -37.649   6.016  1.00 32.33           C
ATOM   4129  C   PRO A 537      -1.191 -37.139   4.576  1.00 39.65           C
ATOM   4130  O   PRO A 537      -1.914 -36.198   4.243  1.00 43.30           O
ATOM   4131  CB  PRO A 537       0.041 -37.306   6.739  1.00 31.23           C
ATOM   4132  CG  PRO A 537       0.208 -38.397   7.738  1.00 34.87           C
ATOM   4133  CD  PRO A 537      -0.346 -39.637   7.094  1.00 33.67           C
ATOM   4134  N   LYS A 538      -0.335 -37.740   3.747  1.00 43.30           N
ATOM   4135  CA  LYS A 538      -0.200 -37.342   2.338  1.00 38.29           C
ATOM   4136  C   LYS A 538      -1.543 -37.403   1.631  1.00 38.99           C
ATOM   4137  O   LYS A 538      -1.918 -36.486   0.906  1.00 49.85           O
ATOM   4138  CB  LYS A 538       0.809 -38.233   1.607  1.00 32.88           C
ATOM   4139  CG  LYS A 538       2.240 -38.121   2.139  1.00 37.25           C
ATOM   4140  CD  LYS A 538       3.208 -38.962   1.328  1.00 34.07           C
ATOM   4141  CE  LYS A 538       4.656 -38.625   1.672  1.00 40.29           C
ATOM   4142  NZ  LYS A 538       5.029 -39.050   3.049  1.00 49.96           N
ATOM   4143  N   LEU A 539      -2.265 -38.492   1.862  1.00 37.42           N
ATOM   4144  CA  LEU A 539      -3.585 -38.679   1.289  1.00 44.09           C
ATOM   4145  C   LEU A 539      -4.516 -37.539   1.685  1.00 43.65           C
ATOM   4146  O   LEU A 539      -5.081 -36.868   0.824  1.00 49.22           O
ATOM   4147  CB  LEU A 539      -4.158 -40.030   1.720  1.00 38.01           C
ATOM   4148  CG  LEU A 539      -5.526 -40.403   1.158  1.00 44.98           C
ATOM   4149  CD1 LEU A 539      -5.599 -41.889   0.905  1.00 37.82           C
ATOM   4150  CD2 LEU A 539      -6.630 -39.979   2.108  1.00 41.41           C
ATOM   4151  N   LEU A 540      -4.666 -37.322   2.988  1.00 53.11           N
ATOM   4152  CA  LEU A 540      -5.513 -36.244   3.508  1.00 51.08           C
ATOM   4153  C   LEU A 540      -5.178 -34.863   2.909  1.00 49.04           C
ATOM   4154  O   LEU A 540      -6.078 -34.068   2.633  1.00 60.01           O
ATOM   4155  CB  LEU A 540      -5.464 -36.203   5.042  1.00 42.63           C
ATOM   4156  CG  LEU A 540      -5.946 -37.451   5.801  1.00 45.41           C
ATOM   4157  CD1 LEU A 540      -5.959 -37.228   7.302  1.00 32.64           C
ATOM   4158  CD2 LEU A 540      -7.317 -37.884   5.342  1.00 42.75           C
ATOM   4159  N   SER A 541      -3.893 -34.598   2.682  1.00 46.80           N
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ATOM   4160  CA  SER A 541      -3.448 -33.332   2.092  1.00 48.24           C
ATOM   4161  C   SER A 541      -3.767 -33.197   0.602  1.00 58.15           C
ATOM   4162  O   SER A 541      -3.442 -32.179  -0.008  1.00 60.94           O
ATOM   4163  CB  SER A 541      -1.944 -33.145   2.290  1.00 47.04           C
ATOM   4164  OG  SER A 541      -1.594 -33.272   3.655  1.00 58.30           O
ATOM   4165  N   ALA A 542      -4.384 -34.222   0.017  1.00 61.61           N
ATOM   4166  CA  ALA A 542      -4.797 -34.177  -1.385  1.00 61.36           C
ATOM   4167  C   ALA A 542      -6.292 -34.471  -1.547  1.00 62.64           C
ATOM   4168  O   ALA A 542      -7.111 -34.089  -0.702  1.00 61.06           O
ATOM   4169  CB  ALA A 542      -3.965 -35.142  -2.216  1.00 49.85           C
TER    4170      ALA A 542
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Coordinates of BChE (7aiy.pdb) used for the docking study.

The search region of the enzyme was determined by setting the grid box around the center of the active site, consisting of 5 subdomains: peripheral anionic site (Asp70, Tyr114, Tyr128, Tyr332), anionic site (Trp82, Glu197, Phe329), oxyanion hole (Gly116, Gly117, Ala199), acyl pocket (Leu286, Val288) and esteratic site (Ser198, Glu325, His438).

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ATOM      1  N   ASP A   3       2.890   3.256  13.791  1.00124.50           N
ATOM      2  CA  ASP A   3       3.333   1.907  14.138  1.00128.88           C
ATOM      3  C   ASP A   3       4.243   1.957  15.379  1.00127.25           C
ATOM      4  O   ASP A   3       5.350   2.510  15.322  1.00127.10           O
ATOM      5  CB  ASP A   3       4.064   1.267  12.948  1.00122.02           C
ATOM      6  CG  ASP A   3       3.855  -0.243  12.863  1.00117.02           C
ATOM      7  OD1 ASP A   3       3.209  -0.827  13.757  1.00118.85           O
ATOM      8  OD2 ASP A   3       4.345  -0.852  11.891  1.00126.34           O
ATOM      9  N   ILE A   4       3.781   1.397  16.500  1.00113.53           N
ATOM     10  CA  ILE A   4       4.507   1.463  17.766  1.00108.97           C
ATOM     11  C   ILE A   4       4.730   0.046  18.281  1.00102.77           C
ATOM     12  O   ILE A   4       3.780  -0.734  18.424  1.00102.95           O
ATOM     13  CB  ILE A   4       3.776   2.330  18.800  1.00105.31           C
ATOM     14  CG1 ILE A   4       4.586   2.397  20.106  1.00101.54           C
ATOM     15  CG2 ILE A   4       2.362   1.832  18.993  1.00103.96           C
ATOM     16  CD1 ILE A   4       5.606   3.531  20.139  1.00101.44           C
ATOM     17  N   ILE A   5       5.980  -0.276  18.587  1.00 98.65           N
ATOM     18  CA  ILE A   5       6.409  -1.663  18.710  1.00 92.73           C
ATOM     19  C   ILE A   5       7.633  -1.696  19.606  1.00 94.40           C
ATOM     20  O   ILE A   5       8.538  -0.872  19.450  1.00100.81           O
ATOM     21  CB  ILE A   5       6.702  -2.223  17.308  1.00 97.51           C
ATOM     22  CG1 ILE A   5       7.331  -3.597  17.369  1.00 94.68           C
ATOM     23  CG2 ILE A   5       7.615  -1.291  16.529  1.00102.37           C
ATOM     24  CD1 ILE A   5       7.129  -4.267  16.078  1.00 95.66           C
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ATOM     25  N   ILE A   6       7.664  -2.595  20.580  1.00 84.52           N
ATOM     26  CA  ILE A   6       8.646  -2.418  21.637  1.00 93.00           C
ATOM     27  C   ILE A   6       9.186  -3.770  22.081  1.00101.11           C
ATOM     28  O   ILE A   6       8.477  -4.787  22.070  1.00100.84           O
ATOM     29  CB  ILE A   6       8.060  -1.573  22.796  1.00 86.92           C
ATOM     30  CG1 ILE A   6       9.188  -0.775  23.492  1.00 95.17           C
ATOM     31  CG2 ILE A   6       7.350  -2.455  23.780  1.00 91.09           C
ATOM     32  CD1 ILE A   6       8.764   0.419  24.292  1.00 86.70           C
ATOM     33  N   ALA A   7      10.480  -3.783  22.382  1.00 97.68           N
ATOM     34  CA  ALA A   7      11.245  -5.007  22.532  1.00100.09           C
ATOM     35  C   ALA A   7      11.159  -5.453  23.982  1.00101.44           C
ATOM     36  O   ALA A   7      11.610  -4.742  24.886  1.00104.67           O
ATOM     37  CB  ALA A   7      12.696  -4.783  22.101  1.00 90.13           C
ATOM     38  N   THR A   8      10.564  -6.614  24.205  1.00 98.55           N
ATOM     39  CA  THR A   8      10.584  -7.195  25.533  1.00 97.98           C
ATOM     40  C   THR A   8      11.833  -8.065  25.674  1.00105.74           C
ATOM     41  O   THR A   8      12.675  -8.146  24.772  1.00 99.60           O
ATOM     42  CB  THR A   8       9.316  -8.000  25.807  1.00101.34           C
ATOM     43  OG1 THR A   8       9.382  -8.517  27.138  1.00109.78           O
ATOM     44  CG2 THR A   8       9.217  -9.192  24.889  1.00 97.63           C
ATOM     45  N   LYS A   9      11.956  -8.729  26.824  1.00110.35           N
ATOM     46  CA  LYS A   9      13.022  -9.691  27.068  1.00105.30           C
ATOM     47  C   LYS A   9      12.850 -10.967  26.246  1.00101.88           C
ATOM     48  O   LYS A   9      13.795 -11.759  26.171  1.00110.71           O
ATOM     49  CB  LYS A   9      13.088  -9.985  28.585  1.00 95.57           C
ATOM     50  CG  LYS A   9      13.967 -11.159  29.056  1.00 96.30           C
ATOM     51  CD  LYS A   9      14.260 -11.073  30.569  1.00 96.56           C
ATOM     52  CE  LYS A   9      14.242 -12.448  31.258  1.00 98.62           C
ATOM     53  NZ  LYS A   9      12.959 -12.762  31.972  1.00 87.40           N
ATOM     54  N   ASN A  10      11.697 -11.170  25.586  1.00 99.14           N
ATOM     55  CA  ASN A  10      11.464 -12.420  24.861  1.00109.47           C
ATOM     56  C   ASN A  10      10.877 -12.193  23.471  1.00110.54           C
ATOM     57  O   ASN A  10      10.212 -13.078  22.917  1.00106.92           O
ATOM     58  CB  ASN A  10      10.546 -13.354  25.649  1.00103.55           C
ATOM     59  CG  ASN A  10      11.050 -13.615  27.035  1.00100.49           C
ATOM     60  OD1 ASN A  10      10.481 -13.125  28.007  1.00110.80           O
ATOM     61  ND2 ASN A  10      12.124 -14.393  27.144  1.00 95.58           N
ATOM     62  N   GLY A  11      11.126 -11.047  22.884  1.00106.02           N
ATOM     63  CA  GLY A  11      10.638 -10.786  21.554  1.00100.73           C
ATOM     64  C   GLY A  11      10.132  -9.373  21.485  1.00100.03           C
ATOM     65  O   GLY A  11      10.360  -8.571  22.385  1.00 98.97           O
ATOM     66  N   LYS A  12       9.500  -9.022  20.373  1.00106.48           N
ATOM     67  CA  LYS A  12       8.966  -7.676  20.236  1.00 98.88           C
ATOM     68  C   LYS A  12       7.489  -7.786  19.909  1.00 97.17           C
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ATOM     69  O   LYS A  12       7.044  -8.772  19.324  1.00 95.00           O
ATOM     70  CB  LYS A  12       9.766  -6.792  19.238  1.00 89.59           C
ATOM     71  CG  LYS A  12      10.310  -7.220  17.898  1.00 92.19           C
ATOM     72  CD  LYS A  12       9.287  -7.002  16.717  1.00108.98           C
ATOM     73  CE  LYS A  12       9.920  -6.545  15.468  1.00117.98           C
ATOM     74  NZ  LYS A  12       8.768  -6.240  14.583  1.00127.65           N
ATOM     75  N   VAL A  13       6.718  -6.810  20.380  1.00 96.29           N
ATOM     76  CA  VAL A  13       5.259  -6.878  20.405  1.00 93.06           C
ATOM     77  C   VAL A  13       4.688  -5.597  19.796  1.00 78.85           C
ATOM     78  O   VAL A  13       5.168  -4.500  20.092  1.00 82.09           O
ATOM     79  CB  VAL A  13       4.746  -7.080  21.850  1.00 89.54           C
ATOM     80  CG1 VAL A  13       3.326  -6.584  22.034  1.00 93.02           C
ATOM     81  CG2 VAL A  13       4.853  -8.531  22.280  1.00 87.59           C
ATOM     82  N   ARG A  14       3.669  -5.724  18.949  1.00 76.04           N
ATOM     83  CA  ARG A  14       3.057  -4.569  18.295  1.00 95.11           C
ATOM     84  C   ARG A  14       1.752  -4.208  18.990  1.00 94.09           C
ATOM     85  O   ARG A  14       0.955  -5.096  19.314  1.00 90.02           O
ATOM     86  CB  ARG A  14       2.778  -4.844  16.816  1.00 95.36           C
ATOM     87  CG  ARG A  14       1.687  -3.964  16.234  1.00 95.51           C
ATOM     88  CD  ARG A  14       1.317  -4.410  14.838  1.00106.41           C
ATOM     89  NE  ARG A  14       2.482  -4.841  14.078  1.00111.87           N
ATOM     90  CZ  ARG A  14       2.444  -5.167  12.793  1.00109.84           C
ATOM     91  NH1 ARG A  14       1.293  -5.098  12.131  1.00 99.48           N
ATOM     92  NH2 ARG A  14       3.555  -5.553  12.174  1.00110.47           N
ATOM     93  N   GLY A  15       1.512  -2.906  19.178  1.00 99.24           N
ATOM     94  CA  GLY A  15       0.328  -2.429  19.842  1.00 88.62           C
ATOM     95  C   GLY A  15      -0.677  -1.725  18.952  1.00 88.60           C
ATOM     96  O   GLY A  15      -0.690  -1.872  17.727  1.00 94.53           O
ATOM     97  N   MET A  16      -1.559  -0.975  19.616  1.00 78.02           N
ATOM     98  CA  MET A  16      -2.632  -0.226  18.986  1.00 79.79           C
ATOM     99  C   MET A  16      -2.754   1.157  19.621  1.00 90.76           C
ATOM    100  O   MET A  16      -2.469   1.363  20.814  1.00 82.39           O
ATOM    101  CB  MET A  16      -3.991  -0.919  19.108  1.00 74.22           C
ATOM    102  CG  MET A  16      -4.020  -2.414  18.998  1.00 88.42           C
ATOM    103  SD  MET A  16      -5.516  -2.945  19.861  1.00100.81           S
ATOM    104  CE  MET A  16      -6.603  -1.541  19.529  1.00 76.56           C
ATOM    105  N   ASN A  17      -3.231   2.090  18.788  1.00 80.91           N
ATOM    106  CA  ASN A  17      -3.457   3.488  19.137  1.00 91.87           C
ATOM    107  C   ASN A  17      -4.948   3.753  19.357  1.00 89.22           C
ATOM    108  O   ASN A  17      -5.769   3.520  18.463  1.00 89.10           O
ATOM    109  CB  ASN A  17      -2.899   4.417  18.058  1.00 30.00           C
ATOM    110  CG  ASN A  17      -1.383   4.455  18.047  1.00 30.00           C
ATOM    111  OD1 ASN A  17      -0.736   4.154  19.050  1.00 30.00           O
ATOM    112  ND2 ASN A  17      -0.808   4.825  16.909  1.00 30.00           N
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ATOM    113  N   LEU A  18      -5.311   4.212  20.556  1.00 78.24           N
ATOM    114  CA  LEU A  18      -6.715   4.414  20.913  1.00 77.90           C
ATOM    115  C   LEU A  18      -7.032   5.887  21.127  1.00 88.85           C
ATOM    116  O   LEU A  18      -6.317   6.584  21.854  1.00 91.44           O
ATOM    117  CB  LEU A  18      -7.105   3.644  22.183  1.00 84.57           C
ATOM    118  CG  LEU A  18      -6.822   2.144  22.330  1.00 96.00           C
ATOM    119  CD1 LEU A  18      -5.366   1.878  22.677  1.00 91.46           C
ATOM    120  CD2 LEU A  18      -7.743   1.559  23.401  1.00 93.92           C
ATOM    121  N   THR A  19      -8.127   6.351  20.525  1.00 87.68           N
ATOM    122  CA  THR A  19      -8.638   7.682  20.839  1.00 85.16           C
ATOM    123  C   THR A  19      -9.338   7.647  22.201  1.00 95.78           C
ATOM    124  O   THR A  19     -10.320   6.916  22.390  1.00 98.05           O
ATOM    125  CB  THR A  19      -9.593   8.177  19.748  1.00 85.80           C
ATOM    126  OG1 THR A  19     -10.450   7.108  19.320  1.00 94.24           O
ATOM    127  CG2 THR A  19      -8.811   8.709  18.547  1.00 83.58           C
ATOM    128  N   VAL A  20      -8.808   8.403  23.166  1.00 95.84           N
ATOM    129  CA  VAL A  20      -9.428   8.522  24.484  1.00 85.07           C
ATOM    130  C   VAL A  20      -9.473   9.991  24.879  1.00 81.91           C
ATOM    131  O   VAL A  20      -8.435  10.573  25.218  1.00 77.53           O
ATOM    132  CB  VAL A  20      -8.673   7.703  25.548  1.00 81.78           C
ATOM    133  CG1 VAL A  20      -9.423   7.748  26.863  1.00 73.26           C
ATOM    134  CG2 VAL A  20      -8.475   6.276  25.096  1.00 78.78           C
ATOM    135  N   PHE A  21     -10.669  10.597  24.825  1.00 80.23           N
ATOM    136  CA  PHE A  21     -10.894  11.973  25.290  1.00 86.18           C
ATOM    137  C   PHE A  21     -10.050  12.981  24.520  1.00 90.05           C
ATOM    138  O   PHE A  21      -9.394  13.847  25.113  1.00 88.76           O
ATOM    139  CB  PHE A  21     -10.609  12.111  26.786  1.00 83.04           C
ATOM    140  CG  PHE A  21     -11.451  11.239  27.641  1.00 85.78           C
ATOM    141  CD1 PHE A  21     -10.925  10.669  28.786  1.00 84.51           C
ATOM    142  CD2 PHE A  21     -12.771  10.994  27.312  1.00 80.47           C
ATOM    143  CE1 PHE A  21     -11.697   9.867  29.588  1.00 79.62           C
ATOM    144  CE2 PHE A  21     -13.547  10.199  28.109  1.00 81.07           C
ATOM    145  CZ  PHE A  21     -13.012   9.633  29.250  1.00 81.06           C
ATOM    146  N   GLY A  22     -10.066  12.870  23.193  1.00 77.03           N
ATOM    147  CA  GLY A  22      -9.215  13.739  22.399  1.00 85.24           C
ATOM    148  C   GLY A  22      -7.747  13.639  22.751  1.00 87.03           C
ATOM    149  O   GLY A  22      -7.031  14.647  22.733  1.00 87.50           O
ATOM    150  N   GLY A  23      -7.293  12.453  23.120  1.00 91.28           N
ATOM    151  CA  GLY A  23      -5.890  12.162  23.299  1.00 88.43           C
ATOM    152  C   GLY A  23      -5.697  10.767  22.759  1.00 97.30           C
ATOM    153  O   GLY A  23      -6.649  10.168  22.245  1.00 99.86           O
ATOM    154  N   THR A  24      -4.494  10.230  22.831  1.00 94.92           N
ATOM    155  CA  THR A  24      -4.299   8.857  22.406  1.00 89.74           C
ATOM    156  C   THR A  24      -3.600   8.102  23.519  1.00 99.56           C
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ATOM    157  O   THR A  24      -2.861   8.678  24.330  1.00 97.81           O
ATOM    158  CB  THR A  24      -3.499   8.703  21.079  1.00 89.86           C
ATOM    159  OG1 THR A  24      -2.094   8.673  21.351  1.00 88.66           O
ATOM    160  CG2 THR A  24      -3.820   9.819  20.063  1.00 86.07           C
ATOM    161  N   VAL A  25      -3.870   6.800  23.552  1.00102.18           N
ATOM    162  CA  VAL A  25      -3.293   5.885  24.521  1.00 86.86           C
ATOM    163  C   VAL A  25      -2.871   4.633  23.753  1.00 86.99           C
ATOM    164  O   VAL A  25      -3.534   4.244  22.789  1.00 89.27           O
ATOM    165  CB  VAL A  25      -4.308   5.583  25.648  1.00 80.93           C
ATOM    166  CG1 VAL A  25      -5.286   4.478  25.255  1.00 92.62           C
ATOM    167  CG2 VAL A  25      -3.604   5.275  26.964  1.00 80.38           C
ATOM    168  N   THR A  26      -1.730   4.047  24.112  1.00 91.28           N
ATOM    169  CA  THR A  26      -1.214   2.826  23.487  1.00 92.18           C
ATOM    170  C   THR A  26      -1.684   1.664  24.345  1.00 85.48           C
ATOM    171  O   THR A  26      -1.411   1.645  25.553  1.00 79.82           O
ATOM    172  CB  THR A  26       0.324   2.800  23.458  1.00 92.28           C
ATOM    173  OG1 THR A  26       0.770   3.332  24.693  1.00100.39           O
ATOM    174  CG2 THR A  26       1.020   3.615  22.356  1.00 76.59           C
ATOM    175  N   ALA A  27      -2.284   0.657  23.716  1.00 85.75           N
ATOM    176  CA  ALA A  27      -2.623  -0.585  24.397  1.00 74.89           C
ATOM    177  C   ALA A  27      -1.955  -1.750  23.690  1.00 75.04           C
ATOM    178  O   ALA A  27      -1.905  -1.792  22.461  1.00 74.91           O
ATOM    179  CB  ALA A  27      -4.142  -0.839  24.456  1.00 72.62           C
ATOM    180  N   PHE A  28      -1.459  -2.704  24.472  1.00 86.10           N
ATOM    181  CA  PHE A  28      -0.911  -3.967  23.970  1.00 79.65           C
ATOM    182  C   PHE A  28      -1.704  -5.075  24.644  1.00 79.15           C
ATOM    183  O   PHE A  28      -1.386  -5.481  25.764  1.00 85.88           O
ATOM    184  CB  PHE A  28       0.578  -4.059  24.261  1.00 80.89           C
ATOM    185  CG  PHE A  28       1.303  -2.775  23.982  1.00 87.11           C
ATOM    186  CD1 PHE A  28       1.996  -2.122  24.961  1.00 87.45           C
ATOM    187  CD2 PHE A  28       1.287  -2.227  22.734  1.00 88.46           C
ATOM    188  CE1 PHE A  28       2.632  -0.940  24.703  1.00 88.13           C
ATOM    189  CE2 PHE A  28       1.935  -1.057  22.463  1.00 87.87           C
ATOM    190  CZ  PHE A  28       2.616  -0.414  23.450  1.00 87.00           C
ATOM    191  N   LEU A  29      -2.747  -5.554  23.970  1.00 76.82           N
ATOM    192  CA  LEU A  29      -3.671  -6.516  24.558  1.00 72.76           C
ATOM    193  C   LEU A  29      -3.215  -7.938  24.251  1.00 67.69           C
ATOM    194  O   LEU A  29      -2.987  -8.289  23.089  1.00 71.40           O
ATOM    195  CB  LEU A  29      -5.100  -6.269  24.051  1.00 70.76           C
ATOM    196  CG  LEU A  29      -5.601  -4.813  23.990  1.00 63.01           C
ATOM    197  CD1 LEU A  29      -6.993  -4.750  23.368  1.00 49.83           C
ATOM    198  CD2 LEU A  29      -5.583  -4.127  25.371  1.00 56.39           C
ATOM    199  N   GLY A  30      -3.060  -8.743  25.299  1.00 78.92           N
ATOM    200  CA  GLY A  30      -2.801 -10.165  25.134  1.00 73.44           C
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ATOM    201  C   GLY A  30      -1.353 -10.563  24.932  1.00 63.37           C
ATOM    202  O   GLY A  30      -1.067 -11.480  24.157  1.00 67.10           O
ATOM    203  N   ILE A  31      -0.429  -9.900  25.606  1.00 71.62           N
ATOM    204  CA  ILE A  31       0.957 -10.383  25.627  1.00 70.47           C
ATOM    205  C   ILE A  31       1.025 -11.651  26.471  1.00 75.78           C
ATOM    206  O   ILE A  31       0.502 -11.664  27.602  1.00 67.56           O
ATOM    207  CB  ILE A  31       1.884  -9.320  26.203  1.00 72.02           C
ATOM    208  CG1 ILE A  31       1.500  -7.927  25.707  1.00 69.92           C
ATOM    209  CG2 ILE A  31       3.328  -9.677  25.885  1.00 62.02           C
ATOM    210  CD1 ILE A  31       2.242  -6.828  26.426  1.00 76.21           C
ATOM    211  N   PRO A  32       1.658 -12.720  25.990  1.00 76.74           N
ATOM    212  CA  PRO A  32       1.847 -13.914  26.827  1.00 70.71           C
ATOM    213  C   PRO A  32       2.973 -13.729  27.838  1.00 73.57           C
ATOM    214  O   PRO A  32       4.022 -13.158  27.520  1.00 72.43           O
ATOM    215  CB  PRO A  32       2.188 -14.999  25.799  1.00 69.36           C
ATOM    216  CG  PRO A  32       2.796 -14.243  24.645  1.00 61.85           C
ATOM    217  CD  PRO A  32       2.062 -12.946  24.591  1.00 70.64           C
ATOM    218  N   TYR A  33       2.742 -14.204  29.085  1.00 69.77           N
ATOM    219  CA  TYR A  33       3.760 -14.126  30.138  1.00 71.76           C
ATOM    220  C   TYR A  33       4.156 -15.482  30.724  1.00 78.46           C
ATOM    221  O   TYR A  33       5.170 -15.558  31.433  1.00 70.45           O
ATOM    222  CB  TYR A  33       3.313 -13.182  31.276  1.00 54.90           C
ATOM    223  CG  TYR A  33       2.155 -13.674  32.125  1.00 68.07           C
ATOM    224  CD1 TYR A  33       0.837 -13.314  31.835  1.00 62.46           C
ATOM    225  CD2 TYR A  33       2.384 -14.517  33.228  1.00 72.33           C
ATOM    226  CE1 TYR A  33      -0.227 -13.788  32.627  1.00 70.72           C
ATOM    227  CE2 TYR A  33       1.334 -14.996  34.012  1.00 67.16           C
ATOM    228  CZ  TYR A  33       0.034 -14.632  33.710  1.00 63.05           C
ATOM    229  OH  TYR A  33      -0.998 -15.106  34.483  1.00 52.16           O
ATOM    230  N   ALA A  34       3.412 -16.550  30.430  1.00 82.40           N
ATOM    231  CA  ALA A  34       3.680 -17.889  30.947  1.00 76.07           C
ATOM    232  C   ALA A  34       3.317 -18.896  29.866  1.00 72.88           C
ATOM    233  O   ALA A  34       2.393 -18.663  29.080  1.00 78.39           O
ATOM    234  CB  ALA A  34       2.893 -18.174  32.233  1.00 81.04           C
ATOM    235  N   GLN A  35       4.079 -19.992  29.810  0.59 77.41           N
ATOM    237  CA  GLN A  35       3.813 -21.044  28.830  0.59 73.56           C
ATOM    239  C   GLN A  35       2.374 -21.538  28.999  0.59 68.51           C
ATOM    241  O   GLN A  35       1.923 -21.718  30.129  0.59 71.39           O
ATOM    243  CB  GLN A  35       4.767 -22.230  29.001  0.59 76.88           C
ATOM    245  CG  GLN A  35       6.265 -21.939  28.909  0.59 79.71           C
ATOM    247  CD  GLN A  35       7.108 -23.215  28.928  0.59 80.25           C
ATOM    249  OE1 GLN A  35       6.623 -24.303  28.600  0.59 69.88           O
ATOM    251  NE2 GLN A  35       8.368 -23.087  29.342  0.59 83.62           N
ATOM    253  N   PRO A  36       1.648 -21.760  27.899  1.00 66.55           N
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ATOM    254  CA  PRO A  36       0.256 -22.271  28.037  1.00 69.44           C
ATOM    255  C   PRO A  36       0.159 -23.453  28.968  1.00 73.94           C
ATOM    256  O   PRO A  36       0.859 -24.468  28.801  1.00 75.16           O
ATOM    257  CB  PRO A  36      -0.094 -22.670  26.590  1.00 61.61           C
ATOM    258  CG  PRO A  36       0.689 -21.700  25.770  1.00 65.79           C
ATOM    259  CD  PRO A  36       1.998 -21.456  26.518  1.00 72.26           C
ATOM    260  N   PRO A  37      -0.576 -23.353  29.918  1.00 75.69           N
ATOM    261  CA  PRO A  37      -0.626 -24.398  30.956  1.00 78.48           C
ATOM    262  C   PRO A  37      -1.446 -25.608  30.509  1.00 74.79           C
ATOM    263  O   PRO A  37      -2.503 -25.917  31.080  1.00 74.06           O
ATOM    264  CB  PRO A  37      -1.266 -23.659  32.141  1.00 67.81           C
ATOM    265  CG  PRO A  37      -1.991 -22.491  31.558  1.00 60.88           C
ATOM    266  CD  PRO A  37      -1.234 -22.100  30.334  1.00 65.86           C
ATOM    267  N   LEU A  38      -0.956 -26.298  29.465  1.00 65.26           N
ATOM    268  CA  LEU A  38      -1.646 -27.426  28.839  1.00 75.17           C
ATOM    269  C   LEU A  38      -0.843 -28.708  28.726  1.00 76.59           C
ATOM    270  O   LEU A  38       0.389 -28.707  28.625  1.00 82.95           O
ATOM    271  CB  LEU A  38      -2.153 -27.131  27.435  1.00 77.32           C
ATOM    272  CG  LEU A  38      -3.169 -26.029  27.530  1.00 82.35           C
ATOM    273  CD1 LEU A  38      -3.625 -25.682  26.075  1.00 82.73           C
ATOM    274  CD2 LEU A  38      -4.231 -26.578  28.489  1.00 76.24           C
ATOM    275  N   GLY A  39      -1.610 -29.801  28.678  1.00 62.92           N
ATOM    276  CA  GLY A  39      -1.067 -31.118  28.495  1.00 75.21           C
ATOM    277  C   GLY A  39      -0.430 -31.571  29.777  1.00 73.25           C
ATOM    278  O   GLY A  39      -1.100 -31.679  30.810  1.00 69.75           O
ATOM    279  N   ARG A  40       0.876 -31.835  29.700  1.00 81.23           N
ATOM    280  CA  ARG A  40       1.664 -32.132  30.885  1.00 76.50           C
ATOM    281  C   ARG A  40       1.520 -31.040  31.936  1.00 83.79           C
ATOM    282  O   ARG A  40       1.613 -31.321  33.137  1.00 84.01           O
ATOM    283  CB  ARG A  40       3.124 -32.314  30.462  1.00 79.32           C
ATOM    284  CG  ARG A  40       4.167 -32.318  31.556  1.00 87.83           C
ATOM    285  CD  ARG A  40       5.541 -32.170  30.933  0.60 79.83           C
ATOM    286  NE  ARG A  40       5.916 -30.770  30.810  0.69 76.15           N
ATOM    287  CZ  ARG A  40       6.807 -30.313  29.941  0.53 80.11           C
ATOM    288  NH1 ARG A  40       7.393 -31.158  29.102  0.87 74.09           N
ATOM    289  NH2 ARG A  40       7.093 -29.013  29.895  1.00 85.95           N
ATOM    290  N   LEU A  41       1.229 -29.805  31.514  1.00 82.96           N
ATOM    291  CA  LEU A  41       1.420 -28.649  32.377  1.00 77.19           C
ATOM    292  C   LEU A  41       0.175 -28.183  33.133  1.00 73.94           C
ATOM    293  O   LEU A  41       0.284 -27.202  33.876  1.00 74.03           O
ATOM    294  CB  LEU A  41       2.001 -27.470  31.578  1.00 64.70           C
ATOM    295  CG  LEU A  41       3.485 -27.631  31.195  1.00 67.61           C
ATOM    296  CD1 LEU A  41       4.124 -26.340  30.670  1.00 75.31           C
ATOM    297  CD2 LEU A  41       4.254 -28.128  32.398  1.00 79.71           C
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ATOM    298  N   ARG A  42      -0.993 -28.825  33.018  1.00 62.87           N
ATOM    299  CA  ARG A  42      -2.104 -28.300  33.811  1.00 70.86           C
ATOM    300  C   ARG A  42      -1.971 -28.739  35.262  1.00 74.99           C
ATOM    301  O   ARG A  42      -1.388 -29.778  35.565  1.00 74.79           O
ATOM    302  CB  ARG A  42      -3.481 -28.696  33.276  1.00 50.48           C
ATOM    303  CG  ARG A  42      -3.632 -30.080  32.986  1.00 78.46           C
ATOM    304  CD  ARG A  42      -4.755 -30.283  31.979  1.00 97.70           C
ATOM    305  NE  ARG A  42      -6.010 -30.720  32.575  1.00 89.66           N
ATOM    306  CZ  ARG A  42      -7.135 -30.867  31.883  1.00 78.58           C
ATOM    307  NH1 ARG A  42      -7.171 -30.578  30.594  1.00 83.79           N
ATOM    308  NH2 ARG A  42      -8.219 -31.289  32.480  1.00 89.43           N
ATOM    309  N   PHE A  43      -2.504 -27.912  36.158  1.00 73.99           N
ATOM    310  CA  PHE A  43      -2.415 -28.054  37.607  1.00 63.31           C
ATOM    311  C   PHE A  43      -1.023 -27.736  38.144  1.00 66.62           C
ATOM    312  O   PHE A  43      -0.837 -27.665  39.364  1.00 67.05           O
ATOM    313  CB  PHE A  43      -2.823 -29.447  38.067  1.00 70.09           C
ATOM    314  CG  PHE A  43      -4.193 -29.870  37.622  1.00 71.68           C
ATOM    315  CD1 PHE A  43      -5.319 -29.170  38.029  1.00 67.13           C
ATOM    316  CD2 PHE A  43      -4.367 -31.022  36.857  1.00 76.40           C
ATOM    317  CE1 PHE A  43      -6.607 -29.582  37.637  1.00 67.96           C
ATOM    318  CE2 PHE A  43      -5.648 -31.444  36.469  1.00 74.77           C
ATOM    319  CZ  PHE A  43      -6.771 -30.723  36.859  1.00 58.05           C
ATOM    320  N   LYS A  44      -0.037 -27.546  37.269  1.00 64.98           N
ATOM    321  CA  LYS A  44       1.278 -27.159  37.762  1.00 68.24           C
ATOM    322  C   LYS A  44       1.438 -25.643  37.785  1.00 67.90           C
ATOM    323  O   LYS A  44       0.601 -24.889  37.286  1.00 62.43           O
ATOM    324  CB  LYS A  44       2.396 -27.774  36.927  1.00 57.92           C
ATOM    325  CG  LYS A  44       2.269 -29.239  36.731  1.00 71.31           C
ATOM    326  CD  LYS A  44       3.537 -29.737  36.103  1.00 82.76           C
ATOM    327  CE  LYS A  44       3.394 -31.163  35.647  1.00 95.29           C
ATOM    328  NZ  LYS A  44       4.351 -31.397  34.539  1.00 96.94           N
ATOM    329  N   LYS A  45       2.546 -25.204  38.376  1.00 66.20           N
ATOM    330  CA  LYS A  45       2.854 -23.788  38.434  1.00 62.95           C
ATOM    331  C   LYS A  45       3.274 -23.265  37.056  1.00 61.78           C
ATOM    332  O   LYS A  45       3.912 -23.979  36.282  1.00 61.39           O
ATOM    333  CB  LYS A  45       3.949 -23.555  39.466  1.00 66.30           C
ATOM    334  CG  LYS A  45       3.475 -23.838  40.885  1.00 55.75           C
ATOM    335  CD  LYS A  45       4.636 -23.970  41.853  1.00 68.17           C
ATOM    336  CE  LYS A  45       5.305 -22.648  42.165  1.00 66.71           C
ATOM    337  NZ  LYS A  45       6.348 -22.808  43.223  1.00 76.06           N
ATOM    338  N   PRO A  46       2.937 -22.015  36.732  1.00 62.09           N
ATOM    339  CA  PRO A  46       3.216 -21.507  35.388  1.00 64.86           C
ATOM    340  C   PRO A  46       4.706 -21.487  35.094  1.00 81.02           C
ATOM    341  O   PRO A  46       5.521 -21.094  35.935  1.00 76.72           O
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ATOM    342  CB  PRO A  46       2.648 -20.090  35.428  1.00 59.07           C
ATOM    343  CG  PRO A  46       2.851 -19.686  36.824  1.00 60.35           C
ATOM    344  CD  PRO A  46       2.529 -20.921  37.630  1.00 65.49           C
ATOM    345  N   GLN A  47       5.052 -21.899  33.873  1.00 85.76           N
ATOM    346  CA  GLN A  47       6.436 -21.983  33.428  1.00 88.00           C
ATOM    347  C   GLN A  47       6.774 -20.782  32.551  1.00 83.06           C
ATOM    348  O   GLN A  47       5.994 -20.420  31.666  1.00 83.40           O
ATOM    349  CB  GLN A  47       6.677 -23.302  32.688  1.00 83.42           C
ATOM    350  CG  GLN A  47       6.646 -24.503  33.634  1.00 79.94           C
ATOM    351  CD  GLN A  47       7.962 -24.671  34.371  1.00 82.83           C
ATOM    352  OE1 GLN A  47       8.926 -23.946  34.120  1.00 92.49           O
ATOM    353  NE2 GLN A  47       8.000 -25.608  35.304  1.00 78.78           N
ATOM    354  N   SER A  48       7.930 -20.167  32.808  1.00 92.14           N
ATOM    355  CA  SER A  48       8.327 -18.937  32.127  1.00 98.21           C
ATOM    356  C   SER A  48       8.572 -19.186  30.629  1.00 91.80           C
ATOM    357  O   SER A  48       8.808 -20.318  30.189  1.00 77.71           O
ATOM    358  CB  SER A  48       9.572 -18.352  32.811  1.00 98.25           C
ATOM    359  OG  SER A  48      10.133 -19.259  33.766  1.00 89.25           O
ATOM    360  N   LEU A  49       8.520 -18.102  29.842  1.00 99.47           N
ATOM    361  CA  LEU A  49       8.594 -18.173  28.377  1.00107.29           C
ATOM    362  C   LEU A  49      10.010 -18.204  27.826  1.00101.59           C
ATOM    363  O   LEU A  49      10.983 -17.758  28.443  1.00 90.57           O
ATOM    364  CB  LEU A  49       7.910 -16.990  27.673  1.00 97.16           C
ATOM    365  CG  LEU A  49       6.443 -17.067  27.295  1.00 87.41           C
ATOM    366  CD1 LEU A  49       5.795 -17.744  28.389  1.00 88.57           C
ATOM    367  CD2 LEU A  49       5.837 -15.668  27.065  1.00 81.45           C
ATOM    368  N   THR A  50      10.070 -18.699  26.598  1.00 97.06           N
ATOM    369  CA  THR A  50      11.198 -18.644  25.694  1.00100.01           C
ATOM    370  C   THR A  50      10.846 -17.704  24.546  1.00108.52           C
ATOM    371  O   THR A  50       9.685 -17.617  24.135  1.00120.22           O
ATOM    372  CB  THR A  50      11.498 -20.046  25.170  1.00108.91           C
ATOM    373  OG1 THR A  50      12.400 -19.967  24.066  1.00111.41           O
ATOM    374  CG2 THR A  50      10.198 -20.735  24.725  1.00101.76           C
ATOM    375  N   LYS A  51      11.852 -17.000  24.029  1.00103.82           N
ATOM    376  CA  LYS A  51      11.618 -15.873  23.133  1.00 98.49           C
ATOM    377  C   LYS A  51      10.852 -16.287  21.869  1.00109.07           C
ATOM    378  O   LYS A  51      10.737 -17.468  21.522  1.00106.80           O
ATOM    379  CB  LYS A  51      12.954 -15.205  22.781  0.00101.53           C
ATOM    380  CG  LYS A  51      14.129 -16.173  22.539  0.00 98.94           C
ATOM    381  CD  LYS A  51      13.855 -17.128  21.383  0.00 96.80           C
ATOM    382  CE  LYS A  51      14.955 -18.147  21.127  0.00 91.59           C
ATOM    383  NZ  LYS A  51      14.458 -19.148  20.131  0.00 87.89           N
ATOM    384  N   TRP A  52      10.298 -15.278  21.198  1.00112.51           N
ATOM    385  CA  TRP A  52       9.818 -15.364  19.824  1.00109.42           C
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ATOM    386  C   TRP A  52      10.468 -14.212  19.065  1.00117.58           C
ATOM    387  O   TRP A  52      10.871 -13.213  19.671  1.00112.53           O
ATOM    388  CB  TRP A  52       8.283 -15.284  19.751  1.00103.41           C
ATOM    389  CG  TRP A  52       7.763 -13.948  20.165  1.00 97.15           C
ATOM    390  CD1 TRP A  52       7.592 -12.853  19.367  1.00106.43           C
ATOM    391  CD2 TRP A  52       7.381 -13.544  21.483  1.00101.61           C
ATOM    392  NE1 TRP A  52       7.115 -11.796  20.102  1.00109.78           N
ATOM    393  CE2 TRP A  52       6.976 -12.195  21.406  1.00108.16           C
ATOM    394  CE3 TRP A  52       7.333 -14.191  22.719  1.00100.91           C
ATOM    395  CZ2 TRP A  52       6.530 -11.486  22.518  1.00 96.48           C
ATOM    396  CZ3 TRP A  52       6.889 -13.479  23.823  1.00 93.00           C
ATOM    397  CH2 TRP A  52       6.496 -12.144  23.714  1.00 91.86           C
ATOM    398  N   SER A  53      10.600 -14.345  17.738  1.00122.59           N
ATOM    399  CA  SER A  53      11.445 -13.389  16.986  1.00116.21           C
ATOM    400  C   SER A  53      11.252 -13.065  15.493  1.00115.83           C
ATOM    401  O   SER A  53      12.276 -12.754  14.879  1.00123.32           O
ATOM    402  CB  SER A  53      12.896 -13.848  17.147  1.00 30.00           C
ATOM    403  OG  SER A  53      13.129 -15.057  16.447  1.00 30.00           O
ATOM    404  N   ASP A  54      10.082 -13.067  14.841  1.00116.90           N
ATOM    405  CA  ASP A  54       8.663 -12.814  15.223  1.00110.08           C
ATOM    406  C   ASP A  54       8.257 -11.564  16.050  1.00 99.72           C
ATOM    407  O   ASP A  54       8.993 -11.129  16.926  1.00 95.09           O
ATOM    408  CB  ASP A  54       8.034 -14.031  15.904  1.00107.02           C
ATOM    409  CG  ASP A  54       6.531 -14.101  15.618  1.00112.51           C
ATOM    410  OD1 ASP A  54       5.726 -13.977  16.570  1.00104.45           O
ATOM    411  OD2 ASP A  54       6.152 -14.190  14.425  1.00116.08           O
ATOM    412  N   ILE A  55       7.090 -11.030  15.703  1.00 93.60           N
ATOM    413  CA  ILE A  55       6.449  -9.934  16.402  1.00103.35           C
ATOM    414  C   ILE A  55       5.103 -10.536  16.829  1.00108.45           C
ATOM    415  O   ILE A  55       4.396 -11.171  16.012  1.00102.06           O
ATOM    416  CB  ILE A  55       6.323  -8.667  15.510  1.00105.04           C
ATOM    417  CG1 ILE A  55       5.620  -8.771  14.131  1.00123.10           C
ATOM    418  CG2 ILE A  55       7.599  -8.629  14.653  1.00115.41           C
ATOM    419  CD1 ILE A  55       4.165  -8.670  14.077  1.00107.06           C
ATOM    420  N   TRP A  56       4.817 -10.454  18.136  1.00100.69           N
ATOM    421  CA  TRP A  56       3.520 -10.779  18.708  1.00 96.59           C
ATOM    422  C   TRP A  56       2.635  -9.545  18.537  1.00 91.54           C
ATOM    423  O   TRP A  56       2.940  -8.485  19.095  1.00 90.23           O
ATOM    424  CB  TRP A  56       3.727 -11.149  20.176  1.00 90.04           C
ATOM    425  CG  TRP A  56       2.567 -11.615  20.736  1.00 82.93           C
ATOM    426  CD1 TRP A  56       1.536 -10.881  21.179  1.00 81.72           C
ATOM    427  CD2 TRP A  56       2.208 -12.973  20.862  1.00 83.00           C
ATOM    428  NE1 TRP A  56       0.536 -11.702  21.609  1.00 87.69           N
ATOM    429  CE2 TRP A  56       0.927 -13.002  21.422  1.00 84.55           C
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ATOM    430  CE3 TRP A  56       2.850 -14.177  20.559  1.00 78.94           C
ATOM    431  CZ2 TRP A  56       0.266 -14.183  21.697  1.00 84.49           C
ATOM    432  CZ3 TRP A  56       2.196 -15.352  20.830  1.00 79.73           C
ATOM    433  CH2 TRP A  56       0.912 -15.350  21.391  1.00 82.51           C
ATOM    434  N   ASN A  57       1.579  -9.648  17.728  1.00 87.63           N
ATOM    435  CA  ASN A  57       0.653  -8.524  17.572  1.00 89.85           C
ATOM    436  C   ASN A  57      -0.265  -8.542  18.784  1.00 86.78           C
ATOM    437  O   ASN A  57      -1.142  -9.398  18.900  1.00 91.42           O
ATOM    438  CB  ASN A  57      -0.113  -8.602  16.250  1.00 91.36           C
ATOM    439  CG  ASN A  57       0.772  -8.283  15.062  1.00 99.64           C
ATOM    440  OD1 ASN A  57       1.785  -7.616  15.232  1.00100.29           O
ATOM    441  ND2 ASN A  57       0.417  -8.772  13.867  1.00 99.34           N
ATOM    442  N   ALA A  58       0.010  -7.658  19.746  1.00 87.22           N
ATOM    443  CA  ALA A  58      -0.835  -7.514  20.932  1.00 84.92           C
ATOM    444  C   ALA A  58      -1.982  -6.559  20.604  1.00 78.65           C
ATOM    445  O   ALA A  58      -2.104  -5.451  21.127  1.00 76.85           O
ATOM    446  CB  ALA A  58      -0.022  -7.028  22.122  1.00 75.43           C
ATOM    447  N   THR A  59      -2.835  -7.020  19.707  1.00 70.59           N
ATOM    448  CA  THR A  59      -3.855  -6.169  19.143  1.00 73.30           C
ATOM    449  C   THR A  59      -5.262  -6.650  19.454  1.00 76.36           C
ATOM    450  O   THR A  59      -6.227  -6.007  19.018  1.00 68.83           O
ATOM    451  CB  THR A  59      -3.647  -6.050  17.626  1.00 83.31           C
ATOM    452  OG1 THR A  59      -4.402  -4.942  17.128  1.00 99.43           O
ATOM    453  CG2 THR A  59      -4.077  -7.323  16.904  1.00 70.23           C
ATOM    454  N   LYS A  60      -5.413  -7.745  20.203  1.00 71.73           N
ATOM    455  CA  LYS A  60      -6.726  -8.186  20.657  1.00 71.10           C
ATOM    456  C   LYS A  60      -6.606  -8.795  22.046  1.00 69.95           C
ATOM    457  O   LYS A  60      -5.577  -9.386  22.391  1.00 69.03           O
ATOM    458  CB  LYS A  60      -7.356  -9.196  19.682  1.00 75.47           C
ATOM    459  CG  LYS A  60      -8.823  -9.531  19.980  1.00 85.46           C
ATOM    460  CD  LYS A  60      -9.066 -11.046  20.050  1.00 89.79           C
ATOM    461  CE  LYS A  60     -10.411 -11.393  20.715  1.00 78.33           C
ATOM    462  NZ  LYS A  60     -10.482 -12.839  21.142  1.00 83.78           N
ATOM    463  N   TYR A  61      -7.664  -8.634  22.838  1.00 74.64           N
ATOM    464  CA  TYR A  61      -7.786  -9.357  24.102  1.00 72.19           C
ATOM    465  C   TYR A  61      -7.671 -10.862  23.881  1.00 57.15           C
ATOM    466  O   TYR A  61      -8.407 -11.432  23.077  1.00 52.89           O
ATOM    467  CB  TYR A  61      -9.135  -9.039  24.758  1.00 68.28           C
ATOM    468  CG  TYR A  61      -9.266  -7.677  25.450  1.00 70.11           C
ATOM    469  CD1 TYR A  61      -8.350  -7.264  26.417  1.00 62.71           C
ATOM    470  CD2 TYR A  61     -10.363  -6.853  25.199  1.00 59.31           C
ATOM    471  CE1 TYR A  61      -8.501  -6.051  27.070  1.00 63.95           C
ATOM    472  CE2 TYR A  61     -10.517  -5.647  25.850  1.00 53.96           C
ATOM    473  CZ  TYR A  61      -9.587  -5.250  26.783  1.00 61.98           C
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ATOM    474  OH  TYR A  61      -9.748  -4.052  27.444  1.00 59.98           O
ATOM    475  N   ALA A  62      -6.773 -11.502  24.630  1.00 60.67           N
ATOM    476  CA  ALA A  62      -6.520 -12.942  24.537  1.00 60.05           C
ATOM    477  C   ALA A  62      -7.691 -13.740  25.121  1.00 53.69           C
ATOM    478  O   ALA A  62      -8.703 -13.181  25.543  1.00 65.16           O
ATOM    479  CB  ALA A  62      -5.211 -13.292  25.240  1.00 60.43           C
ATOM    480  N   ASN A  63      -7.545 -15.069  25.181  1.00 54.89           N
ATOM    481  CA  ASN A  63      -8.610 -15.928  25.697  1.00 63.00           C
ATOM    482  C   ASN A  63      -8.727 -15.846  27.214  1.00 61.31           C
ATOM    483  O   ASN A  63      -7.721 -15.801  27.925  1.00 64.54           O
ATOM    484  CB  ASN A  63      -8.442 -17.387  25.250  1.00 73.77           C
ATOM    485  CG  ASN A  63      -8.040 -17.518  23.780  1.00 69.16           C
ATOM    486  OD1 ASN A  63      -8.848 -17.257  22.883  1.00 77.59           O
ATOM    487  ND2 ASN A  63      -6.813 -17.958  23.531  1.00 77.46           N
ATOM    488  N   SER A  64      -9.970 -15.796  27.707  1.00 60.97           N
ATOM    489  CA  SER A  64     -10.214 -15.948  29.141  1.00 63.57           C
ATOM    490  C   SER A  64      -9.952 -17.390  29.555  1.00 71.82           C
ATOM    491  O   SER A  64     -10.250 -18.325  28.805  1.00 62.12           O
ATOM    492  CB  SER A  64     -11.658 -15.591  29.497  1.00 61.48           C
ATOM    493  OG  SER A  64     -12.156 -14.540  28.748  1.00 72.12           O
ATOM    494  N   CYS A  65      -9.394 -17.570  30.760  1.00 68.19           N
ATOM    495  CA  CYS A  65      -9.170 -18.918  31.274  1.00 58.46           C
ATOM    496  C   CYS A  65     -10.493 -19.644  31.472  1.00 58.59           C
ATOM    497  O   CYS A  65     -11.532 -19.023  31.741  1.00 52.59           O
ATOM    498  CB  CYS A  65      -8.414 -18.896  32.601  1.00 60.71           C
ATOM    499  SG  CYS A  65      -6.763 -18.191  32.547  1.00 60.60           S
ATOM    500  N   CYS A  66     -10.429 -20.977  31.350  1.00 51.95           N
ATOM    501  CA  CYS A  66     -11.602 -21.827  31.494  1.00 55.10           C
ATOM    502  C   CYS A  66     -12.291 -21.609  32.841  1.00 46.38           C
ATOM    503  O   CYS A  66     -11.646 -21.586  33.896  1.00 45.09           O
ATOM    504  CB  CYS A  66     -11.195 -23.294  31.331  1.00 58.97           C
ATOM    505  SG  CYS A  66     -10.928 -23.818  29.611  1.00 67.87           S
ATOM    506  N   GLN A  67     -13.615 -21.474  32.797  1.00 43.81           N
ATOM    507  CA  GLN A  67     -14.413 -21.101  33.952  1.00 50.15           C
ATOM    508  C   GLN A  67     -15.877 -21.328  33.622  1.00 48.85           C
ATOM    509  O   GLN A  67     -16.266 -21.262  32.456  1.00 55.08           O
ATOM    510  CB  GLN A  67     -14.183 -19.630  34.309  1.00 58.43           C
ATOM    511  CG  GLN A  67     -14.570 -18.695  33.180  1.00 52.33           C
ATOM    512  CD  GLN A  67     -14.172 -17.262  33.443  1.00 52.35           C
ATOM    513  OE1 GLN A  67     -14.960 -16.470  33.984  1.00 55.89           O
ATOM    514  NE2 GLN A  67     -12.957 -16.902  33.028  1.00 50.02           N
ATOM    515  N   ASN A  68     -16.689 -21.567  34.647  1.00 51.49           N
ATOM    516  CA  ASN A  68     -18.126 -21.622  34.418  1.00 61.36           C
ATOM    517  C   ASN A  68     -18.652 -20.227  34.089  1.00 47.95           C
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ATOM    518  O   ASN A  68     -17.952 -19.229  34.219  1.00 54.67           O
ATOM    519  CB  ASN A  68     -18.845 -22.206  35.638  1.00 70.71           C
ATOM    520  CG  ASN A  68     -18.083 -23.368  36.251  1.00 74.45           C
ATOM    521  OD1 ASN A  68     -17.034 -23.175  36.888  1.00 80.59           O
ATOM    522  ND2 ASN A  68     -18.598 -24.586  36.054  1.00 76.28           N
ATOM    523  N   ILE A  69     -19.898 -20.164  33.632  1.00 51.07           N
ATOM    524  CA  ILE A  69     -20.532 -18.906  33.262  1.00 59.67           C
ATOM    525  C   ILE A  69     -21.882 -18.833  33.958  1.00 59.08           C
ATOM    526  O   ILE A  69     -22.589 -19.838  34.052  1.00 84.21           O
ATOM    527  CB  ILE A  69     -20.674 -18.760  31.724  1.00 57.80           C
ATOM    528  CG1 ILE A  69     -19.304 -18.557  31.069  1.00 49.00           C
ATOM    529  CG2 ILE A  69     -21.563 -17.585  31.353  1.00 63.61           C
ATOM    530  CD1 ILE A  69     -18.621 -19.837  30.726  1.00 63.43           C
ATOM    531  N   ASP A  70     -22.238 -17.651  34.456  1.00 64.02           N
ATOM    532  CA  ASP A  70     -23.474 -17.457  35.214  1.00 67.21           C
ATOM    533  C   ASP A  70     -24.629 -17.113  34.288  1.00 67.36           C
ATOM    534  O   ASP A  70     -24.768 -15.965  33.855  1.00 79.33           O
ATOM    535  CB  ASP A  70     -23.321 -16.341  36.233  1.00 66.23           C
ATOM    536  CG  ASP A  70     -24.673 -15.883  36.789  1.00 74.75           C
ATOM    537  OD1 ASP A  70     -24.773 -14.668  37.092  1.00 71.41           O
ATOM    538  OD2 ASP A  70     -25.613 -16.721  36.937  1.00 65.21           O
ATOM    539  N   GLN A  71     -25.502 -18.090  34.039  1.00 58.84           N
ATOM    540  CA  GLN A  71     -26.772 -17.876  33.349  1.00 68.67           C
ATOM    541  C   GLN A  71     -27.998 -17.962  34.258  1.00 63.07           C
ATOM    542  O   GLN A  71     -29.072 -18.335  33.784  1.00 66.37           O
ATOM    543  CB  GLN A  71     -26.980 -18.861  32.195  1.00 65.82           C
ATOM    544  CG  GLN A  71     -26.077 -18.751  30.989  1.00 81.44           C
ATOM    545  CD  GLN A  71     -24.689 -19.249  31.234  1.00 90.17           C
ATOM    546  OE1 GLN A  71     -24.008 -18.760  32.115  0.49 96.27           O
ATOM    547  NE2 GLN A  71     -24.255 -20.233  30.443  0.78 70.53           N
ATOM    548  N   SER A  72     -27.897 -17.634  35.542  1.00 61.90           N
ATOM    549  CA  SER A  72     -29.133 -17.605  36.314  1.00 64.93           C
ATOM    550  C   SER A  72     -30.177 -16.724  35.633  1.00 73.06           C
ATOM    551  O   SER A  72     -31.382 -16.999  35.718  1.00 72.13           O
ATOM    552  CB  SER A  72     -28.842 -17.129  37.727  1.00 57.39           C
ATOM    553  OG  SER A  72     -27.809 -17.926  38.262  1.00 65.23           O
ATOM    554  N   PHE A  73     -29.725 -15.707  34.895  1.00 73.75           N
ATOM    555  CA  PHE A  73     -30.599 -14.687  34.319  1.00 70.24           C
ATOM    556  C   PHE A  73     -30.108 -14.406  32.911  1.00 67.94           C
ATOM    557  O   PHE A  73     -29.288 -13.505  32.702  1.00 69.67           O
ATOM    558  CB  PHE A  73     -30.597 -13.402  35.153  1.00 72.08           C
ATOM    559  CG  PHE A  73     -30.822 -13.617  36.631  1.00 62.97           C
ATOM    560  CD1 PHE A  73     -32.070 -13.997  37.109  1.00 62.96           C
ATOM    561  CD2 PHE A  73     -29.797 -13.411  37.535  1.00 51.72           C
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ATOM    562  CE1 PHE A  73     -32.283 -14.177  38.460  1.00 65.32           C
ATOM    563  CE2 PHE A  73     -30.010 -13.585  38.864  1.00 54.18           C
ATOM    564  CZ  PHE A  73     -31.246 -13.977  39.344  1.00 58.05           C
ATOM    565  N   PRO A  74     -30.582 -15.165  31.915  1.00 76.23           N
ATOM    566  CA  PRO A  74     -30.073 -15.010  30.540  1.00 67.95           C
ATOM    567  C   PRO A  74     -30.672 -13.791  29.855  1.00 66.34           C
ATOM    568  O   PRO A  74     -31.891 -13.616  29.828  1.00 70.06           O
ATOM    569  CB  PRO A  74     -30.520 -16.302  29.843  1.00 65.30           C
ATOM    570  CG  PRO A  74     -30.932 -17.217  30.907  1.00 66.94           C
ATOM    571  CD  PRO A  74     -31.430 -16.359  32.035  1.00 71.87           C
ATOM    572  N   GLY A  75     -29.812 -12.964  29.268  1.00 64.57           N
ATOM    573  CA  GLY A  75     -30.247 -11.736  28.647  1.00 66.82           C
ATOM    574  C   GLY A  75     -30.332 -10.549  29.583  1.00 68.86           C
ATOM    575  O   GLY A  75     -30.622  -9.438  29.124  1.00 71.47           O
ATOM    576  N   PHE A  76     -30.092 -10.746  30.876  1.00 75.88           N
ATOM    577  CA  PHE A  76     -30.087  -9.663  31.853  1.00 66.10           C
ATOM    578  C   PHE A  76     -28.688  -9.076  31.928  1.00 62.08           C
ATOM    579  O   PHE A  76     -27.741  -9.764  32.327  1.00 61.82           O
ATOM    580  CB  PHE A  76     -30.531 -10.161  33.227  1.00 60.82           C
ATOM    581  CG  PHE A  76     -30.447  -9.118  34.292  1.00 65.87           C
ATOM    582  CD1 PHE A  76     -31.026  -7.879  34.108  1.00 72.49           C
ATOM    583  CD2 PHE A  76     -29.767  -9.366  35.476  1.00 66.35           C
ATOM    584  CE1 PHE A  76     -30.941  -6.901  35.094  1.00 73.64           C
ATOM    585  CE2 PHE A  76     -29.665  -8.389  36.454  1.00 61.72           C
ATOM    586  CZ  PHE A  76     -30.266  -7.159  36.264  1.00 63.44           C
ATOM    587  N   HIS A  77     -28.564  -7.809  31.535  1.00 68.30           N
ATOM    588  CA  HIS A  77     -27.261  -7.152  31.520  1.00 70.31           C
ATOM    589  C   HIS A  77     -26.573  -7.266  32.876  1.00 65.46           C
ATOM    590  O   HIS A  77     -25.359  -7.498  32.950  1.00 60.90           O
ATOM    591  CB  HIS A  77     -27.436  -5.685  31.096  1.00 78.76           C
ATOM    592  CG  HIS A  77     -26.149  -4.936  30.953  1.00 70.16           C
ATOM    593  ND1 HIS A  77     -25.093  -5.416  30.210  1.00 62.80           N
ATOM    594  CD2 HIS A  77     -25.752  -3.736  31.437  1.00 70.44           C
ATOM    595  CE1 HIS A  77     -24.092  -4.555  30.258  1.00 65.52           C
ATOM    596  NE2 HIS A  77     -24.466  -3.526  30.997  1.00 64.46           N
ATOM    597  N   GLY A  78     -27.349  -7.172  33.958  1.00 63.65           N
ATOM    598  CA  GLY A  78     -26.768  -7.029  35.282  1.00 64.98           C
ATOM    599  C   GLY A  78     -25.865  -8.173  35.687  1.00 63.43           C
ATOM    600  O   GLY A  78     -24.949  -7.987  36.492  1.00 63.17           O
ATOM    601  N   SER A  79     -26.100  -9.364  35.134  1.00 71.03           N
ATOM    602  CA  SER A  79     -25.276 -10.530  35.419  1.00 63.90           C
ATOM    603  C   SER A  79     -24.345 -10.903  34.278  1.00 60.79           C
ATOM    604  O   SER A  79     -23.202 -11.290  34.532  1.00 63.94           O
ATOM    605  CB  SER A  79     -26.162 -11.729  35.776  1.00 51.85           C
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ATOM    606  OG  SER A  79     -27.072 -12.006  34.734  1.00 57.31           O
ATOM    607  N   GLU A  80     -24.781 -10.753  33.030  1.00 61.52           N
ATOM    608  CA  GLU A  80     -23.934 -11.135  31.903  1.00 62.10           C
ATOM    609  C   GLU A  80     -22.774 -10.166  31.688  1.00 57.79           C
ATOM    610  O   GLU A  80     -21.791 -10.539  31.045  1.00 45.71           O
ATOM    611  CB  GLU A  80     -24.791 -11.250  30.646  1.00 56.14           C
ATOM    612  CG  GLU A  80     -25.708 -12.459  30.672  1.00 62.83           C
ATOM    613  CD  GLU A  80     -26.722 -12.473  29.543  1.00 72.25           C
ATOM    614  OE1 GLU A  80     -27.461 -13.477  29.432  1.00 74.57           O
ATOM    615  OE2 GLU A  80     -26.787 -11.488  28.772  1.00 79.45           O
ATOM    616  N   MET A  81     -22.858  -8.944  32.230  1.00 63.14           N
ATOM    617  CA  MET A  81     -21.753  -7.990  32.147  1.00 63.04           C
ATOM    618  C   MET A  81     -20.504  -8.468  32.873  1.00 67.77           C
ATOM    619  O   MET A  81     -19.436  -7.870  32.685  1.00 65.03           O
ATOM    620  CB  MET A  81     -22.161  -6.626  32.717  1.00 59.58           C
ATOM    621  CG  MET A  81     -22.533  -6.642  34.195  1.00 62.43           C
ATOM    622  SD  MET A  81     -22.849  -4.973  34.885  1.00 58.67           S
ATOM    623  CE  MET A  81     -21.134  -4.419  35.114  1.00 50.64           C
ATOM    624  N   TRP A  82     -20.617  -9.511  33.707  1.00 71.96           N
ATOM    625  CA  TRP A  82     -19.479 -10.103  34.397  1.00 60.45           C
ATOM    626  C   TRP A  82     -19.005 -11.395  33.748  1.00 58.71           C
ATOM    627  O   TRP A  82     -17.877 -11.825  34.015  1.00 59.68           O
ATOM    628  CB  TRP A  82     -19.840 -10.379  35.861  1.00 55.26           C
ATOM    629  CG  TRP A  82     -20.385  -9.171  36.562  1.00 49.70           C
ATOM    630  CD1 TRP A  82     -21.693  -8.927  36.884  1.00 50.20           C
ATOM    631  CD2 TRP A  82     -19.640  -8.025  37.006  1.00 54.29           C
ATOM    632  NE1 TRP A  82     -21.804  -7.701  37.503  1.00 64.13           N
ATOM    633  CE2 TRP A  82     -20.561  -7.128  37.589  1.00 60.30           C
ATOM    634  CE3 TRP A  82     -18.284  -7.667  36.956  1.00 58.82           C
ATOM    635  CZ2 TRP A  82     -20.169  -5.897  38.123  1.00 55.83           C
ATOM    636  CZ3 TRP A  82     -17.892  -6.449  37.489  1.00 55.41           C
ATOM    637  CH2 TRP A  82     -18.835  -5.579  38.067  1.00 57.44           C
ATOM    638  N   ASN A  83     -19.840 -12.024  32.918  1.00 58.67           N
ATOM    639  CA  ASN A  83     -19.430 -13.209  32.178  1.00 56.63           C
ATOM    640  C   ASN A  83     -18.344 -12.828  31.170  1.00 58.97           C
ATOM    641  O   ASN A  83     -18.319 -11.695  30.671  1.00 60.74           O
ATOM    642  CB  ASN A  83     -20.618 -13.833  31.441  1.00 53.94           C
ATOM    643  CG  ASN A  83     -21.597 -14.520  32.371  1.00 57.23           C
ATOM    644  OD1 ASN A  83     -21.225 -15.037  33.432  1.00 52.84           O
ATOM    645  ND2 ASN A  83     -22.866 -14.535  31.970  1.00 58.49           N
ATOM    646  N   PRO A  84     -17.448 -13.755  30.830  1.00 51.84           N
ATOM    647  CA  PRO A  84     -16.347 -13.399  29.931  1.00 57.84           C
ATOM    648  C   PRO A  84     -16.874 -12.951  28.570  1.00 68.06           C
ATOM    649  O   PRO A  84     -18.009 -13.235  28.177  1.00 70.26           O
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ATOM    650  CB  PRO A  84     -15.533 -14.698  29.827  1.00 51.24           C
ATOM    651  CG  PRO A  84     -16.049 -15.579  30.936  1.00 61.73           C
ATOM    652  CD  PRO A  84     -17.473 -15.196  31.116  1.00 59.67           C
ATOM    653  N   ASN A  85     -16.032 -12.207  27.852  1.00 71.03           N
ATOM    654  CA  ASN A  85     -16.349 -11.709  26.515  1.00 71.82           C
ATOM    655  C   ASN A  85     -15.293 -12.130  25.506  1.00 66.80           C
ATOM    656  O   ASN A  85     -15.037 -11.423  24.528  1.00 66.32           O
ATOM    657  CB  ASN A  85     -16.481 -10.193  26.530  1.00 61.33           C
ATOM    658  CG  ASN A  85     -15.222  -9.526  27.026  1.00 64.47           C
ATOM    659  OD1 ASN A  85     -14.347 -10.185  27.593  1.00 77.53           O
ATOM    660  ND2 ASN A  85     -15.132  -8.217  26.854  1.00 65.27           N
ATOM    661  N   THR A  86     -14.653 -13.243  25.769  1.00 61.57           N
ATOM    662  CA  THR A  86     -13.636 -13.804  24.938  1.00 58.16           C
ATOM    663  C   THR A  86     -13.930 -15.294  24.878  1.00 70.20           C
ATOM    664  O   THR A  86     -14.813 -15.788  25.585  1.00 74.44           O
ATOM    665  CB  THR A  86     -12.270 -13.438  25.523  1.00 62.69           C
ATOM    666  OG1 THR A  86     -11.931 -12.131  25.109  1.00 62.44           O
ATOM    667  CG2 THR A  86     -11.255 -14.352  25.075  1.00 67.56           C
ATOM    668  N   ASP A  87     -13.277 -15.995  23.956  1.00 81.52           N
ATOM    669  CA  ASP A  87     -13.288 -17.448  23.959  1.00 77.48           C
ATOM    670  C   ASP A  87     -12.634 -17.982  25.223  1.00 66.99           C
ATOM    671  O   ASP A  87     -11.626 -17.446  25.693  1.00 64.52           O
ATOM    672  CB  ASP A  87     -12.519 -17.974  22.759  1.00 72.04           C
ATOM    673  CG  ASP A  87     -13.100 -17.507  21.465  1.00 81.42           C
ATOM    674  OD1 ASP A  87     -13.958 -18.225  20.898  1.00 85.46           O
ATOM    675  OD2 ASP A  87     -12.704 -16.399  21.039  1.00 91.43           O
ATOM    676  N   LEU A  88     -13.205 -19.060  25.765  1.00 62.31           N
ATOM    677  CA  LEU A  88     -12.564 -19.783  26.861  1.00 62.73           C
ATOM    678  C   LEU A  88     -11.574 -20.805  26.319  1.00 57.53           C
ATOM    679  O   LEU A  88     -11.810 -21.431  25.288  1.00 61.93           O
ATOM    680  CB  LEU A  88     -13.580 -20.485  27.766  1.00 54.18           C
ATOM    681  CG  LEU A  88     -14.871 -19.765  28.171  1.00 60.46           C
ATOM    682  CD1 LEU A  88     -15.941 -20.738  28.715  1.00 54.29           C
ATOM    683  CD2 LEU A  88     -14.562 -18.670  29.178  1.00 52.69           C
ATOM    684  N   SER A  89     -10.486 -21.000  27.052  1.00 66.19           N
ATOM    685  CA  SER A  89      -9.357 -21.825  26.646  1.00 58.82           C
ATOM    686  C   SER A  89      -8.413 -21.992  27.830  1.00 59.39           C
ATOM    687  O   SER A  89      -8.107 -21.011  28.517  1.00 66.79           O
ATOM    688  CB  SER A  89      -8.611 -21.169  25.482  1.00 55.78           C
ATOM    689  OG  SER A  89      -7.234 -21.484  25.563  1.00 65.95           O
ATOM    690  N   GLU A  90      -7.915 -23.209  28.054  1.00 54.95           N
ATOM    691  CA  GLU A  90      -6.895 -23.262  29.088  1.00 63.96           C
ATOM    692  C   GLU A  90      -5.622 -22.537  28.654  1.00 62.70           C
ATOM    693  O   GLU A  90      -4.754 -22.290  29.497  1.00 67.30           O
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ATOM    694  CB  GLU A  90      -6.556 -24.693  29.475  1.00 64.20           C
ATOM    695  CG  GLU A  90      -7.633 -25.736  29.332  1.00 67.43           C
ATOM    696  CD  GLU A  90      -7.244 -27.081  29.988  1.00 81.80           C
ATOM    697  OE1 GLU A  90      -6.215 -27.134  30.706  1.00 81.00           O
ATOM    698  OE2 GLU A  90      -7.890 -28.131  29.703  1.00 77.21           O
ATOM    699  N   ASP A  91      -5.489 -22.186  27.371  1.00 63.41           N
ATOM    700  CA  ASP A  91      -4.441 -21.271  26.914  1.00 65.56           C
ATOM    701  C   ASP A  91      -4.933 -19.854  27.165  1.00 67.23           C
ATOM    702  O   ASP A  91      -5.734 -19.314  26.393  1.00 57.70           O
ATOM    703  CB  ASP A  91      -4.124 -21.485  25.439  1.00 65.25           C
ATOM    704  CG  ASP A  91      -2.973 -20.605  24.949  1.00 75.50           C
ATOM    705  OD1 ASP A  91      -2.235 -20.053  25.790  1.00 75.32           O
ATOM    706  OD2 ASP A  91      -2.815 -20.446  23.719  1.00 80.08           O
ATOM    707  N   CYS A  92      -4.442 -19.243  28.250  1.00 70.16           N
ATOM    708  CA  CYS A  92      -4.988 -17.968  28.701  1.00 70.74           C
ATOM    709  C   CYS A  92      -4.026 -17.133  29.534  1.00 63.35           C
ATOM    710  O   CYS A  92      -4.450 -16.095  30.054  1.00 62.23           O
ATOM    711  CB  CYS A  92      -6.265 -18.217  29.515  1.00 59.39           C
ATOM    712  SG  CYS A  92      -5.910 -19.182  30.987  1.00 73.81           S
ATOM    713  N   LEU A  93      -2.758 -17.515  29.678  1.00 58.15           N
ATOM    714  CA  LEU A  93      -1.854 -16.778  30.564  1.00 65.42           C
ATOM    715  C   LEU A  93      -1.285 -15.545  29.849  1.00 60.62           C
ATOM    716  O   LEU A  93      -0.086 -15.431  29.573  1.00 64.11           O
ATOM    717  CB  LEU A  93      -0.763 -17.707  31.083  1.00 65.92           C
ATOM    718  CG  LEU A  93      -1.330 -18.709  32.096  1.00 59.88           C
ATOM    719  CD1 LEU A  93      -0.241 -19.529  32.734  1.00 55.58           C
ATOM    720  CD2 LEU A  93      -2.143 -17.990  33.163  1.00 60.59           C
ATOM    721  N   TYR A  94      -2.176 -14.583  29.586  1.00 54.74           N
ATOM    722  CA  TYR A  94      -1.840 -13.373  28.846  1.00 65.05           C
ATOM    723  C   TYR A  94      -2.128 -12.140  29.699  1.00 67.00           C
ATOM    724  O   TYR A  94      -2.945 -12.191  30.622  1.00 70.28           O
ATOM    725  CB  TYR A  94      -2.617 -13.304  27.511  1.00 60.35           C
ATOM    726  CG  TYR A  94      -2.351 -14.503  26.640  1.00 58.48           C
ATOM    727  CD1 TYR A  94      -3.081 -15.674  26.799  1.00 60.37           C
ATOM    728  CD2 TYR A  94      -1.334 -14.484  25.693  1.00 64.55           C
ATOM    729  CE1 TYR A  94      -2.807 -16.787  26.038  1.00 70.42           C
ATOM    730  CE2 TYR A  94      -1.049 -15.590  24.912  1.00 60.88           C
ATOM    731  CZ  TYR A  94      -1.782 -16.743  25.086  1.00 74.41           C
ATOM    732  OH  TYR A  94      -1.500 -17.858  24.310  1.00 71.75           O
ATOM    733  N   LEU A  95      -1.447 -11.025  29.392  1.00 65.68           N
ATOM    734  CA  LEU A  95      -1.680  -9.760  30.090  1.00 69.71           C
ATOM    735  C   LEU A  95      -1.782  -8.589  29.102  1.00 78.61           C
ATOM    736  O   LEU A  95      -1.433  -8.693  27.918  1.00 69.35           O
ATOM    737  CB  LEU A  95      -0.596  -9.477  31.143  1.00 53.98           C
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ATOM    738  CG  LEU A  95       0.899  -9.489  30.822  1.00 59.14           C
ATOM    739  CD1 LEU A  95       1.273  -8.443  29.799  1.00 72.55           C
ATOM    740  CD2 LEU A  95       1.736  -9.287  32.068  1.00 55.72           C
ATOM    741  N   ASN A  96      -2.251  -7.450  29.623  1.00 72.31           N
ATOM    742  CA  ASN A  96      -2.510  -6.252  28.836  1.00 66.80           C
ATOM    743  C   ASN A  96      -1.939  -5.047  29.563  1.00 73.87           C
ATOM    744  O   ASN A  96      -2.144  -4.876  30.772  1.00 72.21           O
ATOM    745  CB  ASN A  96      -4.007  -6.011  28.628  1.00 60.38           C
ATOM    746  CG  ASN A  96      -4.802  -7.282  28.610  1.00 66.33           C
ATOM    747  OD1 ASN A  96      -4.468  -8.245  27.904  1.00 71.98           O
ATOM    748  ND2 ASN A  96      -5.865  -7.307  29.399  1.00 65.19           N
ATOM    749  N   VAL A  97      -1.244  -4.192  28.829  1.00 79.79           N
ATOM    750  CA  VAL A  97      -0.708  -2.964  29.399  1.00 79.89           C
ATOM    751  C   VAL A  97      -1.271  -1.795  28.607  1.00 75.41           C
ATOM    752  O   VAL A  97      -1.443  -1.889  27.386  1.00 81.16           O
ATOM    753  CB  VAL A  97       0.829  -2.975  29.393  1.00 77.31           C
ATOM    754  CG1 VAL A  97       1.318  -4.326  29.894  1.00 82.43           C
ATOM    755  CG2 VAL A  97       1.346  -2.753  28.027  1.00 82.81           C
ATOM    756  N   TRP A  98      -1.631  -0.730  29.304  1.00 65.50           N
ATOM    757  CA  TRP A  98      -2.043   0.501  28.653  1.00 71.74           C
ATOM    758  C   TRP A  98      -1.023   1.581  28.984  1.00 79.41           C
ATOM    759  O   TRP A  98      -0.647   1.753  30.150  1.00 79.13           O
ATOM    760  CB  TRP A  98      -3.445   0.935  29.091  1.00 69.11           C
ATOM    761  CG  TRP A  98      -4.586   0.106  28.553  1.00 71.36           C
ATOM    762  CD1 TRP A  98      -5.253   0.290  27.373  1.00 75.40           C
ATOM    763  CD2 TRP A  98      -5.224  -1.003  29.202  1.00 73.70           C
ATOM    764  NE1 TRP A  98      -6.252  -0.647  27.236  1.00 66.30           N
ATOM    765  CE2 TRP A  98      -6.259  -1.449  28.348  1.00 68.20           C
ATOM    766  CE3 TRP A  98      -5.014  -1.668  30.415  1.00 66.05           C
ATOM    767  CZ2 TRP A  98      -7.080  -2.525  28.670  1.00 66.31           C
ATOM    768  CZ3 TRP A  98      -5.831  -2.736  30.733  1.00 68.85           C
ATOM    769  CH2 TRP A  98      -6.854  -3.155  29.861  1.00 70.86           C
ATOM    770  N   ILE A  99      -0.555   2.287  27.956  1.00 76.90           N
ATOM    771  CA  ILE A  99       0.538   3.247  28.113  1.00 78.84           C
ATOM    772  C   ILE A  99       0.011   4.614  27.695  1.00 84.52           C
ATOM    773  O   ILE A  99      -0.683   4.728  26.674  1.00 91.06           O
ATOM    774  CB  ILE A  99       1.778   2.855  27.279  1.00 82.34           C
ATOM    775  CG1 ILE A  99       2.751   1.947  28.025  1.00 81.64           C
ATOM    776  CG2 ILE A  99       2.600   4.076  26.915  1.00 89.76           C
ATOM    777  CD1 ILE A  99       2.184   0.637  28.430  1.00 92.21           C
ATOM    778  N   PRO A 100       0.304   5.672  28.445  1.00 88.42           N
ATOM    779  CA  PRO A 100      -0.070   7.022  28.000  1.00 94.37           C
ATOM    780  C   PRO A 100       0.666   7.412  26.724  1.00 88.22           C
ATOM    781  O   PRO A 100       1.745   6.897  26.421  1.00 84.47           O
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ATOM    782  CB  PRO A 100       0.350   7.913  29.177  1.00 83.17           C
ATOM    783  CG  PRO A 100       0.414   6.998  30.336  1.00 79.09           C
ATOM    784  CD  PRO A 100       0.857   5.664  29.804  1.00 73.17           C
ATOM    785  N   ALA A 101       0.076   8.339  25.973  1.00 92.24           N
ATOM    786  CA  ALA A 101       0.781   8.916  24.818  1.00 97.87           C
ATOM    787  C   ALA A 101       0.823  10.446  24.887  1.00 88.77           C
ATOM    788  O   ALA A 101      -0.215  11.088  25.033  1.00 86.24           O
ATOM    789  CB  ALA A 101       0.151   8.462  23.521  1.00100.06           C
ATOM    790  N   PRO A 102       2.026  11.041  24.764  1.00101.15           N
ATOM    791  CA  PRO A 102       3.317  10.427  24.411  1.00 93.50           C
ATOM    792  C   PRO A 102       3.816   9.477  25.476  1.00 91.73           C
ATOM    793  O   PRO A 102       3.584   9.754  26.653  1.00 96.50           O
ATOM    794  CB  PRO A 102       4.279  11.626  24.312  1.00 95.89           C
ATOM    795  CG  PRO A 102       3.425  12.861  24.387  1.00 93.16           C
ATOM    796  CD  PRO A 102       2.189  12.460  25.132  1.00 99.27           C
ATOM    797  N   LYS A 103       4.481   8.401  25.063  1.00 91.53           N
ATOM    798  CA  LYS A 103       4.996   7.396  25.979  1.00 91.63           C
ATOM    799  C   LYS A 103       5.695   8.066  27.165  1.00 93.29           C
ATOM    800  O   LYS A 103       6.599   8.896  26.962  1.00 73.48           O
ATOM    801  CB  LYS A 103       5.951   6.449  25.243  1.00 93.16           C
ATOM    802  CG  LYS A 103       7.153   5.947  26.048  1.00 94.53           C
ATOM    803  CD  LYS A 103       7.742   4.678  25.420  1.00 95.35           C
ATOM    804  CE  LYS A 103       9.177   4.894  24.941  1.00 95.03           C
ATOM    805  NZ  LYS A 103       9.714   3.655  24.327  1.00 90.22           N
ATOM    806  N   PRO A 104       5.287   7.767  28.403  1.00 94.13           N
ATOM    807  CA  PRO A 104       5.915   8.404  29.563  1.00 91.80           C
ATOM    808  C   PRO A 104       7.348   7.940  29.745  1.00 94.24           C
ATOM    809  O   PRO A 104       7.825   7.087  28.986  1.00 94.25           O
ATOM    810  CB  PRO A 104       5.020   7.961  30.727  1.00 86.90           C
ATOM    811  CG  PRO A 104       4.511   6.629  30.292  1.00 96.61           C
ATOM    812  CD  PRO A 104       4.308   6.737  28.802  1.00 95.16           C
ATOM    813  N   LYS A 105       8.047   8.477  30.742  1.00 93.50           N
ATOM    814  CA  LYS A 105       9.425   8.072  30.932  1.00 86.99           C
ATOM    815  C   LYS A 105       9.677   7.342  32.241  1.00 93.16           C
ATOM    816  O   LYS A 105      10.494   6.420  32.252  1.00103.31           O
ATOM    817  CB  LYS A 105      10.373   9.278  30.808  1.00 92.75           C
ATOM    818  CG  LYS A 105      11.787   8.991  31.299  1.00 93.81           C
ATOM    819  CD  LYS A 105      12.861   9.740  30.509  1.00 96.13           C
ATOM    820  CE  LYS A 105      12.360  11.064  29.927  1.00108.52           C
ATOM    821  NZ  LYS A 105      12.327  12.173  30.935  1.00105.04           N
ATOM    822  N   ASN A 106       8.985   7.675  33.329  1.00 87.52           N
ATOM    823  CA  ASN A 106       9.177   6.899  34.568  1.00 94.01           C
ATOM    824  C   ASN A 106       7.855   6.779  35.328  1.00 94.68           C
ATOM    825  O   ASN A 106       7.745   7.084  36.519  1.00 79.87           O
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ATOM    826  CB  ASN A 106      10.274   7.522  35.432  1.00 92.43           C
ATOM    827  CG  ASN A 106      11.157   6.476  36.099  1.00 84.77           C
ATOM    828  OD1 ASN A 106      11.254   5.344  35.622  1.00 96.02           O
ATOM    829  ND2 ASN A 106      11.811   6.851  37.200  1.00 74.52           N
ATOM    830  N   ALA A 107       6.834   6.281  34.634  1.00 97.78           N
ATOM    831  CA  ALA A 107       5.462   6.354  35.113  1.00 93.09           C
ATOM    832  C   ALA A 107       5.182   5.314  36.194  1.00 88.04           C
ATOM    833  O   ALA A 107       5.777   4.231  36.228  1.00 88.03           O
ATOM    834  CB  ALA A 107       4.483   6.169  33.947  1.00 81.86           C
ATOM    835  N   THR A 108       4.261   5.662  37.085  1.00 82.08           N
ATOM    836  CA  THR A 108       3.740   4.694  38.037  1.00 84.37           C
ATOM    837  C   THR A 108       2.921   3.641  37.296  1.00 92.50           C
ATOM    838  O   THR A 108       2.236   3.941  36.308  1.00 86.76           O
ATOM    839  CB  THR A 108       2.898   5.403  39.113  1.00 89.22           C
ATOM    840  OG1 THR A 108       3.758   6.135  40.002  1.00 89.95           O
ATOM    841  CG2 THR A 108       2.064   4.428  39.927  1.00 79.78           C
ATOM    842  N   VAL A 109       3.027   2.394  37.762  1.00 91.79           N
ATOM    843  CA  VAL A 109       2.338   1.247  37.182  1.00 74.35           C
ATOM    844  C   VAL A 109       1.258   0.784  38.147  1.00 72.47           C
ATOM    845  O   VAL A 109       1.530   0.573  39.336  1.00 73.67           O
ATOM    846  CB  VAL A 109       3.321   0.108  36.889  1.00 74.42           C
ATOM    847  CG1 VAL A 109       2.594  -1.054  36.241  1.00 73.81           C
ATOM    848  CG2 VAL A 109       4.450   0.616  36.014  1.00 79.23           C
ATOM    849  N   LEU A 110       0.038   0.630  37.635  1.00 74.51           N
ATOM    850  CA  LEU A 110      -1.093   0.072  38.372  1.00 71.57           C
ATOM    851  C   LEU A 110      -1.443  -1.288  37.786  1.00 72.20           C
ATOM    852  O   LEU A 110      -1.636  -1.409  36.571  1.00 75.12           O
ATOM    853  CB  LEU A 110      -2.319   0.977  38.282  1.00 70.01           C
ATOM    854  CG  LEU A 110      -2.437   2.219  39.147  1.00 72.19           C
ATOM    855  CD1 LEU A 110      -3.533   3.121  38.585  1.00 63.59           C
ATOM    856  CD2 LEU A 110      -2.753   1.799  40.564  1.00 74.70           C
ATOM    857  N   ILE A 111      -1.557  -2.301  38.640  1.00 68.57           N
ATOM    858  CA  ILE A 111      -1.809  -3.661  38.190  1.00 62.52           C
ATOM    859  C   ILE A 111      -3.152  -4.117  38.754  1.00 61.95           C
ATOM    860  O   ILE A 111      -3.374  -4.074  39.970  1.00 58.30           O
ATOM    861  CB  ILE A 111      -0.657  -4.600  38.594  1.00 71.24           C
ATOM    862  CG1 ILE A 111       0.671  -4.016  38.093  1.00 65.20           C
ATOM    863  CG2 ILE A 111      -0.877  -6.018  38.020  1.00 70.11           C
ATOM    864  CD1 ILE A 111       1.891  -4.923  38.248  1.00 66.10           C
ATOM    865  N   TRP A 112      -4.039  -4.564  37.869  1.00 60.68           N
ATOM    866  CA  TRP A 112      -5.395  -4.957  38.244  1.00 67.79           C
ATOM    867  C   TRP A 112      -5.549  -6.478  38.301  1.00 70.17           C
ATOM    868  O   TRP A 112      -5.215  -7.185  37.344  1.00 70.51           O
ATOM    869  CB  TRP A 112      -6.401  -4.373  37.259  1.00 55.40           C
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ATOM    870  CG  TRP A 112      -7.803  -4.788  37.480  1.00 52.12           C
ATOM    871  CD1 TRP A 112      -8.569  -5.524  36.646  1.00 58.82           C
ATOM    872  CD2 TRP A 112      -8.624  -4.480  38.607  1.00 51.84           C
ATOM    873  NE1 TRP A 112      -9.821  -5.695  37.174  1.00 54.30           N
ATOM    874  CE2 TRP A 112      -9.878  -5.054  38.379  1.00 50.06           C
ATOM    875  CE3 TRP A 112      -8.424  -3.763  39.779  1.00 61.74           C
ATOM    876  CZ2 TRP A 112     -10.923  -4.943  39.284  1.00 62.58           C
ATOM    877  CZ3 TRP A 112      -9.472  -3.655  40.682  1.00 60.47           C
ATOM    878  CH2 TRP A 112     -10.698  -4.245  40.430  1.00 55.17           C
ATOM    879  N   ILE A 113      -6.077  -6.973  39.415  1.00 60.87           N
ATOM    880  CA  ILE A 113      -6.369  -8.386  39.589  1.00 63.30           C
ATOM    881  C   ILE A 113      -7.869  -8.517  39.830  1.00 67.15           C
ATOM    882  O   ILE A 113      -8.381  -8.061  40.864  1.00 60.27           O
ATOM    883  CB  ILE A 113      -5.560  -8.994  40.738  1.00 63.84           C
ATOM    884  CG1 ILE A 113      -4.058  -8.896  40.435  1.00 62.95           C
ATOM    885  CG2 ILE A 113      -6.001 -10.426  40.981  1.00 60.58           C
ATOM    886  CD1 ILE A 113      -3.148  -9.259  41.637  1.00 59.73           C
ATOM    887  N   TYR A 114      -8.570  -9.152  38.888  1.00 67.89           N
ATOM    888  CA  TYR A 114     -10.028  -9.158  38.895  1.00 67.21           C
ATOM    889  C   TYR A 114     -10.599 -10.154  39.906  1.00 57.70           C
ATOM    890  O   TYR A 114      -9.990 -11.180  40.229  1.00 50.01           O
ATOM    891  CB  TYR A 114     -10.564  -9.469  37.493  1.00 61.69           C
ATOM    892  CG  TYR A 114     -10.035 -10.760  36.896  1.00 65.40           C
ATOM    893  CD1 TYR A 114     -10.626 -11.987  37.191  1.00 58.19           C
ATOM    894  CD2 TYR A 114      -8.951 -10.754  36.030  1.00 69.41           C
ATOM    895  CE1 TYR A 114     -10.143 -13.159  36.659  1.00 55.92           C
ATOM    896  CE2 TYR A 114      -8.470 -11.942  35.479  1.00 69.44           C
ATOM    897  CZ  TYR A 114      -9.072 -13.132  35.801  1.00 61.05           C
ATOM    898  OH  TYR A 114      -8.596 -14.299  35.262  1.00 66.70           O
ATOM    899  N   GLY A 115     -11.800  -9.841  40.397  1.00 54.54           N
ATOM    900  CA  GLY A 115     -12.485 -10.714  41.327  1.00 66.20           C
ATOM    901  C   GLY A 115     -13.376 -11.722  40.624  1.00 66.69           C
ATOM    902  O   GLY A 115     -13.626 -11.598  39.434  1.00 60.49           O
ATOM    903  N   GLY A 116     -13.844 -12.717  41.392  1.00 76.30           N
ATOM    904  CA  GLY A 116     -14.648 -13.805  40.848  1.00 77.09           C
ATOM    905  C   GLY A 116     -14.817 -15.026  41.754  1.00 81.48           C
ATOM    906  O   GLY A 116     -15.022 -16.162  41.266  1.00 63.87           O
ATOM    907  N   GLY A 117     -14.752 -14.808  43.078  1.00 62.42           N
ATOM    908  CA  GLY A 117     -14.757 -15.941  43.993  1.00 62.40           C
ATOM    909  C   GLY A 117     -13.770 -17.034  43.606  1.00 49.75           C
ATOM    910  O   GLY A 117     -13.965 -18.204  43.942  1.00 47.57           O
ATOM    911  N   PHE A 118     -12.715 -16.650  42.883  1.00 47.70           N
ATOM    912  CA  PHE A 118     -11.701 -17.534  42.317  1.00 55.81           C
ATOM    913  C   PHE A 118     -12.284 -18.597  41.387  1.00 64.16           C
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ATOM    914  O   PHE A 118     -11.556 -19.518  40.975  1.00 55.78           O
ATOM    915  CB  PHE A 118     -10.867 -18.224  43.405  1.00 55.48           C
ATOM    916  CG  PHE A 118     -10.114 -17.285  44.292  1.00 48.45           C
ATOM    917  CD1 PHE A 118      -8.929 -16.706  43.863  1.00 49.72           C
ATOM    918  CD2 PHE A 118     -10.580 -17.001  45.568  1.00 50.18           C
ATOM    919  CE1 PHE A 118      -8.229 -15.840  44.692  1.00 61.99           C
ATOM    920  CE2 PHE A 118      -9.892 -16.138  46.399  1.00 49.95           C
ATOM    921  CZ  PHE A 118      -8.718 -15.553  45.964  1.00 56.58           C
ATOM    922  N   GLN A 119     -13.575 -18.512  41.048  1.00 57.04           N
ATOM    923  CA  GLN A 119     -14.188 -19.488  40.167  1.00 48.08           C
ATOM    924  C   GLN A 119     -14.444 -18.946  38.770  1.00 63.40           C
ATOM    925  O   GLN A 119     -14.760 -19.732  37.863  1.00 66.30           O
ATOM    926  CB  GLN A 119     -15.512 -19.988  40.758  1.00 47.60           C
ATOM    927  CG  GLN A 119     -15.439 -20.525  42.186  1.00 57.17           C
ATOM    928  CD  GLN A 119     -14.389 -21.603  42.370  1.00 66.55           C
ATOM    929  OE1 GLN A 119     -14.615 -22.783  42.050  1.00 72.03           O
ATOM    930  NE2 GLN A 119     -13.236 -21.210  42.901  1.00 57.59           N
ATOM    931  N   THR A 120     -14.267 -17.643  38.559  1.00 57.56           N
ATOM    932  CA  THR A 120     -14.708 -16.984  37.339  1.00 57.59           C
ATOM    933  C   THR A 120     -13.861 -15.734  37.125  1.00 62.05           C
ATOM    934  O   THR A 120     -13.078 -15.341  37.990  1.00 61.51           O
ATOM    935  CB  THR A 120     -16.191 -16.607  37.434  1.00 64.43           C
ATOM    936  OG1 THR A 120     -16.413 -15.877  38.655  1.00 65.97           O
ATOM    937  CG2 THR A 120     -17.107 -17.850  37.388  1.00 47.02           C
ATOM    938  N   GLY A 121     -14.040 -15.103  35.958  1.00 64.28           N
ATOM    939  CA  GLY A 121     -13.495 -13.777  35.725  1.00 62.55           C
ATOM    940  C   GLY A 121     -12.421 -13.679  34.659  1.00 64.23           C
ATOM    941  O   GLY A 121     -11.820 -14.695  34.288  1.00 61.34           O
ATOM    942  N   THR A 122     -12.142 -12.453  34.199  1.00 60.88           N
ATOM    943  CA  THR A 122     -11.168 -12.197  33.142  1.00 64.31           C
ATOM    944  C   THR A 122     -10.855 -10.703  33.029  1.00 61.54           C
ATOM    945  O   THR A 122     -11.724  -9.849  33.225  1.00 52.36           O
ATOM    946  CB  THR A 122     -11.666 -12.734  31.794  1.00 61.09           C
ATOM    947  OG1 THR A 122     -10.669 -12.511  30.792  1.00 55.80           O
ATOM    948  CG2 THR A 122     -12.963 -12.065  31.391  1.00 62.80           C
ATOM    949  N   SER A 123      -9.603 -10.406  32.673  1.00 65.14           N
ATOM    950  CA  SER A 123      -9.110  -9.036  32.554  1.00 71.14           C
ATOM    951  C   SER A 123      -9.682  -8.295  31.353  1.00 74.11           C
ATOM    952  O   SER A 123      -9.330  -7.130  31.119  1.00 74.34           O
ATOM    953  CB  SER A 123      -7.590  -9.050  32.443  1.00 72.78           C
ATOM    954  OG  SER A 123      -7.219  -9.583  31.185  1.00 55.83           O
ATOM    955  N   SER A 124     -10.550  -8.941  30.597  1.00 73.78           N
ATOM    956  CA  SER A 124     -11.014  -8.425  29.328  1.00 67.91           C
ATOM    957  C   SER A 124     -12.319  -7.643  29.435  1.00 68.61           C
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ATOM    958  O   SER A 124     -12.761  -7.076  28.425  1.00 75.75           O
ATOM    959  CB  SER A 124     -11.160  -9.599  28.345  1.00 68.26           C
ATOM    960  OG  SER A 124     -12.114  -9.314  27.345  1.00 78.78           O
ATOM    961  N   LEU A 125     -12.932  -7.580  30.621  1.00 65.37           N
ATOM    962  CA  LEU A 125     -14.242  -6.945  30.757  1.00 73.43           C
ATOM    963  C   LEU A 125     -14.180  -5.438  30.500  1.00 71.67           C
ATOM    964  O   LEU A 125     -13.160  -4.773  30.740  1.00 60.82           O
ATOM    965  CB  LEU A 125     -14.854  -7.202  32.147  1.00 72.55           C
ATOM    966  CG  LEU A 125     -15.159  -8.632  32.637  1.00 62.20           C
ATOM    967  CD1 LEU A 125     -15.882  -8.588  33.959  1.00 50.85           C
ATOM    968  CD2 LEU A 125     -15.985  -9.397  31.623  1.00 69.27           C
ATOM    969  N   HIS A 126     -15.304  -4.904  30.000  1.00 67.76           N
ATOM    970  CA  HIS A 126     -15.380  -3.479  29.690  1.00 66.96           C
ATOM    971  C   HIS A 126     -15.207  -2.617  30.944  1.00 62.08           C
ATOM    972  O   HIS A 126     -14.649  -1.518  30.867  1.00 78.76           O
ATOM    973  CB  HIS A 126     -16.702  -3.182  28.960  1.00 67.93           C
ATOM    974  CG  HIS A 126     -16.955  -1.726  28.687  1.00 78.28           C
ATOM    975  ND1 HIS A 126     -18.102  -1.079  29.102  1.00 73.52           N
ATOM    976  CD2 HIS A 126     -16.208  -0.791  28.049  1.00 78.89           C
ATOM    977  CE1 HIS A 126     -18.053   0.187  28.728  1.00 68.77           C
ATOM    978  NE2 HIS A 126     -16.912   0.390  28.094  1.00 70.25           N
ATOM    979  N   VAL A 127     -15.626  -3.100  32.113  1.00 51.04           N
ATOM    980  CA  VAL A 127     -15.408  -2.315  33.321  1.00 61.30           C
ATOM    981  C   VAL A 127     -13.959  -2.326  33.798  1.00 59.32           C
ATOM    982  O   VAL A 127     -13.625  -1.578  34.718  1.00 61.55           O
ATOM    983  CB  VAL A 127     -16.306  -2.791  34.483  1.00 62.02           C
ATOM    984  CG1 VAL A 127     -17.749  -2.992  34.033  1.00 59.42           C
ATOM    985  CG2 VAL A 127     -15.761  -4.060  35.070  1.00 64.95           C
ATOM    986  N   TYR A 128     -13.088  -3.166  33.238  1.00 65.09           N
ATOM    987  CA  TYR A 128     -11.677  -3.153  33.613  1.00 60.73           C
ATOM    988  C   TYR A 128     -10.820  -2.465  32.574  1.00 69.02           C
ATOM    989  O   TYR A 128      -9.606  -2.701  32.541  1.00 71.80           O
ATOM    990  CB  TYR A 128     -11.135  -4.570  33.839  1.00 63.02           C
ATOM    991  CG  TYR A 128     -11.962  -5.441  34.755  1.00 64.10           C
ATOM    992  CD1 TYR A 128     -12.463  -4.946  35.953  1.00 63.09           C
ATOM    993  CD2 TYR A 128     -12.231  -6.765  34.427  1.00 66.89           C
ATOM    994  CE1 TYR A 128     -13.210  -5.732  36.788  1.00 60.98           C
ATOM    995  CE2 TYR A 128     -12.977  -7.560  35.268  1.00 68.21           C
ATOM    996  CZ  TYR A 128     -13.463  -7.032  36.443  1.00 61.47           C
ATOM    997  OH  TYR A 128     -14.213  -7.805  37.275  1.00 56.93           O
ATOM    998  N   ASP A 129     -11.427  -1.643  31.713  1.00 72.58           N
ATOM    999  CA  ASP A 129     -10.726  -1.000  30.602  1.00 65.26           C
ATOM   1000  C   ASP A 129      -9.803   0.074  31.166  1.00 77.91           C
ATOM   1001  O   ASP A 129     -10.244   1.184  31.497  1.00 81.42           O
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ATOM   1002  CB  ASP A 129     -11.721  -0.399  29.617  1.00 67.67           C
ATOM   1003  CG  ASP A 129     -11.075  -0.012  28.304  1.00 75.03           C
ATOM   1004  OD1 ASP A 129     -11.794  -0.001  27.278  1.00 80.36           O
ATOM   1005  OD2 ASP A 129      -9.844   0.238  28.290  1.00 72.62           O
ATOM   1006  N   GLY A 130      -8.507  -0.244  31.252  1.00 69.57           N
ATOM   1007  CA  GLY A 130      -7.553   0.669  31.853  1.00 75.28           C
ATOM   1008  C   GLY A 130      -7.268   1.944  31.076  1.00 75.70           C
ATOM   1009  O   GLY A 130      -6.557   2.803  31.605  1.00 75.91           O
ATOM   1010  N   LYS A 131      -7.801   2.105  29.857  1.00 70.32           N
ATOM   1011  CA  LYS A 131      -7.353   3.202  29.003  1.00 74.59           C
ATOM   1012  C   LYS A 131      -7.623   4.568  29.646  1.00 80.86           C
ATOM   1013  O   LYS A 131      -6.759   5.454  29.604  1.00 83.18           O
ATOM   1014  CB  LYS A 131      -7.984   3.094  27.604  1.00 63.27           C
ATOM   1015  CG  LYS A 131      -9.460   3.477  27.493  1.00 65.27           C
ATOM   1016  CD  LYS A 131     -10.040   3.130  26.131  1.00 66.48           C
ATOM   1017  CE  LYS A 131     -11.561   3.248  26.156  1.00 68.70           C
ATOM   1018  NZ  LYS A 131     -12.252   2.667  24.952  1.00 55.27           N
ATOM   1019  N   PHE A 132      -8.785   4.748  30.294  1.00 77.83           N
ATOM   1020  CA  PHE A 132      -9.092   6.055  30.881  1.00 73.44           C
ATOM   1021  C   PHE A 132      -8.088   6.430  31.975  1.00 72.71           C
ATOM   1022  O   PHE A 132      -7.704   7.596  32.101  1.00 67.54           O
ATOM   1023  CB  PHE A 132     -10.527   6.086  31.423  1.00 65.23           C
ATOM   1024  CG  PHE A 132     -11.552   5.545  30.466  1.00 66.06           C
ATOM   1025  CD1 PHE A 132     -11.908   6.247  29.325  1.00 80.27           C
ATOM   1026  CD2 PHE A 132     -12.171   4.334  30.709  1.00 76.12           C
ATOM   1027  CE1 PHE A 132     -12.866   5.742  28.422  1.00 78.33           C
ATOM   1028  CE2 PHE A 132     -13.126   3.828  29.819  1.00 84.27           C
ATOM   1029  CZ  PHE A 132     -13.475   4.541  28.673  1.00 75.09           C
ATOM   1030  N   LEU A 133      -7.633   5.461  32.766  1.00 74.57           N
ATOM   1031  CA  LEU A 133      -6.625   5.785  33.771  1.00 73.81           C
ATOM   1032  C   LEU A 133      -5.323   6.265  33.140  1.00 75.70           C
ATOM   1033  O   LEU A 133      -4.698   7.203  33.643  1.00 81.41           O
ATOM   1034  CB  LEU A 133      -6.364   4.577  34.656  1.00 70.95           C
ATOM   1035  CG  LEU A 133      -7.455   4.383  35.692  1.00 75.57           C
ATOM   1036  CD1 LEU A 133      -7.452   2.934  36.156  1.00 69.32           C
ATOM   1037  CD2 LEU A 133      -7.237   5.361  36.854  1.00 60.39           C
ATOM   1038  N   ALA A 134      -4.883   5.627  32.057  1.00 76.81           N
ATOM   1039  CA  ALA A 134      -3.641   6.050  31.422  1.00 77.28           C
ATOM   1040  C   ALA A 134      -3.810   7.423  30.790  1.00 88.09           C
ATOM   1041  O   ALA A 134      -2.948   8.306  30.919  1.00 82.31           O
ATOM   1042  CB  ALA A 134      -3.212   5.022  30.378  1.00 75.35           C
ATOM   1043  N   ARG A 135      -4.933   7.619  30.105  1.00 88.35           N
ATOM   1044  CA  ARG A 135      -5.231   8.912  29.510  1.00 80.80           C
ATOM   1045  C   ARG A 135      -5.265  10.002  30.572  1.00 79.71           C
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ATOM   1046  O   ARG A 135      -4.500  10.968  30.508  1.00 90.73           O
ATOM   1047  CB  ARG A 135      -6.564   8.833  28.772  1.00 79.02           C
ATOM   1048  CG  ARG A 135      -7.044  10.147  28.248  1.00 81.43           C
ATOM   1049  CD  ARG A 135      -6.117  10.642  27.183  1.00 81.28           C
ATOM   1050  NE  ARG A 135      -6.678  11.826  26.556  1.00 86.71           N
ATOM   1051  CZ  ARG A 135      -6.337  13.062  26.890  1.00 85.41           C
ATOM   1052  NH1 ARG A 135      -5.421  13.257  27.835  1.00 76.27           N
ATOM   1053  NH2 ARG A 135      -6.904  14.092  26.272  1.00 75.89           N
ATOM   1054  N   VAL A 136      -6.124   9.837  31.582  1.00 76.50           N
ATOM   1055  CA  VAL A 136      -6.453  10.938  32.486  1.00 66.28           C
ATOM   1056  C   VAL A 136      -5.298  11.240  33.431  1.00 74.99           C
ATOM   1057  O   VAL A 136      -4.876  12.393  33.557  1.00 92.44           O
ATOM   1058  CB  VAL A 136      -7.741  10.627  33.264  1.00 65.97           C
ATOM   1059  CG1 VAL A 136      -7.913  11.607  34.376  1.00 75.43           C
ATOM   1060  CG2 VAL A 136      -8.929  10.674  32.342  1.00 64.14           C
ATOM   1061  N   GLU A 137      -4.785  10.227  34.124  1.00 70.11           N
ATOM   1062  CA  GLU A 137      -3.758  10.430  35.135  1.00 73.10           C
ATOM   1063  C   GLU A 137      -2.383   9.910  34.724  1.00 79.71           C
ATOM   1064  O   GLU A 137      -1.500   9.772  35.585  1.00 73.83           O
ATOM   1065  CB  GLU A 137      -4.201   9.799  36.450  1.00 85.20           C
ATOM   1066  CG  GLU A 137      -5.529  10.382  36.924  1.00 91.86           C
ATOM   1067  CD  GLU A 137      -5.351  11.543  37.890  1.00 97.02           C
ATOM   1068  OE1 GLU A 137      -6.300  12.370  37.999  1.00 92.53           O
ATOM   1069  OE2 GLU A 137      -4.265  11.639  38.539  1.00103.79           O
ATOM   1070  N   ARG A 138      -2.187   9.612  33.435  1.00 84.19           N
ATOM   1071  CA  ARG A 138      -0.861   9.353  32.864  1.00 83.97           C
ATOM   1072  C   ARG A 138      -0.138   8.245  33.626  1.00 75.72           C
ATOM   1073  O   ARG A 138       1.032   8.384  33.996  1.00 64.96           O
ATOM   1074  CB  ARG A 138      -0.024  10.638  32.818  1.00 97.88           C
ATOM   1075  CG  ARG A 138      -0.108  11.421  31.474  1.00 91.59           C
ATOM   1076  CD  ARG A 138       1.136  12.275  31.240  1.00 89.65           C
ATOM   1077  NE  ARG A 138       2.041  11.749  30.213  0.96 94.61           N
ATOM   1078  CZ  ARG A 138       3.343  11.528  30.411  0.75 96.74           C
ATOM   1079  NH1 ARG A 138       3.875  11.726  31.615  1.00 94.10           N
ATOM   1080  NH2 ARG A 138       4.103  11.081  29.419  1.00 91.95           N
ATOM   1081  N   VAL A 139      -0.862   7.155  33.885  1.00 82.50           N
ATOM   1082  CA  VAL A 139      -0.315   5.961  34.516  1.00 78.73           C
ATOM   1083  C   VAL A 139      -0.213   4.852  33.480  1.00 82.53           C
ATOM   1084  O   VAL A 139      -0.769   4.934  32.384  1.00 83.08           O
ATOM   1085  CB  VAL A 139      -1.174   5.484  35.693  1.00 74.21           C
ATOM   1086  CG1 VAL A 139      -1.078   6.436  36.818  1.00 71.13           C
ATOM   1087  CG2 VAL A 139      -2.630   5.331  35.222  1.00 70.35           C
ATOM   1088  N   ILE A 140       0.463   3.776  33.862  1.00 84.96           N
ATOM   1089  CA  ILE A 140       0.462   2.544  33.084  1.00 81.95           C
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ATOM   1090  C   ILE A 140      -0.387   1.542  33.853  1.00 81.10           C
ATOM   1091  O   ILE A 140      -0.083   1.214  35.008  1.00 79.72           O
ATOM   1092  CB  ILE A 140       1.884   2.023  32.830  1.00 78.17           C
ATOM   1093  CG1 ILE A 140       2.655   3.035  31.993  1.00 73.57           C
ATOM   1094  CG2 ILE A 140       1.838   0.689  32.110  1.00 77.50           C
ATOM   1095  CD1 ILE A 140       4.072   2.677  31.777  1.00 73.83           C
ATOM   1096  N   VAL A 141      -1.486   1.117  33.238  1.00 73.44           N
ATOM   1097  CA  VAL A 141      -2.378   0.120  33.804  1.00 62.64           C
ATOM   1098  C   VAL A 141      -2.028  -1.208  33.166  1.00 68.93           C
ATOM   1099  O   VAL A 141      -1.928  -1.307  31.933  1.00 68.09           O
ATOM   1100  CB  VAL A 141      -3.854   0.469  33.550  1.00 68.73           C
ATOM   1101  CG1 VAL A 141      -4.768  -0.480  34.318  1.00 59.97           C
ATOM   1102  CG2 VAL A 141      -4.135   1.911  33.909  1.00 68.30           C
ATOM   1103  N   VAL A 142      -1.849  -2.228  34.001  1.00 77.75           N
ATOM   1104  CA  VAL A 142      -1.571  -3.591  33.564  1.00 68.74           C
ATOM   1105  C   VAL A 142      -2.624  -4.509  34.171  1.00 66.82           C
ATOM   1106  O   VAL A 142      -3.082  -4.287  35.301  1.00 65.66           O
ATOM   1107  CB  VAL A 142      -0.155  -4.046  33.975  1.00 63.12           C
ATOM   1108  CG1 VAL A 142       0.250  -5.253  33.178  1.00 65.09           C
ATOM   1109  CG2 VAL A 142       0.853  -2.909  33.813  1.00 74.42           C
ATOM   1110  N   SER A 143      -3.013  -5.536  33.420  1.00 54.85           N
ATOM   1111  CA  SER A 143      -3.942  -6.529  33.937  1.00 57.80           C
ATOM   1112  C   SER A 143      -3.601  -7.876  33.319  1.00 72.44           C
ATOM   1113  O   SER A 143      -3.174  -7.950  32.161  1.00 74.89           O
ATOM   1114  CB  SER A 143      -5.417  -6.153  33.672  1.00 66.82           C
ATOM   1115  OG  SER A 143      -5.716  -5.855  32.307  1.00 62.87           O
ATOM   1116  N   MET A 144      -3.789  -8.944  34.103  1.00 73.98           N
ATOM   1117  CA  MET A 144      -3.442 -10.294  33.674  1.00 68.28           C
ATOM   1118  C   MET A 144      -4.599 -11.256  33.917  1.00 66.78           C
ATOM   1119  O   MET A 144      -5.469 -11.025  34.761  1.00 73.47           O
ATOM   1120  CB  MET A 144      -2.184 -10.819  34.390  1.00 56.65           C
ATOM   1121  CG  MET A 144      -2.423 -11.452  35.749  1.00 55.93           C
ATOM   1122  SD  MET A 144      -3.006 -10.306  37.015  1.00 52.59           S
ATOM   1123  CE  MET A 144      -1.436  -9.752  37.718  1.00 56.45           C
ATOM   1124  N   ASN A 145      -4.599 -12.340  33.146  1.00 60.79           N
ATOM   1125  CA  ASN A 145      -5.460 -13.485  33.397  1.00 70.38           C
ATOM   1126  C   ASN A 145      -4.678 -14.532  34.174  1.00 69.25           C
ATOM   1127  O   ASN A 145      -3.530 -14.842  33.836  1.00 67.39           O
ATOM   1128  CB  ASN A 145      -5.998 -14.091  32.093  1.00 71.46           C
ATOM   1129  CG  ASN A 145      -6.929 -13.146  31.354  1.00 75.63           C
ATOM   1130  OD1 ASN A 145      -6.908 -11.933  31.587  1.00 73.71           O
ATOM   1131  ND2 ASN A 145      -7.768 -13.698  30.475  1.00 72.67           N
ATOM   1132  N   TYR A 146      -5.299 -15.057  35.227  1.00 64.52           N
ATOM   1133  CA  TYR A 146      -4.734 -16.116  36.045  1.00 60.95           C
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ATOM   1134  C   TYR A 146      -5.755 -17.240  36.118  1.00 58.84           C
ATOM   1135  O   TYR A 146      -6.962 -16.994  36.098  1.00 58.94           O
ATOM   1136  CB  TYR A 146      -4.385 -15.604  37.455  1.00 63.07           C
ATOM   1137  CG  TYR A 146      -5.594 -15.100  38.229  1.00 60.54           C
ATOM   1138  CD1 TYR A 146      -6.327 -15.948  39.039  1.00 62.49           C
ATOM   1139  CD2 TYR A 146      -6.016 -13.791  38.121  1.00 54.58           C
ATOM   1140  CE1 TYR A 146      -7.435 -15.500  39.721  1.00 63.97           C
ATOM   1141  CE2 TYR A 146      -7.123 -13.335  38.806  1.00 54.17           C
ATOM   1142  CZ  TYR A 146      -7.828 -14.188  39.605  1.00 60.51           C
ATOM   1143  OH  TYR A 146      -8.942 -13.737  40.292  1.00 62.69           O
ATOM   1144  N   ARG A 147      -5.271 -18.476  36.195  1.00 59.38           N
ATOM   1145  CA  ARG A 147      -6.175 -19.618  36.227  1.00 52.55           C
ATOM   1146  C   ARG A 147      -7.070 -19.596  37.469  1.00 56.80           C
ATOM   1147  O   ARG A 147      -6.785 -18.947  38.476  1.00 60.69           O
ATOM   1148  CB  ARG A 147      -5.381 -20.906  36.187  1.00 52.27           C
ATOM   1149  CG  ARG A 147      -4.840 -21.218  34.840  1.00 59.82           C
ATOM   1150  CD  ARG A 147      -3.842 -22.316  34.975  1.00 56.82           C
ATOM   1151  NE  ARG A 147      -2.542 -21.815  35.396  1.00 49.99           N
ATOM   1152  CZ  ARG A 147      -1.540 -22.620  35.716  1.00 55.74           C
ATOM   1153  NH1 ARG A 147      -1.738 -23.944  35.674  1.00 62.84           N
ATOM   1154  NH2 ARG A 147      -0.357 -22.114  36.064  1.00 48.34           N
ATOM   1155  N   VAL A 148      -8.137 -20.383  37.404  1.00 58.92           N
ATOM   1156  CA  VAL A 148      -9.365 -20.124  38.143  1.00 50.28           C
ATOM   1157  C   VAL A 148     -10.142 -21.435  38.296  1.00 53.01           C
ATOM   1158  O   VAL A 148     -10.024 -22.353  37.481  1.00 63.89           O
ATOM   1159  CB  VAL A 148     -10.155 -19.034  37.373  1.00 54.90           C
ATOM   1160  CG1 VAL A 148     -11.567 -19.119  37.598  1.00 53.91           C
ATOM   1161  CG2 VAL A 148      -9.690 -17.669  37.736  1.00 60.65           C
ATOM   1162  N   GLY A 149     -10.940 -21.531  39.354  1.00 57.54           N
ATOM   1163  CA  GLY A 149     -11.560 -22.818  39.589  1.00 53.88           C
ATOM   1164  C   GLY A 149     -10.485 -23.859  39.836  1.00 64.82           C
ATOM   1165  O   GLY A 149      -9.353 -23.543  40.231  1.00 59.14           O
ATOM   1166  N   ALA A 150     -10.825 -25.124  39.563  1.00 62.69           N
ATOM   1167  CA  ALA A 150      -9.885 -26.195  39.864  1.00 56.49           C
ATOM   1168  C   ALA A 150      -8.614 -26.107  39.014  1.00 53.24           C
ATOM   1169  O   ALA A 150      -7.548 -26.535  39.468  1.00 52.45           O
ATOM   1170  CB  ALA A 150     -10.561 -27.558  39.707  1.00 54.15           C
ATOM   1171  N   LEU A 151      -8.658 -25.551  37.804  1.00 50.87           N
ATOM   1172  CA  LEU A 151      -7.360 -25.542  37.149  1.00 51.20           C
ATOM   1173  C   LEU A 151      -6.545 -24.357  37.614  1.00 47.43           C
ATOM   1174  O   LEU A 151      -5.499 -24.037  37.053  1.00 55.73           O
ATOM   1175  CB  LEU A 151      -7.498 -25.613  35.616  1.00 54.35           C
ATOM   1176  CG  LEU A 151      -6.247 -25.386  34.738  1.00 68.04           C
ATOM   1177  CD1 LEU A 151      -5.045 -26.228  35.216  1.00 59.27           C
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ATOM   1178  CD2 LEU A 151      -6.515 -25.621  33.271  1.00 68.25           C
ATOM   1179  N   GLY A 152      -6.991 -23.701  38.667  1.00 52.36           N
ATOM   1180  CA  GLY A 152      -6.182 -22.651  39.238  1.00 53.14           C
ATOM   1181  C   GLY A 152      -5.785 -22.993  40.657  1.00 56.97           C
ATOM   1182  O   GLY A 152      -4.732 -22.570  41.146  1.00 58.07           O
ATOM   1183  N   PHE A 153      -6.618 -23.772  41.334  1.00 55.50           N
ATOM   1184  CA  PHE A 153      -6.445 -23.902  42.766  1.00 63.27           C
ATOM   1185  C   PHE A 153      -6.597 -25.308  43.320  1.00 64.39           C
ATOM   1186  O   PHE A 153      -6.492 -25.473  44.544  1.00 72.04           O
ATOM   1187  CB  PHE A 153      -7.403 -22.926  43.452  1.00 56.97           C
ATOM   1188  CG  PHE A 153      -6.999 -21.513  43.226  1.00 54.07           C
ATOM   1189  CD1 PHE A 153      -6.033 -20.934  44.019  1.00 59.54           C
ATOM   1190  CD2 PHE A 153      -7.498 -20.802  42.175  1.00 54.63           C
ATOM   1191  CE1 PHE A 153      -5.620 -19.661  43.789  1.00 57.38           C
ATOM   1192  CE2 PHE A 153      -7.085 -19.520  41.935  1.00 53.47           C
ATOM   1193  CZ  PHE A 153      -6.144 -18.952  42.740  1.00 59.09           C
ATOM   1194  N   LEU A 154      -6.797 -26.315  42.467  1.00 47.19           N
ATOM   1195  CA  LEU A 154      -6.812 -27.705  42.897  1.00 55.74           C
ATOM   1196  C   LEU A 154      -5.562 -27.994  43.705  1.00 71.20           C
ATOM   1197  O   LEU A 154      -4.458 -27.613  43.300  1.00 77.70           O
ATOM   1198  CB  LEU A 154      -6.872 -28.621  41.674  1.00 57.33           C
ATOM   1199  CG  LEU A 154      -7.085 -30.121  41.849  1.00 52.12           C
ATOM   1200  CD1 LEU A 154      -8.554 -30.480  41.616  1.00 46.42           C
ATOM   1201  CD2 LEU A 154      -6.180 -30.878  40.900  1.00 49.79           C
ATOM   1202  N   ALA A 155      -5.733 -28.652  44.856  1.00 64.12           N
ATOM   1203  CA  ALA A 155      -4.629 -28.856  45.785  1.00 66.23           C
ATOM   1204  C   ALA A 155      -4.553 -30.302  46.239  1.00 79.15           C
ATOM   1205  O   ALA A 155      -5.512 -30.820  46.825  1.00 79.99           O
ATOM   1206  CB  ALA A 155      -4.776 -27.954  47.007  1.00 71.05           C
ATOM   1207  N   LEU A 156      -3.412 -30.939  45.995  1.00 72.81           N
ATOM   1208  CA  LEU A 156      -2.932 -31.996  46.890  1.00 75.86           C
ATOM   1209  C   LEU A 156      -1.620 -31.495  47.466  1.00 78.26           C
ATOM   1210  O   LEU A 156      -0.620 -31.395  46.725  1.00 69.05           O
ATOM   1211  CB  LEU A 156      -2.738 -33.334  46.186  1.00 73.80           C
ATOM   1212  CG  LEU A 156      -3.946 -33.692  45.334  1.00 78.05           C
ATOM   1213  CD1 LEU A 156      -3.533 -33.474  43.932  1.00 75.10           C
ATOM   1214  CD2 LEU A 156      -4.391 -35.128  45.539  1.00 84.64           C
ATOM   1215  N   PRO A 157      -1.587 -31.161  48.760  1.00 72.99           N
ATOM   1216  CA  PRO A 157      -0.461 -30.390  49.305  1.00 67.51           C
ATOM   1217  C   PRO A 157       0.814 -31.211  49.409  1.00 67.02           C
ATOM   1218  O   PRO A 157       0.794 -32.389  49.770  1.00 80.76           O
ATOM   1219  CB  PRO A 157      -0.970 -29.957  50.684  1.00 68.62           C
ATOM   1220  CG  PRO A 157      -2.482 -30.054  50.571  1.00 70.70           C
ATOM   1221  CD  PRO A 157      -2.728 -31.219  49.686  1.00 73.56           C
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ATOM   1222  N   GLY A 158       1.931 -30.564  49.084  1.00 66.52           N
ATOM   1223  CA  GLY A 158       3.217 -31.214  49.015  1.00 65.50           C
ATOM   1224  C   GLY A 158       3.516 -31.896  47.701  1.00 71.78           C
ATOM   1225  O   GLY A 158       4.628 -32.417  47.534  1.00 78.62           O
ATOM   1226  N   ASN A 159       2.572 -31.898  46.767  1.00 64.18           N
ATOM   1227  CA  ASN A 159       2.723 -32.553  45.475  1.00 68.53           C
ATOM   1228  C   ASN A 159       2.908 -31.535  44.354  1.00 76.79           C
ATOM   1229  O   ASN A 159       1.916 -30.945  43.897  1.00 76.83           O
ATOM   1230  CB  ASN A 159       1.495 -33.417  45.202  1.00 71.13           C
ATOM   1231  CG  ASN A 159       1.730 -34.418  44.104  1.00 79.52           C
ATOM   1232  OD1 ASN A 159       2.507 -34.169  43.182  1.00 80.95           O
ATOM   1233  ND2 ASN A 159       1.081 -35.575  44.206  1.00 79.35           N
ATOM   1234  N   PRO A 160       4.120 -31.333  43.827  1.00 75.15           N
ATOM   1235  CA  PRO A 160       4.295 -30.314  42.781  1.00 74.39           C
ATOM   1236  C   PRO A 160       3.468 -30.577  41.539  1.00 74.32           C
ATOM   1237  O   PRO A 160       3.285 -29.662  40.728  1.00 77.46           O
ATOM   1238  CB  PRO A 160       5.795 -30.383  42.472  1.00 74.01           C
ATOM   1239  CG  PRO A 160       6.125 -31.801  42.719  1.00 83.56           C
ATOM   1240  CD  PRO A 160       5.302 -32.199  43.933  1.00 84.58           C
ATOM   1241  N   GLU A 161       2.962 -31.794  41.349  1.00 76.70           N
ATOM   1242  CA  GLU A 161       2.075 -32.018  40.214  1.00 88.42           C
ATOM   1243  C   GLU A 161       0.778 -31.224  40.344  1.00 76.67           C
ATOM   1244  O   GLU A 161       0.158 -30.892  39.328  1.00 74.43           O
ATOM   1245  CB  GLU A 161       1.777 -33.522  40.041  1.00 90.07           C
ATOM   1246  CG  GLU A 161       2.680 -34.285  39.026  1.00 88.26           C
ATOM   1247  CD  GLU A 161       4.054 -34.704  39.581  1.00109.77           C
ATOM   1248  OE1 GLU A 161       4.132 -35.733  40.309  1.00 98.01           O
ATOM   1249  OE2 GLU A 161       5.058 -34.019  39.259  1.00106.35           O
ATOM   1250  N   ALA A 162       0.373 -30.891  41.553  1.00 71.10           N
ATOM   1251  CA  ALA A 162      -0.859 -30.154  41.759  1.00 64.14           C
ATOM   1252  C   ALA A 162      -0.790 -29.507  43.136  1.00 66.91           C
ATOM   1253  O   ALA A 162      -1.532 -29.895  44.055  1.00 65.40           O
ATOM   1254  CB  ALA A 162      -2.057 -31.090  41.621  1.00 58.17           C
ATOM   1255  N   PRO A 163       0.101 -28.527  43.319  1.00 61.64           N
ATOM   1256  CA  PRO A 163       0.432 -28.082  44.687  1.00 71.03           C
ATOM   1257  C   PRO A 163      -0.647 -27.252  45.357  1.00 65.30           C
ATOM   1258  O   PRO A 163      -0.669 -27.183  46.593  1.00 59.82           O
ATOM   1259  CB  PRO A 163       1.721 -27.268  44.495  1.00 68.57           C
ATOM   1260  CG  PRO A 163       1.762 -26.913  43.075  1.00 64.46           C
ATOM   1261  CD  PRO A 163       0.968 -27.917  42.300  1.00 60.15           C
ATOM   1262  N   GLY A 164      -1.556 -26.672  44.594  1.00 64.01           N
ATOM   1263  CA  GLY A 164      -2.411 -25.602  45.065  1.00 59.84           C
ATOM   1264  C   GLY A 164      -1.813 -24.251  44.739  1.00 66.05           C
ATOM   1265  O   GLY A 164      -0.598 -24.096  44.594  1.00 64.78           O
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ATOM   1266  N   ASN A 165      -2.703 -23.260  44.575  1.00 66.73           N
ATOM   1267  CA  ASN A 165      -2.380 -21.843  44.377  1.00 57.88           C
ATOM   1268  C   ASN A 165      -1.774 -21.521  43.011  1.00 58.39           C
ATOM   1269  O   ASN A 165      -1.231 -20.422  42.828  1.00 56.09           O
ATOM   1270  CB  ASN A 165      -1.460 -21.315  45.483  1.00 47.48           C
ATOM   1271  CG  ASN A 165      -2.162 -21.234  46.812  1.00 57.42           C
ATOM   1272  OD1 ASN A 165      -3.389 -21.286  46.867  1.00 58.52           O
ATOM   1273  ND2 ASN A 165      -1.398 -21.116  47.895  1.00 59.11           N
ATOM   1274  N   MET A 166      -1.879 -22.416  42.023  1.00 54.24           N
ATOM   1275  CA  MET A 166      -1.323 -22.096  40.711  1.00 58.32           C
ATOM   1276  C   MET A 166      -1.871 -20.780  40.167  1.00 63.99           C
ATOM   1277  O   MET A 166      -1.233 -20.146  39.318  1.00 63.14           O
ATOM   1278  CB  MET A 166      -1.595 -23.219  39.709  1.00 58.41           C
ATOM   1279  CG  MET A 166      -1.146 -24.581  40.149  1.00 56.94           C
ATOM   1280  SD  MET A 166      -2.279 -25.219  41.370  1.00 72.25           S
ATOM   1281  CE  MET A 166      -3.486 -26.031  40.324  1.00 63.91           C
ATOM   1282  N   GLY A 167      -3.047 -20.357  40.637  1.00 63.78           N
ATOM   1283  CA  GLY A 167      -3.583 -19.078  40.208  1.00 53.07           C
ATOM   1284  C   GLY A 167      -2.749 -17.920  40.718  1.00 63.89           C
ATOM   1285  O   GLY A 167      -2.203 -17.138  39.934  1.00 55.63           O
ATOM   1286  N   LEU A 168      -2.614 -17.798  42.043  1.00 65.47           N
ATOM   1287  CA  LEU A 168      -1.792 -16.702  42.547  1.00 64.30           C
ATOM   1288  C   LEU A 168      -0.389 -16.764  41.964  1.00 65.97           C
ATOM   1289  O   LEU A 168       0.225 -15.723  41.699  1.00 69.89           O
ATOM   1290  CB  LEU A 168      -1.744 -16.664  44.079  1.00 51.28           C
ATOM   1291  CG  LEU A 168      -3.076 -16.628  44.855  1.00 54.40           C
ATOM   1292  CD1 LEU A 168      -3.242 -17.767  45.857  1.00 50.06           C
ATOM   1293  CD2 LEU A 168      -3.365 -15.273  45.482  1.00 53.97           C
ATOM   1294  N   PHE A 169       0.119 -17.971  41.711  1.00 65.25           N
ATOM   1295  CA  PHE A 169       1.429 -18.084  41.083  1.00 60.00           C
ATOM   1296  C   PHE A 169       1.421 -17.491  39.684  1.00 59.84           C
ATOM   1297  O   PHE A 169       2.406 -16.865  39.273  1.00 57.63           O
ATOM   1298  CB  PHE A 169       1.888 -19.539  41.056  1.00 55.82           C
ATOM   1299  CG  PHE A 169       2.618 -19.953  42.295  1.00 61.83           C
ATOM   1300  CD1 PHE A 169       2.146 -20.983  43.094  1.00 66.51           C
ATOM   1301  CD2 PHE A 169       3.771 -19.286  42.679  1.00 66.41           C
ATOM   1302  CE1 PHE A 169       2.823 -21.358  44.238  1.00 63.53           C
ATOM   1303  CE2 PHE A 169       4.452 -19.644  43.816  1.00 62.78           C
ATOM   1304  CZ  PHE A 169       3.982 -20.684  44.597  1.00 74.28           C
ATOM   1305  N   ASP A 170       0.325 -17.695  38.932  1.00 66.60           N
ATOM   1306  CA  ASP A 170       0.133 -16.999  37.657  1.00 61.81           C
ATOM   1307  C   ASP A 170       0.174 -15.490  37.857  1.00 67.37           C
ATOM   1308  O   ASP A 170       0.864 -14.773  37.116  1.00 66.60           O
ATOM   1309  CB  ASP A 170      -1.200 -17.390  36.999  1.00 60.05           C
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ATOM   1310  CG  ASP A 170      -1.253 -18.848  36.569  1.00 63.92           C
ATOM   1311  OD1 ASP A 170      -0.179 -19.478  36.512  1.00 60.95           O
ATOM   1312  OD2 ASP A 170      -2.368 -19.364  36.291  1.00 61.27           O
ATOM   1313  N   GLN A 171      -0.573 -14.983  38.853  1.00 64.51           N
ATOM   1314  CA  GLN A 171      -0.545 -13.547  39.118  1.00 57.04           C
ATOM   1315  C   GLN A 171       0.879 -13.069  39.329  1.00 59.10           C
ATOM   1316  O   GLN A 171       1.279 -12.031  38.795  1.00 67.51           O
ATOM   1317  CB  GLN A 171      -1.395 -13.181  40.335  1.00 54.54           C
ATOM   1318  CG  GLN A 171      -2.805 -13.704  40.325  1.00 61.66           C
ATOM   1319  CD  GLN A 171      -3.560 -13.317  41.582  1.00 59.42           C
ATOM   1320  OE1 GLN A 171      -4.781 -13.201  41.575  1.00 63.52           O
ATOM   1321  NE2 GLN A 171      -2.829 -13.102  42.665  1.00 58.35           N
ATOM   1322  N   GLN A 172       1.677 -13.838  40.064  1.00 63.46           N
ATOM   1323  CA  GLN A 172       2.978 -13.345  40.490  1.00 64.09           C
ATOM   1324  C   GLN A 172       4.005 -13.408  39.360  1.00 59.35           C
ATOM   1325  O   GLN A 172       4.839 -12.504  39.244  1.00 62.74           O
ATOM   1326  CB  GLN A 172       3.421 -14.110  41.750  1.00 64.55           C
ATOM   1327  CG  GLN A 172       4.860 -13.864  42.242  1.00 70.94           C
ATOM   1328  CD  GLN A 172       5.297 -14.856  43.329  1.00 71.39           C
ATOM   1329  OE1 GLN A 172       5.186 -14.563  44.529  1.00 73.58           O
ATOM   1330  NE2 GLN A 172       5.819 -16.015  42.914  1.00 62.46           N
ATOM   1331  N   LEU A 173       3.939 -14.418  38.489  1.00 68.40           N
ATOM   1332  CA  LEU A 173       4.796 -14.371  37.308  1.00 72.72           C
ATOM   1333  C   LEU A 173       4.426 -13.186  36.413  1.00 72.49           C
ATOM   1334  O   LEU A 173       5.314 -12.575  35.800  1.00 70.60           O
ATOM   1335  CB  LEU A 173       4.741 -15.699  36.545  1.00 56.10           C
ATOM   1336  CG  LEU A 173       5.931 -16.106  35.647  1.00 61.40           C
ATOM   1337  CD1 LEU A 173       5.702 -17.486  35.052  1.00 79.00           C
ATOM   1338  CD2 LEU A 173       6.227 -15.149  34.507  1.00 70.60           C
ATOM   1339  N   ALA A 174       3.139 -12.819  36.354  1.00 65.41           N
ATOM   1340  CA  ALA A 174       2.772 -11.547  35.727  1.00 73.10           C
ATOM   1341  C   ALA A 174       3.486 -10.373  36.399  1.00 69.69           C
ATOM   1342  O   ALA A 174       4.073  -9.522  35.719  1.00 59.73           O
ATOM   1343  CB  ALA A 174       1.255 -11.348  35.759  1.00 70.13           C
ATOM   1344  N   LEU A 175       3.449 -10.315  37.739  1.00 63.94           N
ATOM   1345  CA  LEU A 175       4.204  -9.297  38.460  1.00 61.57           C
ATOM   1346  C   LEU A 175       5.677  -9.355  38.111  1.00 70.25           C
ATOM   1347  O   LEU A 175       6.323  -8.317  37.922  1.00 77.40           O
ATOM   1348  CB  LEU A 175       4.027  -9.460  39.965  1.00 60.09           C
ATOM   1349  CG  LEU A 175       2.593  -9.385  40.470  1.00 64.13           C
ATOM   1350  CD1 LEU A 175       2.606  -9.114  41.946  1.00 67.27           C
ATOM   1351  CD2 LEU A 175       1.799  -8.321  39.745  1.00 61.78           C
ATOM   1352  N   GLN A 176       6.241 -10.559  38.037  0.66 74.73           N
ATOM   1354  CA  GLN A 176       7.636 -10.678  37.628  0.66 78.54           C
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ATOM   1356  C   GLN A 176       7.863 -10.039  36.264  0.66 79.76           C
ATOM   1358  O   GLN A 176       8.816  -9.268  36.081  0.66 81.39           O
ATOM   1360  CB  GLN A 176       8.072 -12.147  37.620  0.66 72.61           C
ATOM   1362  CG  GLN A 176       8.272 -12.726  39.012  0.66 71.70           C
ATOM   1364  CD  GLN A 176       8.996 -14.055  38.999  0.66 79.70           C
ATOM   1366  OE1 GLN A 176       9.405 -14.542  37.944  0.66 81.01           O
ATOM   1368  NE2 GLN A 176       9.169 -14.647  40.177  0.66 81.06           N
ATOM   1370  N   TRP A 177       6.981 -10.324  35.301  1.00 74.56           N
ATOM   1371  CA  TRP A 177       7.159  -9.784  33.964  1.00 72.85           C
ATOM   1372  C   TRP A 177       7.180  -8.261  33.992  1.00 77.91           C
ATOM   1373  O   TRP A 177       8.001  -7.634  33.314  1.00 83.81           O
ATOM   1374  CB  TRP A 177       6.055 -10.309  33.046  1.00 76.90           C
ATOM   1375  CG  TRP A 177       6.172  -9.873  31.611  1.00 74.04           C
ATOM   1376  CD1 TRP A 177       6.823 -10.533  30.614  1.00 78.72           C
ATOM   1377  CD2 TRP A 177       5.589  -8.711  31.009  1.00 74.50           C
ATOM   1378  NE1 TRP A 177       6.709  -9.845  29.436  1.00 88.84           N
ATOM   1379  CE2 TRP A 177       5.955  -8.721  29.647  1.00 74.53           C
ATOM   1380  CE3 TRP A 177       4.804  -7.656  31.490  1.00 81.25           C
ATOM   1381  CZ2 TRP A 177       5.566  -7.726  28.759  1.00 71.65           C
ATOM   1382  CZ3 TRP A 177       4.421  -6.659  30.601  1.00 89.87           C
ATOM   1383  CH2 TRP A 177       4.801  -6.710  29.245  1.00 78.12           C
ATOM   1384  N   VAL A 178       6.305  -7.652  34.799  1.00 75.22           N
ATOM   1385  CA  VAL A 178       6.287  -6.198  34.935  1.00 72.92           C
ATOM   1386  C   VAL A 178       7.613  -5.696  35.488  1.00 83.98           C
ATOM   1387  O   VAL A 178       8.143  -4.672  35.035  1.00 80.12           O
ATOM   1388  CB  VAL A 178       5.106  -5.767  35.821  1.00 75.86           C
ATOM   1389  CG1 VAL A 178       5.371  -4.393  36.450  1.00 79.04           C
ATOM   1390  CG2 VAL A 178       3.822  -5.755  35.001  1.00 73.12           C
ATOM   1391  N   GLN A 179       8.160  -6.400  36.485  1.00 84.92           N
ATOM   1392  CA  GLN A 179       9.447  -6.016  37.054  1.00 82.36           C
ATOM   1393  C   GLN A 179      10.531  -5.942  35.990  1.00 88.66           C
ATOM   1394  O   GLN A 179      11.361  -5.024  36.002  1.00 97.10           O
ATOM   1395  CB  GLN A 179       9.850  -6.999  38.150  1.00 86.82           C
ATOM   1396  CG  GLN A 179       9.229  -6.687  39.488  1.00 85.07           C
ATOM   1397  CD  GLN A 179       9.324  -5.216  39.823  1.00 91.17           C
ATOM   1398  OE1 GLN A 179      10.345  -4.743  40.326  1.00 97.70           O
ATOM   1399  NE2 GLN A 179       8.257  -4.476  39.530  1.00 87.57           N
ATOM   1400  N   LYS A 180      10.535  -6.885  35.052  1.00 92.58           N
ATOM   1401  CA  LYS A 180      11.639  -6.961  34.102  1.00 95.77           C
ATOM   1402  C   LYS A 180      11.392  -6.158  32.826  1.00 89.75           C
ATOM   1403  O   LYS A 180      12.353  -5.679  32.218  1.00 97.26           O
ATOM   1404  CB  LYS A 180      11.948  -8.433  33.770  1.00 83.26           C
ATOM   1405  CG  LYS A 180      12.401  -9.303  34.982  1.00 81.27           C
ATOM   1406  CD  LYS A 180      12.931  -8.457  36.182  1.00 89.01           C
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ATOM   1407  CE  LYS A 180      13.765  -9.249  37.210  1.00 88.97           C
ATOM   1408  NZ  LYS A 180      13.071 -10.422  37.815  1.00 85.61           N
ATOM   1409  N   ASN A 181      10.133  -5.952  32.429  1.00 83.67           N
ATOM   1410  CA  ASN A 181       9.818  -5.425  31.107  1.00 81.50           C
ATOM   1411  C   ASN A 181       9.228  -4.027  31.103  1.00 86.63           C
ATOM   1412  O   ASN A 181       9.369  -3.327  30.098  1.00 88.11           O
ATOM   1413  CB  ASN A 181       8.835  -6.362  30.384  1.00 85.99           C
ATOM   1414  CG  ASN A 181       9.436  -7.730  30.098  1.00 93.83           C
ATOM   1415  OD1 ASN A 181      10.142  -7.914  29.106  1.00 96.40           O
ATOM   1416  ND2 ASN A 181       9.211  -8.679  31.002  1.00 85.40           N
ATOM   1417  N   ILE A 182       8.567  -3.604  32.181  1.00 89.60           N
ATOM   1418  CA  ILE A 182       7.766  -2.391  32.102  1.00 82.99           C
ATOM   1419  C   ILE A 182       8.610  -1.166  31.779  1.00 86.88           C
ATOM   1420  O   ILE A 182       8.096  -0.215  31.187  1.00 88.18           O
ATOM   1421  CB  ILE A 182       6.954  -2.170  33.398  1.00 85.86           C
ATOM   1422  CG1 ILE A 182       5.639  -1.463  33.058  1.00 77.93           C
ATOM   1423  CG2 ILE A 182       7.751  -1.348  34.423  1.00 79.95           C
ATOM   1424  CD1 ILE A 182       4.773  -2.239  32.099  1.00 74.02           C
ATOM   1425  N   ALA A 183       9.896  -1.160  32.142  1.00 92.55           N
ATOM   1426  CA  ALA A 183      10.753  -0.042  31.761  1.00 88.89           C
ATOM   1427  C   ALA A 183      10.701   0.195  30.255  1.00 79.49           C
ATOM   1428  O   ALA A 183      10.484   1.326  29.806  1.00 77.83           O
ATOM   1429  CB  ALA A 183      12.181  -0.285  32.246  1.00 80.00           C
ATOM   1430  N   ALA A 184      10.846  -0.875  29.460  1.00 86.67           N
ATOM   1431  CA  ALA A 184      10.683  -0.767  28.011  1.00 88.76           C
ATOM   1432  C   ALA A 184       9.491   0.110  27.658  1.00 93.91           C
ATOM   1433  O   ALA A 184       9.630   1.021  26.864  1.00105.76           O
ATOM   1434  CB  ALA A 184      10.502  -2.146  27.352  1.00 80.86           C
ATOM   1435  N   PHE A 185       8.353  -0.071  28.312  1.00 98.17           N
ATOM   1436  CA  PHE A 185       7.115   0.651  28.043  1.00 92.05           C
ATOM   1437  C   PHE A 185       7.085   2.046  28.643  1.00 89.84           C
ATOM   1438  O   PHE A 185       6.071   2.732  28.500  1.00 96.13           O
ATOM   1439  CB  PHE A 185       5.912  -0.150  28.577  1.00 93.46           C
ATOM   1440  CG  PHE A 185       5.759  -1.499  27.948  1.00 88.23           C
ATOM   1441  CD1 PHE A 185       6.525  -2.561  28.383  1.00 86.06           C
ATOM   1442  CD2 PHE A 185       4.913  -1.685  26.869  1.00 79.64           C
ATOM   1443  CE1 PHE A 185       6.417  -3.797  27.783  1.00 93.41           C
ATOM   1444  CE2 PHE A 185       4.811  -2.918  26.266  1.00 82.26           C
ATOM   1445  CZ  PHE A 185       5.551  -3.970  26.715  1.00 91.92           C
ATOM   1446  N   GLY A 186       8.154   2.490  29.296  1.00 85.55           N
ATOM   1447  CA  GLY A 186       8.113   3.758  29.987  1.00 82.98           C
ATOM   1448  C   GLY A 186       7.564   3.670  31.386  1.00 86.80           C
ATOM   1449  O   GLY A 186       7.101   4.683  31.924  1.00 97.57           O
ATOM   1450  N   GLY A 187       7.585   2.485  31.988  1.00 84.29           N
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ATOM   1451  CA  GLY A 187       7.104   2.288  33.333  1.00 79.94           C
ATOM   1452  C   GLY A 187       8.253   2.218  34.314  1.00 90.03           C
ATOM   1453  O   GLY A 187       9.404   2.006  33.931  1.00 87.99           O
ATOM   1454  N   ASN A 188       7.917   2.406  35.595  1.00 91.14           N
ATOM   1455  CA  ASN A 188       8.891   2.423  36.683  1.00 86.42           C
ATOM   1456  C   ASN A 188       8.696   1.205  37.583  1.00 89.93           C
ATOM   1457  O   ASN A 188       7.853   1.239  38.496  1.00 85.31           O
ATOM   1458  CB  ASN A 188       8.758   3.721  37.490  1.00 89.44           C
ATOM   1459  CG  ASN A 188       9.738   3.803  38.667  1.00 94.37           C
ATOM   1460  OD1 ASN A 188      10.446   2.840  38.979  1.00 98.84           O
ATOM   1461  ND2 ASN A 188       9.799   4.976  39.308  1.00 79.31           N
ATOM   1462  N   PRO A 189       9.497   0.117  37.407  1.00 93.54           N
ATOM   1463  CA  PRO A 189       9.317  -1.095  38.227  1.00 86.72           C
ATOM   1464  C   PRO A 189       9.517  -0.869  39.717  1.00 93.89           C
ATOM   1465  O   PRO A 189       9.511  -1.833  40.493  1.00 93.30           O
ATOM   1466  CB  PRO A 189      10.380  -2.059  37.676  1.00 86.30           C
ATOM   1467  CG  PRO A 189      11.406  -1.170  37.036  1.00 89.71           C
ATOM   1468  CD  PRO A 189      10.607  -0.032  36.448  1.00 91.55           C
ATOM   1469  N   LYS A 190       9.712   0.388  40.126  1.00 91.16           N
ATOM   1470  CA  LYS A 190       9.787   0.752  41.535  1.00 88.94           C
ATOM   1471  C   LYS A 190       8.660   1.701  41.946  1.00 89.73           C
ATOM   1472  O   LYS A 190       8.696   2.269  43.041  1.00 80.28           O
ATOM   1473  CB  LYS A 190      11.170   1.341  41.847  1.00 80.82           C
ATOM   1474  CG  LYS A 190      11.519   1.537  43.335  1.00 90.58           C
ATOM   1475  CD  LYS A 190      10.818   0.561  44.318  1.00 89.47           C
ATOM   1476  CE  LYS A 190      11.232  -0.906  44.167  1.00100.04           C
ATOM   1477  NZ  LYS A 190      10.157  -1.864  44.611  1.00 95.59           N
ATOM   1478  N   SER A 191       7.645   1.882  41.104  1.00 92.02           N
ATOM   1479  CA  SER A 191       6.386   2.485  41.550  1.00 88.65           C
ATOM   1480  C   SER A 191       5.270   1.597  41.007  1.00 94.93           C
ATOM   1481  O   SER A 191       4.691   1.870  39.948  1.00 88.81           O
ATOM   1482  CB  SER A 191       6.244   3.921  41.106  1.00 87.11           C
ATOM   1483  OG  SER A 191       5.164   4.521  41.795  1.00 88.43           O
ATOM   1484  N   VAL A 192       4.998   0.519  41.744  1.00 92.10           N
ATOM   1485  CA  VAL A 192       4.077  -0.537  41.348  1.00 77.57           C
ATOM   1486  C   VAL A 192       3.127  -0.753  42.509  1.00 75.57           C
ATOM   1487  O   VAL A 192       3.571  -1.078  43.614  1.00 79.95           O
ATOM   1488  CB  VAL A 192       4.817  -1.842  41.025  1.00 76.04           C
ATOM   1489  CG1 VAL A 192       3.910  -2.797  40.286  1.00 78.79           C
ATOM   1490  CG2 VAL A 192       6.080  -1.558  40.237  1.00 78.62           C
ATOM   1491  N   THR A 193       1.830  -0.548  42.282  1.00 75.13           N
ATOM   1492  CA  THR A 193       0.839  -0.749  43.337  1.00 78.98           C
ATOM   1493  C   THR A 193      -0.254  -1.652  42.798  1.00 73.94           C
ATOM   1494  O   THR A 193      -0.850  -1.354  41.756  1.00 71.54           O
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ATOM   1495  CB  THR A 193       0.243   0.577  43.849  1.00 75.88           C
ATOM   1496  OG1 THR A 193      -0.902   0.953  43.070  1.00 70.79           O
ATOM   1497  CG2 THR A 193       1.271   1.690  43.773  1.00 84.26           C
ATOM   1498  N   LEU A 194      -0.499  -2.759  43.492  1.00 57.59           N
ATOM   1499  CA  LEU A 194      -1.552  -3.668  43.072  1.00 66.31           C
ATOM   1500  C   LEU A 194      -2.902  -3.122  43.489  1.00 60.33           C
ATOM   1501  O   LEU A 194      -3.015  -2.362  44.448  1.00 64.71           O
ATOM   1502  CB  LEU A 194      -1.352  -5.068  43.658  1.00 71.00           C
ATOM   1503  CG  LEU A 194       0.031  -5.717  43.489  1.00 67.20           C
ATOM   1504  CD1 LEU A 194       0.128  -6.987  44.316  1.00 58.41           C
ATOM   1505  CD2 LEU A 194       0.320  -5.996  42.010  1.00 73.81           C
ATOM   1506  N   PHE A 195      -3.927  -3.492  42.739  1.00 62.84           N
ATOM   1507  CA  PHE A 195      -5.282  -3.180  43.160  1.00 65.40           C
ATOM   1508  C   PHE A 195      -6.192  -4.214  42.534  1.00 61.24           C
ATOM   1509  O   PHE A 195      -6.039  -4.553  41.357  1.00 61.49           O
ATOM   1510  CB  PHE A 195      -5.700  -1.729  42.815  1.00 51.46           C
ATOM   1511  CG  PHE A 195      -5.927  -1.428  41.338  1.00 61.52           C
ATOM   1512  CD1 PHE A 195      -4.932  -1.653  40.389  1.00 62.73           C
ATOM   1513  CD2 PHE A 195      -7.116  -0.810  40.920  1.00 58.81           C
ATOM   1514  CE1 PHE A 195      -5.142  -1.339  39.042  1.00 63.89           C
ATOM   1515  CE2 PHE A 195      -7.336  -0.484  39.575  1.00 52.75           C
ATOM   1516  CZ  PHE A 195      -6.350  -0.752  38.632  1.00 60.81           C
ATOM   1517  N   GLY A 196      -7.076  -4.764  43.357  1.00 58.15           N
ATOM   1518  CA  GLY A 196      -8.039  -5.747  42.927  1.00 52.71           C
ATOM   1519  C   GLY A 196      -9.338  -5.495  43.653  1.00 60.88           C
ATOM   1520  O   GLY A 196      -9.437  -4.633  44.527  1.00 66.41           O
ATOM   1521  N   GLU A 197     -10.340  -6.269  43.293  1.00 64.32           N
ATOM   1522  CA  GLU A 197     -11.609  -6.216  43.983  1.00 61.80           C
ATOM   1523  C   GLU A 197     -12.041  -7.643  44.278  1.00 61.58           C
ATOM   1524  O   GLU A 197     -11.806  -8.545  43.473  1.00 62.79           O
ATOM   1525  CB  GLU A 197     -12.651  -5.492  43.143  1.00 61.63           C
ATOM   1526  CG  GLU A 197     -13.926  -5.202  43.877  1.00 69.90           C
ATOM   1527  CD  GLU A 197     -15.023  -6.203  43.581  1.00 76.65           C
ATOM   1528  OE1 GLU A 197     -14.736  -7.189  42.853  1.00 64.79           O
ATOM   1529  OE2 GLU A 197     -16.170  -5.984  44.062  1.00 78.36           O
ATOM   1530  N   SER A 198     -12.659  -7.857  45.436  1.00 65.34           N
ATOM   1531  CA  SER A 198     -13.280  -9.172  45.735  1.00 62.22           C
ATOM   1532  C   SER A 198     -12.196 -10.237  45.823  1.00 56.27           C
ATOM   1533  O   SER A 198     -11.238 -10.093  46.595  1.00 63.34           O
ATOM   1534  CB  SER A 198     -14.344  -9.482  44.728  1.00 63.64           C
ATOM   1535  OG  SER A 198     -14.717 -10.795  44.877  1.00 68.69           O
ATOM   1536  N   ALA A 199     -12.298 -11.329  45.079  1.00 58.94           N
ATOM   1537  CA  ALA A 199     -11.233 -12.315  45.157  1.00 57.65           C
ATOM   1538  C   ALA A 199      -9.919 -11.682  44.737  1.00 55.39           C
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ATOM   1539  O   ALA A 199      -8.857 -12.046  45.257  1.00 48.73           O
ATOM   1540  CB  ALA A 199     -11.579 -13.543  44.308  1.00 50.50           C
ATOM   1541  N   GLY A 200      -9.994 -10.687  43.845  1.00 54.60           N
ATOM   1542  CA  GLY A 200      -8.811  -9.930  43.479  1.00 55.69           C
ATOM   1543  C   GLY A 200      -8.230  -9.175  44.658  1.00 60.07           C
ATOM   1544  O   GLY A 200      -7.036  -9.286  44.960  1.00 55.01           O
ATOM   1545  N   ALA A 201      -9.070  -8.395  45.346  1.00 60.80           N
ATOM   1546  CA  ALA A 201      -8.661  -7.838  46.632  1.00 58.74           C
ATOM   1547  C   ALA A 201      -8.029  -8.908  47.526  1.00 68.52           C
ATOM   1548  O   ALA A 201      -6.919  -8.735  48.029  1.00 66.13           O
ATOM   1549  CB  ALA A 201      -9.857  -7.201  47.329  1.00 55.59           C
ATOM   1550  N   ALA A 202      -8.687 -10.061  47.682  1.00 68.31           N
ATOM   1551  CA  ALA A 202      -8.104 -11.119  48.499  1.00 50.88           C
ATOM   1552  C   ALA A 202      -6.789 -11.611  47.901  1.00 53.63           C
ATOM   1553  O   ALA A 202      -5.872 -11.999  48.634  1.00 55.31           O
ATOM   1554  CB  ALA A 202      -9.110 -12.253  48.673  1.00 55.31           C
ATOM   1555  N   SER A 203      -6.655 -11.574  46.575  1.00 58.71           N
ATOM   1556  CA  SER A 203      -5.377 -11.963  45.987  1.00 67.86           C
ATOM   1557  C   SER A 203      -4.279 -10.978  46.372  1.00 65.35           C
ATOM   1558  O   SER A 203      -3.174 -11.387  46.751  1.00 66.29           O
ATOM   1559  CB  SER A 203      -5.486 -12.074  44.464  1.00 65.22           C
ATOM   1560  OG  SER A 203      -6.182 -13.245  44.080  1.00 51.63           O
ATOM   1561  N   VAL A 204      -4.564  -9.675  46.302  1.00 62.95           N
ATOM   1562  CA  VAL A 204      -3.482  -8.726  46.537  1.00 68.33           C
ATOM   1563  C   VAL A 204      -3.097  -8.725  48.004  1.00 72.12           C
ATOM   1564  O   VAL A 204      -1.908  -8.673  48.324  1.00 76.99           O
ATOM   1565  CB  VAL A 204      -3.806  -7.321  45.984  1.00 68.94           C
ATOM   1566  CG1 VAL A 204      -4.060  -7.435  44.453  1.00 64.02           C
ATOM   1567  CG2 VAL A 204      -4.956  -6.557  46.797  1.00 60.34           C
ATOM   1568  N   SER A 205      -4.053  -8.962  48.909  1.00 67.43           N
ATOM   1569  CA  SER A 205      -3.688  -9.129  50.317  1.00 61.57           C
ATOM   1570  C   SER A 205      -2.776 -10.346  50.511  1.00 70.94           C
ATOM   1571  O   SER A 205      -1.834 -10.317  51.320  1.00 64.80           O
ATOM   1572  CB  SER A 205      -4.947  -9.258  51.182  1.00 66.14           C
ATOM   1573  OG  SER A 205      -5.307 -10.615  51.421  1.00 54.95           O
ATOM   1574  N   LEU A 206      -3.031 -11.425  49.758  1.00 71.51           N
ATOM   1575  CA  LEU A 206      -2.137 -12.574  49.834  1.00 64.54           C
ATOM   1576  C   LEU A 206      -0.771 -12.249  49.271  1.00 69.68           C
ATOM   1577  O   LEU A 206       0.224 -12.835  49.702  1.00 73.50           O
ATOM   1578  CB  LEU A 206      -2.710 -13.782  49.105  1.00 57.65           C
ATOM   1579  CG  LEU A 206      -3.786 -14.524  49.873  1.00 56.05           C
ATOM   1580  CD1 LEU A 206      -4.166 -15.787  49.146  1.00 57.83           C
ATOM   1581  CD2 LEU A 206      -3.275 -14.840  51.252  1.00 57.21           C
ATOM   1582  N   HIS A 207      -0.693 -11.332  48.311  1.00 68.05           N
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ATOM   1583  CA  HIS A 207       0.624 -10.956  47.839  1.00 68.37           C
ATOM   1584  C   HIS A 207       1.415 -10.260  48.928  1.00 81.48           C
ATOM   1585  O   HIS A 207       2.633 -10.456  49.020  1.00 89.83           O
ATOM   1586  CB  HIS A 207       0.506 -10.098  46.592  1.00 65.80           C
ATOM   1587  CG  HIS A 207       0.280 -10.907  45.362  1.00 66.36           C
ATOM   1588  ND1 HIS A 207       1.186 -11.853  44.933  1.00 68.72           N
ATOM   1589  CD2 HIS A 207      -0.741 -10.929  44.475  1.00 59.66           C
ATOM   1590  CE1 HIS A 207       0.735 -12.421  43.830  1.00 67.42           C
ATOM   1591  NE2 HIS A 207      -0.428 -11.872  43.526  1.00 64.56           N
ATOM   1592  N   LEU A 208       0.740  -9.490  49.790  1.00 76.79           N
ATOM   1593  CA  LEU A 208       1.443  -8.830  50.887  1.00 73.88           C
ATOM   1594  C   LEU A 208       2.146  -9.841  51.793  1.00 75.80           C
ATOM   1595  O   LEU A 208       3.256  -9.579  52.270  1.00 82.56           O
ATOM   1596  CB  LEU A 208       0.480  -7.951  51.684  1.00 64.71           C
ATOM   1597  CG  LEU A 208      -0.040  -6.701  50.979  1.00 58.31           C
ATOM   1598  CD1 LEU A 208      -1.138  -6.041  51.779  1.00 65.22           C
ATOM   1599  CD2 LEU A 208       1.099  -5.740  50.789  1.00 62.09           C
ATOM   1600  N   LEU A 209       1.541 -11.013  52.025  1.00 71.32           N
ATOM   1601  CA  LEU A 209       2.167 -11.998  52.907  1.00 75.04           C
ATOM   1602  C   LEU A 209       3.172 -12.909  52.213  1.00 80.88           C
ATOM   1603  O   LEU A 209       4.003 -13.513  52.900  1.00 84.67           O
ATOM   1604  CB  LEU A 209       1.121 -12.888  53.592  1.00 60.10           C
ATOM   1605  CG  LEU A 209      -0.163 -12.221  54.091  1.00 69.72           C
ATOM   1606  CD1 LEU A 209      -1.239 -13.251  54.351  1.00 70.53           C
ATOM   1607  CD2 LEU A 209       0.123 -11.470  55.339  1.00 77.09           C
ATOM   1608  N   SER A 210       3.123 -13.040  50.891  1.00 82.22           N
ATOM   1609  CA  SER A 210       3.974 -14.017  50.216  1.00 76.51           C
ATOM   1610  C   SER A 210       5.385 -13.472  50.051  1.00 83.51           C
ATOM   1611  O   SER A 210       5.577 -12.491  49.320  1.00 77.72           O
ATOM   1612  CB  SER A 210       3.413 -14.384  48.851  1.00 86.12           C
ATOM   1613  OG  SER A 210       4.222 -15.371  48.206  1.00 90.06           O
ATOM   1614  N   PRO A 211       6.395 -14.084  50.679  1.00 84.95           N
ATOM   1615  CA  PRO A 211       7.783 -13.634  50.456  1.00 87.49           C
ATOM   1616  C   PRO A 211       8.172 -13.558  48.984  1.00 85.08           C
ATOM   1617  O   PRO A 211       8.916 -12.646  48.601  1.00 82.11           O
ATOM   1618  CB  PRO A 211       8.612 -14.684  51.216  1.00 83.02           C
ATOM   1619  CG  PRO A 211       7.700 -15.890  51.335  1.00 79.83           C
ATOM   1620  CD  PRO A 211       6.325 -15.307  51.497  1.00 77.62           C
ATOM   1621  N   GLY A 212       7.674 -14.482  48.149  1.00 79.86           N
ATOM   1622  CA  GLY A 212       7.984 -14.480  46.730  1.00 79.15           C
ATOM   1623  C   GLY A 212       7.555 -13.218  46.005  1.00 85.49           C
ATOM   1624  O   GLY A 212       8.130 -12.883  44.957  1.00 79.64           O
ATOM   1625  N   SER A 213       6.571 -12.500  46.548  1.00 82.83           N
ATOM   1626  CA  SER A 213       6.012 -11.318  45.907  1.00 72.65           C
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ATOM   1627  C   SER A 213       6.433 -10.013  46.568  1.00 76.12           C
ATOM   1628  O   SER A 213       5.950  -8.952  46.158  1.00 78.73           O
ATOM   1629  CB  SER A 213       4.476 -11.399  45.897  1.00 74.53           C
ATOM   1630  OG  SER A 213       4.012 -12.658  45.429  1.00 77.99           O
ATOM   1631  N   HIS A 214       7.313 -10.043  47.573  1.00 77.39           N
ATOM   1632  CA  HIS A 214       7.642  -8.832  48.328  0.57 81.61           C
ATOM   1634  C   HIS A 214       8.366  -7.808  47.460  1.00 74.27           C
ATOM   1635  O   HIS A 214       8.176  -6.597  47.611  1.00 77.94           O
ATOM   1636  CB  HIS A 214       8.487  -9.196  49.557  0.57 78.76           C
ATOM   1638  CG  HIS A 214       8.867  -8.021  50.412  0.57 79.15           C
ATOM   1640  ND1 HIS A 214       9.629  -6.968  49.949  0.57 79.04           N
ATOM   1642  CD2 HIS A 214       8.587  -7.736  51.706  0.57 79.87           C
ATOM   1644  CE1 HIS A 214       9.796  -6.084  50.916  0.57 74.10           C
ATOM   1646  NE2 HIS A 214       9.175  -6.527  51.993  0.57 82.14           N
ATOM   1648  N   SER A 215       9.206  -8.267  46.549  1.00 69.00           N
ATOM   1649  CA  SER A 215      10.037  -7.356  45.783  1.00 74.44           C
ATOM   1650  C   SER A 215       9.451  -6.987  44.413  1.00 89.52           C
ATOM   1651  O   SER A 215      10.124  -6.306  43.626  1.00 93.94           O
ATOM   1652  CB  SER A 215      11.431  -7.963  45.627  1.00 77.85           C
ATOM   1653  OG  SER A 215      12.097  -7.457  44.481  1.00 92.57           O
ATOM   1654  N   LEU A 216       8.214  -7.384  44.108  1.00 82.38           N
ATOM   1655  CA  LEU A 216       7.647  -7.104  42.793  1.00 75.36           C
ATOM   1656  C   LEU A 216       6.612  -5.992  42.795  1.00 79.50           C
ATOM   1657  O   LEU A 216       6.061  -5.689  41.733  1.00 80.98           O
ATOM   1658  CB  LEU A 216       7.031  -8.367  42.183  1.00 72.71           C
ATOM   1659  CG  LEU A 216       7.798  -9.687  42.341  1.00 70.20           C
ATOM   1660  CD1 LEU A 216       6.888 -10.879  42.024  1.00 71.10           C
ATOM   1661  CD2 LEU A 216       9.041  -9.701  41.465  1.00 77.30           C
ATOM   1662  N   PHE A 217       6.330  -5.388  43.947  1.00 78.41           N
ATOM   1663  CA  PHE A 217       5.424  -4.248  44.020  1.00 76.78           C
ATOM   1664  C   PHE A 217       5.798  -3.407  45.235  1.00 85.44           C
ATOM   1665  O   PHE A 217       6.665  -3.778  46.033  1.00 84.61           O
ATOM   1666  CB  PHE A 217       3.947  -4.690  44.057  1.00 71.38           C
ATOM   1667  CG  PHE A 217       3.510  -5.346  45.353  1.00 71.24           C
ATOM   1668  CD1 PHE A 217       4.096  -6.521  45.795  1.00 75.94           C
ATOM   1669  CD2 PHE A 217       2.450  -4.822  46.091  1.00 74.34           C
ATOM   1670  CE1 PHE A 217       3.664  -7.133  46.984  1.00 77.78           C
ATOM   1671  CE2 PHE A 217       2.009  -5.427  47.270  1.00 61.28           C
ATOM   1672  CZ  PHE A 217       2.619  -6.581  47.715  1.00 69.95           C
ATOM   1673  N   THR A 218       5.152  -2.244  45.353  1.00 85.58           N
ATOM   1674  CA  THR A 218       5.384  -1.347  46.480  1.00 80.61           C
ATOM   1675  C   THR A 218       4.155  -1.171  47.361  1.00 77.76           C
ATOM   1676  O   THR A 218       4.235  -1.461  48.551  1.00 74.01           O
ATOM   1677  CB  THR A 218       5.899   0.010  45.979  1.00 79.90           C
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ATOM   1678  OG1 THR A 218       4.791   0.852  45.614  1.00 79.89           O
ATOM   1679  CG2 THR A 218       6.824  -0.202  44.774  1.00 87.01           C
ATOM   1680  N   ARG A 219       3.012  -0.752  46.813  1.00 76.41           N
ATOM   1681  CA  ARG A 219       1.815  -0.444  47.591  1.00 72.66           C
ATOM   1682  C   ARG A 219       0.650  -1.346  47.199  1.00 74.17           C
ATOM   1683  O   ARG A 219       0.700  -2.077  46.207  1.00 80.39           O
ATOM   1684  CB  ARG A 219       1.410   1.021  47.410  1.00 78.39           C
ATOM   1685  CG  ARG A 219       2.123   1.955  48.349  1.00 78.84           C
ATOM   1686  CD  ARG A 219       1.667   3.384  48.182  1.00 82.37           C
ATOM   1687  NE  ARG A 219       2.387   4.088  47.122  1.00 83.44           N
ATOM   1688  CZ  ARG A 219       3.625   4.557  47.252  1.00 79.12           C
ATOM   1689  NH1 ARG A 219       4.215   5.192  46.246  1.00 71.84           N
ATOM   1690  NH2 ARG A 219       4.283   4.366  48.387  1.00 78.22           N
ATOM   1691  N   ALA A 220      -0.436  -1.258  47.966  1.00 66.51           N
ATOM   1692  CA  ALA A 220      -1.537  -2.199  47.817  1.00 68.10           C
ATOM   1693  C   ALA A 220      -2.881  -1.494  47.927  1.00 69.61           C
ATOM   1694  O   ALA A 220      -3.093  -0.685  48.835  1.00 69.51           O
ATOM   1695  CB  ALA A 220      -1.443  -3.313  48.879  1.00 69.63           C
ATOM   1696  N   ILE A 221      -3.796  -1.820  47.017  1.00 68.41           N
ATOM   1697  CA  ILE A 221      -5.182  -1.374  47.117  1.00 71.87           C
ATOM   1698  C   ILE A 221      -6.097  -2.598  47.181  1.00 78.88           C
ATOM   1699  O   ILE A 221      -5.963  -3.537  46.380  1.00 69.61           O
ATOM   1700  CB  ILE A 221      -5.579  -0.457  45.951  1.00 58.36           C
ATOM   1701  CG1 ILE A 221      -4.758   0.830  45.984  1.00 65.37           C
ATOM   1702  CG2 ILE A 221      -7.058  -0.095  46.054  1.00 55.39           C
ATOM   1703  CD1 ILE A 221      -4.700   1.524  44.631  1.00 68.15           C
ATOM   1704  N   LEU A 222      -7.032  -2.556  48.134  1.00 72.76           N
ATOM   1705  CA  LEU A 222      -7.942  -3.631  48.503  1.00 59.00           C
ATOM   1706  C   LEU A 222      -9.377  -3.159  48.391  1.00 68.21           C
ATOM   1707  O   LEU A 222      -9.846  -2.418  49.254  1.00 74.25           O
ATOM   1708  CB  LEU A 222      -7.676  -4.087  49.925  1.00 60.80           C
ATOM   1709  CG  LEU A 222      -6.413  -4.883  50.063  1.00 65.37           C
ATOM   1710  CD1 LEU A 222      -5.954  -5.015  51.477  1.00 80.19           C
ATOM   1711  CD2 LEU A 222      -7.001  -6.210  49.630  1.00 79.26           C
ATOM   1712  N   GLN A 223     -10.100  -3.595  47.369  1.00 65.62           N
ATOM   1713  CA  GLN A 223     -11.498  -3.195  47.230  1.00 68.50           C
ATOM   1714  C   GLN A 223     -12.406  -4.389  47.502  1.00 61.88           C
ATOM   1715  O   GLN A 223     -12.382  -5.377  46.762  1.00 73.59           O
ATOM   1716  CB  GLN A 223     -11.739  -2.617  45.844  1.00 69.02           C
ATOM   1717  CG  GLN A 223     -10.518  -1.879  45.336  1.00 72.12           C
ATOM   1718  CD  GLN A 223     -10.754  -1.093  44.061  1.00 62.08           C
ATOM   1719  OE1 GLN A 223     -11.889  -0.947  43.596  1.00 57.67           O
ATOM   1720  NE2 GLN A 223      -9.662  -0.624  43.457  1.00 64.19           N
ATOM   1721  N   SER A 224     -13.184  -4.313  48.578  1.00 63.36           N
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ATOM   1722  CA  SER A 224     -14.238  -5.298  48.847  1.00 64.83           C
ATOM   1723  C   SER A 224     -13.701  -6.730  48.973  1.00 64.85           C
ATOM   1724  O   SER A 224     -14.379  -7.692  48.625  1.00 64.12           O
ATOM   1725  CB  SER A 224     -15.302  -5.223  47.758  1.00 63.20           C
ATOM   1726  OG  SER A 224     -15.482  -3.865  47.371  1.00 65.87           O
ATOM   1727  N   GLY A 225     -12.474  -6.886  49.468  1.00 62.68           N
ATOM   1728  CA  GLY A 225     -11.947  -8.213  49.728  1.00 53.58           C
ATOM   1729  C   GLY A 225     -10.654  -8.236  50.531  1.00 69.28           C
ATOM   1730  O   GLY A 225      -9.873  -7.279  50.485  1.00 71.42           O
ATOM   1731  N   SER A 226     -10.416  -9.334  51.256  1.00 66.61           N
ATOM   1732  CA  SER A 226      -9.238  -9.558  52.088  1.00 58.62           C
ATOM   1733  C   SER A 226      -9.167 -11.029  52.473  1.00 60.21           C
ATOM   1734  O   SER A 226     -10.198 -11.682  52.643  1.00 55.14           O
ATOM   1735  CB  SER A 226      -9.304  -8.696  53.333  1.00 60.72           C
ATOM   1736  OG  SER A 226     -10.610  -8.814  53.852  1.00 60.71           O
ATOM   1737  N   PHE A 227      -7.943 -11.535  52.647  1.00 57.58           N
ATOM   1738  CA  PHE A 227      -7.760 -12.977  52.805  1.00 64.49           C
ATOM   1739  C   PHE A 227      -8.456 -13.550  54.038  1.00 73.65           C
ATOM   1740  O   PHE A 227      -8.758 -14.755  54.069  1.00 67.28           O
ATOM   1741  CB  PHE A 227      -6.270 -13.326  52.866  1.00 69.44           C
ATOM   1742  CG  PHE A 227      -5.581 -12.913  54.150  1.00 75.67           C
ATOM   1743  CD1 PHE A 227      -4.759 -11.795  54.175  1.00 73.77           C
ATOM   1744  CD2 PHE A 227      -5.713 -13.668  55.317  1.00 75.27           C
ATOM   1745  CE1 PHE A 227      -4.107 -11.428  55.335  1.00 71.33           C
ATOM   1746  CE2 PHE A 227      -5.077 -13.297  56.475  1.00 69.07           C
ATOM   1747  CZ  PHE A 227      -4.267 -12.183  56.475  1.00 74.69           C
ATOM   1748  N   ASN A 228      -8.665 -12.737  55.072  1.00 64.52           N
ATOM   1749  CA  ASN A 228      -9.293 -13.215  56.292  1.00 51.68           C
ATOM   1750  C   ASN A 228     -10.803 -13.342  56.170  1.00 57.40           C
ATOM   1751  O   ASN A 228     -11.450 -13.740  57.143  1.00 71.89           O
ATOM   1752  CB  ASN A 228      -8.986 -12.269  57.436  1.00 57.33           C
ATOM   1753  CG  ASN A 228      -9.598 -10.911  57.205  1.00 75.20           C
ATOM   1754  OD1 ASN A 228      -9.615 -10.402  56.074  1.00 75.33           O
ATOM   1755  ND2 ASN A 228     -10.147 -10.334  58.252  1.00 71.32           N
ATOM   1756  N   ALA A 229     -11.390 -12.975  55.036  1.00 59.87           N
ATOM   1757  CA  ALA A 229     -12.817 -13.172  54.868  1.00 58.46           C
ATOM   1758  C   ALA A 229     -13.136 -14.665  54.907  1.00 51.21           C
ATOM   1759  O   ALA A 229     -12.335 -15.489  54.460  1.00 50.04           O
ATOM   1760  CB  ALA A 229     -13.296 -12.560  53.554  1.00 55.76           C
ATOM   1761  N   PRO A 230     -14.296 -15.038  55.437  1.00 48.52           N
ATOM   1762  CA  PRO A 230     -14.586 -16.468  55.631  1.00 55.09           C
ATOM   1763  C   PRO A 230     -14.477 -17.293  54.368  1.00 47.37           C
ATOM   1764  O   PRO A 230     -14.093 -18.464  54.459  1.00 54.11           O
ATOM   1765  CB  PRO A 230     -16.021 -16.465  56.186  1.00 58.48           C
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ATOM   1766  CG  PRO A 230     -16.608 -15.186  55.686  1.00 58.52           C
ATOM   1767  CD  PRO A 230     -15.466 -14.196  55.730  1.00 54.70           C
ATOM   1768  N   TRP A 231     -14.771 -16.714  53.200  1.00 43.15           N
ATOM   1769  CA  TRP A 231     -14.781 -17.397  51.906  1.00 42.93           C
ATOM   1770  C   TRP A 231     -13.418 -17.479  51.222  1.00 47.07           C
ATOM   1771  O   TRP A 231     -13.352 -17.960  50.093  1.00 48.16           O
ATOM   1772  CB  TRP A 231     -15.739 -16.689  50.919  1.00 51.80           C
ATOM   1773  CG  TRP A 231     -15.529 -15.153  50.814  1.00 57.89           C
ATOM   1774  CD1 TRP A 231     -16.183 -14.186  51.543  1.00 60.09           C
ATOM   1775  CD2 TRP A 231     -14.610 -14.443  49.969  1.00 53.56           C
ATOM   1776  NE1 TRP A 231     -15.730 -12.939  51.204  1.00 55.26           N
ATOM   1777  CE2 TRP A 231     -14.775 -13.064  50.233  1.00 51.82           C
ATOM   1778  CE3 TRP A 231     -13.678 -14.833  49.007  1.00 62.06           C
ATOM   1779  CZ2 TRP A 231     -14.033 -12.078  49.582  1.00 48.64           C
ATOM   1780  CZ3 TRP A 231     -12.945 -13.841  48.346  1.00 59.73           C
ATOM   1781  CH2 TRP A 231     -13.124 -12.484  48.647  1.00 56.17           C
ATOM   1782  N   ALA A 232     -12.339 -16.991  51.823  1.00 52.61           N
ATOM   1783  CA  ALA A 232     -11.172 -16.709  50.992  1.00 43.94           C
ATOM   1784  C   ALA A 232     -10.109 -17.790  51.024  1.00 52.51           C
ATOM   1785  O   ALA A 232      -9.507 -18.068  49.982  1.00 54.36           O
ATOM   1786  CB  ALA A 232     -10.535 -15.374  51.382  1.00 55.34           C
ATOM   1787  N   VAL A 233      -9.836 -18.402  52.176  1.00 58.98           N
ATOM   1788  CA  VAL A 233      -8.793 -19.422  52.269  1.00 61.76           C
ATOM   1789  C   VAL A 233      -9.415 -20.755  52.671  1.00 61.34           C
ATOM   1790  O   VAL A 233     -10.258 -20.810  53.575  1.00 54.43           O
ATOM   1791  CB  VAL A 233      -7.676 -19.015  53.244  1.00 52.41           C
ATOM   1792  CG1 VAL A 233      -6.666 -20.154  53.372  1.00 59.86           C
ATOM   1793  CG2 VAL A 233      -7.006 -17.727  52.759  1.00 49.76           C
ATOM   1794  N   THR A 234      -9.013 -21.821  51.975  1.00 71.08           N
ATOM   1795  CA  THR A 234      -9.500 -23.173  52.221  1.00 69.32           C
ATOM   1796  C   THR A 234      -8.439 -23.981  52.954  1.00 66.70           C
ATOM   1797  O   THR A 234      -7.297 -24.074  52.496  1.00 56.91           O
ATOM   1798  CB  THR A 234      -9.870 -23.879  50.916  1.00 56.36           C
ATOM   1799  OG1 THR A 234     -10.771 -23.060  50.161  1.00 60.47           O
ATOM   1800  CG2 THR A 234     -10.520 -25.221  51.221  1.00 69.73           C
ATOM   1801  N   SER A 235      -8.819 -24.574  54.081  1.00 71.27           N
ATOM   1802  CA  SER A 235      -7.855 -25.334  54.855  1.00 72.07           C
ATOM   1803  C   SER A 235      -7.538 -26.654  54.166  1.00 71.94           C
ATOM   1804  O   SER A 235      -8.343 -27.197  53.405  1.00 79.85           O
ATOM   1805  CB  SER A 235      -8.377 -25.581  56.266  1.00 79.18           C
ATOM   1806  OG  SER A 235      -9.386 -26.564  56.259  1.00 85.77           O
ATOM   1807  N   LEU A 236      -6.346 -27.172  54.450  1.00 77.66           N
ATOM   1808  CA  LEU A 236      -5.849 -28.381  53.801  1.00 77.28           C
ATOM   1809  C   LEU A 236      -6.774 -29.580  53.918  1.00 74.74           C
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ATOM   1810  O   LEU A 236      -6.700 -30.472  53.076  1.00 71.08           O
ATOM   1811  CB  LEU A 236      -4.499 -28.768  54.376  1.00 77.71           C
ATOM   1812  CG  LEU A 236      -3.471 -27.654  54.177  1.00 89.84           C
ATOM   1813  CD1 LEU A 236      -2.134 -28.106  54.745  1.00 95.22           C
ATOM   1814  CD2 LEU A 236      -3.375 -27.301  52.701  1.00 91.18           C
ATOM   1815  N   TYR A 237      -7.624 -29.653  54.932  1.00 85.40           N
ATOM   1816  CA  TYR A 237      -8.497 -30.818  55.013  1.00 89.11           C
ATOM   1817  C   TYR A 237      -9.560 -30.767  53.918  1.00 82.65           C
ATOM   1818  O   TYR A 237      -9.773 -31.761  53.210  1.00 82.64           O
ATOM   1819  CB  TYR A 237      -9.123 -30.944  56.411  1.00 83.84           C
ATOM   1820  CG  TYR A 237     -10.068 -32.122  56.540  0.98 81.89           C
ATOM   1821  CD1 TYR A 237      -9.584 -33.420  56.709  1.00 86.51           C
ATOM   1822  CD2 TYR A 237     -11.447 -31.934  56.494  1.00 79.15           C
ATOM   1823  CE1 TYR A 237     -10.457 -34.506  56.823  1.00 91.11           C
ATOM   1824  CE2 TYR A 237     -12.324 -33.007  56.600  1.00 88.51           C
ATOM   1825  CZ  TYR A 237     -11.827 -34.290  56.768  0.78 94.13           C
ATOM   1826  OH  TYR A 237     -12.708 -35.349  56.877  1.00 92.91           O
ATOM   1827  N   GLU A 238     -10.216 -29.608  53.738  1.00 71.57           N
ATOM   1828  CA  GLU A 238     -11.255 -29.518  52.712  1.00 78.48           C
ATOM   1829  C   GLU A 238     -10.640 -29.504  51.323  1.00 81.31           C
ATOM   1830  O   GLU A 238     -11.119 -30.206  50.423  1.00 83.19           O
ATOM   1831  CB  GLU A 238     -12.145 -28.288  52.914  1.00 76.26           C
ATOM   1832  CG  GLU A 238     -12.836 -28.224  54.270  1.00 79.58           C
ATOM   1833  CD  GLU A 238     -11.880 -27.774  55.358  1.00 97.71           C
ATOM   1834  OE1 GLU A 238     -12.134 -28.013  56.570  1.00 95.96           O
ATOM   1835  OE2 GLU A 238     -10.851 -27.166  54.979  1.00 96.12           O
ATOM   1836  N   ALA A 239      -9.575 -28.722  51.138  1.00 69.02           N
ATOM   1837  CA  ALA A 239      -8.769 -28.790  49.926  1.00 67.10           C
ATOM   1838  C   ALA A 239      -8.581 -30.222  49.412  1.00 76.63           C
ATOM   1839  O   ALA A 239      -8.898 -30.527  48.256  1.00 78.25           O
ATOM   1840  CB  ALA A 239      -7.415 -28.140  50.198  1.00 68.40           C
ATOM   1841  N   ARG A 240      -8.056 -31.116  50.256  1.00 73.44           N
ATOM   1842  CA  ARG A 240      -7.945 -32.512  49.851  1.00 66.18           C
ATOM   1843  C   ARG A 240      -9.315 -33.153  49.713  1.00 70.54           C
ATOM   1844  O   ARG A 240      -9.524 -33.989  48.823  1.00 66.26           O
ATOM   1845  CB  ARG A 240      -7.115 -33.305  50.855  1.00 83.62           C
ATOM   1846  CG  ARG A 240      -5.671 -32.919  50.964  1.00 83.41           C
ATOM   1847  CD  ARG A 240      -4.922 -34.050  51.635  1.00 88.63           C
ATOM   1848  NE  ARG A 240      -5.425 -35.361  51.210  1.00 95.46           N
ATOM   1849  CZ  ARG A 240      -4.817 -36.142  50.317  1.00 82.49           C
ATOM   1850  NH1 ARG A 240      -3.680 -35.750  49.756  1.00 82.00           N
ATOM   1851  NH2 ARG A 240      -5.331 -37.319  49.994  1.00 76.68           N
ATOM   1852  N   ASN A 241     -10.259 -32.799  50.604  1.00 74.41           N
ATOM   1853  CA  ASN A 241     -11.564 -33.449  50.557  1.00 73.22           C
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ATOM   1854  C   ASN A 241     -12.301 -33.069  49.295  1.00 69.87           C
ATOM   1855  O   ASN A 241     -13.216 -33.785  48.893  1.00 76.06           O
ATOM   1856  CB  ASN A 241     -12.429 -33.130  51.794  1.00 73.95           C
ATOM   1857  CG  ASN A 241     -13.616 -34.120  51.975  1.00 75.41           C
ATOM   1858  OD1 ASN A 241     -13.417 -35.333  52.017  1.00 70.85           O
ATOM   1859  ND2 ASN A 241     -14.837 -33.594  52.111  1.00 78.45           N
ATOM   1860  N   ARG A 242     -11.890 -32.000  48.624  1.00 72.16           N
ATOM   1861  CA  ARG A 242     -12.530 -31.643  47.369  1.00 68.14           C
ATOM   1862  C   ARG A 242     -11.704 -31.974  46.136  1.00 62.08           C
ATOM   1863  O   ARG A 242     -12.281 -32.128  45.060  1.00 65.50           O
ATOM   1864  CB  ARG A 242     -12.916 -30.166  47.386  1.00 60.52           C
ATOM   1865  CG  ARG A 242     -13.691 -29.812  48.649  1.00 67.63           C
ATOM   1866  CD  ARG A 242     -14.538 -28.562  48.515  1.00 61.59           C
ATOM   1867  NE  ARG A 242     -13.793 -27.376  48.924  1.00 62.49           N
ATOM   1868  CZ  ARG A 242     -14.207 -26.492  49.825  1.00 67.71           C
ATOM   1869  NH1 ARG A 242     -15.381 -26.641  50.421  1.00 71.84           N
ATOM   1870  NH2 ARG A 242     -13.452 -25.443  50.117  1.00 68.68           N
ATOM   1871  N   THR A 243     -10.384 -32.121  46.248  1.00 67.03           N
ATOM   1872  CA  THR A 243      -9.626 -32.704  45.141  1.00 68.82           C
ATOM   1873  C   THR A 243      -9.997 -34.170  44.966  1.00 70.12           C
ATOM   1874  O   THR A 243     -10.576 -34.561  43.945  1.00 67.66           O
ATOM   1875  CB  THR A 243      -8.114 -32.568  45.369  1.00 73.63           C
ATOM   1876  OG1 THR A 243      -7.726 -31.186  45.352  1.00 74.54           O
ATOM   1877  CG2 THR A 243      -7.356 -33.316  44.292  1.00 60.09           C
ATOM   1878  N   LEU A 244      -9.675 -34.999  45.971  1.00 71.48           N
ATOM   1879  CA  LEU A 244     -10.136 -36.388  45.976  1.00 81.05           C
ATOM   1880  C   LEU A 244     -11.622 -36.519  45.699  1.00 77.41           C
ATOM   1881  O   LEU A 244     -12.054 -37.528  45.119  1.00 76.43           O
ATOM   1882  CB  LEU A 244      -9.838 -37.073  47.302  1.00 78.63           C
ATOM   1883  CG  LEU A 244      -8.426 -37.012  47.828  1.00 81.26           C
ATOM   1884  CD1 LEU A 244      -8.459 -37.607  49.230  1.00 83.35           C
ATOM   1885  CD2 LEU A 244      -7.542 -37.796  46.863  1.00 65.79           C
ATOM   1886  N   ASN A 245     -12.425 -35.551  46.116  1.00 68.74           N
ATOM   1887  CA  ASN A 245     -13.786 -35.569  45.630  1.00 68.44           C
ATOM   1888  C   ASN A 245     -13.806 -35.436  44.114  1.00 69.65           C
ATOM   1889  O   ASN A 245     -14.212 -36.352  43.408  1.00 77.17           O
ATOM   1890  CB  ASN A 245     -14.610 -34.499  46.328  1.00 73.03           C
ATOM   1891  CG  ASN A 245     -15.326 -35.060  47.539  1.00 68.94           C
ATOM   1892  OD1 ASN A 245     -15.012 -36.163  47.971  1.00 70.98           O
ATOM   1893  ND2 ASN A 245     -16.298 -34.327  48.072  1.00 73.47           N
ATOM   1894  N   LEU A 246     -13.369 -34.307  43.588  1.00 73.56           N
ATOM   1895  CA  LEU A 246     -13.476 -34.115  42.140  1.00 85.74           C
ATOM   1896  C   LEU A 246     -13.086 -35.395  41.408  1.00 81.56           C
ATOM   1897  O   LEU A 246     -13.769 -35.818  40.468  1.00 80.94           O
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ATOM   1898  CB  LEU A 246     -12.611 -32.944  41.635  1.00 71.36           C
ATOM   1899  CG  LEU A 246     -13.242 -32.159  40.486  1.00 55.49           C
ATOM   1900  CD1 LEU A 246     -12.356 -31.028  40.182  1.00 56.48           C
ATOM   1901  CD2 LEU A 246     -13.427 -32.971  39.244  1.00 82.16           C
ATOM   1902  N   ALA A 247     -12.053 -36.069  41.917  1.00 76.24           N
ATOM   1903  CA  ALA A 247     -11.689 -37.384  41.405  1.00 78.11           C
ATOM   1904  C   ALA A 247     -12.872 -38.356  41.331  1.00 75.94           C
ATOM   1905  O   ALA A 247     -12.971 -39.126  40.369  1.00 84.59           O
ATOM   1906  CB  ALA A 247     -10.567 -37.978  42.254  1.00 80.01           C
ATOM   1907  N   LYS A 248     -13.777 -38.374  42.319  1.00 75.98           N
ATOM   1908  CA  LYS A 248     -14.773 -39.445  42.237  1.00 79.71           C
ATOM   1909  C   LYS A 248     -15.804 -39.143  41.143  1.00 75.47           C
ATOM   1910  O   LYS A 248     -16.275 -40.059  40.457  1.00 84.04           O
ATOM   1911  CB  LYS A 248     -15.431 -39.775  43.609  1.00 64.93           C
ATOM   1912  CG  LYS A 248     -16.630 -38.988  44.225  1.00 81.63           C
ATOM   1913  CD  LYS A 248     -16.460 -37.487  44.273  1.00 92.87           C
ATOM   1914  CE  LYS A 248     -17.528 -36.647  45.001  1.00 88.87           C
ATOM   1915  NZ  LYS A 248     -17.061 -35.207  44.886  1.00 84.86           N
ATOM   1916  N   LEU A 249     -16.121 -37.880  40.894  1.00 74.19           N
ATOM   1917  CA  LEU A 249     -17.174 -37.658  39.912  1.00 74.69           C
ATOM   1918  C   LEU A 249     -16.634 -37.557  38.494  1.00 77.14           C
ATOM   1919  O   LEU A 249     -17.420 -37.394  37.562  1.00 74.93           O
ATOM   1920  CB  LEU A 249     -17.960 -36.378  40.193  1.00 73.83           C
ATOM   1921  CG  LEU A 249     -18.520 -36.009  41.530  1.00 62.89           C
ATOM   1922  CD1 LEU A 249     -17.326 -35.483  42.209  1.00 63.92           C
ATOM   1923  CD2 LEU A 249     -19.662 -34.979  41.506  1.00 68.27           C
ATOM   1924  N   THR A 250     -15.321 -37.600  38.301  1.00 76.01           N
ATOM   1925  CA  THR A 250     -14.750 -37.700  36.967  1.00 73.71           C
ATOM   1926  C   THR A 250     -14.187 -39.090  36.693  1.00 82.95           C
ATOM   1927  O   THR A 250     -13.430 -39.261  35.727  1.00 87.75           O
ATOM   1928  CB  THR A 250     -13.683 -36.625  36.766  1.00 77.84           C
ATOM   1929  OG1 THR A 250     -12.681 -36.758  37.778  1.00 81.87           O
ATOM   1930  CG2 THR A 250     -14.325 -35.293  36.868  1.00 60.89           C
ATOM   1931  N   GLY A 251     -14.553 -40.080  37.506  1.00 78.47           N
ATOM   1932  CA  GLY A 251     -14.053 -41.432  37.337  1.00 75.43           C
ATOM   1933  C   GLY A 251     -12.548 -41.515  37.429  1.00 78.20           C
ATOM   1934  O   GLY A 251     -11.929 -42.281  36.686  1.00 89.89           O
ATOM   1935  N   CYS A 252     -11.936 -40.739  38.317  1.00 84.06           N
ATOM   1936  CA  CYS A 252     -10.487 -40.772  38.457  1.00 92.87           C
ATOM   1937  C   CYS A 252     -10.018 -41.377  39.774  1.00 92.73           C
ATOM   1938  O   CYS A 252      -8.839 -41.620  39.905  1.00100.53           O
ATOM   1939  CB  CYS A 252      -9.876 -39.383  38.268  1.00 83.90           C
ATOM   1940  SG  CYS A 252      -9.679 -38.907  36.492  1.00 81.18           S
ATOM   1941  N   SER A 253     -10.900 -41.702  40.719  1.00 78.17           N
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ATOM   1942  CA  SER A 253     -10.520 -42.219  42.041  1.00 86.61           C
ATOM   1943  C   SER A 253      -9.506 -43.366  42.003  1.00 88.57           C
ATOM   1944  O   SER A 253      -9.890 -44.505  41.743  1.00 91.26           O
ATOM   1945  CB  SER A 253     -11.765 -42.681  42.814  1.00 86.61           C
ATOM   1946  OG  SER A 253     -12.566 -41.581  43.175  1.00 88.01           O
ATOM   1947  N   ARG A 254      -8.216 -43.093  42.280  1.00 85.55           N
ATOM   1948  CA  ARG A 254      -7.166 -44.117  42.394  1.00 88.07           C
ATOM   1949  C   ARG A 254      -6.496 -44.167  43.766  1.00 91.12           C
ATOM   1950  O   ARG A 254      -6.908 -43.498  44.721  1.00 94.32           O
ATOM   1951  CB  ARG A 254      -6.031 -43.972  41.346  1.00 90.98           C
ATOM   1952  CG  ARG A 254      -6.426 -43.526  39.949  1.00 85.55           C
ATOM   1953  CD  ARG A 254      -7.743 -44.180  39.551  1.00 91.10           C
ATOM   1954  NE  ARG A 254      -8.172 -43.911  38.176  1.00 83.01           N
ATOM   1955  CZ  ARG A 254      -9.350 -44.309  37.682  1.00 90.69           C
ATOM   1956  NH1 ARG A 254      -9.661 -44.016  36.425  1.00 86.03           N
ATOM   1957  NH2 ARG A 254     -10.254 -44.881  38.485  1.00 89.43           N
ATOM   1958  N   GLU A 255      -5.444 -44.980  43.845  1.00 91.56           N
ATOM   1959  CA  GLU A 255      -4.741 -45.347  45.064  1.00104.53           C
ATOM   1960  C   GLU A 255      -3.496 -44.512  45.276  1.00 97.78           C
ATOM   1961  O   GLU A 255      -3.045 -44.368  46.419  1.00107.64           O
ATOM   1962  CB  GLU A 255      -4.340 -46.820  44.995  1.00114.46           C
ATOM   1963  CG  GLU A 255      -5.494 -47.746  44.668  1.00112.25           C
ATOM   1964  CD  GLU A 255      -6.220 -48.225  45.896  1.00108.75           C
ATOM   1965  OE1 GLU A 255      -7.161 -47.521  46.340  1.00104.20           O
ATOM   1966  OE2 GLU A 255      -5.860 -49.315  46.408  1.00108.52           O
ATOM   1967  N   ASN A 256      -2.919 -44.007  44.183  1.00 90.92           N
ATOM   1968  CA  ASN A 256      -1.601 -43.390  44.202  1.00 89.64           C
ATOM   1969  C   ASN A 256      -1.799 -41.973  43.688  1.00 96.46           C
ATOM   1970  O   ASN A 256      -2.112 -41.786  42.509  1.00 98.38           O
ATOM   1971  CB  ASN A 256      -0.632 -44.163  43.313  1.00 98.63           C
ATOM   1972  CG  ASN A 256       0.819 -43.769  43.527  1.00107.55           C
ATOM   1973  OD1 ASN A 256       1.123 -42.848  44.283  1.00113.88           O
ATOM   1974  ND2 ASN A 256       1.730 -44.454  42.823  1.00 98.84           N
ATOM   1975  N   GLU A 257      -1.637 -40.979  44.569  1.00101.75           N
ATOM   1976  CA  GLU A 257      -1.822 -39.568  44.223  1.00 86.88           C
ATOM   1977  C   GLU A 257      -1.142 -39.254  42.900  1.00 89.99           C
ATOM   1978  O   GLU A 257      -1.702 -38.541  42.070  1.00 90.16           O
ATOM   1979  CB  GLU A 257      -1.290 -38.639  45.341  1.00 92.86           C
ATOM   1980  CG  GLU A 257      -2.356 -38.010  46.291  1.00 93.43           C
ATOM   1981  CD  GLU A 257      -1.761 -37.275  47.517  1.00 95.56           C
ATOM   1982  OE1 GLU A 257      -0.595 -36.824  47.429  1.00 97.43           O
ATOM   1983  OE2 GLU A 257      -2.448 -37.184  48.574  1.00 84.68           O
ATOM   1984  N   THR A 258       0.034 -39.819  42.654  1.00 96.33           N
ATOM   1985  CA  THR A 258       0.724 -39.488  41.412  1.00 91.55           C
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ATOM   1986  C   THR A 258       0.095 -40.107  40.170  1.00 90.15           C
ATOM   1987  O   THR A 258       0.758 -40.181  39.128  1.00 88.37           O
ATOM   1988  CB  THR A 258       2.192 -39.917  41.441  0.44 98.19           C
ATOM   1989  OG1 THR A 258       2.761 -39.676  40.150  0.33 95.46           O
ATOM   1990  CG2 THR A 258       2.314 -41.433  41.733  0.84104.22           C
ATOM   1991  N   GLU A 259      -1.159 -40.562  40.255  1.00 95.16           N
ATOM   1992  CA  GLU A 259      -1.871 -40.957  39.044  1.00 94.06           C
ATOM   1993  C   GLU A 259      -3.351 -40.602  39.047  1.00 86.62           C
ATOM   1994  O   GLU A 259      -3.970 -40.675  37.978  1.00 84.51           O
ATOM   1995  CB  GLU A 259      -1.688 -42.466  38.763  0.80 99.33           C
ATOM   1996  CG  GLU A 259      -0.390 -42.715  38.000  0.61101.88           C
ATOM   1997  CD  GLU A 259      -0.463 -43.744  36.907  1.00116.96           C
ATOM   1998  OE1 GLU A 259       0.608 -44.034  36.325  1.00120.12           O
ATOM   1999  OE2 GLU A 259      -1.561 -44.266  36.630  1.00 92.58           O
ATOM   2000  N   ILE A 260      -3.946 -40.246  40.195  1.00 84.02           N
ATOM   2001  CA  ILE A 260      -5.150 -39.411  40.198  1.00 81.52           C
ATOM   2002  C   ILE A 260      -4.915 -38.217  39.294  1.00 77.14           C
ATOM   2003  O   ILE A 260      -5.785 -37.821  38.511  1.00 69.38           O
ATOM   2004  CB  ILE A 260      -5.492 -38.946  41.641  1.00 92.06           C
ATOM   2005  CG1 ILE A 260      -6.999 -38.877  41.953  1.00 86.86           C
ATOM   2006  CG2 ILE A 260      -4.953 -37.539  41.937  1.00 95.81           C
ATOM   2007  CD1 ILE A 260      -7.716 -40.119  42.013  1.00 98.53           C
ATOM   2008  N   ILE A 261      -3.708 -37.671  39.346  1.00 83.47           N
ATOM   2009  CA  ILE A 261      -3.432 -36.396  38.721  1.00 84.18           C
ATOM   2010  C   ILE A 261      -3.288 -36.578  37.226  1.00 86.31           C
ATOM   2011  O   ILE A 261      -3.833 -35.798  36.436  1.00 88.49           O
ATOM   2012  CB  ILE A 261      -2.191 -35.773  39.379  1.00 84.38           C
ATOM   2013  CG1 ILE A 261      -2.556 -35.452  40.816  1.00 79.13           C
ATOM   2014  CG2 ILE A 261      -1.830 -34.486  38.729  1.00 71.07           C
ATOM   2015  CD1 ILE A 261      -3.862 -34.637  40.829  1.00 87.49           C
ATOM   2016  N   LYS A 262      -2.619 -37.661  36.820  1.00 87.06           N
ATOM   2017  CA  LYS A 262      -2.491 -37.963  35.401  1.00 80.78           C
ATOM   2018  C   LYS A 262      -3.838 -38.342  34.796  1.00 75.39           C
ATOM   2019  O   LYS A 262      -4.148 -37.944  33.670  1.00 68.68           O
ATOM   2020  CB  LYS A 262      -1.441 -39.053  35.189  1.00 84.36           C
ATOM   2021  CG  LYS A 262      -0.113 -38.755  35.909  1.00 96.59           C
ATOM   2022  CD  LYS A 262       0.959 -39.821  35.637  1.00106.55           C
ATOM   2023  CE  LYS A 262       0.969 -40.259  34.167  1.00104.08           C
ATOM   2024  NZ  LYS A 262       2.336 -40.283  33.567  1.00105.30           N
ATOM   2025  N   CYS A 263      -4.674 -39.067  35.543  1.00 79.38           N
ATOM   2026  CA  CYS A 263      -6.048 -39.289  35.091  1.00 77.55           C
ATOM   2027  C   CYS A 263      -6.780 -37.971  34.875  1.00 70.62           C
ATOM   2028  O   CYS A 263      -7.438 -37.780  33.847  1.00 66.48           O
ATOM   2029  CB  CYS A 263      -6.819 -40.151  36.095  1.00 79.44           C
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ATOM   2030  SG  CYS A 263      -8.595 -40.444  35.685  1.00 89.15           S
ATOM   2031  N   LEU A 264      -6.674 -37.047  35.835  1.00 82.27           N
ATOM   2032  CA  LEU A 264      -7.414 -35.793  35.743  1.00 76.02           C
ATOM   2033  C   LEU A 264      -6.978 -34.918  34.576  1.00 65.75           C
ATOM   2034  O   LEU A 264      -7.787 -34.109  34.123  1.00 76.54           O
ATOM   2035  CB  LEU A 264      -7.320 -34.984  37.043  1.00 75.06           C
ATOM   2036  CG  LEU A 264      -8.303 -35.274  38.186  1.00 68.92           C
ATOM   2037  CD1 LEU A 264      -7.972 -34.431  39.416  1.00 54.26           C
ATOM   2038  CD2 LEU A 264      -9.737 -35.026  37.747  1.00 65.11           C
ATOM   2039  N   ARG A 265      -5.746 -35.057  34.058  1.00 65.20           N
ATOM   2040  CA  ARG A 265      -5.336 -34.211  32.929  1.00 76.15           C
ATOM   2041  C   ARG A 265      -5.726 -34.809  31.565  1.00 79.41           C
ATOM   2042  O   ARG A 265      -5.742 -34.073  30.568  1.00 87.29           O
ATOM   2043  CB  ARG A 265      -3.836 -33.867  33.030  1.00 63.19           C
ATOM   2044  CG  ARG A 265      -2.884 -35.027  33.230  1.00 83.28           C
ATOM   2045  CD  ARG A 265      -1.816 -34.740  34.318  1.00 83.56           C
ATOM   2046  NE  ARG A 265      -1.095 -33.459  34.145  1.00 87.00           N
ATOM   2047  CZ  ARG A 265      -0.691 -32.669  35.156  1.00 92.82           C
ATOM   2048  NH1 ARG A 265      -0.027 -31.569  34.886  1.00 96.12           N
ATOM   2049  NH2 ARG A 265      -0.994 -32.948  36.420  1.00 89.40           N
ATOM   2050  N   ASN A 266      -6.095 -36.099  31.498  1.00 73.68           N
ATOM   2051  CA  ASN A 266      -6.723 -36.645  30.292  1.00 82.26           C
ATOM   2052  C   ASN A 266      -8.235 -36.438  30.250  1.00 83.44           C
ATOM   2053  O   ASN A 266      -8.870 -36.805  29.249  1.00 80.15           O
ATOM   2054  CB  ASN A 266      -6.452 -38.149  30.121  1.00 72.60           C
ATOM   2055  CG  ASN A 266      -4.977 -38.505  30.144  1.00 89.66           C
ATOM   2056  OD1 ASN A 266      -4.305 -38.397  31.167  1.00 96.00           O
ATOM   2057  ND2 ASN A 266      -4.451 -38.894  28.975  1.00100.52           N
ATOM   2058  N   LYS A 267      -8.836 -35.900  31.310  1.00 77.97           N
ATOM   2059  CA  LYS A 267     -10.233 -35.504  31.228  1.00 82.47           C
ATOM   2060  C   LYS A 267     -10.306 -34.169  30.503  1.00 82.17           C
ATOM   2061  O   LYS A 267      -9.493 -33.270  30.746  1.00 75.32           O
ATOM   2062  CB  LYS A 267     -10.885 -35.435  32.618  1.00 75.30           C
ATOM   2063  CG  LYS A 267     -11.515 -36.765  33.091  1.00 75.12           C
ATOM   2064  CD  LYS A 267     -12.696 -37.171  32.166  1.00 92.54           C
ATOM   2065  CE  LYS A 267     -12.287 -38.283  31.121  1.00103.28           C
ATOM   2066  NZ  LYS A 267     -13.184 -38.445  29.911  1.00 73.10           N
ATOM   2067  N   ASP A 268     -11.239 -34.057  29.560  1.00 81.28           N
ATOM   2068  CA  ASP A 268     -11.267 -32.838  28.777  1.00 84.02           C
ATOM   2069  C   ASP A 268     -11.702 -31.688  29.680  1.00 72.03           C
ATOM   2070  O   ASP A 268     -12.403 -31.906  30.671  1.00 72.18           O
ATOM   2071  CB  ASP A 268     -12.163 -32.971  27.526  1.00 89.92           C
ATOM   2072  CG  ASP A 268     -13.672 -32.898  27.815  1.00 95.89           C
ATOM   2073  OD1 ASP A 268     -14.092 -32.951  28.986  1.00 99.79           O
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ATOM   2074  OD2 ASP A 268     -14.449 -32.752  26.834  1.00 85.45           O
ATOM   2075  N   PRO A 269     -11.263 -30.465  29.376  1.00 70.29           N
ATOM   2076  CA  PRO A 269     -11.386 -29.348  30.322  1.00 72.05           C
ATOM   2077  C   PRO A 269     -12.774 -29.146  30.894  1.00 64.95           C
ATOM   2078  O   PRO A 269     -12.922 -28.664  32.018  1.00 61.77           O
ATOM   2079  CB  PRO A 269     -10.976 -28.129  29.483  1.00 64.99           C
ATOM   2080  CG  PRO A 269     -10.638 -28.649  28.117  1.00 68.20           C
ATOM   2081  CD  PRO A 269     -10.399 -30.112  28.246  1.00 84.59           C
ATOM   2082  N   GLN A 270     -13.805 -29.504  30.150  1.00 70.14           N
ATOM   2083  CA  GLN A 270     -15.118 -29.105  30.614  1.00 65.79           C
ATOM   2084  C   GLN A 270     -15.771 -30.112  31.550  1.00 70.99           C
ATOM   2085  O   GLN A 270     -16.504 -29.680  32.441  1.00 75.03           O
ATOM   2086  CB  GLN A 270     -16.038 -28.778  29.429  1.00 77.18           C
ATOM   2087  CG  GLN A 270     -17.367 -28.301  29.845  1.00 69.45           C
ATOM   2088  CD  GLN A 270     -17.833 -27.055  29.165  1.00 88.98           C
ATOM   2089  OE1 GLN A 270     -18.158 -27.045  28.053  1.00102.57           O
ATOM   2090  NE2 GLN A 270     -17.864 -25.988  29.844  1.00 72.39           N
ATOM   2091  N   GLU A 271     -15.510 -31.429  31.452  1.00 67.98           N
ATOM   2092  CA  GLU A 271     -16.087 -32.281  32.494  1.00 65.98           C
ATOM   2093  C   GLU A 271     -15.417 -32.035  33.844  1.00 75.21           C
ATOM   2094  O   GLU A 271     -15.987 -32.374  34.892  1.00 68.33           O
ATOM   2095  CB  GLU A 271     -16.104 -33.778  32.104  1.00 68.85           C
ATOM   2096  CG  GLU A 271     -14.911 -34.428  31.423  1.00 92.19           C
ATOM   2097  CD  GLU A 271     -15.325 -35.614  30.501  1.00 95.93           C
ATOM   2098  OE1 GLU A 271     -16.511 -35.915  30.416  1.00 78.07           O
ATOM   2099  OE2 GLU A 271     -14.473 -36.232  29.859  1.00 88.54           O
ATOM   2100  N   ILE A 272     -14.266 -31.370  33.849  1.00 70.52           N
ATOM   2101  CA  ILE A 272     -13.751 -30.812  35.089  1.00 66.32           C
ATOM   2102  C   ILE A 272     -14.657 -29.695  35.595  1.00 68.26           C
ATOM   2103  O   ILE A 272     -15.064 -29.684  36.761  1.00 71.83           O
ATOM   2104  CB  ILE A 272     -12.309 -30.319  34.894  1.00 68.84           C
ATOM   2105  CG1 ILE A 272     -11.360 -31.487  35.094  1.00 69.35           C
ATOM   2106  CG2 ILE A 272     -11.978 -29.132  35.831  1.00 59.21           C
ATOM   2107  CD1 ILE A 272      -9.944 -31.112  34.933  1.00 70.46           C
ATOM   2108  N   LEU A 273     -14.994 -28.741  34.730  1.00 65.66           N
ATOM   2109  CA  LEU A 273     -15.618 -27.527  35.233  1.00 61.33           C
ATOM   2110  C   LEU A 273     -17.028 -27.751  35.752  1.00 65.38           C
ATOM   2111  O   LEU A 273     -17.452 -27.022  36.651  1.00 76.52           O
ATOM   2112  CB  LEU A 273     -15.630 -26.416  34.177  1.00 70.78           C
ATOM   2113  CG  LEU A 273     -14.303 -25.816  33.681  1.00 62.28           C
ATOM   2114  CD1 LEU A 273     -14.504 -25.001  32.418  1.00 55.50           C
ATOM   2115  CD2 LEU A 273     -13.624 -24.971  34.785  1.00 67.10           C
ATOM   2116  N   LEU A 274     -17.783 -28.718  35.229  1.00 68.43           N
ATOM   2117  CA  LEU A 274     -19.162 -28.825  35.705  1.00 75.78           C
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ATOM   2118  C   LEU A 274     -19.363 -29.783  36.866  1.00 71.53           C
ATOM   2119  O   LEU A 274     -20.472 -29.826  37.407  1.00 79.51           O
ATOM   2120  CB  LEU A 274     -20.139 -29.239  34.607  1.00 76.00           C
ATOM   2121  CG  LEU A 274     -20.174 -28.447  33.326  1.00 69.51           C
ATOM   2122  CD1 LEU A 274     -19.456 -29.256  32.289  1.00 68.97           C
ATOM   2123  CD2 LEU A 274     -21.622 -28.179  32.978  1.00 70.94           C
ATOM   2124  N   ASN A 275     -18.364 -30.575  37.239  1.00 73.13           N
ATOM   2125  CA  ASN A 275     -18.425 -31.262  38.520  1.00 71.31           C
ATOM   2126  C   ASN A 275     -17.777 -30.459  39.635  1.00 78.05           C
ATOM   2127  O   ASN A 275     -17.823 -30.890  40.796  1.00 75.51           O
ATOM   2128  CB  ASN A 275     -17.761 -32.634  38.453  1.00 69.05           C
ATOM   2129  CG  ASN A 275     -18.274 -33.454  37.337  1.00 70.69           C
ATOM   2130  OD1 ASN A 275     -19.365 -34.001  37.436  1.00 78.38           O
ATOM   2131  ND2 ASN A 275     -17.480 -33.601  36.280  1.00 72.54           N
ATOM   2132  N   GLU A 276     -17.159 -29.320  39.293  1.00 72.63           N
ATOM   2133  CA  GLU A 276     -16.605 -28.401  40.282  1.00 63.84           C
ATOM   2134  C   GLU A 276     -17.649 -27.968  41.288  1.00 59.97           C
ATOM   2135  O   GLU A 276     -17.320 -27.692  42.440  1.00 59.97           O
ATOM   2136  CB  GLU A 276     -16.038 -27.169  39.578  1.00 69.61           C
ATOM   2137  CG  GLU A 276     -14.654 -27.332  38.959  1.00 74.17           C
ATOM   2138  CD  GLU A 276     -14.042 -25.998  38.532  1.00 71.62           C
ATOM   2139  OE1 GLU A 276     -14.814 -25.034  38.324  1.00 65.88           O
ATOM   2140  OE2 GLU A 276     -12.795 -25.911  38.386  1.00 75.45           O
ATOM   2141  N   ALA A 277     -18.908 -27.901  40.869  1.00 62.41           N
ATOM   2142  CA  ALA A 277     -19.973 -27.392  41.716  1.00 63.40           C
ATOM   2143  C   ALA A 277     -20.396 -28.355  42.806  1.00 70.25           C
ATOM   2144  O   ALA A 277     -21.025 -27.914  43.774  1.00 77.96           O
ATOM   2145  CB  ALA A 277     -21.194 -27.053  40.869  1.00 73.08           C
ATOM   2146  N   PHE A 278     -20.088 -29.650  42.669  1.00 76.38           N
ATOM   2147  CA  PHE A 278     -20.549 -30.679  43.595  1.00 69.47           C
ATOM   2148  C   PHE A 278     -19.496 -31.135  44.600  1.00 76.14           C
ATOM   2149  O   PHE A 278     -19.832 -31.910  45.497  1.00 94.33           O
ATOM   2150  CB  PHE A 278     -21.039 -31.930  42.848  1.00 81.42           C
ATOM   2151  CG  PHE A 278     -21.909 -31.666  41.654  1.00 72.14           C
ATOM   2152  CD1 PHE A 278     -23.221 -31.262  41.807  1.00 68.73           C
ATOM   2153  CD2 PHE A 278     -21.431 -31.917  40.378  1.00 75.49           C
ATOM   2154  CE1 PHE A 278     -24.022 -31.060  40.717  1.00 69.66           C
ATOM   2155  CE2 PHE A 278     -22.227 -31.719  39.280  1.00 77.97           C
ATOM   2156  CZ  PHE A 278     -23.529 -31.287  39.450  1.00 78.13           C
ATOM   2157  N   VAL A 279     -18.240 -30.698  44.482  1.00 69.01           N
ATOM   2158  CA  VAL A 279     -17.150 -31.239  45.299  1.00 70.18           C
ATOM   2159  C   VAL A 279     -17.423 -31.000  46.779  1.00 83.93           C
ATOM   2160  O   VAL A 279     -16.662 -31.439  47.647  1.00 94.49           O
ATOM   2161  CB  VAL A 279     -15.783 -30.634  44.916  1.00 70.06           C
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ATOM   2162  CG1 VAL A 279     -15.389 -31.038  43.511  1.00 75.28           C
ATOM   2163  CG2 VAL A 279     -15.782 -29.117  45.078  1.00 69.42           C
ATOM   2164  N   VAL A 280     -18.505 -30.295  47.072  1.00 87.35           N
ATOM   2165  CA  VAL A 280     -18.868 -29.906  48.427  1.00 87.59           C
ATOM   2166  C   VAL A 280     -20.312 -30.351  48.632  1.00103.63           C
ATOM   2167  O   VAL A 280     -21.132 -30.215  47.708  1.00108.04           O
ATOM   2168  CB  VAL A 280     -18.683 -28.393  48.614  1.00 80.12           C
ATOM   2169  CG1 VAL A 280     -19.462 -27.642  47.552  1.00 81.96           C
ATOM   2170  CG2 VAL A 280     -19.112 -27.960  49.980  1.00 84.16           C
ATOM   2171  N   PRO A 281     -20.669 -30.920  49.792  1.00104.12           N
ATOM   2172  CA  PRO A 281     -22.070 -31.322  50.000  1.00100.75           C
ATOM   2173  C   PRO A 281     -23.014 -30.124  49.969  1.00101.72           C
ATOM   2174  O   PRO A 281     -23.751 -29.919  48.996  1.00105.98           O
ATOM   2175  CB  PRO A 281     -22.040 -32.003  51.374  1.00 95.60           C
ATOM   2176  CG  PRO A 281     -20.806 -31.435  52.049  1.00 96.93           C
ATOM   2177  CD  PRO A 281     -19.815 -31.220  50.956  1.00 90.51           C
ATOM   2178  N   TYR A 282     -22.987 -29.313  51.018  1.00 91.98           N
ATOM   2179  CA  TYR A 282     -23.792 -28.108  51.076  1.00 92.35           C
ATOM   2180  C   TYR A 282     -22.962 -26.933  50.589  1.00 93.91           C
ATOM   2181  O   TYR A 282     -21.773 -26.826  50.896  1.00 89.21           O
ATOM   2182  CB  TYR A 282     -24.294 -27.852  52.498  1.00100.07           C
ATOM   2183  N   GLY A 283     -23.591 -26.058  49.811  1.00 99.13           N
ATOM   2184  CA  GLY A 283     -22.960 -24.846  49.349  1.00 94.18           C
ATOM   2185  C   GLY A 283     -23.751 -23.624  49.781  1.00 91.02           C
ATOM   2186  O   GLY A 283     -24.780 -23.717  50.455  1.00 93.07           O
ATOM   2187  N   THR A 284     -23.224 -22.473  49.401  1.00 87.06           N
ATOM   2188  CA  THR A 284     -23.879 -21.178  49.521  1.00 79.37           C
ATOM   2189  C   THR A 284     -23.695 -20.469  48.197  1.00 76.61           C
ATOM   2190  O   THR A 284     -22.935 -20.926  47.338  1.00 83.06           O
ATOM   2191  CB  THR A 284     -23.260 -20.342  50.649  1.00 74.94           C
ATOM   2192  OG1 THR A 284     -22.047 -19.739  50.165  1.00 71.76           O
ATOM   2193  CG2 THR A 284     -22.971 -21.209  51.873  1.00 66.99           C
ATOM   2194  N   PRO A 285     -24.368 -19.338  47.989  1.00 74.53           N
ATOM   2195  CA  PRO A 285     -24.049 -18.545  46.791  1.00 68.66           C
ATOM   2196  C   PRO A 285     -22.623 -18.052  46.787  1.00 67.75           C
ATOM   2197  O   PRO A 285     -22.109 -17.693  45.721  1.00 75.69           O
ATOM   2198  CB  PRO A 285     -25.057 -17.397  46.844  1.00 66.23           C
ATOM   2199  CG  PRO A 285     -26.231 -17.991  47.583  1.00 71.75           C
ATOM   2200  CD  PRO A 285     -25.616 -18.886  48.633  1.00 63.60           C
ATOM   2201  N   LEU A 286     -21.954 -18.067  47.938  1.00 66.23           N
ATOM   2202  CA  LEU A 286     -20.582 -17.597  48.058  1.00 76.50           C
ATOM   2203  C   LEU A 286     -19.555 -18.711  48.024  1.00 81.37           C
ATOM   2204  O   LEU A 286     -18.383 -18.455  48.326  1.00 82.82           O
ATOM   2205  CB  LEU A 286     -20.397 -16.793  49.341  1.00 67.24           C
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ATOM   2206  CG  LEU A 286     -21.217 -15.518  49.440  1.00 57.99           C
ATOM   2207  CD1 LEU A 286     -22.550 -15.710  50.139  1.00 55.54           C
ATOM   2208  CD2 LEU A 286     -20.349 -14.537  50.136  1.00 60.98           C
ATOM   2209  N   SER A 287     -19.954 -19.933  47.672  1.00 85.47           N
ATOM   2210  CA  SER A 287     -19.050 -21.068  47.830  1.00 84.29           C
ATOM   2211  C   SER A 287     -17.878 -20.943  46.871  1.00 69.97           C
ATOM   2212  O   SER A 287     -18.060 -20.969  45.643  1.00 67.26           O
ATOM   2213  CB  SER A 287     -19.772 -22.409  47.635  1.00 92.09           C
ATOM   2214  OG  SER A 287     -20.788 -22.627  48.606  1.00 91.45           O
ATOM   2215  N   VAL A 288     -16.687 -20.785  47.453  1.00 55.24           N
ATOM   2216  CA  VAL A 288     -15.416 -20.836  46.741  1.00 63.39           C
ATOM   2217  C   VAL A 288     -14.949 -22.290  46.823  1.00 68.91           C
ATOM   2218  O   VAL A 288     -14.337 -22.699  47.819  1.00 70.79           O
ATOM   2219  CB  VAL A 288     -14.385 -19.862  47.331  1.00 55.77           C
ATOM   2220  CG1 VAL A 288     -13.108 -19.857  46.521  1.00 57.76           C
ATOM   2221  CG2 VAL A 288     -14.938 -18.450  47.396  1.00 51.93           C
ATOM   2222  N   ASN A 289     -15.247 -23.079  45.774  1.00 67.34           N
ATOM   2223  CA  ASN A 289     -14.993 -24.518  45.818  1.00 52.73           C
ATOM   2224  C   ASN A 289     -13.501 -24.828  45.772  1.00 55.89           C
ATOM   2225  O   ASN A 289     -13.044 -25.797  46.394  1.00 56.88           O
ATOM   2226  CB  ASN A 289     -15.722 -25.207  44.669  1.00 55.01           C
ATOM   2227  CG  ASN A 289     -17.222 -24.970  44.698  1.00 66.77           C
ATOM   2228  OD1 ASN A 289     -17.764 -24.261  43.842  1.00 74.63           O
ATOM   2229  ND2 ASN A 289     -17.907 -25.595  45.652  1.00 61.86           N
ATOM   2230  N   PHE A 290     -12.721 -24.018  45.054  1.00 43.69           N
ATOM   2231  CA  PHE A 290     -11.269 -24.211  44.963  1.00 55.01           C
ATOM   2232  C   PHE A 290     -10.632 -22.825  45.024  1.00 47.78           C
ATOM   2233  O   PHE A 290     -10.585 -22.118  44.019  1.00 48.93           O
ATOM   2234  CB  PHE A 290     -10.868 -24.959  43.681  1.00 55.82           C
ATOM   2235  CG  PHE A 290     -11.422 -26.374  43.567  1.00 48.77           C
ATOM   2236  CD1 PHE A 290     -10.724 -27.462  44.066  1.00 55.39           C
ATOM   2237  CD2 PHE A 290     -12.661 -26.603  42.983  1.00 53.76           C
ATOM   2238  CE1 PHE A 290     -11.234 -28.747  43.954  1.00 53.87           C
ATOM   2239  CE2 PHE A 290     -13.179 -27.882  42.888  1.00 50.99           C
ATOM   2240  CZ  PHE A 290     -12.465 -28.951  43.377  1.00 50.29           C
ATOM   2241  N   GLY A 291     -10.142 -22.433  46.189  1.00 48.93           N
ATOM   2242  CA  GLY A 291      -9.421 -21.192  46.307  1.00 48.38           C
ATOM   2243  C   GLY A 291      -7.988 -21.339  46.787  1.00 58.24           C
ATOM   2244  O   GLY A 291      -7.360 -22.405  46.674  1.00 69.75           O
ATOM   2245  N   PRO A 292      -7.437 -20.245  47.319  1.00 59.14           N
ATOM   2246  CA  PRO A 292      -6.121 -20.315  47.957  1.00 59.09           C
ATOM   2247  C   PRO A 292      -6.107 -21.320  49.099  1.00 55.46           C
ATOM   2248  O   PRO A 292      -7.112 -21.538  49.783  1.00 48.79           O
ATOM   2249  CB  PRO A 292      -5.910 -18.888  48.472  1.00 47.95           C
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ATOM   2250  CG  PRO A 292      -6.746 -18.060  47.589  1.00 51.47           C
ATOM   2251  CD  PRO A 292      -7.966 -18.871  47.320  1.00 50.52           C
ATOM   2252  N   THR A 293      -4.941 -21.926  49.302  1.00 53.18           N
ATOM   2253  CA  THR A 293      -4.716 -22.837  50.415  1.00 72.49           C
ATOM   2254  C   THR A 293      -3.370 -22.504  51.049  1.00 72.11           C
ATOM   2255  O   THR A 293      -2.582 -21.725  50.499  1.00 62.58           O
ATOM   2256  CB  THR A 293      -4.767 -24.299  49.947  1.00 71.30           C
ATOM   2257  OG1 THR A 293      -4.110 -24.409  48.676  1.00 70.26           O
ATOM   2258  CG2 THR A 293      -6.207 -24.758  49.790  1.00 70.49           C
ATOM   2259  N   VAL A 294      -3.103 -23.083  52.219  1.00 72.68           N
ATOM   2260  CA  VAL A 294      -1.757 -22.997  52.779  1.00 76.75           C
ATOM   2261  C   VAL A 294      -0.931 -24.089  52.107  1.00 71.24           C
ATOM   2262  O   VAL A 294      -1.233 -25.277  52.218  1.00 75.30           O
ATOM   2263  CB  VAL A 294      -1.745 -23.102  54.315  1.00 76.42           C
ATOM   2264  CG1 VAL A 294      -2.756 -22.146  54.912  1.00 80.11           C
ATOM   2265  CG2 VAL A 294      -2.034 -24.496  54.829  1.00 81.27           C
ATOM   2266  N   ASP A 295       0.058 -23.687  51.321  1.00 68.80           N
ATOM   2267  CA  ASP A 295       0.799 -24.665  50.549  1.00 68.00           C
ATOM   2268  C   ASP A 295       2.242 -24.801  50.998  1.00 67.00           C
ATOM   2269  O   ASP A 295       2.932 -25.720  50.548  1.00 66.28           O
ATOM   2270  CB  ASP A 295       0.740 -24.332  49.041  1.00 66.07           C
ATOM   2271  CG  ASP A 295       1.344 -22.974  48.691  1.00 69.63           C
ATOM   2272  OD1 ASP A 295       1.331 -22.030  49.512  1.00 78.73           O
ATOM   2273  OD2 ASP A 295       1.887 -22.867  47.581  1.00 73.42           O
ATOM   2274  N   GLY A 296       2.709 -23.935  51.887  1.00 74.29           N
ATOM   2275  CA  GLY A 296       4.118 -23.950  52.201  1.00 84.01           C
ATOM   2276  C   GLY A 296       5.008 -23.451  51.087  1.00 83.99           C
ATOM   2277  O   GLY A 296       6.231 -23.579  51.181  1.00 91.61           O
ATOM   2278  N   ASP A 297       4.433 -22.894  50.020  1.00 81.61           N
ATOM   2279  CA  ASP A 297       5.243 -22.249  48.999  1.00 72.44           C
ATOM   2280  C   ASP A 297       4.859 -20.783  48.877  1.00 79.73           C
ATOM   2281  O   ASP A 297       5.583 -19.906  49.363  1.00 87.48           O
ATOM   2282  CB  ASP A 297       5.094 -22.957  47.661  1.00 77.41           C
ATOM   2283  CG  ASP A 297       6.158 -22.532  46.659  1.00 84.55           C
ATOM   2284  OD1 ASP A 297       6.718 -21.416  46.819  1.00 73.74           O
ATOM   2285  OD2 ASP A 297       6.445 -23.324  45.723  1.00 79.10           O
ATOM   2286  N   PHE A 298       3.729 -20.503  48.225  1.00 74.84           N
ATOM   2287  CA  PHE A 298       3.275 -19.118  48.114  1.00 80.56           C
ATOM   2288  C   PHE A 298       2.954 -18.556  49.491  1.00 79.46           C
ATOM   2289  O   PHE A 298       3.427 -17.480  49.873  1.00 76.06           O
ATOM   2290  CB  PHE A 298       2.061 -19.046  47.183  1.00 64.94           C
ATOM   2291  CG  PHE A 298       1.578 -17.655  46.907  1.00 61.19           C
ATOM   2292  CD1 PHE A 298       0.450 -17.161  47.533  1.00 65.42           C
ATOM   2293  CD2 PHE A 298       2.264 -16.829  46.031  1.00 68.97           C
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ATOM   2294  CE1 PHE A 298       0.000 -15.861  47.279  1.00 65.34           C
ATOM   2295  CE2 PHE A 298       1.827 -15.528  45.779  1.00 65.88           C
ATOM   2296  CZ  PHE A 298       0.692 -15.045  46.407  1.00 58.02           C
ATOM   2297  N   LEU A 299       2.180 -19.299  50.260  1.00 77.04           N
ATOM   2298  CA  LEU A 299       1.840 -18.955  51.629  1.00 76.68           C
ATOM   2299  C   LEU A 299       2.474 -20.020  52.512  1.00 87.71           C
ATOM   2300  O   LEU A 299       2.124 -21.204  52.404  1.00 85.43           O
ATOM   2301  CB  LEU A 299       0.327 -18.919  51.807  1.00 71.18           C
ATOM   2302  CG  LEU A 299      -0.207 -17.951  52.844  1.00 76.62           C
ATOM   2303  CD1 LEU A 299       0.637 -16.677  52.884  1.00 84.83           C
ATOM   2304  CD2 LEU A 299      -1.671 -17.668  52.578  1.00 75.65           C
ATOM   2305  N   THR A 300       3.398 -19.618  53.387  1.00 85.71           N
ATOM   2306  CA  THR A 300       4.152 -20.643  54.100  1.00 90.84           C
ATOM   2307  C   THR A 300       3.434 -21.181  55.340  1.00 86.01           C
ATOM   2308  O   THR A 300       3.839 -22.232  55.854  1.00 79.05           O
ATOM   2309  CB  THR A 300       5.538 -20.128  54.476  1.00 93.29           C
ATOM   2310  OG1 THR A 300       6.036 -19.285  53.423  1.00 92.31           O
ATOM   2311  CG2 THR A 300       6.491 -21.328  54.628  1.00 86.01           C
ATOM   2312  N   ASP A 301       2.390 -20.502  55.830  1.00 89.50           N
ATOM   2313  CA  ASP A 301       1.423 -21.122  56.737  1.00 95.40           C
ATOM   2314  C   ASP A 301       0.262 -20.144  56.899  1.00 89.07           C
ATOM   2315  O   ASP A 301       0.321 -19.011  56.432  1.00 86.24           O
ATOM   2316  CB  ASP A 301       2.045 -21.470  58.098  1.00 98.25           C
ATOM   2317  CG  ASP A 301       1.072 -22.187  59.048  1.00106.68           C
ATOM   2318  OD1 ASP A 301       1.564 -22.727  60.048  1.00125.35           O
ATOM   2319  OD2 ASP A 301      -0.146 -22.292  58.804  1.00105.98           O
ATOM   2320  N   MET A 302      -0.804 -20.614  57.538  1.00 90.66           N
ATOM   2321  CA  MET A 302      -2.075 -19.972  57.856  1.00 89.60           C
ATOM   2322  C   MET A 302      -1.988 -18.450  57.886  1.00 93.35           C
ATOM   2323  O   MET A 302      -1.371 -17.879  58.788  1.00 93.74           O
ATOM   2324  CB  MET A 302      -2.551 -20.504  59.206  1.00 87.55           C
ATOM   2325  CG  MET A 302      -4.021 -20.475  59.417  1.00 93.78           C
ATOM   2326  SD  MET A 302      -4.843 -21.879  58.652  1.00129.88           S
ATOM   2327  CE  MET A 302      -3.508 -23.067  58.573  1.00 91.21           C
ATOM   2328  N   PRO A 303      -2.630 -17.764  56.941  1.00 87.95           N
ATOM   2329  CA  PRO A 303      -2.404 -16.316  56.815  1.00 82.64           C
ATOM   2330  C   PRO A 303      -2.818 -15.504  58.041  1.00 89.07           C
ATOM   2331  O   PRO A 303      -2.109 -14.554  58.408  1.00 85.89           O
ATOM   2332  CB  PRO A 303      -3.216 -15.956  55.563  1.00 79.52           C
ATOM   2333  CG  PRO A 303      -4.195 -17.066  55.379  1.00 83.81           C
ATOM   2334  CD  PRO A 303      -3.541 -18.294  55.914  1.00 86.55           C
ATOM   2335  N   ASP A 304      -3.928 -15.850  58.706  1.00 95.56           N
ATOM   2336  CA  ASP A 304      -4.301 -15.116  59.918  1.00 90.68           C
ATOM   2337  C   ASP A 304      -3.176 -15.107  60.951  1.00 87.68           C
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ATOM   2338  O   ASP A 304      -3.037 -14.127  61.691  1.00 89.48           O
ATOM   2339  CB  ASP A 304      -5.580 -15.682  60.552  1.00 80.22           C
ATOM   2340  CG  ASP A 304      -5.522 -17.181  60.750  1.00101.01           C
ATOM   2341  OD1 ASP A 304      -5.466 -17.904  59.724  1.00 93.57           O
ATOM   2342  OD2 ASP A 304      -5.537 -17.627  61.926  1.00 99.23           O
ATOM   2343  N   ILE A 305      -2.343 -16.156  61.004  1.00 92.72           N
ATOM   2344  CA  ILE A 305      -1.277 -16.175  62.008  1.00 93.96           C
ATOM   2345  C   ILE A 305      -0.164 -15.200  61.627  1.00100.29           C
ATOM   2346  O   ILE A 305       0.293 -14.419  62.472  1.00109.12           O
ATOM   2347  CB  ILE A 305      -0.737 -17.606  62.271  1.00 94.93           C
ATOM   2348  CG1 ILE A 305       0.385 -18.025  61.312  1.00 98.94           C
ATOM   2349  CG2 ILE A 305      -1.882 -18.664  62.326  1.00 90.51           C
ATOM   2350  CD1 ILE A 305       1.247 -19.176  61.806  1.00 91.80           C
ATOM   2351  N   LEU A 306       0.268 -15.190  60.349  1.00 90.01           N
ATOM   2352  CA  LEU A 306       1.442 -14.374  60.032  1.00 93.87           C
ATOM   2353  C   LEU A 306       1.144 -12.880  60.060  1.00 92.53           C
ATOM   2354  O   LEU A 306       2.030 -12.106  60.431  1.00 95.54           O
ATOM   2355  CB  LEU A 306       2.078 -14.720  58.680  1.00 94.62           C
ATOM   2356  CG  LEU A 306       2.456 -16.046  58.111  1.00 99.05           C
ATOM   2357  CD1 LEU A 306       1.203 -16.544  57.643  1.00 93.80           C
ATOM   2358  CD2 LEU A 306       3.405 -15.807  56.968  1.00 94.80           C
ATOM   2359  N   LEU A 307      -0.072 -12.449  59.731  1.00 84.95           N
ATOM   2360  CA  LEU A 307      -0.367 -11.046  59.881  1.00 93.99           C
ATOM   2361  C   LEU A 307      -0.611 -10.765  61.348  1.00100.47           C
ATOM   2362  O   LEU A 307      -0.037  -9.798  61.822  1.00 98.66           O
ATOM   2363  CB  LEU A 307      -1.427 -10.702  58.807  1.00102.25           C
ATOM   2364  CG  LEU A 307      -2.159  -9.420  58.559  1.00 99.35           C
ATOM   2365  CD1 LEU A 307      -1.943  -9.296  57.102  1.00 98.51           C
ATOM   2366  CD2 LEU A 307      -3.642  -9.636  58.623  1.00 90.49           C
ATOM   2367  N   GLU A 308      -1.223 -11.663  62.145  1.00101.99           N
ATOM   2368  CA  GLU A 308      -1.329 -11.385  63.586  1.00101.84           C
ATOM   2369  C   GLU A 308       0.036 -11.259  64.254  1.00101.12           C
ATOM   2370  O   GLU A 308       0.242 -10.364  65.076  1.00108.17           O
ATOM   2371  CB  GLU A 308      -2.176 -12.448  64.270  1.00 92.27           C
ATOM   2372  CG  GLU A 308      -3.472 -11.885  64.906  1.00101.22           C
ATOM   2373  CD  GLU A 308      -3.249 -11.082  66.206  1.00117.94           C
ATOM   2374  OE1 GLU A 308      -2.089 -10.793  66.602  1.00107.29           O
ATOM   2375  OE2 GLU A 308      -4.259 -10.747  66.877  1.00126.73           O
ATOM   2376  N   LEU A 309       0.994 -12.071  63.839  1.00 90.73           N
ATOM   2377  CA  LEU A 309       2.398 -11.970  64.180  1.00 87.82           C
ATOM   2378  C   LEU A 309       3.116 -10.914  63.346  1.00 97.70           C
ATOM   2379  O   LEU A 309       4.284 -10.620  63.619  1.00105.00           O
ATOM   2380  CB  LEU A 309       2.968 -13.372  63.980  1.00 85.44           C
ATOM   2381  CG  LEU A 309       4.324 -13.980  64.259  1.00 95.26           C
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ATOM   2382  CD1 LEU A 309       4.115 -15.481  63.965  1.00 96.36           C
ATOM   2383  CD2 LEU A 309       5.275 -13.372  63.309  1.00 90.87           C
ATOM   2384  N   GLY A 310       2.445 -10.339  62.351  1.00103.25           N
ATOM   2385  CA  GLY A 310       3.024  -9.275  61.537  1.00 98.87           C
ATOM   2386  C   GLY A 310       4.239  -9.640  60.705  1.00 99.20           C
ATOM   2387  O   GLY A 310       5.237  -8.909  60.732  1.00 99.07           O
ATOM   2388  N   GLN A 311       4.178 -10.740  59.943  1.00 98.68           N
ATOM   2389  CA  GLN A 311       5.224 -11.066  58.966  1.00 97.24           C
ATOM   2390  C   GLN A 311       4.714 -10.747  57.564  1.00 96.39           C
ATOM   2391  O   GLN A 311       4.366 -11.626  56.775  1.00 97.97           O
ATOM   2392  CB  GLN A 311       5.650 -12.518  59.080  1.00 95.71           C
ATOM   2393  CG  GLN A 311       6.418 -12.826  60.328  1.00100.17           C
ATOM   2394  CD  GLN A 311       7.665 -13.648  60.077  1.00110.07           C
ATOM   2395  OE1 GLN A 311       7.602 -14.879  59.975  1.00108.90           O
ATOM   2396  NE2 GLN A 311       8.814 -12.978  60.014  1.00107.44           N
ATOM   2397  N   PHE A 312       4.689  -9.459  57.247  1.00 86.54           N
ATOM   2398  CA  PHE A 312       4.207  -9.059  55.942  1.00 85.33           C
ATOM   2399  C   PHE A 312       4.992  -7.855  55.454  1.00 87.02           C
ATOM   2400  O   PHE A 312       5.706  -7.192  56.212  1.00 81.38           O
ATOM   2401  CB  PHE A 312       2.703  -8.759  55.966  1.00 89.06           C
ATOM   2402  CG  PHE A 312       2.269  -7.834  57.079  1.00 90.52           C
ATOM   2403  CD1 PHE A 312       2.465  -6.474  56.979  1.00 81.37           C
ATOM   2404  CD2 PHE A 312       1.624  -8.329  58.203  1.00 90.18           C
ATOM   2405  CE1 PHE A 312       2.053  -5.625  57.981  1.00 85.42           C
ATOM   2406  CE2 PHE A 312       1.204  -7.480  59.206  1.00 93.76           C
ATOM   2407  CZ  PHE A 312       1.420  -6.126  59.094  1.00 89.82           C
ATOM   2408  N   LYS A 313       4.870  -7.610  54.156  1.00 87.18           N
ATOM   2409  CA  LYS A 313       5.409  -6.403  53.566  1.00 85.39           C
ATOM   2410  C   LYS A 313       4.901  -5.196  54.345  1.00 80.70           C
ATOM   2411  O   LYS A 313       3.721  -5.124  54.695  1.00 73.38           O
ATOM   2412  CB  LYS A 313       4.993  -6.327  52.089  1.00 76.19           C
ATOM   2413  CG  LYS A 313       5.778  -5.312  51.277  1.00 78.74           C
ATOM   2414  CD  LYS A 313       5.258  -5.182  49.866  1.00 78.43           C
ATOM   2415  CE  LYS A 313       5.925  -4.031  49.156  1.00 69.54           C
ATOM   2416  NZ  LYS A 313       7.382  -4.285  49.074  1.00 77.17           N
ATOM   2417  N   LYS A 314       5.807  -4.269  54.650  1.00 82.68           N
ATOM   2418  CA  LYS A 314       5.471  -3.044  55.361  1.00 81.41           C
ATOM   2419  C   LYS A 314       5.323  -1.914  54.356  1.00 77.99           C
ATOM   2420  O   LYS A 314       6.297  -1.539  53.698  1.00 83.68           O
ATOM   2421  CB  LYS A 314       6.540  -2.694  56.395  1.00 87.67           C
ATOM   2422  CG  LYS A 314       6.767  -3.775  57.433  1.00 77.88           C
ATOM   2423  CD  LYS A 314       5.549  -3.951  58.299  1.00 73.00           C
ATOM   2424  CE  LYS A 314       5.451  -5.383  58.735  1.00 79.54           C
ATOM   2425  NZ  LYS A 314       6.748  -5.804  59.323  1.00 80.12           N
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ATOM   2426  N   THR A 315       4.119  -1.356  54.265  1.00 80.01           N
ATOM   2427  CA  THR A 315       3.783  -0.366  53.248  1.00 81.01           C
ATOM   2428  C   THR A 315       2.365   0.154  53.496  1.00 81.43           C
ATOM   2429  O   THR A 315       1.610  -0.401  54.300  1.00 78.53           O
ATOM   2430  CB  THR A 315       3.950  -0.993  51.858  1.00 83.63           C
ATOM   2431  OG1 THR A 315       5.348  -1.107  51.551  1.00 87.66           O
ATOM   2432  CG2 THR A 315       3.242  -0.223  50.800  1.00 78.62           C
ATOM   2433  N   GLN A 316       2.044   1.274  52.839  1.00 79.13           N
ATOM   2434  CA  GLN A 316       0.712   1.868  52.836  1.00 76.40           C
ATOM   2435  C   GLN A 316      -0.274   1.005  52.052  1.00 78.63           C
ATOM   2436  O   GLN A 316       0.085   0.425  51.015  1.00 83.19           O
ATOM   2437  CB  GLN A 316       0.760   3.268  52.207  1.00 79.09           C
ATOM   2438  CG  GLN A 316       1.969   4.172  52.544  1.00 87.76           C
ATOM   2439  CD  GLN A 316       3.318   3.756  51.917  1.00 93.23           C
ATOM   2440  OE1 GLN A 316       3.649   2.570  51.795  1.00 89.96           O
ATOM   2441  NE2 GLN A 316       4.072   4.754  51.464  1.00 97.24           N
ATOM   2442  N   ILE A 317      -1.519   0.925  52.554  1.00 68.25           N
ATOM   2443  CA  ILE A 317      -2.590   0.189  51.891  1.00 69.39           C
ATOM   2444  C   ILE A 317      -3.841   1.050  51.873  1.00 71.60           C
ATOM   2445  O   ILE A 317      -4.023   1.943  52.698  1.00 72.80           O
ATOM   2446  CB  ILE A 317      -2.927  -1.178  52.545  1.00 75.83           C
ATOM   2447  CG1 ILE A 317      -3.743  -0.977  53.831  1.00 78.38           C
ATOM   2448  CG2 ILE A 317      -1.681  -1.976  52.810  1.00 67.93           C
ATOM   2449  CD1 ILE A 317      -3.914  -2.230  54.692  1.00 76.40           C
ATOM   2450  N   LEU A 318      -4.722   0.743  50.923  1.00 79.15           N
ATOM   2451  CA  LEU A 318      -5.973   1.463  50.701  1.00 74.32           C
ATOM   2452  C   LEU A 318      -7.072   0.416  50.584  1.00 69.49           C
ATOM   2453  O   LEU A 318      -7.049  -0.394  49.652  1.00 69.01           O
ATOM   2454  CB  LEU A 318      -5.870   2.332  49.435  1.00 69.21           C
ATOM   2455  CG  LEU A 318      -7.137   3.054  48.995  1.00 71.01           C
ATOM   2456  CD1 LEU A 318      -7.539   3.839  50.184  1.00 83.94           C
ATOM   2457  CD2 LEU A 318      -6.868   4.003  47.829  1.00 77.96           C
ATOM   2458  N   VAL A 319      -7.999   0.380  51.546  1.00 63.10           N
ATOM   2459  CA  VAL A 319      -8.995  -0.694  51.597  1.00 64.32           C
ATOM   2460  C   VAL A 319     -10.352  -0.136  51.988  1.00 55.75           C
ATOM   2461  O   VAL A 319     -10.462   0.684  52.897  1.00 61.67           O
ATOM   2462  CB  VAL A 319      -8.592  -1.836  52.559  1.00 55.25           C
ATOM   2463  CG1 VAL A 319      -8.317  -1.322  53.926  1.00 67.14           C
ATOM   2464  CG2 VAL A 319      -9.693  -2.886  52.643  1.00 68.84           C
ATOM   2465  N   GLY A 320     -11.389  -0.585  51.299  1.00 60.23           N
ATOM   2466  CA  GLY A 320     -12.732  -0.156  51.610  1.00 58.79           C
ATOM   2467  C   GLY A 320     -13.744  -1.189  51.171  1.00 57.37           C
ATOM   2468  O   GLY A 320     -13.393  -2.298  50.764  1.00 56.38           O
ATOM   2469  N   VAL A 321     -15.015  -0.817  51.290  1.00 51.37           N
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ATOM   2470  CA  VAL A 321     -16.139  -1.706  51.048  1.00 46.30           C
ATOM   2471  C   VAL A 321     -17.299  -0.865  50.548  1.00 57.99           C
ATOM   2472  O   VAL A 321     -17.268   0.366  50.588  1.00 67.12           O
ATOM   2473  CB  VAL A 321     -16.581  -2.488  52.304  1.00 50.15           C
ATOM   2474  CG1 VAL A 321     -15.465  -3.370  52.836  1.00 66.83           C
ATOM   2475  CG2 VAL A 321     -17.083  -1.566  53.382  1.00 54.18           C
ATOM   2476  N   ASN A 322     -18.333  -1.535  50.065  1.00 57.75           N
ATOM   2477  CA  ASN A 322     -19.557  -0.865  49.653  1.00 65.84           C
ATOM   2478  C   ASN A 322     -20.648  -1.212  50.659  1.00 60.95           C
ATOM   2479  O   ASN A 322     -20.448  -2.024  51.551  1.00 60.80           O
ATOM   2480  CB  ASN A 322     -19.954  -1.260  48.222  1.00 68.19           C
ATOM   2481  CG  ASN A 322     -18.780  -1.184  47.238  1.00 69.68           C
ATOM   2482  OD1 ASN A 322     -17.638  -0.829  47.618  1.00 58.87           O
ATOM   2483  ND2 ASN A 322     -19.054  -1.528  45.962  1.00 70.67           N
ATOM   2484  N   LYS A 323     -21.819  -0.598  50.513  1.00 58.94           N
ATOM   2485  CA  LYS A 323     -22.791  -0.539  51.613  1.00 65.95           C
ATOM   2486  C   LYS A 323     -23.697  -1.741  51.657  1.00 71.20           C
ATOM   2487  O   LYS A 323     -24.048  -2.238  52.737  1.00 87.10           O
ATOM   2488  CB  LYS A 323     -23.683   0.685  51.468  1.00 79.78           C
ATOM   2489  CG  LYS A 323     -22.959   1.838  50.950  1.00 85.39           C
ATOM   2490  CD  LYS A 323     -21.769   2.008  51.854  1.00 90.44           C
ATOM   2491  CE  LYS A 323     -21.021   3.165  51.371  1.00 92.45           C
ATOM   2492  NZ  LYS A 323     -20.189   4.182  51.911  1.00 79.93           N
ATOM   2493  N   ASP A 324     -24.230  -2.084  50.504  1.00 70.35           N
ATOM   2494  CA  ASP A 324     -25.186  -3.157  50.393  1.00 71.39           C
ATOM   2495  C   ASP A 324     -24.428  -4.267  49.682  1.00 62.08           C
ATOM   2496  O   ASP A 324     -24.839  -4.735  48.614  1.00 68.69           O
ATOM   2497  CB  ASP A 324     -26.414  -2.655  49.641  1.00 72.29           C
ATOM   2498  CG  ASP A 324     -27.021  -1.379  50.279  1.00 84.51           C
ATOM   2499  OD1 ASP A 324     -26.264  -0.486  50.731  1.00 83.41           O
ATOM   2500  OD2 ASP A 324     -28.274  -1.248  50.323  1.00 95.92           O
ATOM   2501  N   GLU A 325     -23.264  -4.632  50.244  1.00 57.56           N
ATOM   2502  CA  GLU A 325     -22.439  -5.657  49.618  1.00 63.72           C
ATOM   2503  C   GLU A 325     -23.075  -7.030  49.731  1.00 68.07           C
ATOM   2504  O   GLU A 325     -22.870  -7.872  48.852  1.00 71.95           O
ATOM   2505  CB  GLU A 325     -21.043  -5.660  50.219  1.00 57.33           C
ATOM   2506  CG  GLU A 325     -20.198  -4.580  49.591  1.00 62.15           C
ATOM   2507  CD  GLU A 325     -18.727  -4.797  49.771  1.00 62.62           C
ATOM   2508  OE1 GLU A 325     -17.965  -4.405  48.870  1.00 54.94           O
ATOM   2509  OE2 GLU A 325     -18.340  -5.387  50.795  1.00 70.53           O
ATOM   2510  N   GLY A 326     -23.874  -7.262  50.775  1.00 61.22           N
ATOM   2511  CA  GLY A 326     -24.585  -8.519  50.896  1.00 59.38           C
ATOM   2512  C   GLY A 326     -25.709  -8.732  49.894  1.00 61.69           C
ATOM   2513  O   GLY A 326     -26.059  -9.886  49.624  1.00 66.28           O
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ATOM   2514  N   THR A 327     -26.284  -7.660  49.335  1.00 61.51           N
ATOM   2515  CA  THR A 327     -27.545  -7.811  48.605  1.00 70.77           C
ATOM   2516  C   THR A 327     -27.404  -8.658  47.344  1.00 68.35           C
ATOM   2517  O   THR A 327     -28.333  -9.402  47.004  1.00 67.38           O
ATOM   2518  CB  THR A 327     -28.137  -6.454  48.218  1.00 70.64           C
ATOM   2519  OG1 THR A 327     -27.228  -5.762  47.344  1.00 71.09           O
ATOM   2520  CG2 THR A 327     -28.446  -5.629  49.455  1.00 64.11           C
ATOM   2521  N   ALA A 328     -26.285  -8.551  46.624  1.00 56.06           N
ATOM   2522  CA  ALA A 328     -26.190  -9.247  45.342  1.00 63.09           C
ATOM   2523  C   ALA A 328     -26.424 -10.753  45.480  1.00 65.87           C
ATOM   2524  O   ALA A 328     -26.987 -11.382  44.579  1.00 71.17           O
ATOM   2525  CB  ALA A 328     -24.834  -8.993  44.699  1.00 64.55           C
ATOM   2526  N   PHE A 329     -26.007 -11.352  46.594  1.00 64.74           N
ATOM   2527  CA  PHE A 329     -25.971 -12.808  46.657  1.00 54.43           C
ATOM   2528  C   PHE A 329     -27.294 -13.426  47.054  1.00 57.32           C
ATOM   2529  O   PHE A 329     -27.434 -14.648  46.954  1.00 62.00           O
ATOM   2530  CB  PHE A 329     -24.882 -13.271  47.623  1.00 50.05           C
ATOM   2531  CG  PHE A 329     -23.557 -12.631  47.372  1.00 59.67           C
ATOM   2532  CD1 PHE A 329     -23.240 -11.394  47.942  1.00 61.29           C
ATOM   2533  CD2 PHE A 329     -22.630 -13.249  46.544  1.00 54.73           C
ATOM   2534  CE1 PHE A 329     -22.017 -10.778  47.696  1.00 53.93           C
ATOM   2535  CE2 PHE A 329     -21.398 -12.648  46.279  1.00 54.91           C
ATOM   2536  CZ  PHE A 329     -21.093 -11.401  46.864  1.00 55.51           C
ATOM   2537  N   LEU A 330     -28.267 -12.637  47.497  1.00 65.26           N
ATOM   2538  CA  LEU A 330     -29.502 -13.242  47.979  1.00 65.89           C
ATOM   2539  C   LEU A 330     -30.473 -13.568  46.862  1.00 67.36           C
ATOM   2540  O   LEU A 330     -31.487 -14.224  47.117  1.00 71.54           O
ATOM   2541  CB  LEU A 330     -30.181 -12.352  49.034  1.00 72.32           C
ATOM   2542  CG  LEU A 330     -29.252 -11.741  50.109  1.00 71.82           C
ATOM   2543  CD1 LEU A 330     -29.932 -10.597  50.865  1.00 71.08           C
ATOM   2544  CD2 LEU A 330     -28.730 -12.801  51.095  1.00 55.36           C
ATOM   2545  N   VAL A 331     -30.184 -13.154  45.636  1.00 71.57           N
ATOM   2546  CA  VAL A 331     -31.009 -13.577  44.519  1.00 67.88           C
ATOM   2547  C   VAL A 331     -30.448 -14.852  43.936  1.00 69.40           C
ATOM   2548  O   VAL A 331     -30.848 -15.270  42.845  1.00 80.72           O
ATOM   2549  CB  VAL A 331     -31.109 -12.498  43.443  1.00 58.26           C
ATOM   2550  CG1 VAL A 331     -32.038 -11.427  43.925  1.00 69.58           C
ATOM   2551  CG2 VAL A 331     -29.734 -11.960  43.136  1.00 61.42           C
ATOM   2552  N   TYR A 332     -29.526 -15.485  44.650  1.00 60.12           N
ATOM   2553  CA  TYR A 332     -28.990 -16.762  44.199  1.00 75.41           C
ATOM   2554  C   TYR A 332     -29.185 -17.878  45.219  1.00 80.40           C
ATOM   2555  O   TYR A 332     -28.393 -18.831  45.251  1.00 66.65           O
ATOM   2556  CB  TYR A 332     -27.510 -16.649  43.849  1.00 76.97           C
ATOM   2557  CG  TYR A 332     -27.223 -15.897  42.583  1.00 83.12           C
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ATOM   2558  CD1 TYR A 332     -25.955 -15.536  42.273  1.00 78.93           C
ATOM   2559  CD2 TYR A 332     -28.225 -15.575  41.696  1.00 82.62           C
ATOM   2560  CE1 TYR A 332     -25.698 -14.869  41.122  1.00 71.93           C
ATOM   2561  CE2 TYR A 332     -27.932 -14.891  40.561  1.00 82.64           C
ATOM   2562  CZ  TYR A 332     -26.640 -14.535  40.311  1.00 76.01           C
ATOM   2563  OH  TYR A 332     -26.321 -13.850  39.160  1.00 79.87           O
ATOM   2564  N   GLY A 333     -30.224 -17.788  46.047  1.00 84.41           N
ATOM   2565  CA  GLY A 333     -30.527 -18.861  46.966  1.00 74.10           C
ATOM   2566  C   GLY A 333     -31.650 -18.545  47.927  1.00 70.85           C
ATOM   2567  O   GLY A 333     -32.436 -19.432  48.271  1.00 78.13           O
ATOM   2568  N   ALA A 334     -31.763 -17.290  48.345  1.00 73.74           N
ATOM   2569  CA  ALA A 334     -32.512 -17.061  49.583  1.00 83.90           C
ATOM   2570  C   ALA A 334     -34.016 -16.966  49.313  1.00 80.18           C
ATOM   2571  O   ALA A 334     -34.440 -16.189  48.447  1.00 72.37           O
ATOM   2572  CB  ALA A 334     -32.019 -15.803  50.290  1.00 73.86           C
ATOM   2573  N   PRO A 335     -34.840 -17.705  50.061  1.00 75.98           N
ATOM   2574  CA  PRO A 335     -36.265 -17.821  49.718  1.00 71.50           C
ATOM   2575  C   PRO A 335     -37.010 -16.513  49.944  1.00 70.37           C
ATOM   2576  O   PRO A 335     -36.878 -15.875  50.992  1.00 79.37           O
ATOM   2577  CB  PRO A 335     -36.767 -18.920  50.663  1.00 74.39           C
ATOM   2578  CG  PRO A 335     -35.526 -19.606  51.165  1.00 75.27           C
ATOM   2579  CD  PRO A 335     -34.495 -18.529  51.227  1.00 73.08           C
ATOM   2580  N   GLY A 336     -37.823 -16.139  48.960  1.00 68.38           N
ATOM   2581  CA  GLY A 336     -38.540 -14.884  48.961  1.00 81.91           C
ATOM   2582  C   GLY A 336     -37.855 -13.772  48.191  1.00 71.70           C
ATOM   2583  O   GLY A 336     -38.432 -12.685  48.050  1.00 69.18           O
ATOM   2584  N   PHE A 337     -36.652 -14.013  47.692  1.00 62.58           N
ATOM   2585  CA  PHE A 337     -35.859 -12.990  47.035  1.00 68.65           C
ATOM   2586  C   PHE A 337     -35.917 -13.167  45.526  1.00 72.37           C
ATOM   2587  O   PHE A 337     -35.772 -14.277  45.012  1.00 77.70           O
ATOM   2588  CB  PHE A 337     -34.404 -13.041  47.513  1.00 79.05           C
ATOM   2589  CG  PHE A 337     -34.186 -12.434  48.879  1.00 75.74           C
ATOM   2590  CD1 PHE A 337     -34.264 -13.215  50.019  1.00 76.45           C
ATOM   2591  CD2 PHE A 337     -33.899 -11.086  49.018  1.00 75.31           C
ATOM   2592  CE1 PHE A 337     -34.069 -12.661  51.272  1.00 86.52           C
ATOM   2593  CE2 PHE A 337     -33.708 -10.521  50.273  1.00 81.71           C
ATOM   2594  CZ  PHE A 337     -33.789 -11.306  51.400  1.00 81.77           C
ATOM   2595  N   SER A 338     -36.125 -12.064  44.819  1.00 83.64           N
ATOM   2596  CA  SER A 338     -36.157 -12.067  43.366  1.00 65.67           C
ATOM   2597  C   SER A 338     -35.668 -10.724  42.851  1.00 62.90           C
ATOM   2598  O   SER A 338     -35.872  -9.680  43.477  1.00 69.96           O
ATOM   2599  CB  SER A 338     -37.565 -12.345  42.838  1.00 71.58           C
ATOM   2600  OG  SER A 338     -37.723 -11.778  41.552  1.00 76.61           O
ATOM   2601  N   LYS A 339     -35.020 -10.761  41.696  1.00 66.39           N
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ATOM   2602  CA  LYS A 339     -34.669  -9.538  40.988  1.00 70.40           C
ATOM   2603  C   LYS A 339     -35.893  -8.773  40.476  1.00 68.43           C
ATOM   2604  O   LYS A 339     -35.752  -7.629  40.038  1.00 74.52           O
ATOM   2605  CB  LYS A 339     -33.737  -9.918  39.838  1.00 67.60           C
ATOM   2606  CG  LYS A 339     -33.278  -8.801  38.957  1.00 68.69           C
ATOM   2607  CD  LYS A 339     -32.274  -9.322  37.969  1.00 70.09           C
ATOM   2608  CE  LYS A 339     -32.765 -10.546  37.235  1.00 62.34           C
ATOM   2609  NZ  LYS A 339     -33.620 -10.116  36.102  1.00 63.91           N
ATOM   2610  N   ASP A 340     -37.094  -9.346  40.552  1.00 67.79           N
ATOM   2611  CA  ASP A 340     -38.247  -8.780  39.866  1.00 62.50           C
ATOM   2612  C   ASP A 340     -39.391  -8.391  40.803  1.00 79.39           C
ATOM   2613  O   ASP A 340     -40.518  -8.176  40.331  1.00 70.45           O
ATOM   2614  CB  ASP A 340     -38.715  -9.757  38.793  1.00 59.33           C
ATOM   2615  CG  ASP A 340     -37.611 -10.066  37.779  1.00 73.48           C
ATOM   2616  OD1 ASP A 340     -37.028 -11.163  37.833  1.00 72.50           O
ATOM   2617  OD2 ASP A 340     -37.300  -9.192  36.936  1.00 82.65           O
ATOM   2618  N   ASN A 341     -39.131  -8.274  42.113  1.00 78.74           N
ATOM   2619  CA  ASN A 341     -40.072  -7.659  43.046  1.00 74.72           C
ATOM   2620  C   ASN A 341     -39.291  -7.041  44.203  1.00 80.15           C
ATOM   2621  O   ASN A 341     -38.062  -7.154  44.285  1.00 73.39           O
ATOM   2622  CB  ASN A 341     -41.134  -8.661  43.528  1.00 75.90           C
ATOM   2623  CG  ASN A 341     -40.551  -9.830  44.324  1.00 84.14           C
ATOM   2624  OD1 ASN A 341     -39.606  -9.670  45.091  1.00 86.44           O
ATOM   2625  ND2 ASN A 341     -41.141 -11.013  44.159  1.00 86.57           N
ATOM   2626  N   ASN A 342     -40.023  -6.378  45.108  1.00 85.30           N
ATOM   2627  CA  ASN A 342     -39.394  -5.666  46.218  1.00 80.45           C
ATOM   2628  C   ASN A 342     -38.835  -6.611  47.274  1.00 84.25           C
ATOM   2629  O   ASN A 342     -38.033  -6.174  48.110  1.00 91.52           O
ATOM   2630  CB  ASN A 342     -40.392  -4.685  46.840  1.00 80.96           C
ATOM   2631  CG  ASN A 342     -41.783  -5.277  46.981  1.00 86.72           C
ATOM   2632  OD1 ASN A 342     -42.272  -5.965  46.077  1.00 92.66           O
ATOM   2633  ND2 ASN A 342     -42.436  -5.000  48.109  1.00 83.00           N
ATOM   2634  N   SER A 343     -39.250  -7.886  47.257  1.00 87.62           N
ATOM   2635  CA  SER A 343     -38.632  -8.962  48.048  1.00 84.17           C
ATOM   2636  C   SER A 343     -38.828  -8.764  49.550  1.00 86.65           C
ATOM   2637  O   SER A 343     -37.897  -8.957  50.337  1.00 87.07           O
ATOM   2638  CB  SER A 343     -37.141  -9.115  47.726  1.00 78.64           C
ATOM   2639  OG  SER A 343     -36.929  -9.574  46.408  1.00 70.26           O
ATOM   2640  N   ILE A 344     -40.042  -8.401  49.957  1.00 84.24           N
ATOM   2641  CA  ILE A 344     -40.343  -8.183  51.373  1.00 91.87           C
ATOM   2642  C   ILE A 344     -40.468  -9.556  52.030  1.00 79.60           C
ATOM   2643  O   ILE A 344     -41.481 -10.234  51.867  1.00 79.82           O
ATOM   2644  CB  ILE A 344     -41.607  -7.338  51.561  1.00 88.52           C
ATOM   2645  CG1 ILE A 344     -41.479  -6.038  50.771  1.00 81.53           C
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ATOM   2646  CG2 ILE A 344     -41.837  -7.016  53.027  1.00 91.35           C
ATOM   2647  CD1 ILE A 344     -40.224  -5.250  51.095  1.00 77.74           C
ATOM   2648  N   ILE A 345     -39.438  -9.982  52.766  1.00 84.53           N
ATOM   2649  CA  ILE A 345     -39.476 -11.302  53.387  1.00 92.13           C
ATOM   2650  C   ILE A 345     -40.145 -11.217  54.752  1.00 86.69           C
ATOM   2651  O   ILE A 345     -40.160 -10.174  55.417  1.00 79.76           O
ATOM   2652  CB  ILE A 345     -38.092 -11.977  53.525  1.00 78.97           C
ATOM   2653  CG1 ILE A 345     -37.064 -11.019  54.121  1.00 77.97           C
ATOM   2654  CG2 ILE A 345     -37.639 -12.565  52.205  1.00 76.28           C
ATOM   2655  CD1 ILE A 345     -35.851 -11.726  54.623  1.00 68.00           C
ATOM   2656  N   THR A 346     -40.706 -12.352  55.160  1.00 85.36           N
ATOM   2657  CA  THR A 346     -41.190 -12.600  56.507  1.00 90.34           C
ATOM   2658  C   THR A 346     -40.109 -13.332  57.301  1.00 94.23           C
ATOM   2659  O   THR A 346     -39.207 -13.952  56.730  1.00 94.52           O
ATOM   2660  CB  THR A 346     -42.486 -13.423  56.489  1.00 89.32           C
ATOM   2661  OG1 THR A 346     -42.894 -13.692  57.834  1.00111.94           O
ATOM   2662  CG2 THR A 346     -42.268 -14.761  55.793  1.00 84.80           C
ATOM   2663  N   ARG A 347     -40.222 -13.259  58.636  1.00 93.12           N
ATOM   2664  CA  ARG A 347     -39.149 -13.693  59.533  1.00 84.82           C
ATOM   2665  C   ARG A 347     -38.772 -15.136  59.301  1.00 85.11           C
ATOM   2666  O   ARG A 347     -37.590 -15.505  59.389  1.00 84.60           O
ATOM   2667  CB  ARG A 347     -39.546 -13.491  60.999  1.00 82.39           C
ATOM   2668  CG  ARG A 347     -39.019 -14.541  61.993  1.00 88.11           C
ATOM   2669  CD  ARG A 347     -39.148 -13.972  63.430  1.00 94.91           C
ATOM   2670  NE  ARG A 347     -38.235 -14.590  64.408  1.00101.77           N
ATOM   2671  CZ  ARG A 347     -37.610 -13.930  65.387  1.00 84.57           C
ATOM   2672  NH1 ARG A 347     -36.838 -14.593  66.244  1.00 89.77           N
ATOM   2673  NH2 ARG A 347     -37.737 -12.614  65.481  1.00 66.51           N
ATOM   2674  N   LYS A 348     -39.789 -15.967  59.044  1.00 95.91           N
ATOM   2675  CA  LYS A 348     -39.535 -17.374  58.765  1.00 95.75           C
ATOM   2676  C   LYS A 348     -38.661 -17.536  57.529  1.00 91.03           C
ATOM   2677  O   LYS A 348     -37.718 -18.345  57.520  1.00 86.55           O
ATOM   2678  CB  LYS A 348     -40.849 -18.108  58.576  1.00 84.45           C
ATOM   2679  CG  LYS A 348     -40.667 -19.471  57.983  1.00 90.56           C
ATOM   2680  CD  LYS A 348     -41.592 -19.706  56.813  1.00 89.22           C
ATOM   2681  CE  LYS A 348     -40.985 -20.689  55.835  1.00 84.61           C
ATOM   2682  NZ  LYS A 348     -42.050 -21.123  54.907  1.00 91.86           N
ATOM   2683  N   GLU A 349     -38.966 -16.776  56.472  1.00 84.25           N
ATOM   2684  CA  GLU A 349     -38.096 -16.770  55.305  1.00 86.03           C
ATOM   2685  C   GLU A 349     -36.703 -16.285  55.681  1.00 79.22           C
ATOM   2686  O   GLU A 349     -35.697 -16.779  55.152  1.00 79.17           O
ATOM   2687  CB  GLU A 349     -38.701 -15.899  54.197  1.00 87.80           C
ATOM   2688  CG  GLU A 349     -39.991 -16.426  53.574  1.00 80.25           C
ATOM   2689  CD  GLU A 349     -40.684 -15.379  52.700  1.00 97.62           C
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ATOM   2690  OE1 GLU A 349     -40.289 -14.193  52.740  1.00 90.77           O
ATOM   2691  OE2 GLU A 349     -41.633 -15.738  51.971  1.00110.63           O
ATOM   2692  N   PHE A 350     -36.624 -15.340  56.612  1.00 67.92           N
ATOM   2693  CA  PHE A 350     -35.321 -14.865  57.046  1.00 74.44           C
ATOM   2694  C   PHE A 350     -34.547 -15.974  57.732  1.00 76.49           C
ATOM   2695  O   PHE A 350     -33.321 -16.065  57.593  1.00 75.36           O
ATOM   2696  CB  PHE A 350     -35.473 -13.668  57.987  1.00 78.98           C
ATOM   2697  CG  PHE A 350     -34.177 -13.212  58.584  1.00 68.12           C
ATOM   2698  CD1 PHE A 350     -33.464 -12.193  58.010  1.00 58.24           C
ATOM   2699  CD2 PHE A 350     -33.652 -13.837  59.700  1.00 72.50           C
ATOM   2700  CE1 PHE A 350     -32.261 -11.792  58.556  1.00 66.91           C
ATOM   2701  CE2 PHE A 350     -32.444 -13.446  60.234  1.00 60.93           C
ATOM   2702  CZ  PHE A 350     -31.760 -12.419  59.681  1.00 63.39           C
ATOM   2703  N   GLN A 351     -35.244 -16.798  58.512  1.00 85.25           N
ATOM   2704  CA  GLN A 351     -34.591 -17.904  59.195  1.00 79.69           C
ATOM   2705  C   GLN A 351     -34.145 -18.972  58.207  1.00 81.78           C
ATOM   2706  O   GLN A 351     -33.080 -19.577  58.382  1.00 85.60           O
ATOM   2707  CB  GLN A 351     -35.529 -18.485  60.247  1.00 83.09           C
ATOM   2708  CG  GLN A 351     -35.717 -17.562  61.436  1.00 86.88           C
ATOM   2709  CD  GLN A 351     -36.760 -18.064  62.401  1.00 82.27           C
ATOM   2710  OE1 GLN A 351     -37.888 -18.355  62.002  1.00 89.27           O
ATOM   2711  NE2 GLN A 351     -36.393 -18.174  63.676  1.00 64.29           N
ATOM   2712  N   GLU A 352     -34.923 -19.210  57.151  1.00 75.77           N
ATOM   2713  CA  GLU A 352     -34.427 -20.167  56.175  1.00 86.95           C
ATOM   2714  C   GLU A 352     -33.347 -19.543  55.298  1.00 74.54           C
ATOM   2715  O   GLU A 352     -32.416 -20.245  54.885  1.00 73.51           O
ATOM   2716  CB  GLU A 352     -35.565 -20.741  55.329  1.00 81.88           C
ATOM   2717  CG  GLU A 352     -35.089 -21.945  54.523  1.00 91.35           C
ATOM   2718  CD  GLU A 352     -36.045 -22.353  53.414  1.00111.56           C
ATOM   2719  OE1 GLU A 352     -35.686 -23.266  52.630  1.00109.95           O
ATOM   2720  OE2 GLU A 352     -37.148 -21.764  53.332  1.00115.27           O
ATOM   2721  N   GLY A 353     -33.422 -18.235  55.042  1.00 66.86           N
ATOM   2722  CA  GLY A 353     -32.306 -17.565  54.394  1.00 72.11           C
ATOM   2723  C   GLY A 353     -30.987 -17.803  55.110  1.00 73.79           C
ATOM   2724  O   GLY A 353     -29.959 -18.063  54.474  1.00 67.88           O
ATOM   2725  N   LEU A 354     -31.004 -17.744  56.447  1.00 72.44           N
ATOM   2726  CA  LEU A 354     -29.773 -17.898  57.217  1.00 69.84           C
ATOM   2727  C   LEU A 354     -29.160 -19.283  57.040  1.00 81.52           C
ATOM   2728  O   LEU A 354     -27.932 -19.399  56.933  1.00 84.51           O
ATOM   2729  CB  LEU A 354     -30.017 -17.641  58.702  1.00 76.38           C
ATOM   2730  CG  LEU A 354     -30.090 -16.238  59.288  1.00 71.03           C
ATOM   2731  CD1 LEU A 354     -29.856 -16.368  60.774  1.00 78.54           C
ATOM   2732  CD2 LEU A 354     -29.063 -15.335  58.673  1.00 62.93           C
ATOM   2733  N   LYS A 355     -29.987 -20.355  57.042  1.00 75.82           N
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ATOM   2734  CA  LYS A 355     -29.444 -21.705  56.820  1.00 77.46           C
ATOM   2735  C   LYS A 355     -28.823 -21.879  55.448  1.00 82.86           C
ATOM   2736  O   LYS A 355     -27.953 -22.739  55.292  1.00 84.93           O
ATOM   2737  CB  LYS A 355     -30.472 -22.843  56.976  1.00 75.49           C
ATOM   2738  CG  LYS A 355     -30.507 -23.558  58.353  1.00 87.50           C
ATOM   2739  CD  LYS A 355     -29.183 -24.309  58.687  1.00 97.62           C
ATOM   2740  CE  LYS A 355     -28.775 -24.262  60.220  1.00101.98           C
ATOM   2741  NZ  LYS A 355     -27.567 -25.028  60.572  1.00104.50           N
ATOM   2742  N   ILE A 356     -29.305 -21.189  54.417  1.00 72.10           N
ATOM   2743  CA  ILE A 356     -28.582 -21.340  53.168  1.00 69.33           C
ATOM   2744  C   ILE A 356     -27.206 -20.713  53.300  1.00 68.83           C
ATOM   2745  O   ILE A 356     -26.200 -21.296  52.883  1.00 76.44           O
ATOM   2746  CB  ILE A 356     -29.380 -20.771  51.989  1.00 71.60           C
ATOM   2747  CG1 ILE A 356     -30.787 -21.366  51.982  1.00 69.17           C
ATOM   2748  CG2 ILE A 356     -28.674 -21.079  50.704  1.00 80.82           C
ATOM   2749  CD1 ILE A 356     -31.739 -20.632  51.079  1.00 70.28           C
ATOM   2750  N   PHE A 357     -27.126 -19.566  53.953  1.00 60.86           N
ATOM   2751  CA  PHE A 357     -25.873 -18.840  54.024  1.00 69.67           C
ATOM   2752  C   PHE A 357     -25.010 -19.268  55.197  1.00 59.79           C
ATOM   2753  O   PHE A 357     -23.870 -18.816  55.310  1.00 67.39           O
ATOM   2754  CB  PHE A 357     -26.158 -17.336  54.067  1.00 67.76           C
ATOM   2755  CG  PHE A 357     -26.515 -16.752  52.732  1.00 56.16           C
ATOM   2756  CD1 PHE A 357     -25.539 -16.268  51.896  1.00 52.43           C
ATOM   2757  CD2 PHE A 357     -27.831 -16.715  52.301  1.00 63.85           C
ATOM   2758  CE1 PHE A 357     -25.866 -15.724  50.659  1.00 56.01           C
ATOM   2759  CE2 PHE A 357     -28.164 -16.168  51.064  1.00 60.52           C
ATOM   2760  CZ  PHE A 357     -27.174 -15.680  50.243  1.00 56.37           C
ATOM   2761  N   PHE A 358     -25.517 -20.138  56.057  1.00 58.98           N
ATOM   2762  CA  PHE A 358     -24.746 -20.683  57.172  1.00 69.91           C
ATOM   2763  C   PHE A 358     -25.224 -22.118  57.380  1.00 83.11           C
ATOM   2764  O   PHE A 358     -25.765 -22.460  58.426  1.00 92.94           O
ATOM   2765  CB  PHE A 358     -24.962 -19.865  58.456  1.00 69.40           C
ATOM   2766  CG  PHE A 358     -24.631 -18.400  58.361  1.00 61.78           C
ATOM   2767  CD1 PHE A 358     -23.341 -17.926  58.599  1.00 61.69           C
ATOM   2768  CD2 PHE A 358     -25.637 -17.478  58.126  1.00 63.31           C
ATOM   2769  CE1 PHE A 358     -23.058 -16.554  58.529  1.00 56.76           C
ATOM   2770  CE2 PHE A 358     -25.359 -16.105  58.062  1.00 61.59           C
ATOM   2771  CZ  PHE A 358     -24.071 -15.651  58.263  1.00 60.01           C
ATOM   2772  N   PRO A 359     -25.036 -22.997  56.406  1.00 80.42           N
ATOM   2773  CA  PRO A 359     -25.779 -24.269  56.457  1.00 89.93           C
ATOM   2774  C   PRO A 359     -25.446 -25.112  57.675  1.00 93.32           C
ATOM   2775  O   PRO A 359     -26.316 -25.841  58.175  1.00100.81           O
ATOM   2776  CB  PRO A 359     -25.417 -24.938  55.124  1.00 89.13           C
ATOM   2777  CG  PRO A 359     -24.082 -24.339  54.739  1.00 83.85           C
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ATOM   2778  CD  PRO A 359     -23.890 -23.044  55.502  1.00 81.97           C
ATOM   2779  N   GLY A 360     -24.231 -25.003  58.191  1.00 81.36           N
ATOM   2780  CA  GLY A 360     -23.947 -25.662  59.431  1.00 96.66           C
ATOM   2781  C   GLY A 360     -22.494 -25.615  59.830  1.00113.99           C
ATOM   2782  O   GLY A 360     -21.684 -26.206  59.102  1.00129.65           O
ATOM   2783  N   VAL A 361     -22.102 -24.931  60.920  1.00111.71           N
ATOM   2784  CA  VAL A 361     -22.861 -23.990  61.792  1.00107.00           C
ATOM   2785  C   VAL A 361     -24.148 -24.530  62.493  1.00106.07           C
ATOM   2786  O   VAL A 361     -25.171 -24.858  61.877  1.00 93.11           O
ATOM   2787  CB  VAL A 361     -23.172 -22.656  61.021  1.00 95.86           C
ATOM   2788  CG1 VAL A 361     -23.867 -21.676  61.933  1.00 75.88           C
ATOM   2789  CG2 VAL A 361     -21.888 -22.025  60.478  1.00 86.98           C
ATOM   2790  N   SER A 362     -24.056 -24.561  63.824  1.00112.83           N
ATOM   2791  CA  SER A 362     -25.073 -25.118  64.710  1.00112.49           C
ATOM   2792  C   SER A 362     -26.371 -24.317  64.650  1.00 98.47           C
ATOM   2793  O   SER A 362     -26.399 -23.164  64.222  1.00 98.24           O
ATOM   2794  CB  SER A 362     -24.569 -25.134  66.153  1.00108.93           C
ATOM   2795  OG  SER A 362     -24.447 -23.809  66.650  1.00 93.48           O
ATOM   2796  N   GLU A 363     -27.460 -24.941  65.113  1.00102.14           N
ATOM   2797  CA  GLU A 363     -28.748 -24.261  65.070  1.00 95.07           C
ATOM   2798  C   GLU A 363     -28.729 -23.043  65.958  1.00 98.26           C
ATOM   2799  O   GLU A 363     -29.316 -22.011  65.618  1.00112.92           O
ATOM   2800  CB  GLU A 363     -29.896 -25.184  65.484  1.00103.93           C
ATOM   2801  CG  GLU A 363     -31.321 -24.595  65.278  1.00 96.76           C
ATOM   2802  CD  GLU A 363     -31.652 -23.454  66.228  1.00104.17           C
ATOM   2803  OE1 GLU A 363     -32.120 -22.385  65.762  1.00111.89           O
ATOM   2804  OE2 GLU A 363     -31.395 -23.612  67.440  1.00 98.30           O
ATOM   2805  N   PHE A 364     -28.074 -23.120  67.101  1.00 90.90           N
ATOM   2806  CA  PHE A 364     -28.135 -21.925  67.913  1.00 95.35           C
ATOM   2807  C   PHE A 364     -27.367 -20.772  67.269  1.00 96.64           C
ATOM   2808  O   PHE A 364     -27.892 -19.656  67.180  1.00 92.01           O
ATOM   2809  CB  PHE A 364     -27.627 -22.137  69.314  1.00108.43           C
ATOM   2810  CG  PHE A 364     -27.746 -20.905  70.071  1.00112.92           C
ATOM   2811  CD1 PHE A 364     -26.876 -20.570  71.050  1.00111.08           C
ATOM   2812  CD2 PHE A 364     -28.784 -20.032  69.756  1.00115.51           C
ATOM   2813  CE1 PHE A 364     -27.025 -19.380  71.642  1.00115.48           C
ATOM   2814  CE2 PHE A 364     -28.915 -18.856  70.371  1.00118.67           C
ATOM   2815  CZ  PHE A 364     -28.033 -18.542  71.335  1.00124.79           C
ATOM   2816  N   GLY A 365     -26.125 -21.010  66.836  1.00105.99           N
ATOM   2817  CA  GLY A 365     -25.346 -19.992  66.145  1.00 96.23           C
ATOM   2818  C   GLY A 365     -26.230 -19.100  65.300  1.00 82.21           C
ATOM   2819  O   GLY A 365     -26.079 -17.877  65.296  1.00 61.28           O
ATOM   2820  N   LYS A 366     -27.224 -19.708  64.645  1.00 83.51           N
ATOM   2821  CA  LYS A 366     -28.170 -18.922  63.866  1.00 87.90           C
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ATOM   2822  C   LYS A 366     -29.069 -18.082  64.747  1.00 74.84           C
ATOM   2823  O   LYS A 366     -29.312 -16.913  64.442  1.00 81.11           O
ATOM   2824  CB  LYS A 366     -28.971 -19.817  62.915  1.00 88.36           C
ATOM   2825  CG  LYS A 366     -28.122 -20.106  61.766  1.00 93.46           C
ATOM   2826  CD  LYS A 366     -28.397 -21.394  61.115  1.00 98.47           C
ATOM   2827  CE  LYS A 366     -27.081 -22.011  60.976  1.00105.71           C
ATOM   2828  NZ  LYS A 366     -26.514 -22.131  62.301  1.00102.56           N
ATOM   2829  N   GLU A 367     -29.533 -18.611  65.861  1.00 81.60           N
ATOM   2830  CA  GLU A 367     -30.482 -17.783  66.581  1.00 84.62           C
ATOM   2831  C   GLU A 367     -29.788 -16.553  67.150  1.00 81.30           C
ATOM   2832  O   GLU A 367     -30.374 -15.463  67.191  1.00 74.57           O
ATOM   2833  CB  GLU A 367     -31.187 -18.597  67.653  1.00 93.43           C
ATOM   2834  CG  GLU A 367     -32.663 -18.410  67.555  1.00 93.15           C
ATOM   2835  CD  GLU A 367     -33.081 -17.084  68.123  1.00 83.86           C
ATOM   2836  OE1 GLU A 367     -32.224 -16.400  68.716  1.00 88.93           O
ATOM   2837  OE2 GLU A 367     -34.256 -16.704  67.952  1.00 77.91           O
ATOM   2838  N   SER A 368     -28.511 -16.677  67.495  1.00 84.00           N
ATOM   2839  CA  SER A 368     -27.839 -15.496  67.998  1.00 74.92           C
ATOM   2840  C   SER A 368     -27.504 -14.529  66.866  1.00 76.86           C
ATOM   2841  O   SER A 368     -27.556 -13.317  67.083  1.00 77.59           O
ATOM   2842  CB  SER A 368     -26.579 -15.860  68.781  1.00 75.80           C
ATOM   2843  OG  SER A 368     -25.538 -16.277  67.934  1.00 86.68           O
ATOM   2844  N   ILE A 369     -27.179 -15.015  65.653  1.00 82.66           N
ATOM   2845  CA  ILE A 369     -27.123 -14.108  64.502  1.00 63.60           C
ATOM   2846  C   ILE A 369     -28.460 -13.432  64.321  1.00 67.92           C
ATOM   2847  O   ILE A 369     -28.526 -12.209  64.155  1.00 77.09           O
ATOM   2848  CB  ILE A 369     -26.726 -14.817  63.194  1.00 65.20           C
ATOM   2849  CG1 ILE A 369     -25.424 -15.604  63.296  1.00 84.00           C
ATOM   2850  CG2 ILE A 369     -26.589 -13.808  62.063  1.00 76.87           C
ATOM   2851  CD1 ILE A 369     -25.083 -16.249  61.970  1.00 65.80           C
ATOM   2852  N   LEU A 370     -29.541 -14.221  64.323  1.00 64.23           N
ATOM   2853  CA  LEU A 370     -30.847 -13.607  64.161  1.00 67.57           C
ATOM   2854  C   LEU A 370     -30.996 -12.543  65.223  1.00 69.37           C
ATOM   2855  O   LEU A 370     -30.994 -11.355  64.913  1.00 81.00           O
ATOM   2856  CB  LEU A 370     -31.970 -14.642  64.246  1.00 68.84           C
ATOM   2857  CG  LEU A 370     -33.457 -14.299  64.395  1.00 66.34           C
ATOM   2858  CD1 LEU A 370     -33.954 -13.801  63.104  1.00 76.14           C
ATOM   2859  CD2 LEU A 370     -34.250 -15.524  64.709  1.00 91.20           C
ATOM   2860  N   PHE A 371     -30.900 -12.938  66.489  1.00 82.82           N
ATOM   2861  CA  PHE A 371     -31.071 -11.985  67.581  1.00 88.74           C
ATOM   2862  C   PHE A 371     -30.370 -10.665  67.285  1.00 82.88           C
ATOM   2863  O   PHE A 371     -31.028  -9.659  67.040  1.00 78.89           O
ATOM   2864  CB  PHE A 371     -30.569 -12.575  68.900  1.00 79.23           C
ATOM   2865  CG  PHE A 371     -30.581 -11.591  70.031  1.00 75.08           C
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ATOM   2866  CD1 PHE A 371     -31.786 -11.224  70.608  1.00 83.29           C
ATOM   2867  CD2 PHE A 371     -29.412 -11.011  70.502  1.00 77.28           C
ATOM   2868  CE1 PHE A 371     -31.847 -10.294  71.649  1.00 68.29           C
ATOM   2869  CE2 PHE A 371     -29.459 -10.068  71.553  1.00 80.23           C
ATOM   2870  CZ  PHE A 371     -30.683  -9.724  72.129  1.00 67.68           C
ATOM   2871  N   HIS A 372     -29.040 -10.690  67.157  1.00 84.03           N
ATOM   2872  CA  HIS A 372     -28.254  -9.458  67.095  0.91 76.08           C
ATOM   2874  C   HIS A 372     -28.721  -8.515  65.983  1.00 75.81           C
ATOM   2875  O   HIS A 372     -28.484  -7.309  66.064  1.00 80.08           O
ATOM   2876  CB  HIS A 372     -26.765  -9.805  66.933  0.91 74.30           C
ATOM   2878  CG  HIS A 372     -25.841  -8.618  66.935  0.91 76.40           C
ATOM   2880  ND1 HIS A 372     -25.063  -8.271  68.021  0.91 79.48           N
ATOM   2882  CD2 HIS A 372     -25.546  -7.716  65.967  0.91 80.56           C
ATOM   2884  CE1 HIS A 372     -24.343  -7.201  67.726  0.91 77.45           C
ATOM   2886  NE2 HIS A 372     -24.615  -6.847  66.484  0.91 79.30           N
ATOM   2888  N   TYR A 373     -29.377  -9.019  64.942  1.00 77.47           N
ATOM   2889  CA  TYR A 373     -29.792  -8.134  63.854  1.00 72.65           C
ATOM   2890  C   TYR A 373     -31.279  -7.820  63.875  1.00 81.76           C
ATOM   2891  O   TYR A 373     -31.679  -6.736  63.444  1.00 89.13           O
ATOM   2892  CB  TYR A 373     -29.424  -8.749  62.495  1.00 64.63           C
ATOM   2893  CG  TYR A 373     -28.001  -8.481  62.046  1.00 61.28           C
ATOM   2894  CD1 TYR A 373     -27.725  -7.709  60.923  1.00 58.05           C
ATOM   2895  CD2 TYR A 373     -26.925  -8.958  62.778  1.00 65.54           C
ATOM   2896  CE1 TYR A 373     -26.390  -7.456  60.521  1.00 61.20           C
ATOM   2897  CE2 TYR A 373     -25.602  -8.703  62.387  1.00 63.68           C
ATOM   2898  CZ  TYR A 373     -25.336  -7.955  61.266  1.00 56.20           C
ATOM   2899  OH  TYR A 373     -24.020  -7.710  60.898  1.00 53.40           O
ATOM   2900  N   THR A 374     -32.112  -8.731  64.371  1.00 86.68           N
ATOM   2901  CA  THR A 374     -33.560  -8.513  64.425  1.00 90.07           C
ATOM   2902  C   THR A 374     -33.979  -7.358  65.301  1.00 94.76           C
ATOM   2903  O   THR A 374     -35.190  -7.141  65.546  1.00 95.18           O
ATOM   2904  CB  THR A 374     -34.280  -9.729  64.990  1.00 90.59           C
ATOM   2905  OG1 THR A 374     -34.209  -9.685  66.418  1.00 97.66           O
ATOM   2906  CG2 THR A 374     -33.698 -10.926  64.546  1.00 87.26           C
ATOM   2907  N   ASP A 375     -33.041  -6.595  65.817  1.00 82.43           N
ATOM   2908  CA  ASP A 375     -33.417  -5.679  66.890  0.71 97.41           C
ATOM   2910  C   ASP A 375     -33.988  -4.440  66.240  1.00101.31           C
ATOM   2911  O   ASP A 375     -33.358  -3.385  66.108  1.00 93.89           O
ATOM   2912  CB  ASP A 375     -32.270  -5.350  67.821  0.71102.67           C
ATOM   2914  CG  ASP A 375     -32.666  -4.312  68.863  0.71 96.03           C
ATOM   2916  OD1 ASP A 375     -33.863  -4.304  69.198  0.71 97.25           O
ATOM   2918  OD2 ASP A 375     -31.822  -3.509  69.323  0.71 82.08           O
ATOM   2920  N   TRP A 376     -35.245  -4.615  65.828  1.00109.62           N
ATOM   2921  CA  TRP A 376     -35.923  -3.638  65.007  1.00101.63           C
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ATOM   2922  C   TRP A 376     -35.899  -2.294  65.669  1.00 96.17           C
ATOM   2923  O   TRP A 376     -35.904  -2.168  66.896  1.00107.03           O
ATOM   2924  CB  TRP A 376     -37.355  -4.064  64.683  1.00 98.56           C
ATOM   2925  CG  TRP A 376     -37.361  -5.256  63.844  1.00 99.97           C
ATOM   2926  CD1 TRP A 376     -38.239  -6.299  63.895  1.00110.42           C
ATOM   2927  CD2 TRP A 376     -36.383  -5.595  62.858  1.00 92.86           C
ATOM   2928  NE1 TRP A 376     -37.887  -7.253  62.973  1.00105.70           N
ATOM   2929  CE2 TRP A 376     -36.743  -6.847  62.335  1.00102.16           C
ATOM   2930  CE3 TRP A 376     -35.239  -4.955  62.357  1.00 83.04           C
ATOM   2931  CZ2 TRP A 376     -36.005  -7.469  61.342  1.00103.44           C
ATOM   2932  CZ3 TRP A 376     -34.511  -5.571  61.393  1.00 95.61           C
ATOM   2933  CH2 TRP A 376     -34.895  -6.815  60.884  1.00102.43           C
ATOM   2934  N   VAL A 377     -35.796  -1.309  64.818  1.00101.81           N
ATOM   2935  CA  VAL A 377     -35.884   0.060  65.152  1.00106.52           C
ATOM   2936  C   VAL A 377     -37.086   0.600  64.341  1.00108.86           C
ATOM   2937  O   VAL A 377     -36.883   1.419  63.441  1.00 93.66           O
ATOM   2938  CB  VAL A 377     -34.513   0.732  64.831  1.00103.09           C
ATOM   2939  CG1 VAL A 377     -34.021   0.322  63.447  1.00102.77           C
ATOM   2940  CG2 VAL A 377     -34.556   2.246  64.940  1.00 96.04           C
ATOM   2941  N   ASP A 378     -38.341   0.151  64.570  1.00117.82           N
ATOM   2942  CA  ASP A 378     -38.850  -0.962  65.413  1.00119.23           C
ATOM   2943  C   ASP A 378     -39.651  -1.931  64.489  1.00118.04           C
ATOM   2944  O   ASP A 378     -39.485  -1.880  63.263  1.00112.97           O
ATOM   2945  CB  ASP A 378     -39.732  -0.418  66.554  1.00109.72           C
ATOM   2946  CG  ASP A 378     -40.022  -1.455  67.644  1.00119.49           C
ATOM   2947  OD1 ASP A 378     -41.111  -2.064  67.602  1.00115.51           O
ATOM   2948  OD2 ASP A 378     -39.182  -1.642  68.553  1.00121.83           O
ATOM   2949  N   ASP A 379     -40.525  -2.788  65.047  1.00122.04           N
ATOM   2950  CA  ASP A 379     -41.166  -3.869  64.284  1.00122.92           C
ATOM   2951  C   ASP A 379     -42.091  -3.363  63.167  1.00112.29           C
ATOM   2952  O   ASP A 379     -42.790  -4.159  62.525  1.00101.29           O
ATOM   2953  CB  ASP A 379     -41.933  -4.825  65.233  1.00116.99           C
ATOM   2954  CG  ASP A 379     -43.151  -4.175  65.919  1.00123.72           C
ATOM   2955  OD1 ASP A 379     -43.141  -2.955  66.206  1.00122.33           O
ATOM   2956  OD2 ASP A 379     -44.136  -4.905  66.173  1.00121.54           O
ATOM   2957  N   GLN A 380     -42.055  -2.051  62.898  1.00108.59           N
ATOM   2958  CA  GLN A 380     -42.989  -1.360  62.011  1.00114.14           C
ATOM   2959  C   GLN A 380     -42.882  -1.887  60.574  1.00118.56           C
ATOM   2960  O   GLN A 380     -43.499  -2.897  60.206  1.00110.94           O
ATOM   2961  CB  GLN A 380     -42.739   0.172  62.085  1.00104.61           C
ATOM   2962  CG  GLN A 380     -41.355   0.681  61.574  1.00110.38           C
ATOM   2963  CD  GLN A 380     -40.326   0.951  62.620  1.00114.78           C
ATOM   2964  OE1 GLN A 380     -40.590   0.825  63.804  1.00119.86           O
ATOM   2965  NE2 GLN A 380     -39.100   1.231  62.181  1.00113.79           N
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ATOM   2966  N   ARG A 381     -42.131  -1.153  59.766  1.00111.30           N
ATOM   2967  CA  ARG A 381     -41.514  -1.298  58.461  1.00102.02           C
ATOM   2968  C   ARG A 381     -41.462  -2.728  57.935  1.00102.77           C
ATOM   2969  O   ARG A 381     -40.870  -3.616  58.567  1.00105.57           O
ATOM   2970  CB  ARG A 381     -40.113  -0.703  58.575  1.00 97.02           C
ATOM   2971  CG  ARG A 381     -39.334  -0.629  57.331  1.00102.51           C
ATOM   2972  CD  ARG A 381     -37.868  -0.599  57.672  1.00100.94           C
ATOM   2973  NE  ARG A 381     -37.090  -0.135  56.539  1.00104.53           N
ATOM   2974  CZ  ARG A 381     -36.868   1.148  56.295  1.00107.06           C
ATOM   2975  NH1 ARG A 381     -36.157   1.509  55.230  1.00104.67           N
ATOM   2976  NH2 ARG A 381     -37.358   2.064  57.128  1.00 89.93           N
ATOM   2977  N   PRO A 382     -42.056  -2.978  56.765  1.00 97.08           N
ATOM   2978  CA  PRO A 382     -42.038  -4.338  56.212  1.00103.07           C
ATOM   2979  C   PRO A 382     -40.679  -4.724  55.659  1.00 99.47           C
ATOM   2980  O   PRO A 382     -40.360  -5.918  55.586  1.00 95.27           O
ATOM   2981  CB  PRO A 382     -43.101  -4.276  55.102  1.00 88.82           C
ATOM   2982  CG  PRO A 382     -43.822  -2.970  55.309  1.00 81.42           C
ATOM   2983  CD  PRO A 382     -42.814  -2.061  55.907  1.00 87.46           C
ATOM   2984  N   GLU A 383     -39.862  -3.734  55.293  1.00 97.62           N
ATOM   2985  CA  GLU A 383     -38.589  -3.981  54.631  1.00 84.49           C
ATOM   2986  C   GLU A 383     -37.570  -4.655  55.528  1.00 82.59           C
ATOM   2987  O   GLU A 383     -36.590  -5.198  55.013  1.00 78.03           O
ATOM   2988  CB  GLU A 383     -37.989  -2.661  54.127  1.00 89.87           C
ATOM   2989  CG  GLU A 383     -38.825  -1.932  53.080  1.00 94.20           C
ATOM   2990  CD  GLU A 383     -39.696  -0.839  53.673  1.00 98.72           C
ATOM   2991  OE1 GLU A 383     -40.927  -0.862  53.440  1.00 93.92           O
ATOM   2992  OE2 GLU A 383     -39.143   0.061  54.344  1.00 91.60           O
ATOM   2993  N   ASN A 384     -37.761  -4.628  56.850  1.00 95.91           N
ATOM   2994  CA  ASN A 384     -36.588  -4.748  57.707  1.00 95.89           C
ATOM   2995  C   ASN A 384     -36.018  -6.163  57.768  1.00 92.56           C
ATOM   2996  O   ASN A 384     -34.799  -6.308  57.924  1.00 93.53           O
ATOM   2997  CB  ASN A 384     -36.876  -4.211  59.106  1.00 88.51           C
ATOM   2998  CG  ASN A 384     -36.031  -2.992  59.418  1.00 96.71           C
ATOM   2999  OD1 ASN A 384     -34.910  -2.861  58.913  1.00100.32           O
ATOM   3000  ND2 ASN A 384     -36.552  -2.097  60.255  1.00103.57           N
ATOM   3001  N   TYR A 385     -36.830  -7.214  57.613  1.00 83.53           N
ATOM   3002  CA  TYR A 385     -36.221  -8.530  57.455  1.00 79.05           C
ATOM   3003  C   TYR A 385     -35.359  -8.579  56.200  1.00 79.58           C
ATOM   3004  O   TYR A 385     -34.220  -9.057  56.235  1.00 74.99           O
ATOM   3005  CB  TYR A 385     -37.282  -9.621  57.438  1.00 86.89           C
ATOM   3006  CG  TYR A 385     -37.735  -9.966  58.834  1.00 95.95           C
ATOM   3007  CD1 TYR A 385     -36.836 -10.464  59.776  1.00 88.99           C
ATOM   3008  CD2 TYR A 385     -39.055  -9.780  59.221  1.00 99.58           C
ATOM   3009  CE1 TYR A 385     -37.242 -10.766  61.072  1.00 85.57           C
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ATOM   3010  CE2 TYR A 385     -39.473 -10.079  60.505  1.00 96.88           C
ATOM   3011  CZ  TYR A 385     -38.560 -10.561  61.433  1.00 94.47           C
ATOM   3012  OH  TYR A 385     -38.987 -10.869  62.710  1.00 96.31           O
ATOM   3013  N   ARG A 386     -35.874  -8.050  55.089  1.00 81.61           N
ATOM   3014  CA  ARG A 386     -35.100  -8.023  53.850  1.00 82.69           C
ATOM   3015  C   ARG A 386     -33.737  -7.348  54.048  1.00 81.99           C
ATOM   3016  O   ARG A 386     -32.693  -7.915  53.703  1.00 78.56           O
ATOM   3017  CB  ARG A 386     -35.911  -7.324  52.758  1.00 72.71           C
ATOM   3018  CG  ARG A 386     -35.234  -7.195  51.410  1.00 63.80           C
ATOM   3019  CD  ARG A 386     -35.926  -6.115  50.573  1.00 69.06           C
ATOM   3020  NE  ARG A 386     -35.333  -4.789  50.779  1.00 73.01           N
ATOM   3021  CZ  ARG A 386     -35.902  -3.642  50.411  1.00 78.93           C
ATOM   3022  NH1 ARG A 386     -37.097  -3.649  49.830  1.00 79.98           N
ATOM   3023  NH2 ARG A 386     -35.287  -2.482  50.636  1.00 76.23           N
ATOM   3024  N   GLU A 387     -33.717  -6.139  54.612  1.00 75.44           N
ATOM   3025  CA  GLU A 387     -32.423  -5.483  54.751  1.00 76.19           C
ATOM   3026  C   GLU A 387     -31.547  -6.218  55.749  1.00 74.13           C
ATOM   3027  O   GLU A 387     -30.321  -6.264  55.590  1.00 72.55           O
ATOM   3028  CB  GLU A 387     -32.595  -4.022  55.155  1.00 76.82           C
ATOM   3029  CG  GLU A 387     -33.850  -3.390  54.602  1.00 86.81           C
ATOM   3030  CD  GLU A 387     -33.741  -1.886  54.489  1.00 98.17           C
ATOM   3031  OE1 GLU A 387     -33.224  -1.405  53.449  1.00 94.14           O
ATOM   3032  OE2 GLU A 387     -34.156  -1.193  55.452  1.00100.11           O
ATOM   3033  N   ALA A 388     -32.157  -6.831  56.755  1.00 75.54           N
ATOM   3034  CA  ALA A 388     -31.366  -7.518  57.762  1.00 68.96           C
ATOM   3035  C   ALA A 388     -30.541  -8.641  57.146  1.00 69.36           C
ATOM   3036  O   ALA A 388     -29.369  -8.826  57.500  1.00 67.43           O
ATOM   3037  CB  ALA A 388     -32.280  -8.039  58.859  1.00 61.39           C
ATOM   3038  N   LEU A 389     -31.116  -9.378  56.192  1.00 72.28           N
ATOM   3039  CA  LEU A 389     -30.408 -10.537  55.650  1.00 71.49           C
ATOM   3040  C   LEU A 389     -29.312 -10.108  54.677  1.00 64.07           C
ATOM   3041  O   LEU A 389     -28.306 -10.811  54.523  1.00 56.94           O
ATOM   3042  CB  LEU A 389     -31.400 -11.492  54.982  1.00 59.81           C
ATOM   3043  CG  LEU A 389     -30.890 -12.799  54.375  1.00 65.24           C
ATOM   3044  CD1 LEU A 389     -29.927 -13.487  55.351  1.00 56.53           C
ATOM   3045  CD2 LEU A 389     -32.060 -13.702  54.025  1.00 78.29           C
ATOM   3046  N   GLY A 390     -29.475  -8.955  54.025  1.00 65.67           N
ATOM   3047  CA  GLY A 390     -28.365  -8.396  53.275  1.00 64.59           C
ATOM   3048  C   GLY A 390     -27.213  -7.993  54.179  1.00 65.82           C
ATOM   3049  O   GLY A 390     -26.043  -8.273  53.883  1.00 58.45           O
ATOM   3050  N   ASP A 391     -27.525  -7.354  55.309  1.00 65.71           N
ATOM   3051  CA  ASP A 391     -26.455  -6.884  56.178  1.00 66.80           C
ATOM   3052  C   ASP A 391     -25.668  -8.053  56.764  1.00 68.41           C
ATOM   3053  O   ASP A 391     -24.428  -8.004  56.809  1.00 64.02           O
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ATOM   3054  CB  ASP A 391     -27.032  -5.981  57.261  1.00 63.99           C
ATOM   3055  CG  ASP A 391     -27.558  -4.667  56.695  1.00 77.53           C
ATOM   3056  OD1 ASP A 391     -26.883  -4.054  55.829  1.00 82.13           O
ATOM   3057  OD2 ASP A 391     -28.677  -4.268  57.079  1.00 82.07           O
ATOM   3058  N   VAL A 392     -26.355  -9.135  57.169  1.00 59.66           N
ATOM   3059  CA  VAL A 392     -25.634 -10.265  57.759  1.00 55.78           C
ATOM   3060  C   VAL A 392     -24.625 -10.827  56.768  1.00 61.52           C
ATOM   3061  O   VAL A 392     -23.451 -11.035  57.105  1.00 58.23           O
ATOM   3062  CB  VAL A 392     -26.599 -11.353  58.267  1.00 59.91           C
ATOM   3063  CG1 VAL A 392     -27.418 -10.851  59.471  1.00 65.92           C
ATOM   3064  CG2 VAL A 392     -27.504 -11.811  57.177  1.00 54.00           C
ATOM   3065  N   VAL A 393     -25.056 -11.031  55.517  1.00 61.75           N
ATOM   3066  CA  VAL A 393     -24.173 -11.585  54.497  1.00 50.58           C
ATOM   3067  C   VAL A 393     -23.047 -10.613  54.175  1.00 60.31           C
ATOM   3068  O   VAL A 393     -21.883 -11.017  54.044  1.00 54.36           O
ATOM   3069  CB  VAL A 393     -24.991 -11.952  53.253  1.00 55.33           C
ATOM   3070  CG1 VAL A 393     -24.098 -12.555  52.199  1.00 66.77           C
ATOM   3071  CG2 VAL A 393     -26.066 -12.949  53.633  1.00 59.99           C
ATOM   3072  N   GLY A 394     -23.370  -9.318  54.066  1.00 66.21           N
ATOM   3073  CA  GLY A 394     -22.350  -8.330  53.742  1.00 62.24           C
ATOM   3074  C   GLY A 394     -21.338  -8.149  54.862  1.00 65.62           C
ATOM   3075  O   GLY A 394     -20.120  -8.142  54.621  1.00 56.61           O
ATOM   3076  N   ASP A 395     -21.826  -8.011  56.109  1.00 60.70           N
ATOM   3077  CA  ASP A 395     -20.917  -7.755  57.226  1.00 60.72           C
ATOM   3078  C   ASP A 395     -20.058  -8.972  57.515  1.00 62.89           C
ATOM   3079  O   ASP A 395     -18.840  -8.846  57.729  1.00 61.26           O
ATOM   3080  CB  ASP A 395     -21.685  -7.345  58.485  1.00 63.34           C
ATOM   3081  CG  ASP A 395     -22.368  -5.984  58.351  1.00 79.73           C
ATOM   3082  OD1 ASP A 395     -23.376  -5.785  59.072  1.00 74.01           O
ATOM   3083  OD2 ASP A 395     -21.911  -5.127  57.533  1.00 71.30           O
ATOM   3084  N   TYR A 396     -20.675 -10.158  57.514  1.00 55.61           N
ATOM   3085  CA  TYR A 396     -19.927 -11.384  57.757  1.00 59.59           C
ATOM   3086  C   TYR A 396     -18.848 -11.573  56.699  1.00 61.54           C
ATOM   3087  O   TYR A 396     -17.666 -11.763  57.024  1.00 60.65           O
ATOM   3088  CB  TYR A 396     -20.884 -12.580  57.776  1.00 62.34           C
ATOM   3089  CG  TYR A 396     -20.230 -13.917  58.051  1.00 62.96           C
ATOM   3090  CD1 TYR A 396     -19.433 -14.089  59.175  1.00 55.66           C
ATOM   3091  CD2 TYR A 396     -20.440 -15.018  57.213  1.00 57.64           C
ATOM   3092  CE1 TYR A 396     -18.839 -15.294  59.449  1.00 61.45           C
ATOM   3093  CE2 TYR A 396     -19.845 -16.248  57.481  1.00 50.95           C
ATOM   3094  CZ  TYR A 396     -19.041 -16.374  58.606  1.00 63.16           C
ATOM   3095  OH  TYR A 396     -18.427 -17.563  58.939  1.00 55.39           O
ATOM   3096  N   ASN A 397     -19.230 -11.452  55.422  1.00 57.64           N
ATOM   3097  CA  ASN A 397     -18.378 -11.896  54.324  1.00 62.84           C
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ATOM   3098  C   ASN A 397     -17.378 -10.853  53.848  1.00 61.93           C
ATOM   3099  O   ASN A 397     -16.354 -11.231  53.257  1.00 56.38           O
ATOM   3100  CB  ASN A 397     -19.228 -12.334  53.131  1.00 58.55           C
ATOM   3101  CG  ASN A 397     -20.098 -13.551  53.448  1.00 63.74           C
ATOM   3102  OD1 ASN A 397     -19.608 -14.689  53.514  1.00 63.54           O
ATOM   3103  ND2 ASN A 397     -21.399 -13.316  53.637  1.00 52.70           N
ATOM   3104  N   PHE A 398     -17.633  -9.561  54.072  1.00 59.19           N
ATOM   3105  CA  PHE A 398     -16.787  -8.564  53.433  1.00 56.58           C
ATOM   3106  C   PHE A 398     -16.398  -7.439  54.362  1.00 61.70           C
ATOM   3107  O   PHE A 398     -15.207  -7.145  54.520  1.00 62.53           O
ATOM   3108  CB  PHE A 398     -17.484  -7.958  52.220  1.00 57.26           C
ATOM   3109  CG  PHE A 398     -17.862  -8.959  51.177  1.00 59.67           C
ATOM   3110  CD1 PHE A 398     -19.150  -9.471  51.134  1.00 63.98           C
ATOM   3111  CD2 PHE A 398     -16.936  -9.390  50.240  1.00 55.78           C
ATOM   3112  CE1 PHE A 398     -19.512 -10.391  50.175  1.00 60.91           C
ATOM   3113  CE2 PHE A 398     -17.280 -10.320  49.287  1.00 48.44           C
ATOM   3114  CZ  PHE A 398     -18.574 -10.820  49.246  1.00 54.50           C
ATOM   3115  N   ILE A 399     -17.399  -6.778  54.945  1.00 69.00           N
ATOM   3116  CA  ILE A 399     -17.144  -5.552  55.693  1.00 61.98           C
ATOM   3117  C   ILE A 399     -16.265  -5.846  56.899  1.00 64.31           C
ATOM   3118  O   ILE A 399     -15.115  -5.393  56.964  1.00 68.67           O
ATOM   3119  CB  ILE A 399     -18.465  -4.876  56.091  1.00 51.82           C
ATOM   3120  CG1 ILE A 399     -19.113  -4.262  54.852  1.00 53.23           C
ATOM   3121  CG2 ILE A 399     -18.220  -3.816  57.139  1.00 55.30           C
ATOM   3122  CD1 ILE A 399     -20.555  -3.875  55.071  1.00 64.42           C
ATOM   3123  N   CYS A 400     -16.770  -6.636  57.851  1.00 56.86           N
ATOM   3124  CA  CYS A 400     -16.000  -6.841  59.076  1.00 59.87           C
ATOM   3125  C   CYS A 400     -14.619  -7.411  58.810  1.00 58.54           C
ATOM   3126  O   CYS A 400     -13.673  -7.025  59.522  1.00 59.87           O
ATOM   3127  CB  CYS A 400     -16.780  -7.714  60.065  1.00 48.43           C
ATOM   3128  SG  CYS A 400     -18.297  -6.892  60.532  1.00 70.74           S
ATOM   3129  N   PRO A 401     -14.414  -8.288  57.832  1.00 62.83           N
ATOM   3130  CA  PRO A 401     -13.030  -8.706  57.560  1.00 64.42           C
ATOM   3131  C   PRO A 401     -12.152  -7.545  57.118  1.00 64.57           C
ATOM   3132  O   PRO A 401     -11.047  -7.386  57.654  1.00 64.84           O
ATOM   3133  CB  PRO A 401     -13.197  -9.790  56.484  1.00 64.35           C
ATOM   3134  CG  PRO A 401     -14.597 -10.340  56.716  1.00 63.46           C
ATOM   3135  CD  PRO A 401     -15.408  -9.152  57.158  1.00 62.22           C
ATOM   3136  N   ALA A 402     -12.620  -6.710  56.182  1.00 58.10           N
ATOM   3137  CA  ALA A 402     -11.817  -5.583  55.708  1.00 62.69           C
ATOM   3138  C   ALA A 402     -11.356  -4.708  56.870  1.00 74.19           C
ATOM   3139  O   ALA A 402     -10.153  -4.482  57.060  1.00 72.93           O
ATOM   3140  CB  ALA A 402     -12.614  -4.751  54.700  1.00 62.50           C
ATOM   3141  N   LEU A 403     -12.317  -4.211  57.660  1.00 73.95           N
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ATOM   3142  CA  LEU A 403     -12.013  -3.487  58.892  1.00 65.78           C
ATOM   3143  C   LEU A 403     -10.995  -4.248  59.728  1.00 71.47           C
ATOM   3144  O   LEU A 403      -9.905  -3.742  60.014  1.00 72.06           O
ATOM   3145  CB  LEU A 403     -13.300  -3.246  59.692  1.00 56.81           C
ATOM   3146  CG  LEU A 403     -14.291  -2.303  59.008  1.00 58.89           C
ATOM   3147  CD1 LEU A 403     -15.709  -2.531  59.490  1.00 55.83           C
ATOM   3148  CD2 LEU A 403     -13.875  -0.845  59.204  1.00 61.34           C
ATOM   3149  N   GLU A 404     -11.321  -5.492  60.097  1.00 67.92           N
ATOM   3150  CA  GLU A 404     -10.421  -6.250  60.955  1.00 63.54           C
ATOM   3151  C   GLU A 404      -9.116  -6.587  60.237  1.00 63.78           C
ATOM   3152  O   GLU A 404      -8.088  -6.793  60.896  1.00 66.97           O
ATOM   3153  CB  GLU A 404     -11.114  -7.506  61.479  1.00 60.47           C
ATOM   3154  CG  GLU A 404     -10.703  -8.782  60.779  1.00 77.91           C
ATOM   3155  CD  GLU A 404     -11.177 -10.067  61.489  1.00 94.19           C
ATOM   3156  OE1 GLU A 404     -11.582 -11.059  60.807  1.00 87.29           O
ATOM   3157  OE2 GLU A 404     -11.132 -10.086  62.748  1.00101.96           O
ATOM   3158  N   PHE A 405      -9.119  -6.617  58.898  1.00 72.03           N
ATOM   3159  CA  PHE A 405      -7.851  -6.707  58.178  1.00 76.13           C
ATOM   3160  C   PHE A 405      -7.044  -5.449  58.427  1.00 70.50           C
ATOM   3161  O   PHE A 405      -6.007  -5.492  59.098  1.00 70.83           O
ATOM   3162  CB  PHE A 405      -8.029  -6.891  56.666  1.00 71.48           C
ATOM   3163  CG  PHE A 405      -6.726  -6.773  55.882  1.00 69.12           C
ATOM   3164  CD1 PHE A 405      -5.823  -7.834  55.826  1.00 68.17           C
ATOM   3165  CD2 PHE A 405      -6.407  -5.603  55.204  1.00 70.04           C
ATOM   3166  CE1 PHE A 405      -4.623  -7.721  55.118  1.00 71.06           C
ATOM   3167  CE2 PHE A 405      -5.212  -5.488  54.508  1.00 73.36           C
ATOM   3168  CZ  PHE A 405      -4.327  -6.547  54.442  1.00 69.67           C
ATOM   3169  N   THR A 406      -7.523  -4.327  57.884  1.00 71.19           N
ATOM   3170  CA  THR A 406      -6.732  -3.105  57.927  1.00 76.34           C
ATOM   3171  C   THR A 406      -6.400  -2.705  59.350  1.00 73.79           C
ATOM   3172  O   THR A 406      -5.334  -2.126  59.591  1.00 75.79           O
ATOM   3173  CB  THR A 406      -7.458  -1.959  57.240  1.00 75.12           C
ATOM   3174  OG1 THR A 406      -6.786  -0.768  57.505  1.00 80.96           O
ATOM   3175  CG2 THR A 406      -8.835  -1.837  57.733  1.00 75.22           C
ATOM   3176  N   LYS A 407      -7.295  -3.006  60.295  1.00 75.24           N
ATOM   3177  CA  LYS A 407      -7.063  -2.678  61.697  1.00 74.43           C
ATOM   3178  C   LYS A 407      -5.713  -3.189  62.128  1.00 74.34           C
ATOM   3179  O   LYS A 407      -4.868  -2.451  62.639  1.00 84.21           O
ATOM   3180  CB  LYS A 407      -8.149  -3.296  62.566  1.00 70.72           C
ATOM   3181  CG  LYS A 407      -8.272  -2.657  63.909  1.00 70.85           C
ATOM   3182  CD  LYS A 407      -9.503  -3.178  64.602  1.00 82.24           C
ATOM   3183  CE  LYS A 407     -10.736  -2.962  63.709  1.00 79.29           C
ATOM   3184  NZ  LYS A 407     -12.010  -3.422  64.352  1.00 84.16           N
ATOM   3185  N   LYS A 408      -5.469  -4.444  61.856  1.00 68.54           N
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ATOM   3186  CA  LYS A 408      -4.247  -5.004  62.366  1.00 78.52           C
ATOM   3187  C   LYS A 408      -3.071  -4.823  61.416  1.00 78.39           C
ATOM   3188  O   LYS A 408      -1.915  -4.934  61.836  1.00 93.21           O
ATOM   3189  CB  LYS A 408      -4.544  -6.428  62.686  1.00 83.35           C
ATOM   3190  CG  LYS A 408      -3.456  -7.276  62.676  1.00 86.29           C
ATOM   3191  CD  LYS A 408      -3.781  -7.905  61.375  1.00 96.19           C
ATOM   3192  CE  LYS A 408      -2.883  -9.043  61.301  1.00102.58           C
ATOM   3193  NZ  LYS A 408      -2.757  -9.690  59.948  1.00 97.74           N
ATOM   3194  N   PHE A 409      -3.320  -4.459  60.172  1.00 73.34           N
ATOM   3195  CA  PHE A 409      -2.191  -4.096  59.329  1.00 83.90           C
ATOM   3196  C   PHE A 409      -1.571  -2.768  59.762  1.00 77.74           C
ATOM   3197  O   PHE A 409      -0.359  -2.574  59.606  1.00 78.85           O
ATOM   3198  CB  PHE A 409      -2.632  -4.050  57.861  1.00 86.40           C
ATOM   3199  CG  PHE A 409      -1.500  -3.917  56.901  1.00 72.65           C
ATOM   3200  CD1 PHE A 409      -0.951  -5.042  56.313  1.00 77.53           C
ATOM   3201  CD2 PHE A 409      -0.981  -2.677  56.591  1.00 78.32           C
ATOM   3202  CE1 PHE A 409       0.096  -4.931  55.429  1.00 78.28           C
ATOM   3203  CE2 PHE A 409       0.071  -2.554  55.722  1.00 80.71           C
ATOM   3204  CZ  PHE A 409       0.614  -3.683  55.134  1.00 82.76           C
ATOM   3205  N   SER A 410      -2.374  -1.860  60.326  1.00 80.01           N
ATOM   3206  CA  SER A 410      -1.851  -0.569  60.774  1.00 85.44           C
ATOM   3207  C   SER A 410      -1.081  -0.692  62.098  1.00 88.00           C
ATOM   3208  O   SER A 410      -0.059  -0.014  62.294  1.00 79.29           O
ATOM   3209  CB  SER A 410      -3.001   0.443  60.875  1.00 75.00           C
ATOM   3210  OG  SER A 410      -4.010   0.026  61.794  1.00 70.70           O
ATOM   3211  N   GLU A 411      -1.511  -1.590  62.996  1.00 83.71           N
ATOM   3212  CA  GLU A 411      -0.913  -1.696  64.330  1.00 99.28           C
ATOM   3213  C   GLU A 411       0.563  -2.063  64.294  1.00101.61           C
ATOM   3214  O   GLU A 411       1.180  -2.274  65.347  1.00103.99           O
ATOM   3215  CB  GLU A 411      -1.638  -2.726  65.204  1.00 89.27           C
ATOM   3216  CG  GLU A 411      -3.116  -2.859  64.934  1.00 91.90           C
ATOM   3217  CD  GLU A 411      -3.910  -3.288  66.154  1.00 94.58           C
ATOM   3218  OE1 GLU A 411      -5.048  -2.800  66.349  1.00 87.41           O
ATOM   3219  OE2 GLU A 411      -3.385  -4.105  66.932  1.00109.91           O
ATOM   3220  N   TRP A 412       1.130  -2.158  63.092  1.00 88.42           N
ATOM   3221  CA  TRP A 412       2.553  -2.390  62.896  1.00 91.18           C
ATOM   3222  C   TRP A 412       3.210  -1.219  62.182  1.00 96.51           C
ATOM   3223  O   TRP A 412       4.254  -1.386  61.539  1.00104.21           O
ATOM   3224  CB  TRP A 412       2.794  -3.700  62.141  1.00 94.09           C
ATOM   3225  CG  TRP A 412       2.180  -4.871  62.849  1.00106.58           C
ATOM   3226  CD1 TRP A 412       0.850  -5.081  63.120  1.00105.43           C
ATOM   3227  CD2 TRP A 412       2.884  -5.932  63.492  1.00105.49           C
ATOM   3228  NE1 TRP A 412       0.687  -6.244  63.835  1.00106.53           N
ATOM   3229  CE2 TRP A 412       1.923  -6.779  64.083  1.00104.14           C
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ATOM   3230  CE3 TRP A 412       4.237  -6.264  63.602  1.00102.61           C
ATOM   3231  CZ2 TRP A 412       2.273  -7.925  64.769  1.00108.23           C
ATOM   3232  CZ3 TRP A 412       4.580  -7.397  64.281  1.00102.77           C
ATOM   3233  CH2 TRP A 412       3.606  -8.207  64.872  1.00109.28           C
ATOM   3234  N   GLY A 413       2.601  -0.041  62.271  1.00 87.99           N
ATOM   3235  CA  GLY A 413       3.257   1.188  61.895  1.00 93.49           C
ATOM   3236  C   GLY A 413       2.960   1.703  60.510  1.00 91.17           C
ATOM   3237  O   GLY A 413       3.474   2.769  60.145  1.00 86.88           O
ATOM   3238  N   ASN A 414       2.141   1.011  59.731  1.00 92.27           N
ATOM   3239  CA  ASN A 414       1.965   1.421  58.347  1.00 92.35           C
ATOM   3240  C   ASN A 414       0.727   2.288  58.157  1.00 88.34           C
ATOM   3241  O   ASN A 414      -0.255   2.200  58.905  1.00 89.80           O
ATOM   3242  CB  ASN A 414       1.910   0.201  57.437  1.00 95.26           C
ATOM   3243  CG  ASN A 414       3.265  -0.445  57.281  1.00 99.51           C
ATOM   3244  OD1 ASN A 414       3.491  -1.570  57.768  1.00 90.68           O
ATOM   3245  ND2 ASN A 414       4.200   0.279  56.632  1.00 81.32           N
ATOM   3246  N   ASN A 415       0.808   3.146  57.144  1.00 87.70           N
ATOM   3247  CA  ASN A 415      -0.270   4.059  56.791  1.00 95.57           C
ATOM   3248  C   ASN A 415      -1.393   3.310  56.098  1.00 83.73           C
ATOM   3249  O   ASN A 415      -1.194   2.756  55.017  1.00 84.38           O
ATOM   3250  CB  ASN A 415       0.258   5.157  55.872  1.00 93.34           C
ATOM   3251  CG  ASN A 415       0.775   6.348  56.632  1.00 84.96           C
ATOM   3252  OD1 ASN A 415       0.838   6.334  57.870  1.00 78.34           O
ATOM   3253  ND2 ASN A 415       1.165   7.389  55.895  1.00 70.57           N
ATOM   3254  N   ALA A 416      -2.576   3.319  56.692  1.00 84.90           N
ATOM   3255  CA  ALA A 416      -3.732   2.701  56.074  1.00 82.62           C
ATOM   3256  C   ALA A 416      -4.847   3.729  55.961  1.00 79.70           C
ATOM   3257  O   ALA A 416      -5.041   4.543  56.867  1.00 83.66           O
ATOM   3258  CB  ALA A 416      -4.187   1.475  56.871  1.00 68.69           C
ATOM   3259  N   PHE A 417      -5.563   3.693  54.836  1.00 71.27           N
ATOM   3260  CA  PHE A 417      -6.693   4.570  54.561  1.00 73.79           C
ATOM   3261  C   PHE A 417      -7.896   3.722  54.174  1.00 77.65           C
ATOM   3262  O   PHE A 417      -7.781   2.869  53.284  1.00 78.81           O
ATOM   3263  CB  PHE A 417      -6.362   5.540  53.431  1.00 81.98           C
ATOM   3264  CG  PHE A 417      -5.031   6.209  53.578  1.00 89.16           C
ATOM   3265  CD1 PHE A 417      -4.929   7.419  54.246  1.00 83.07           C
ATOM   3266  CD2 PHE A 417      -3.880   5.638  53.049  1.00 87.05           C
ATOM   3267  CE1 PHE A 417      -3.705   8.048  54.387  1.00 88.01           C
ATOM   3268  CE2 PHE A 417      -2.645   6.266  53.188  1.00 85.67           C
ATOM   3269  CZ  PHE A 417      -2.557   7.470  53.860  1.00 89.45           C
ATOM   3270  N   PHE A 418      -9.046   3.964  54.819  1.00 71.20           N
ATOM   3271  CA  PHE A 418     -10.250   3.156  54.627  1.00 53.12           C
ATOM   3272  C   PHE A 418     -11.379   3.978  54.024  1.00 56.57           C
ATOM   3273  O   PHE A 418     -11.630   5.106  54.463  1.00 74.50           O
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ATOM   3274  CB  PHE A 418     -10.723   2.552  55.941  1.00 56.70           C
ATOM   3275  CG  PHE A 418     -11.600   1.350  55.761  1.00 64.95           C
ATOM   3276  CD1 PHE A 418     -12.950   1.496  55.461  1.00 69.06           C
ATOM   3277  CD2 PHE A 418     -11.085   0.073  55.905  1.00 59.93           C
ATOM   3278  CE1 PHE A 418     -13.767   0.385  55.281  1.00 63.54           C
ATOM   3279  CE2 PHE A 418     -11.895  -1.038  55.733  1.00 64.32           C
ATOM   3280  CZ  PHE A 418     -13.239  -0.879  55.416  1.00 60.26           C
ATOM   3281  N   TYR A 419     -12.072   3.411  53.034  1.00 57.27           N
ATOM   3282  CA  TYR A 419     -13.147   4.112  52.341  1.00 62.96           C
ATOM   3283  C   TYR A 419     -14.454   3.350  52.481  1.00 60.56           C
ATOM   3284  O   TYR A 419     -14.479   2.154  52.778  1.00 64.89           O
ATOM   3285  CB  TYR A 419     -12.839   4.343  50.839  1.00 64.17           C
ATOM   3286  CG  TYR A 419     -12.958   3.112  49.939  1.00 68.23           C
ATOM   3287  CD1 TYR A 419     -11.830   2.422  49.521  1.00 57.27           C
ATOM   3288  CD2 TYR A 419     -14.204   2.661  49.495  1.00 63.31           C
ATOM   3289  CE1 TYR A 419     -11.945   1.308  48.718  1.00 72.24           C
ATOM   3290  CE2 TYR A 419     -14.327   1.554  48.704  1.00 62.27           C
ATOM   3291  CZ  TYR A 419     -13.202   0.870  48.306  1.00 74.16           C
ATOM   3292  OH  TYR A 419     -13.334  -0.257  47.497  1.00 61.66           O
ATOM   3293  N   TYR A 420     -15.549   4.061  52.230  1.00 52.42           N
ATOM   3294  CA  TYR A 420     -16.885   3.480  52.291  1.00 62.05           C
ATOM   3295  C   TYR A 420     -17.671   4.137  51.163  1.00 72.81           C
ATOM   3296  O   TYR A 420     -17.962   5.339  51.229  1.00 69.64           O
ATOM   3297  CB  TYR A 420     -17.494   3.694  53.708  1.00 51.85           C
ATOM   3298  CG  TYR A 420     -18.843   3.026  54.044  1.00 63.93           C
ATOM   3299  CD1 TYR A 420     -18.961   1.639  54.128  1.00 73.87           C
ATOM   3300  CD2 TYR A 420     -19.960   3.786  54.426  1.00 65.69           C
ATOM   3301  CE1 TYR A 420     -20.182   1.034  54.459  1.00 70.87           C
ATOM   3302  CE2 TYR A 420     -21.192   3.195  54.705  1.00 65.24           C
ATOM   3303  CZ  TYR A 420     -21.281   1.821  54.757  1.00 64.90           C
ATOM   3304  OH  TYR A 420     -22.476   1.216  55.041  1.00 78.44           O
ATOM   3305  N   PHE A 421     -18.001   3.358  50.119  1.00 69.81           N
ATOM   3306  CA  PHE A 421     -18.430   3.912  48.828  1.00 69.00           C
ATOM   3307  C   PHE A 421     -19.954   3.837  48.699  1.00 75.66           C
ATOM   3308  O   PHE A 421     -20.497   2.747  48.480  1.00 80.33           O
ATOM   3309  CB  PHE A 421     -17.731   3.151  47.702  1.00 64.84           C
ATOM   3310  CG  PHE A 421     -18.257   3.466  46.347  1.00 66.92           C
ATOM   3311  CD1 PHE A 421     -17.867   4.611  45.676  1.00 75.52           C
ATOM   3312  CD2 PHE A 421     -19.195   2.646  45.772  1.00 58.46           C
ATOM   3313  CE1 PHE A 421     -18.398   4.923  44.413  1.00 74.28           C
ATOM   3314  CE2 PHE A 421     -19.728   2.935  44.537  1.00 77.31           C
ATOM   3315  CZ  PHE A 421     -19.331   4.074  43.838  1.00 71.73           C
ATOM   3316  N   GLU A 422     -20.663   4.976  48.862  1.00 71.52           N
ATOM   3317  CA  GLU A 422     -22.118   4.929  49.023  1.00 66.53           C
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ATOM   3318  C   GLU A 422     -22.936   5.415  47.848  1.00 70.39           C
ATOM   3319  O   GLU A 422     -24.157   5.522  47.994  1.00 60.16           O
ATOM   3320  CB  GLU A 422     -22.579   5.703  50.253  1.00 74.38           C
ATOM   3321  CG  GLU A 422     -21.790   6.909  50.628  1.00 85.84           C
ATOM   3322  CD  GLU A 422     -22.091   7.339  52.053  1.00 95.59           C
ATOM   3323  OE1 GLU A 422     -22.078   6.491  52.976  1.00 82.57           O
ATOM   3324  OE2 GLU A 422     -22.436   8.527  52.240  1.00106.07           O
ATOM   3325  N   HIS A 423     -22.345   5.689  46.694  1.00 72.28           N
ATOM   3326  CA  HIS A 423     -23.187   6.043  45.565  1.00 72.16           C
ATOM   3327  C   HIS A 423     -23.622   4.765  44.848  1.00 69.01           C
ATOM   3328  O   HIS A 423     -22.790   3.905  44.541  1.00 70.29           O
ATOM   3329  CB  HIS A 423     -22.488   6.997  44.592  1.00 74.36           C
ATOM   3330  CG  HIS A 423     -23.336   7.353  43.401  1.00 70.90           C
ATOM   3331  ND1 HIS A 423     -24.677   7.668  43.507  1.00 65.79           N
ATOM   3332  CD2 HIS A 423     -23.043   7.431  42.081  1.00 71.63           C
ATOM   3333  CE1 HIS A 423     -25.169   7.936  42.311  1.00 67.19           C
ATOM   3334  NE2 HIS A 423     -24.200   7.793  41.426  1.00 79.19           N
ATOM   3335  N   ARG A 424     -24.926   4.641  44.592  1.00 64.73           N
ATOM   3336  CA  ARG A 424     -25.440   3.641  43.658  1.00 64.90           C
ATOM   3337  C   ARG A 424     -25.538   4.248  42.255  1.00 76.43           C
ATOM   3338  O   ARG A 424     -26.111   5.329  42.083  1.00 76.32           O
ATOM   3339  CB  ARG A 424     -26.811   3.127  44.104  1.00 56.33           C
ATOM   3340  CG  ARG A 424     -27.603   2.463  43.006  1.00 54.85           C
ATOM   3341  CD  ARG A 424     -28.926   1.936  43.489  1.00 55.82           C
ATOM   3342  NE  ARG A 424     -29.729   1.574  42.339  1.00 63.65           N
ATOM   3343  CZ  ARG A 424     -30.008   0.324  42.000  1.00 74.03           C
ATOM   3344  NH1 ARG A 424     -29.593  -0.680  42.754  1.00 73.07           N
ATOM   3345  NH2 ARG A 424     -30.732   0.094  40.906  1.00 71.25           N
ATOM   3346  N   SER A 425     -24.978   3.552  41.257  1.00 77.34           N
ATOM   3347  CA  SER A 425     -24.982   4.049  39.877  1.00 68.78           C
ATOM   3348  C   SER A 425     -26.387   4.396  39.397  1.00 69.81           C
ATOM   3349  O   SER A 425     -27.346   3.654  39.629  1.00 67.81           O
ATOM   3350  CB  SER A 425     -24.367   3.011  38.935  1.00 82.38           C
ATOM   3351  OG  SER A 425     -24.390   3.451  37.583  1.00 83.24           O
ATOM   3352  N   SER A 426     -26.502   5.534  38.710  1.00 84.40           N
ATOM   3353  CA  SER A 426     -27.754   5.880  38.044  1.00 82.99           C
ATOM   3354  C   SER A 426     -28.135   4.859  36.979  1.00 77.61           C
ATOM   3355  O   SER A 426     -29.313   4.780  36.611  1.00 67.75           O
ATOM   3356  CB  SER A 426     -27.647   7.283  37.434  1.00 69.12           C
ATOM   3357  OG  SER A 426     -26.543   7.373  36.546  1.00 63.99           O
ATOM   3358  N   LYS A 427     -27.167   4.061  36.509  1.00 76.83           N
ATOM   3359  CA  LYS A 427     -27.353   3.082  35.445  1.00 76.44           C
ATOM   3360  C   LYS A 427     -27.467   1.649  35.946  1.00 76.44           C
ATOM   3361  O   LYS A 427     -27.517   0.728  35.122  1.00 81.95           O
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ATOM   3362  CB  LYS A 427     -26.189   3.139  34.450  1.00 67.17           C
ATOM   3363  CG  LYS A 427     -26.113   4.340  33.578  1.00 66.29           C
ATOM   3364  CD  LYS A 427     -24.746   4.364  32.914  1.00 78.14           C
ATOM   3365  CE  LYS A 427     -24.568   3.266  31.871  1.00 71.25           C
ATOM   3366  NZ  LYS A 427     -23.319   3.508  31.099  1.00 71.13           N
ATOM   3367  N   LEU A 428     -27.485   1.428  37.251  1.00 68.07           N
ATOM   3368  CA  LEU A 428     -27.444   0.063  37.767  1.00 70.12           C
ATOM   3369  C   LEU A 428     -28.676  -0.730  37.330  1.00 59.50           C
ATOM   3370  O   LEU A 428     -29.813  -0.304  37.589  1.00 56.10           O
ATOM   3371  CB  LEU A 428     -27.337   0.076  39.293  1.00 68.91           C
ATOM   3372  CG  LEU A 428     -27.027  -1.290  39.902  1.00 71.72           C
ATOM   3373  CD1 LEU A 428     -25.745  -1.793  39.286  1.00 67.35           C
ATOM   3374  CD2 LEU A 428     -26.882  -1.230  41.422  1.00 64.82           C
ATOM   3375  N   PRO A 429     -28.502  -1.882  36.677  1.00 56.09           N
ATOM   3376  CA  PRO A 429     -29.654  -2.616  36.143  1.00 63.74           C
ATOM   3377  C   PRO A 429     -30.330  -3.509  37.154  1.00 69.11           C
ATOM   3378  O   PRO A 429     -31.286  -4.208  36.793  1.00 68.88           O
ATOM   3379  CB  PRO A 429     -29.037  -3.453  35.013  1.00 62.60           C
ATOM   3380  CG  PRO A 429     -27.699  -3.759  35.504  1.00 64.08           C
ATOM   3381  CD  PRO A 429     -27.244  -2.570  36.353  1.00 67.23           C
ATOM   3382  N   TRP A 430     -29.847  -3.521  38.364  1.00 68.56           N
ATOM   3383  CA  TRP A 430     -30.453  -4.288  39.427  1.00 53.33           C
ATOM   3384  C   TRP A 430     -31.457  -3.423  40.169  1.00 60.78           C
ATOM   3385  O   TRP A 430     -31.308  -2.200  40.215  1.00 76.55           O
ATOM   3386  CB  TRP A 430     -29.389  -4.777  40.386  1.00 60.29           C
ATOM   3387  CG  TRP A 430     -28.420  -5.750  39.796  1.00 60.16           C
ATOM   3388  CD1 TRP A 430     -27.216  -5.463  39.211  1.00 60.13           C
ATOM   3389  CD2 TRP A 430     -28.553  -7.179  39.763  1.00 58.96           C
ATOM   3390  NE1 TRP A 430     -26.597  -6.627  38.800  1.00 58.59           N
ATOM   3391  CE2 TRP A 430     -27.396  -7.692  39.129  1.00 62.10           C
ATOM   3392  CE3 TRP A 430     -29.539  -8.073  40.200  1.00 58.73           C
ATOM   3393  CZ2 TRP A 430     -27.197  -9.057  38.931  1.00 58.11           C
ATOM   3394  CZ3 TRP A 430     -29.344  -9.432  40.004  1.00 55.84           C
ATOM   3395  CH2 TRP A 430     -28.181  -9.910  39.374  1.00 66.31           C
ATOM   3396  N   PRO A 431     -32.487  -4.043  40.742  1.00 65.02           N
ATOM   3397  CA  PRO A 431     -33.492  -3.292  41.516  1.00 72.65           C
ATOM   3398  C   PRO A 431     -32.922  -2.326  42.544  1.00 66.24           C
ATOM   3399  O   PRO A 431     -31.817  -2.517  43.065  1.00 63.28           O
ATOM   3400  CB  PRO A 431     -34.302  -4.397  42.212  1.00 75.34           C
ATOM   3401  CG  PRO A 431     -34.025  -5.627  41.462  1.00 71.10           C
ATOM   3402  CD  PRO A 431     -32.742  -5.488  40.728  1.00 68.02           C
ATOM   3403  N   GLU A 432     -33.693  -1.274  42.832  1.00 69.39           N
ATOM   3404  CA  GLU A 432     -33.303  -0.311  43.861  1.00 82.44           C
ATOM   3405  C   GLU A 432     -33.100  -0.989  45.213  1.00 76.95           C
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ATOM   3406  O   GLU A 432     -32.166  -0.631  45.948  1.00 65.84           O
ATOM   3407  CB  GLU A 432     -34.351   0.812  43.961  1.00 70.44           C
ATOM   3408  CG  GLU A 432     -34.405   1.713  42.728  0.81 72.01           C
ATOM   3409  CD  GLU A 432     -33.049   2.046  42.080  0.42 76.69           C
ATOM   3410  OE1 GLU A 432     -32.050   2.363  42.786  0.39 73.31           O
ATOM   3411  OE2 GLU A 432     -32.956   1.913  40.829  0.85 79.16           O
ATOM   3412  N   TRP A 433     -33.926  -1.992  45.548  1.00 65.07           N
ATOM   3413  CA  TRP A 433     -33.813  -2.555  46.886  1.00 73.12           C
ATOM   3414  C   TRP A 433     -32.428  -3.128  47.152  1.00 73.93           C
ATOM   3415  O   TRP A 433     -32.053  -3.286  48.320  1.00 79.96           O
ATOM   3416  CB  TRP A 433     -34.895  -3.616  47.150  1.00 75.05           C
ATOM   3417  CG  TRP A 433     -34.783  -4.947  46.435  1.00 86.85           C
ATOM   3418  CD1 TRP A 433     -35.576  -5.402  45.411  1.00 91.95           C
ATOM   3419  CD2 TRP A 433     -33.846  -6.008  46.711  1.00 83.36           C
ATOM   3420  NE1 TRP A 433     -35.189  -6.674  45.036  1.00 78.04           N
ATOM   3421  CE2 TRP A 433     -34.128  -7.062  45.810  1.00 70.51           C
ATOM   3422  CE3 TRP A 433     -32.797  -6.165  47.628  1.00 82.07           C
ATOM   3423  CZ2 TRP A 433     -33.400  -8.240  45.799  1.00 68.08           C
ATOM   3424  CZ3 TRP A 433     -32.073  -7.332  47.613  1.00 80.92           C
ATOM   3425  CH2 TRP A 433     -32.378  -8.359  46.703  1.00 83.04           C
ATOM   3426  N   MET A 434     -31.653  -3.428  46.104  1.00 74.21           N
ATOM   3427  CA  MET A 434     -30.308  -3.954  46.298  1.00 72.43           C
ATOM   3428  C   MET A 434     -29.328  -2.882  46.735  1.00 68.20           C
ATOM   3429  O   MET A 434     -28.300  -3.218  47.324  1.00 71.29           O
ATOM   3430  CB  MET A 434     -29.783  -4.631  45.021  1.00 74.60           C
ATOM   3431  CG  MET A 434     -30.504  -5.943  44.674  1.00 80.87           C
ATOM   3432  SD  MET A 434     -29.743  -6.999  43.396  1.00 75.32           S
ATOM   3433  CE  MET A 434     -30.965  -8.297  43.356  1.00 61.28           C
ATOM   3434  N   GLY A 435     -29.612  -1.613  46.454  1.00 66.01           N
ATOM   3435  CA  GLY A 435     -28.762  -0.551  46.972  1.00 73.31           C
ATOM   3436  C   GLY A 435     -27.393  -0.534  46.322  1.00 58.91           C
ATOM   3437  O   GLY A 435     -27.249  -0.778  45.120  1.00 62.16           O
ATOM   3438  N   VAL A 436     -26.372  -0.237  47.126  1.00 59.93           N
ATOM   3439  CA  VAL A 436     -25.025   0.041  46.607  1.00 66.08           C
ATOM   3440  C   VAL A 436     -24.284  -1.292  46.566  1.00 66.19           C
ATOM   3441  O   VAL A 436     -23.610  -1.695  47.514  1.00 66.31           O
ATOM   3442  CB  VAL A 436     -24.296   1.094  47.437  1.00 66.54           C
ATOM   3443  CG1 VAL A 436     -22.813   1.100  47.115  1.00 70.62           C
ATOM   3444  CG2 VAL A 436     -24.870   2.439  47.146  1.00 73.55           C
ATOM   3445  N   MET A 437     -24.389  -1.970  45.432  1.00 65.52           N
ATOM   3446  CA  MET A 437     -24.080  -3.387  45.379  1.00 65.17           C
ATOM   3447  C   MET A 437     -22.583  -3.652  45.391  1.00 66.04           C
ATOM   3448  O   MET A 437     -21.769  -2.813  44.989  1.00 70.48           O
ATOM   3449  CB  MET A 437     -24.697  -4.016  44.136  1.00 61.43           C
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ATOM   3450  CG  MET A 437     -26.142  -4.412  44.349  1.00 62.11           C
ATOM   3451  SD  MET A 437     -26.827  -4.933  42.782  1.00 58.99           S
ATOM   3452  CE  MET A 437     -25.960  -6.476  42.467  1.00 57.97           C
ATOM   3453  N   HIS A 438     -22.233  -4.833  45.902  1.00 59.65           N
ATOM   3454  CA  HIS A 438     -20.921  -5.425  45.684  1.00 64.61           C
ATOM   3455  C   HIS A 438     -20.544  -5.345  44.202  1.00 64.95           C
ATOM   3456  O   HIS A 438     -21.385  -5.553  43.320  1.00 62.23           O
ATOM   3457  CB  HIS A 438     -20.979  -6.876  46.185  1.00 62.63           C
ATOM   3458  CG  HIS A 438     -19.691  -7.638  46.073  1.00 63.09           C
ATOM   3459  ND1 HIS A 438     -18.605  -7.397  46.892  1.00 63.31           N
ATOM   3460  CD2 HIS A 438     -19.352  -8.708  45.314  1.00 51.86           C
ATOM   3461  CE1 HIS A 438     -17.634  -8.244  46.593  1.00 52.51           C
ATOM   3462  NE2 HIS A 438     -18.067  -9.055  45.651  1.00 45.81           N
ATOM   3463  N   GLY A 439     -19.295  -4.968  43.925  1.00 61.73           N
ATOM   3464  CA  GLY A 439     -18.802  -4.909  42.559  1.00 70.91           C
ATOM   3465  C   GLY A 439     -19.032  -3.604  41.803  1.00 68.85           C
ATOM   3466  O   GLY A 439     -18.315  -3.343  40.827  1.00 61.35           O
ATOM   3467  N   TYR A 440     -19.993  -2.771  42.215  1.00 57.09           N
ATOM   3468  CA  TYR A 440     -20.350  -1.578  41.459  1.00 60.83           C
ATOM   3469  C   TYR A 440     -19.631  -0.325  41.937  1.00 64.95           C
ATOM   3470  O   TYR A 440     -20.073   0.792  41.651  1.00 51.57           O
ATOM   3471  CB  TYR A 440     -21.862  -1.409  41.464  1.00 63.16           C
ATOM   3472  CG  TYR A 440     -22.415  -2.480  40.580  1.00 64.89           C
ATOM   3473  CD1 TYR A 440     -22.785  -3.706  41.106  1.00 69.25           C
ATOM   3474  CD2 TYR A 440     -22.441  -2.310  39.188  1.00 60.60           C
ATOM   3475  CE1 TYR A 440     -23.248  -4.721  40.274  1.00 75.99           C
ATOM   3476  CE2 TYR A 440     -22.896  -3.304  38.348  1.00 60.98           C
ATOM   3477  CZ  TYR A 440     -23.299  -4.518  38.893  1.00 67.85           C
ATOM   3478  OH  TYR A 440     -23.758  -5.536  38.080  1.00 53.04           O
ATOM   3479  N   GLU A 441     -18.531  -0.507  42.667  1.00 76.13           N
ATOM   3480  CA  GLU A 441     -17.508   0.522  42.826  1.00 70.04           C
ATOM   3481  C   GLU A 441     -16.602   0.626  41.605  1.00 69.30           C
ATOM   3482  O   GLU A 441     -16.093   1.708  41.306  1.00 75.01           O
ATOM   3483  CB  GLU A 441     -16.700   0.193  44.070  1.00 68.91           C
ATOM   3484  CG  GLU A 441     -16.346  -1.279  44.089  1.00 71.18           C
ATOM   3485  CD  GLU A 441     -15.022  -1.614  44.827  1.00 86.33           C
ATOM   3486  OE1 GLU A 441     -14.841  -1.287  46.023  1.00 96.19           O
ATOM   3487  OE2 GLU A 441     -14.185  -2.290  44.240  1.00 71.92           O
ATOM   3488  N   ILE A 442     -16.429  -0.471  40.860  1.00 68.65           N
ATOM   3489  CA  ILE A 442     -15.284  -0.601  39.951  1.00 67.14           C
ATOM   3490  C   ILE A 442     -15.364   0.329  38.753  1.00 68.14           C
ATOM   3491  O   ILE A 442     -14.330   0.866  38.329  1.00 75.83           O
ATOM   3492  CB  ILE A 442     -15.076  -2.064  39.494  1.00 75.67           C
ATOM   3493  CG1 ILE A 442     -14.574  -2.942  40.644  1.00 80.40           C
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ATOM   3494  CG2 ILE A 442     -14.016  -2.162  38.417  1.00 71.87           C
ATOM   3495  CD1 ILE A 442     -13.353  -2.310  41.269  1.00 92.76           C
ATOM   3496  N   GLU A 443     -16.554   0.526  38.167  1.00 71.00           N
ATOM   3497  CA  GLU A 443     -16.612   1.373  36.978  1.00 63.62           C
ATOM   3498  C   GLU A 443     -16.187   2.794  37.299  1.00 69.66           C
ATOM   3499  O   GLU A 443     -15.520   3.440  36.480  1.00 71.93           O
ATOM   3500  CB  GLU A 443     -18.002   1.333  36.353  1.00 62.42           C
ATOM   3501  CG  GLU A 443     -19.131   1.732  37.258  1.00 71.56           C
ATOM   3502  CD  GLU A 443     -20.415   0.968  36.950  1.00 86.09           C
ATOM   3503  OE1 GLU A 443     -20.601  -0.136  37.527  1.00 76.38           O
ATOM   3504  OE2 GLU A 443     -21.217   1.462  36.124  1.00 89.05           O
ATOM   3505  N   PHE A 444     -16.511   3.268  38.505  1.00 72.48           N
ATOM   3506  CA  PHE A 444     -16.038   4.572  38.949  1.00 63.75           C
ATOM   3507  C   PHE A 444     -14.520   4.592  39.087  1.00 66.13           C
ATOM   3508  O   PHE A 444     -13.875   5.559  38.668  1.00 73.01           O
ATOM   3509  CB  PHE A 444     -16.701   4.944  40.273  1.00 62.81           C
ATOM   3510  CG  PHE A 444     -18.148   5.312  40.147  1.00 63.75           C
ATOM   3511  CD1 PHE A 444     -19.122   4.339  40.049  1.00 66.30           C
ATOM   3512  CD2 PHE A 444     -18.540   6.625  40.160  1.00 68.11           C
ATOM   3513  CE1 PHE A 444     -20.460   4.673  39.935  1.00 62.01           C
ATOM   3514  CE2 PHE A 444     -19.882   6.958  40.054  1.00 73.54           C
ATOM   3515  CZ  PHE A 444     -20.838   5.978  39.943  1.00 65.03           C
ATOM   3516  N   VAL A 445     -13.928   3.536  39.656  1.00 60.76           N
ATOM   3517  CA  VAL A 445     -12.475   3.516  39.834  1.00 64.09           C
ATOM   3518  C   VAL A 445     -11.767   3.570  38.485  1.00 66.14           C
ATOM   3519  O   VAL A 445     -10.800   4.318  38.303  1.00 71.03           O
ATOM   3520  CB  VAL A 445     -12.045   2.286  40.657  1.00 67.94           C
ATOM   3521  CG1 VAL A 445     -10.560   2.023  40.474  1.00 68.17           C
ATOM   3522  CG2 VAL A 445     -12.356   2.498  42.143  1.00 58.29           C
ATOM   3523  N   PHE A 446     -12.243   2.792  37.516  1.00 74.92           N
ATOM   3524  CA  PHE A 446     -11.665   2.787  36.181  1.00 67.45           C
ATOM   3525  C   PHE A 446     -12.054   4.011  35.363  1.00 71.27           C
ATOM   3526  O   PHE A 446     -11.468   4.238  34.294  1.00 79.01           O
ATOM   3527  CB  PHE A 446     -12.061   1.498  35.450  1.00 66.42           C
ATOM   3528  CG  PHE A 446     -11.157   0.343  35.768  1.00 65.66           C
ATOM   3529  CD1 PHE A 446     -11.437  -0.506  36.826  1.00 69.75           C
ATOM   3530  CD2 PHE A 446      -9.993   0.140  35.043  1.00 63.61           C
ATOM   3531  CE1 PHE A 446     -10.577  -1.558  37.140  1.00 66.99           C
ATOM   3532  CE2 PHE A 446      -9.132  -0.892  35.350  1.00 65.25           C
ATOM   3533  CZ  PHE A 446      -9.419  -1.745  36.399  1.00 62.42           C
ATOM   3534  N   GLY A 447     -13.013   4.801  35.834  1.00 64.27           N
ATOM   3535  CA  GLY A 447     -13.333   6.057  35.190  1.00 73.52           C
ATOM   3536  C   GLY A 447     -14.243   5.980  33.989  1.00 68.87           C
ATOM   3537  O   GLY A 447     -14.146   6.847  33.109  1.00 69.74           O
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ATOM   3538  N   LEU A 448     -15.127   4.979  33.926  1.00 71.61           N
ATOM   3539  CA  LEU A 448     -16.115   4.925  32.849  1.00 68.33           C
ATOM   3540  C   LEU A 448     -17.031   6.153  32.807  1.00 80.34           C
ATOM   3541  O   LEU A 448     -17.406   6.562  31.692  1.00 86.43           O
ATOM   3542  CB  LEU A 448     -16.942   3.626  32.940  1.00 63.04           C
ATOM   3543  CG  LEU A 448     -16.346   2.220  32.663  1.00 61.76           C
ATOM   3544  CD1 LEU A 448     -17.387   1.220  32.155  1.00 49.32           C
ATOM   3545  CD2 LEU A 448     -15.149   2.223  31.727  1.00 81.12           C
ATOM   3546  N   PRO A 449     -17.418   6.789  33.925  1.00 70.48           N
ATOM   3547  CA  PRO A 449     -18.289   7.971  33.806  1.00 73.71           C
ATOM   3548  C   PRO A 449     -17.582   9.251  33.333  1.00 70.98           C
ATOM   3549  O   PRO A 449     -18.271  10.153  32.831  1.00 62.65           O
ATOM   3550  CB  PRO A 449     -18.856   8.118  35.223  1.00 70.14           C
ATOM   3551  CG  PRO A 449     -18.689   6.795  35.827  1.00 61.47           C
ATOM   3552  CD  PRO A 449     -17.386   6.325  35.319  1.00 60.53           C
ATOM   3553  N   LEU A 450     -16.249   9.358  33.475  1.00 67.41           N
ATOM   3554  CA  LEU A 450     -15.481  10.438  32.845  1.00 70.32           C
ATOM   3555  C   LEU A 450     -15.804  10.588  31.365  1.00 82.37           C
ATOM   3556  O   LEU A 450     -15.665  11.676  30.796  1.00 82.72           O
ATOM   3557  CB  LEU A 450     -13.977  10.187  32.971  1.00 62.20           C
ATOM   3558  CG  LEU A 450     -13.230  10.540  34.260  1.00 69.16           C
ATOM   3559  CD1 LEU A 450     -13.992  10.102  35.468  1.00 69.56           C
ATOM   3560  CD2 LEU A 450     -11.822   9.969  34.267  1.00 75.67           C
ATOM   3561  N   GLU A 451     -16.196   9.491  30.741  1.00 90.28           N
ATOM   3562  CA  GLU A 451     -16.658   9.410  29.362  1.00 82.33           C
ATOM   3563  C   GLU A 451     -18.074  10.003  29.280  1.00 85.23           C
ATOM   3564  O   GLU A 451     -18.954   9.638  30.066  1.00 85.43           O
ATOM   3565  CB  GLU A 451     -16.581   7.921  29.000  1.00 86.58           C
ATOM   3566  CG  GLU A 451     -16.903   7.377  27.656  1.00104.11           C
ATOM   3567  CD  GLU A 451     -16.680   8.267  26.491  1.00104.83           C
ATOM   3568  OE1 GLU A 451     -17.491   9.131  26.227  1.00100.37           O
ATOM   3569  OE2 GLU A 451     -15.697   8.098  25.804  1.00102.29           O
ATOM   3570  N   ARG A 452     -18.310  10.966  28.387  1.00 85.03           N
ATOM   3571  CA  ARG A 452     -19.513  11.790  28.570  1.00 97.27           C
ATOM   3572  C   ARG A 452     -20.661  11.395  27.661  1.00 89.51           C
ATOM   3573  O   ARG A 452     -21.784  11.908  27.803  1.00 80.05           O
ATOM   3574  CB  ARG A 452     -19.198  13.278  28.376  1.00 89.27           C
ATOM   3575  CG  ARG A 452     -20.304  14.175  28.951  1.00101.01           C
ATOM   3576  CD  ARG A 452     -20.729  15.289  28.008  1.00109.34           C
ATOM   3577  NE  ARG A 452     -21.836  14.889  27.127  1.00104.41           N
ATOM   3578  CZ  ARG A 452     -23.128  15.099  27.373  1.00 94.97           C
ATOM   3579  NH1 ARG A 452     -23.501  15.692  28.504  1.00 96.32           N
ATOM   3580  NH2 ARG A 452     -24.038  14.694  26.489  1.00 99.15           N
ATOM   3581  N   ARG A 453     -20.406  10.475  26.781  1.00 92.64           N
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ATOM   3582  CA  ARG A 453     -21.369  10.002  25.828  1.00 92.23           C
ATOM   3583  C   ARG A 453     -22.172   8.769  26.379  1.00 95.73           C
ATOM   3584  O   ARG A 453     -22.866   8.073  25.619  1.00 91.75           O
ATOM   3585  CB  ARG A 453     -20.554   9.714  24.567  1.00 87.43           C
ATOM   3586  CG  ARG A 453     -21.118  10.053  23.192  1.00101.99           C
ATOM   3587  CD  ARG A 453     -22.441   9.368  22.768  1.00118.53           C
ATOM   3588  NE  ARG A 453     -22.494   7.937  23.181  1.00129.58           N
ATOM   3589  CZ  ARG A 453     -23.472   7.047  22.950  1.00116.82           C
ATOM   3590  NH1 ARG A 453     -24.499   7.345  22.136  1.00110.06           N
ATOM   3591  NH2 ARG A 453     -23.355   5.833  23.469  1.00110.09           N
ATOM   3592  N   ASP A 454     -22.141   8.522  27.716  1.00100.43           N
ATOM   3593  CA  ASP A 454     -22.404   7.189  28.273  1.00 97.06           C
ATOM   3594  C   ASP A 454     -23.548   7.091  29.285  1.00 83.48           C
ATOM   3595  O   ASP A 454     -23.717   6.020  29.877  1.00 78.43           O
ATOM   3596  CB  ASP A 454     -21.139   6.617  28.929  1.00 90.53           C
ATOM   3597  CG  ASP A 454     -19.925   6.813  28.081  1.00 97.69           C
ATOM   3598  OD1 ASP A 454     -19.359   5.801  27.601  1.00108.97           O
ATOM   3599  OD2 ASP A 454     -19.582   7.992  27.824  1.00 99.64           O
ATOM   3600  N   ASN A 455     -24.325   8.151  29.519  1.00 77.48           N
ATOM   3601  CA  ASN A 455     -25.562   8.151  30.323  1.00 79.98           C
ATOM   3602  C   ASN A 455     -25.307   8.202  31.836  1.00 75.55           C
ATOM   3603  O   ASN A 455     -26.264   8.073  32.620  1.00 67.93           O
ATOM   3604  CB  ASN A 455     -26.412   6.926  29.982  1.00 30.00           C
ATOM   3605  CG  ASN A 455     -27.026   7.009  28.598  1.00 30.00           C
ATOM   3606  OD1 ASN A 455     -27.193   8.096  28.045  1.00 30.00           O
ATOM   3607  ND2 ASN A 455     -27.366   5.857  28.031  1.00 30.00           N
ATOM   3608  N   TYR A 456     -24.070   8.367  32.284  1.00 71.73           N
ATOM   3609  CA  TYR A 456     -23.881   8.701  33.681  1.00 72.72           C
ATOM   3610  C   TYR A 456     -24.313  10.138  33.930  1.00 78.39           C
ATOM   3611  O   TYR A 456     -24.310  10.982  33.031  1.00 82.46           O
ATOM   3612  CB  TYR A 456     -22.422   8.545  34.097  1.00 80.04           C
ATOM   3613  CG  TYR A 456     -21.954   7.129  34.107  1.00 76.04           C
ATOM   3614  CD1 TYR A 456     -21.283   6.603  33.020  1.00 82.90           C
ATOM   3615  CD2 TYR A 456     -22.183   6.307  35.203  1.00 83.70           C
ATOM   3616  CE1 TYR A 456     -20.845   5.286  33.007  1.00 91.81           C
ATOM   3617  CE2 TYR A 456     -21.751   4.976  35.208  1.00 87.11           C
ATOM   3618  CZ  TYR A 456     -21.081   4.471  34.099  1.00 89.50           C
ATOM   3619  OH  TYR A 456     -20.633   3.162  34.062  1.00 77.18           O
ATOM   3620  N   THR A 457     -24.660  10.419  35.176  1.00 72.24           N
ATOM   3621  CA  THR A 457     -25.010  11.777  35.518  1.00 62.32           C
ATOM   3622  C   THR A 457     -23.750  12.590  35.780  1.00 70.18           C
ATOM   3623  O   THR A 457     -22.698  12.054  36.161  1.00 58.39           O
ATOM   3624  CB  THR A 457     -25.918  11.810  36.738  1.00 70.06           C
ATOM   3625  OG1 THR A 457     -25.167  11.419  37.893  1.00 69.16           O
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ATOM   3626  CG2 THR A 457     -27.099  10.865  36.535  1.00 65.62           C
ATOM   3627  N   LYS A 458     -23.890  13.910  35.561  1.00 76.17           N
ATOM   3628  CA  LYS A 458     -22.800  14.871  35.735  1.00 73.70           C
ATOM   3629  C   LYS A 458     -22.138  14.717  37.105  1.00 74.99           C
ATOM   3630  O   LYS A 458     -20.902  14.747  37.218  1.00 68.56           O
ATOM   3631  CB  LYS A 458     -23.347  16.301  35.514  1.00 59.76           C
ATOM   3632  CG  LYS A 458     -22.319  17.419  35.501  1.00 54.14           C
ATOM   3633  CD  LYS A 458     -21.225  17.179  34.484  1.00 59.96           C
ATOM   3634  CE  LYS A 458     -20.041  18.104  34.739  1.00 71.32           C
ATOM   3635  NZ  LYS A 458     -18.865  17.900  33.846  1.00 66.80           N
ATOM   3636  N   ALA A 459     -22.948  14.507  38.151  1.00 73.19           N
ATOM   3637  CA  ALA A 459     -22.399  14.283  39.484  1.00 74.19           C
ATOM   3638  C   ALA A 459     -21.552  13.029  39.533  1.00 78.52           C
ATOM   3639  O   ALA A 459     -20.603  12.953  40.325  1.00 83.96           O
ATOM   3640  CB  ALA A 459     -23.519  14.182  40.521  1.00 77.34           C
ATOM   3641  N   GLU A 460     -21.886  12.027  38.716  1.00 78.58           N
ATOM   3642  CA  GLU A 460     -21.111  10.796  38.761  1.00 74.66           C
ATOM   3643  C   GLU A 460     -19.783  10.965  38.051  1.00 74.36           C
ATOM   3644  O   GLU A 460     -18.786  10.359  38.473  1.00 65.81           O
ATOM   3645  CB  GLU A 460     -21.914   9.649  38.165  1.00 72.97           C
ATOM   3646  CG  GLU A 460     -23.137   9.356  38.993  1.00 71.61           C
ATOM   3647  CD  GLU A 460     -24.040   8.317  38.370  1.00 70.14           C
ATOM   3648  OE1 GLU A 460     -23.965   8.119  37.136  1.00 70.45           O
ATOM   3649  OE2 GLU A 460     -24.859   7.736  39.112  1.00 61.54           O
ATOM   3650  N   GLU A 461     -19.747  11.807  37.006  1.00 73.60           N
ATOM   3651  CA  GLU A 461     -18.471  12.136  36.381  1.00 76.72           C
ATOM   3652  C   GLU A 461     -17.547  12.844  37.372  1.00 81.13           C
ATOM   3653  O   GLU A 461     -16.334  12.587  37.399  1.00 73.53           O
ATOM   3654  CB  GLU A 461     -18.677  12.987  35.123  1.00 57.29           C
ATOM   3655  CG  GLU A 461     -17.341  13.481  34.551  1.00 65.79           C
ATOM   3656  CD  GLU A 461     -17.459  14.485  33.401  1.00 83.85           C
ATOM   3657  OE1 GLU A 461     -16.391  14.869  32.863  1.00 83.67           O
ATOM   3658  OE2 GLU A 461     -18.594  14.874  33.016  1.00 78.23           O
ATOM   3659  N   ILE A 462     -18.095  13.720  38.217  1.00 74.30           N
ATOM   3660  CA  ILE A 462     -17.187  14.367  39.157  1.00 81.05           C
ATOM   3661  C   ILE A 462     -16.837  13.415  40.305  1.00 82.73           C
ATOM   3662  O   ILE A 462     -15.717  13.463  40.834  1.00 81.72           O
ATOM   3663  CB  ILE A 462     -17.744  15.718  39.655  1.00 73.14           C
ATOM   3664  CG1 ILE A 462     -16.697  16.436  40.506  1.00 65.26           C
ATOM   3665  CG2 ILE A 462     -19.015  15.546  40.428  1.00 82.95           C
ATOM   3666  CD1 ILE A 462     -15.386  16.670  39.789  1.00 62.10           C
ATOM   3667  N   LEU A 463     -17.745  12.508  40.683  1.00 78.80           N
ATOM   3668  CA  LEU A 463     -17.372  11.496  41.665  1.00 73.98           C
ATOM   3669  C   LEU A 463     -16.256  10.617  41.117  1.00 74.95           C
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ATOM   3670  O   LEU A 463     -15.269  10.332  41.809  1.00 76.81           O
ATOM   3671  CB  LEU A 463     -18.590  10.661  42.076  1.00 66.19           C
ATOM   3672  CG  LEU A 463     -18.369   9.544  43.125  1.00 70.49           C
ATOM   3673  CD1 LEU A 463     -17.452   9.953  44.274  1.00 56.32           C
ATOM   3674  CD2 LEU A 463     -19.699   9.058  43.693  1.00 64.71           C
ATOM   3675  N   SER A 464     -16.365  10.230  39.850  1.00 68.91           N
ATOM   3676  CA  SER A 464     -15.378   9.322  39.281  1.00 81.43           C
ATOM   3677  C   SER A 464     -14.022  10.014  39.114  1.00 76.14           C
ATOM   3678  O   SER A 464     -12.981   9.459  39.492  1.00 67.58           O
ATOM   3679  CB  SER A 464     -15.910   8.760  37.953  1.00 79.07           C
ATOM   3680  OG  SER A 464     -15.043   7.794  37.372  1.00 71.52           O
ATOM   3681  N   ARG A 465     -14.016  11.238  38.565  1.00 75.32           N
ATOM   3682  CA  ARG A 465     -12.757  11.963  38.396  1.00 75.71           C
ATOM   3683  C   ARG A 465     -12.034  12.070  39.726  1.00 76.26           C
ATOM   3684  O   ARG A 465     -10.817  11.862  39.806  1.00 67.93           O
ATOM   3685  CB  ARG A 465     -13.012  13.355  37.790  1.00 77.94           C
ATOM   3686  CG  ARG A 465     -11.745  14.187  37.414  1.00 80.31           C
ATOM   3687  CD  ARG A 465     -11.349  14.066  35.941  1.00 80.05           C
ATOM   3688  NE  ARG A 465     -12.445  14.402  35.026  1.00 88.17           N
ATOM   3689  CZ  ARG A 465     -12.314  14.551  33.707  1.00103.32           C
ATOM   3690  NH1 ARG A 465     -11.133  14.373  33.124  1.00 90.56           N
ATOM   3691  NH2 ARG A 465     -13.376  14.842  32.958  1.00 94.51           N
ATOM   3692  N   SER A 466     -12.791  12.337  40.794  1.00 88.03           N
ATOM   3693  CA  SER A 466     -12.221  12.425  42.134  1.00 92.03           C
ATOM   3694  C   SER A 466     -11.567  11.109  42.547  1.00 87.00           C
ATOM   3695  O   SER A 466     -10.373  11.067  42.864  1.00 86.53           O
ATOM   3696  CB  SER A 466     -13.309  12.823  43.131  1.00 83.90           C
ATOM   3697  OG  SER A 466     -14.503  12.107  42.877  1.00 93.38           O
ATOM   3698  N   ILE A 467     -12.341  10.018  42.550  1.00 77.91           N
ATOM   3699  CA  ILE A 467     -11.809   8.731  42.998  1.00 76.50           C
ATOM   3700  C   ILE A 467     -10.600   8.323  42.156  1.00 83.89           C
ATOM   3701  O   ILE A 467      -9.597   7.815  42.685  1.00 73.59           O
ATOM   3702  CB  ILE A 467     -12.923   7.667  42.968  1.00 76.34           C
ATOM   3703  CG1 ILE A 467     -14.038   8.036  43.959  1.00 70.18           C
ATOM   3704  CG2 ILE A 467     -12.354   6.269  43.221  1.00 71.60           C
ATOM   3705  CD1 ILE A 467     -15.228   7.054  44.016  1.00 54.78           C
ATOM   3706  N   VAL A 468     -10.668   8.552  40.837  1.00 77.77           N
ATOM   3707  CA  VAL A 468      -9.539   8.252  39.960  1.00 64.47           C
ATOM   3708  C   VAL A 468      -8.289   8.992  40.421  1.00 86.64           C
ATOM   3709  O   VAL A 468      -7.182   8.442  40.373  1.00 88.90           O
ATOM   3710  CB  VAL A 468      -9.882   8.593  38.497  1.00 72.13           C
ATOM   3711  CG1 VAL A 468      -8.635   8.544  37.631  1.00 71.80           C
ATOM   3712  CG2 VAL A 468     -10.938   7.649  37.951  1.00 69.83           C
ATOM   3713  N   LYS A 469      -8.437  10.248  40.876  1.00 83.93           N
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ATOM   3714  CA  LYS A 469      -7.271  11.016  41.312  1.00 77.79           C
ATOM   3715  C   LYS A 469      -6.711  10.463  42.625  1.00 72.20           C
ATOM   3716  O   LYS A 469      -5.492  10.291  42.764  1.00 71.15           O
ATOM   3717  CB  LYS A 469      -7.627  12.511  41.431  1.00 91.50           C
ATOM   3718  CG  LYS A 469      -6.523  13.509  40.962  1.00 82.26           C
ATOM   3719  CD  LYS A 469      -7.021  14.969  40.880  1.00 98.96           C
ATOM   3720  CE  LYS A 469      -8.082  15.211  39.778  1.00100.20           C
ATOM   3721  NZ  LYS A 469      -8.975  16.407  40.017  1.00 84.45           N
ATOM   3722  N   ARG A 470      -7.587  10.157  43.595  1.00 73.76           N
ATOM   3723  CA  ARG A 470      -7.121   9.608  44.873  1.00 84.16           C
ATOM   3724  C   ARG A 470      -6.358   8.310  44.653  1.00 78.18           C
ATOM   3725  O   ARG A 470      -5.178   8.182  45.025  1.00 62.58           O
ATOM   3726  CB  ARG A 470      -8.302   9.349  45.819  1.00 83.37           C
ATOM   3727  CG  ARG A 470      -9.438  10.357  45.772  1.00 85.29           C
ATOM   3728  CD  ARG A 470     -10.019  10.578  47.172  1.00 75.97           C
ATOM   3729  NE  ARG A 470     -10.906  11.759  47.181  1.00 97.79           N
ATOM   3730  CZ  ARG A 470     -11.022  12.618  48.200  1.00 91.38           C
ATOM   3731  NH1 ARG A 470     -11.860  13.660  48.111  1.00 86.65           N
ATOM   3732  NH2 ARG A 470     -10.286  12.420  49.290  1.00 82.86           N
ATOM   3733  N   TRP A 471      -7.042   7.332  44.048  1.00 78.54           N
ATOM   3734  CA  TRP A 471      -6.425   6.076  43.631  1.00 73.30           C
ATOM   3735  C   TRP A 471      -5.112   6.290  42.906  1.00 74.45           C
ATOM   3736  O   TRP A 471      -4.126   5.583  43.166  1.00 73.81           O
ATOM   3737  CB  TRP A 471      -7.369   5.321  42.717  1.00 76.36           C
ATOM   3738  CG  TRP A 471      -8.117   4.292  43.381  1.00 79.97           C
ATOM   3739  CD1 TRP A 471      -8.087   2.956  43.129  1.00 69.55           C
ATOM   3740  CD2 TRP A 471      -9.065   4.496  44.413  1.00 73.51           C
ATOM   3741  NE1 TRP A 471      -8.967   2.313  43.953  1.00 82.09           N
ATOM   3742  CE2 TRP A 471      -9.579   3.240  44.757  1.00 75.82           C
ATOM   3743  CE3 TRP A 471      -9.531   5.627  45.084  1.00 84.32           C
ATOM   3744  CZ2 TRP A 471     -10.535   3.080  45.743  1.00 72.45           C
ATOM   3745  CZ3 TRP A 471     -10.470   5.470  46.051  1.00 86.89           C
ATOM   3746  CH2 TRP A 471     -10.968   4.206  46.378  1.00 80.70           C
ATOM   3747  N   ALA A 472      -5.112   7.199  41.926  1.00 79.08           N
ATOM   3748  CA  ALA A 472      -3.867   7.654  41.316  1.00 80.44           C
ATOM   3749  C   ALA A 472      -2.851   8.040  42.371  1.00 82.30           C
ATOM   3750  O   ALA A 472      -1.819   7.384  42.526  1.00 79.95           O
ATOM   3751  CB  ALA A 472      -4.131   8.860  40.415  1.00 82.92           C
ATOM   3752  N   ASN A 473      -3.125   9.124  43.094  1.00 77.41           N
ATOM   3753  CA  ASN A 473      -2.126   9.689  43.992  1.00 86.82           C
ATOM   3754  C   ASN A 473      -1.653   8.672  45.033  1.00 78.80           C
ATOM   3755  O   ASN A 473      -0.453   8.616  45.352  1.00 75.77           O
ATOM   3756  CB  ASN A 473      -2.691  10.950  44.655  1.00 89.91           C
ATOM   3757  CG  ASN A 473      -2.820  12.118  43.687  1.00 84.40           C
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ATOM   3758  OD1 ASN A 473      -1.983  12.301  42.796  1.00 88.89           O
ATOM   3759  ND2 ASN A 473      -3.867  12.917  43.863  1.00 90.35           N
ATOM   3760  N   PHE A 474      -2.562   7.835  45.543  1.00 69.98           N
ATOM   3761  CA  PHE A 474      -2.108   6.763  46.425  1.00 81.62           C
ATOM   3762  C   PHE A 474      -1.063   5.893  45.735  1.00 81.34           C
ATOM   3763  O   PHE A 474      -0.146   5.386  46.393  1.00 76.78           O
ATOM   3764  CB  PHE A 474      -3.271   5.892  46.923  1.00 72.59           C
ATOM   3765  CG  PHE A 474      -2.826   4.756  47.828  1.00 72.84           C
ATOM   3766  CD1 PHE A 474      -2.571   4.970  49.175  1.00 82.98           C
ATOM   3767  CD2 PHE A 474      -2.626   3.477  47.325  1.00 81.26           C
ATOM   3768  CE1 PHE A 474      -2.141   3.912  50.017  1.00 77.32           C
ATOM   3769  CE2 PHE A 474      -2.195   2.429  48.158  1.00 82.10           C
ATOM   3770  CZ  PHE A 474      -1.953   2.655  49.507  1.00 64.96           C
ATOM   3771  N   ALA A 475      -1.169   5.722  44.409  1.00 71.20           N
ATOM   3772  CA  ALA A 475      -0.197   4.896  43.697  1.00 75.91           C
ATOM   3773  C   ALA A 475       1.198   5.545  43.668  1.00 89.46           C
ATOM   3774  O   ALA A 475       2.173   4.933  44.125  1.00 81.63           O
ATOM   3775  CB  ALA A 475      -0.706   4.582  42.289  1.00 83.35           C
ATOM   3776  N   LYS A 476       1.326   6.781  43.130  1.00 91.69           N
ATOM   3777  CA  LYS A 476       2.627   7.480  43.123  1.00 87.23           C
ATOM   3778  C   LYS A 476       3.139   7.781  44.521  1.00 84.67           C
ATOM   3779  O   LYS A 476       4.277   7.430  44.857  1.00 86.92           O
ATOM   3780  CB  LYS A 476       2.609   8.820  42.355  1.00 89.55           C
ATOM   3781  CG  LYS A 476       2.120   8.852  40.923  1.00 88.00           C
ATOM   3782  CD  LYS A 476       0.599   8.709  40.906  1.00 89.69           C
ATOM   3783  CE  LYS A 476       0.090   8.221  39.552  1.00106.45           C
ATOM   3784  NZ  LYS A 476      -1.218   7.476  39.590  1.00107.95           N
ATOM   3785  N   TYR A 477       2.372   8.544  45.298  1.00 75.11           N
ATOM   3786  CA  TYR A 477       2.909   9.188  46.484  1.00 77.35           C
ATOM   3787  C   TYR A 477       2.437   8.552  47.776  1.00 87.60           C
ATOM   3788  O   TYR A 477       2.850   8.998  48.851  1.00 87.57           O
ATOM   3789  CB  TYR A 477       2.567  10.689  46.500  1.00 83.30           C
ATOM   3790  CG  TYR A 477       2.686  11.378  45.161  1.00 85.36           C
ATOM   3791  CD1 TYR A 477       3.818  11.200  44.368  1.00 91.11           C
ATOM   3792  CD2 TYR A 477       1.694  12.236  44.706  1.00 75.50           C
ATOM   3793  CE1 TYR A 477       3.945  11.823  43.131  1.00 89.87           C
ATOM   3794  CE2 TYR A 477       1.816  12.875  43.472  1.00 82.78           C
ATOM   3795  CZ  TYR A 477       2.944  12.663  42.688  1.00 91.11           C
ATOM   3796  OH  TYR A 477       3.073  13.288  41.457  1.00 94.21           O
ATOM   3797  N   GLY A 478       1.591   7.528  47.712  1.00 89.05           N
ATOM   3798  CA  GLY A 478       1.146   6.898  48.937  1.00 88.35           C
ATOM   3799  C   GLY A 478       0.260   7.742  49.835  1.00 81.38           C
ATOM   3800  O   GLY A 478       0.203   7.488  51.042  1.00 77.61           O
ATOM   3801  N   ASN A 479      -0.439   8.741  49.291  1.00 71.80           N
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ATOM   3802  CA  ASN A 479      -1.488   9.388  50.055  1.00 76.72           C
ATOM   3803  C   ASN A 479      -2.683   9.603  49.132  1.00 78.24           C
ATOM   3804  O   ASN A 479      -2.524  10.144  48.023  1.00 78.82           O
ATOM   3805  CB  ASN A 479      -1.025  10.709  50.685  1.00 91.75           C
ATOM   3806  CG  ASN A 479      -2.060  11.305  51.649  1.00 95.52           C
ATOM   3807  OD1 ASN A 479      -3.161  11.702  51.244  1.00 91.76           O
ATOM   3808  ND2 ASN A 479      -1.736  11.283  52.951  1.00 91.05           N
ATOM   3809  N   PRO A 480      -3.873   9.190  49.543  1.00 74.17           N
ATOM   3810  CA  PRO A 480      -5.041   9.296  48.659  1.00 73.80           C
ATOM   3811  C   PRO A 480      -5.570  10.717  48.556  1.00 84.96           C
ATOM   3812  O   PRO A 480      -6.779  10.960  48.663  1.00 84.14           O
ATOM   3813  CB  PRO A 480      -6.067   8.372  49.324  1.00 87.31           C
ATOM   3814  CG  PRO A 480      -5.368   7.711  50.502  1.00 84.44           C
ATOM   3815  CD  PRO A 480      -4.188   8.547  50.829  1.00 82.91           C
ATOM   3816  N   ASN A 481      -4.658  11.660  48.331  1.00 94.00           N
ATOM   3817  CA  ASN A 481      -4.958  13.087  48.305  1.00 83.94           C
ATOM   3818  C   ASN A 481      -5.473  13.525  46.934  1.00 95.53           C
ATOM   3819  O   ASN A 481      -4.992  13.055  45.898  1.00100.58           O
ATOM   3820  CB  ASN A 481      -3.727  13.905  48.697  1.00 30.00           C
ATOM   3821  CG  ASN A 481      -3.391  13.785  50.171  1.00 30.00           C
ATOM   3822  OD1 ASN A 481      -4.251  13.463  50.990  1.00 30.00           O
ATOM   3823  ND2 ASN A 481      -2.135  14.043  50.515  1.00 30.00           N
ATOM   3824  N   GLU A 482      -6.496  14.387  46.935  1.00 97.05           N
ATOM   3825  CA  GLU A 482      -6.861  15.225  45.784  1.00106.27           C
ATOM   3826  C   GLU A 482      -6.787  16.653  46.316  1.00118.02           C
ATOM   3827  O   GLU A 482      -7.719  17.125  46.980  1.00121.42           O
ATOM   3828  CB  GLU A 482      -8.251  14.901  45.213  1.00109.83           C
ATOM   3829  CG  GLU A 482      -8.818  15.986  44.249  1.00114.95           C
ATOM   3830  CD  GLU A 482     -10.230  15.672  43.712  1.00118.94           C
ATOM   3831  OE1 GLU A 482     -11.125  15.350  44.530  1.00112.62           O
ATOM   3832  OE2 GLU A 482     -10.438  15.757  42.473  1.00108.90           O
ATOM   3833  N   THR A 483      -5.675  17.334  46.030  1.00124.64           N
ATOM   3834  CA  THR A 483      -5.204  18.434  46.869  1.00132.70           C
ATOM   3835  C   THR A 483      -5.615  19.837  46.413  1.00134.06           C
ATOM   3836  O   THR A 483      -5.197  20.813  47.051  1.00115.77           O
ATOM   3837  CB  THR A 483      -3.667  18.376  46.997  1.00119.56           C
ATOM   3838  OG1 THR A 483      -3.059  18.326  45.697  1.00129.19           O
ATOM   3839  CG2 THR A 483      -3.223  17.183  47.839  1.00 96.90           C
ATOM   3840  N   GLN A 484      -6.428  19.997  45.365  1.00124.08           N
ATOM   3841  CA  GLN A 484      -6.575  21.364  44.886  1.00130.41           C
ATOM   3842  C   GLN A 484      -8.003  21.917  44.876  1.00134.36           C
ATOM   3843  O   GLN A 484      -8.164  23.126  45.086  1.00128.97           O
ATOM   3844  CB  GLN A 484      -5.926  21.507  43.491  1.00130.60           C
ATOM   3845  CG  GLN A 484      -6.794  21.229  42.286  1.00125.57           C
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ATOM   3846  CD  GLN A 484      -7.321  22.520  41.672  1.00122.05           C
ATOM   3847  OE1 GLN A 484      -6.578  23.494  41.506  1.00112.71           O
ATOM   3848  NE2 GLN A 484      -8.601  22.529  41.321  1.00117.92           N
ATOM   3849  N   ASN A 485      -9.040  21.104  44.681  1.00129.29           N
ATOM   3850  CA  ASN A 485     -10.397  21.671  44.656  1.00125.86           C
ATOM   3851  C   ASN A 485     -11.097  21.532  46.008  1.00121.76           C
ATOM   3852  O   ASN A 485     -12.235  21.058  46.102  1.00114.29           O
ATOM   3853  CB  ASN A 485     -11.229  21.050  43.539  1.00120.13           C
ATOM   3854  CG  ASN A 485     -12.326  21.988  43.046  1.00112.12           C
ATOM   3855  OD1 ASN A 485     -12.111  22.770  42.124  1.00104.61           O
ATOM   3856  ND2 ASN A 485     -13.502  21.915  43.662  1.00114.64           N
ATOM   3857  N   ASN A 486     -10.394  21.951  47.070  1.00116.60           N
ATOM   3858  CA  ASN A 486     -10.956  22.125  48.418  1.00103.86           C
ATOM   3859  C   ASN A 486     -11.687  20.889  48.932  1.00107.11           C
ATOM   3860  O   ASN A 486     -12.565  21.000  49.790  1.00101.16           O
ATOM   3861  CB  ASN A 486     -11.897  23.325  48.465  1.00106.74           C
ATOM   3862  CG  ASN A 486     -11.285  24.560  47.866  1.00121.64           C
ATOM   3863  OD1 ASN A 486     -10.077  24.616  47.636  1.00125.99           O
ATOM   3864  ND2 ASN A 486     -12.114  25.566  47.605  1.00120.88           N
ATOM   3865  N   SER A 487     -11.346  19.702  48.434  1.00106.73           N
ATOM   3866  CA  SER A 487     -12.083  18.517  48.842  1.00 99.34           C
ATOM   3867  C   SER A 487     -11.468  17.901  50.090  1.00 94.11           C
ATOM   3868  O   SER A 487     -10.263  18.011  50.340  1.00 90.53           O
ATOM   3869  CB  SER A 487     -12.148  17.474  47.720  1.00110.78           C
ATOM   3870  OG  SER A 487     -13.275  16.614  47.881  1.00107.47           O
ATOM   3871  N   THR A 488     -12.341  17.267  50.878  1.00 91.68           N
ATOM   3872  CA  THR A 488     -12.053  16.505  52.089  1.00 90.47           C
ATOM   3873  C   THR A 488     -10.649  15.918  52.175  1.00 92.07           C
ATOM   3874  O   THR A 488     -10.183  15.288  51.220  1.00 85.22           O
ATOM   3875  CB  THR A 488     -13.067  15.370  52.192  1.00 88.88           C
ATOM   3876  OG1 THR A 488     -14.390  15.907  52.052  1.00 85.31           O
ATOM   3877  CG2 THR A 488     -12.926  14.631  53.522  1.00 93.49           C
ATOM   3878  N   SER A 489      -9.968  16.110  53.306  1.00 85.81           N
ATOM   3879  CA  SER A 489      -8.718  15.397  53.521  1.00 86.17           C
ATOM   3880  C   SER A 489      -9.009  14.005  54.035  1.00 95.93           C
ATOM   3881  O   SER A 489      -9.976  13.797  54.777  1.00 99.88           O
ATOM   3882  CB  SER A 489      -7.799  16.098  54.517  1.00 91.13           C
ATOM   3883  OG  SER A 489      -6.610  15.319  54.688  1.00 65.61           O
ATOM   3884  N   TRP A 490      -8.134  13.059  53.660  1.00 92.26           N
ATOM   3885  CA  TRP A 490      -8.330  11.651  53.959  1.00 73.39           C
ATOM   3886  C   TRP A 490      -7.451  11.266  55.144  1.00 71.70           C
ATOM   3887  O   TRP A 490      -6.226  11.156  54.980  1.00 77.30           O
ATOM   3888  CB  TRP A 490      -7.985  10.807  52.733  1.00 82.96           C
ATOM   3889  CG  TRP A 490      -8.425   9.368  52.832  1.00 82.32           C
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ATOM   3890  CD1 TRP A 490      -8.464   8.592  53.954  1.00 78.07           C
ATOM   3891  CD2 TRP A 490      -8.864   8.530  51.760  1.00 82.19           C
ATOM   3892  NE1 TRP A 490      -8.932   7.344  53.666  1.00 71.19           N
ATOM   3893  CE2 TRP A 490      -9.171   7.270  52.318  1.00 78.92           C
ATOM   3894  CE3 TRP A 490      -9.052   8.728  50.379  1.00 85.35           C
ATOM   3895  CZ2 TRP A 490      -9.632   6.216  51.549  1.00 70.08           C
ATOM   3896  CZ3 TRP A 490      -9.506   7.686  49.618  1.00 76.30           C
ATOM   3897  CH2 TRP A 490      -9.796   6.444  50.201  1.00 80.50           C
ATOM   3898  N   PRO A 491      -8.016  11.055  56.335  1.00 68.53           N
ATOM   3899  CA  PRO A 491      -7.218  10.612  57.492  1.00 61.62           C
ATOM   3900  C   PRO A 491      -6.614   9.224  57.323  1.00 66.31           C
ATOM   3901  O   PRO A 491      -7.072   8.400  56.530  1.00 84.00           O
ATOM   3902  CB  PRO A 491      -8.241  10.601  58.634  1.00 71.74           C
ATOM   3903  CG  PRO A 491      -9.588  10.553  57.949  1.00 73.93           C
ATOM   3904  CD  PRO A 491      -9.416  11.331  56.695  1.00 69.56           C
ATOM   3905  N   VAL A 492      -5.595   8.952  58.120  1.00 60.45           N
ATOM   3906  CA  VAL A 492      -5.053   7.600  58.230  1.00 72.99           C
ATOM   3907  C   VAL A 492      -5.933   6.764  59.162  1.00 80.70           C
ATOM   3908  O   VAL A 492      -6.337   7.221  60.237  1.00 84.97           O
ATOM   3909  CB  VAL A 492      -3.591   7.659  58.721  1.00 73.76           C
ATOM   3910  CG1 VAL A 492      -3.187   6.389  59.464  1.00 74.80           C
ATOM   3911  CG2 VAL A 492      -2.651   7.907  57.558  1.00 68.31           C
ATOM   3912  N   PHE A 493      -6.247   5.531  58.753  1.00 80.41           N
ATOM   3913  CA  PHE A 493      -6.946   4.583  59.625  1.00 86.97           C
ATOM   3914  C   PHE A 493      -5.960   3.962  60.616  1.00 80.90           C
ATOM   3915  O   PHE A 493      -5.024   3.253  60.219  1.00 73.00           O
ATOM   3916  CB  PHE A 493      -7.632   3.492  58.796  1.00 86.66           C
ATOM   3917  CG  PHE A 493      -8.422   2.457  59.612  1.00 77.36           C
ATOM   3918  CD1 PHE A 493      -7.780   1.369  60.204  1.00 68.23           C
ATOM   3919  CD2 PHE A 493      -9.814   2.545  59.715  1.00 65.80           C
ATOM   3920  CE1 PHE A 493      -8.503   0.419  60.907  1.00 71.82           C
ATOM   3921  CE2 PHE A 493     -10.547   1.599  60.409  1.00 57.19           C
ATOM   3922  CZ  PHE A 493      -9.892   0.533  61.011  1.00 70.17           C
ATOM   3923  N   LYS A 494      -6.173   4.229  61.903  1.00 86.95           N
ATOM   3924  CA  LYS A 494      -5.419   3.613  62.987  1.00 90.11           C
ATOM   3925  C   LYS A 494      -6.370   2.849  63.903  1.00 80.69           C
ATOM   3926  O   LYS A 494      -7.578   3.107  63.929  1.00 76.44           O
ATOM   3927  CB  LYS A 494      -4.631   4.669  63.802  1.00 83.05           C
ATOM   3928  CG  LYS A 494      -3.197   4.892  63.333  1.00 78.09           C
ATOM   3929  CD  LYS A 494      -2.249   3.879  63.970  1.00 89.43           C
ATOM   3930  CE  LYS A 494      -1.093   3.503  63.052  1.00 83.80           C
ATOM   3931  NZ  LYS A 494      -0.518   4.665  62.314  1.00103.16           N
ATOM   3932  N   SER A 495      -5.824   1.885  64.638  1.00 80.21           N
ATOM   3933  CA  SER A 495      -6.566   1.332  65.763  1.00 87.90           C
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ATOM   3934  C   SER A 495      -6.814   2.438  66.784  1.00 99.28           C
ATOM   3935  O   SER A 495      -6.025   3.383  66.897  1.00108.57           O
ATOM   3936  CB  SER A 495      -5.792   0.186  66.410  1.00 80.43           C
ATOM   3937  OG  SER A 495      -5.795  -0.955  65.588  1.00 79.53           O
ATOM   3938  N   THR A 496      -7.909   2.293  67.541  1.00 84.08           N
ATOM   3939  CA  THR A 496      -8.512   3.294  68.431  1.00 87.12           C
ATOM   3940  C   THR A 496      -9.464   4.177  67.634  1.00 79.29           C
ATOM   3941  O   THR A 496     -10.667   3.909  67.598  1.00 80.15           O
ATOM   3942  CB  THR A 496      -7.503   4.194  69.179  1.00 84.65           C
ATOM   3943  OG1 THR A 496      -6.737   4.959  68.241  1.00 93.16           O
ATOM   3944  CG2 THR A 496      -6.555   3.382  70.064  1.00 83.49           C
ATOM   3945  N   GLU A 497      -8.942   5.229  66.995  1.00 86.28           N
ATOM   3946  CA  GLU A 497      -9.808   6.214  66.347  1.00 82.46           C
ATOM   3947  C   GLU A 497     -10.623   5.594  65.216  1.00 81.09           C
ATOM   3948  O   GLU A 497     -11.835   5.819  65.125  1.00 77.01           O
ATOM   3949  CB  GLU A 497      -8.974   7.393  65.835  1.00 90.56           C
ATOM   3950  CG  GLU A 497      -8.818   8.536  66.832  1.00 89.04           C
ATOM   3951  CD  GLU A 497      -9.925   9.590  66.692  1.00105.35           C
ATOM   3952  OE1 GLU A 497     -10.817   9.407  65.836  1.00115.77           O
ATOM   3953  OE2 GLU A 497      -9.916  10.593  67.439  1.00 97.90           O
ATOM   3954  N   GLN A 498      -9.964   4.827  64.335  1.00 85.86           N
ATOM   3955  CA  GLN A 498     -10.598   4.055  63.258  1.00 73.45           C
ATOM   3956  C   GLN A 498     -11.415   4.957  62.331  1.00 77.13           C
ATOM   3957  O   GLN A 498     -12.632   4.820  62.192  1.00 72.70           O
ATOM   3958  CB  GLN A 498     -11.465   2.923  63.825  1.00 77.15           C
ATOM   3959  CG  GLN A 498     -10.688   1.742  64.426  1.00 79.08           C
ATOM   3960  CD  GLN A 498     -11.592   0.831  65.240  1.00 86.58           C
ATOM   3961  OE1 GLN A 498     -12.814   1.001  65.245  1.00 89.56           O
ATOM   3962  NE2 GLN A 498     -10.998  -0.120  65.952  1.00 84.27           N
ATOM   3963  N   LYS A 499     -10.717   5.886  61.683  1.00 79.72           N
ATOM   3964  CA  LYS A 499     -11.382   6.850  60.816  1.00 79.19           C
ATOM   3965  C   LYS A 499     -11.435   6.363  59.364  1.00 74.29           C
ATOM   3966  O   LYS A 499     -10.466   5.801  58.832  1.00 67.51           O
ATOM   3967  CB  LYS A 499     -10.713   8.233  60.922  1.00 83.66           C
ATOM   3968  CG  LYS A 499     -11.192   9.046  62.170  1.00 89.85           C
ATOM   3969  CD  LYS A 499     -10.246  10.148  62.700  1.00 87.34           C
ATOM   3970  CE  LYS A 499     -10.870  11.570  62.615  1.00 76.99           C
ATOM   3971  NZ  LYS A 499     -12.359  11.679  62.770  1.00 73.68           N
ATOM   3972  N   TYR A 500     -12.594   6.566  58.736  1.00 69.47           N
ATOM   3973  CA  TYR A 500     -12.805   6.225  57.337  1.00 70.82           C
ATOM   3974  C   TYR A 500     -13.478   7.370  56.587  1.00 72.89           C
ATOM   3975  O   TYR A 500     -14.298   8.111  57.146  1.00 62.33           O
ATOM   3976  CB  TYR A 500     -13.655   4.960  57.192  1.00 66.73           C
ATOM   3977  CG  TYR A 500     -15.083   5.045  57.697  1.00 59.05           C
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ATOM   3978  CD1 TYR A 500     -15.392   4.705  58.997  1.00 62.09           C
ATOM   3979  CD2 TYR A 500     -16.123   5.410  56.853  1.00 63.36           C
ATOM   3980  CE1 TYR A 500     -16.688   4.757  59.456  1.00 67.71           C
ATOM   3981  CE2 TYR A 500     -17.426   5.460  57.303  1.00 58.06           C
ATOM   3982  CZ  TYR A 500     -17.703   5.123  58.608  1.00 66.16           C
ATOM   3983  OH  TYR A 500     -18.994   5.172  59.094  1.00 70.54           O
ATOM   3984  N   LEU A 501     -13.143   7.489  55.301  1.00 64.94           N
ATOM   3985  CA  LEU A 501     -13.714   8.518  54.442  1.00 73.48           C
ATOM   3986  C   LEU A 501     -14.823   7.906  53.607  1.00 67.84           C
ATOM   3987  O   LEU A 501     -14.665   6.804  53.077  1.00 82.81           O
ATOM   3988  CB  LEU A 501     -12.658   9.137  53.526  1.00 82.82           C
ATOM   3989  CG  LEU A 501     -13.195   9.798  52.240  1.00 84.56           C
ATOM   3990  CD1 LEU A 501     -13.984  11.068  52.579  1.00 87.56           C
ATOM   3991  CD2 LEU A 501     -12.066  10.139  51.297  1.00 79.66           C
ATOM   3992  N   THR A 502     -15.933   8.612  53.481  1.00 57.80           N
ATOM   3993  CA  THR A 502     -17.004   8.067  52.663  1.00 75.16           C
ATOM   3994  C   THR A 502     -16.938   8.642  51.246  1.00 76.49           C
ATOM   3995  O   THR A 502     -16.276   9.652  50.991  1.00 77.05           O
ATOM   3996  CB  THR A 502     -18.361   8.340  53.300  1.00 69.12           C
ATOM   3997  OG1 THR A 502     -18.521   9.747  53.458  1.00 72.70           O
ATOM   3998  CG2 THR A 502     -18.465   7.671  54.658  1.00 67.21           C
ATOM   3999  N   LEU A 503     -17.621   7.970  50.314  1.00 69.29           N
ATOM   4000  CA  LEU A 503     -17.560   8.313  48.894  1.00 62.66           C
ATOM   4001  C   LEU A 503     -18.962   8.377  48.304  1.00 69.25           C
ATOM   4002  O   LEU A 503     -19.652   7.356  48.249  1.00 68.62           O
ATOM   4003  CB  LEU A 503     -16.705   7.299  48.127  1.00 48.16           C
ATOM   4004  CG  LEU A 503     -15.220   7.349  48.489  1.00 56.05           C
ATOM   4005  CD1 LEU A 503     -14.369   6.287  47.798  1.00 51.46           C
ATOM   4006  CD2 LEU A 503     -14.695   8.728  48.164  1.00 62.46           C
ATOM   4007  N   ASN A 504     -19.373   9.560  47.834  1.00 74.02           N
ATOM   4008  CA  ASN A 504     -20.684   9.716  47.201  1.00 80.65           C
ATOM   4009  C   ASN A 504     -20.716  11.014  46.406  1.00 79.71           C
ATOM   4010  O   ASN A 504     -19.748  11.781  46.395  1.00 85.13           O
ATOM   4011  CB  ASN A 504     -21.795   9.768  48.230  1.00 76.44           C
ATOM   4012  CG  ASN A 504     -21.606  10.914  49.141  1.00 82.27           C
ATOM   4013  OD1 ASN A 504     -21.841  12.050  48.768  1.00 89.43           O
ATOM   4014  ND2 ASN A 504     -21.076  10.649  50.304  1.00 89.80           N
ATOM   4015  N   THR A 505     -21.894  11.299  45.824  1.00 79.13           N
ATOM   4016  CA  THR A 505     -22.087  12.490  44.996  1.00 78.49           C
ATOM   4017  C   THR A 505     -22.159  13.778  45.818  1.00 85.65           C
ATOM   4018  O   THR A 505     -21.663  14.820  45.375  1.00 90.68           O
ATOM   4019  CB  THR A 505     -23.367  12.353  44.153  1.00 72.53           C
ATOM   4020  OG1 THR A 505     -24.511  12.208  45.003  1.00 75.12           O
ATOM   4021  CG2 THR A 505     -23.278  11.153  43.235  1.00 67.41           C
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ATOM   4022  N   GLU A 506     -22.742  13.726  47.016  1.00 88.89           N
ATOM   4023  CA  GLU A 506     -23.073  14.917  47.788  1.00 87.21           C
ATOM   4024  C   GLU A 506     -21.841  15.449  48.530  1.00 93.69           C
ATOM   4025  O   GLU A 506     -21.056  16.185  47.921  1.00 98.35           O
ATOM   4026  CB  GLU A 506     -24.322  14.589  48.631  1.00 80.85           C
ATOM   4027  CG  GLU A 506     -24.253  13.511  49.732  1.00 97.05           C
ATOM   4028  CD  GLU A 506     -23.567  13.920  51.034  1.00100.09           C
ATOM   4029  OE1 GLU A 506     -23.538  15.137  51.331  1.00 96.03           O
ATOM   4030  OE2 GLU A 506     -23.011  13.046  51.768  1.00107.05           O
ATOM   4031  N   SER A 507     -21.624  15.128  49.799  1.00 77.70           N
ATOM   4032  CA  SER A 507     -20.397  15.511  50.482  1.00 97.57           C
ATOM   4033  C   SER A 507     -19.646  14.239  50.826  1.00 90.55           C
ATOM   4034  O   SER A 507     -20.246  13.176  50.994  1.00 87.84           O
ATOM   4035  CB  SER A 507     -20.644  16.308  51.788  1.00104.75           C
ATOM   4036  OG  SER A 507     -21.536  15.604  52.645  1.00103.67           O
ATOM   4037  N   THR A 508     -18.338  14.363  50.965  1.00 92.63           N
ATOM   4038  CA  THR A 508     -17.515  13.264  51.435  1.00 83.65           C
ATOM   4039  C   THR A 508     -17.140  13.534  52.893  1.00 78.32           C
ATOM   4040  O   THR A 508     -16.408  14.484  53.176  1.00 81.83           O
ATOM   4041  CB  THR A 508     -16.303  13.109  50.511  1.00 86.32           C
ATOM   4042  OG1 THR A 508     -15.540  14.318  50.494  1.00 97.09           O
ATOM   4043  CG2 THR A 508     -16.773  12.839  49.068  1.00 76.40           C
ATOM   4044  N   ARG A 509     -17.697  12.745  53.820  1.00 78.55           N
ATOM   4045  CA  ARG A 509     -17.479  12.934  55.250  1.00 76.21           C
ATOM   4046  C   ARG A 509     -16.341  12.074  55.770  1.00 68.89           C
ATOM   4047  O   ARG A 509     -15.931  11.091  55.154  1.00 77.86           O
ATOM   4048  CB  ARG A 509     -18.730  12.613  56.082  1.00 78.10           C
ATOM   4049  CG  ARG A 509     -20.011  13.306  55.674  1.00 87.14           C
ATOM   4050  CD  ARG A 509     -21.091  12.305  55.410  1.00 81.26           C
ATOM   4051  NE  ARG A 509     -20.738  11.542  54.223  0.26 87.83           N
ATOM   4052  CZ  ARG A 509     -21.299  10.390  53.880  0.58 93.61           C
ATOM   4053  NH1 ARG A 509     -22.232   9.828  54.644  1.00 93.69           N
ATOM   4054  NH2 ARG A 509     -20.887   9.797  52.780  1.00 87.80           N
ATOM   4055  N   ILE A 510     -15.863  12.453  56.948  1.00 62.67           N
ATOM   4056  CA  ILE A 510     -14.961  11.642  57.744  1.00 64.46           C
ATOM   4057  C   ILE A 510     -15.772  11.050  58.887  1.00 74.24           C
ATOM   4058  O   ILE A 510     -16.500  11.777  59.580  1.00 67.03           O
ATOM   4059  CB  ILE A 510     -13.783  12.471  58.274  1.00 67.74           C
ATOM   4060  CG1 ILE A 510     -13.131  13.276  57.148  1.00 73.68           C
ATOM   4061  CG2 ILE A 510     -12.788  11.573  58.970  1.00 72.48           C
ATOM   4062  CD1 ILE A 510     -13.619  14.737  57.067  1.00 76.32           C
ATOM   4063  N   MET A 511     -15.687   9.727  59.056  1.00 77.51           N
ATOM   4064  CA  MET A 511     -16.399   9.014  60.111  1.00 73.57           C
ATOM   4065  C   MET A 511     -15.480   7.994  60.781  1.00 75.17           C
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ATOM   4066  O   MET A 511     -14.416   7.632  60.268  1.00 76.39           O
ATOM   4067  CB  MET A 511     -17.650   8.301  59.579  1.00 63.95           C
ATOM   4068  CG  MET A 511     -18.404   9.058  58.502  1.00 69.92           C
ATOM   4069  SD  MET A 511     -19.756  10.044  59.153  1.00 91.32           S
ATOM   4070  CE  MET A 511     -21.057   8.816  59.229  1.00 77.20           C
ATOM   4071  N   THR A 512     -15.928   7.526  61.943  1.00 74.68           N
ATOM   4072  CA  THR A 512     -15.271   6.510  62.751  1.00 76.98           C
ATOM   4073  C   THR A 512     -16.205   5.310  62.912  1.00 80.71           C
ATOM   4074  O   THR A 512     -17.396   5.399  62.602  1.00 88.47           O
ATOM   4075  CB  THR A 512     -14.931   7.084  64.124  1.00 72.89           C
ATOM   4076  OG1 THR A 512     -16.100   7.738  64.630  1.00 85.34           O
ATOM   4077  CG2 THR A 512     -13.823   8.095  64.003  1.00 64.41           C
ATOM   4078  N   LYS A 513     -15.673   4.177  63.403  1.00 69.23           N
ATOM   4079  CA  LYS A 513     -16.525   3.108  63.933  1.00 62.80           C
ATOM   4080  C   LYS A 513     -17.366   2.464  62.820  1.00 71.74           C
ATOM   4081  O   LYS A 513     -18.576   2.280  62.953  1.00 81.69           O
ATOM   4082  CB  LYS A 513     -17.401   3.712  65.072  1.00 93.52           C
ATOM   4083  CG  LYS A 513     -18.923   3.309  65.287  1.00 89.90           C
ATOM   4084  CD  LYS A 513     -19.630   3.897  66.534  1.00 98.77           C
ATOM   4085  CE  LYS A 513     -19.469   5.451  66.652  1.00 94.12           C
ATOM   4086  NZ  LYS A 513     -20.316   6.292  65.717  1.00 89.46           N
ATOM   4087  N   LEU A 514     -16.749   2.135  61.682  1.00 65.91           N
ATOM   4088  CA  LEU A 514     -17.623   1.611  60.634  1.00 67.34           C
ATOM   4089  C   LEU A 514     -18.265   0.338  61.170  1.00 64.08           C
ATOM   4090  O   LEU A 514     -17.567  -0.562  61.650  1.00 55.19           O
ATOM   4091  CB  LEU A 514     -16.894   1.366  59.308  1.00 69.15           C
ATOM   4092  CG  LEU A 514     -17.717   0.833  58.114  1.00 61.51           C
ATOM   4093  CD1 LEU A 514     -19.111   1.422  58.063  1.00 63.50           C
ATOM   4094  CD2 LEU A 514     -17.026   1.270  56.870  1.00 53.29           C
ATOM   4095  N   ARG A 515     -19.600   0.349  61.211  1.00 63.87           N
ATOM   4096  CA  ARG A 515     -20.438  -0.667  61.843  1.00 67.35           C
ATOM   4097  C   ARG A 515     -19.747  -1.443  62.969  1.00 64.83           C
ATOM   4098  O   ARG A 515     -19.476  -2.639  62.833  1.00 70.88           O
ATOM   4099  CB  ARG A 515     -20.950  -1.607  60.758  1.00 73.37           C
ATOM   4100  CG  ARG A 515     -21.583  -0.859  59.608  1.00 71.54           C
ATOM   4101  CD  ARG A 515     -21.959  -1.774  58.458  1.00 70.10           C
ATOM   4102  NE  ARG A 515     -22.933  -2.774  58.876  1.00 75.60           N
ATOM   4103  CZ  ARG A 515     -24.250  -2.583  58.889  1.00 81.28           C
ATOM   4104  NH1 ARG A 515     -25.058  -3.563  59.296  1.00 83.60           N
ATOM   4105  NH2 ARG A 515     -24.759  -1.424  58.487  1.00 88.13           N
ATOM   4106  N   ALA A 516     -19.467  -0.774  64.092  1.00 70.43           N
ATOM   4107  CA  ALA A 516     -18.658  -1.390  65.140  1.00 64.07           C
ATOM   4108  C   ALA A 516     -19.446  -2.423  65.937  1.00 62.34           C
ATOM   4109  O   ALA A 516     -18.906  -3.493  66.255  1.00 62.98           O
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ATOM   4110  CB  ALA A 516     -18.083  -0.322  66.070  1.00 66.43           C
ATOM   4111  N   GLN A 517     -20.715  -2.129  66.256  1.00 64.27           N
ATOM   4112  CA  GLN A 517     -21.553  -3.072  67.000  1.00 70.68           C
ATOM   4113  C   GLN A 517     -21.629  -4.413  66.289  1.00 70.98           C
ATOM   4114  O   GLN A 517     -21.279  -5.462  66.857  1.00 55.33           O
ATOM   4115  CB  GLN A 517     -22.970  -2.516  67.194  1.00 77.01           C
ATOM   4116  CG  GLN A 517     -23.943  -3.547  67.802  1.00 82.68           C
ATOM   4117  CD  GLN A 517     -25.355  -3.466  67.233  0.54 82.10           C
ATOM   4118  OE1 GLN A 517     -25.793  -2.399  66.802  0.66 81.95           O
ATOM   4119  NE2 GLN A 517     -26.085  -4.589  67.266  0.83 77.16           N
ATOM   4120  N   GLN A 518     -22.100  -4.378  65.031  1.00 78.35           N
ATOM   4121  CA  GLN A 518     -22.159  -5.573  64.195  1.00 68.23           C
ATOM   4122  C   GLN A 518     -20.812  -6.275  64.138  1.00 63.95           C
ATOM   4123  O   GLN A 518     -20.699  -7.443  64.529  1.00 57.68           O
ATOM   4124  CB  GLN A 518     -22.627  -5.217  62.787  1.00 59.25           C
ATOM   4125  CG  GLN A 518     -24.033  -4.664  62.725  1.00 69.25           C
ATOM   4126  CD  GLN A 518     -24.063  -3.137  62.716  1.00 78.49           C
ATOM   4127  OE1 GLN A 518     -23.074  -2.472  63.058  1.00 74.14           O
ATOM   4128  NE2 GLN A 518     -25.208  -2.574  62.333  1.00 73.62           N
ATOM   4129  N   CYS A 519     -19.772  -5.572  63.668  1.00 52.66           N
ATOM   4130  CA  CYS A 519     -18.506  -6.249  63.399  1.00 63.76           C
ATOM   4131  C   CYS A 519     -18.002  -6.996  64.610  1.00 63.27           C
ATOM   4132  O   CYS A 519     -17.366  -8.048  64.484  1.00 68.37           O
ATOM   4133  CB  CYS A 519     -17.456  -5.264  62.905  1.00 62.56           C
ATOM   4134  SG  CYS A 519     -17.717  -5.007  61.179  1.00 70.10           S
ATOM   4135  N   ARG A 520     -18.309  -6.497  65.792  1.00 70.98           N
ATOM   4136  CA  ARG A 520     -17.674  -7.085  66.948  1.00 81.95           C
ATOM   4137  C   ARG A 520     -18.455  -8.301  67.447  1.00 79.56           C
ATOM   4138  O   ARG A 520     -17.899  -9.132  68.173  1.00 87.02           O
ATOM   4139  CB  ARG A 520     -17.480  -6.029  68.025  1.00 82.28           C
ATOM   4140  CG  ARG A 520     -17.713  -6.559  69.321  1.00 87.39           C
ATOM   4141  CD  ARG A 520     -17.976  -5.532  70.340  1.00 94.99           C
ATOM   4142  NE  ARG A 520     -18.487  -6.186  71.395  1.00 97.32           N
ATOM   4143  CZ  ARG A 520     -17.858  -6.426  72.403  1.00 95.00           C
ATOM   4144  NH1 ARG A 520     -18.361  -7.074  73.289  1.00 85.02           N
ATOM   4145  NH2 ARG A 520     -16.706  -6.041  72.489  1.00108.36           N
ATOM   4146  N   PHE A 521     -19.730  -8.433  67.053  1.00 75.73           N
ATOM   4147  CA  PHE A 521     -20.394  -9.736  67.100  1.00 70.95           C
ATOM   4148  C   PHE A 521     -19.640 -10.746  66.237  1.00 72.65           C
ATOM   4149  O   PHE A 521     -19.237 -11.815  66.710  1.00 80.67           O
ATOM   4150  CB  PHE A 521     -21.854  -9.590  66.639  1.00 73.77           C
ATOM   4151  CG  PHE A 521     -22.527 -10.896  66.255  1.00 71.91           C
ATOM   4152  CD1 PHE A 521     -23.262 -11.612  67.182  1.00 69.57           C
ATOM   4153  CD2 PHE A 521     -22.454 -11.392  64.952  1.00 78.12           C
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ATOM   4154  CE1 PHE A 521     -23.892 -12.809  66.840  1.00 72.19           C
ATOM   4155  CE2 PHE A 521     -23.079 -12.601  64.599  1.00 78.62           C
ATOM   4156  CZ  PHE A 521     -23.802 -13.307  65.553  1.00 73.94           C
ATOM   4157  N   TRP A 522     -19.430 -10.409  64.959  1.00 75.86           N
ATOM   4158  CA  TRP A 522     -18.795 -11.334  64.027  1.00 73.39           C
ATOM   4159  C   TRP A 522     -17.331 -11.573  64.365  1.00 78.10           C
ATOM   4160  O   TRP A 522     -16.803 -12.645  64.058  1.00 79.15           O
ATOM   4161  CB  TRP A 522     -18.903 -10.814  62.590  1.00 70.10           C
ATOM   4162  CG  TRP A 522     -20.310 -10.746  62.038  1.00 70.91           C
ATOM   4163  CD1 TRP A 522     -21.008  -9.615  61.700  1.00 64.14           C
ATOM   4164  CD2 TRP A 522     -21.186 -11.855  61.759  1.00 70.49           C
ATOM   4165  NE1 TRP A 522     -22.262  -9.956  61.236  1.00 59.29           N
ATOM   4166  CE2 TRP A 522     -22.395 -11.320  61.260  1.00 57.52           C
ATOM   4167  CE3 TRP A 522     -21.066 -13.245  61.887  1.00 70.36           C
ATOM   4168  CZ2 TRP A 522     -23.475 -12.126  60.894  1.00 60.57           C
ATOM   4169  CZ3 TRP A 522     -22.142 -14.046  61.515  1.00 64.33           C
ATOM   4170  CH2 TRP A 522     -23.325 -13.484  61.025  1.00 67.68           C
ATOM   4171  N   THR A 523     -16.655 -10.594  64.969  1.00 77.66           N
ATOM   4172  CA  THR A 523     -15.211 -10.704  65.130  1.00 83.67           C
ATOM   4173  C   THR A 523     -14.825 -11.331  66.459  1.00 88.59           C
ATOM   4174  O   THR A 523     -13.801 -12.017  66.536  1.00 94.00           O
ATOM   4175  CB  THR A 523     -14.537  -9.325  64.990  1.00 82.92           C
ATOM   4176  OG1 THR A 523     -13.137  -9.483  64.717  1.00 88.66           O
ATOM   4177  CG2 THR A 523     -14.668  -8.516  66.267  1.00 76.14           C
ATOM   4178  N   SER A 524     -15.626 -11.136  67.504  1.00 90.65           N
ATOM   4179  CA  SER A 524     -15.206 -11.527  68.842  1.00 91.73           C
ATOM   4180  C   SER A 524     -15.858 -12.807  69.313  1.00 97.47           C
ATOM   4181  O   SER A 524     -15.230 -13.575  70.051  1.00109.61           O
ATOM   4182  CB  SER A 524     -15.507 -10.425  69.864  1.00 92.94           C
ATOM   4183  OG  SER A 524     -16.881 -10.066  69.880  1.00 94.50           O
ATOM   4184  N   PHE A 525     -17.106 -13.055  68.916  1.00100.25           N
ATOM   4185  CA  PHE A 525     -17.892 -14.119  69.525  1.00 98.11           C
ATOM   4186  C   PHE A 525     -18.303 -15.200  68.534  1.00 93.59           C
ATOM   4187  O   PHE A 525     -18.085 -16.390  68.805  1.00 94.79           O
ATOM   4188  CB  PHE A 525     -19.115 -13.511  70.229  1.00 78.00           C
ATOM   4189  CG  PHE A 525     -20.279 -14.457  70.364  1.00101.44           C
ATOM   4190  CD1 PHE A 525     -20.108 -15.716  70.908  1.00115.79           C
ATOM   4191  CD2 PHE A 525     -21.559 -14.052  70.056  1.00106.20           C
ATOM   4192  CE1 PHE A 525     -21.168 -16.581  71.045  1.00125.27           C
ATOM   4193  CE2 PHE A 525     -22.630 -14.916  70.219  1.00112.89           C
ATOM   4194  CZ  PHE A 525     -22.435 -16.174  70.711  1.00110.31           C
ATOM   4195  N   PHE A 526     -18.900 -14.833  67.400  1.00 94.81           N
ATOM   4196  CA  PHE A 526     -19.205 -15.857  66.403  1.00 91.43           C
ATOM   4197  C   PHE A 526     -18.044 -16.804  66.121  1.00 86.41           C
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ATOM   4198  O   PHE A 526     -18.313 -17.995  65.882  1.00 89.38           O
ATOM   4199  CB  PHE A 526     -19.738 -15.225  65.108  1.00 78.86           C
ATOM   4200  CG  PHE A 526     -20.357 -16.231  64.127  1.00 65.03           C
ATOM   4201  CD1 PHE A 526     -21.690 -16.591  64.229  1.00 64.83           C
ATOM   4202  CD2 PHE A 526     -19.629 -16.733  63.052  1.00 58.56           C
ATOM   4203  CE1 PHE A 526     -22.276 -17.464  63.315  1.00 66.81           C
ATOM   4204  CE2 PHE A 526     -20.206 -17.602  62.140  1.00 61.76           C
ATOM   4205  CZ  PHE A 526     -21.534 -17.966  62.268  1.00 62.29           C
ATOM   4206  N   PRO A 527     -16.773 -16.379  66.140  1.00 88.70           N
ATOM   4207  CA  PRO A 527     -15.698 -17.348  65.917  1.00100.05           C
ATOM   4208  C   PRO A 527     -15.741 -18.557  66.836  1.00105.34           C
ATOM   4209  O   PRO A 527     -15.053 -19.540  66.539  1.00117.65           O
ATOM   4210  CB  PRO A 527     -14.419 -16.512  66.142  1.00 96.77           C
ATOM   4211  CG  PRO A 527     -14.884 -15.049  66.311  1.00 96.28           C
ATOM   4212  CD  PRO A 527     -16.282 -15.017  65.783  1.00 93.51           C
ATOM   4213  N   LYS A 528     -16.565 -18.567  67.887  1.00 97.62           N
ATOM   4214  CA  LYS A 528     -16.592 -19.701  68.813  1.00110.71           C
ATOM   4215  C   LYS A 528     -17.608 -20.775  68.432  1.00128.46           C
ATOM   4216  O   LYS A 528     -17.309 -21.970  68.545  1.00135.94           O
ATOM   4217  CB  LYS A 528     -16.893 -19.203  70.225  1.00 90.93           C
ATOM   4218  CG  LYS A 528     -15.887 -18.169  70.685  1.00110.06           C
ATOM   4219  CD  LYS A 528     -15.955 -17.891  72.179  1.00 99.22           C
ATOM   4220  CE  LYS A 528     -16.633 -16.560  72.460  1.00 80.76           C
ATOM   4221  NZ  LYS A 528     -15.675 -15.419  72.438  1.00 95.11           N
ATOM   4222  N   VAL A 529     -18.806 -20.372  68.012  1.00124.24           N
ATOM   4223  CA  VAL A 529     -19.899 -21.291  67.694  1.00132.91           C
ATOM   4224  C   VAL A 529     -19.487 -22.447  66.760  1.00140.68           C
ATOM   4225  O   VAL A 529     -18.587 -22.333  65.913  1.00142.38           O
ATOM   4226  CB  VAL A 529     -21.072 -20.496  67.093  1.00128.51           C
ATOM   4227  CG1 VAL A 529     -21.350 -19.268  67.957  1.00104.89           C
ATOM   4228  CG2 VAL A 529     -20.774 -20.093  65.632  1.00117.58           C
TER    4229       VAL A 529
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Table S1. Free energy of binding, ΔG_{bind}, estimated by molecular docking of compounds **14**, **15**, **22** and **23** into the active site of AChE (4EY7.pdb), along with the number of conformational clusters, distribution of conformations, and docking results of the reference compound donepezil and galantamine.

Ligand	ΔG_{bind}/kcal mol^{-1}		Number of distinctive conformational clusters	Distribution of conformations within clusters with $n > 1$ (n = cluster population)
	lowest	highest		
14	−9.50	−9.33	1	25
15	−9.49	−9.21	1	25
22	−9.32	−8.53	5	7, 2, 4, 7, 5
23	−9.46	−8.70	4	8, 3, 10, 4
donepezil	−11.37	−10.75	4	22
galantamine	−10.11	−10.10	1	25

Table S2. Free energies of binding, ΔG_{bind}, obtained by molecular docking of listed molecules into the active site of BChE (7AIY.pdb), along with the number of conformational clusters, distribution of conformations, and docking results of the reference compounds donepezil and galantamine.

Ligand	ΔG_{bind}/kcal mol^{-1}		Number of distinctive conformational clusters	Distribution of conformations within clusters with $n > 1$ (n = cluster population)
	lowest	highest		
14	−8.63	−8.52	1	25
15	−8.54	−8.40	1	24

22	−7.79	−7.45	5	5, 2, 9, 3, 5
23	−7.89	−7.49	4	2, 8, 4, 9
donepezil	−9.77	−8.16	4	2, 5, 15, 3
galantamine	−7.32	−7.15	1	25

Table S3. The mutagenic potential of thienobenzo-triazoles **14–21** and triazolium salts **22–31** by Lhasa M7 evaluation (green square – negative, red square – positive, white square – no data available); grey highlight – negative, orange highlight – positive, white – strongly negative).

Structure	ICH M7 Class	Derek Prediction	Sarah Prediction	Overall In Silico
14	Class 3	− − − □	+ □ □ □	Positive
15	Class 3	− − − □	+ □ □ □	Positive
16	Class 3	− − − □	+ □ □ □	Positive
17	Class 3	− − − □	+ □ □ □	Positive
18	Inconclusive	− − − □	□ □ □ □	Negative
19	Class 3	− − − □	+ □ □ □	Positive
20	Class 3	− − − □	+ □ □ □	Positive
21	Class 3	− − − □	+ □ □ □	Positive
22	Inconclusive	− − □ □	□ □ □ □	Inconclusive
23	Inconclusive	− − □ □	□ □ □ □	Inconclusive
24	Inconclusive	− − □ □	□ □ □ □	Inconclusive
25	Inconclusive	− − □ □	□ □ □ □	Inconclusive
26	Inconclusive	− − □ □	□ □ □ □	Inconclusive
27	Inconclusive	− − □ □	□ □ □ □	Inconclusive
28	Inconclusive	− − □ □	□ □ □ □	Inconclusive
29	Inconclusive	− − □ □	□ □ □ □	Inconclusive
30	Inconclusive	− − □ □	□ □ □ □	Inconclusive
31	Inconclusive	− − □ □	□ □ □ □	Inconclusive