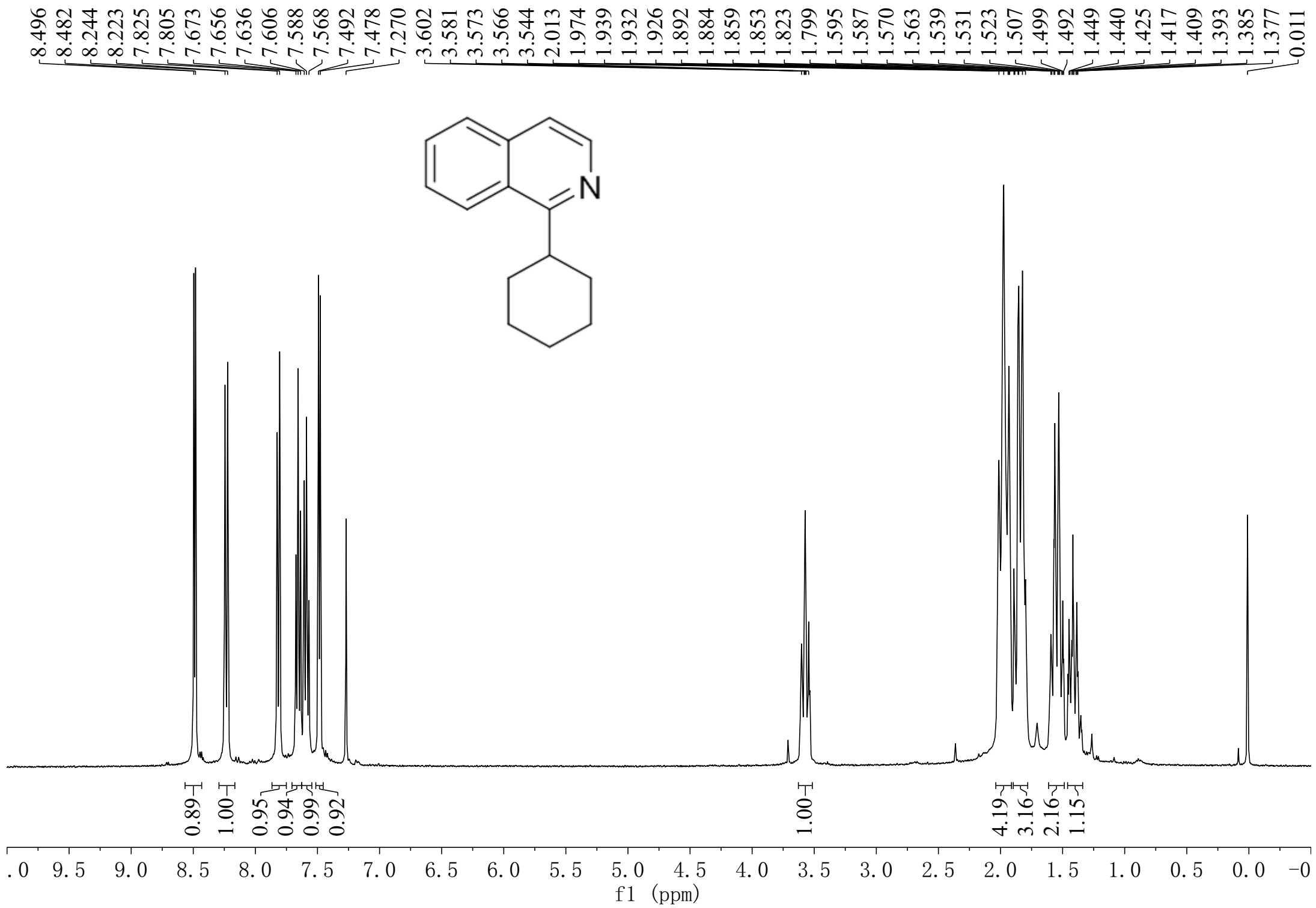
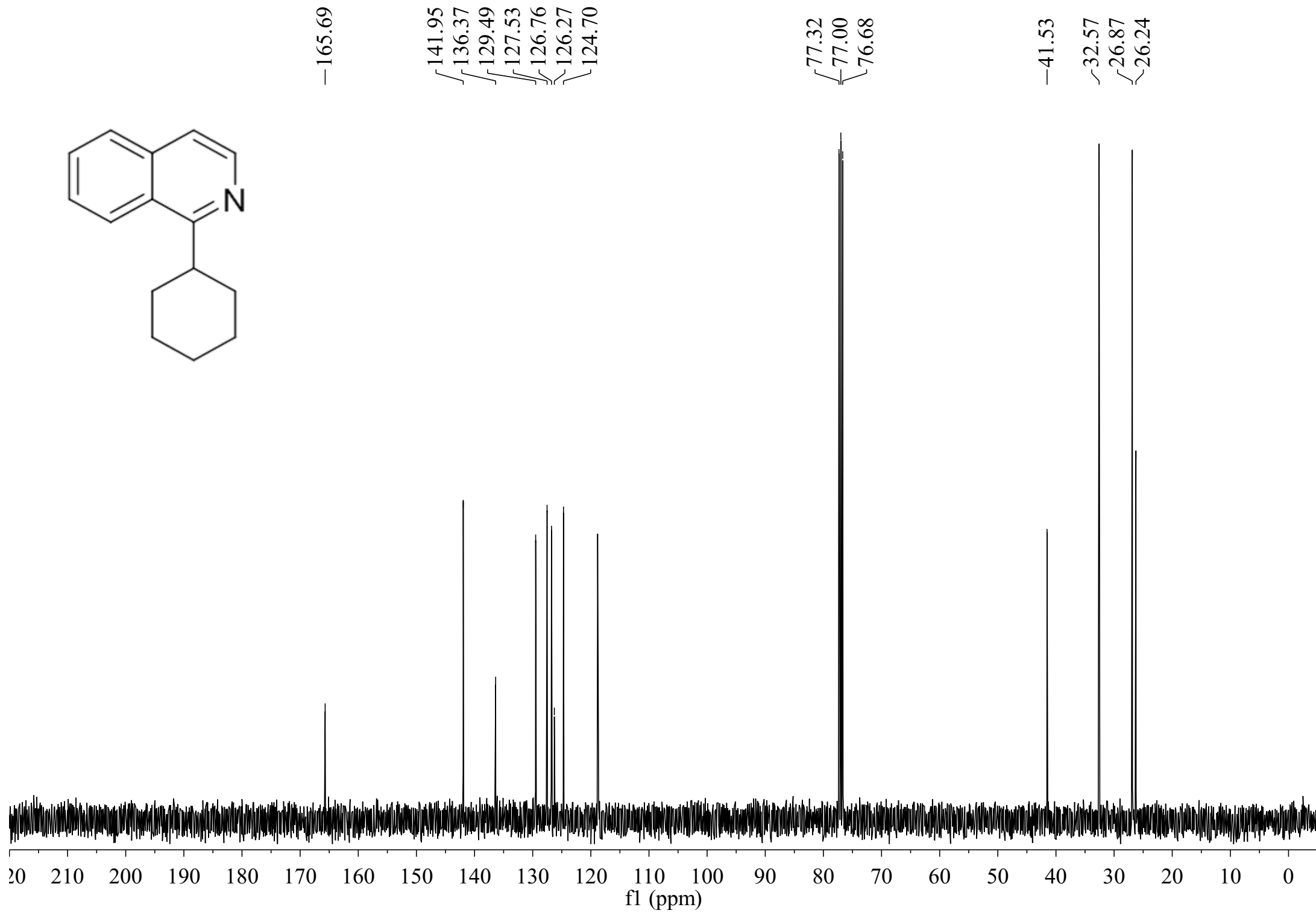
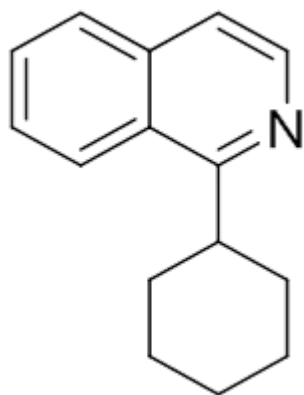
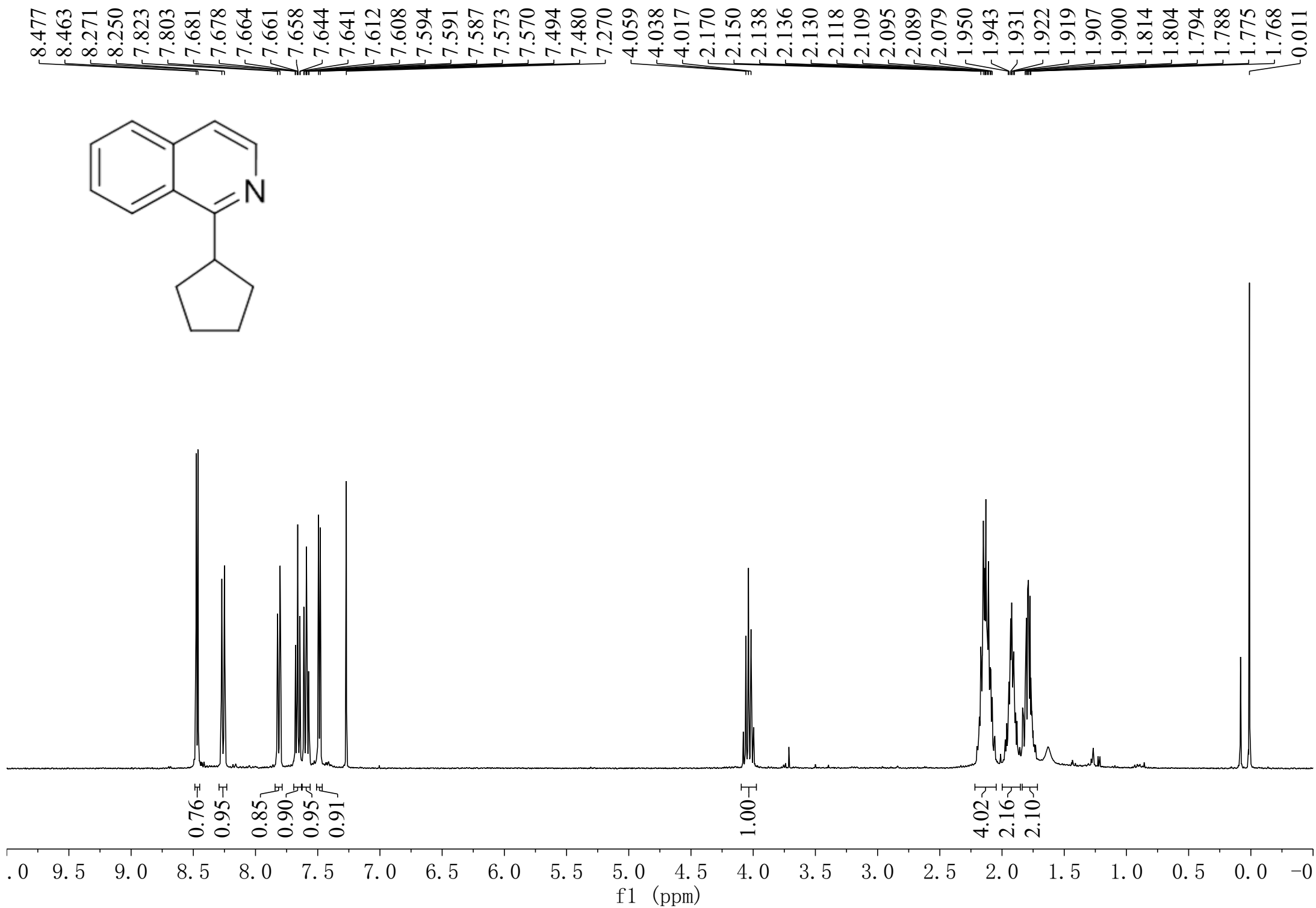


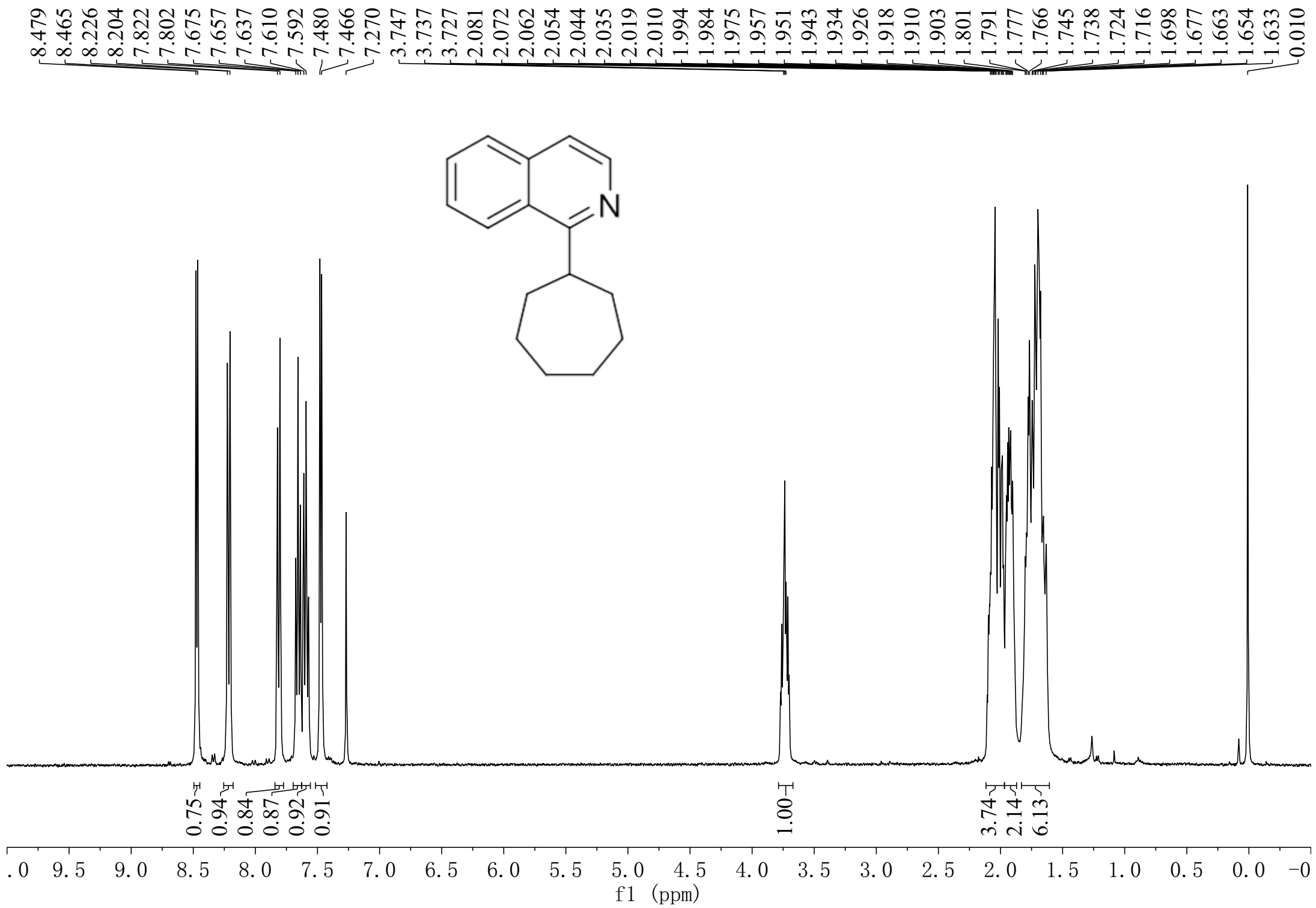
Supporting Information NMR Spectra

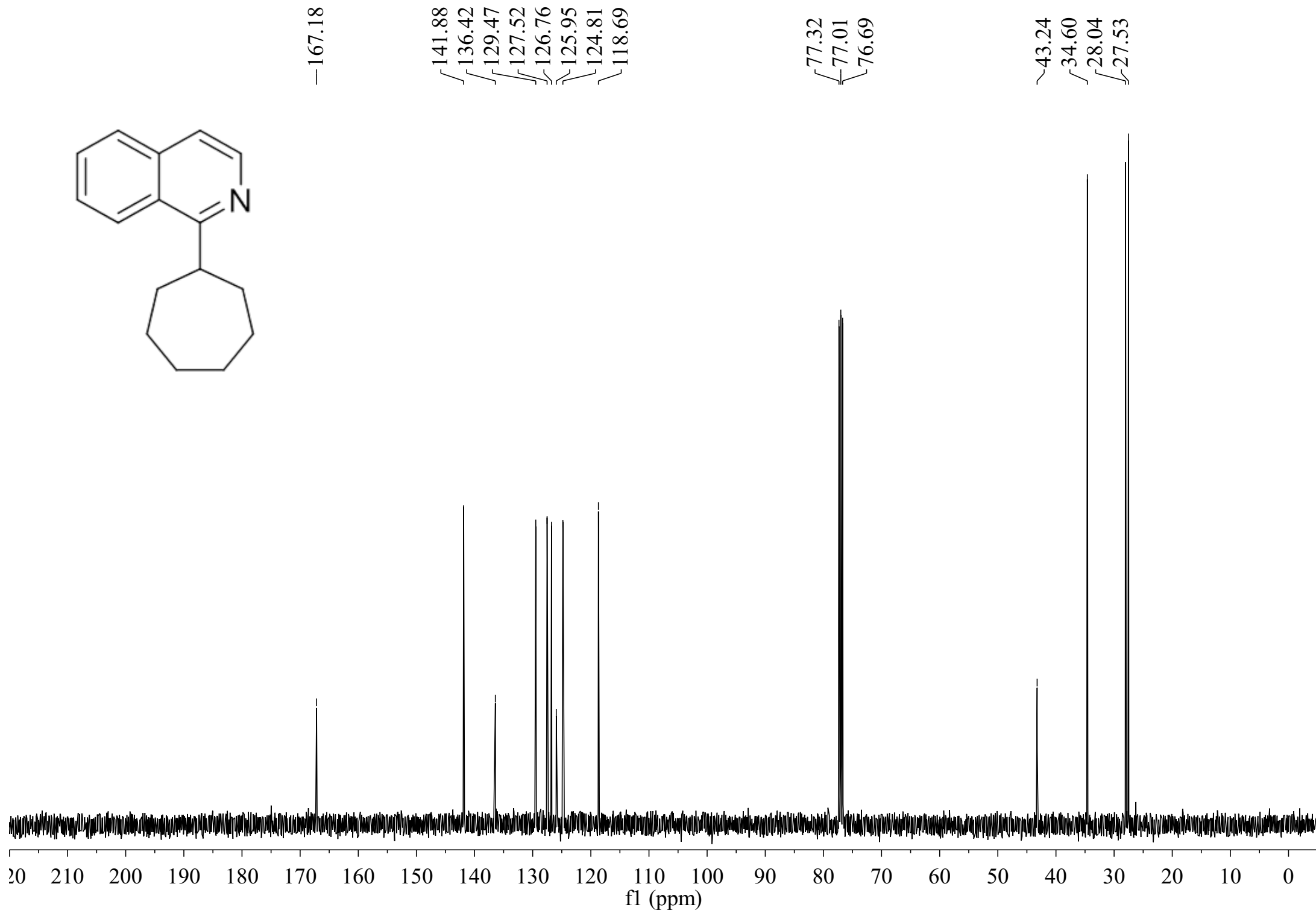
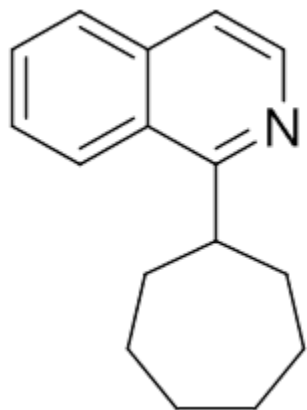
Pursuing High Efficiency in Photocatalytic Oxidative Couplings of Heteroarenes and Aliphatic C-H bonds

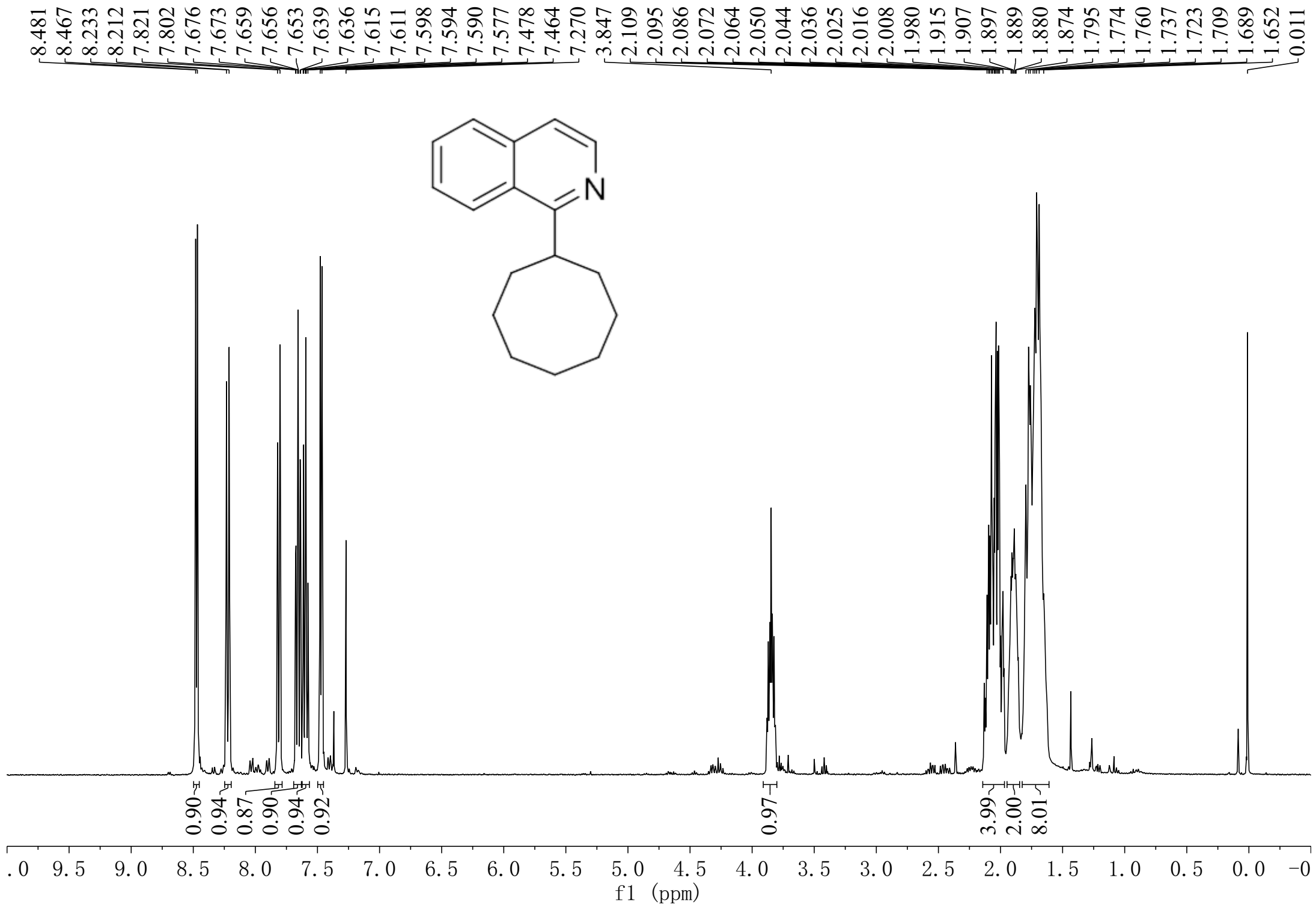


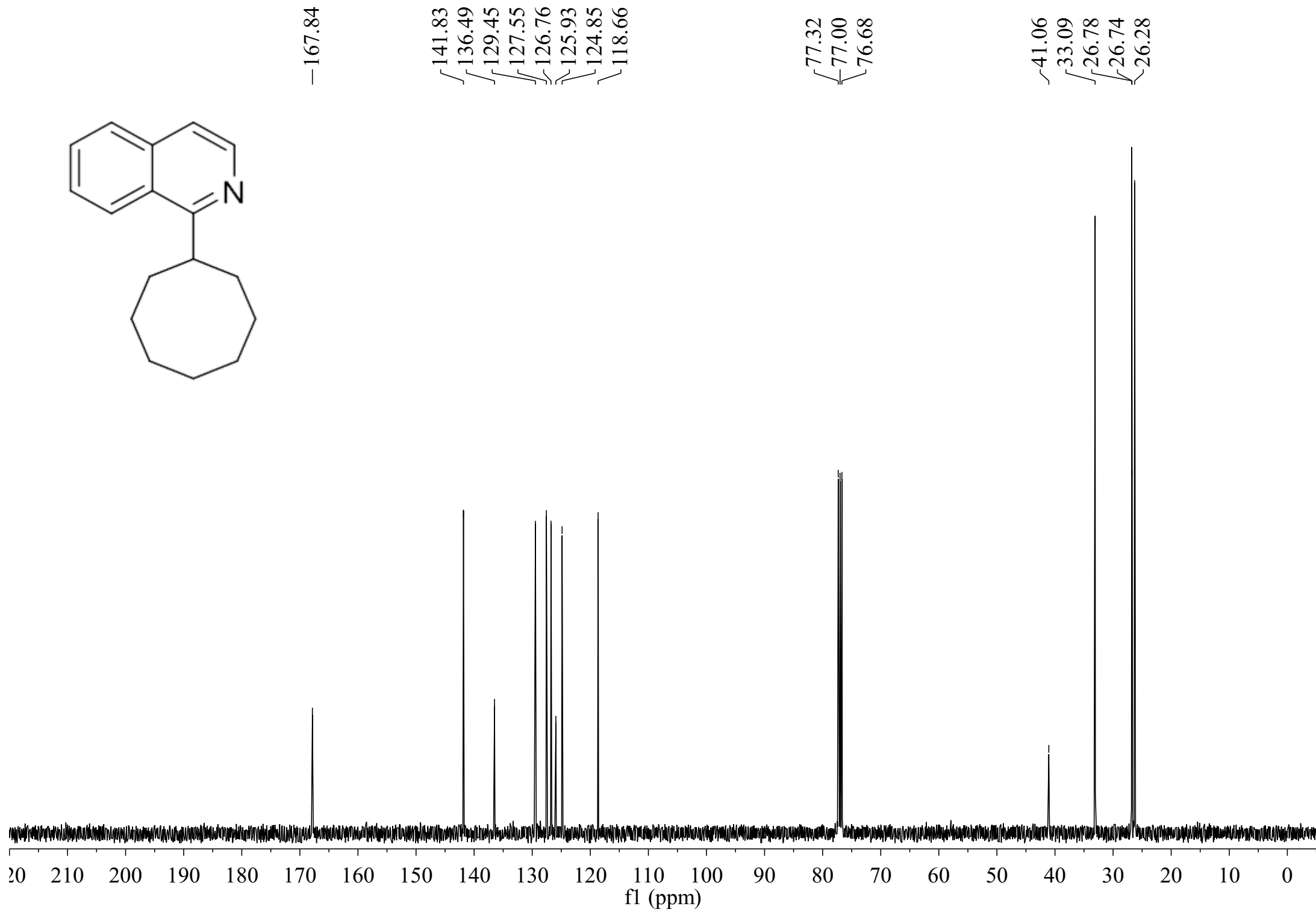
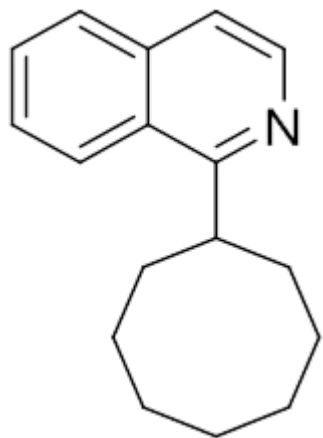








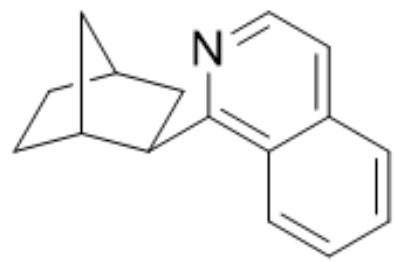




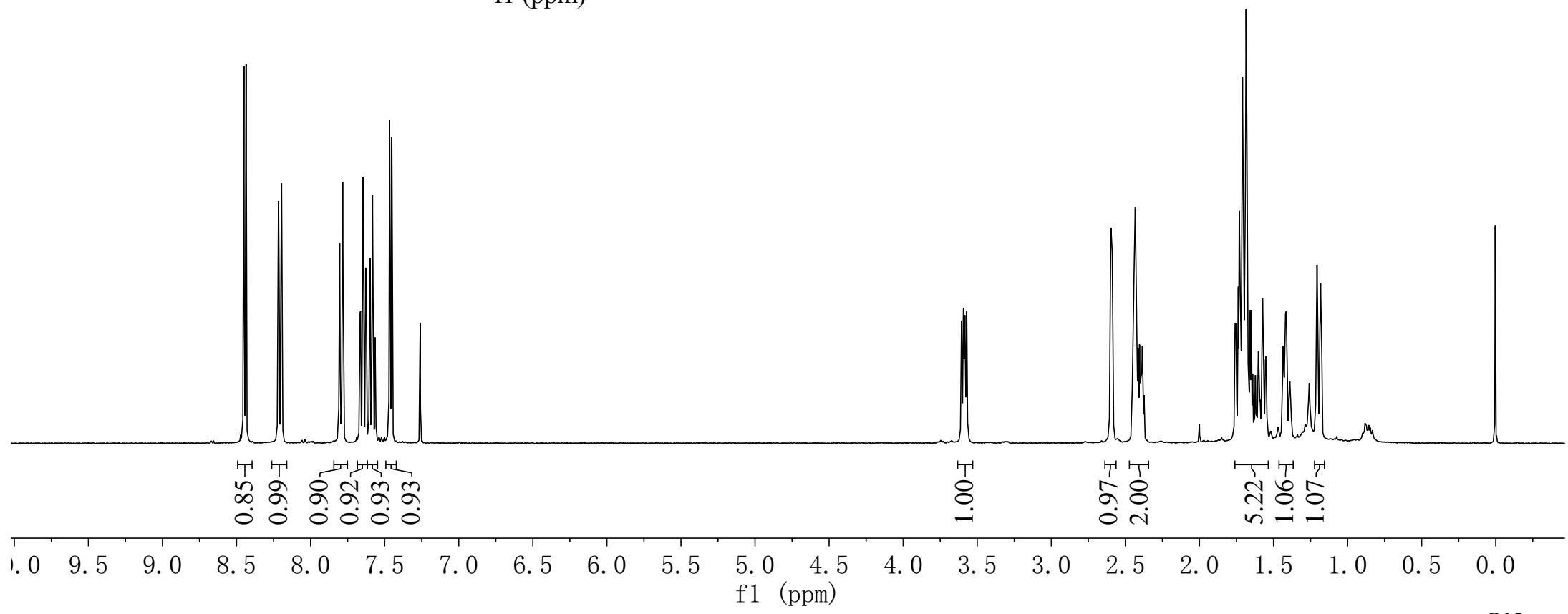
8.450
8.436
8.217
8.196
7.804
7.784
7.666
7.663
7.648
7.645
7.628
7.625
7.603
7.599
7.582
7.578
7.467
7.453
3.606
3.593
3.583
3.571
2.598
2.589
2.440
2.435
2.433
2.429
2.421
2.414
2.410
2.404
2.398
2.392
2.385
2.380
2.374
1.753
1.738
1.731
1.725
1.709
1.703
1.695
1.685
1.680
1.659
1.650
1.574
1.570
1.419
1.414
1.210
1.207
1.204
1.201
1.186
1.183
1.180

3.606
3.593
3.583
3.571

2.598
2.589
2.440
2.435
2.433
2.429
2.421
2.414
2.410
2.404
2.398
2.392
2.385
2.380
2.374



3.7
3.6
3.5
3.4
3.3
3.2
3.1
3.0
2.9
2.8
2.7
2.6
2.5
2.4
f1 (ppm)



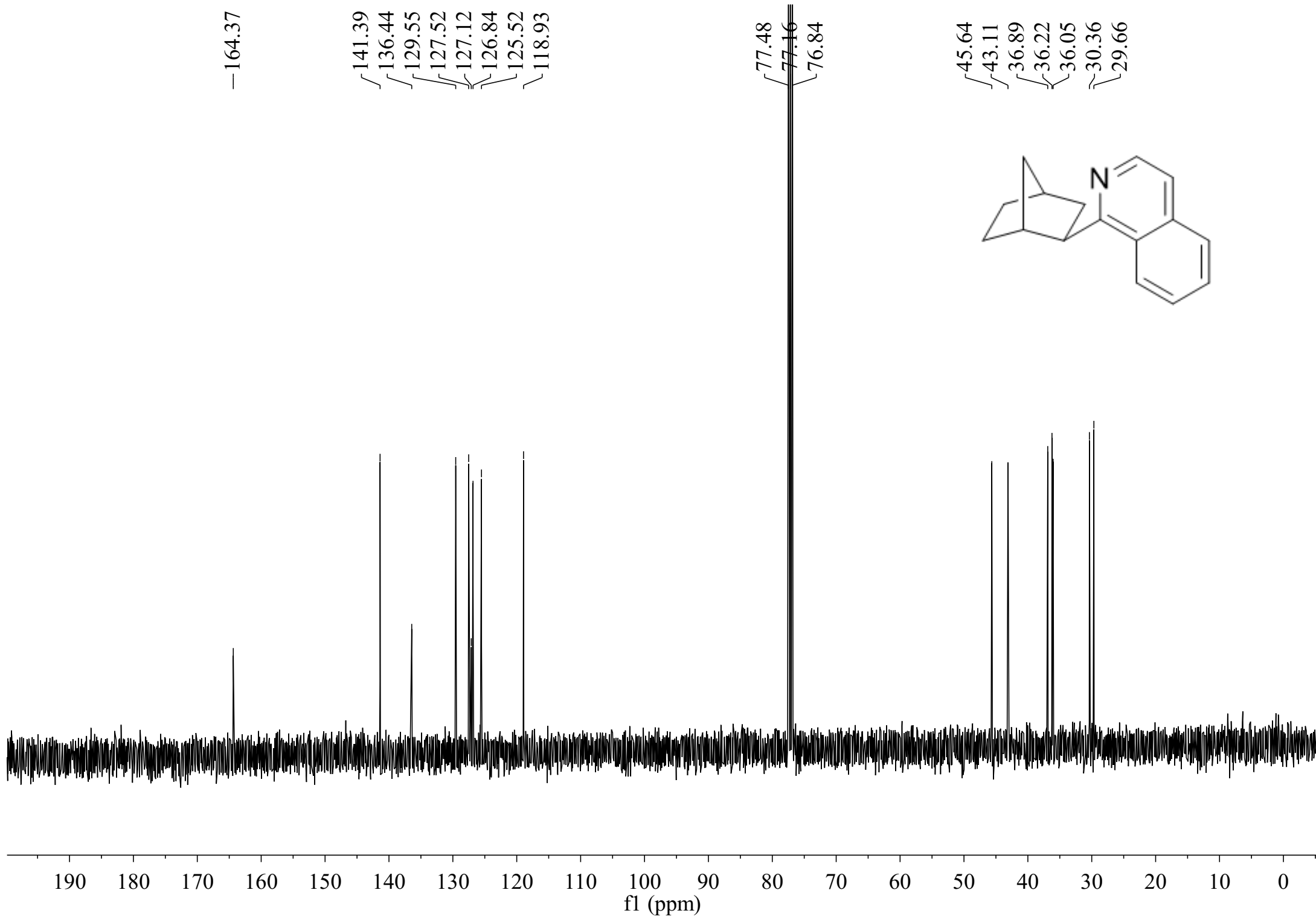
0.85
0.99
0.90
0.92
0.93
0.93

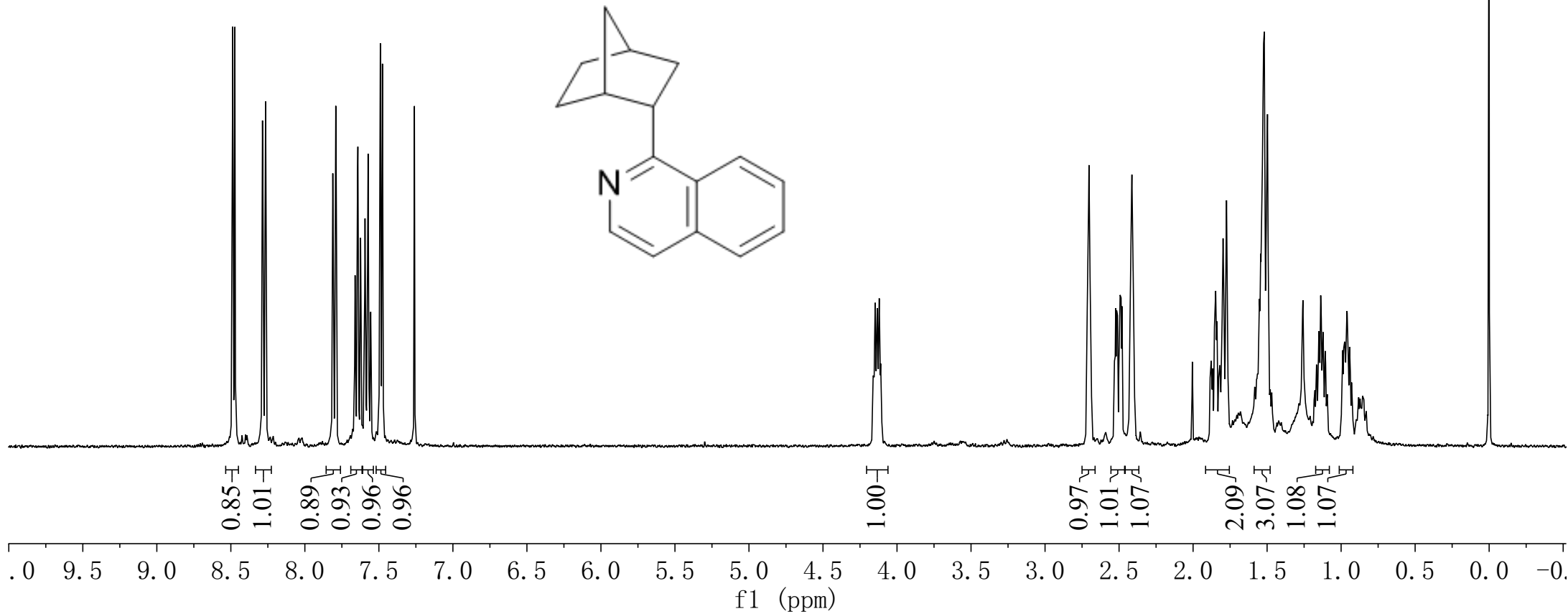
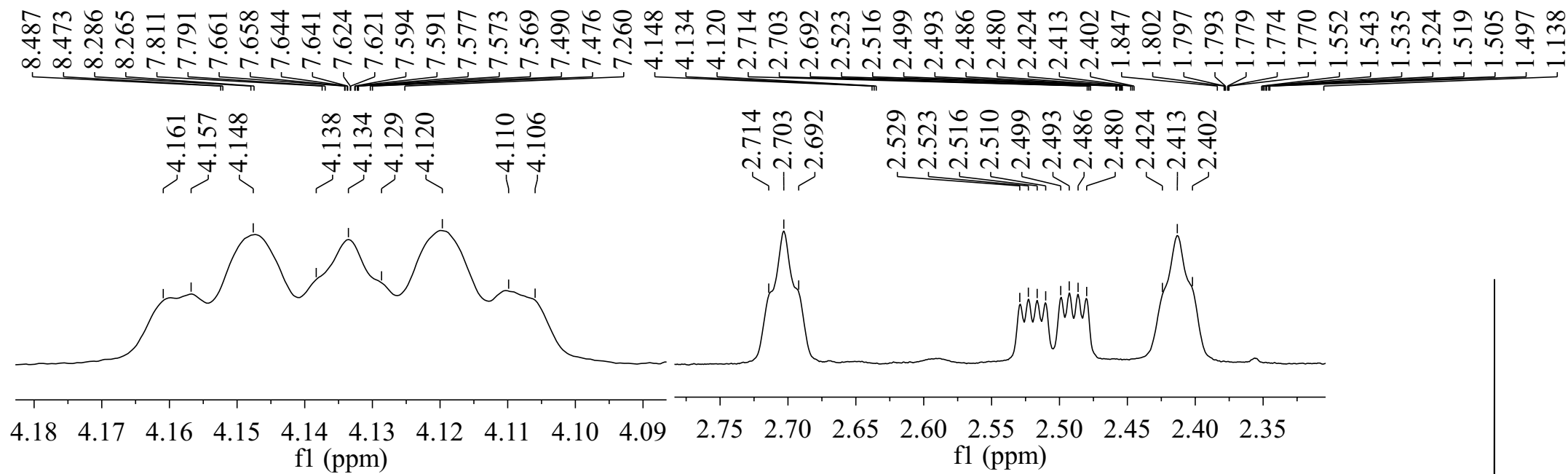
1.00

0.97
2.00

5.22
1.06
1.07

f1 (ppm)

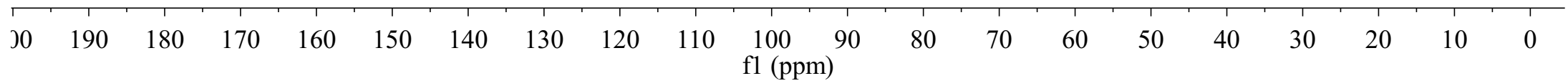
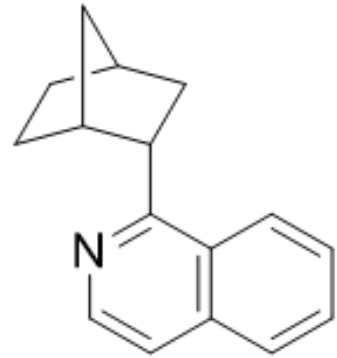




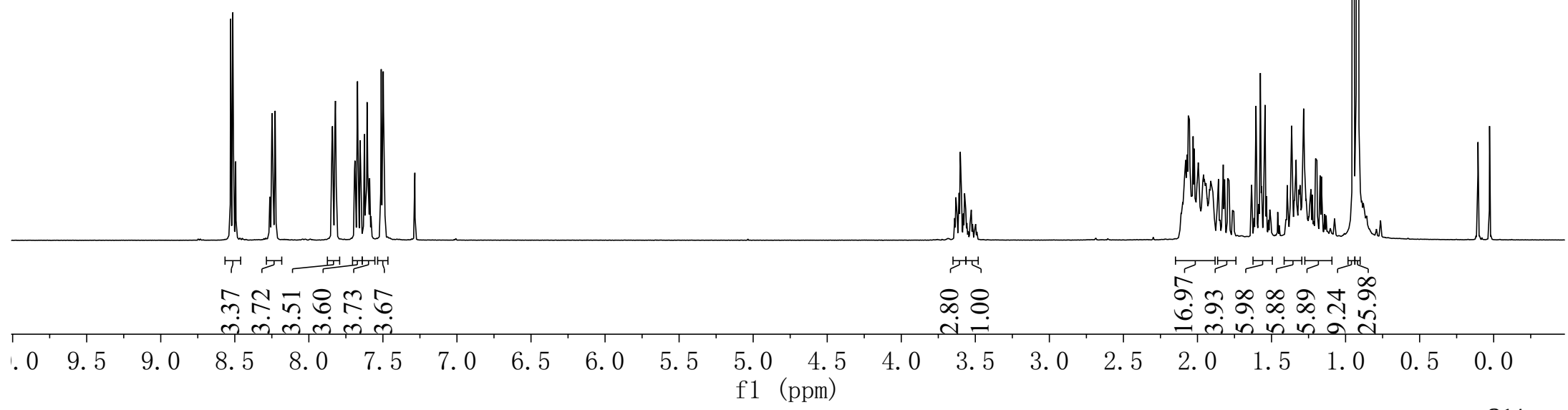
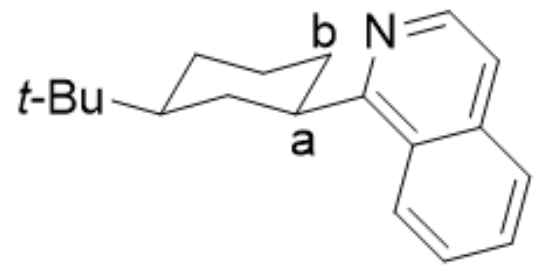
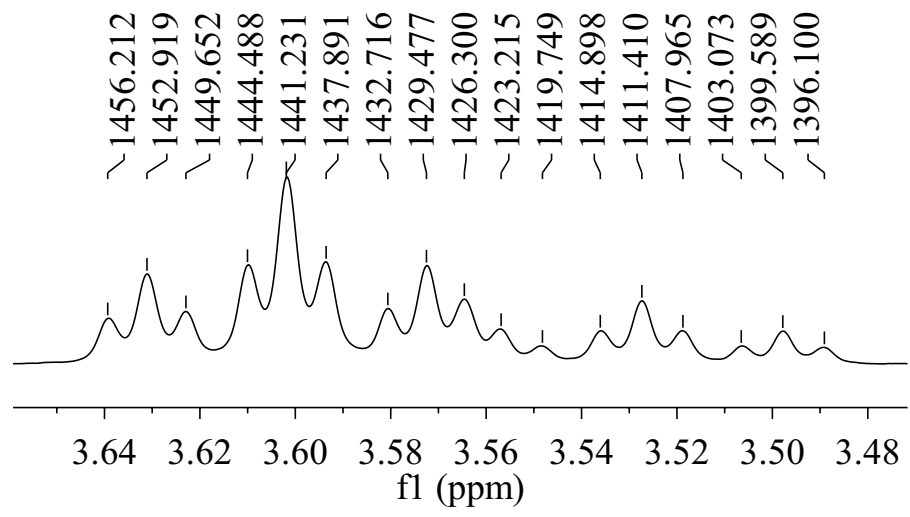
162.20
141.47
136.30
129.51
128.09
127.54
126.75
125.55
119.11

77.48
77.16
76.84

44.96
43.64
41.76
37.90
31.86
29.53
23.84

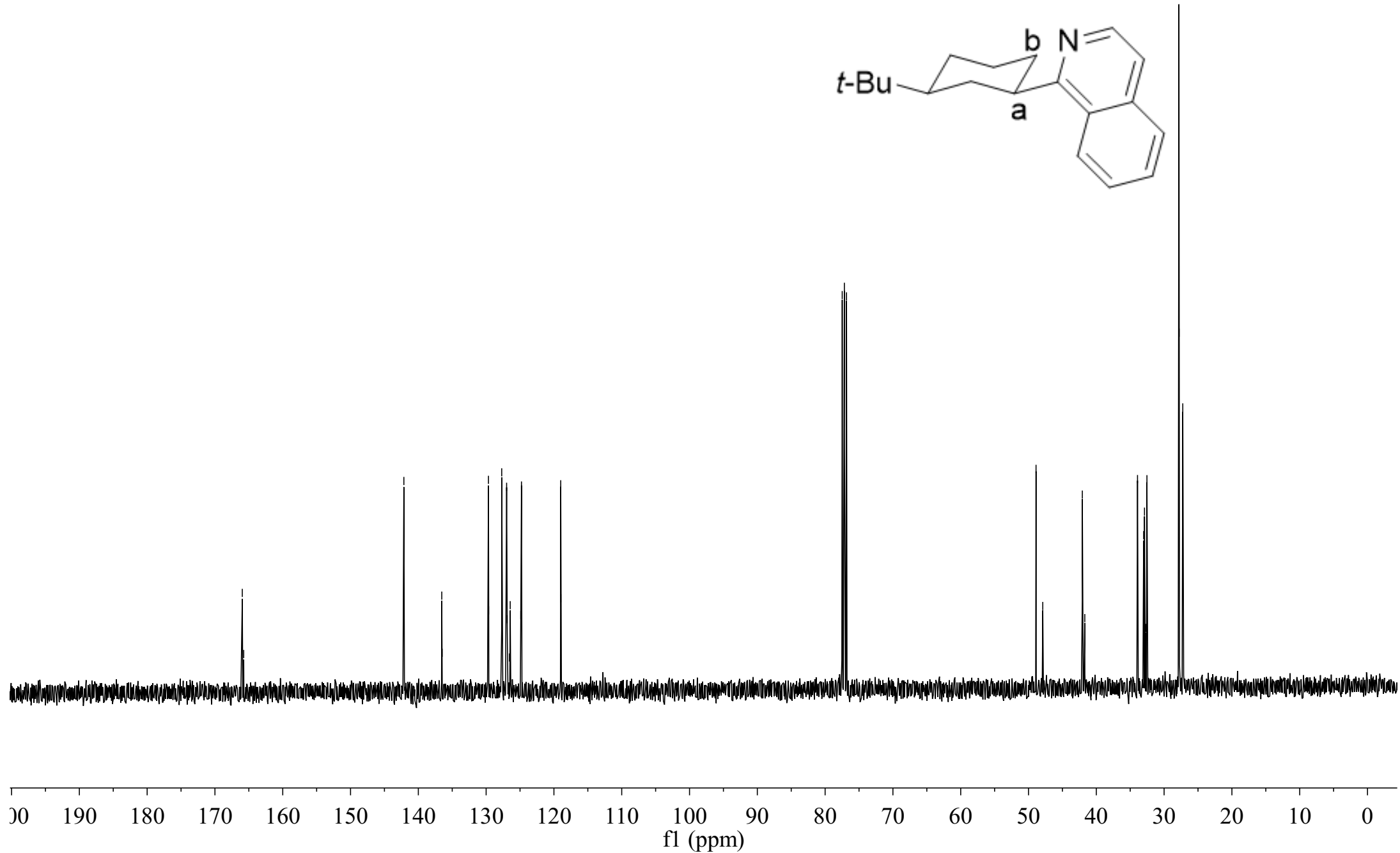
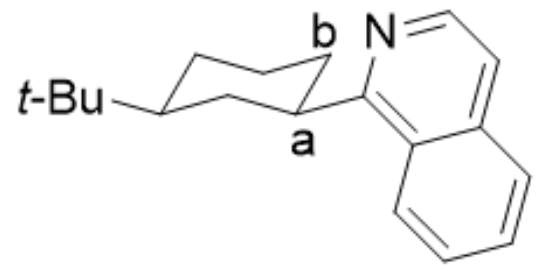


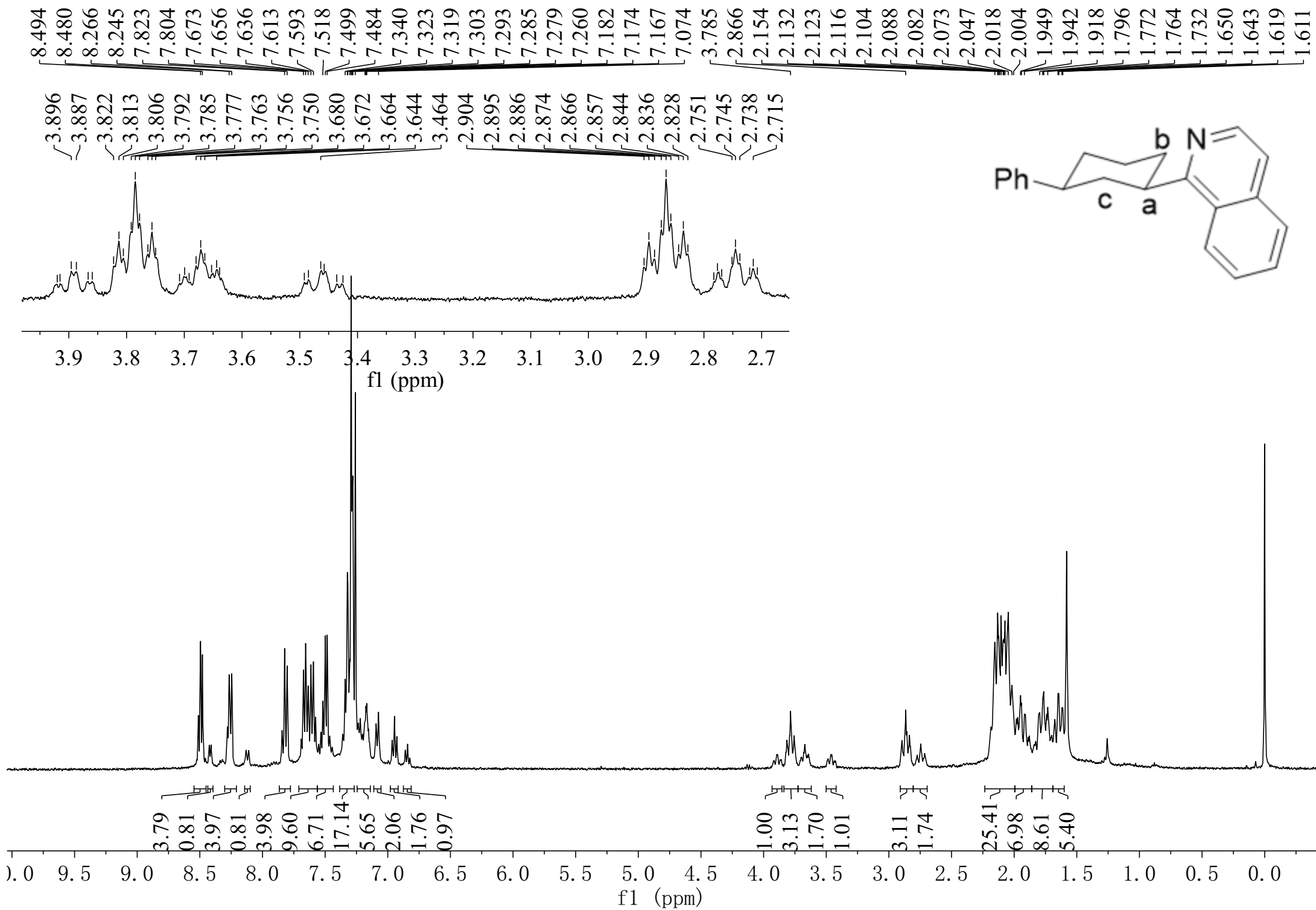
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8.508
8.494
8.251
8.247
8.230
8.228
8.227
8.225
7.845
7.843
7.840
7.825
7.823
7.820
7.689
7.675
7.672
7.669
7.655
7.651
7.628
7.625
7.607
7.603
7.513
7.511
7.499
7.496
3.602
2.079
2.070
2.062
2.054
2.030
2.022
1.995
1.605
1.603
1.576
1.573
1.544
1.364
1.334
1.283
1.203
1.194
0.949
0.921

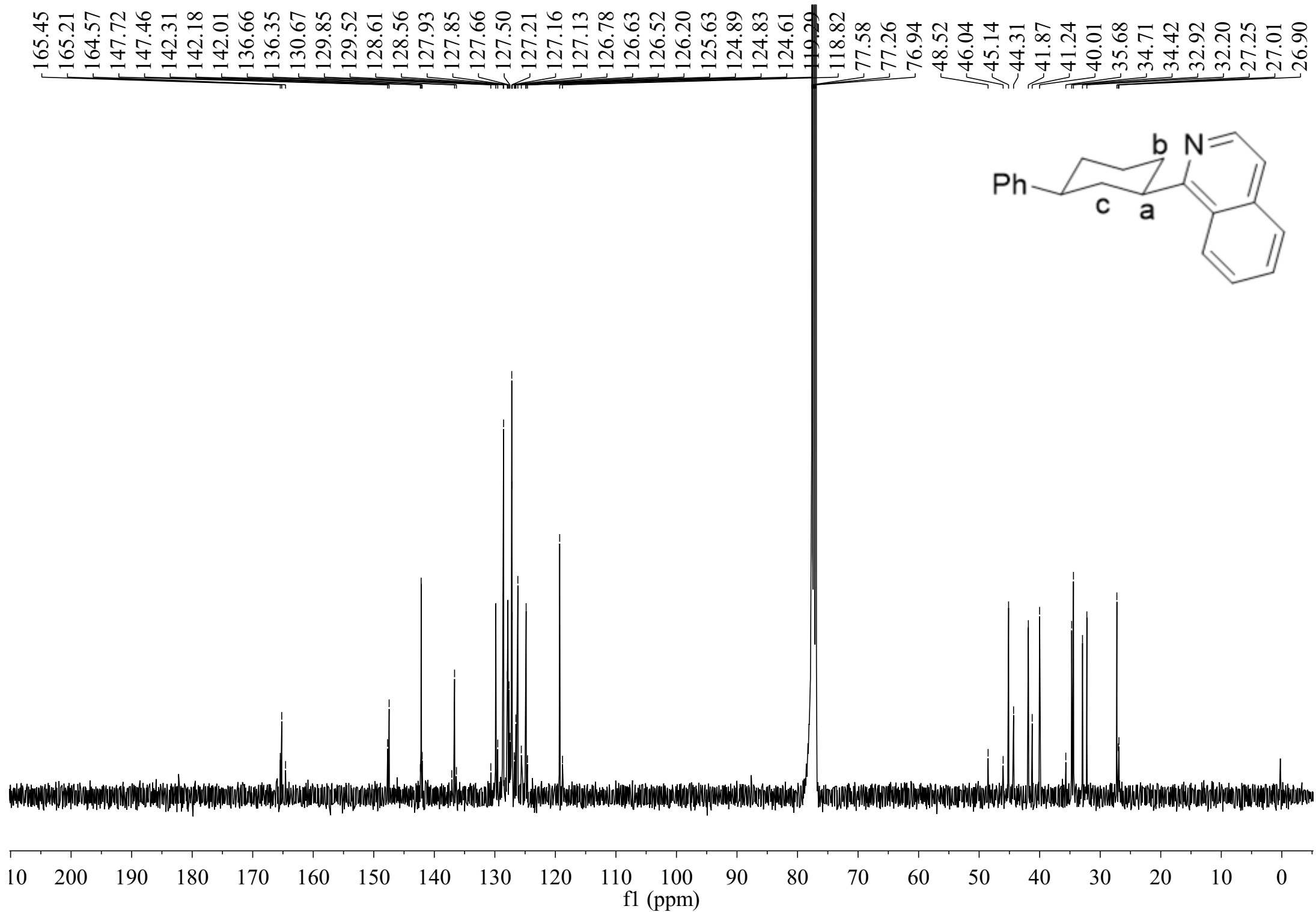


165.97
165.76
142.13
142.10
136.54
136.49
129.66
129.63
127.70
127.67
126.98
126.89
126.56
126.45
124.89
124.79
119.00
118.98

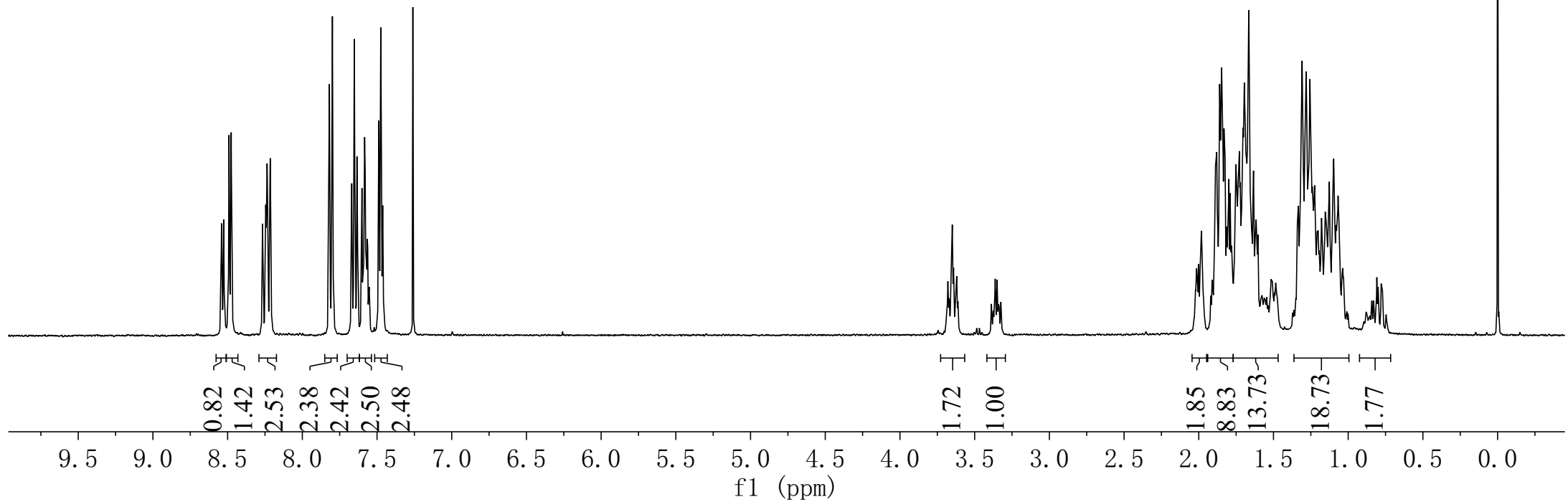
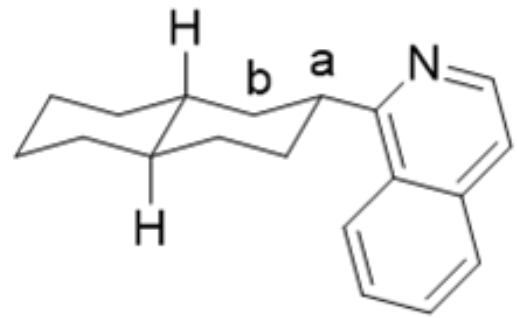
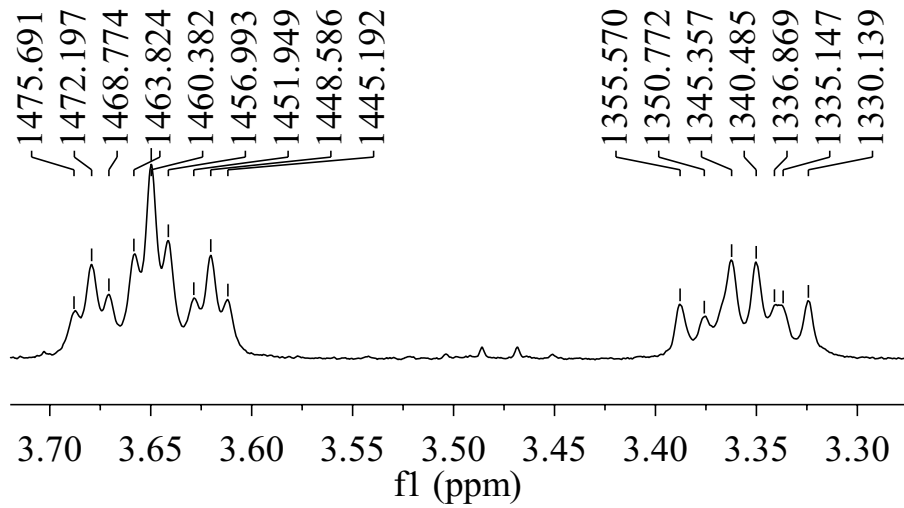
77.48
77.16
76.84
48.89
47.90
42.06
41.70
33.92
33.02
32.89
32.67
32.53
27.81
27.79
27.26
27.24

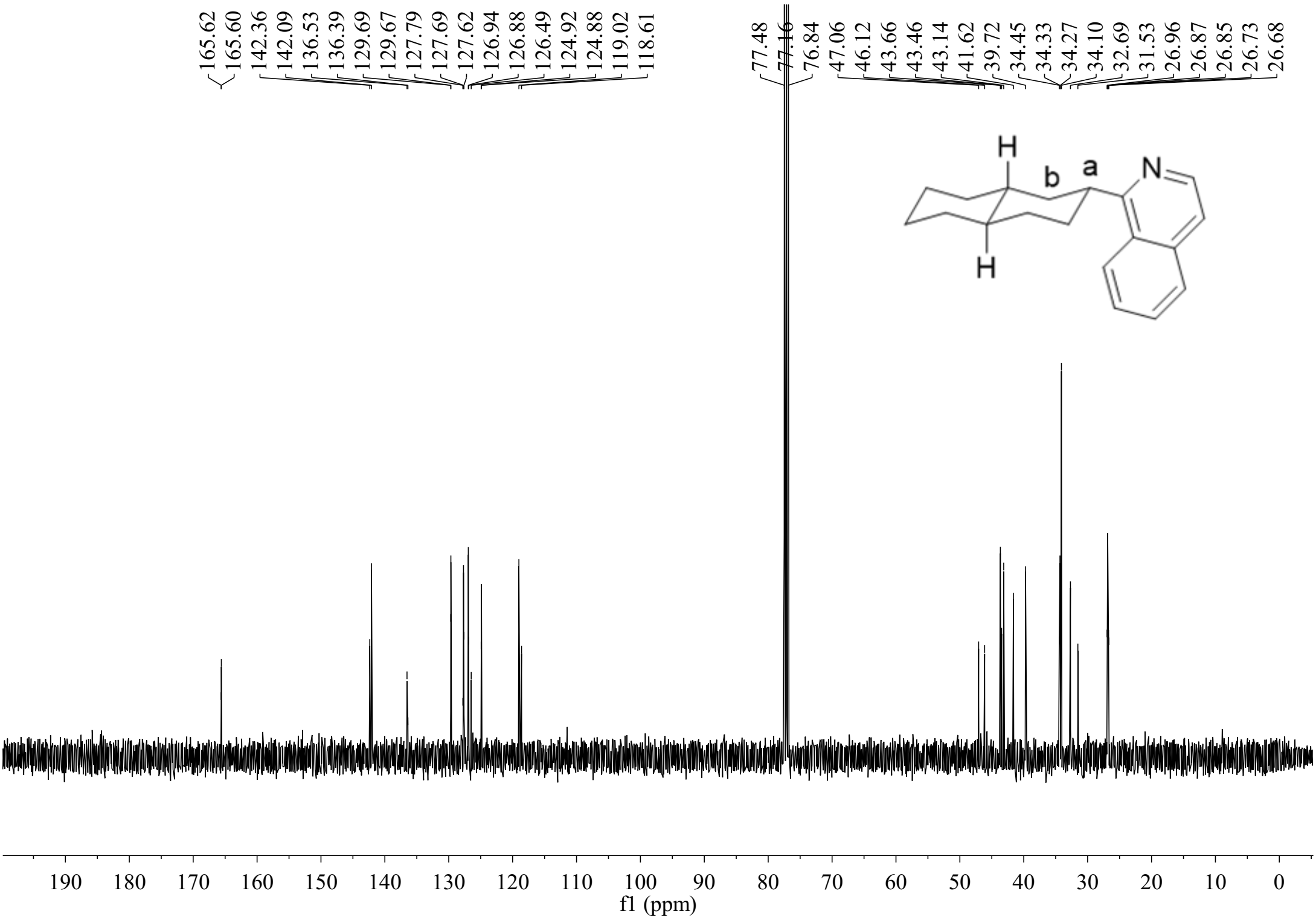


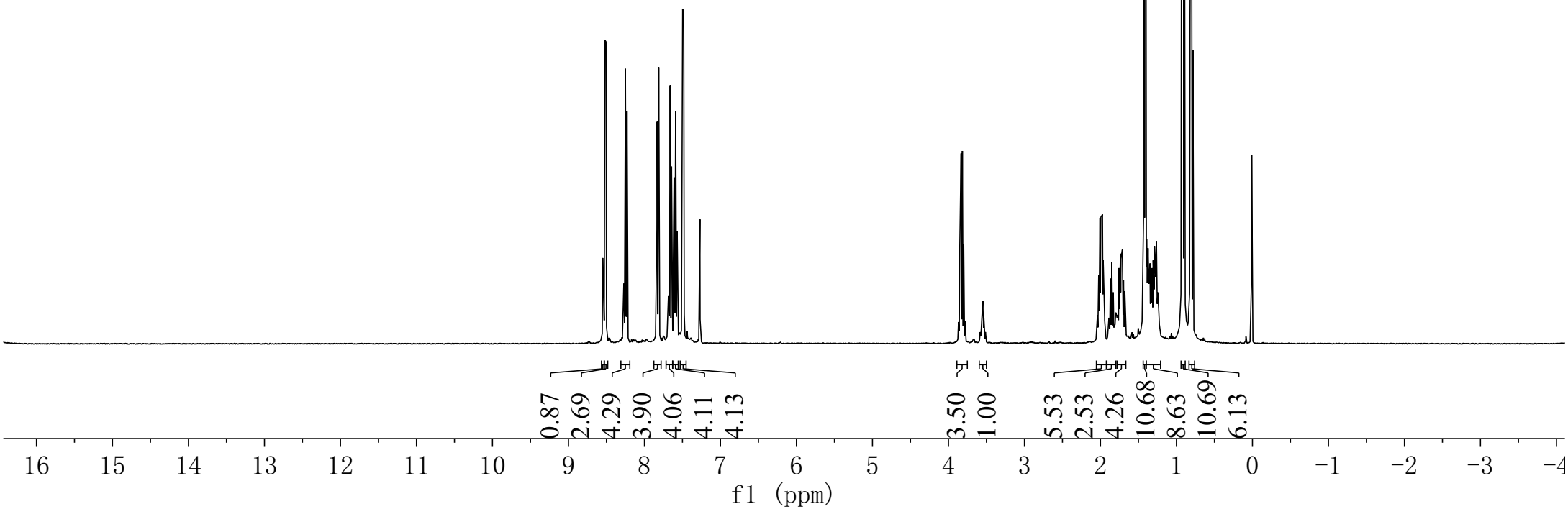
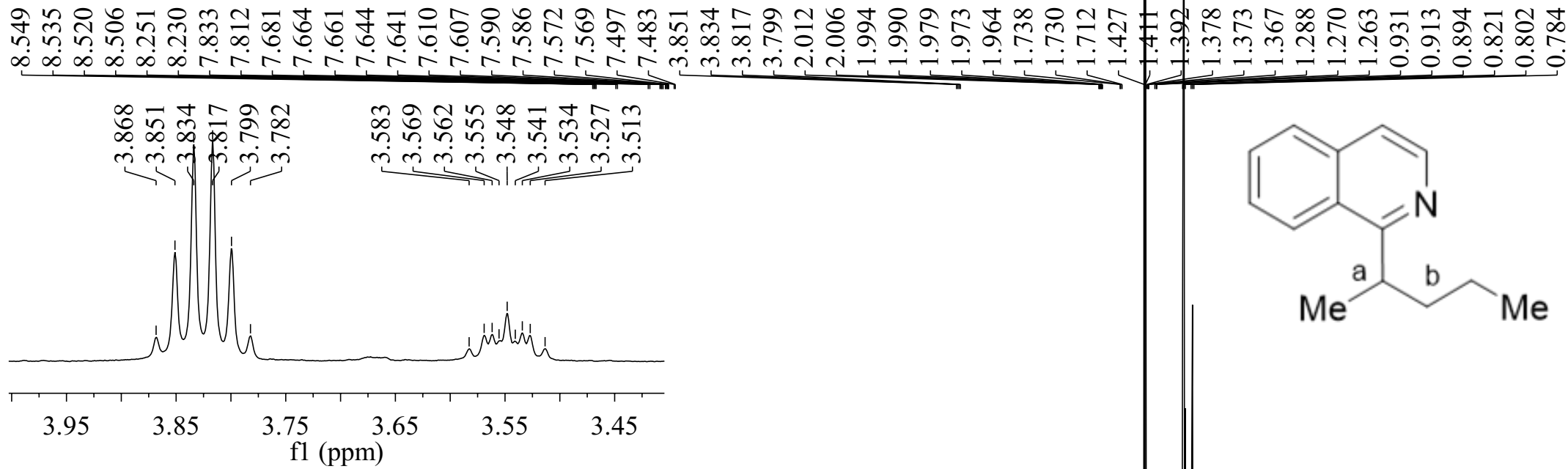




8.490
8.476
8.236
8.215
7.819
7.799
7.672
7.669
7.655
7.652
7.648
7.635
7.631
7.604
7.601
7.583
7.579
7.488
7.475
7.260
1.888
1.880
1.860
1.847
1.831
1.824
1.799
1.790
1.751
1.747
1.740
1.732
1.728
1.723
1.704
1.695
1.687
1.665
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1.240
1.225
1.134
1.126
1.101
1.097
1.067



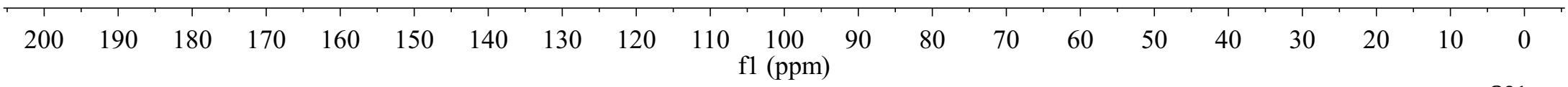
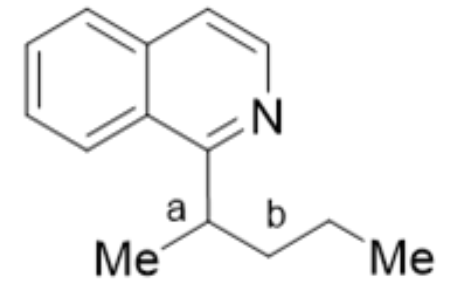


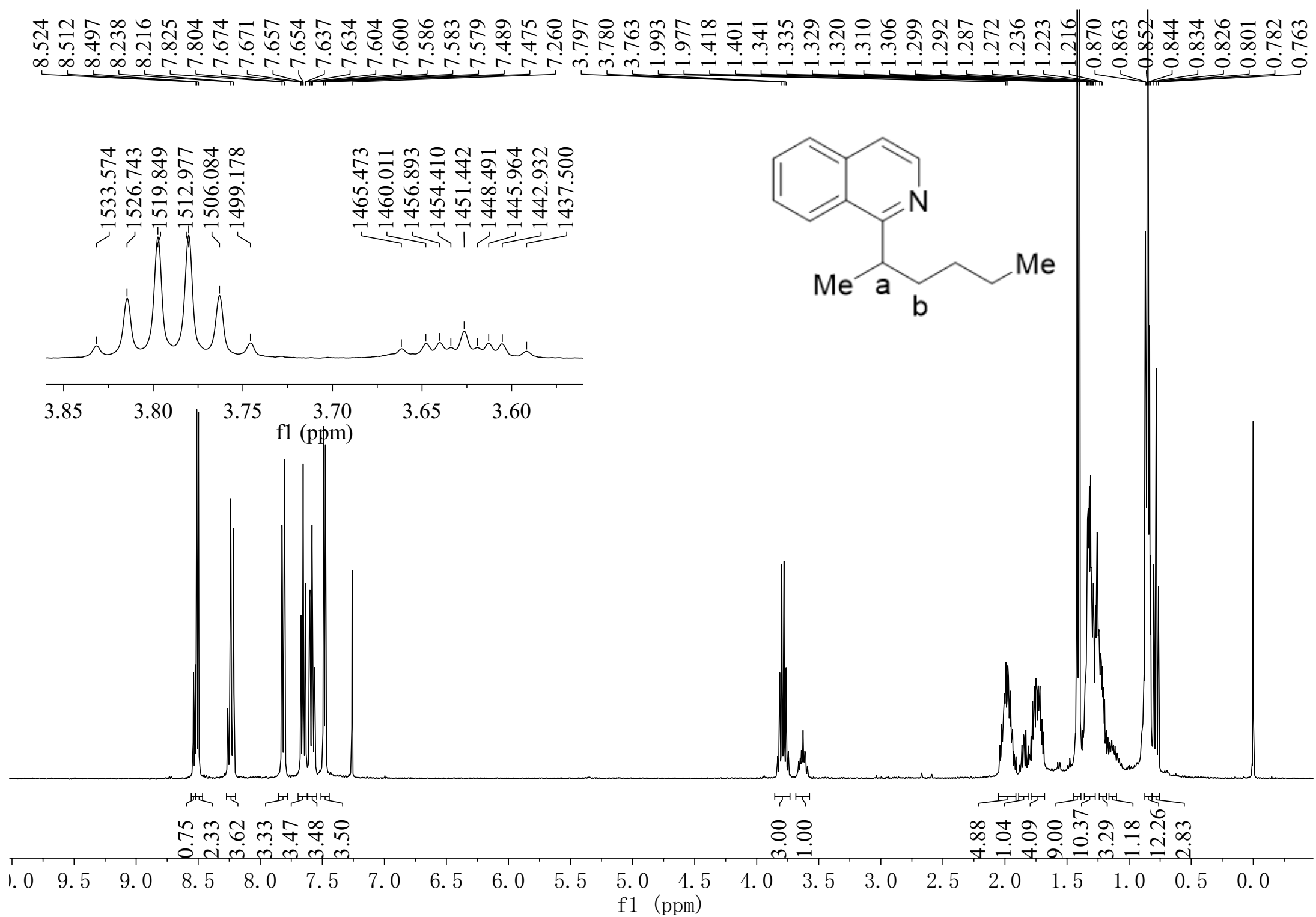


166.07
165.01
142.06
141.99
136.34
136.21
129.50
129.47
127.51
127.45
126.79
126.77
126.72
124.91
124.70
118.76
118.61

77.32
77.00
76.68

44.78
39.00
35.78
28.15
20.98
20.50
14.27
12.30

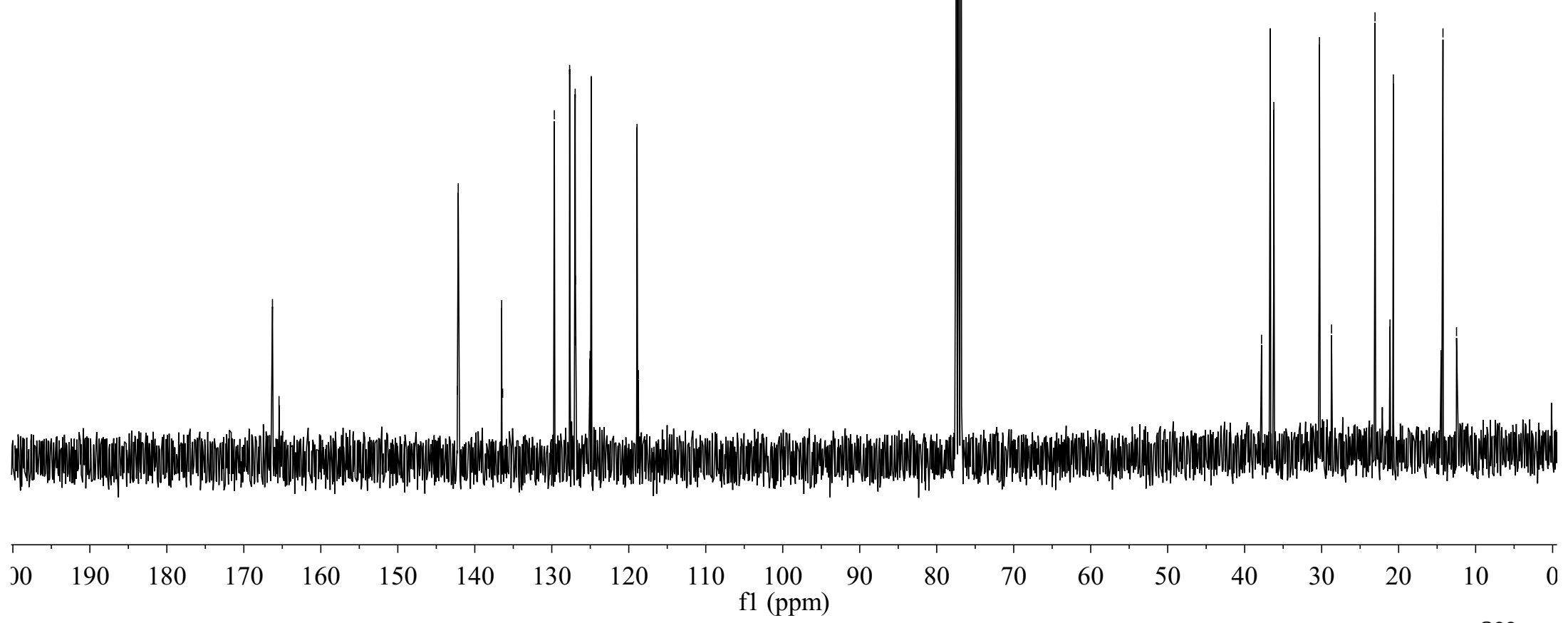
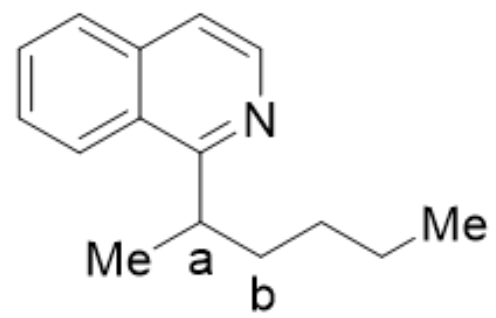


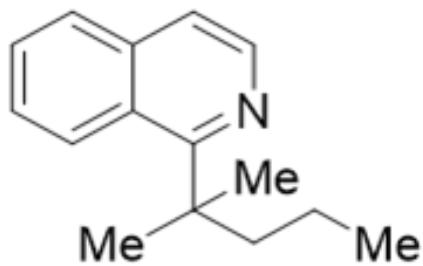


166.28
165.43
142.25
142.15
136.51
136.38
129.67
127.68
127.63
126.96
126.92
126.90
125.02
124.87
118.93
118.75

77.48
77.16
76.84

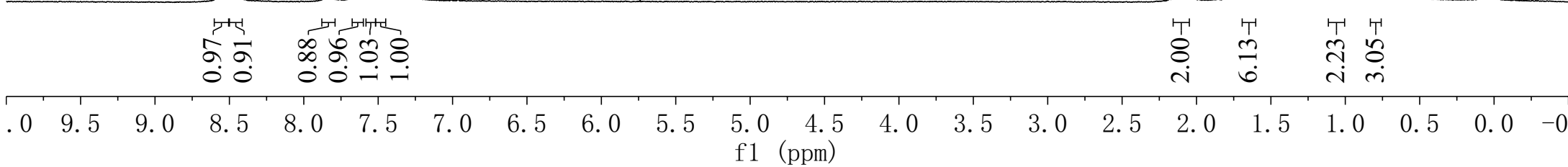
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36.68
36.21
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28.72
23.07
21.12
20.68
14.49
14.24
12.48

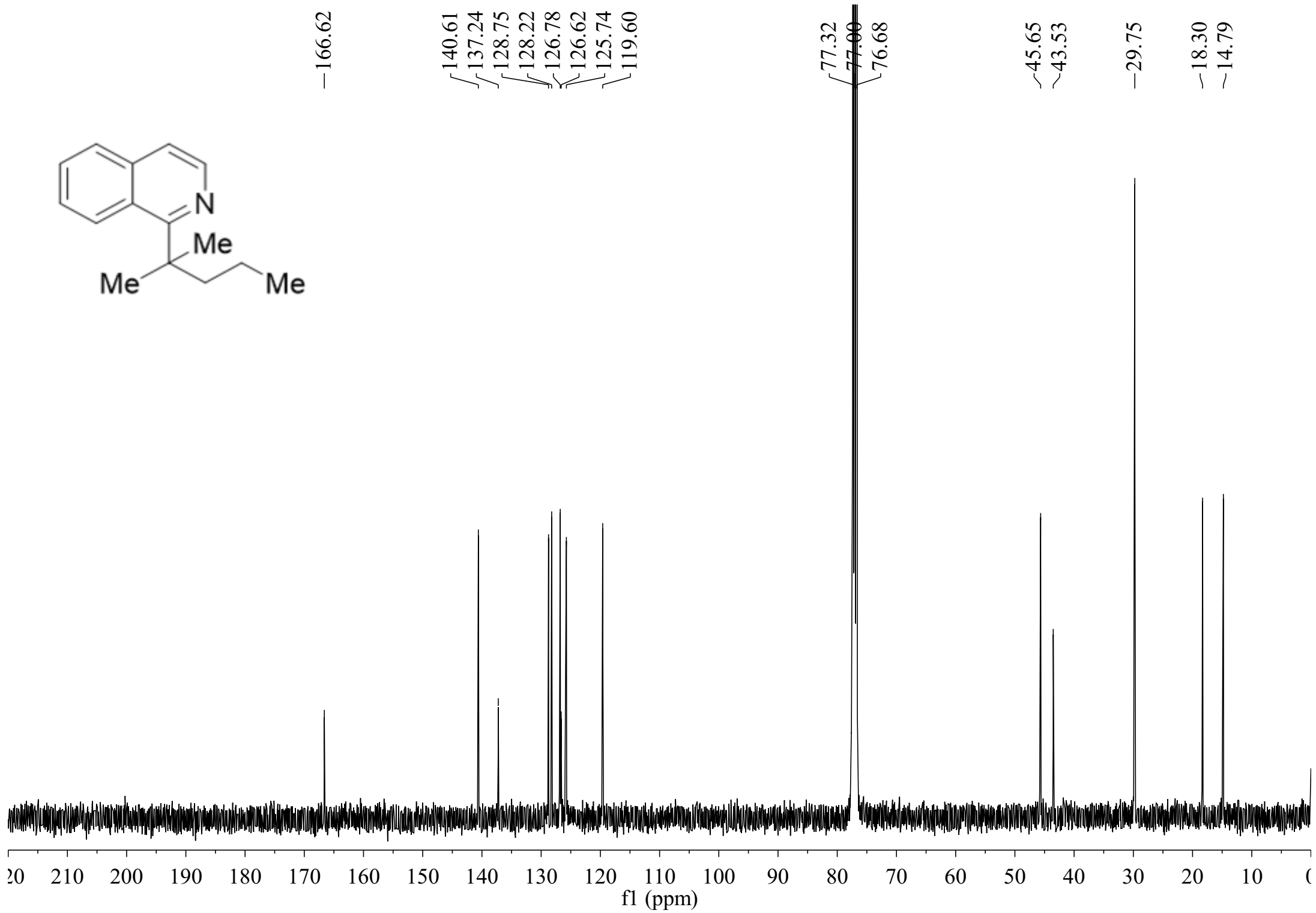
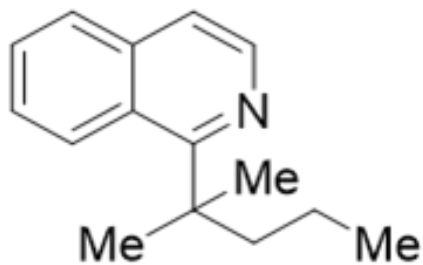


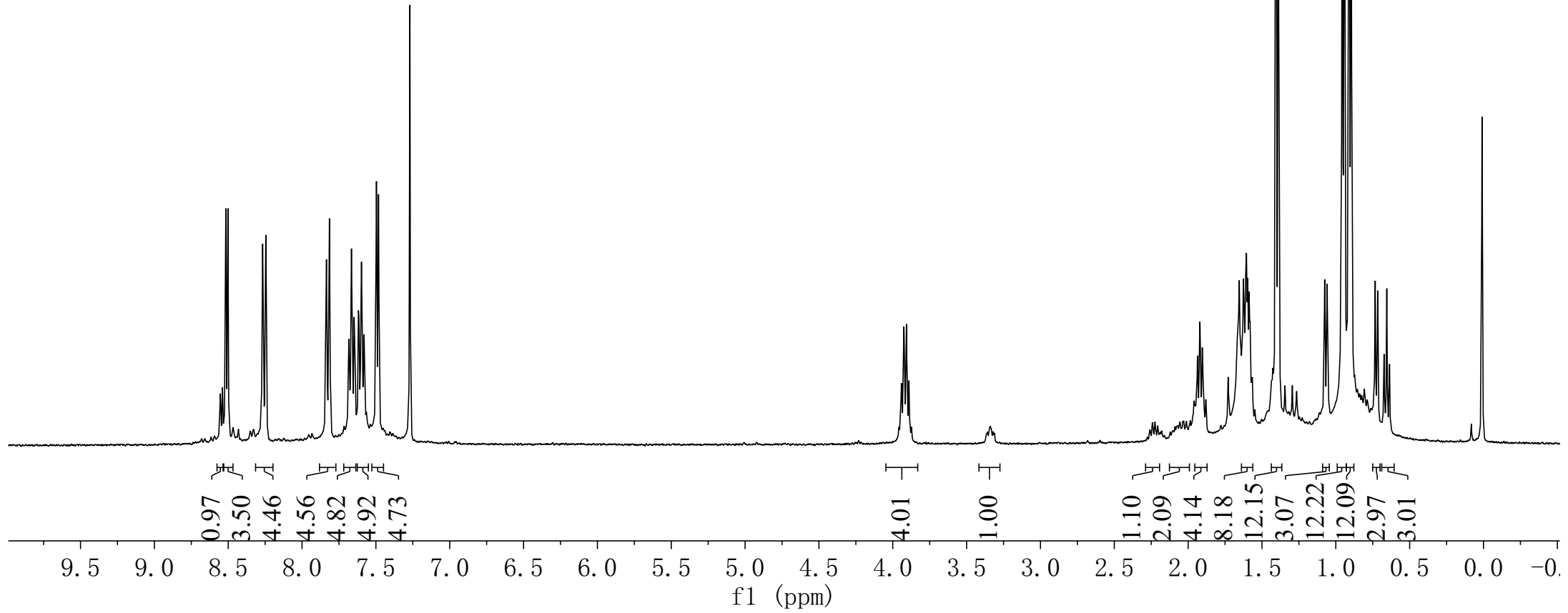
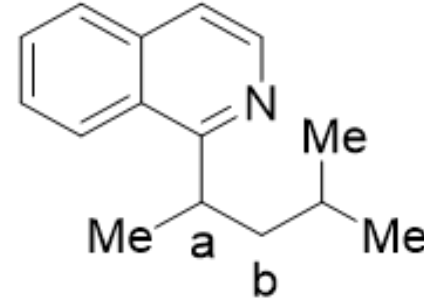
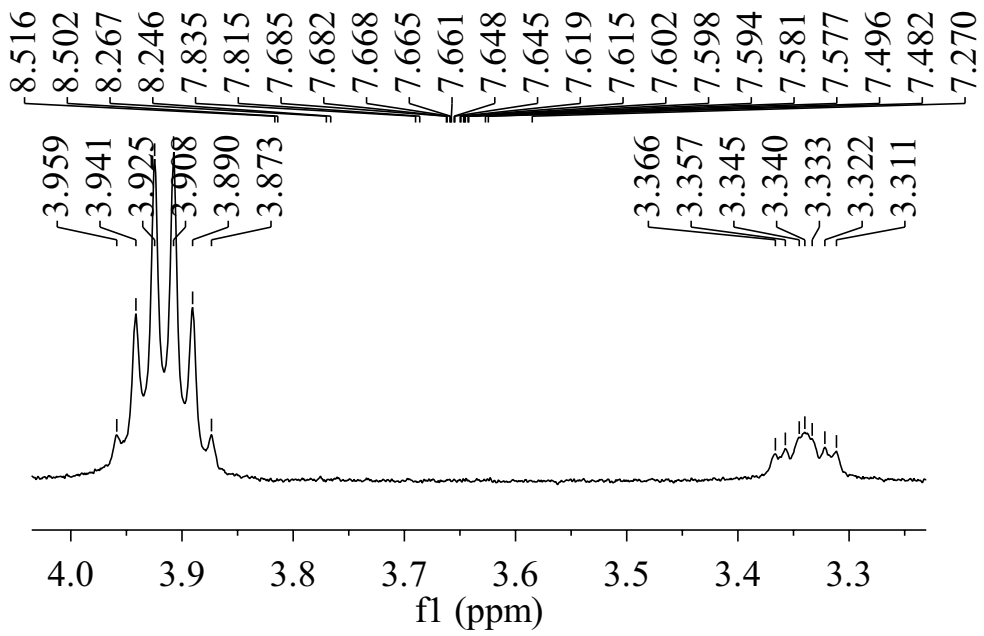


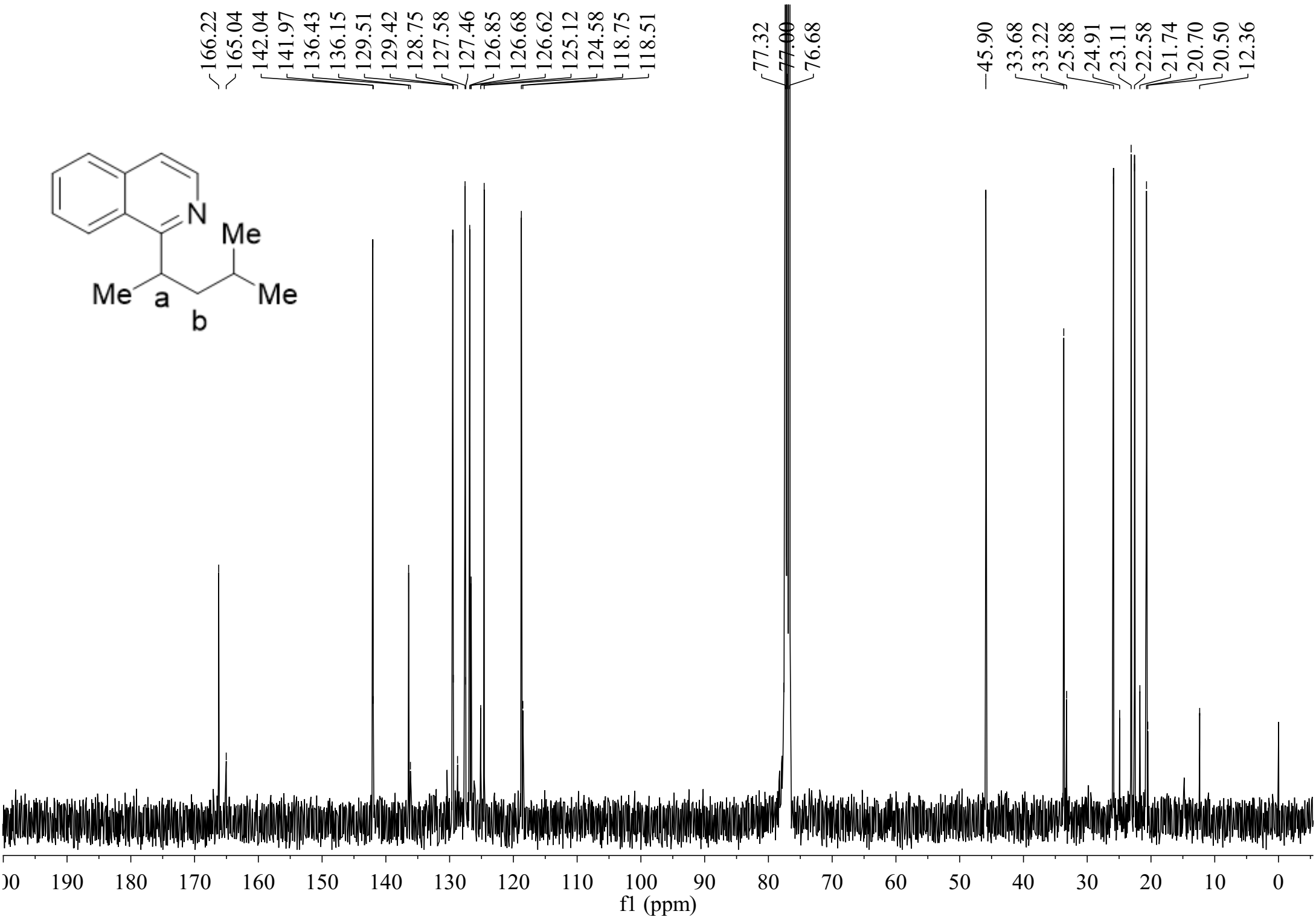
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8.539
8.460
8.446
7.840
7.820
7.646
7.643
7.629
7.626
7.609
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7.545
7.542
7.528
7.525
7.499
7.485
7.270

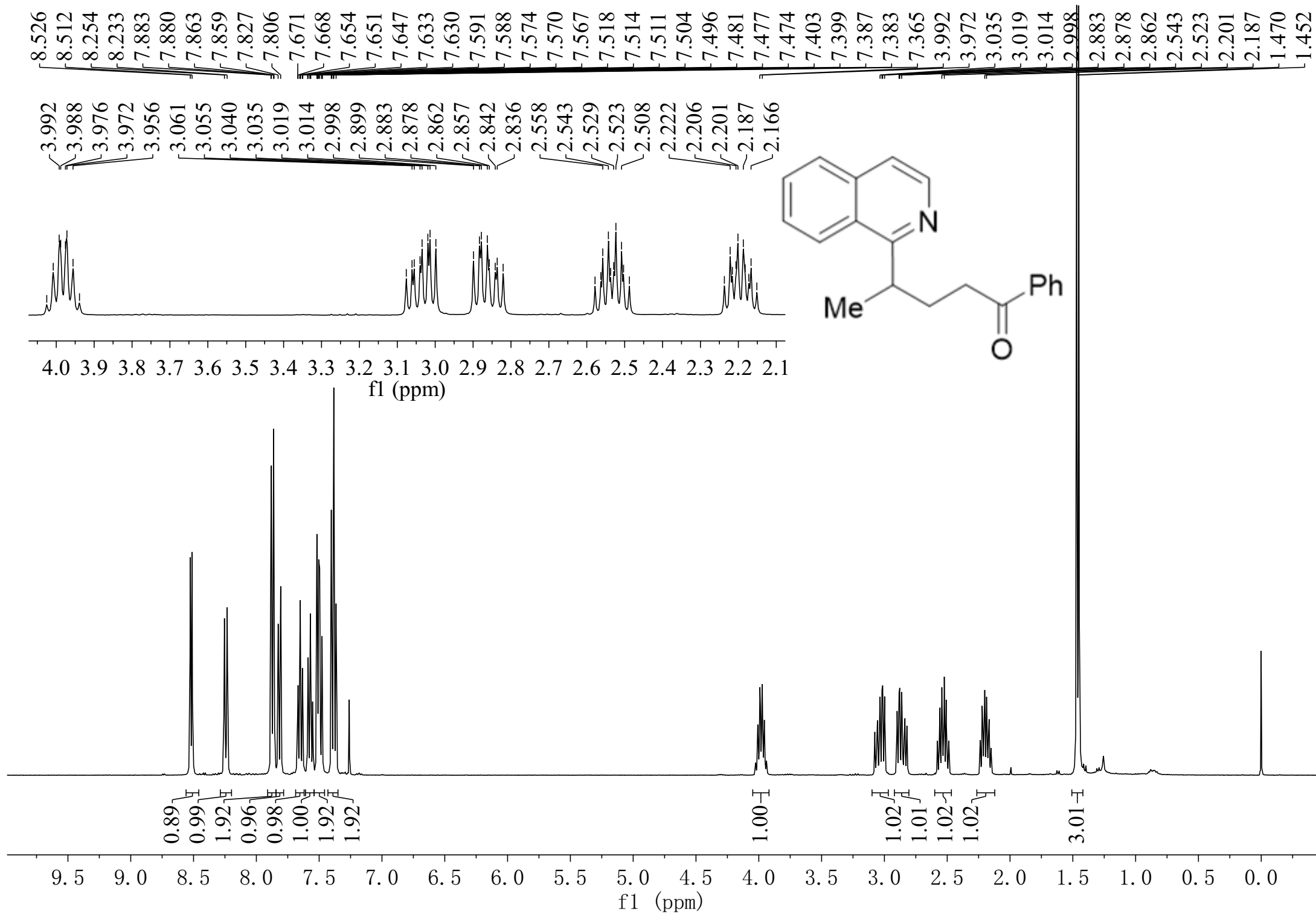
2.114
2.102
2.093
2.082
2.072
1.638
1.107
1.088
1.076
1.070
1.058
1.048
1.040
1.028
1.010
0.804
0.785
0.767
0.012

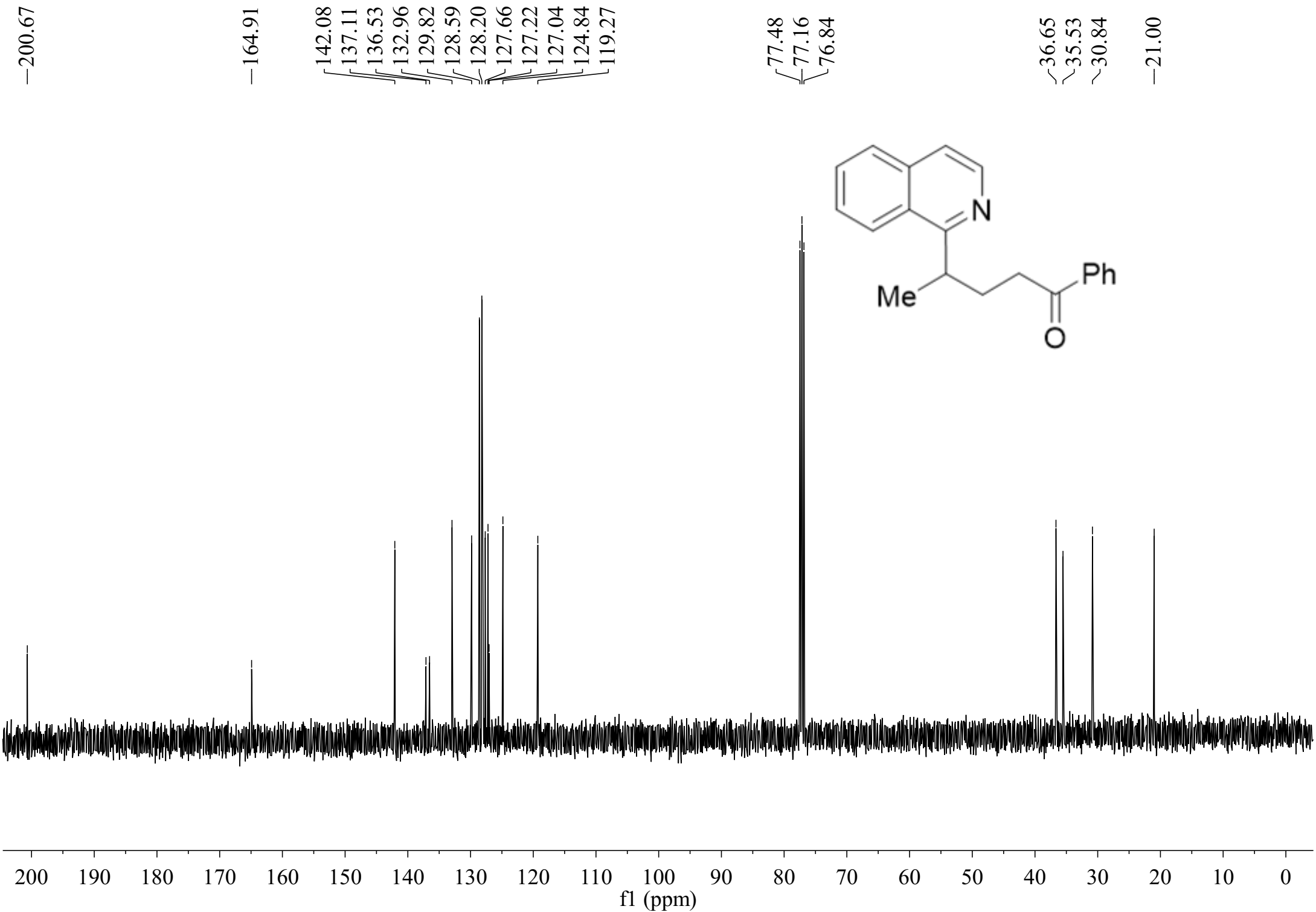


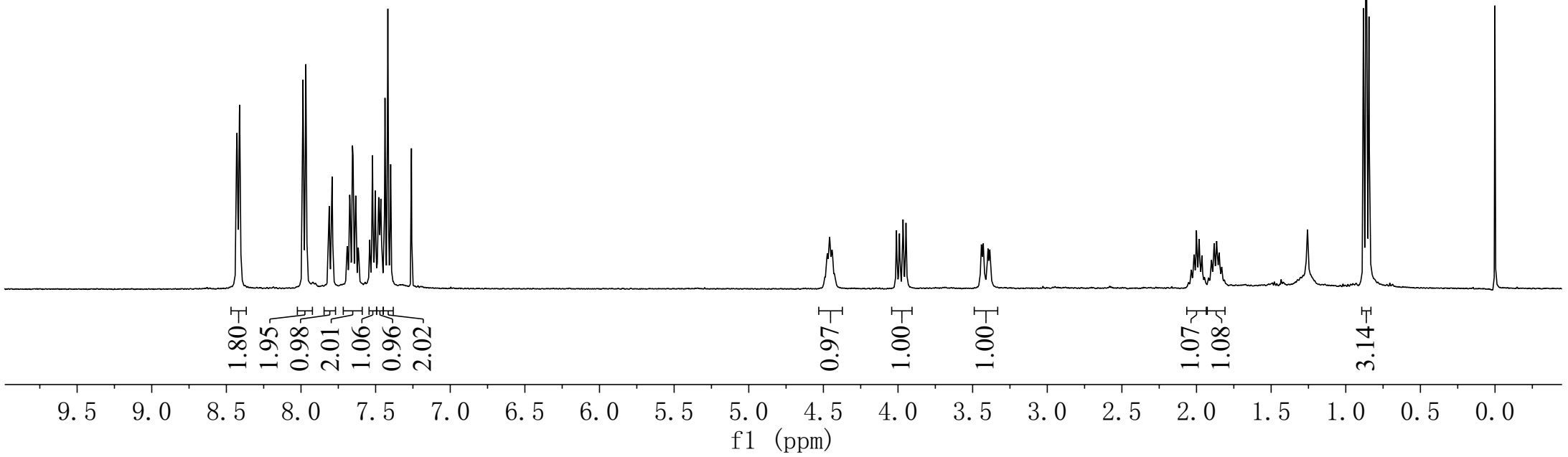
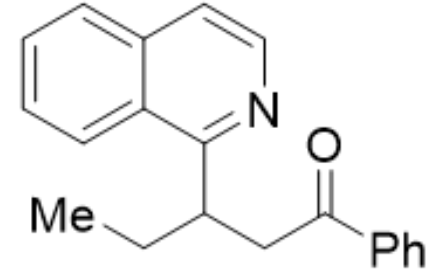
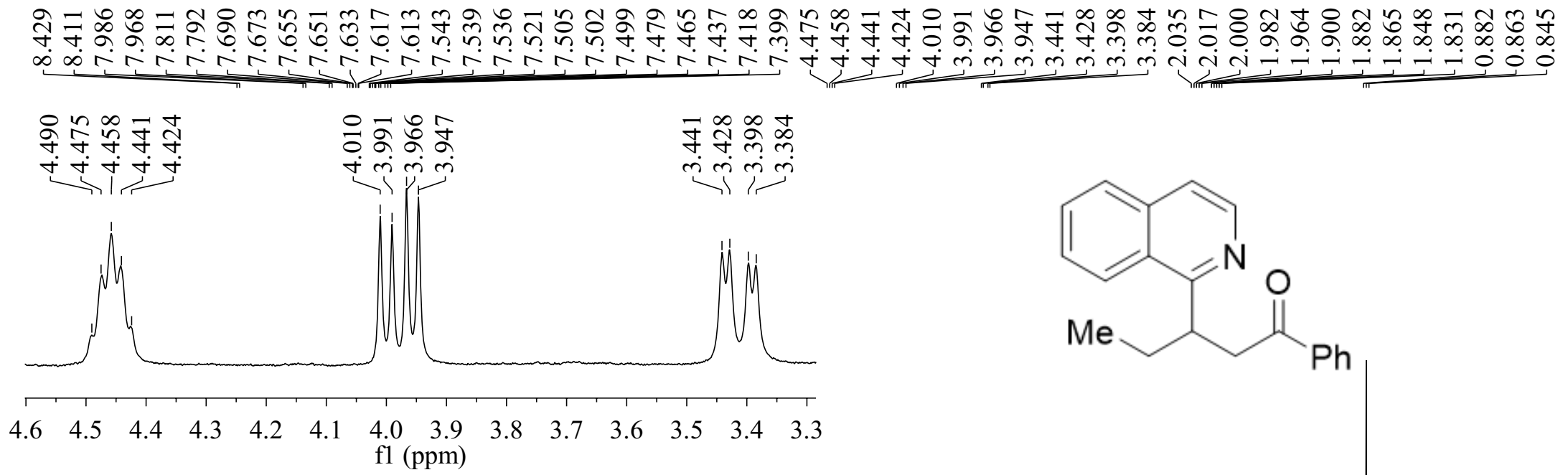


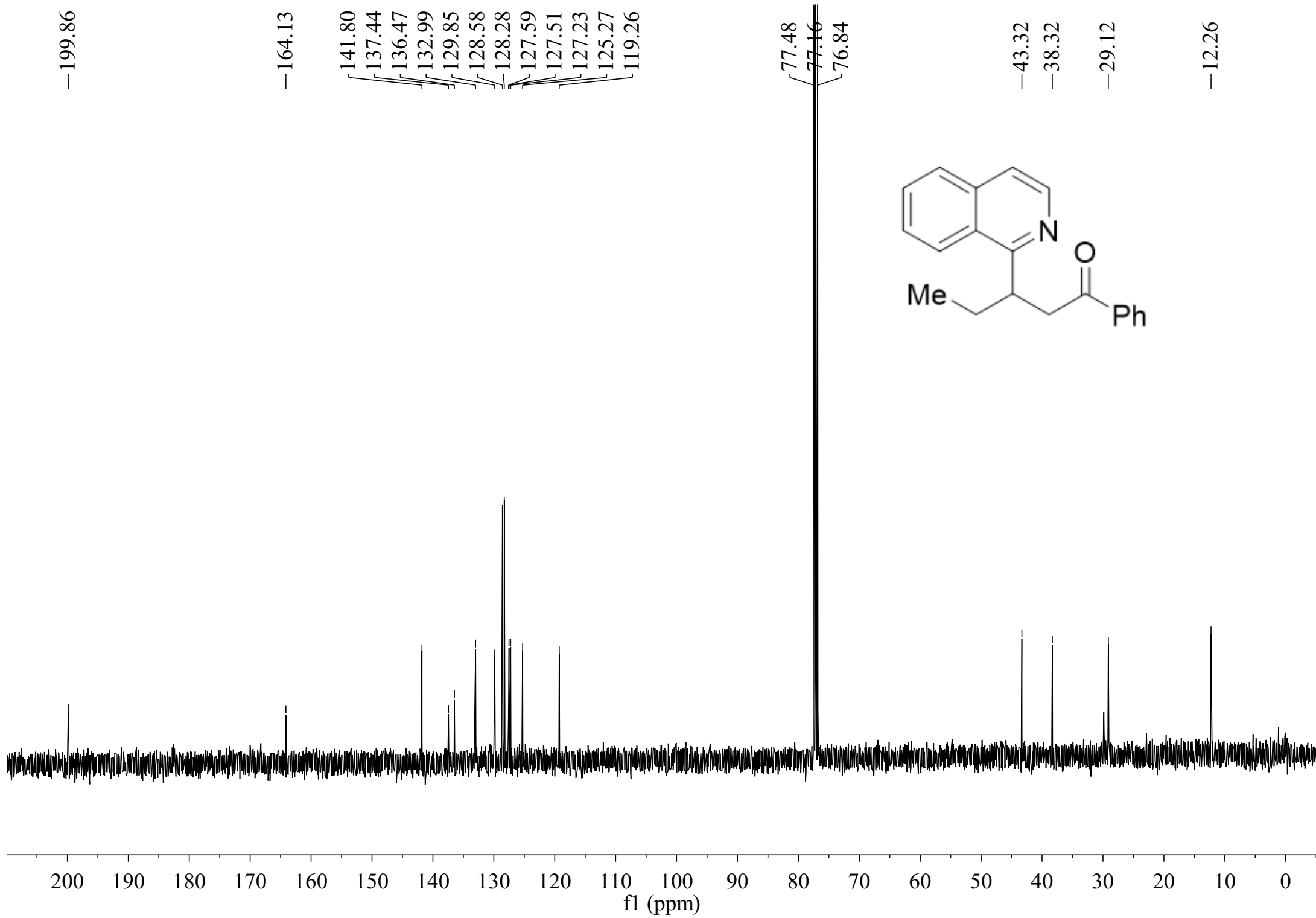


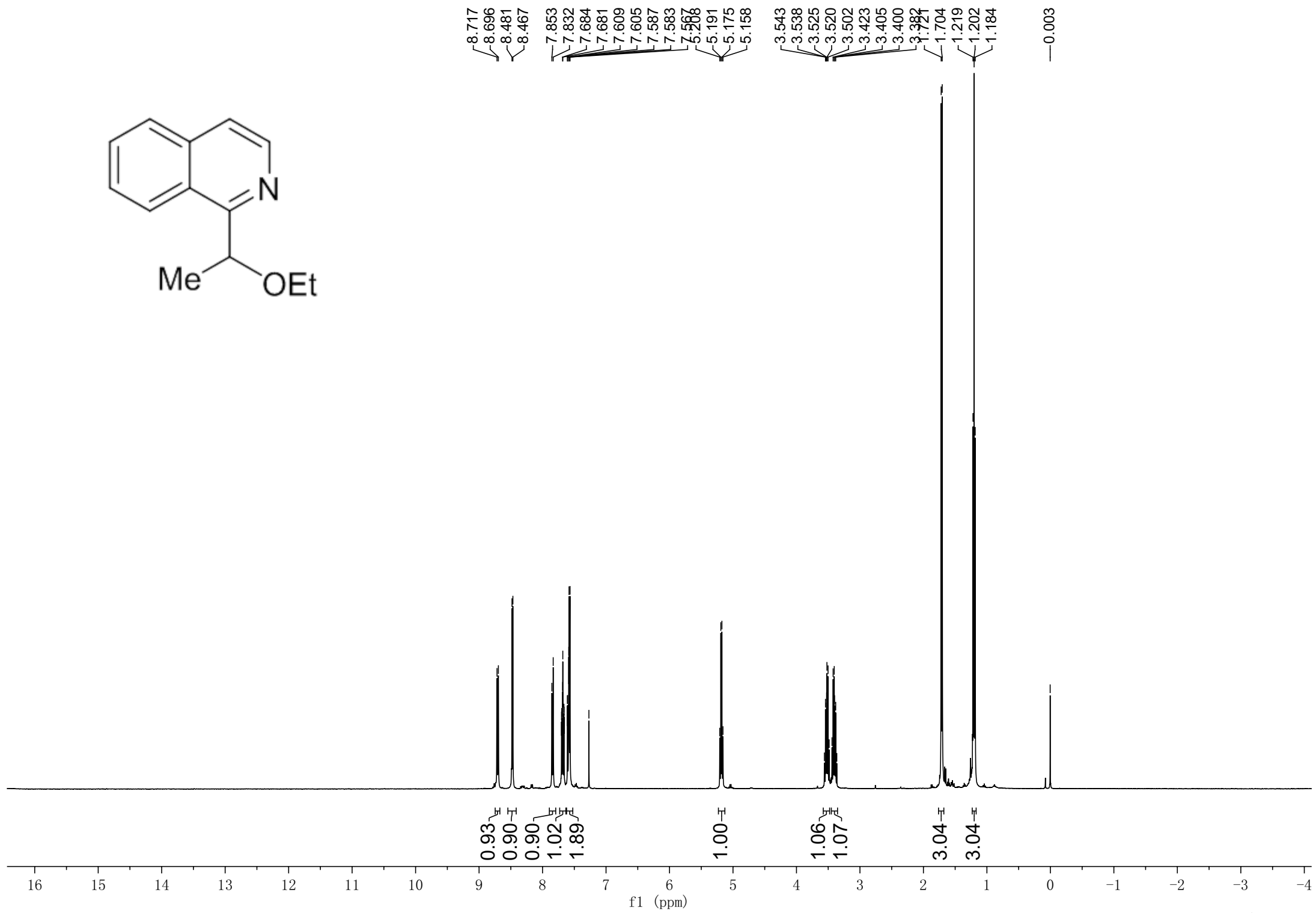
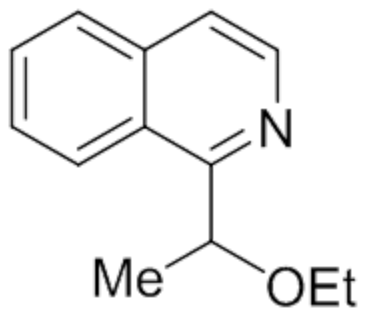


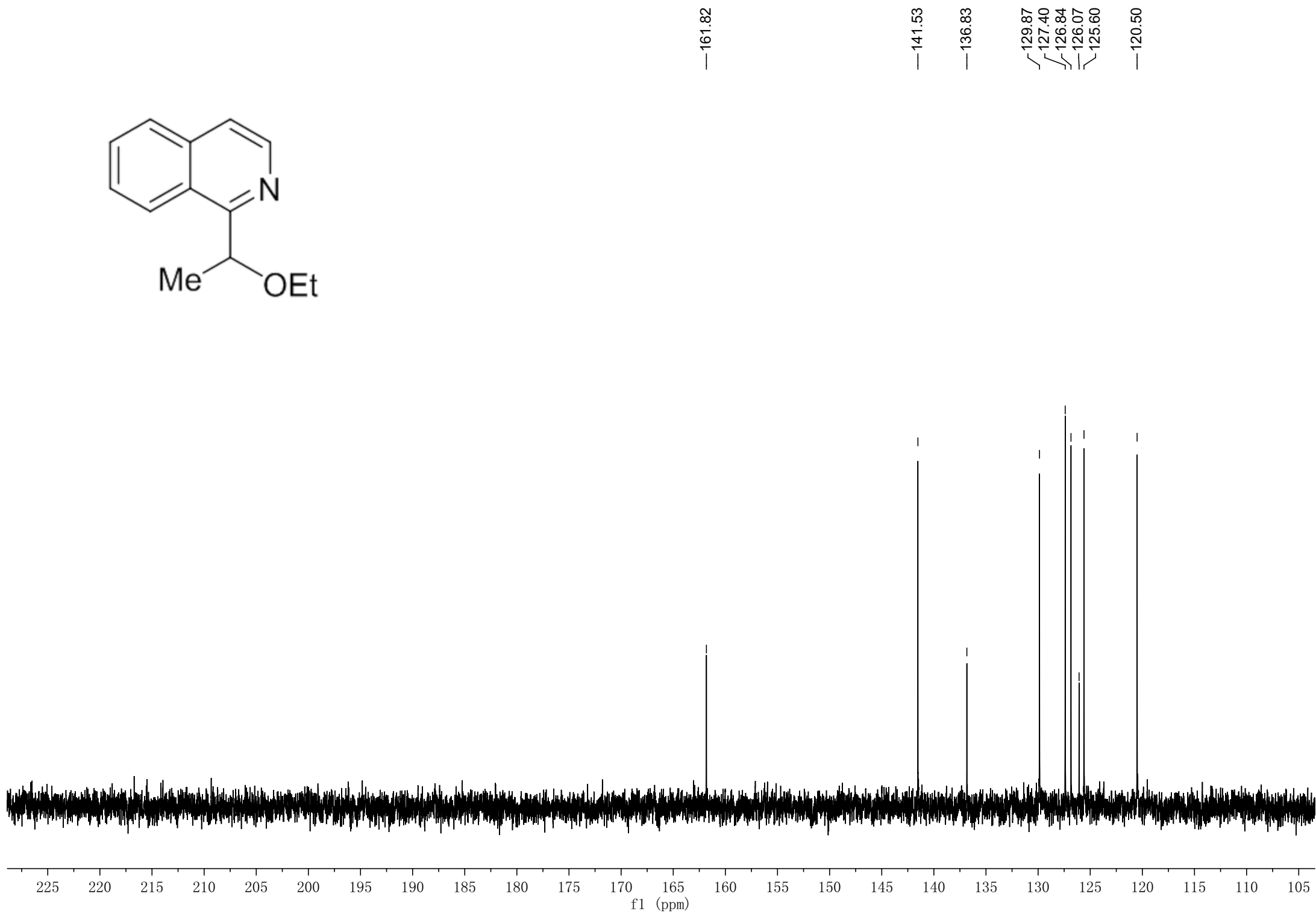
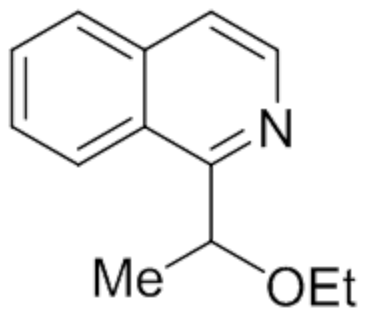


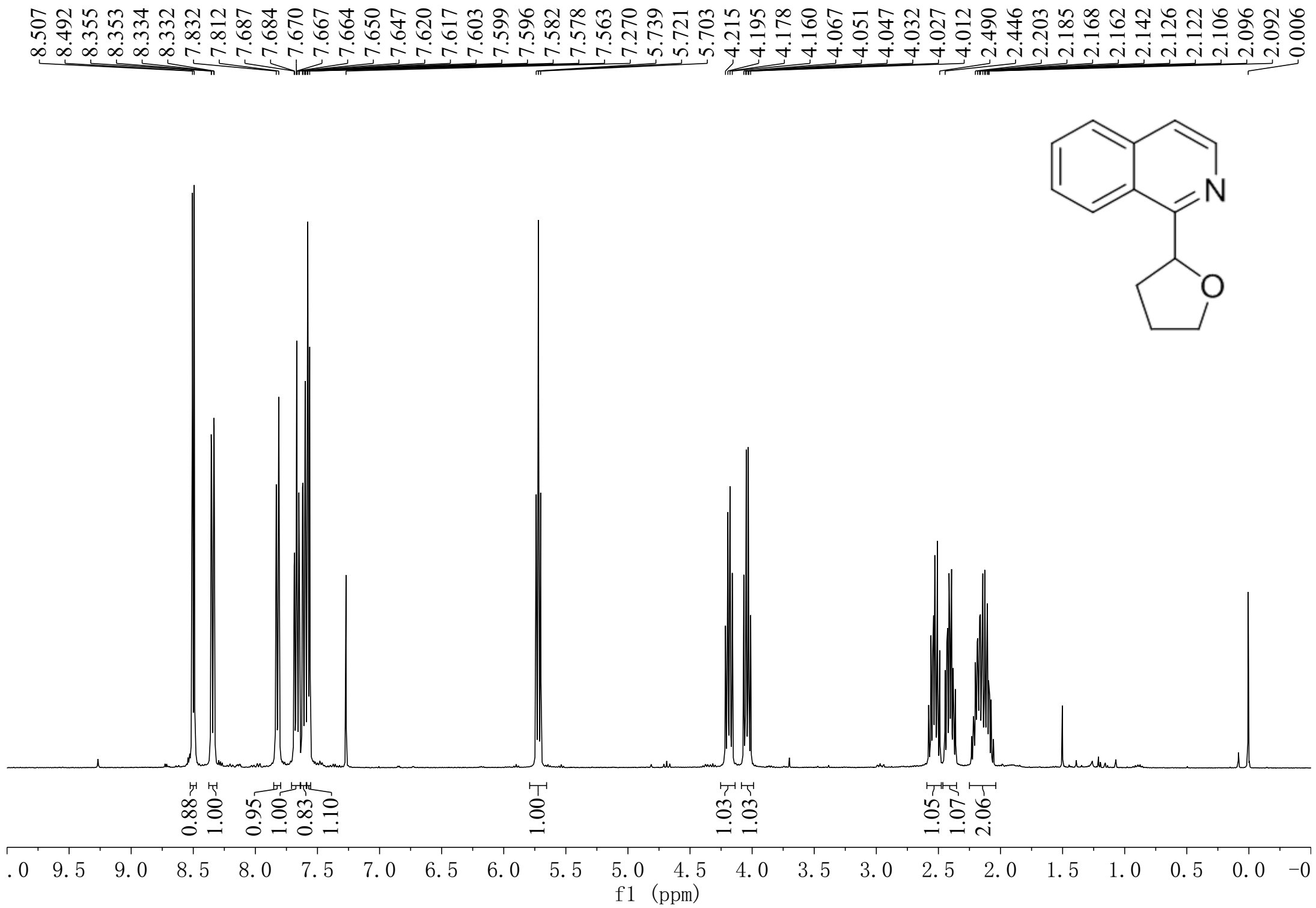


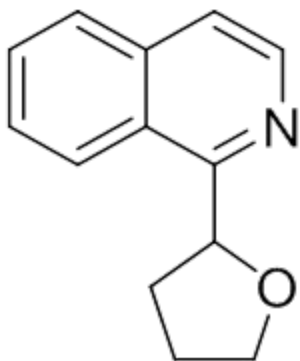








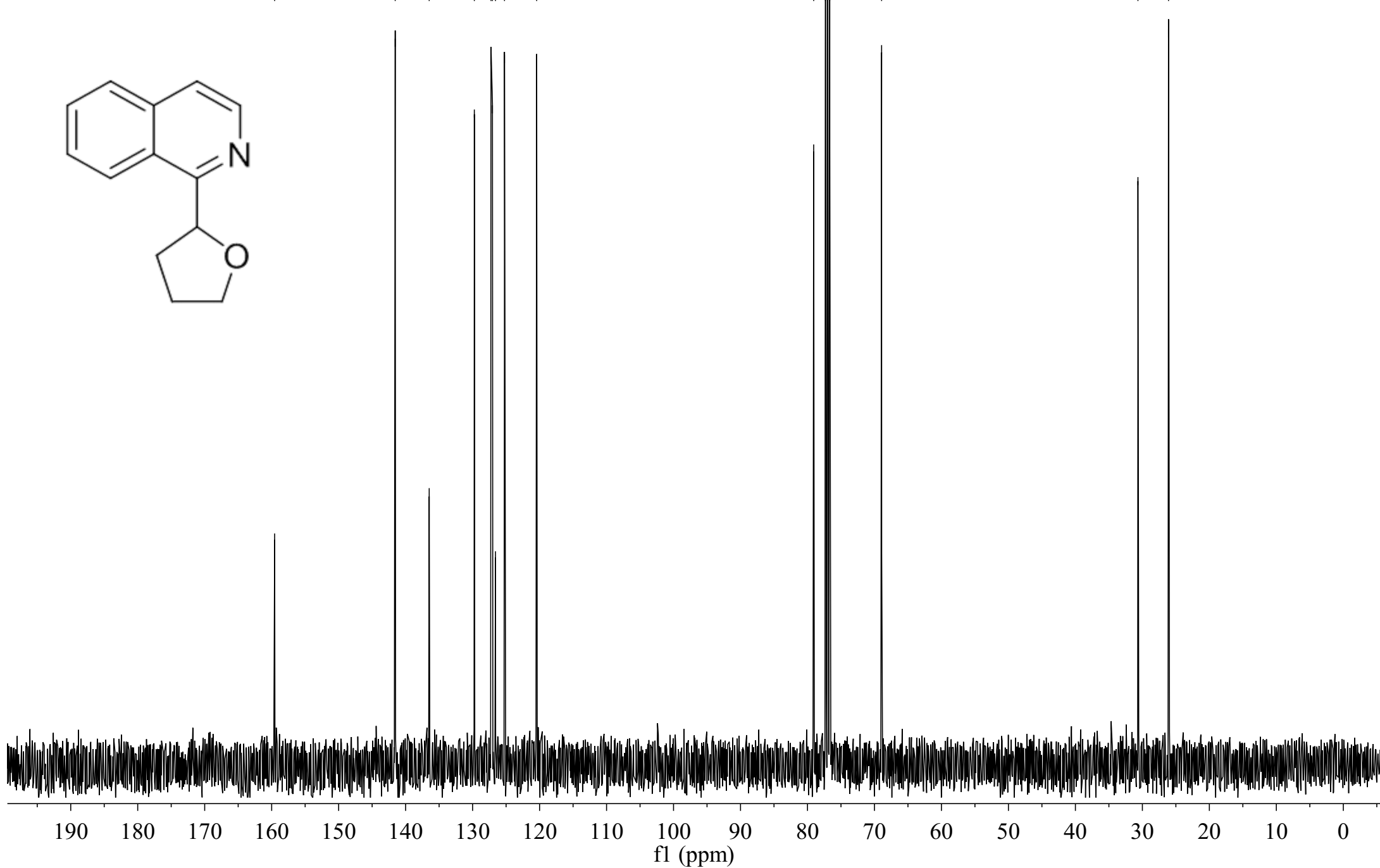


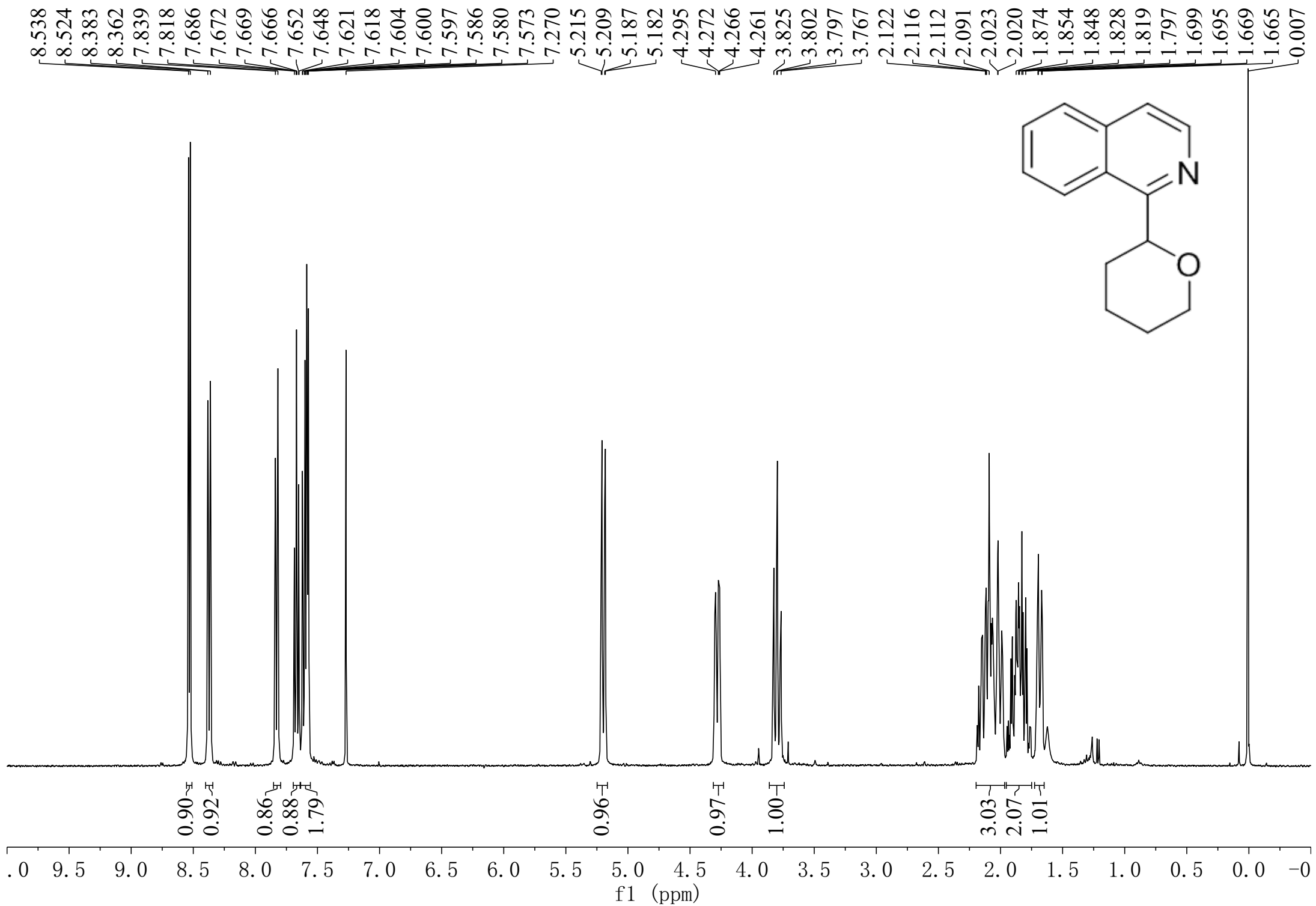


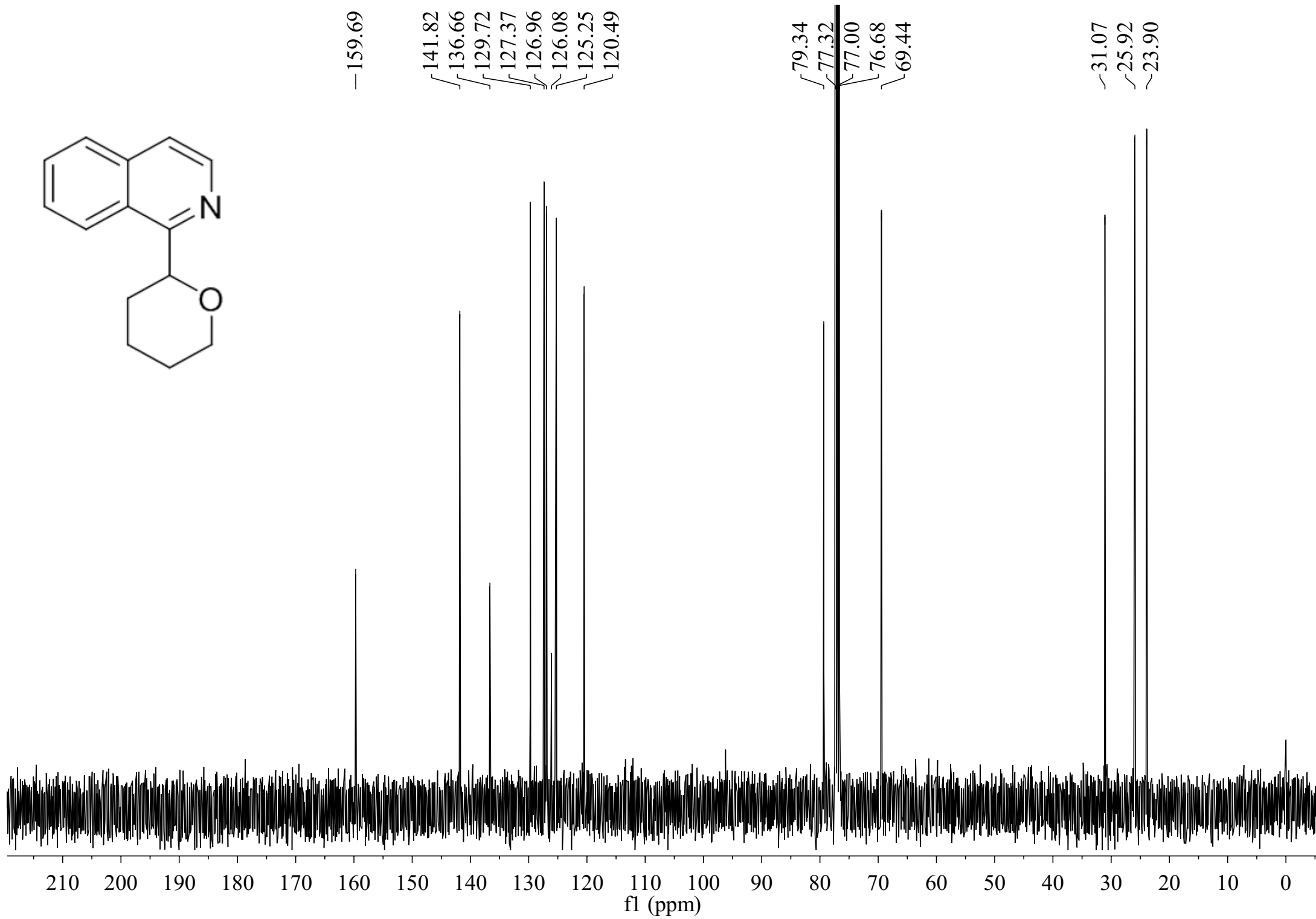
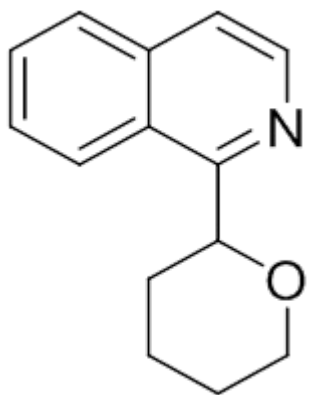
159.56
141.56
136.48
129.74
127.25
127.04
126.58
125.24
120.43

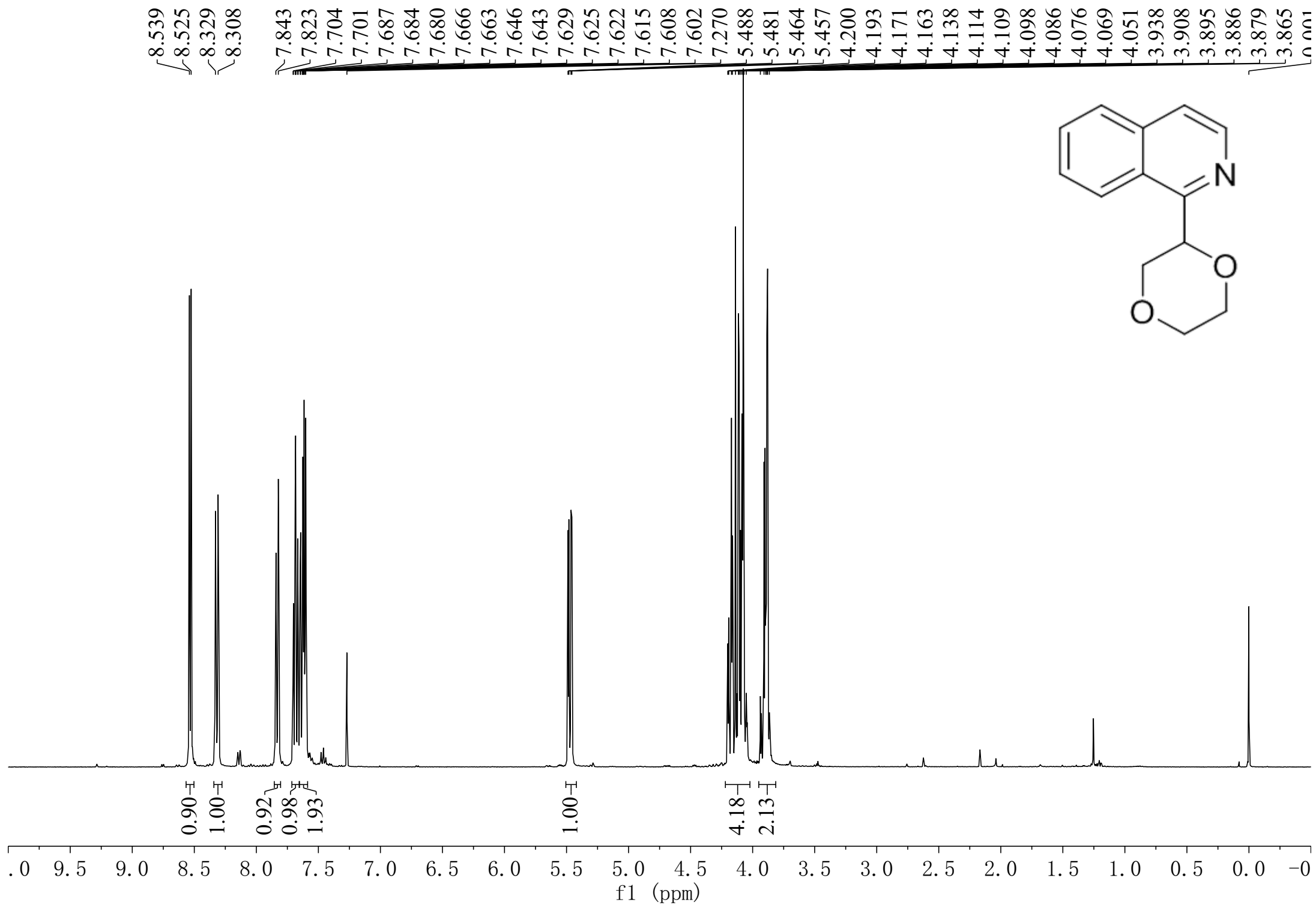
79.07
77.32
77.00
76.68
68.93

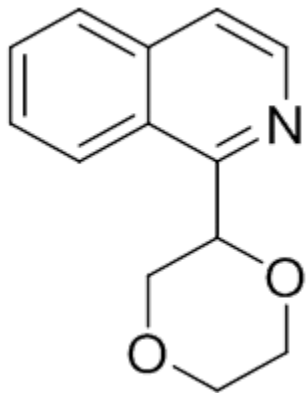
30.66
26.10











155.95

141.78

136.44

129.98

127.42

126.47

124.67

121.01

77.32

77.00

76.68

75.83

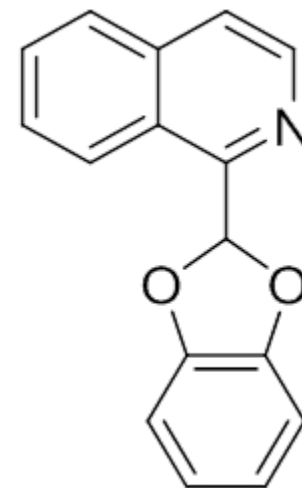
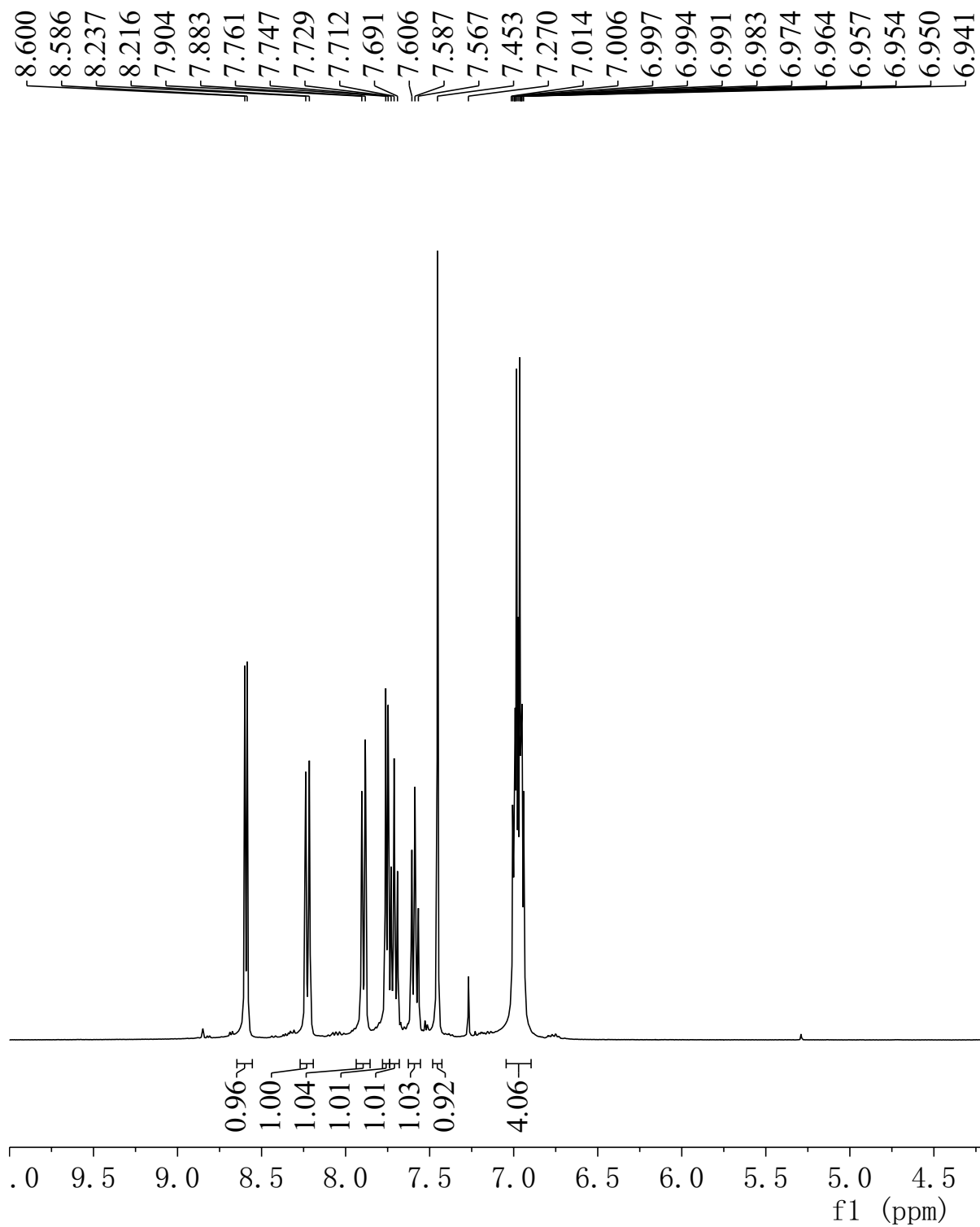
70.24

67.53

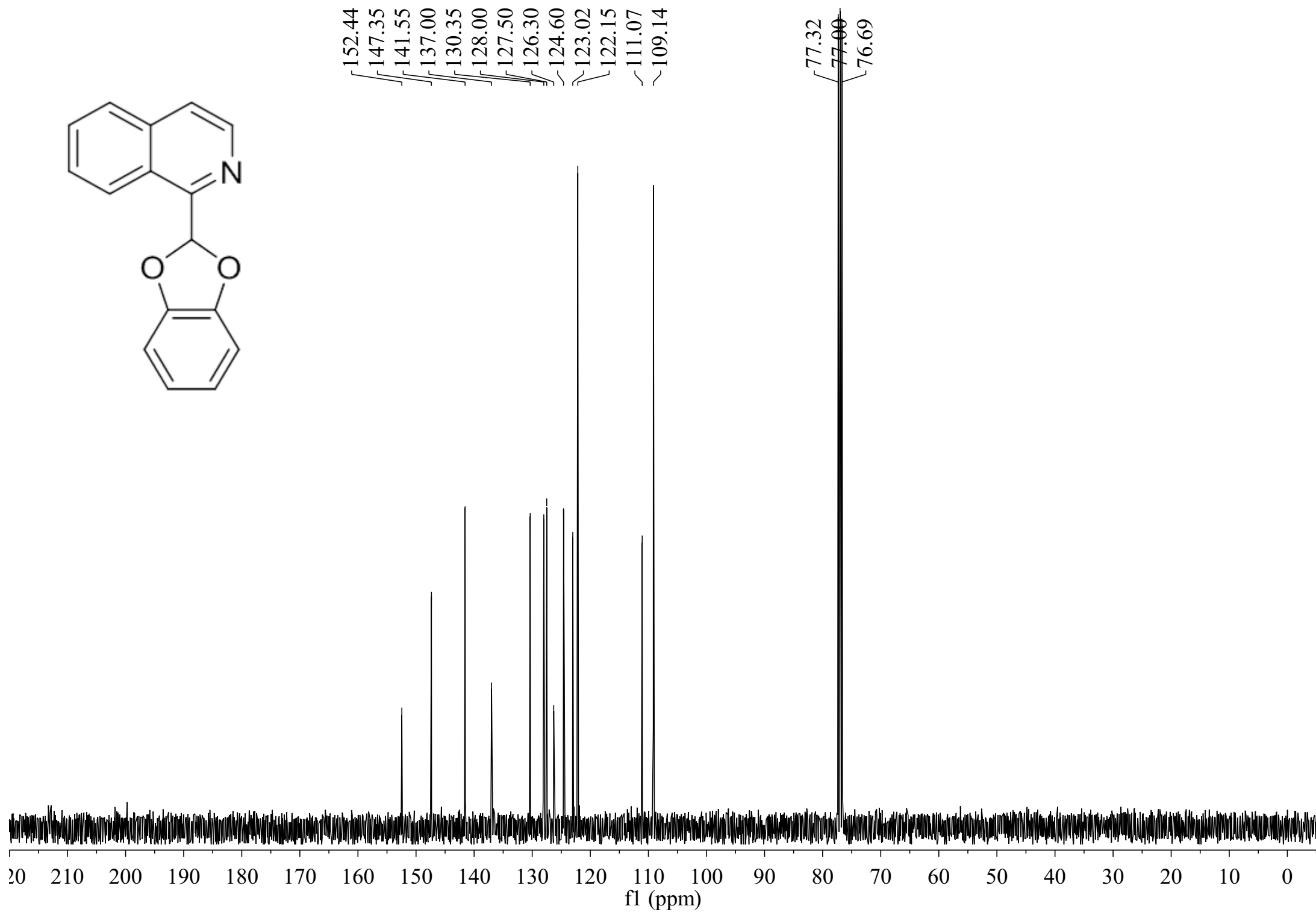
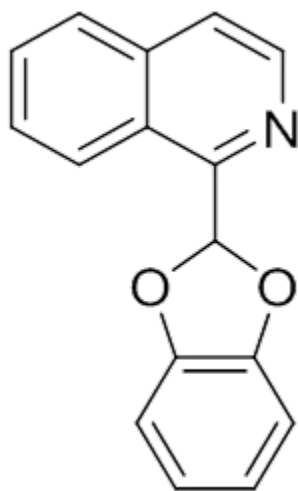
66.47

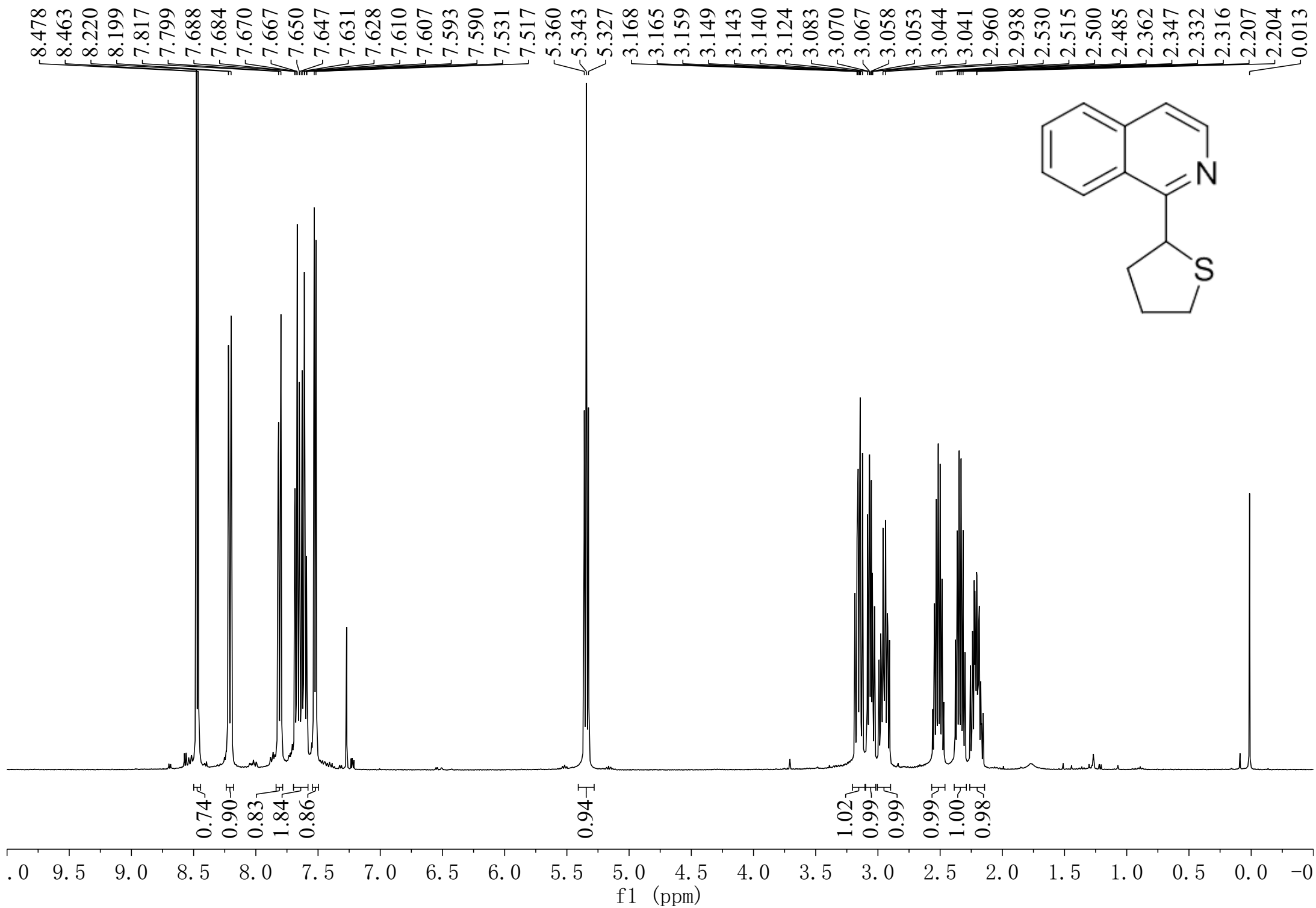
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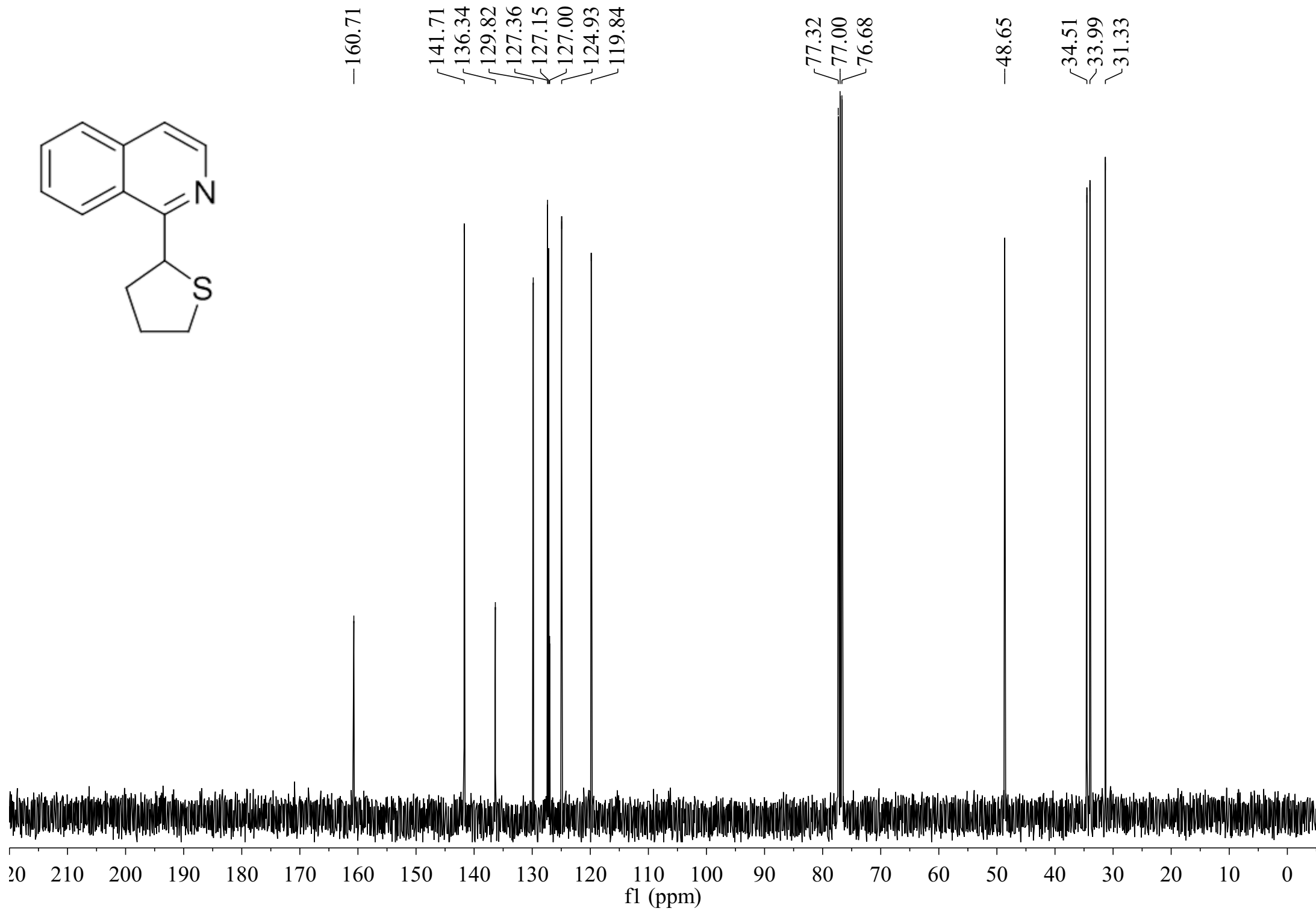
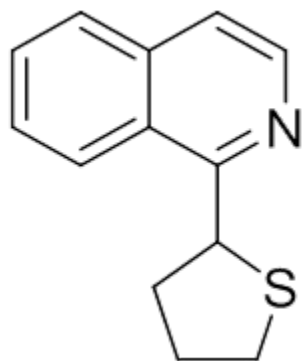
fl (ppm)



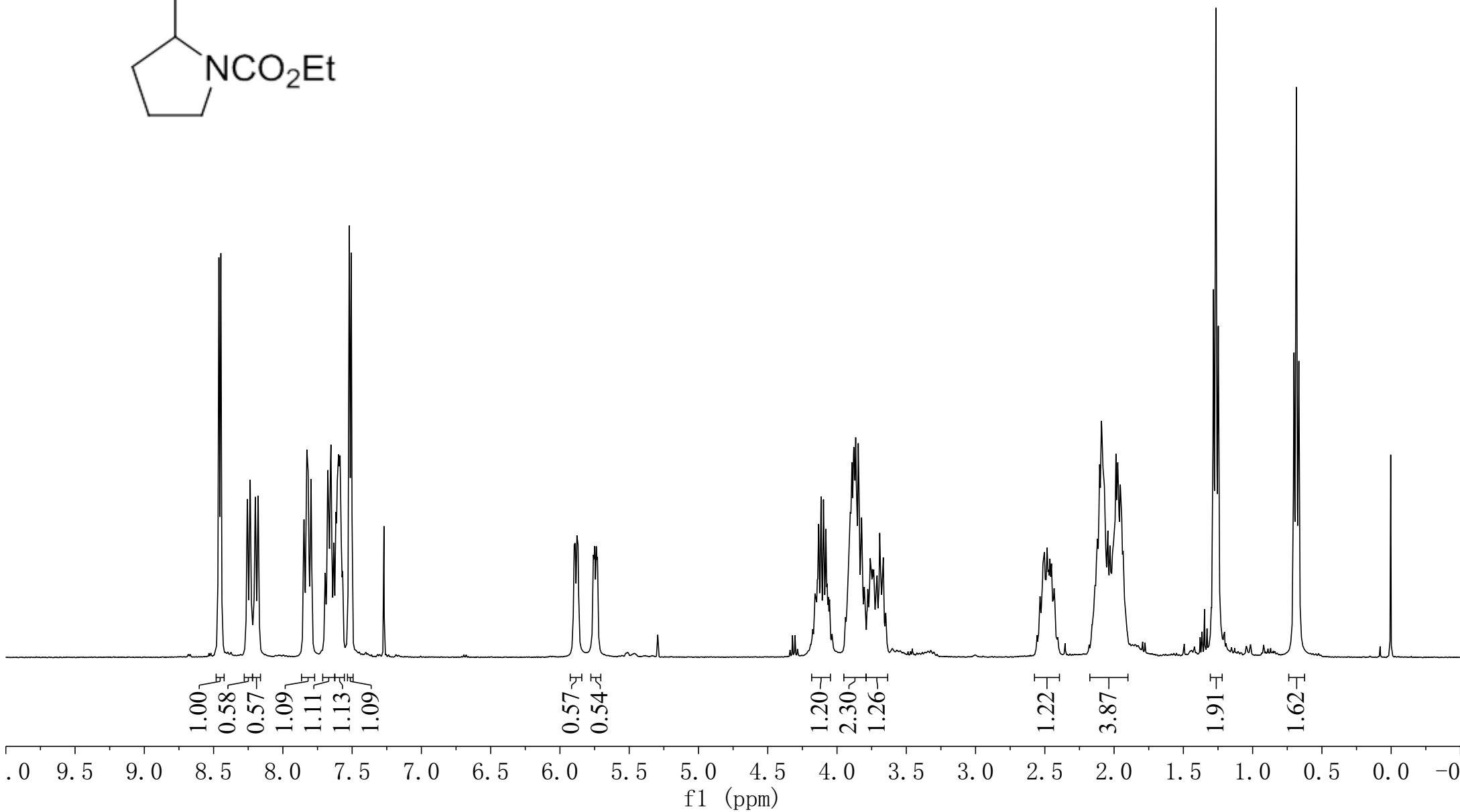
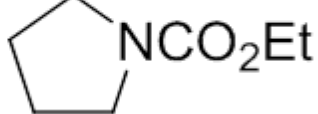
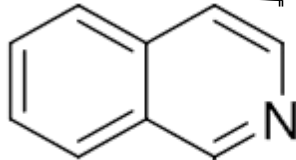
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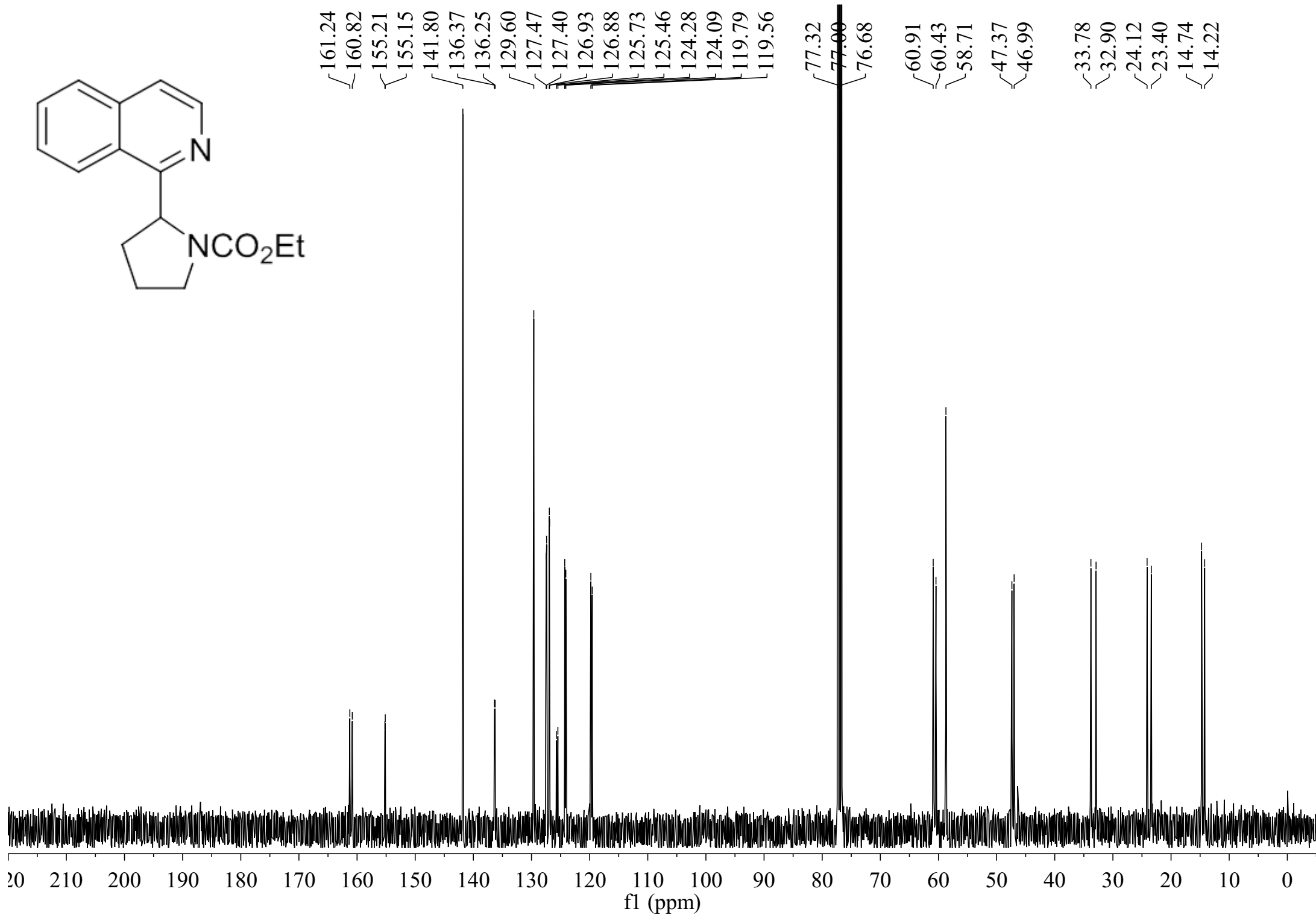
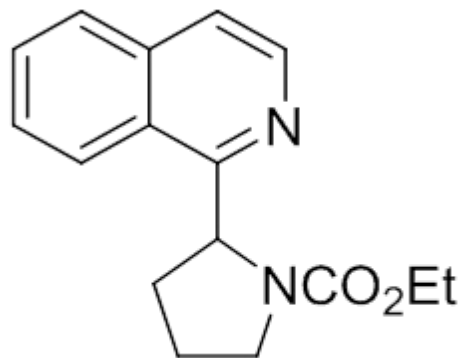


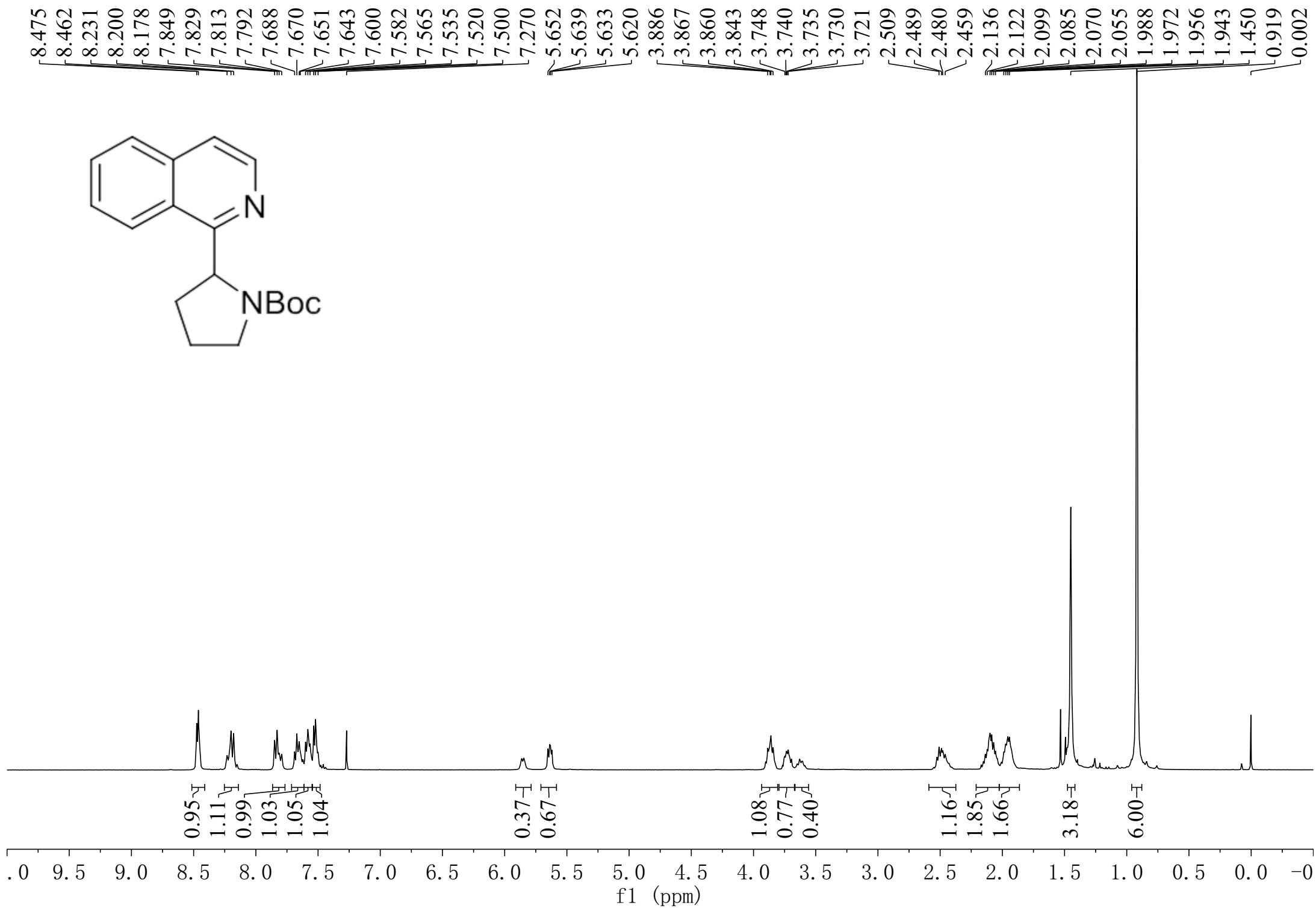
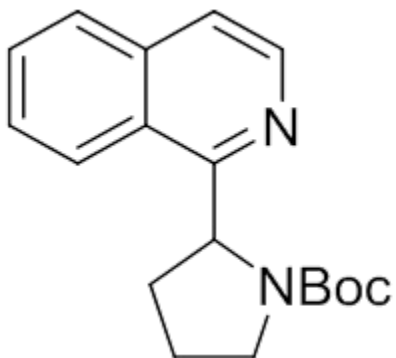


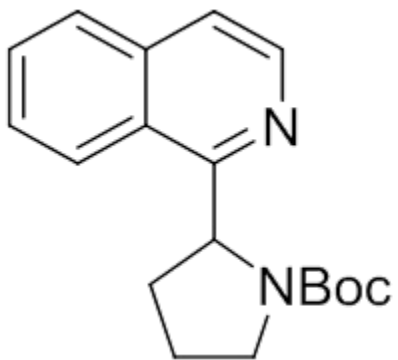


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7.632
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7.507
7.270
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0.003









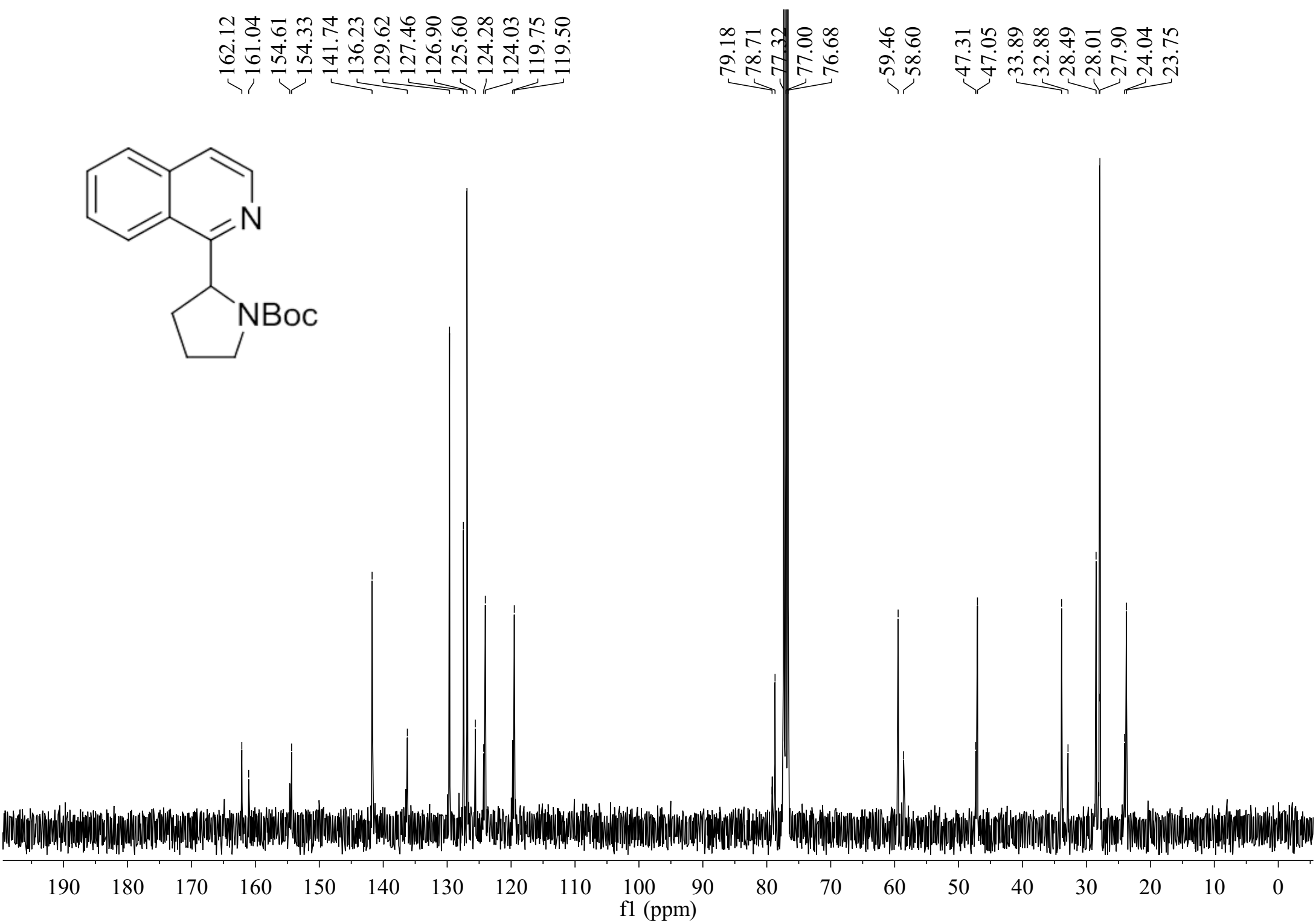
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124.03
119.75
119.50

79.18
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77.00
76.68

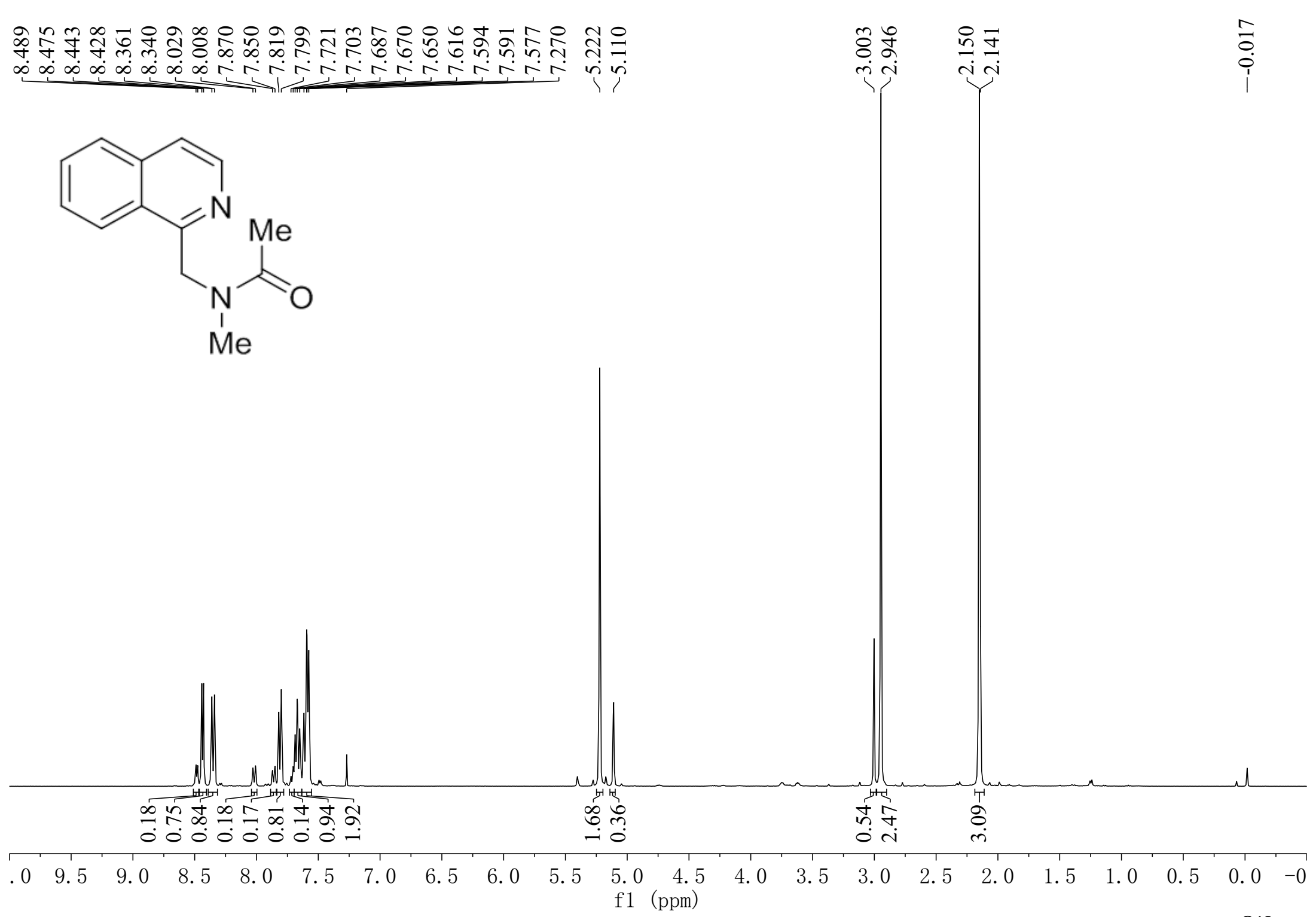
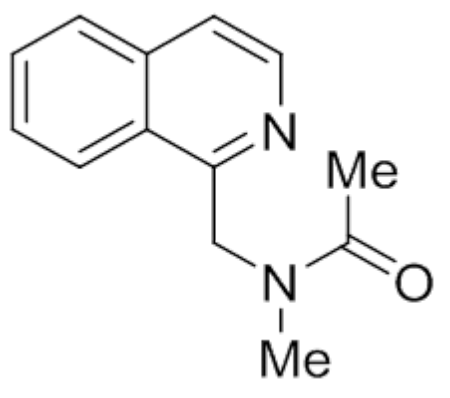
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47.31
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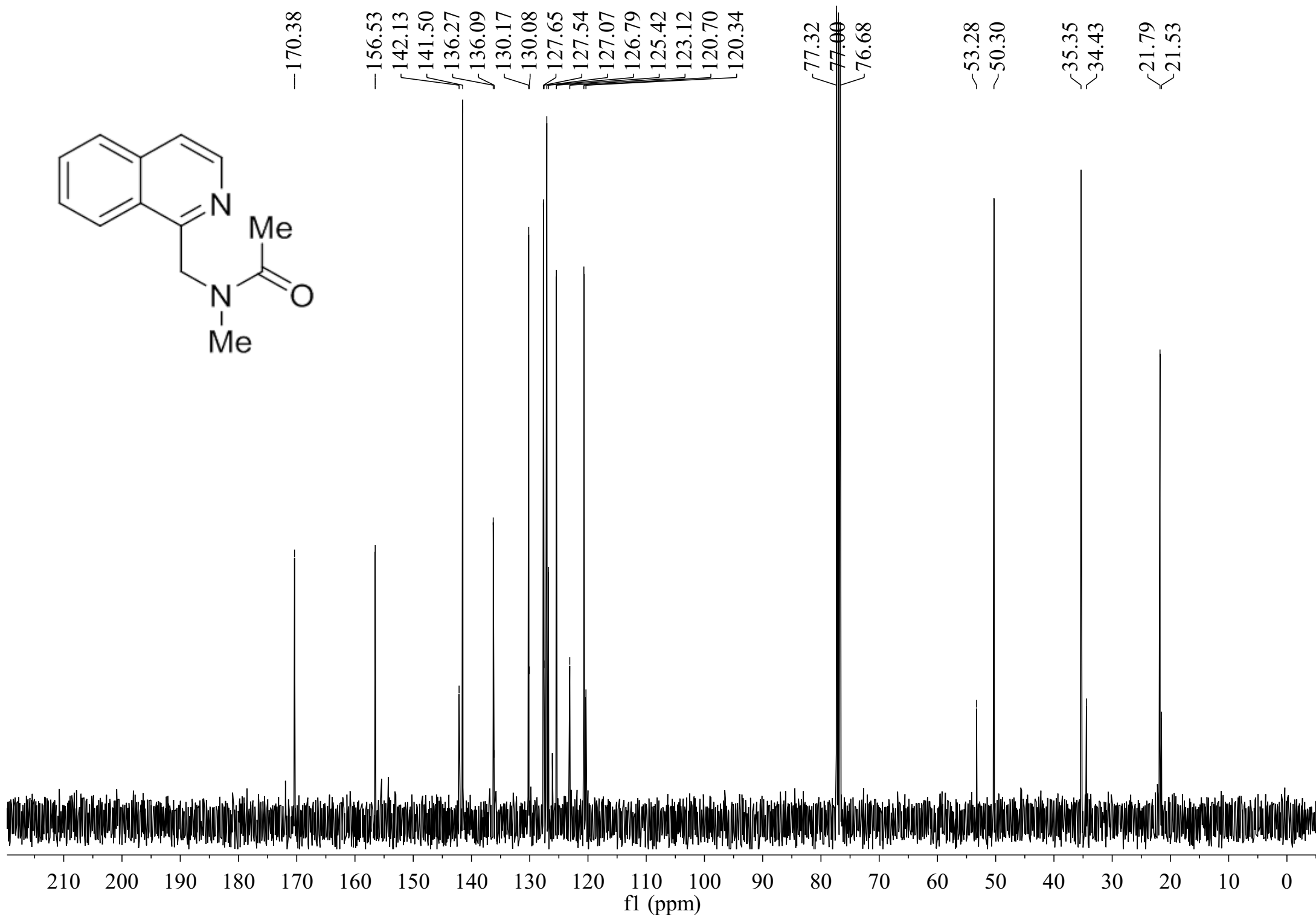
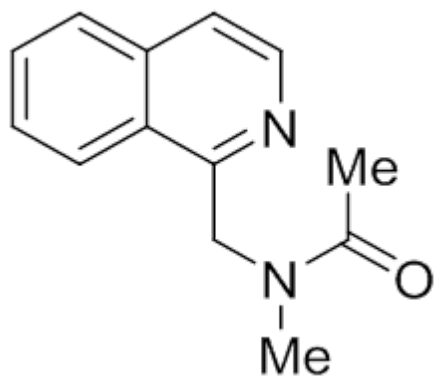
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27.90
24.04
23.75

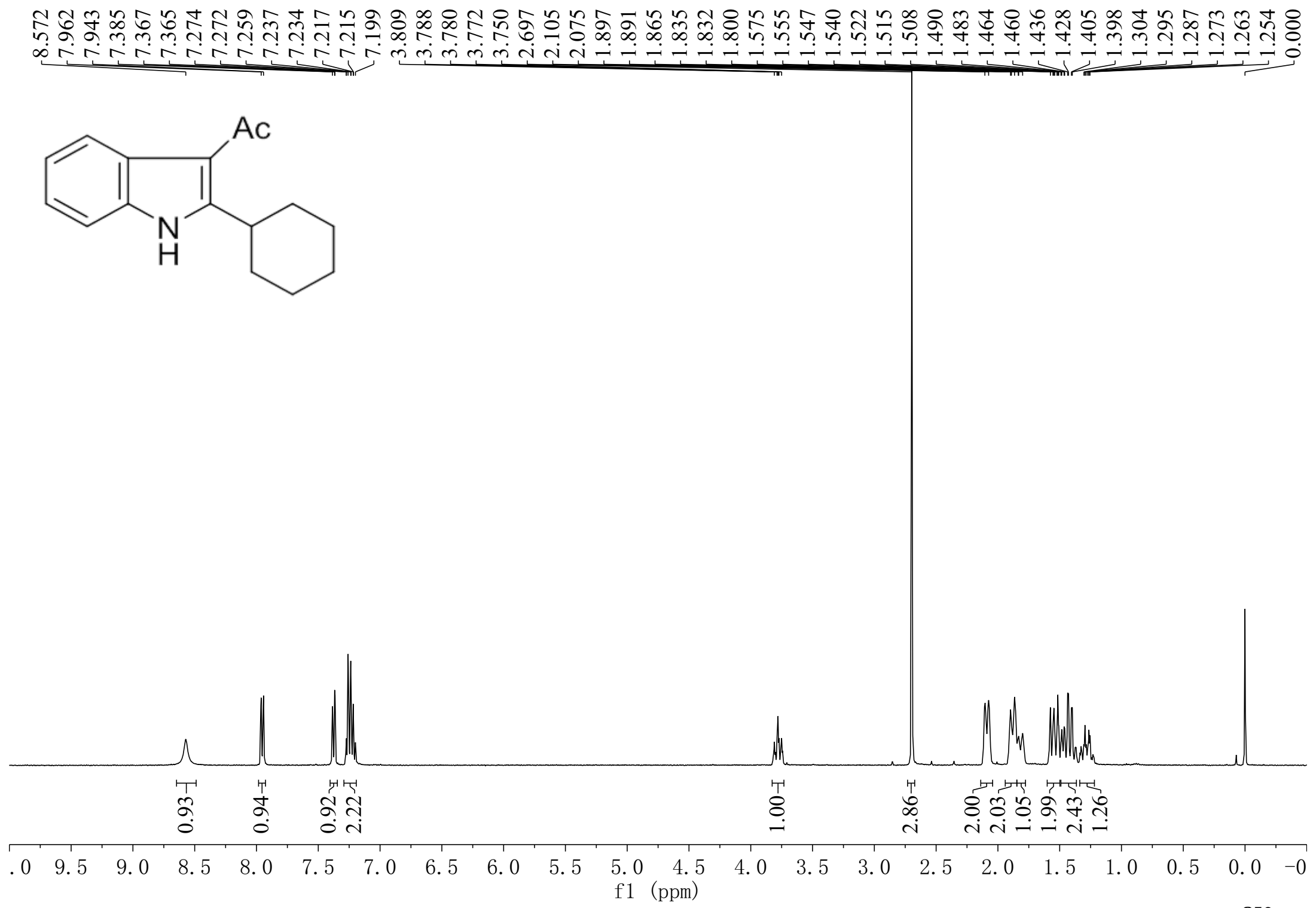
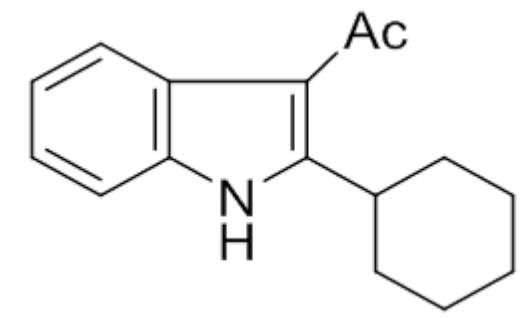


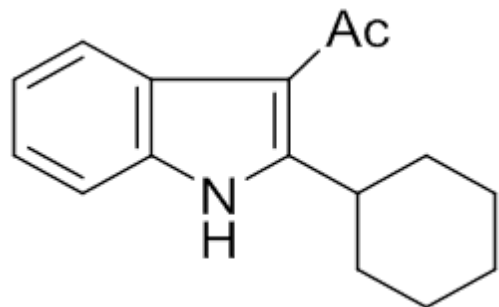
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8.008
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7.850
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7.721
7.703
7.687
7.670
7.650
7.616
7.594
7.591
7.577
7.270
~5.222
~5.110



--0.017







-194.79

-152.76

134.55

126.85

122.19

121.93

120.79

113.04

111.16

77.32

77.00

76.68

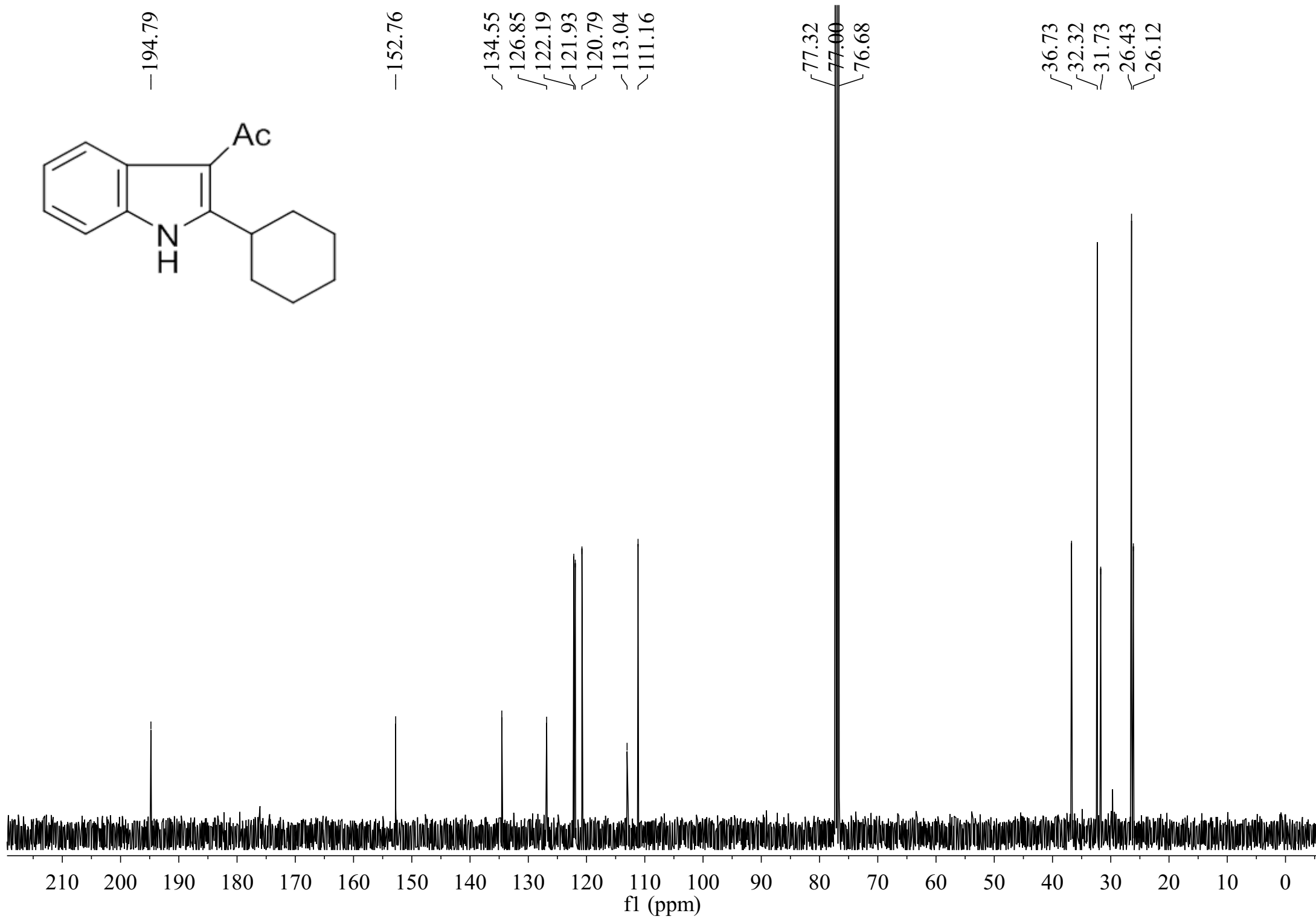
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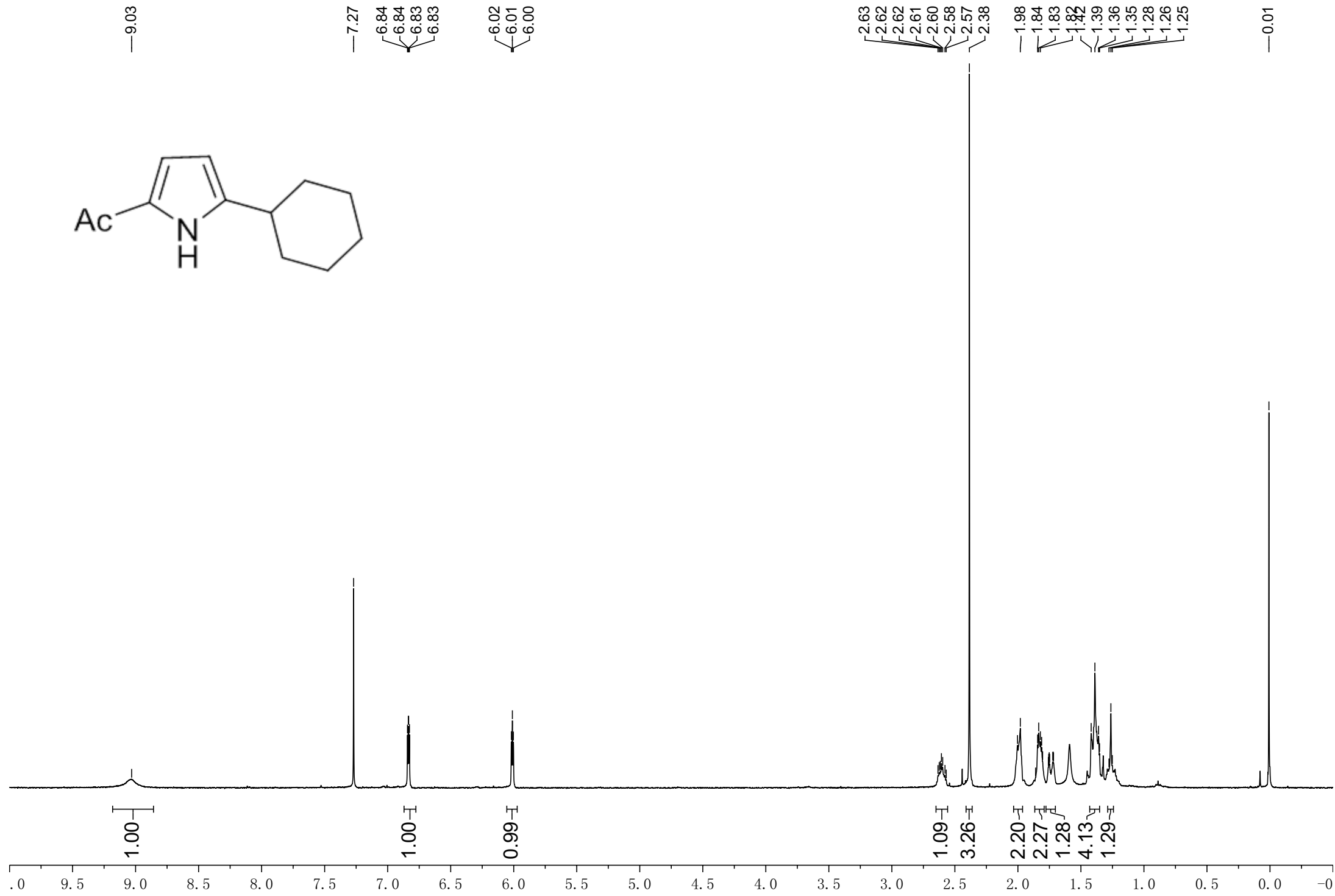
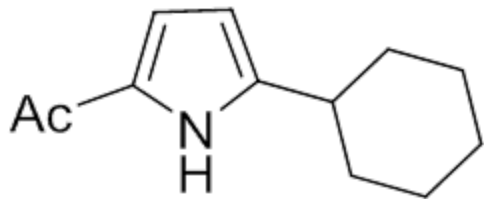
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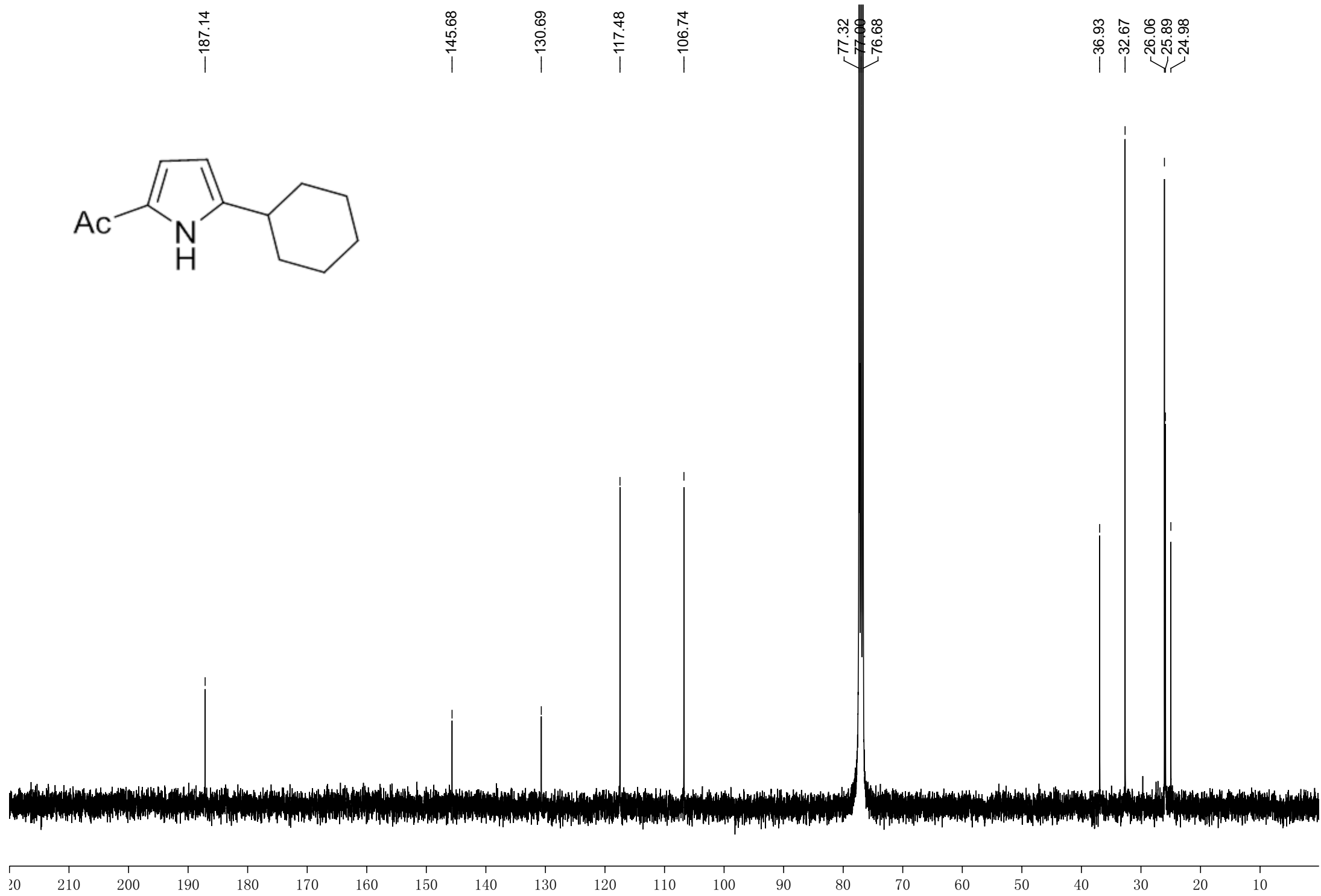
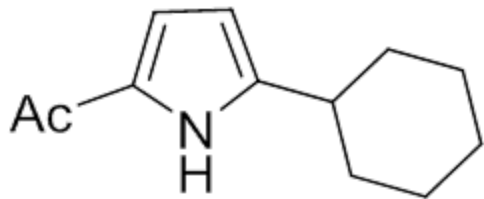
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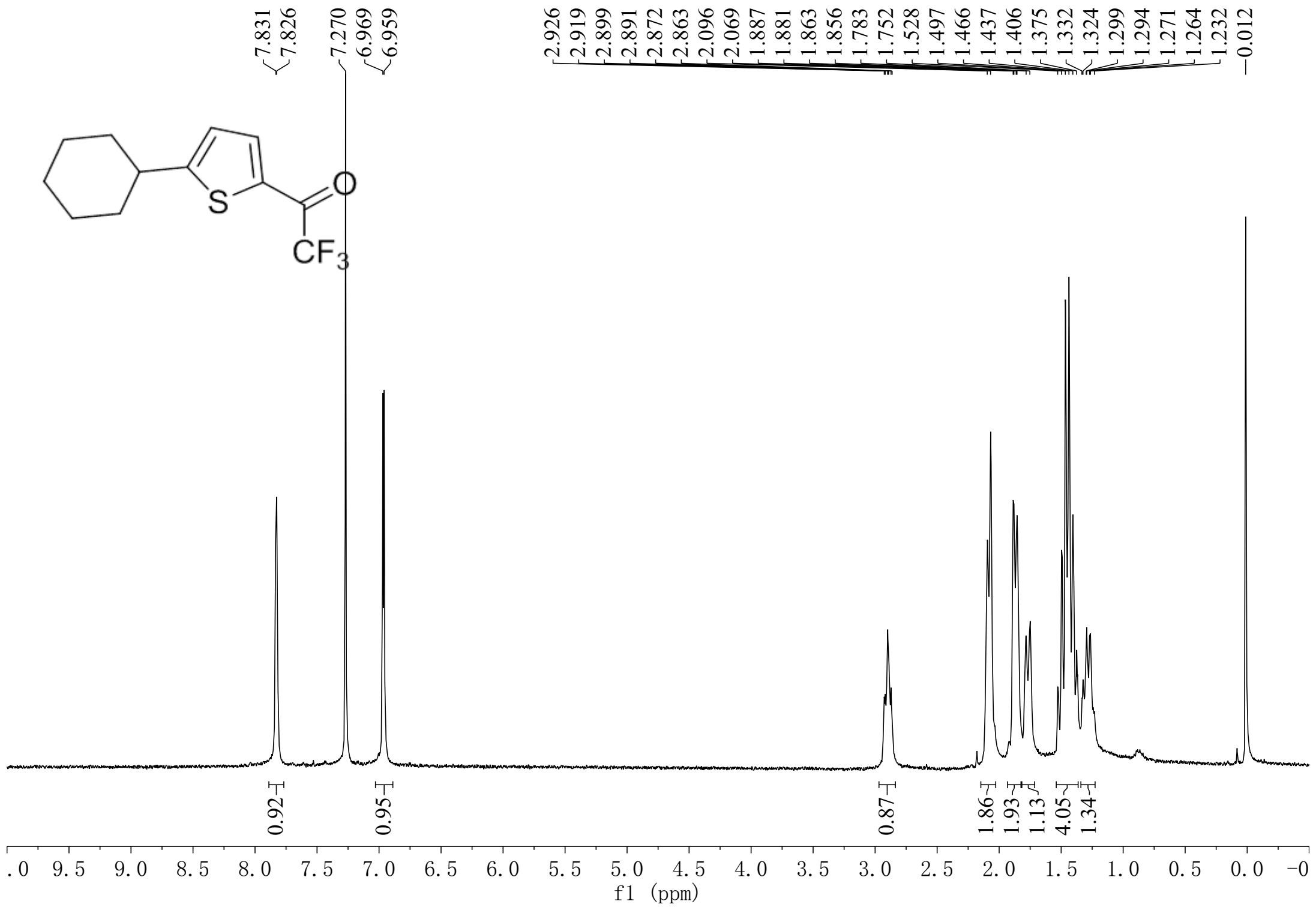
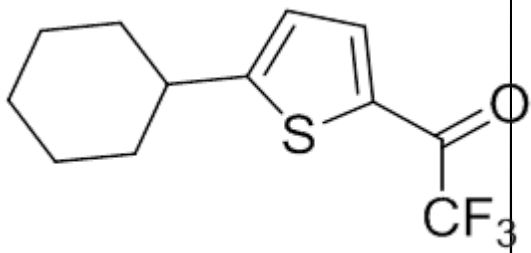
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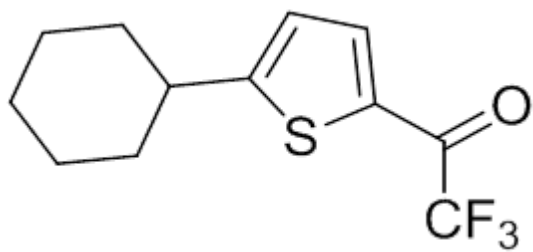
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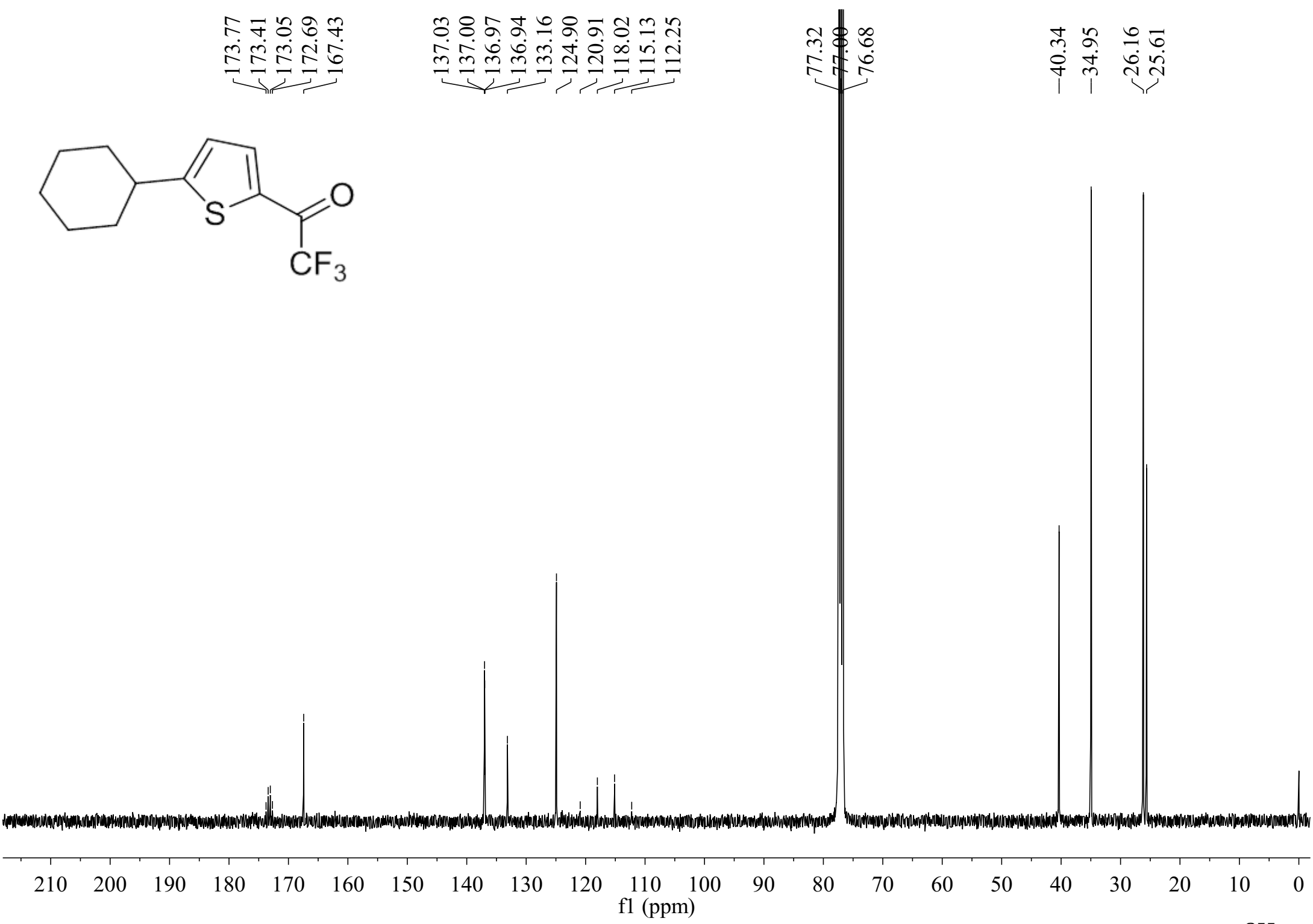


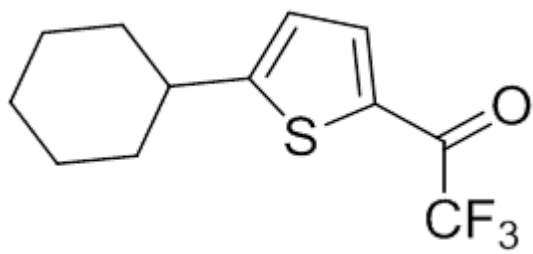
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173.05
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137.03
137.00
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118.02
115.13
112.25

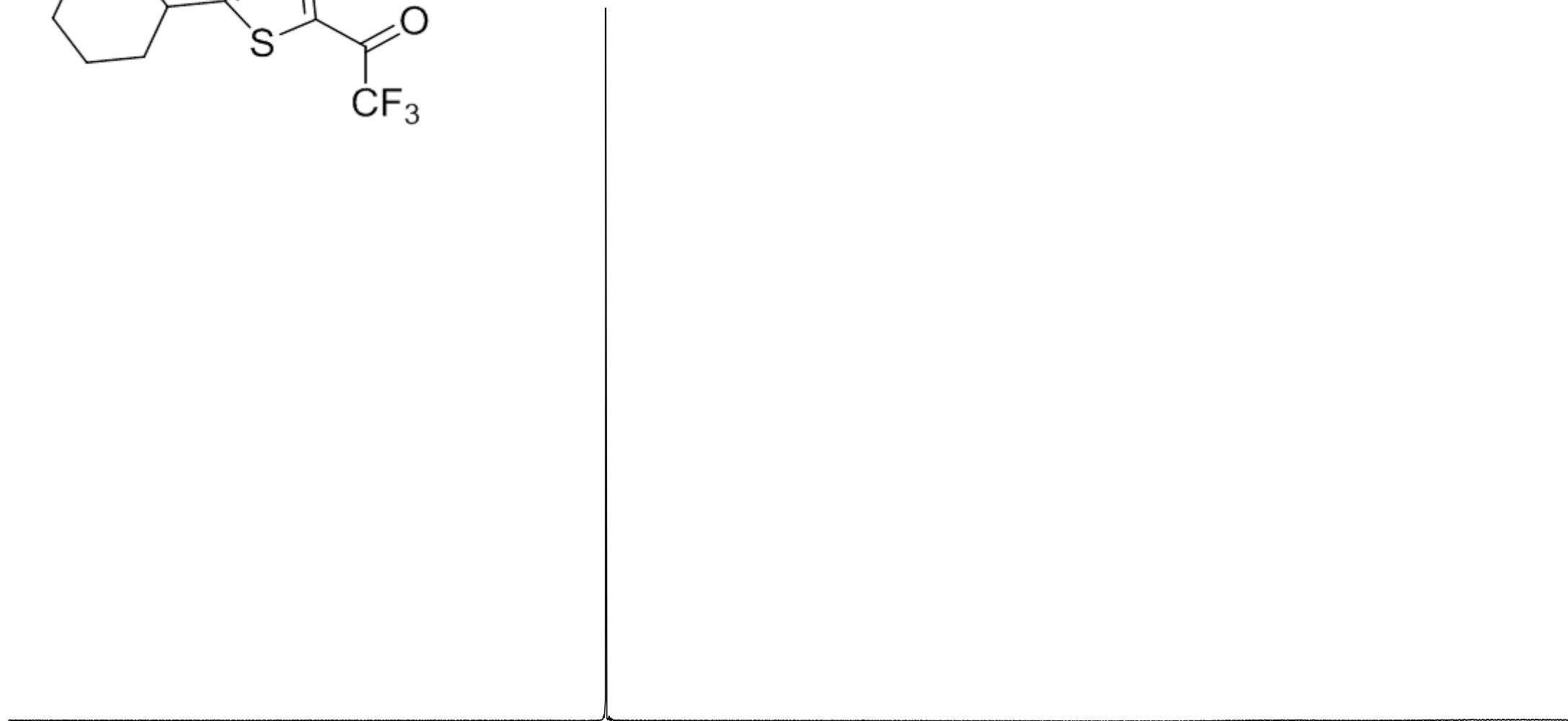
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77.00
76.68

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-26.16
-25.61



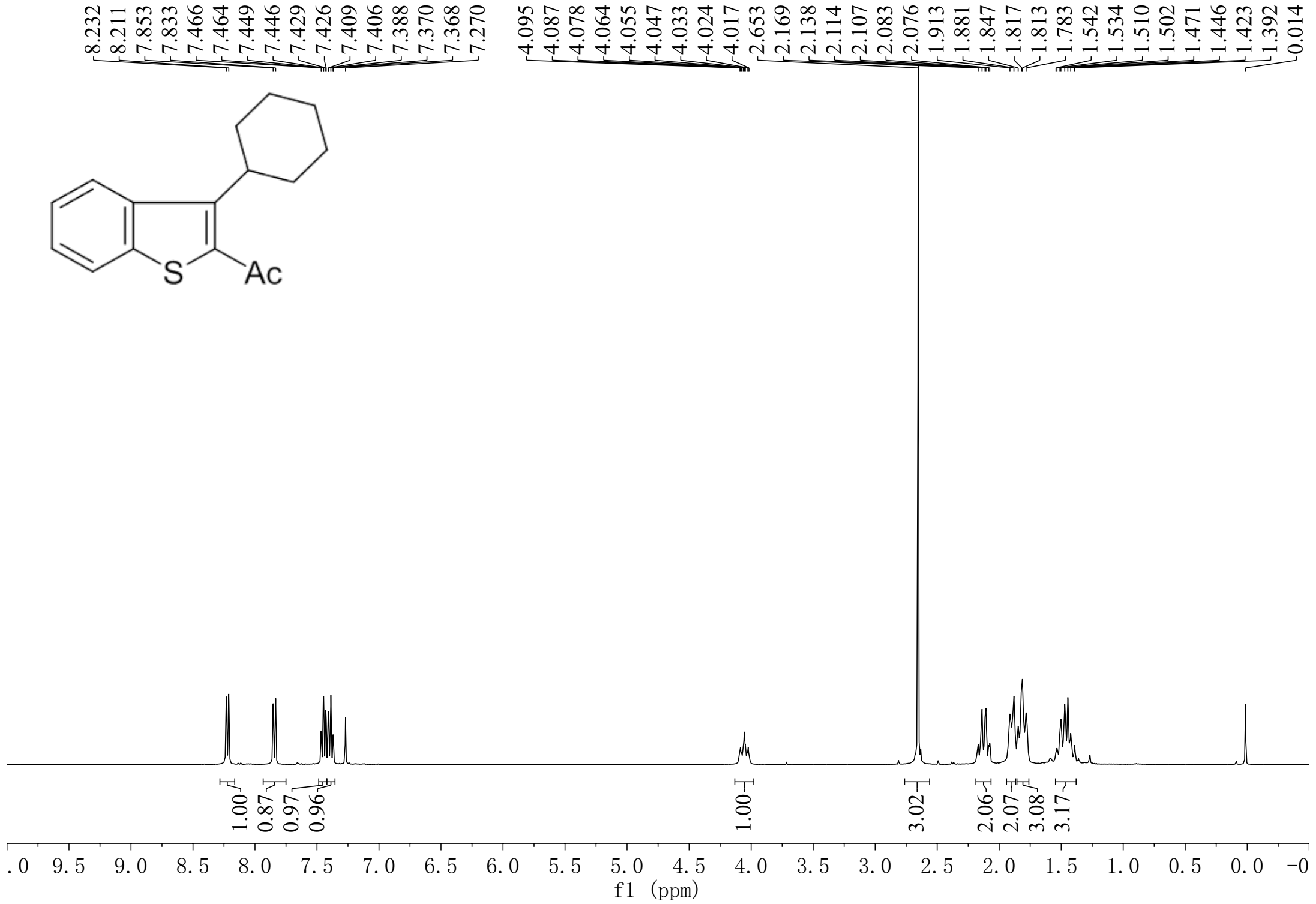
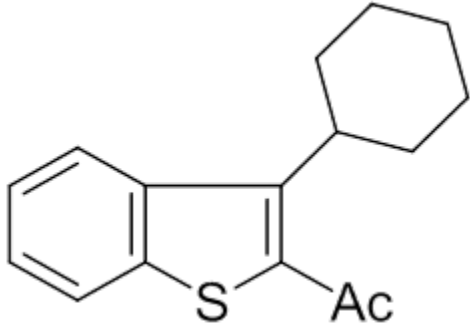


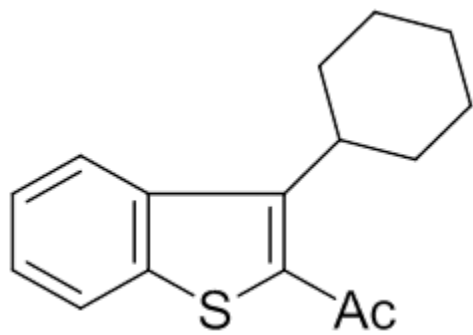
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f1 (ppm)



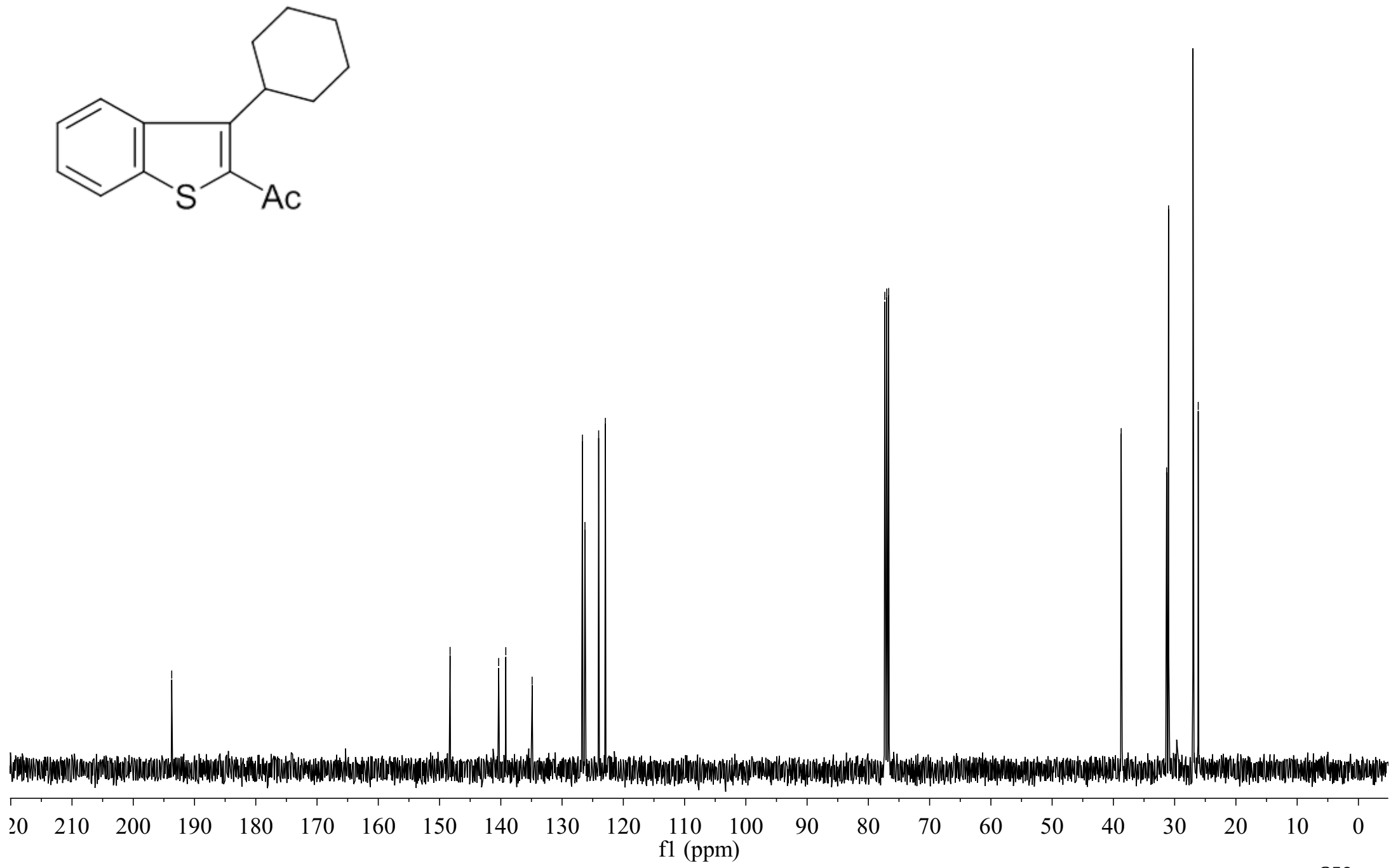


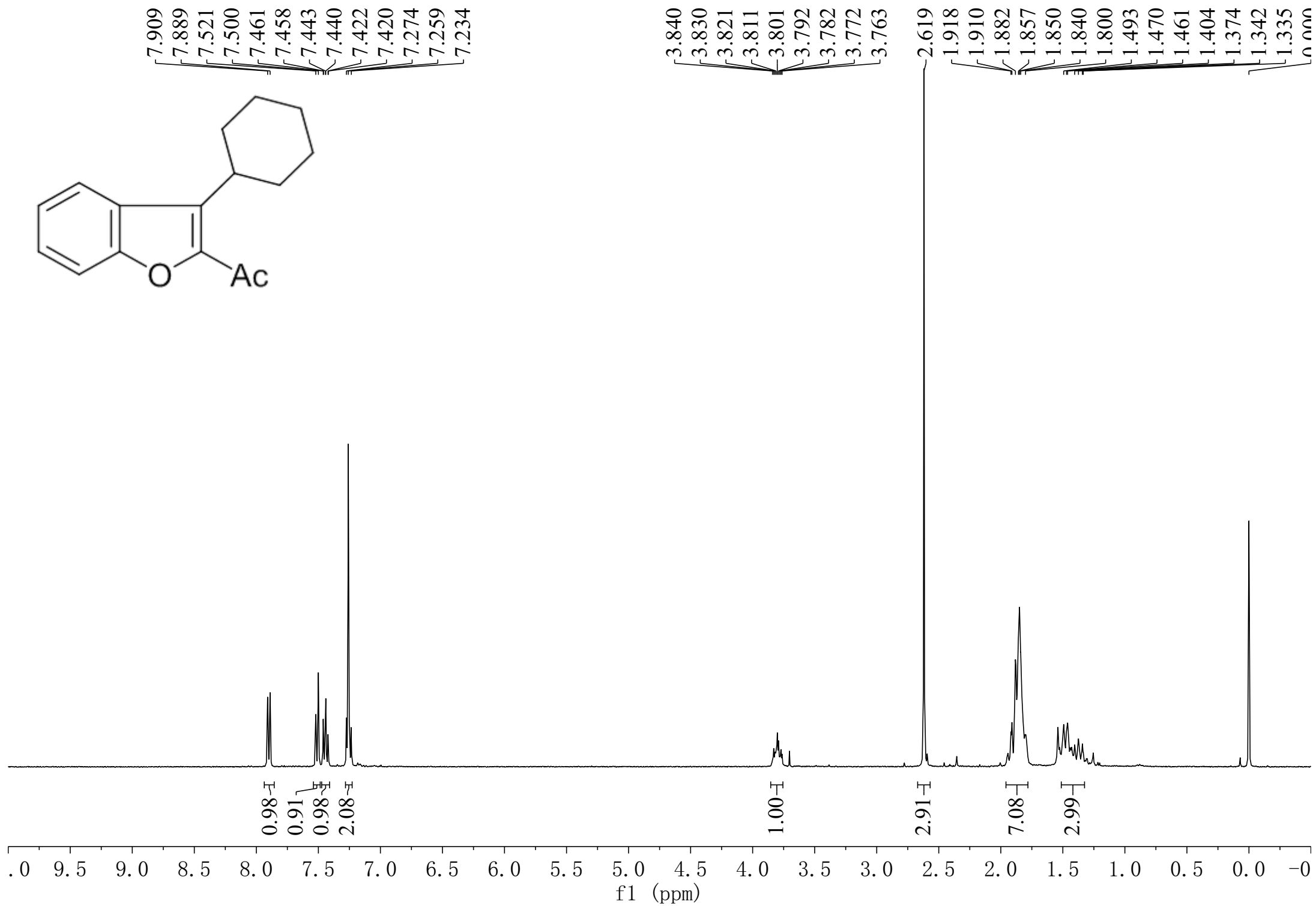
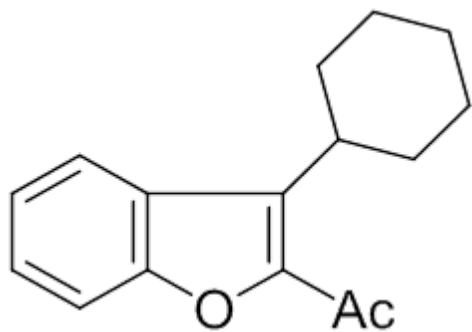
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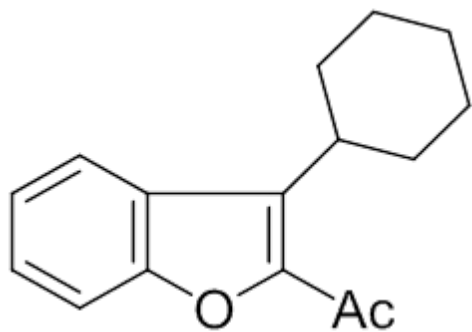
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134.89
126.67
126.26
124.03
122.93

77.32
77.00
76.68

38.73
31.31
30.99
27.00
26.15







-191.76

-154.35

-146.94

133.34

127.68

127.60

123.78

122.75

-112.36

77.32

77.00

76.68

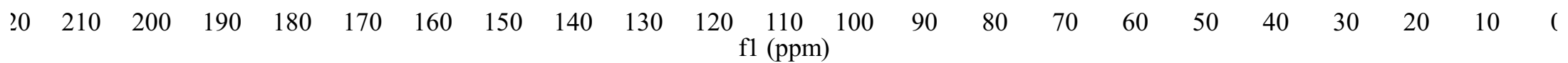
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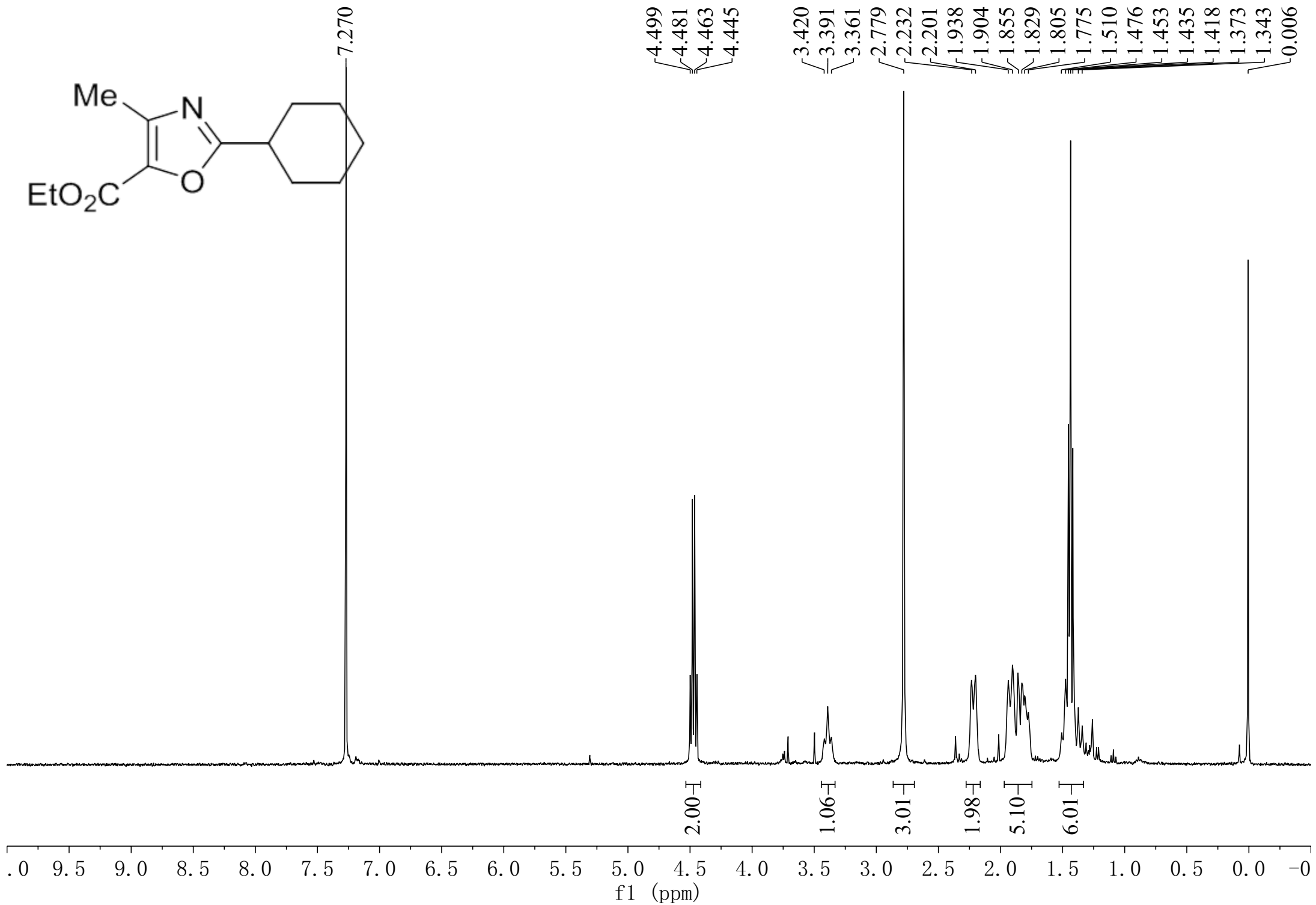
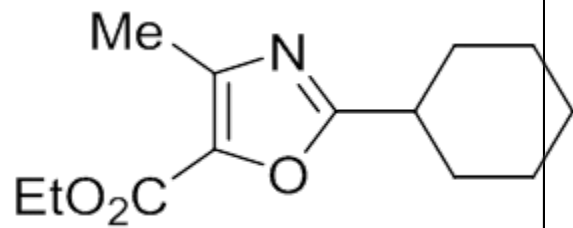
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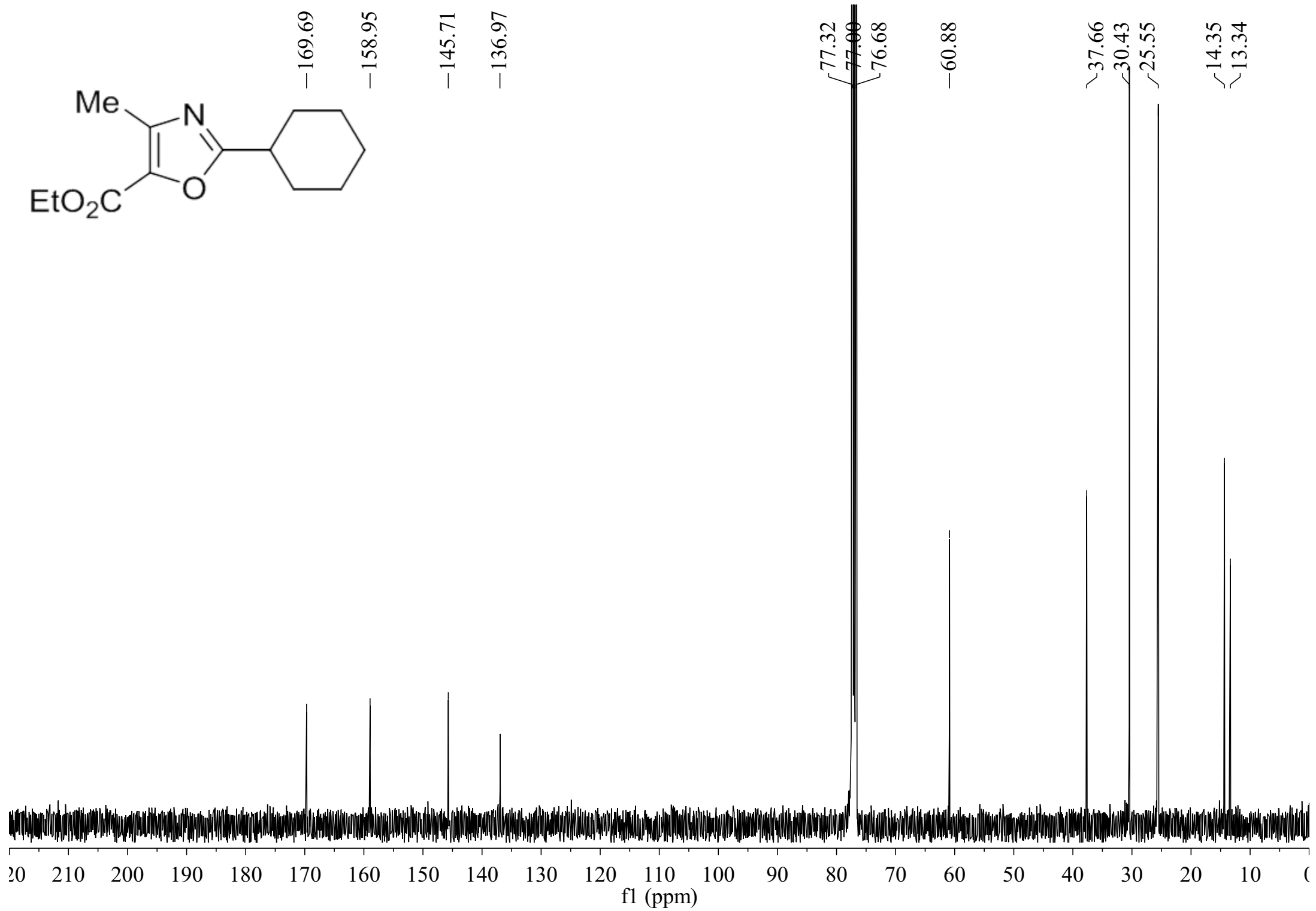
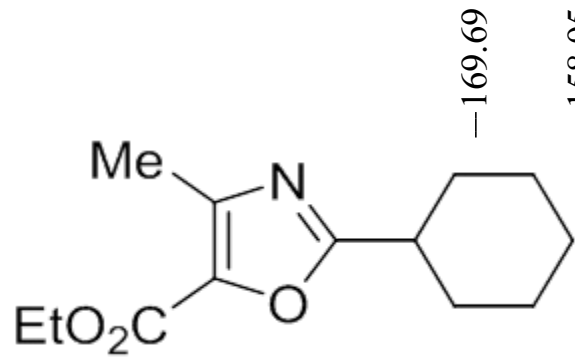
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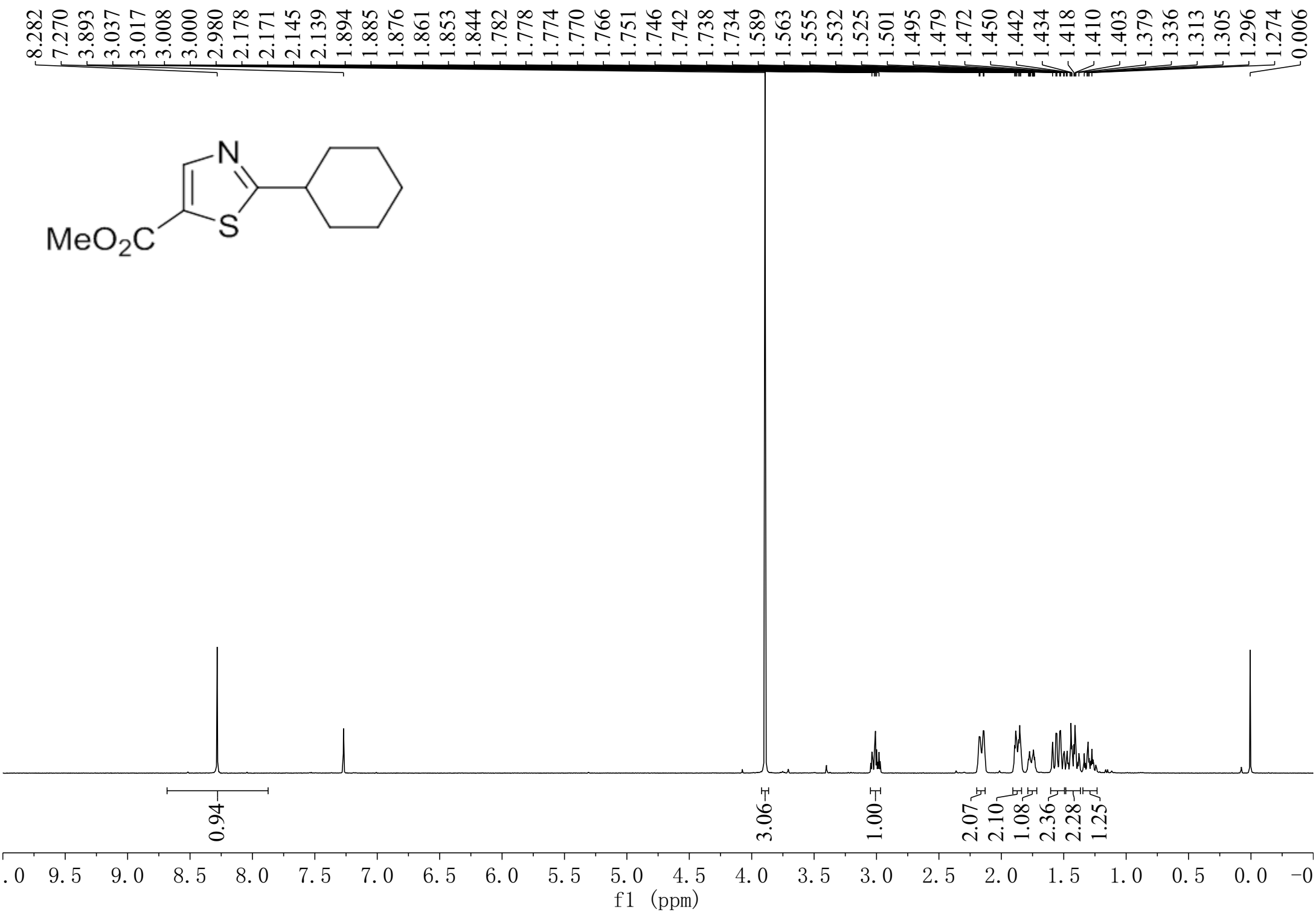
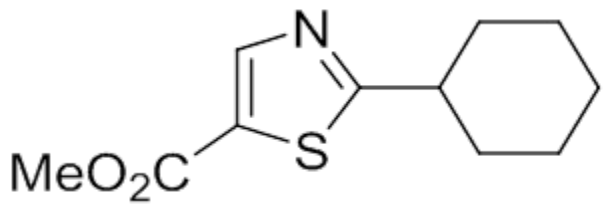
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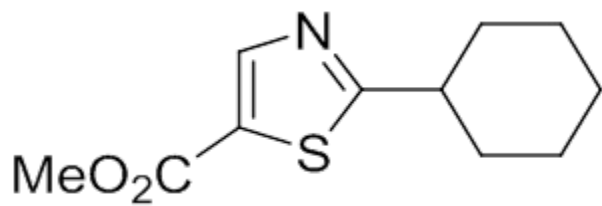
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-183.25

-161.98

-148.09

-127.56

77.32

77.00

76.68

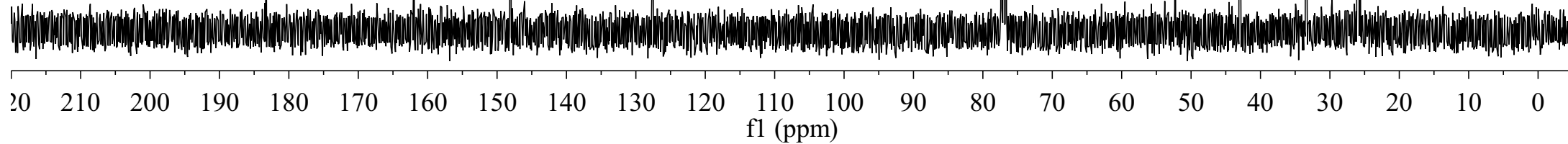
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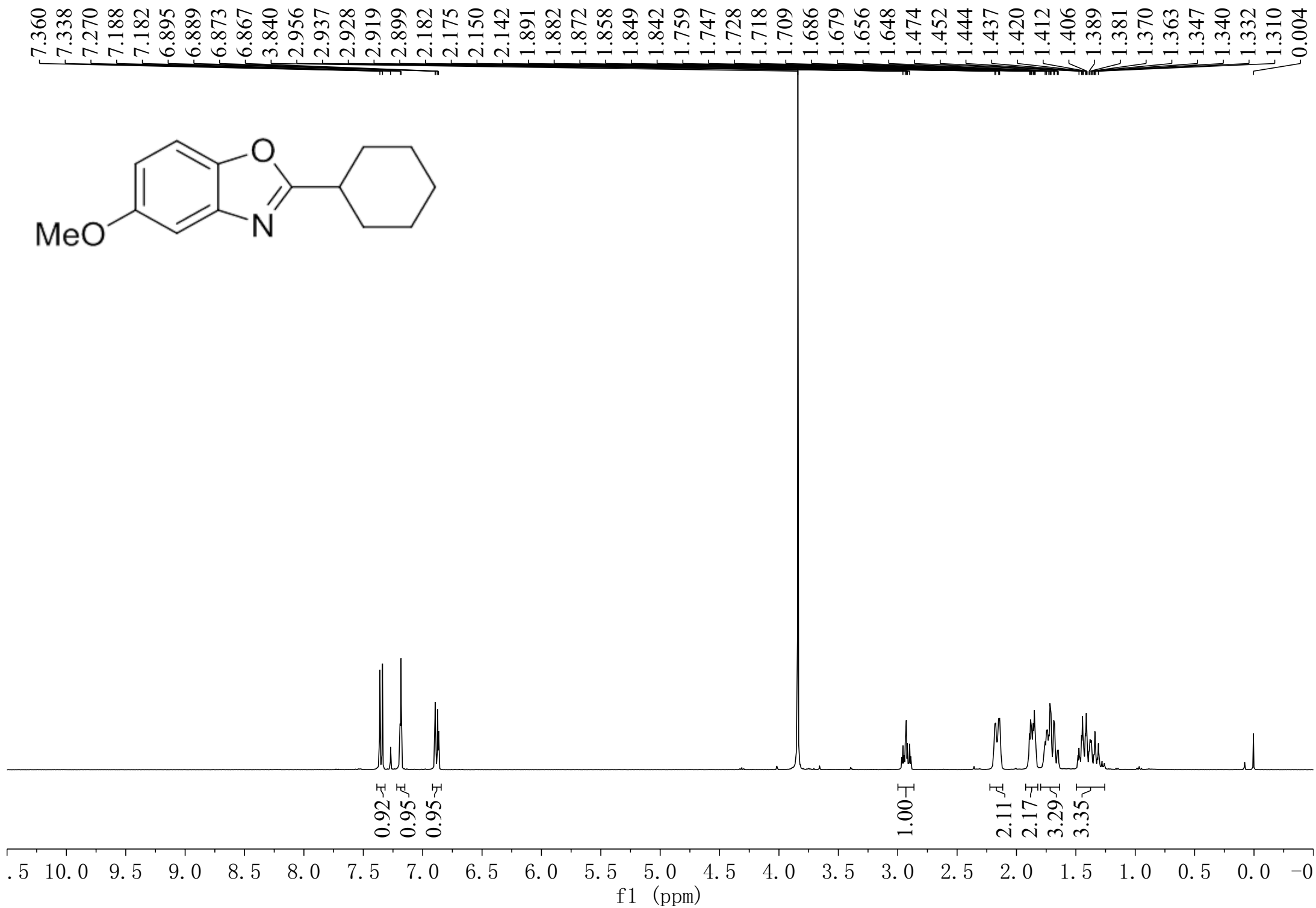
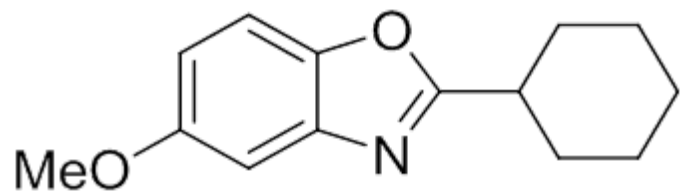
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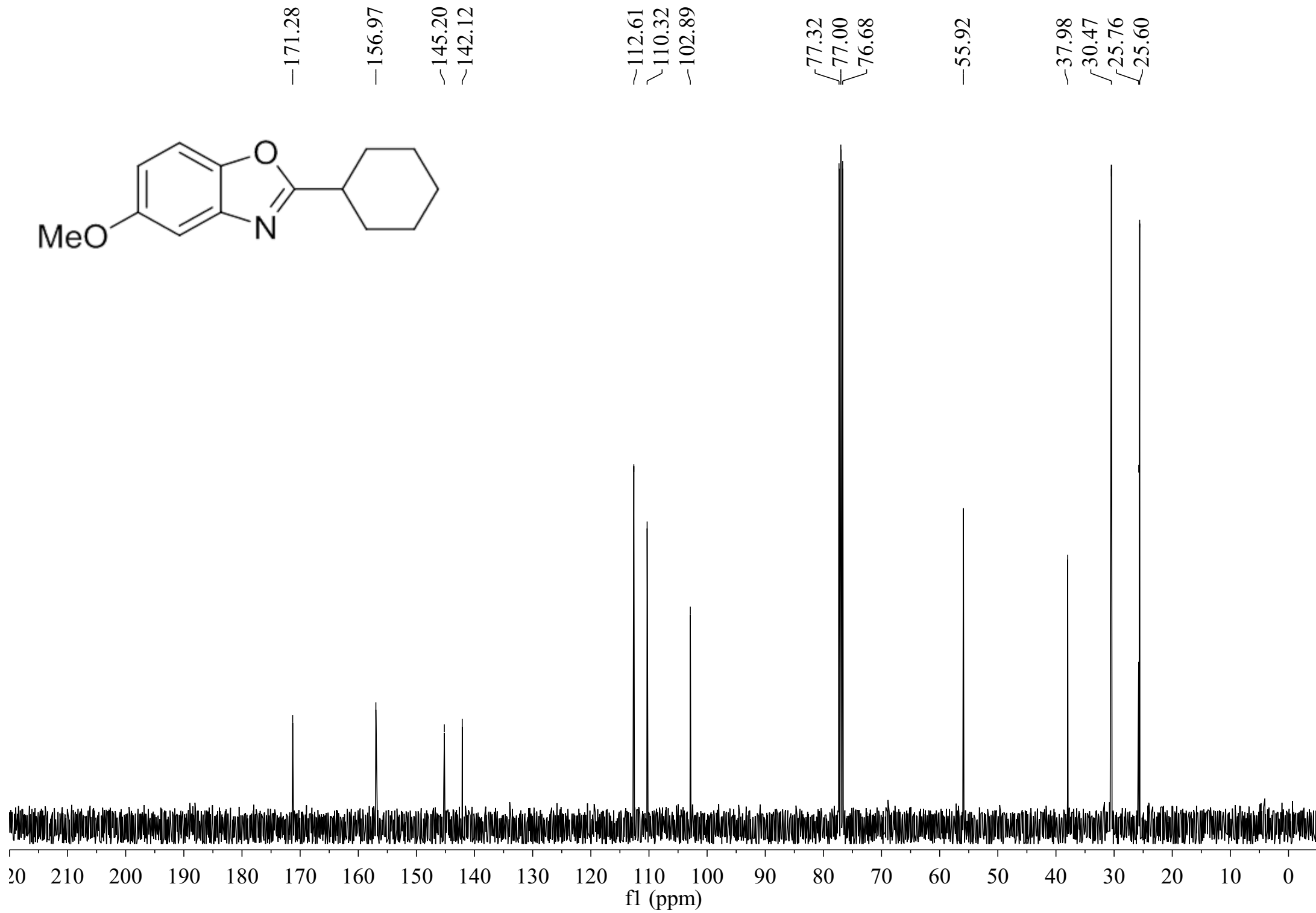
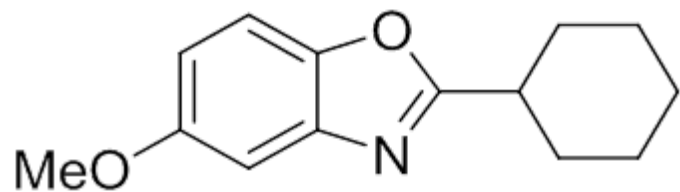
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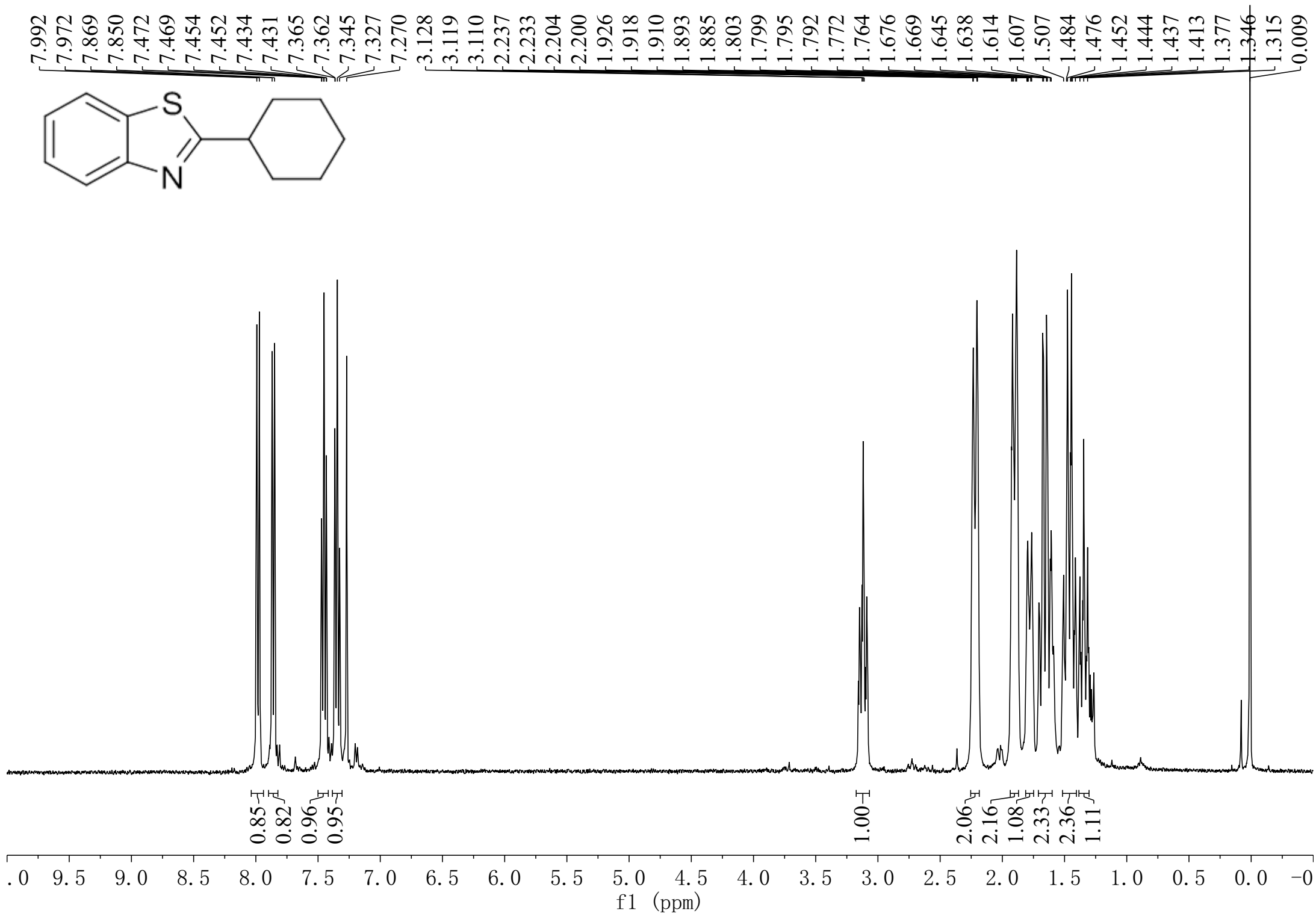
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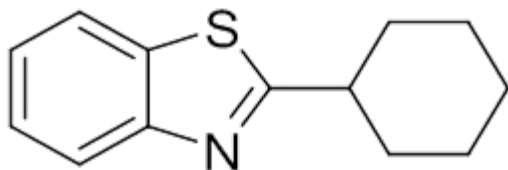
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-177.58

-153.12

134.55

125.77

124.47

122.55

121.53

77.32

77.00

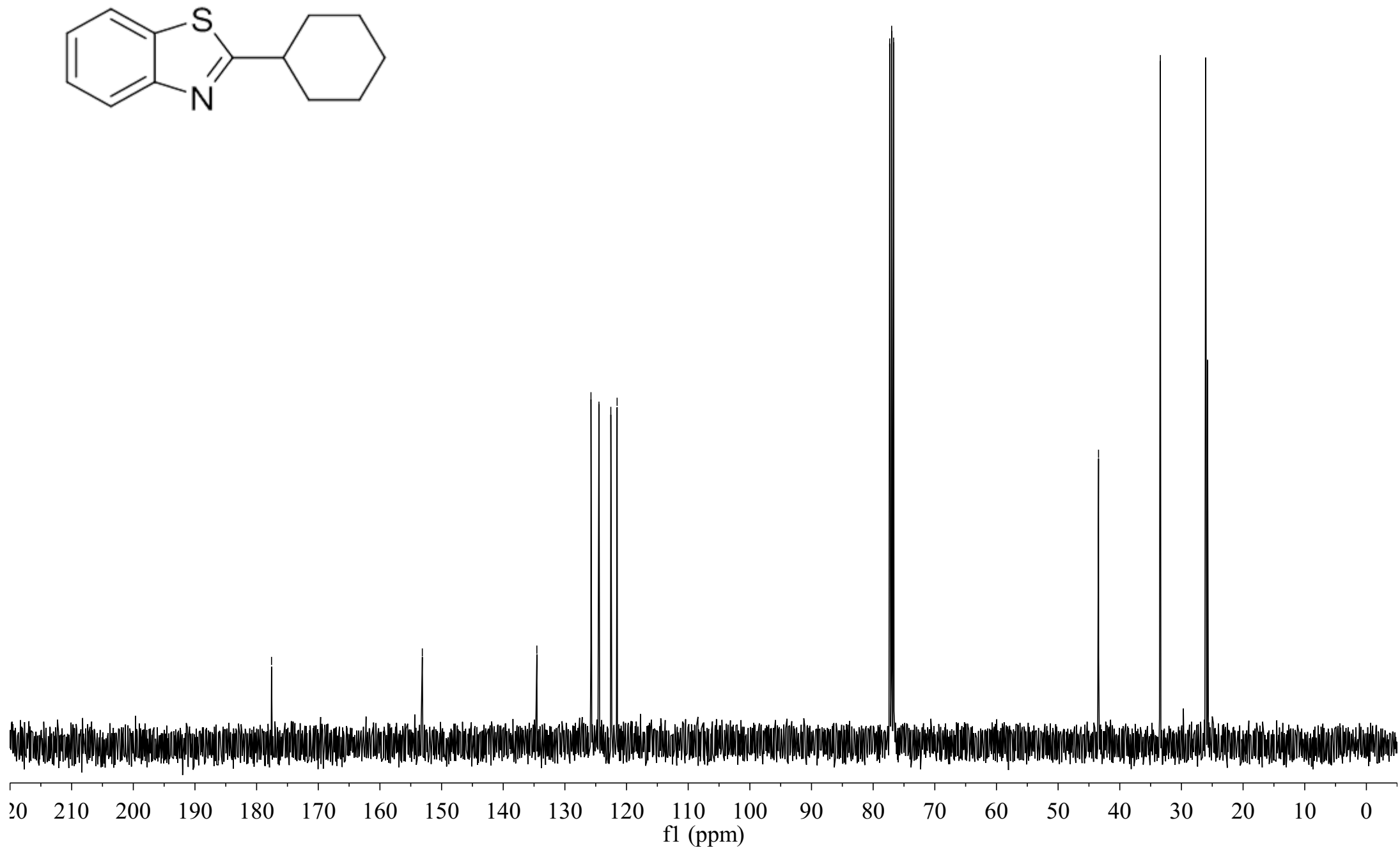
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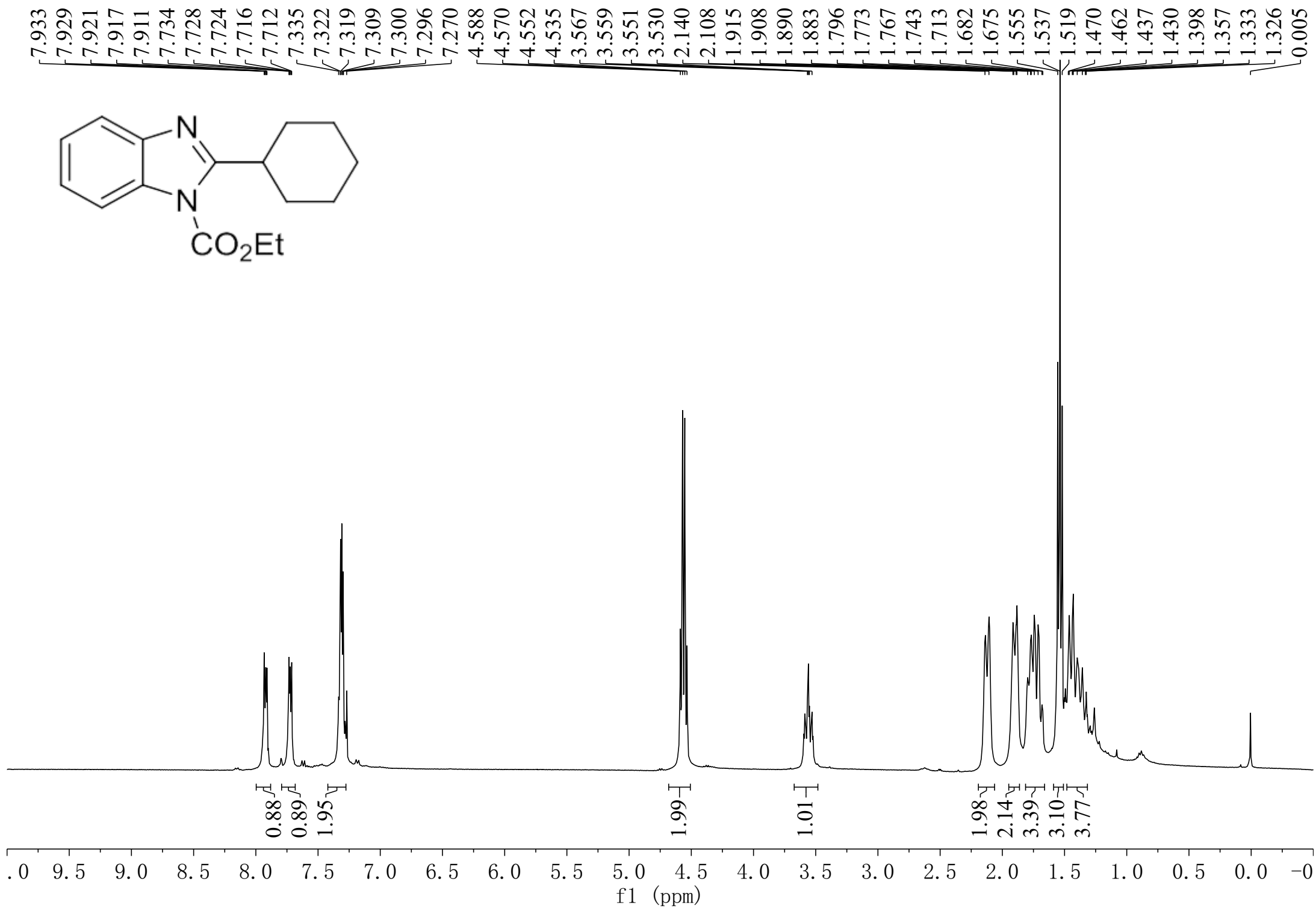
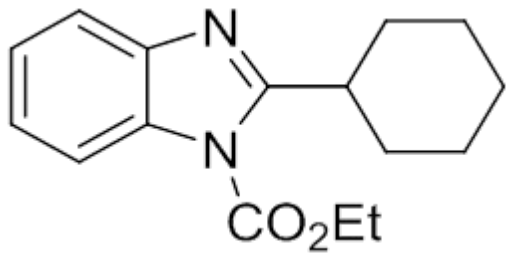
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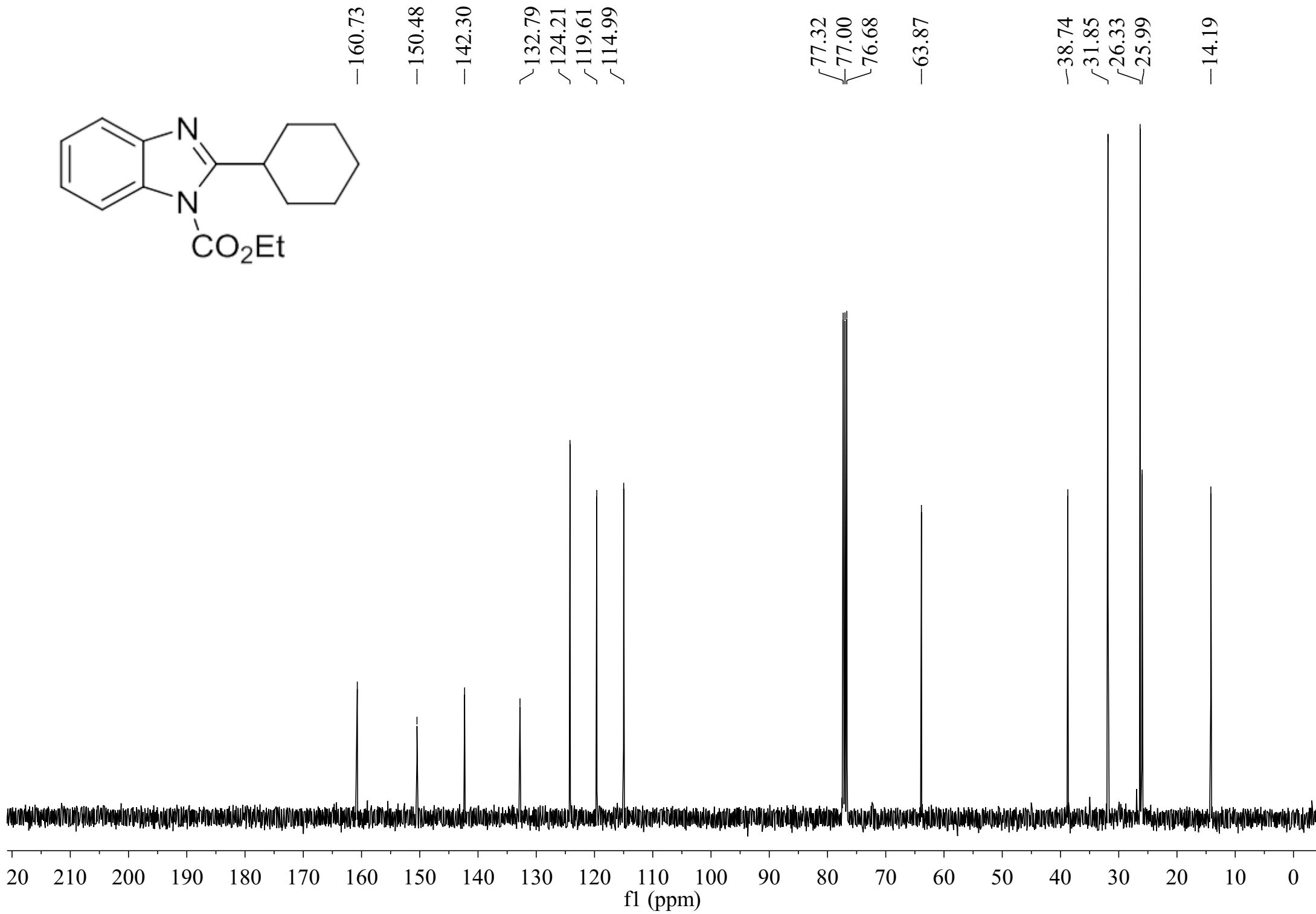
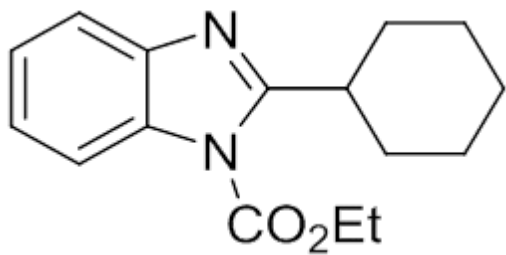
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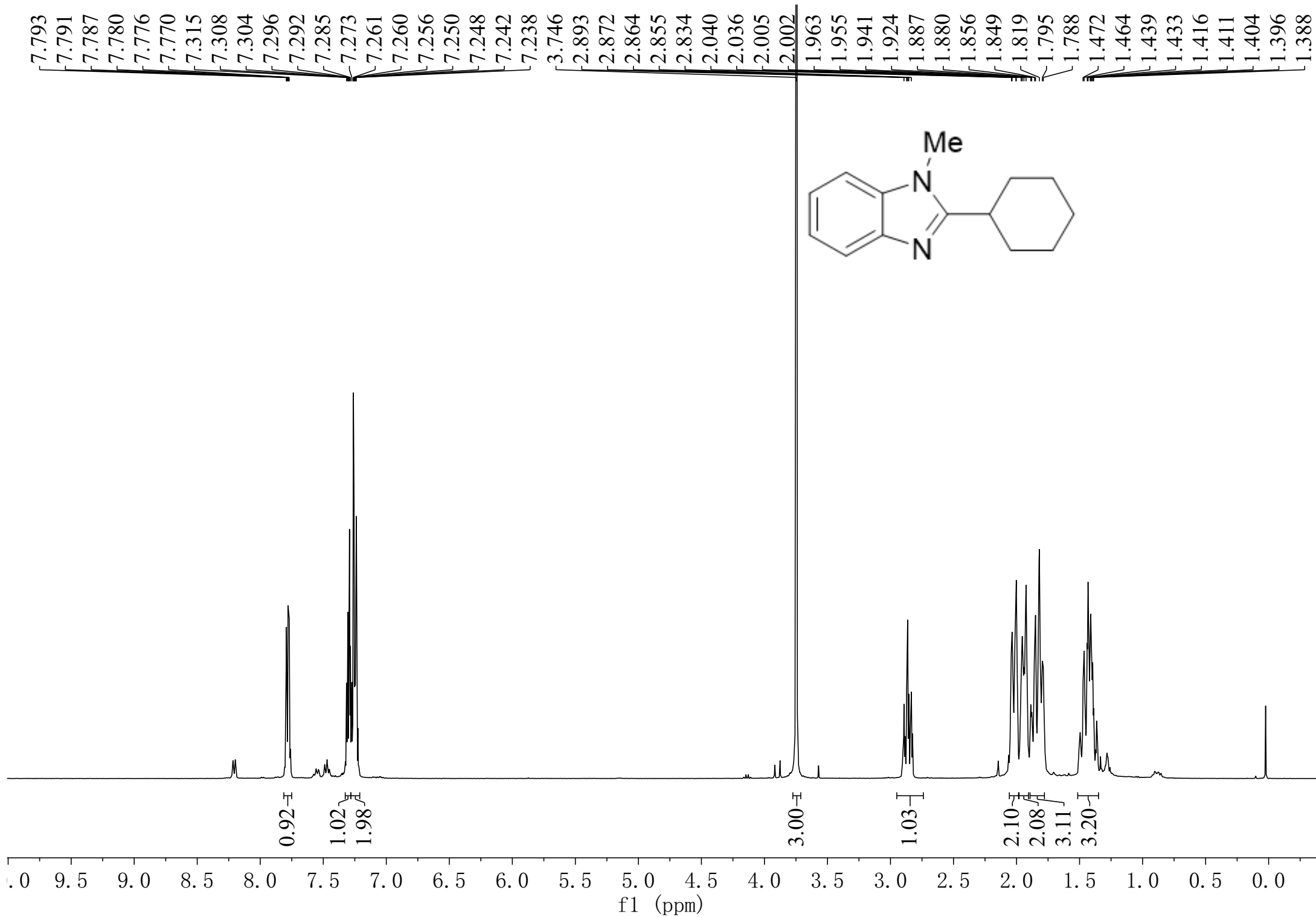
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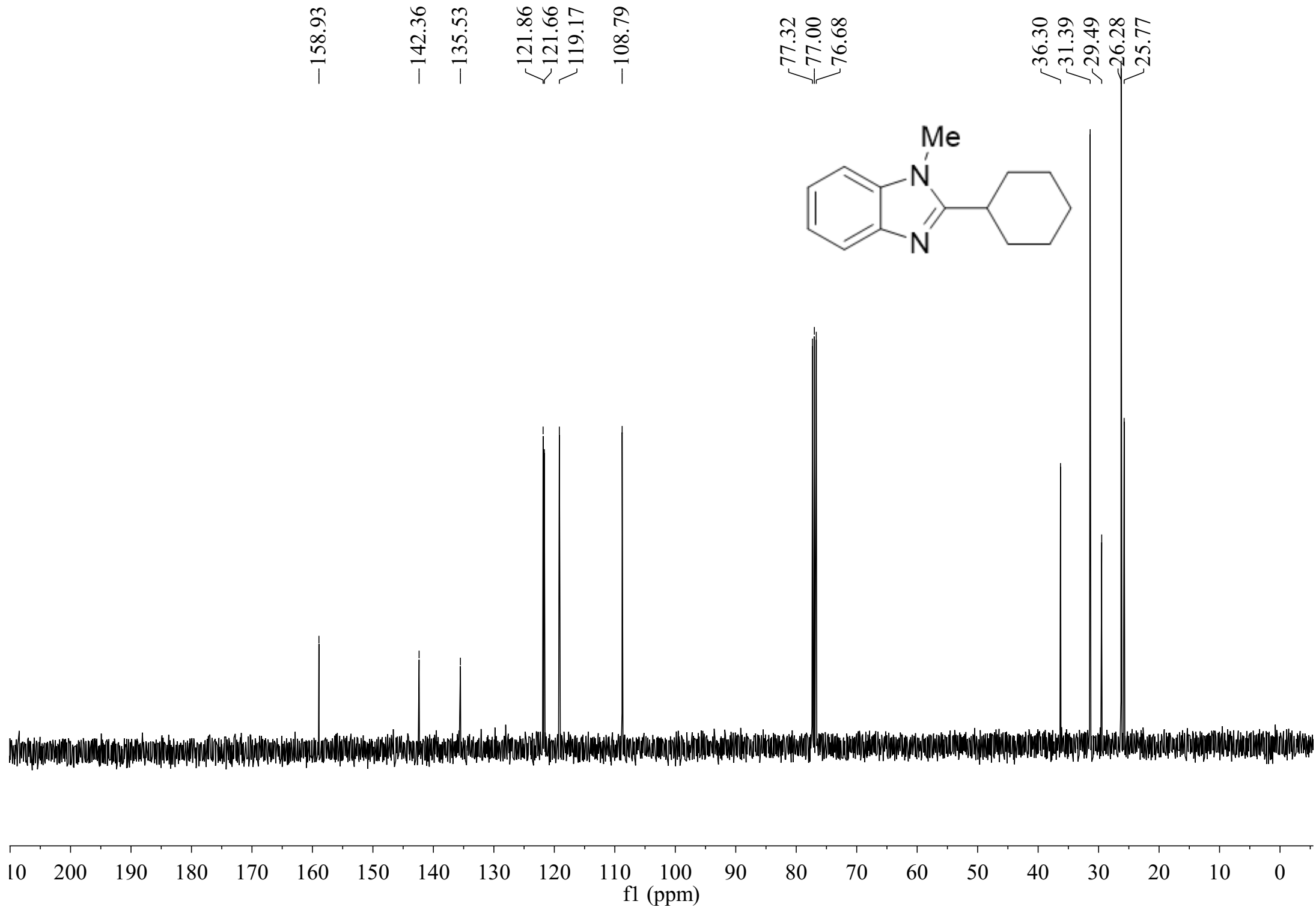
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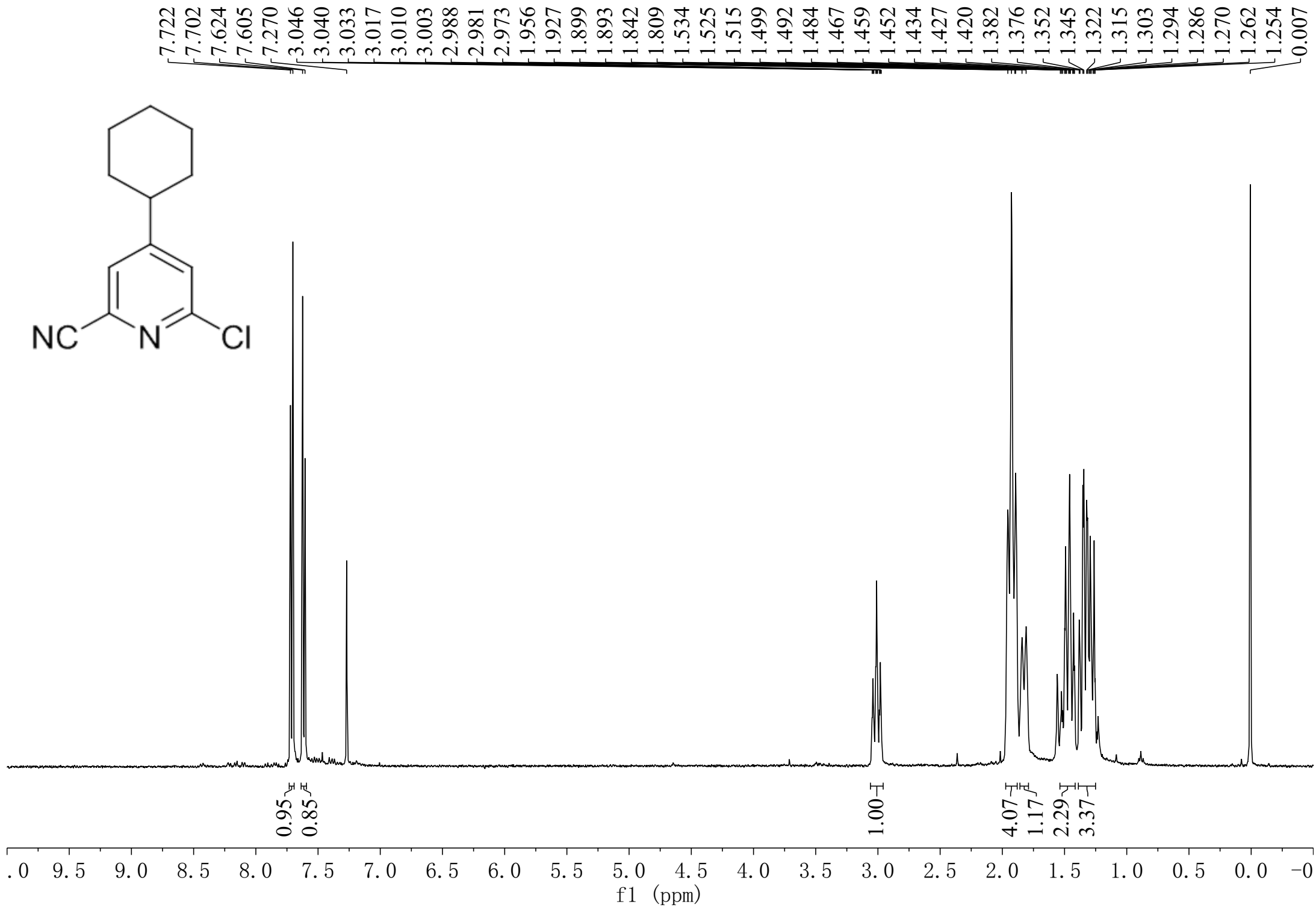
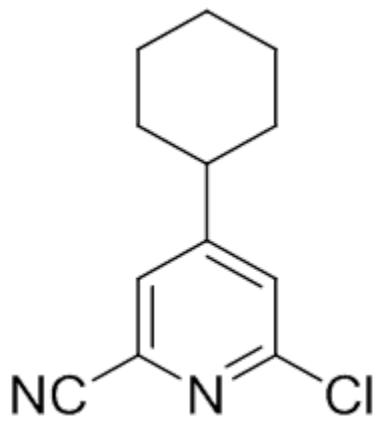


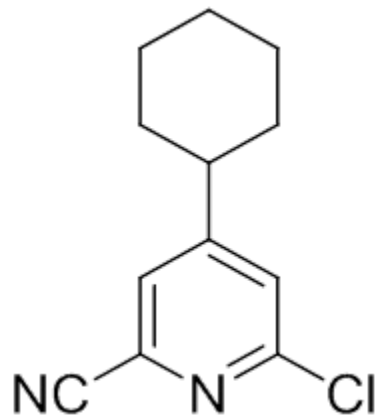








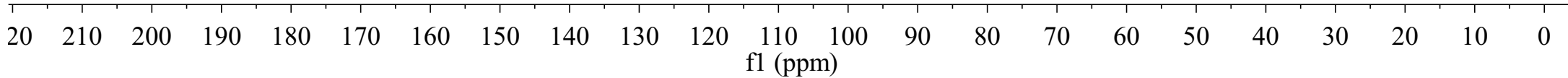


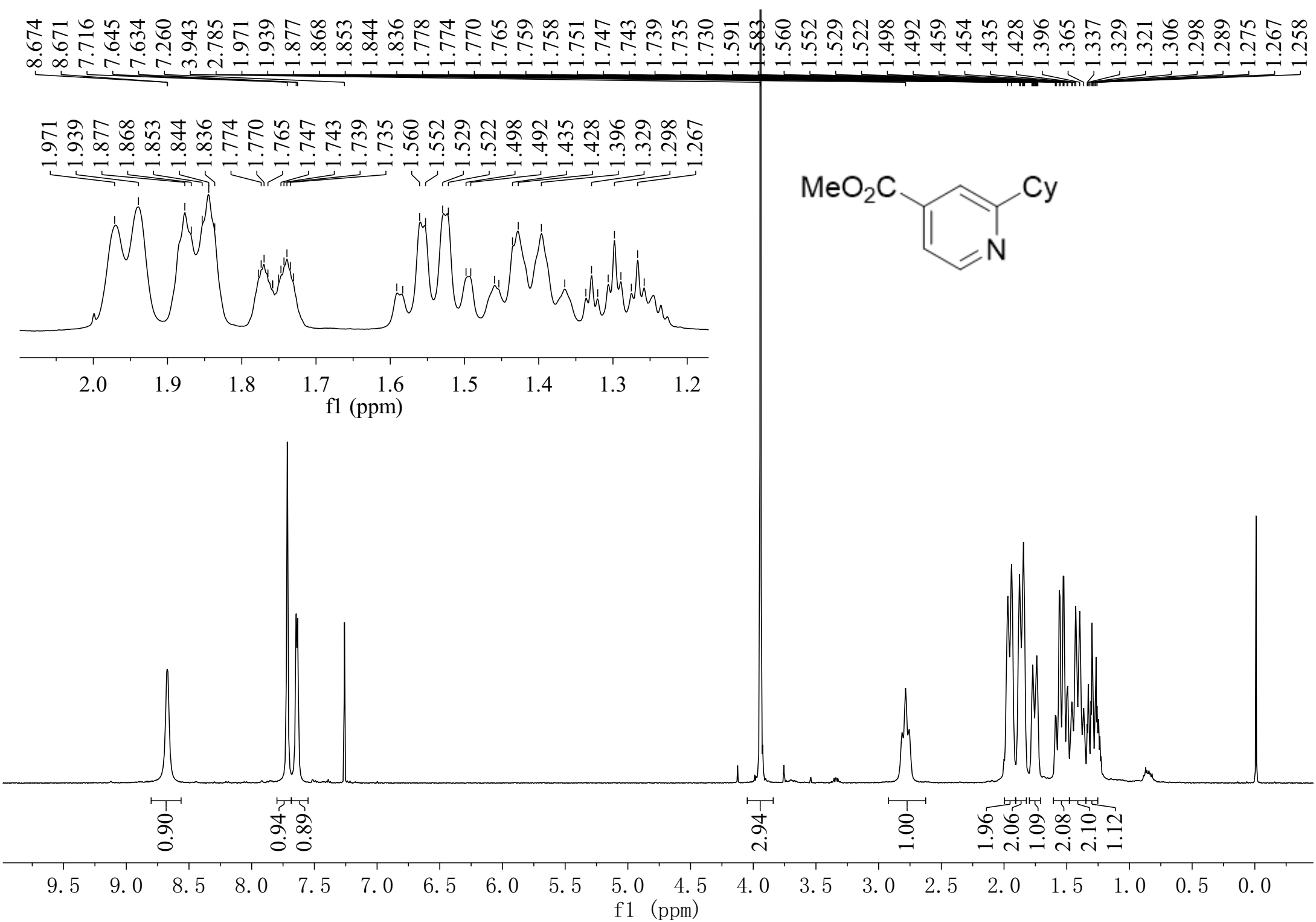


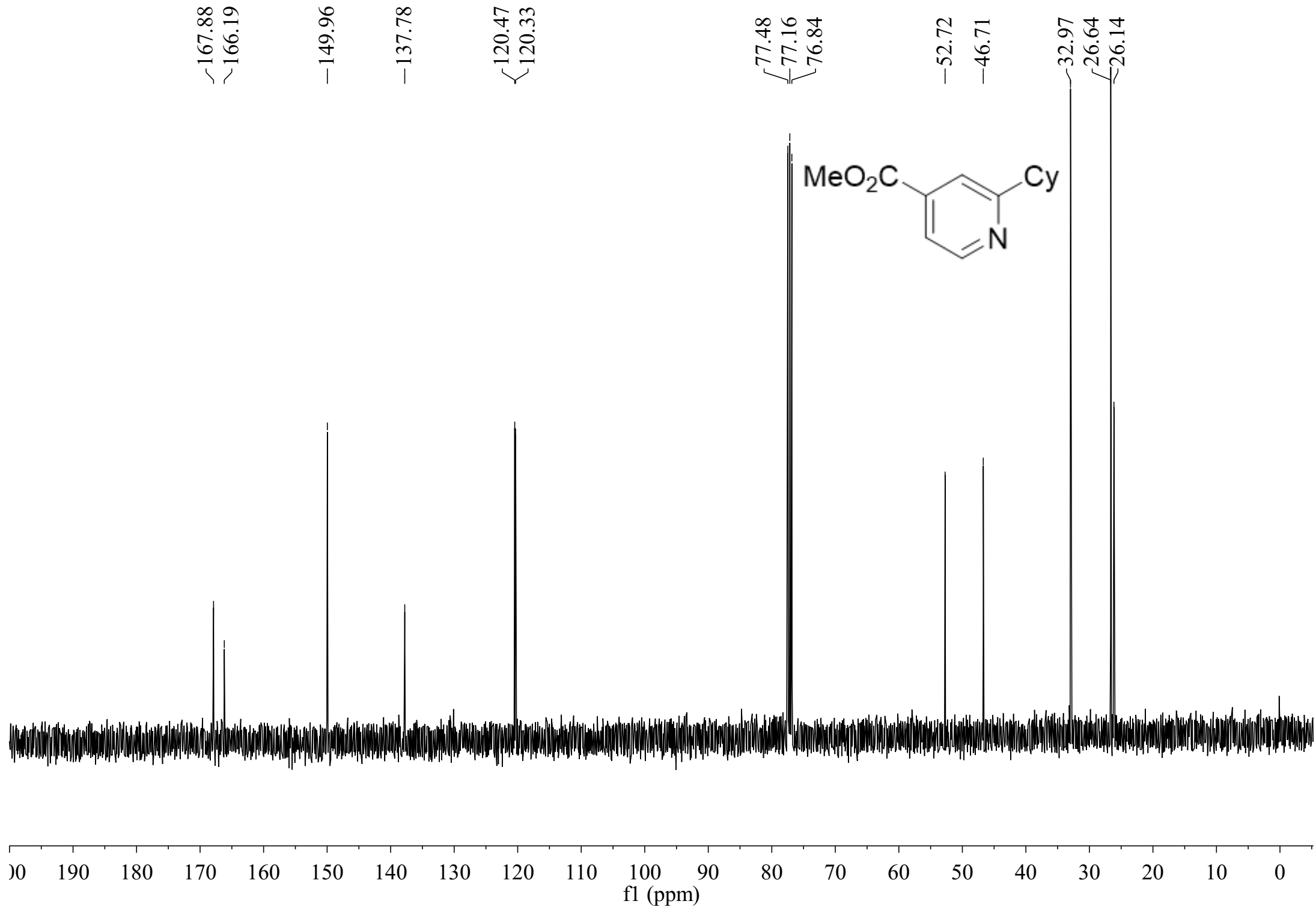
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-127.59
-116.17

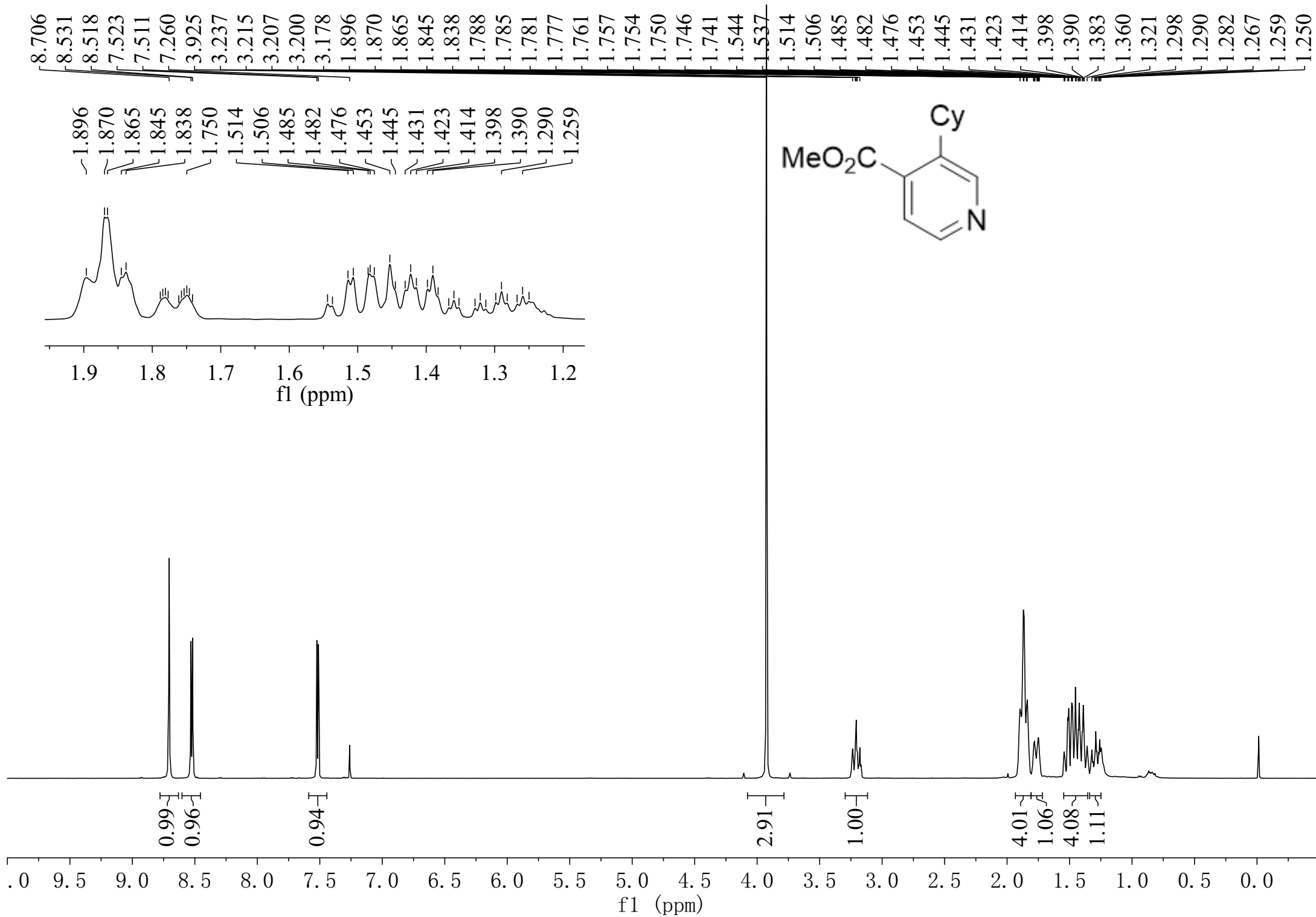
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77.00
76.68

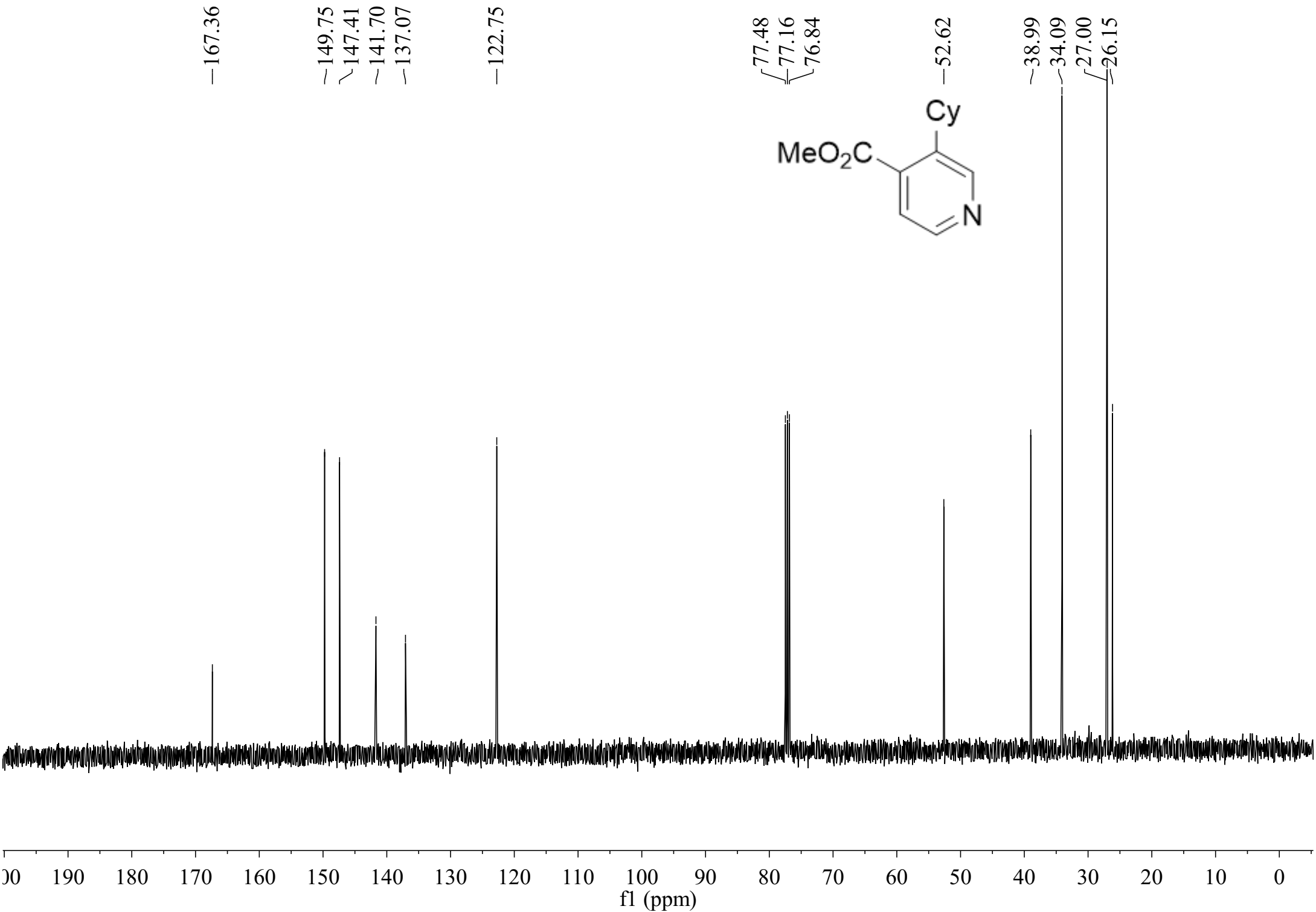
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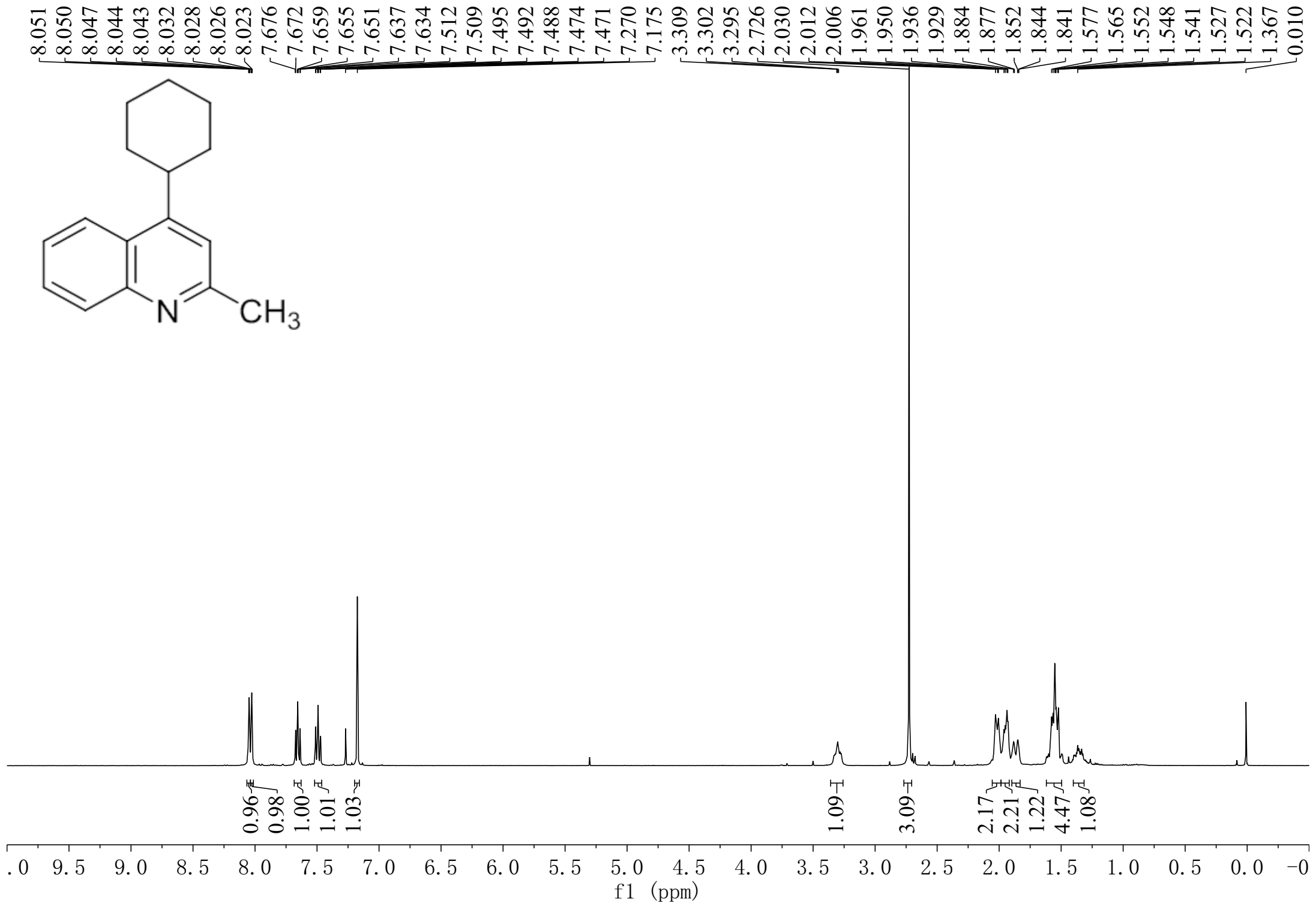
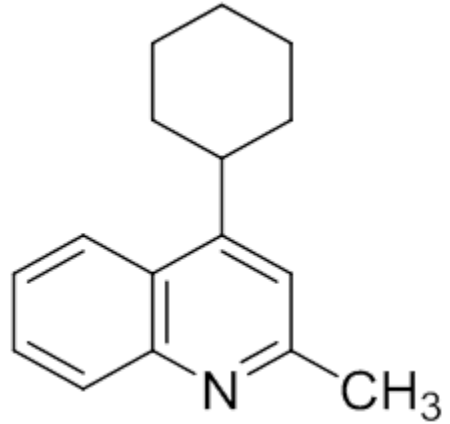


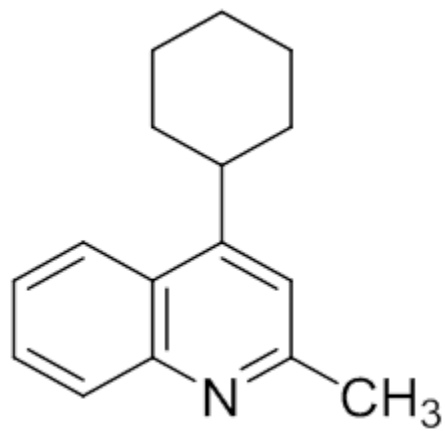










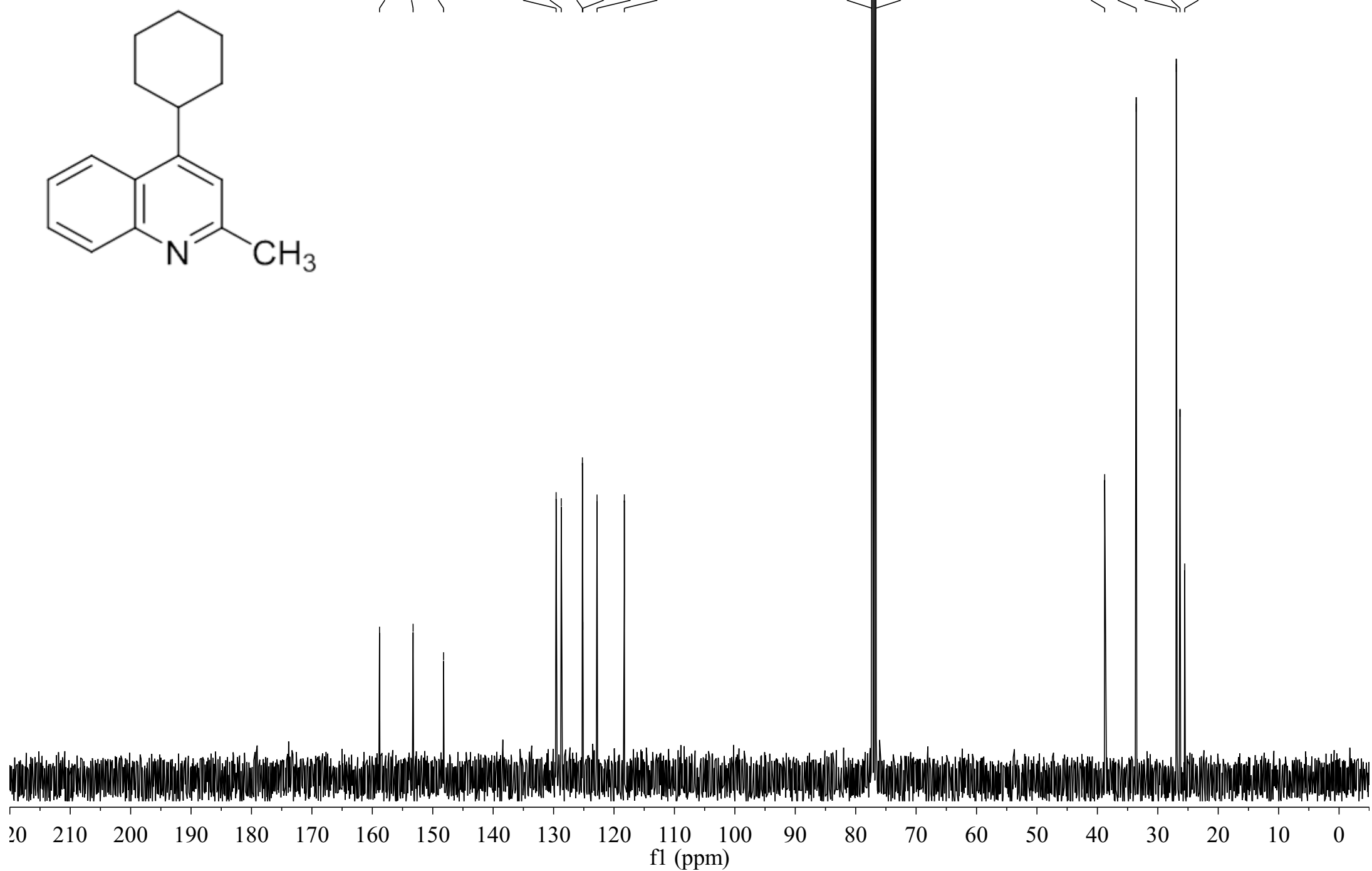


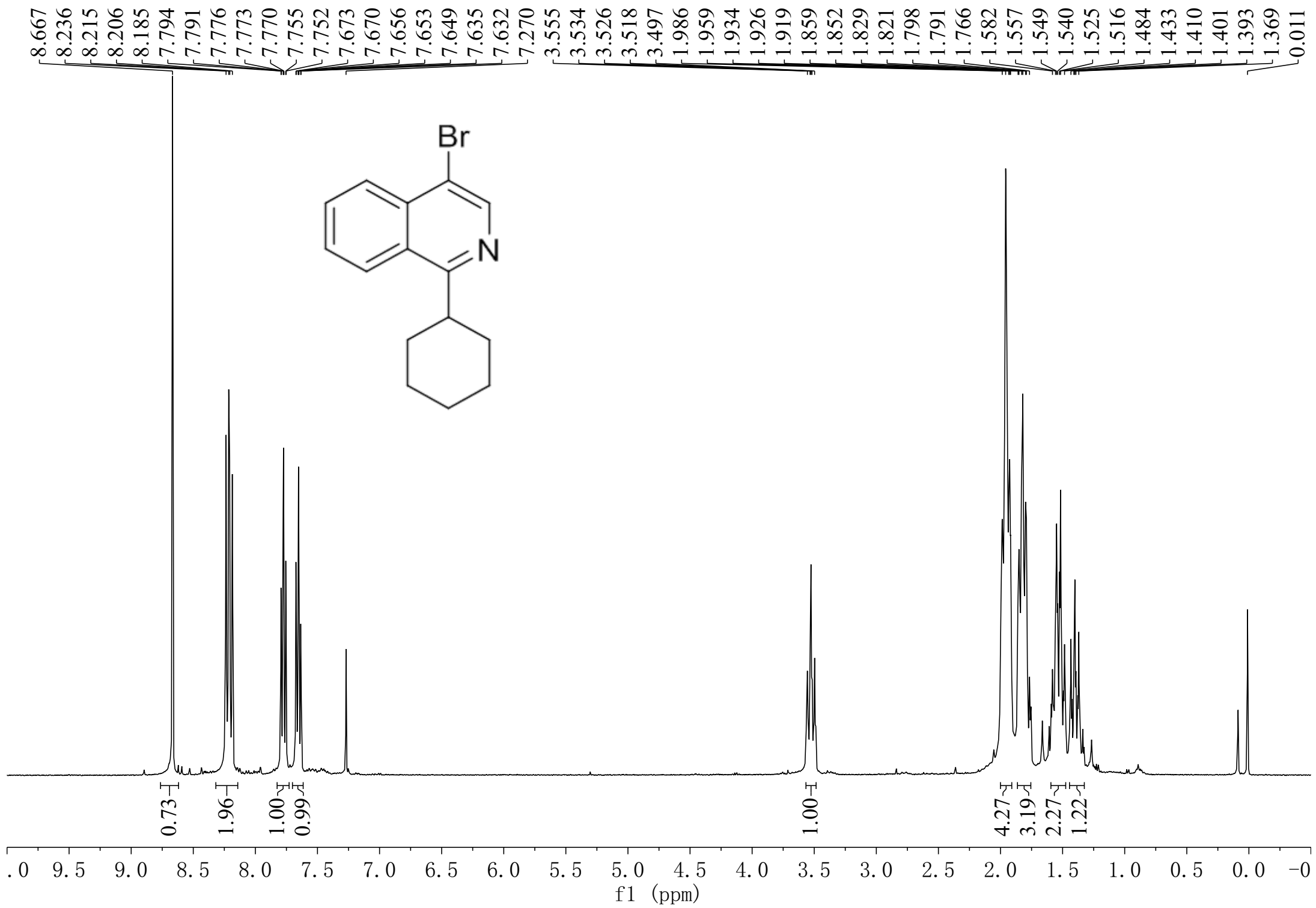
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~153.25
~148.20

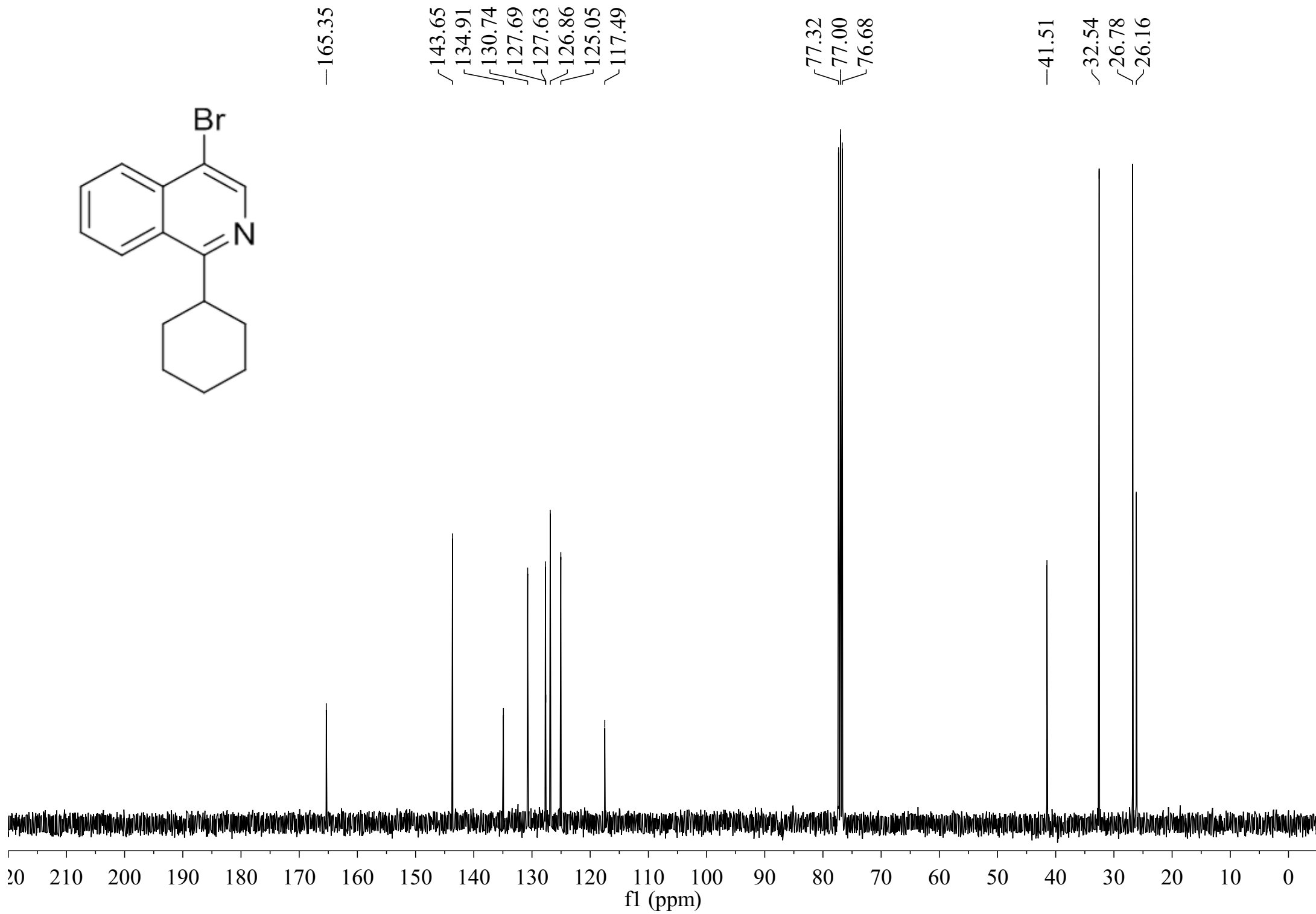
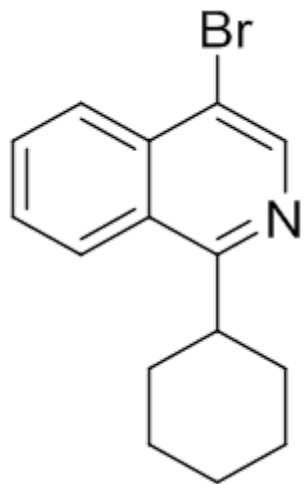
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125.23
125.16
122.81
118.29

77.32
77.00
76.68

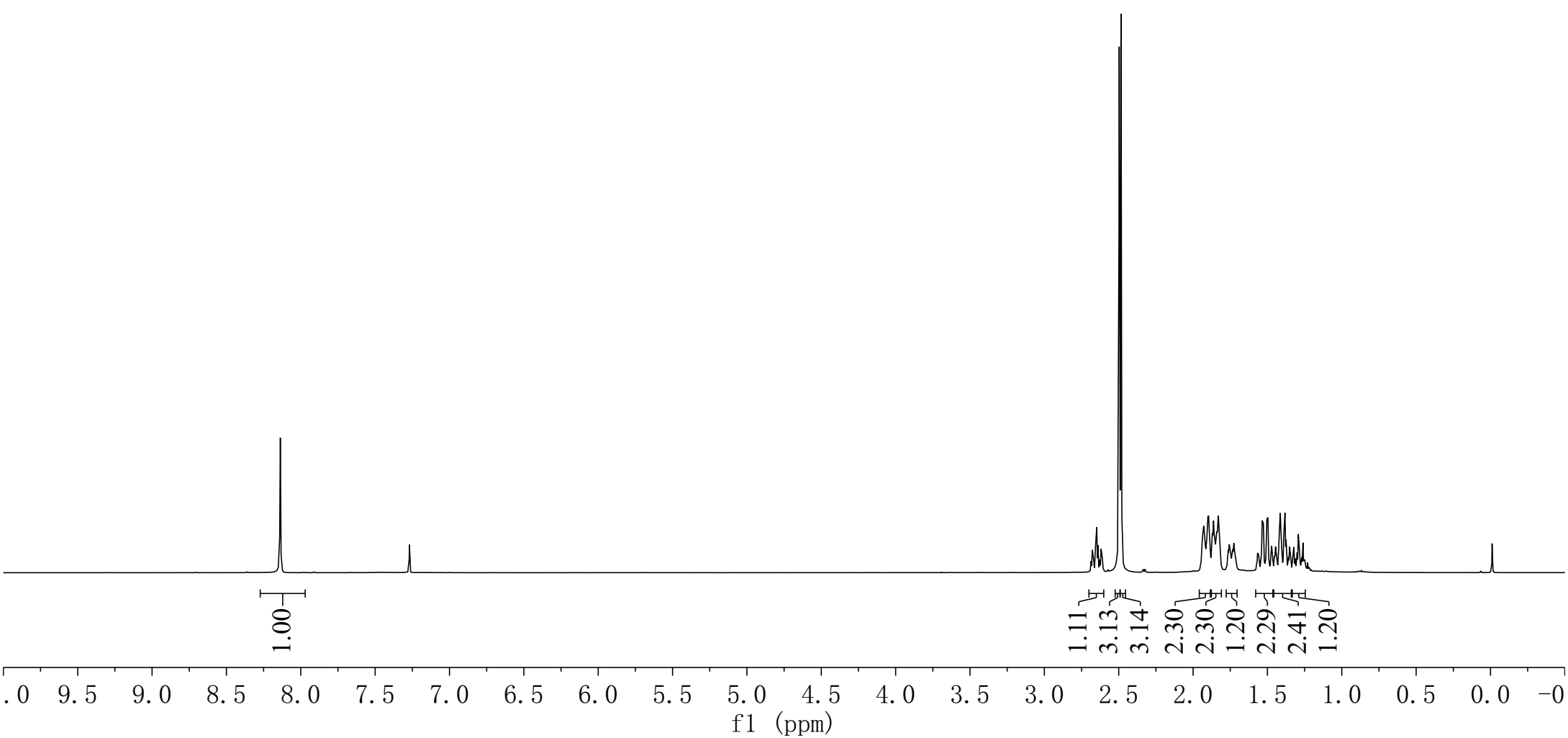
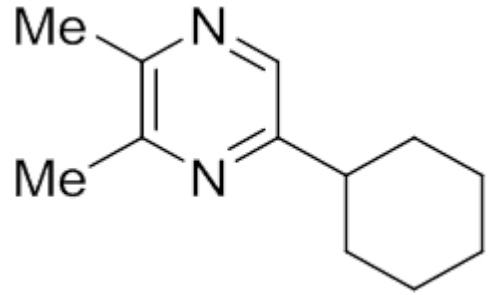
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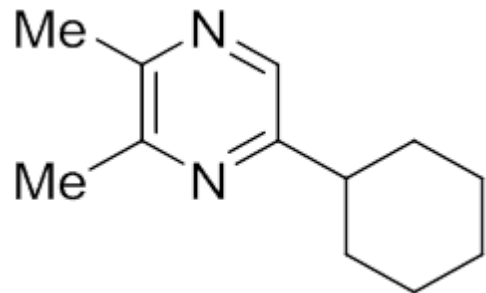






8.138
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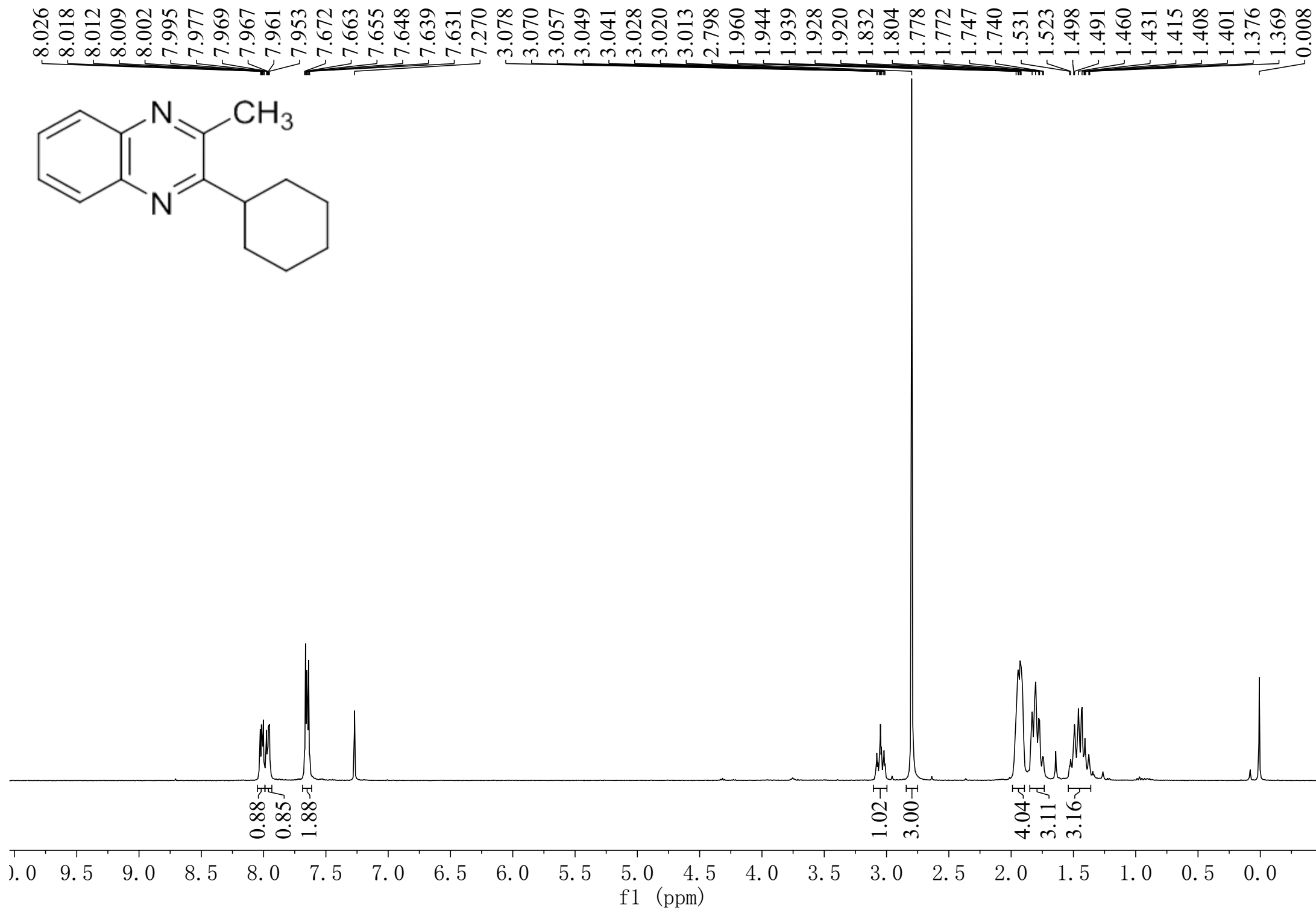
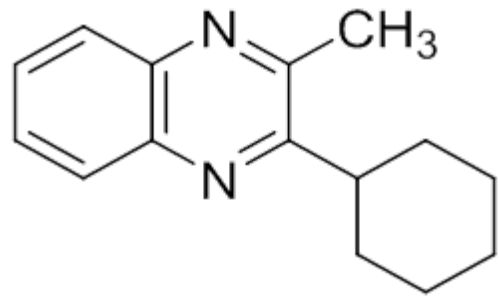
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139.01

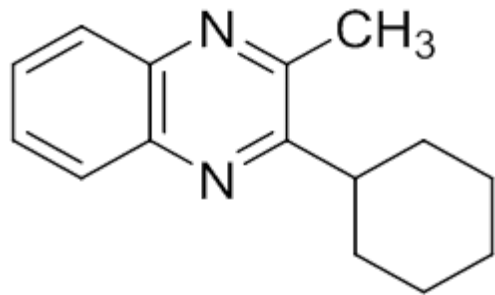
77.32
77.00
76.68

43.80
32.61
26.43
25.89
22.03
21.56

20 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0

fl (ppm)





160.32
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140.58
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128.62
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128.18

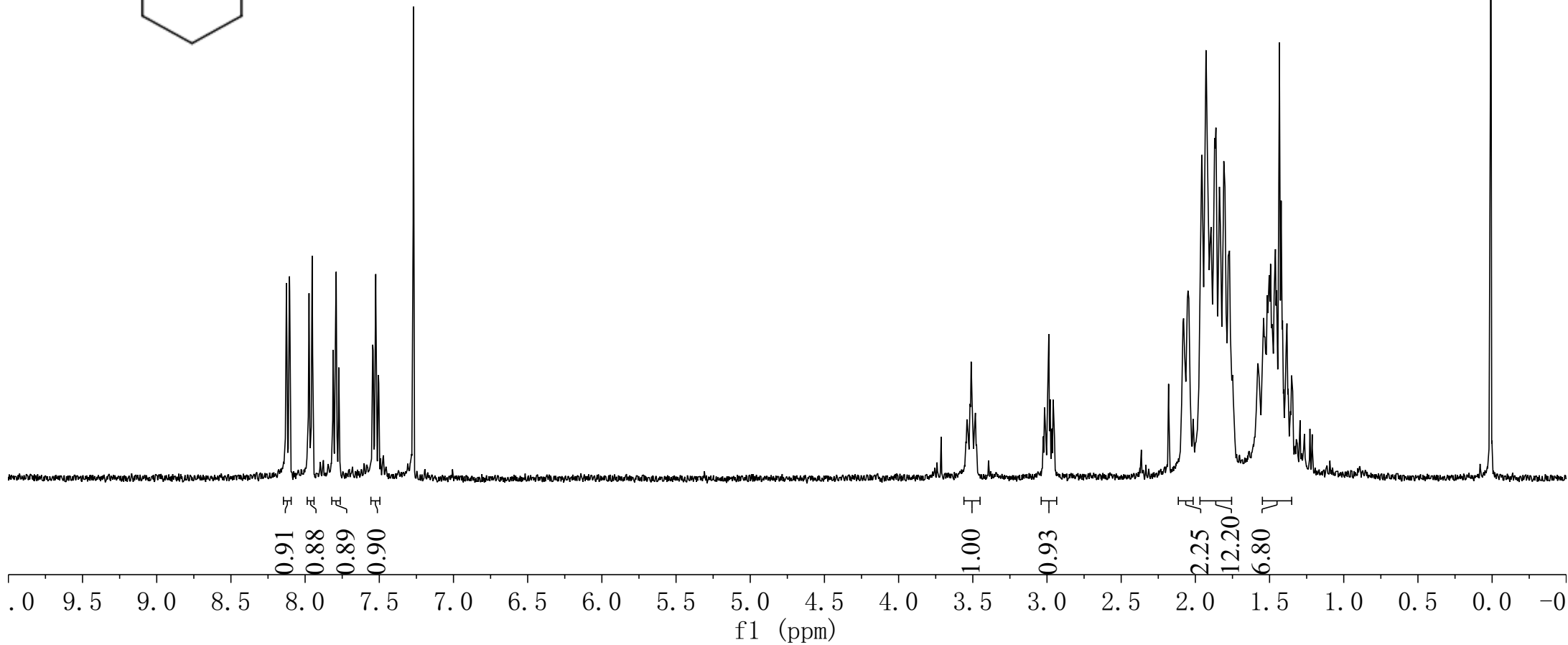
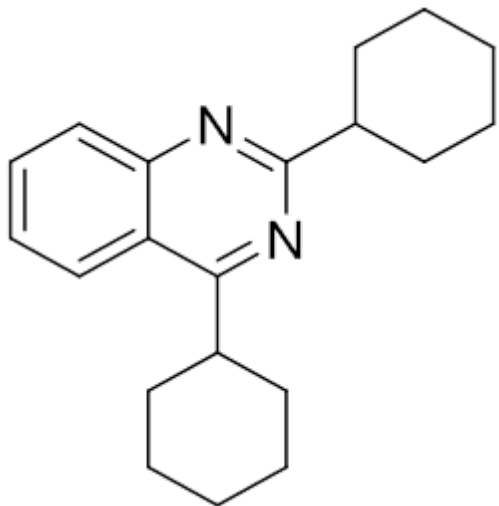
77.32
77.00
76.68

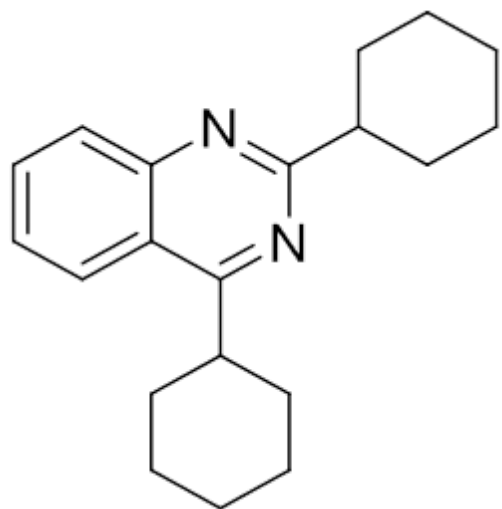
42.59
31.57
26.61
25.97
22.69

20 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0

fl (ppm)

8.126
8.105
7.974
7.952
7.812
7.808
7.794
7.791
7.773
7.770
7.544
7.542
7.527
7.524
7.521
7.506
7.503
7.270
3.511
2.996
2.987
2.979
2.958
2.078
2.050
1.956
1.929
1.895
1.869
1.861
1.838
1.808
1.800
1.779
1.770
1.540
1.533
1.516
1.508
1.501
1.493
1.484
1.461
1.453
1.434
1.422
1.383
1.351
1.344
0.010





-174.43

-170.15

-150.56

132.63

128.92

125.96

123.94

121.38

77.32

77.00

76.68

-47.92

-41.31

31.99

31.91

26.53

26.34

26.17

26.10

