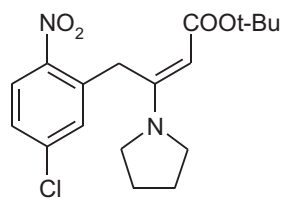
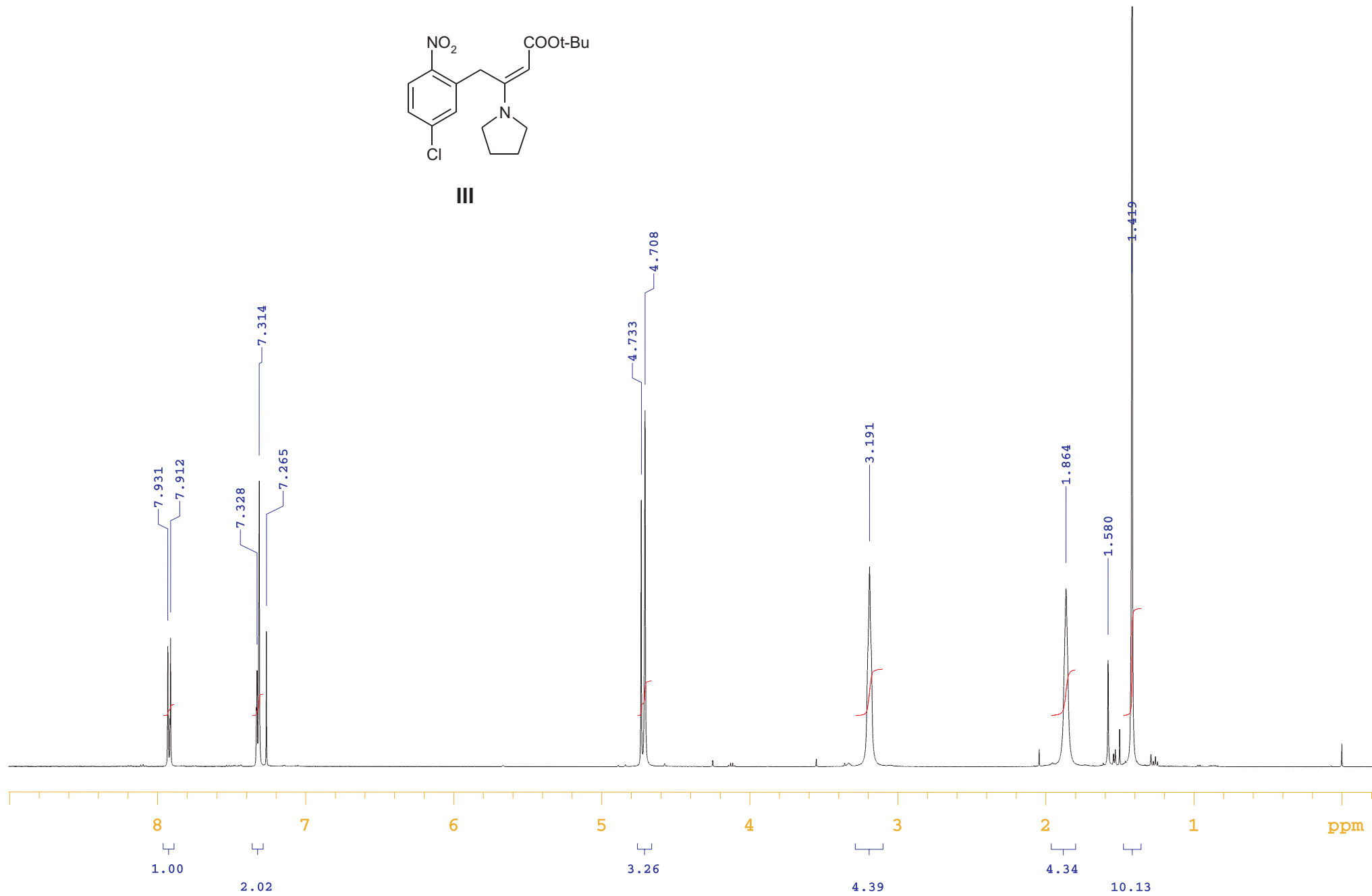
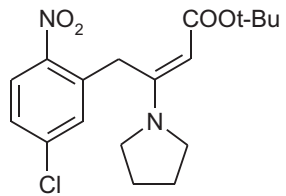


Copies of ^1H and ^{13}C NMR spectra

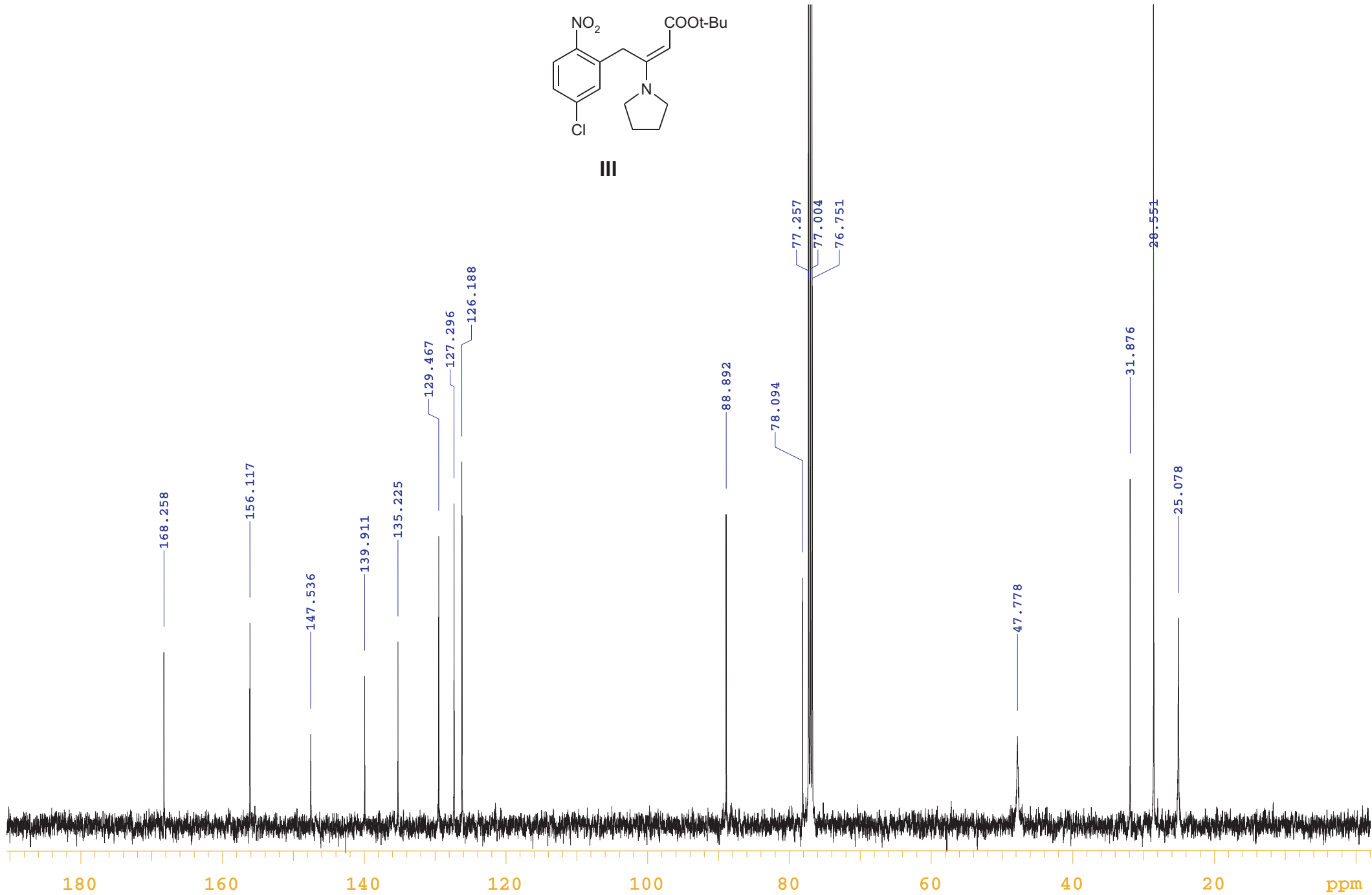


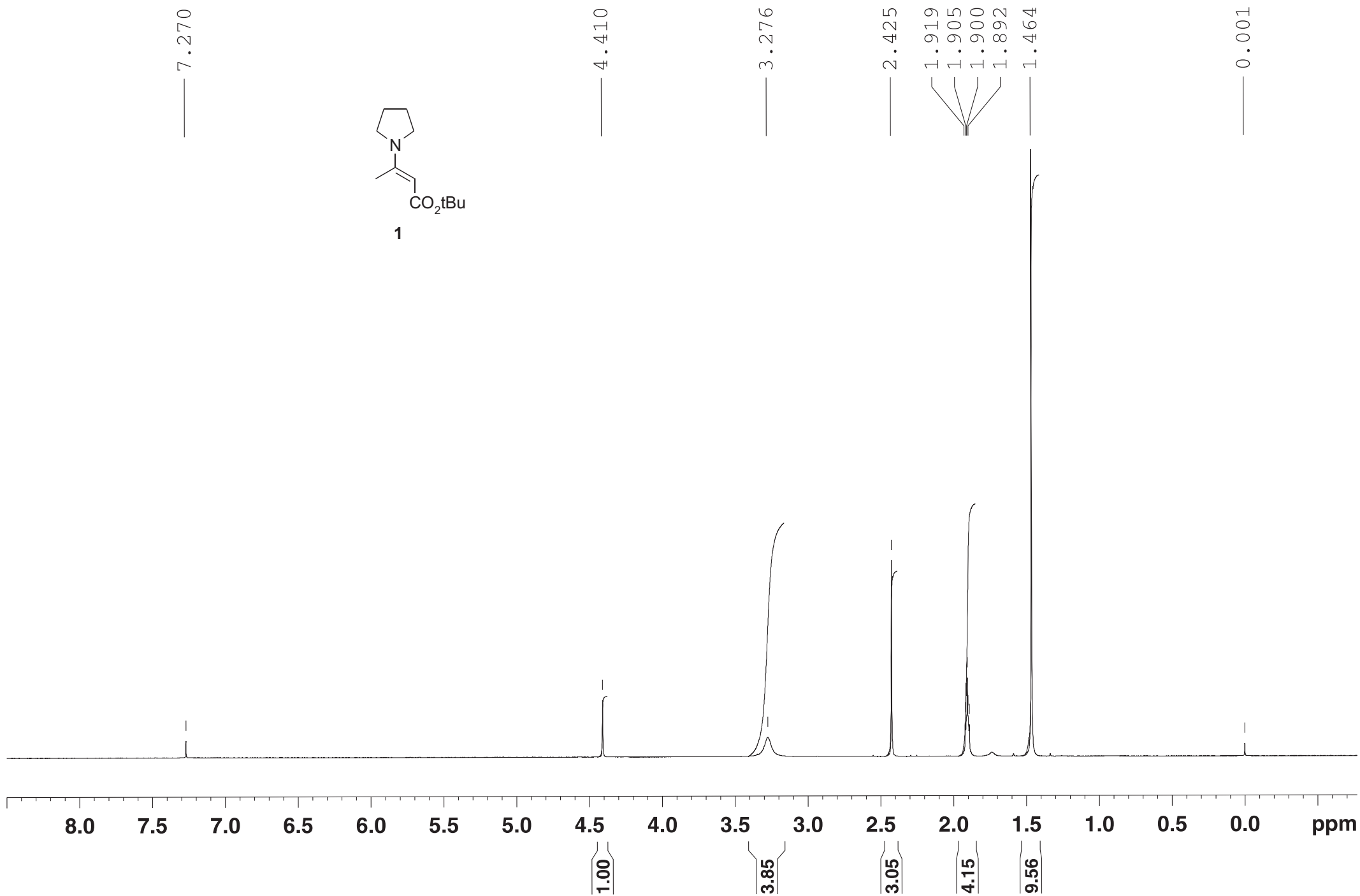
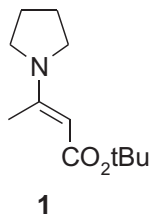
III

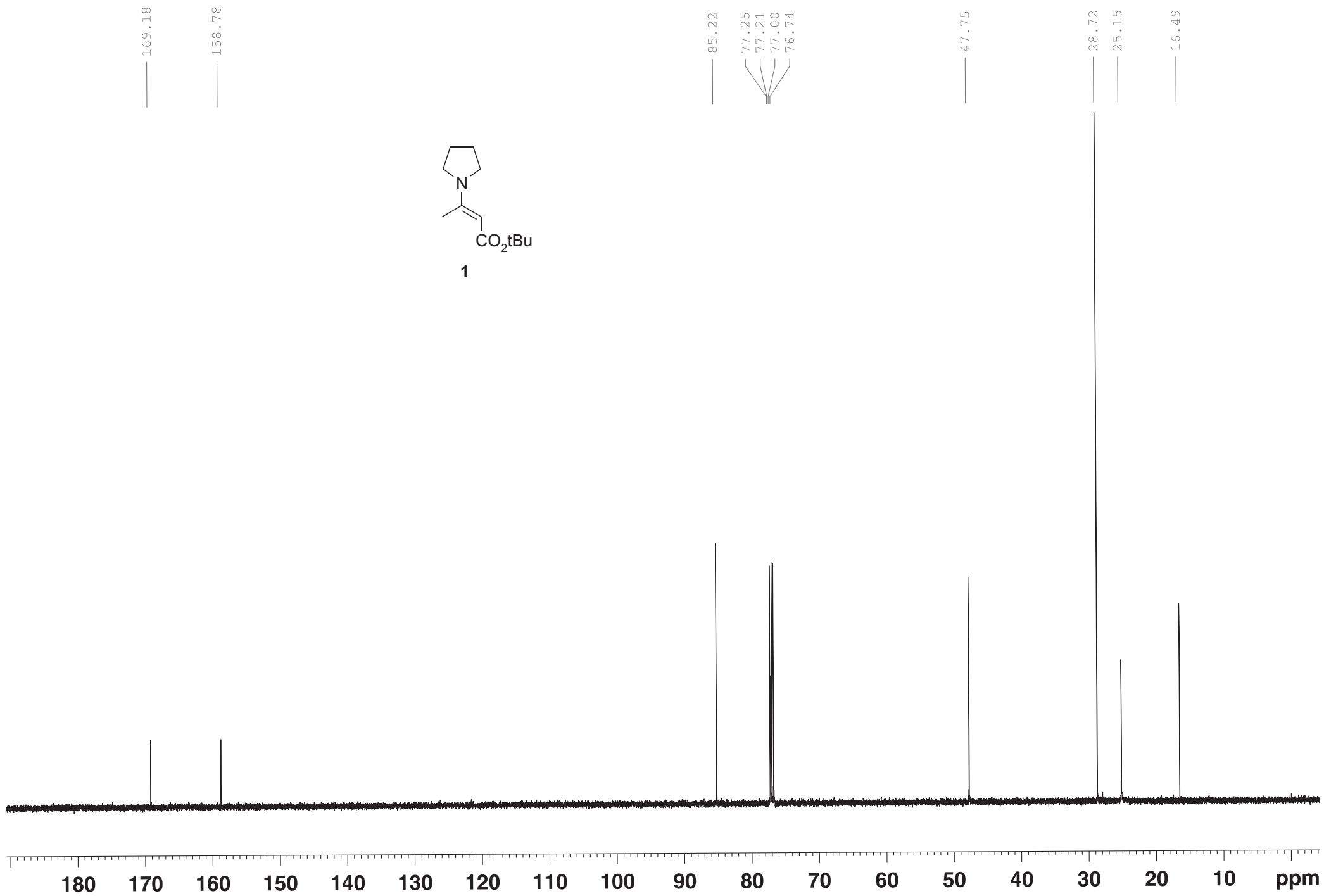
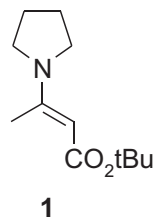


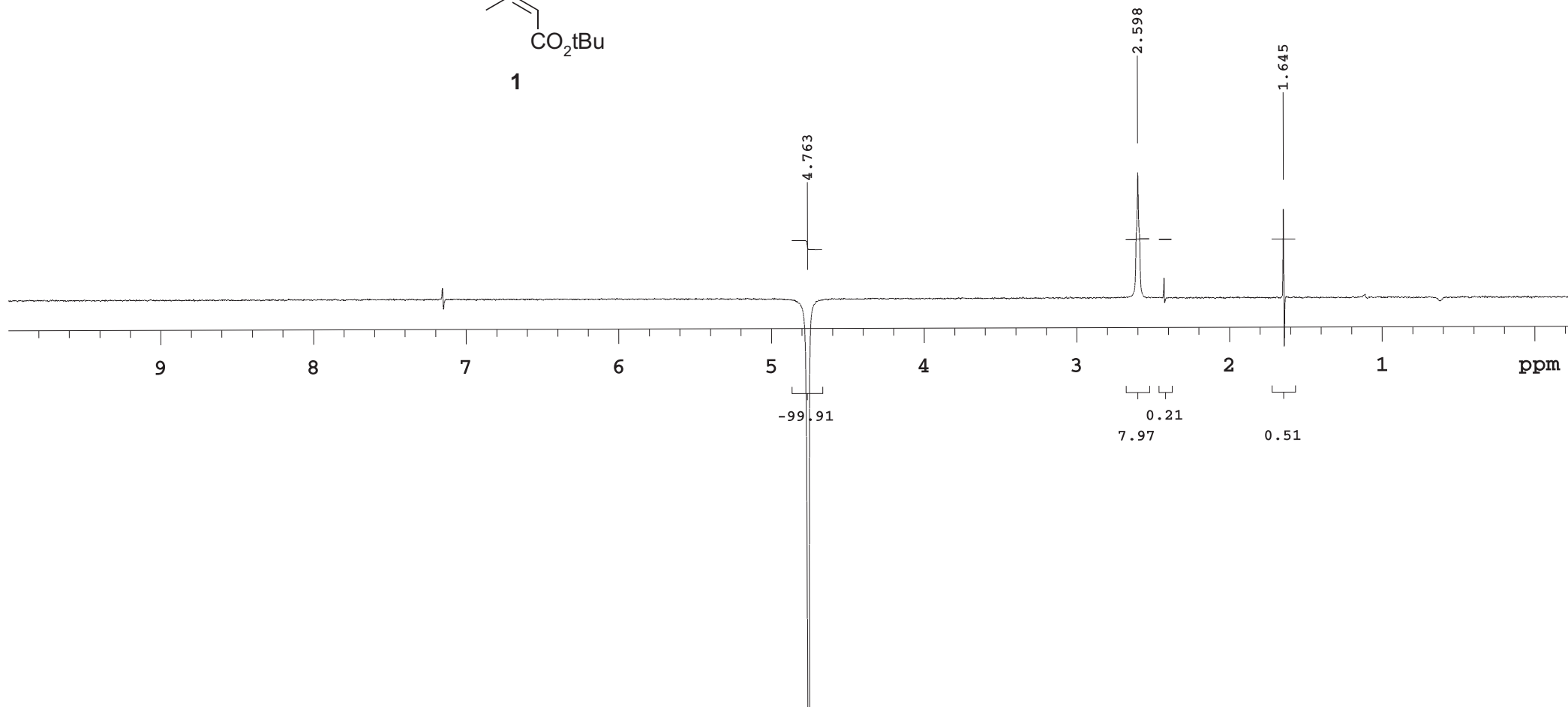
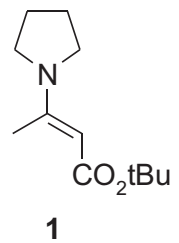


III









7.359
7.344
7.334
7.329
7.313
7.299
7.282
7.268
7.260

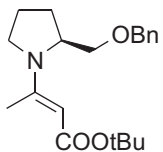
4.569
4.557
4.533
4.508

3.990

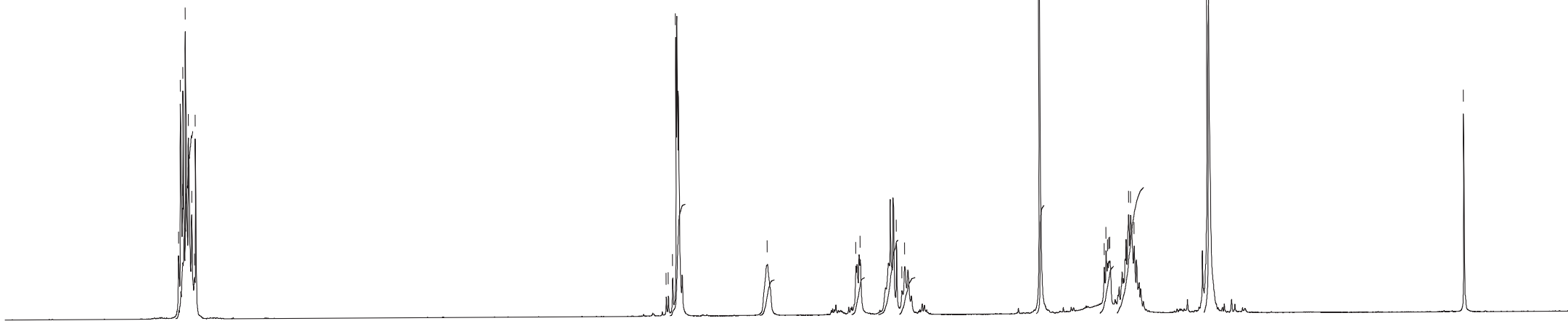
3.483
3.458
3.250
3.220
3.204

2.427
2.061
2.050
2.041
2.035
2.029
1.920
1.908
1.889
1.461

0.000



(S)-1a



8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0.0 ppm

5.00

2.98

0.94

0.99

1.99

0.99

2.90

1.26

3.36

9.10

169.09

158.40

138.05

128.42

127.71

127.55

86.53

77.37

77.25

77.00

76.74

73.28

57.78

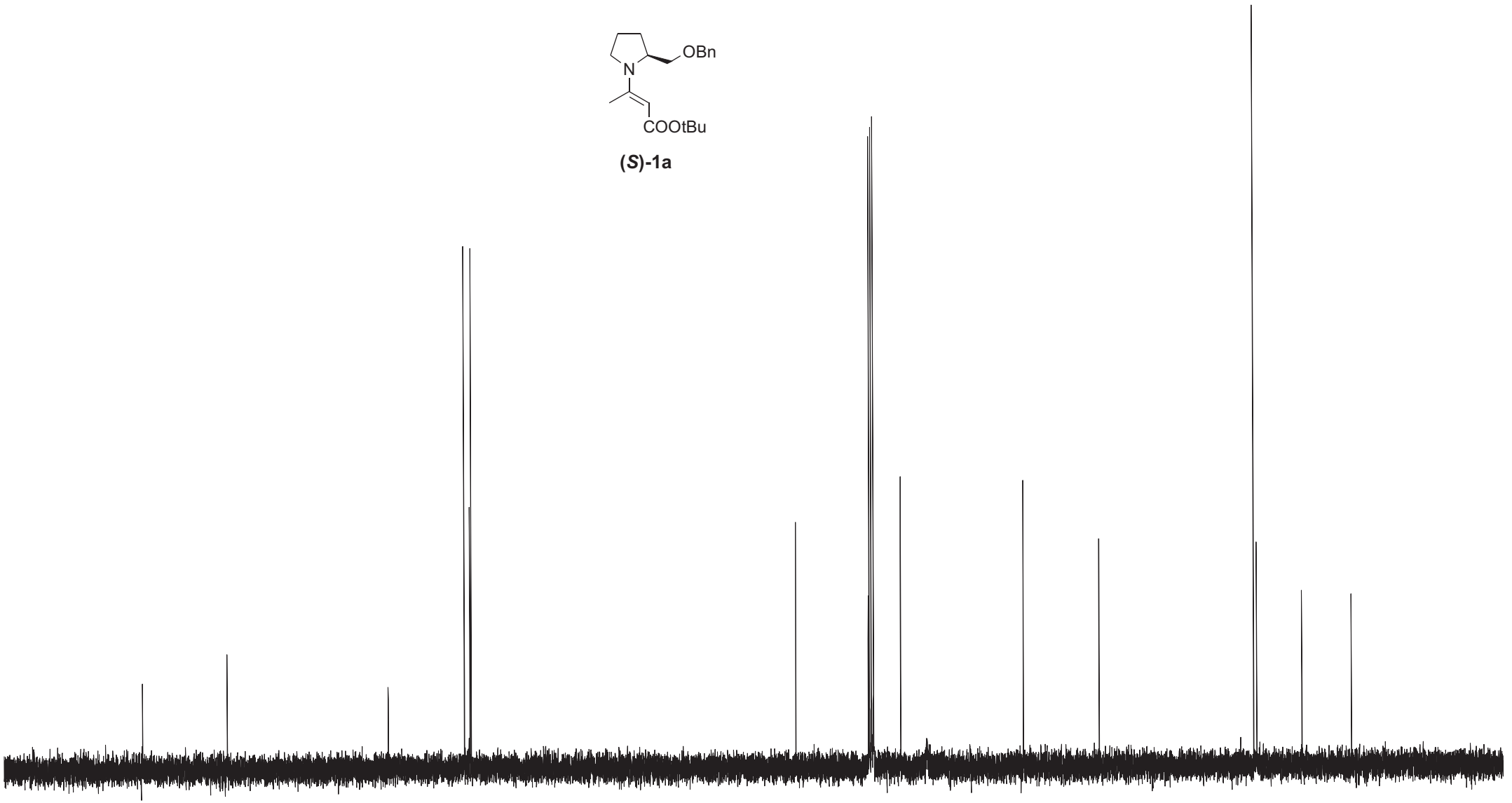
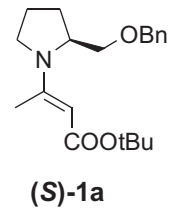
48.22

28.70

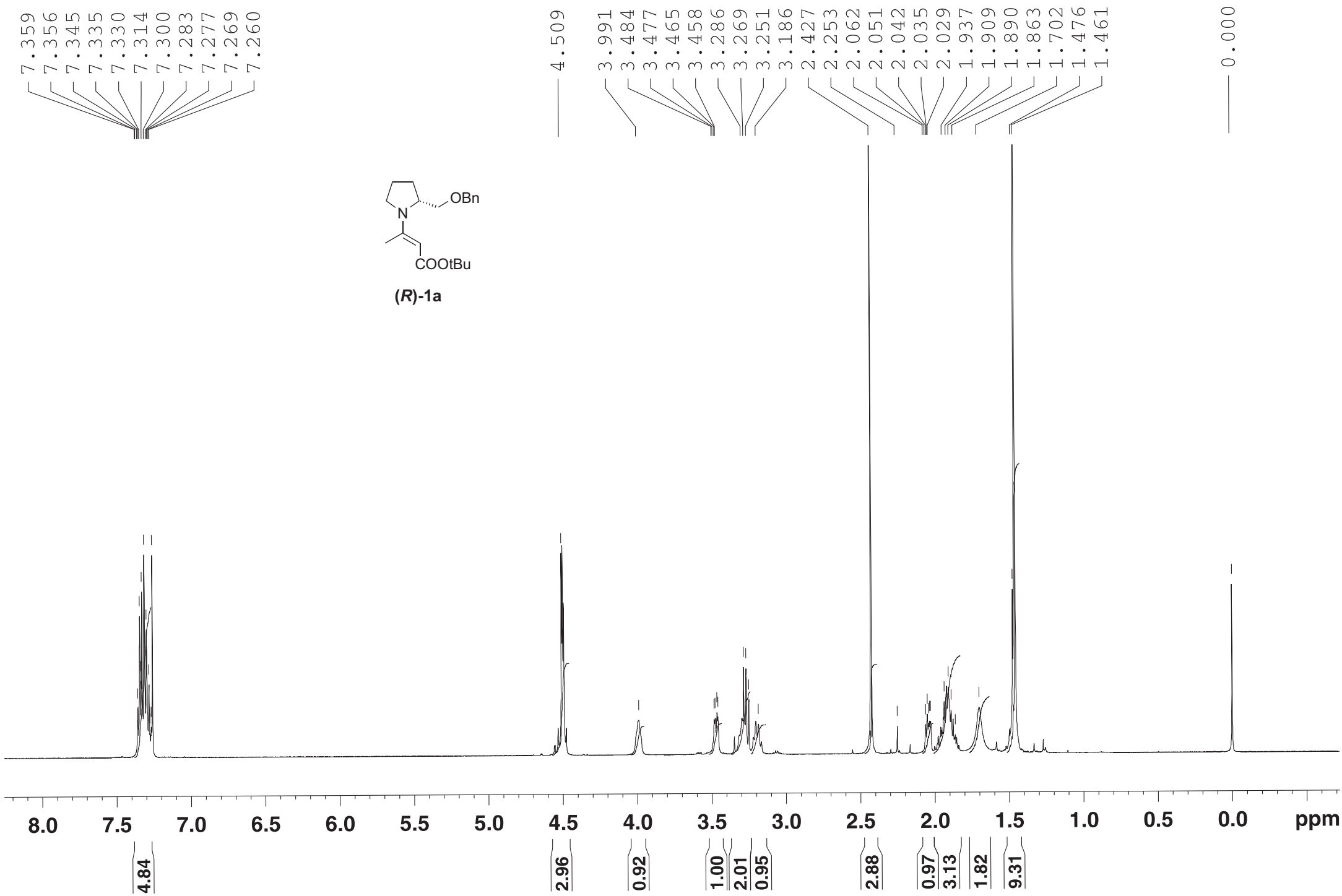
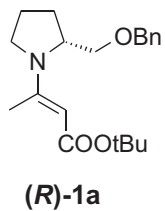
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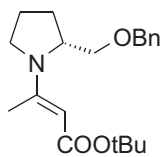
22.60

16.35

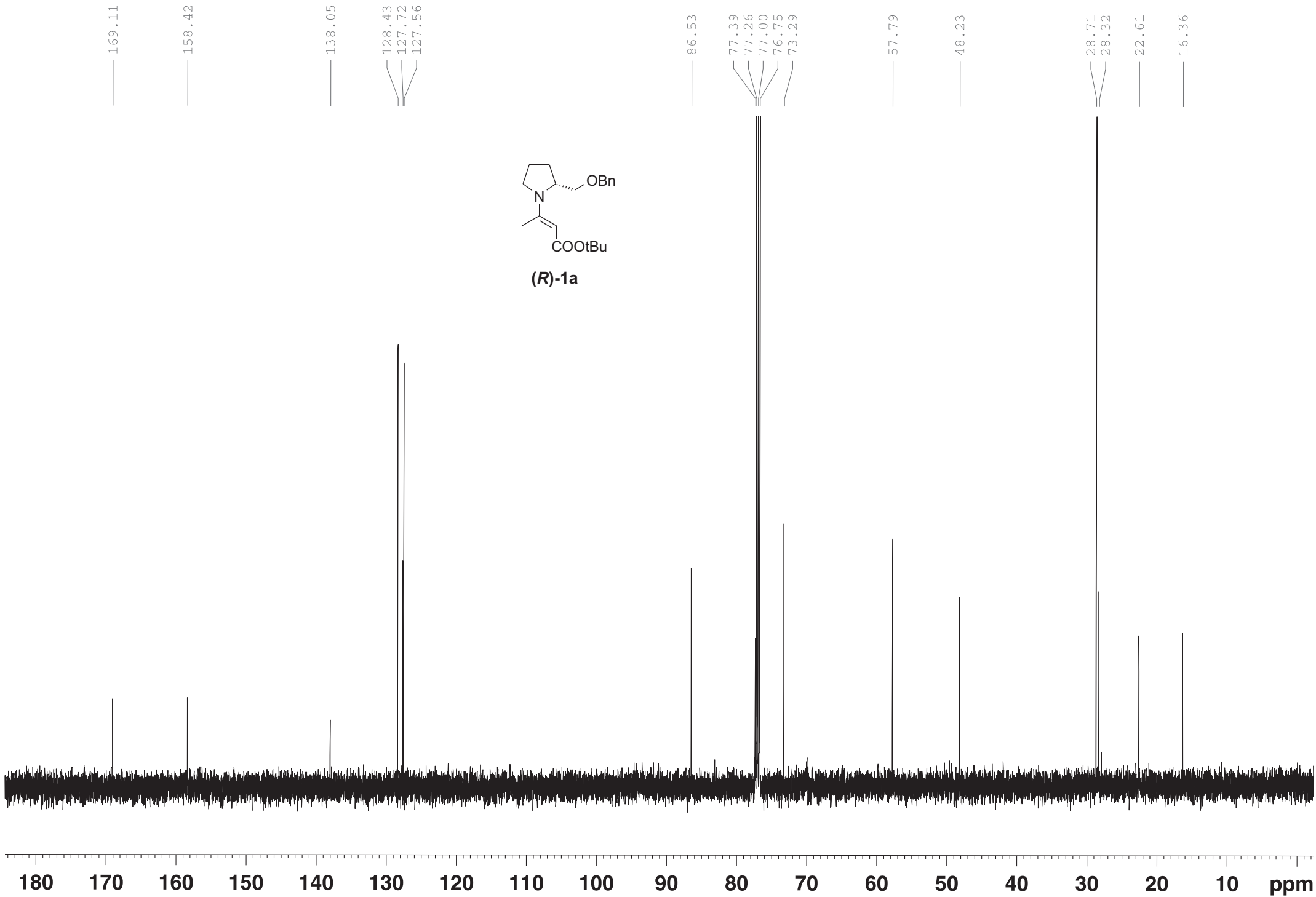


180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ppm

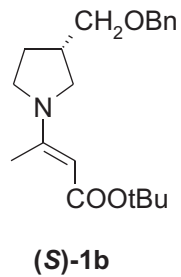




(R)-1a



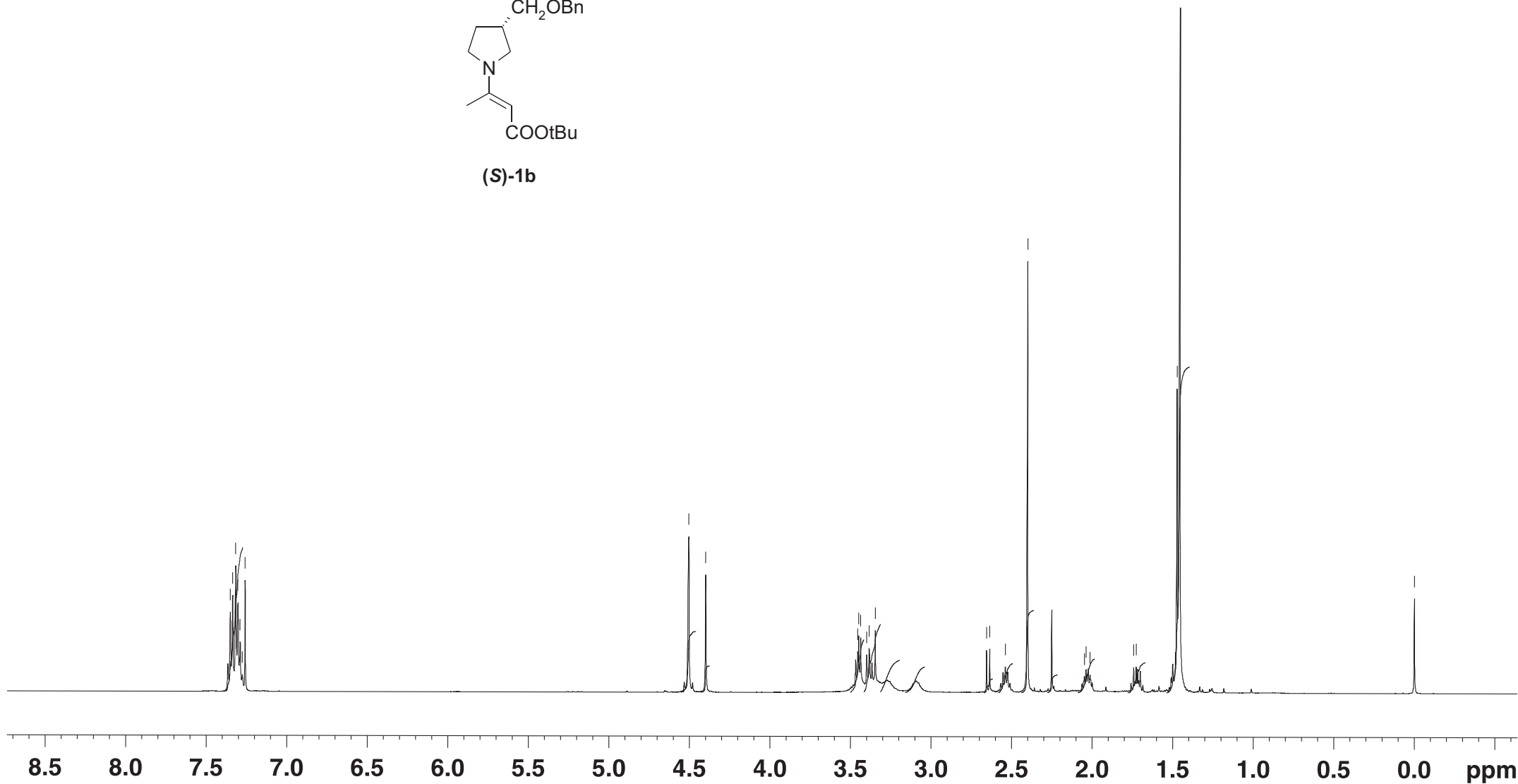
7.353
7.338
7.319
7.306
7.291
7.277
7.261



4.507
4.401

3.457
3.451
3.438
3.400
3.385
3.348
2.656
2.637
2.540
2.405
2.049
2.039
2.014
1.743
1.727
1.476
1.461

0.001



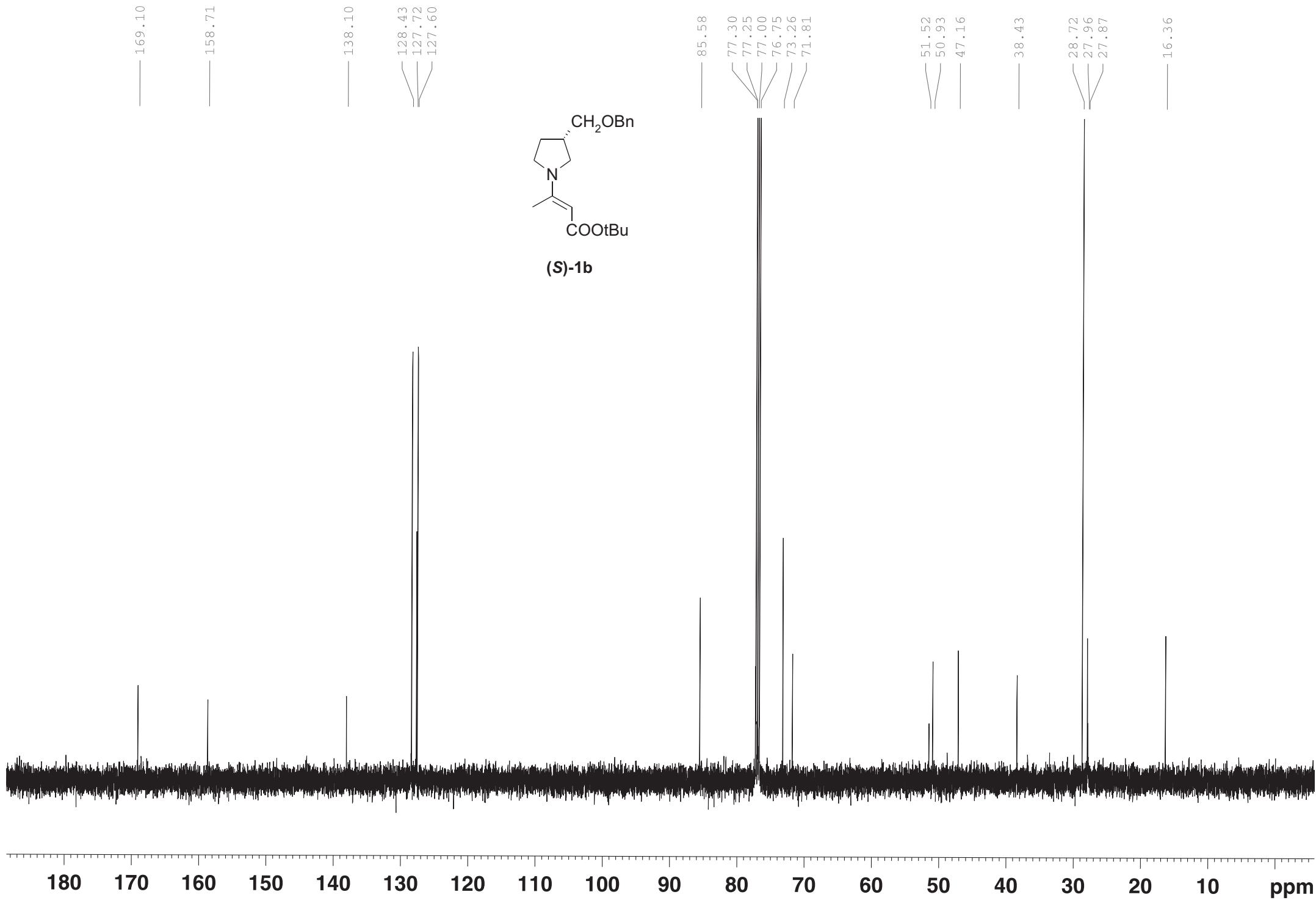
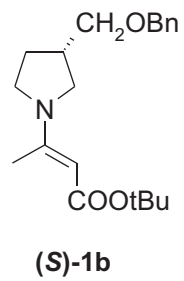
5.45

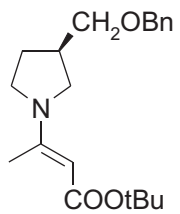
2.30
1.00

2.01
2.60
1.23
0.98

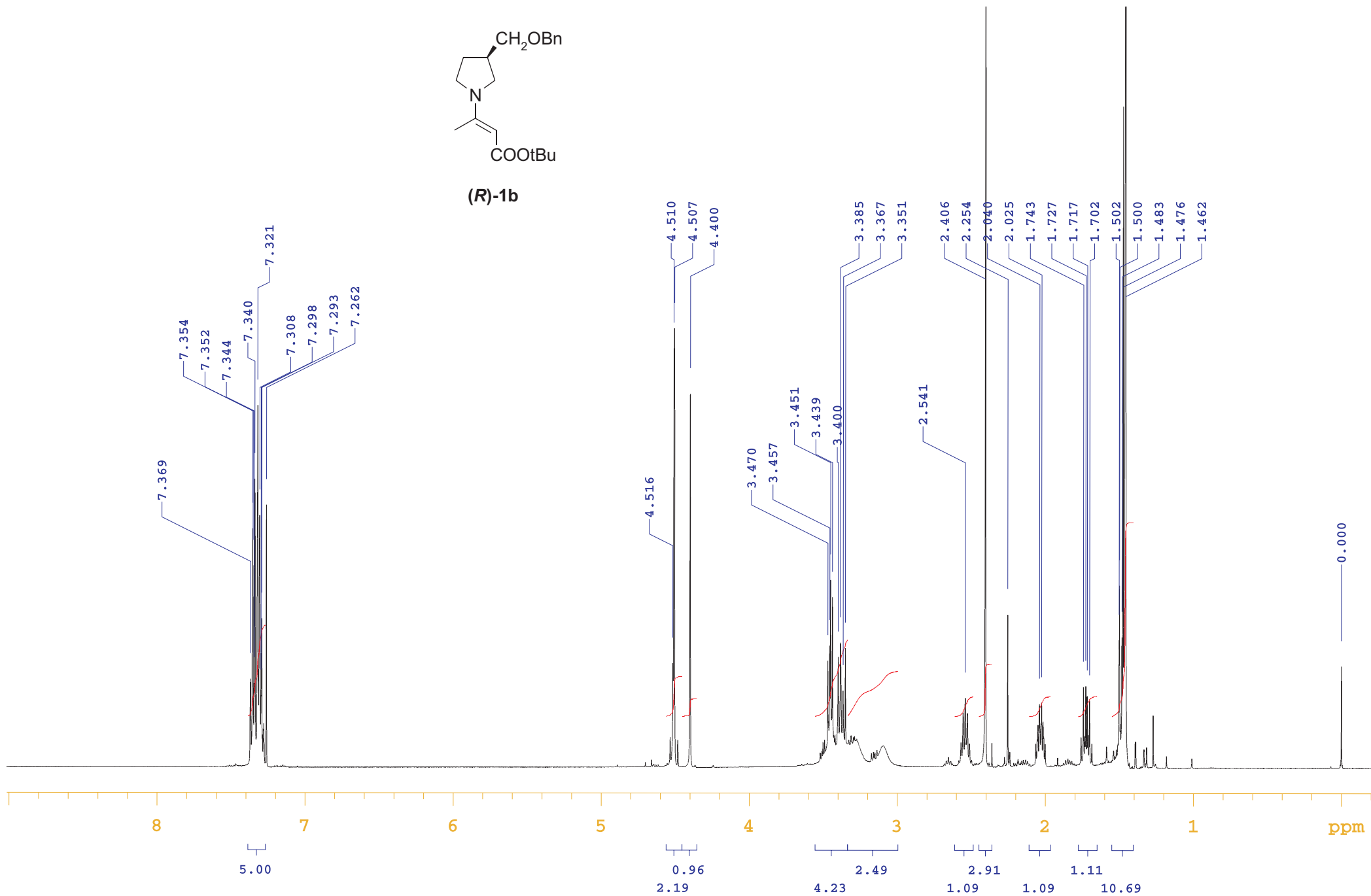
0.53
1.11
3.13
0.69

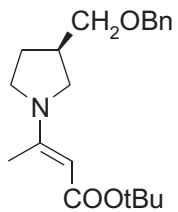
1.29
1.15
12.38



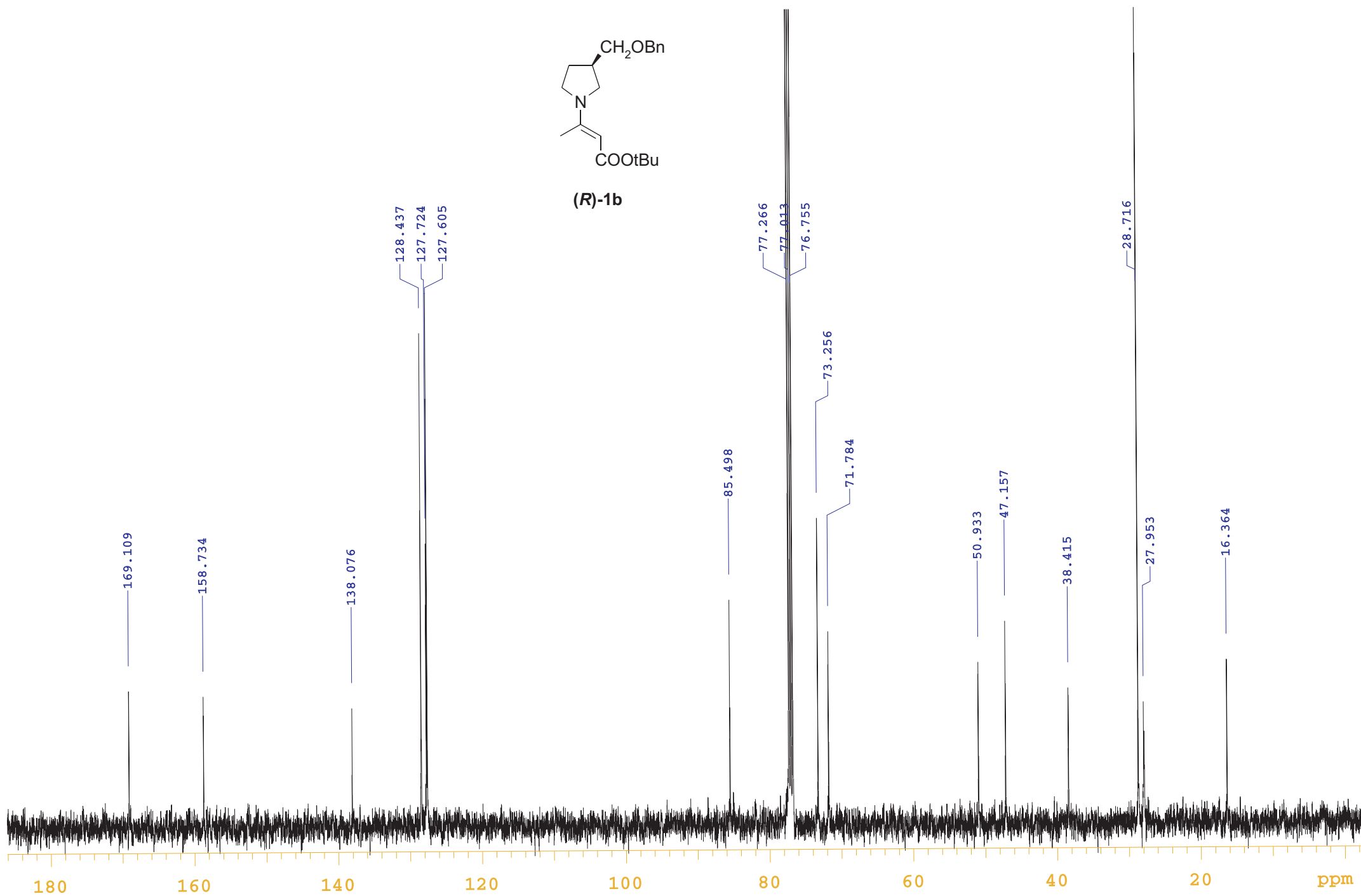


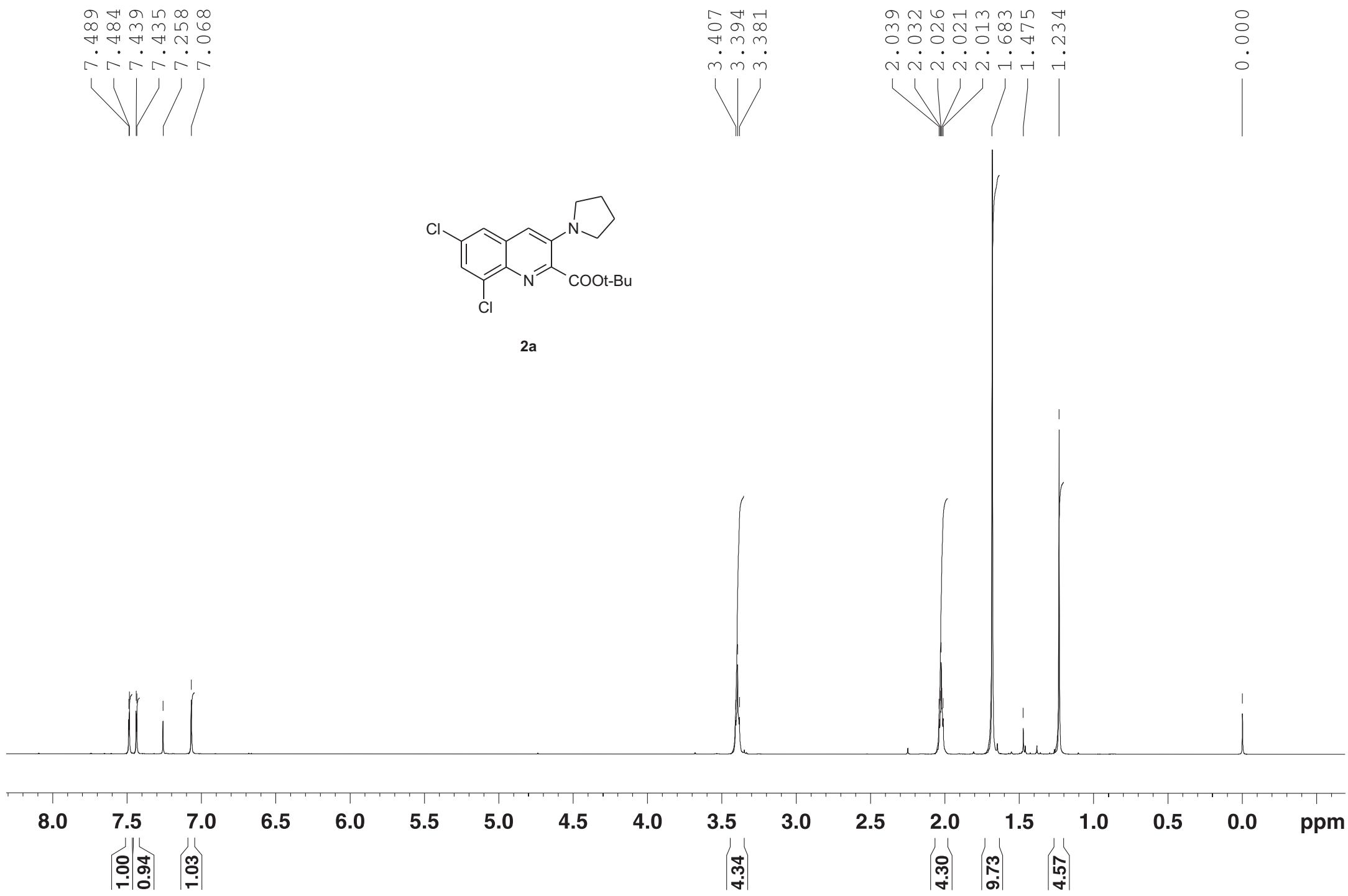
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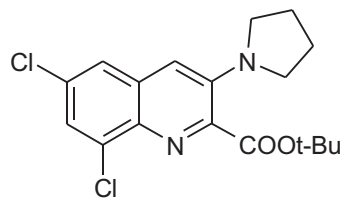




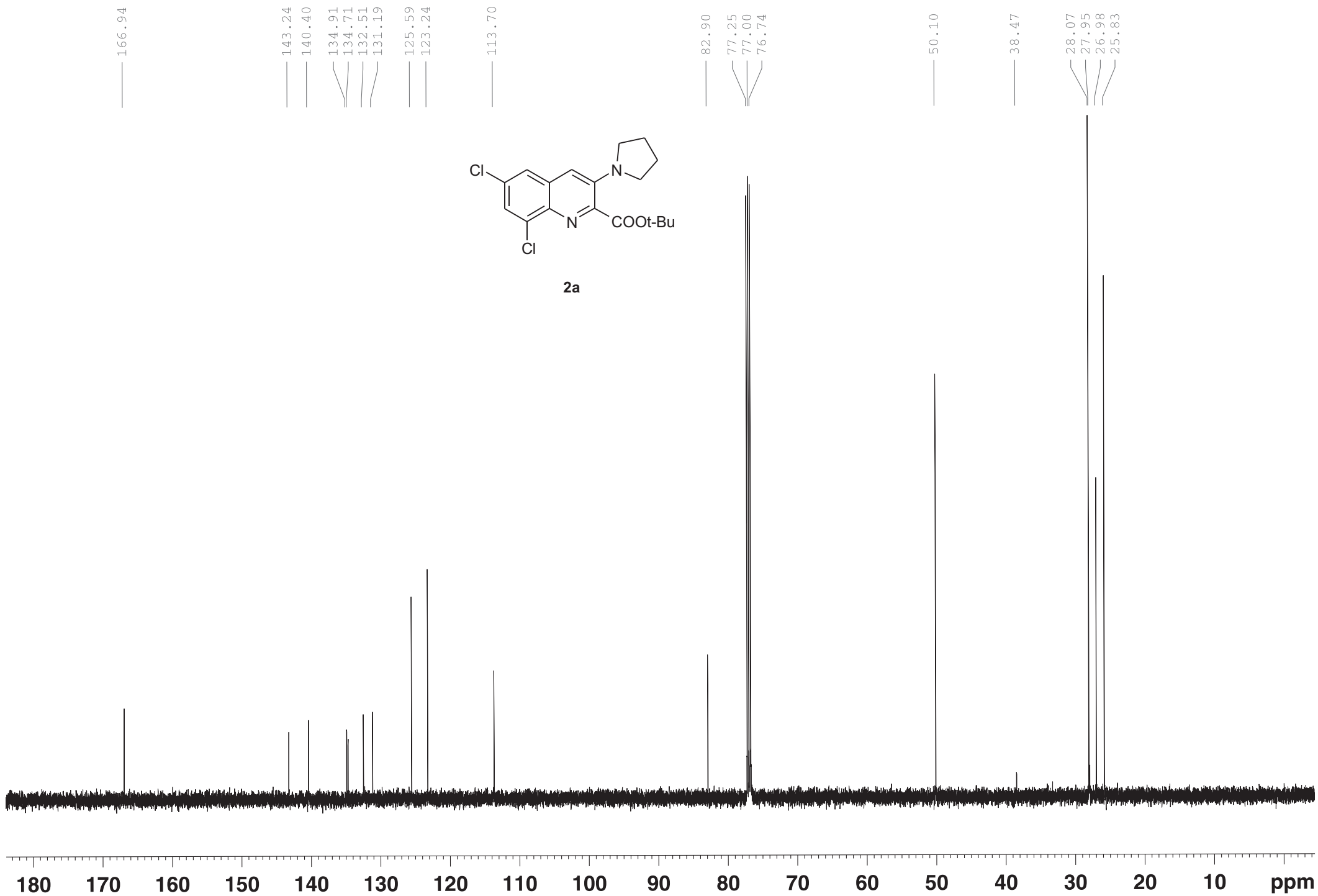
(R)-1b

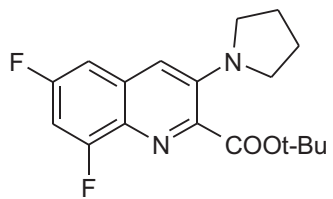




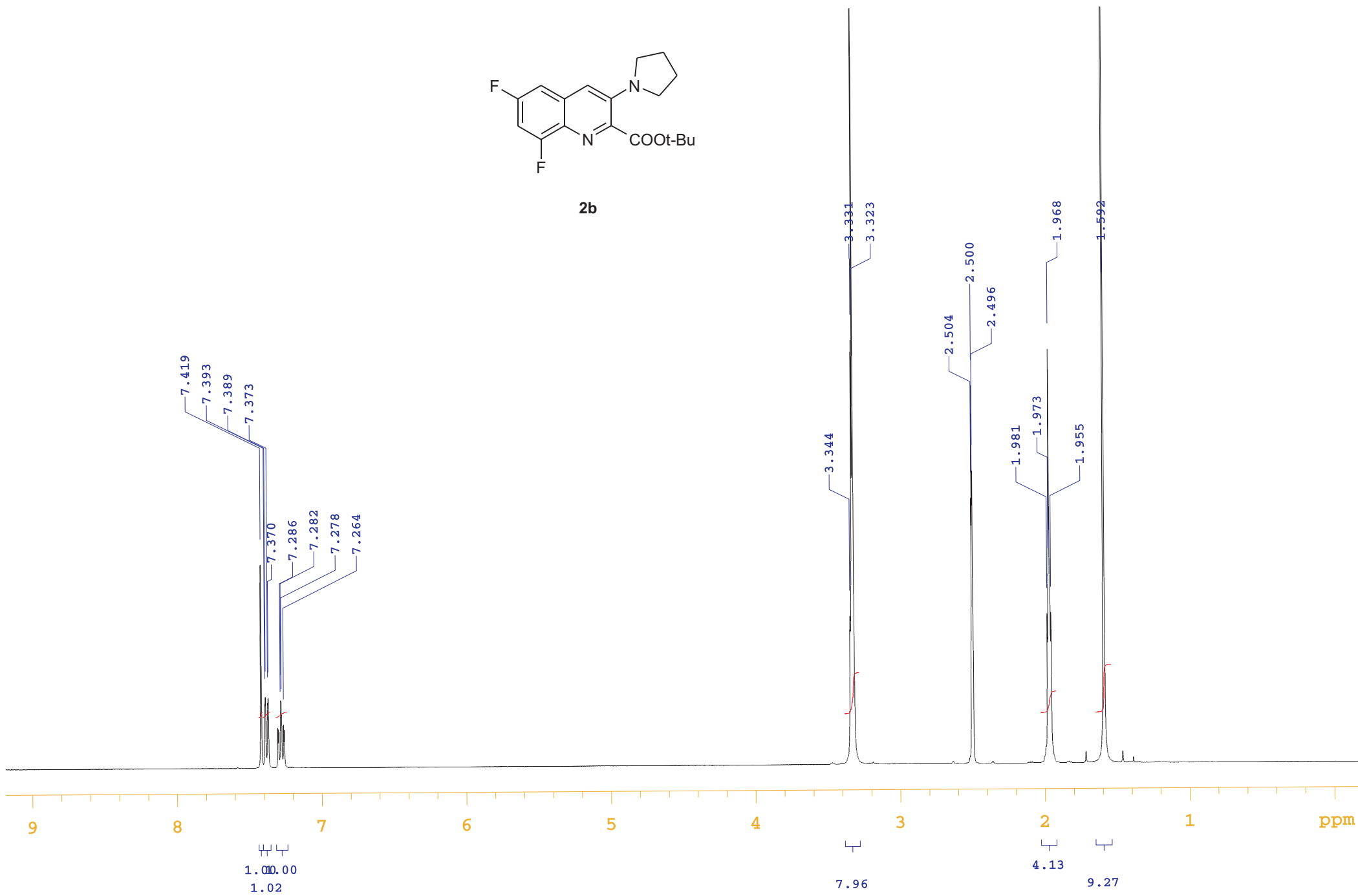


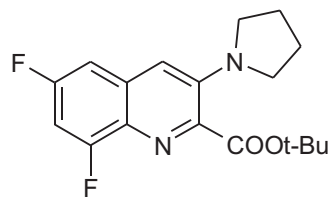
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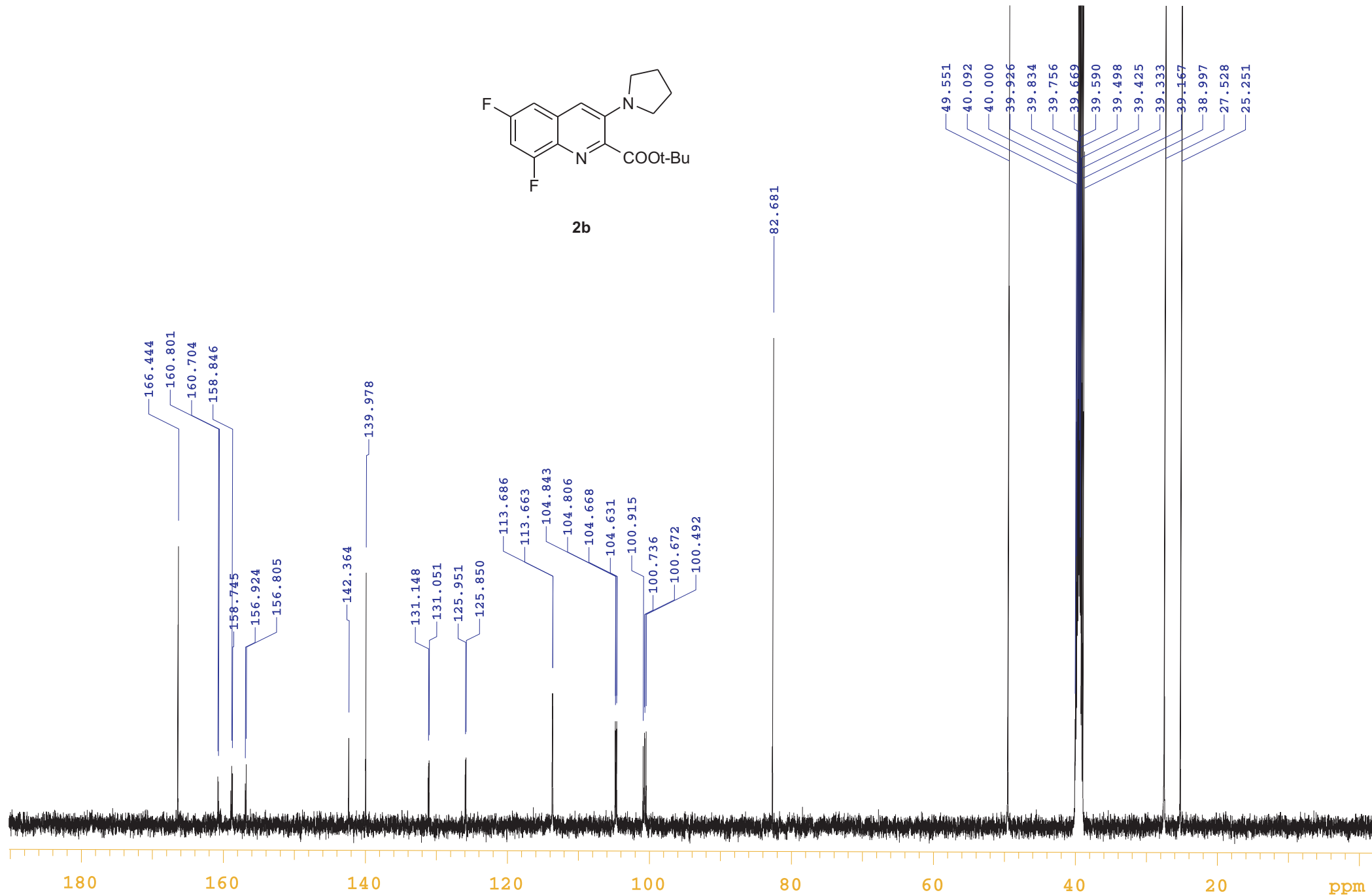


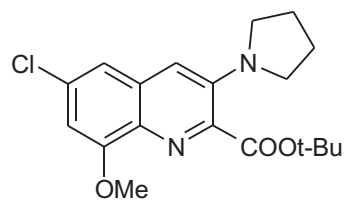
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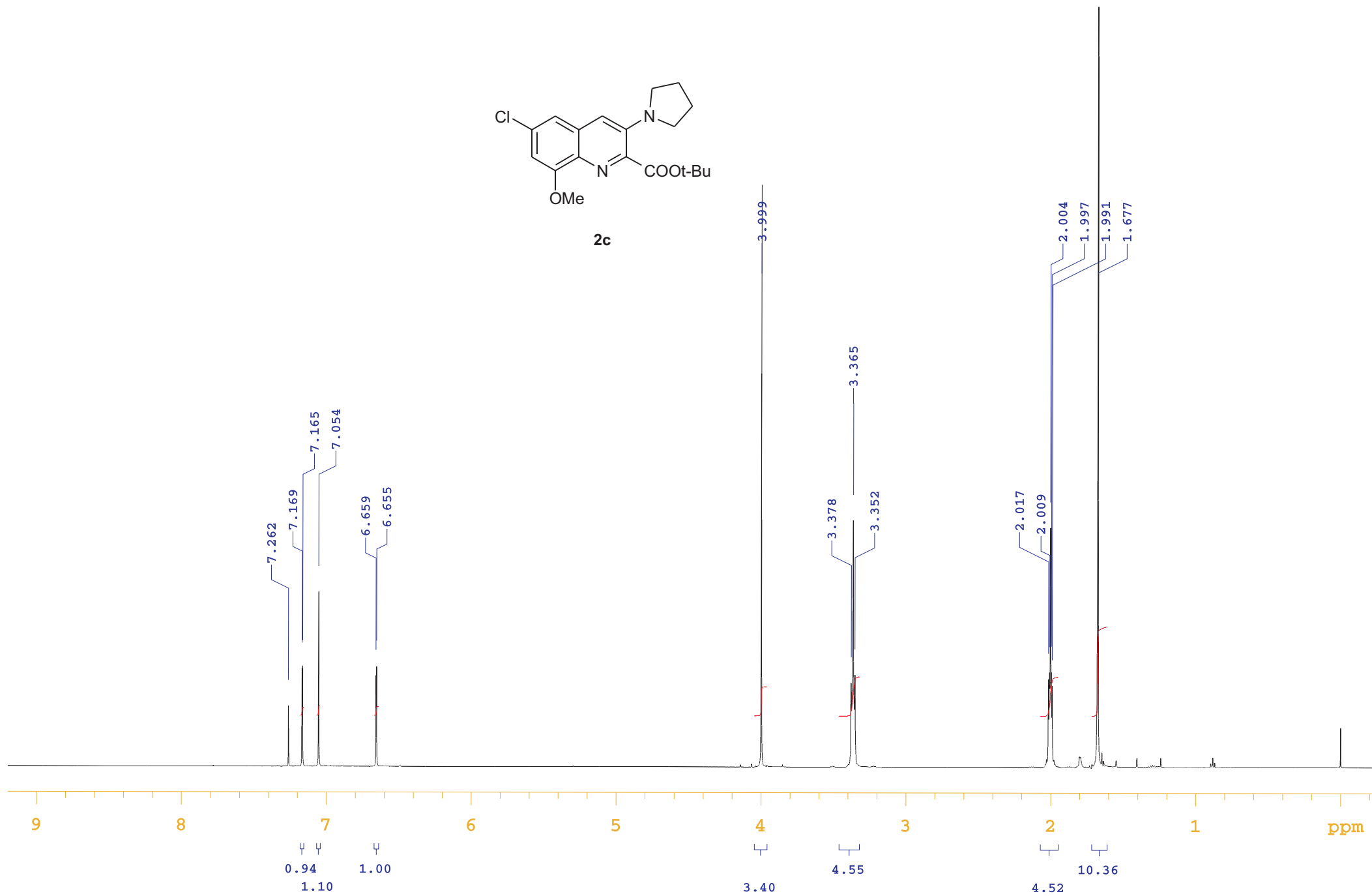


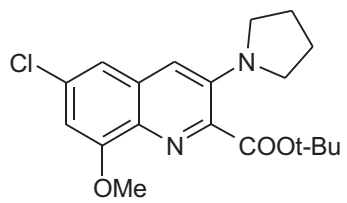
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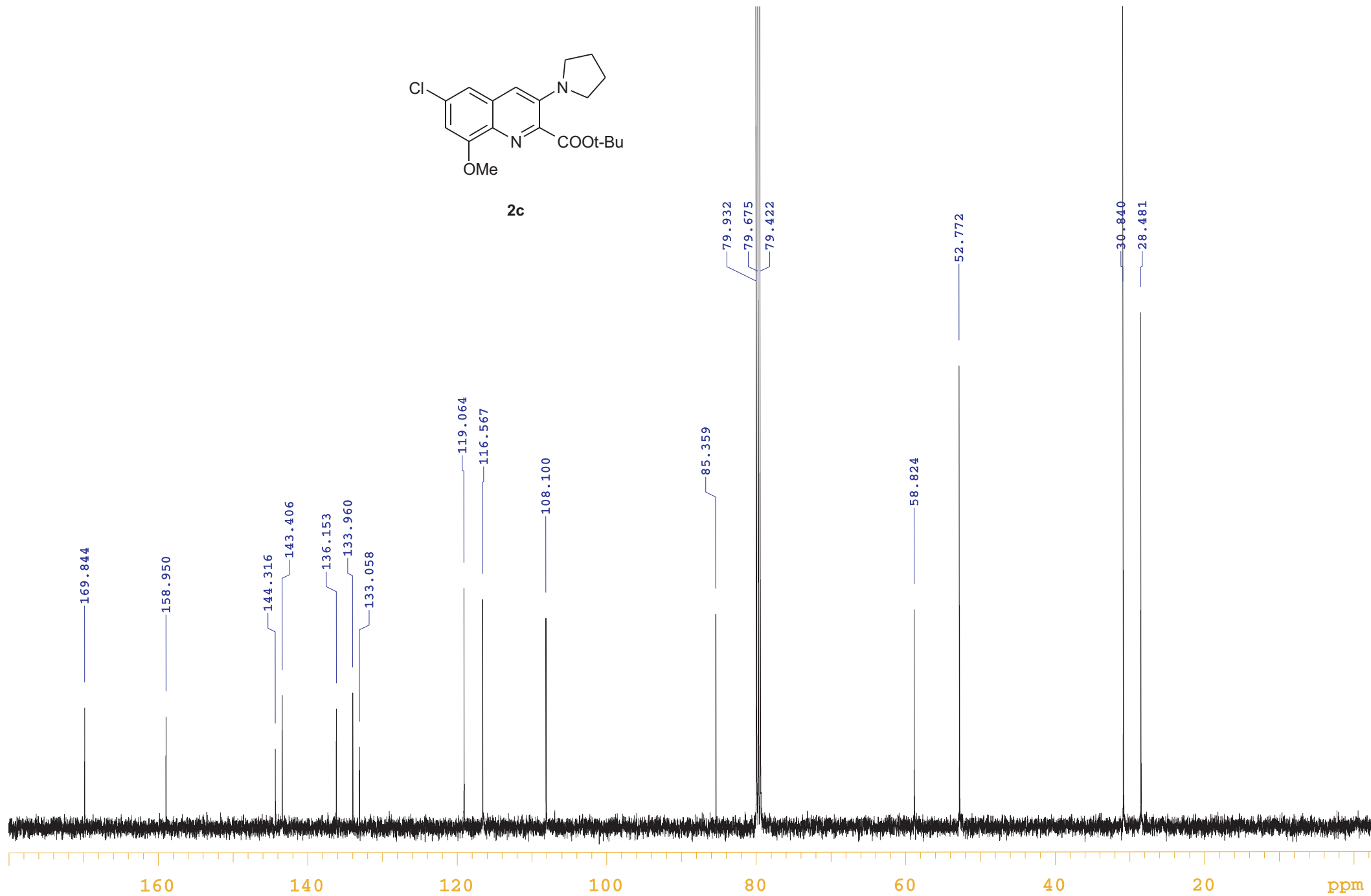


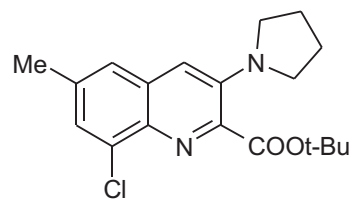
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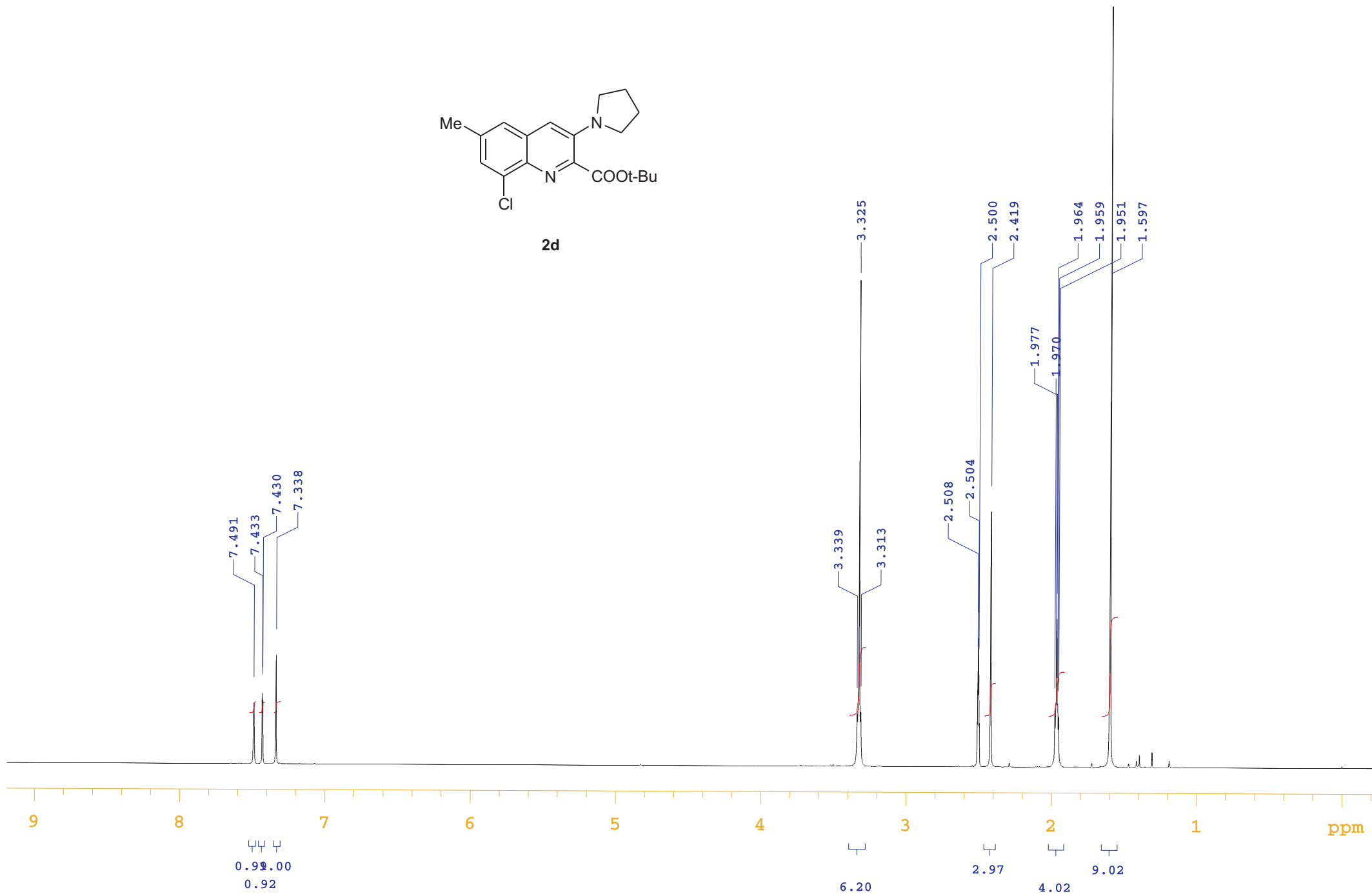


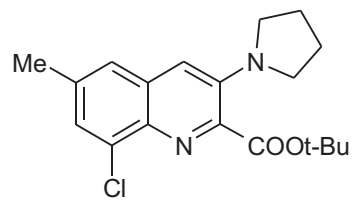
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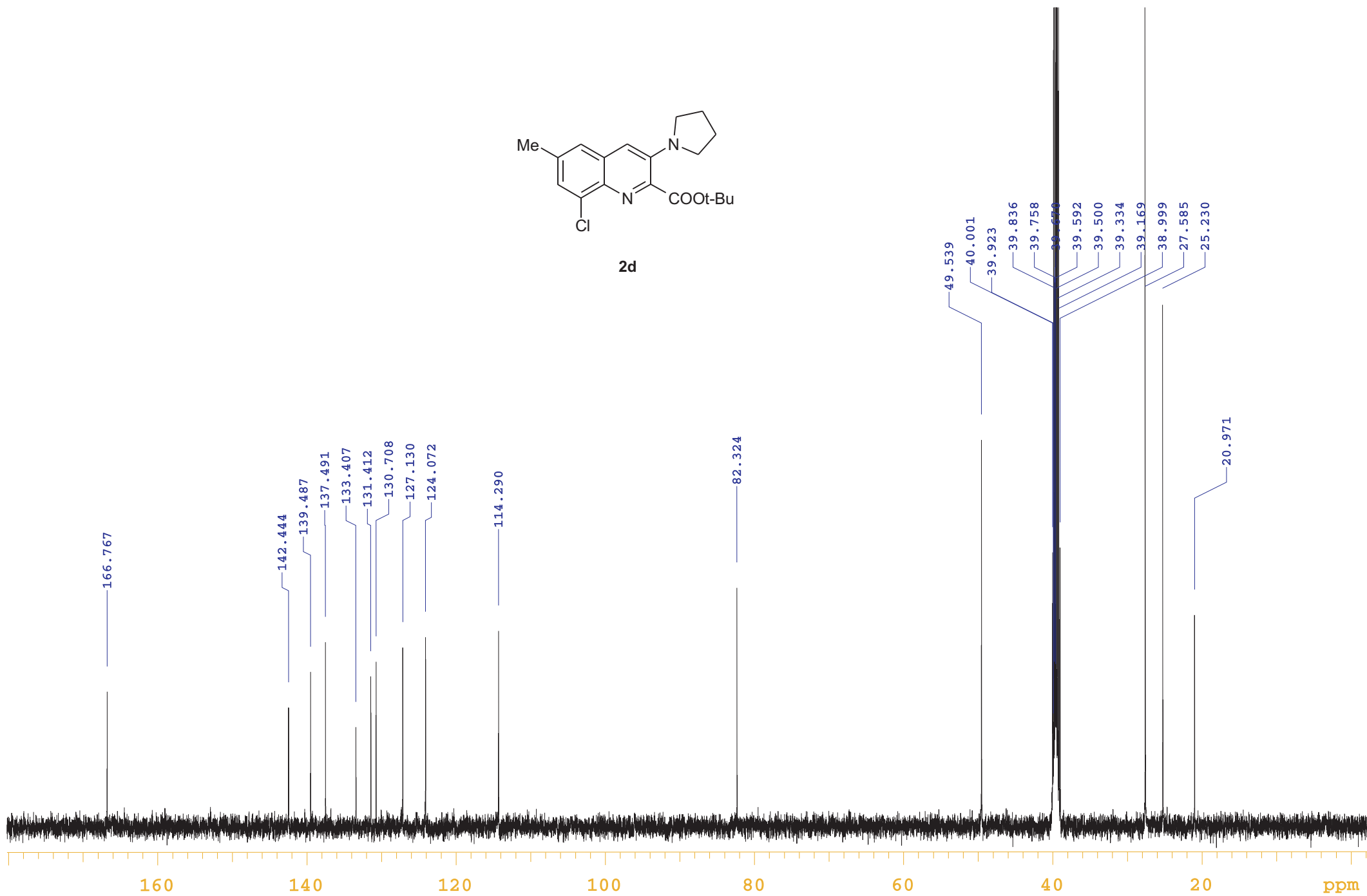


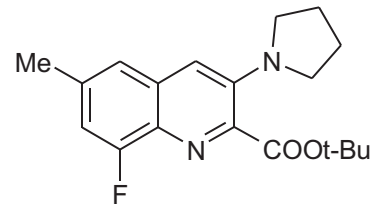
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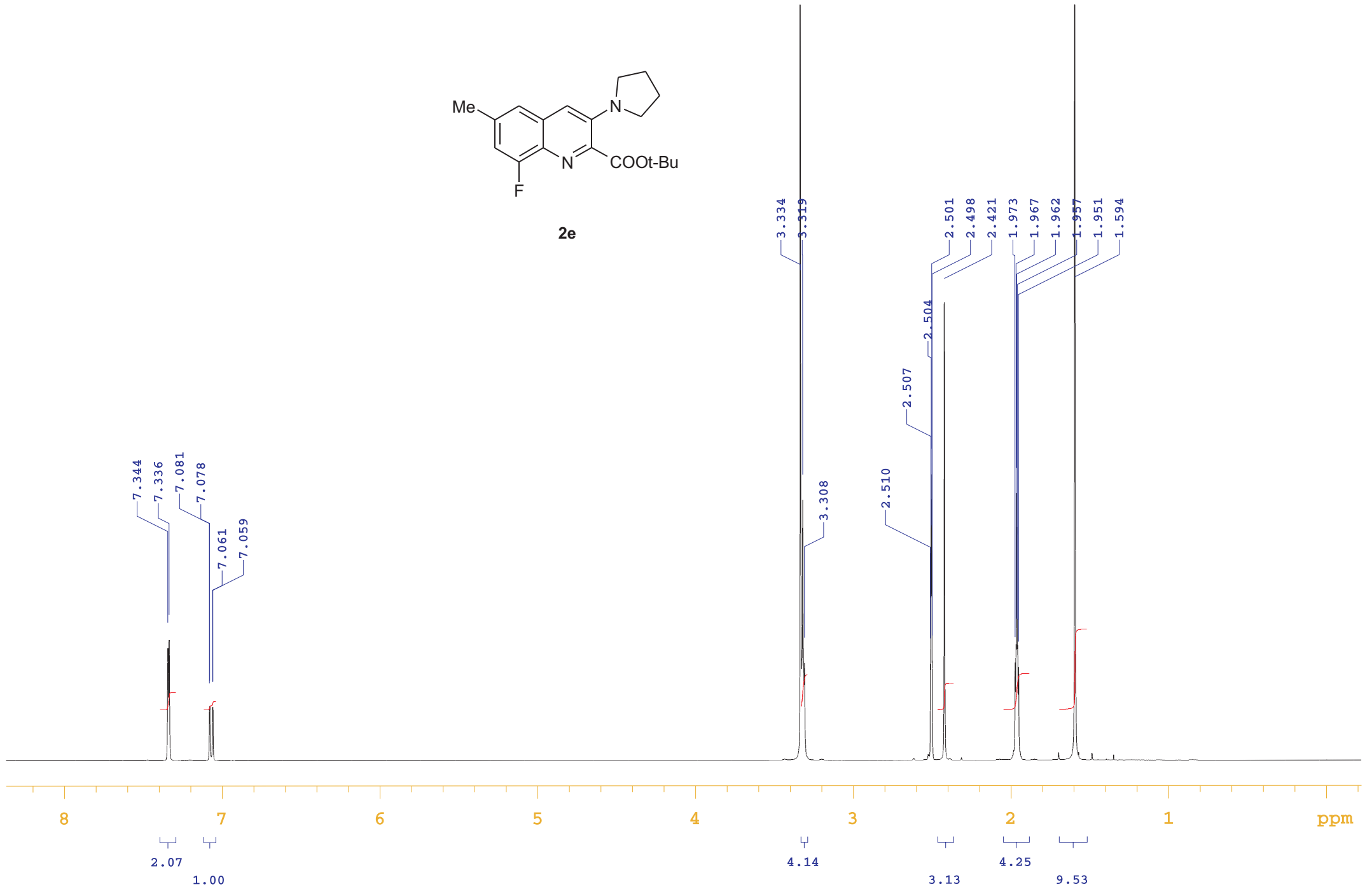


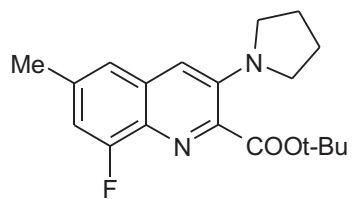
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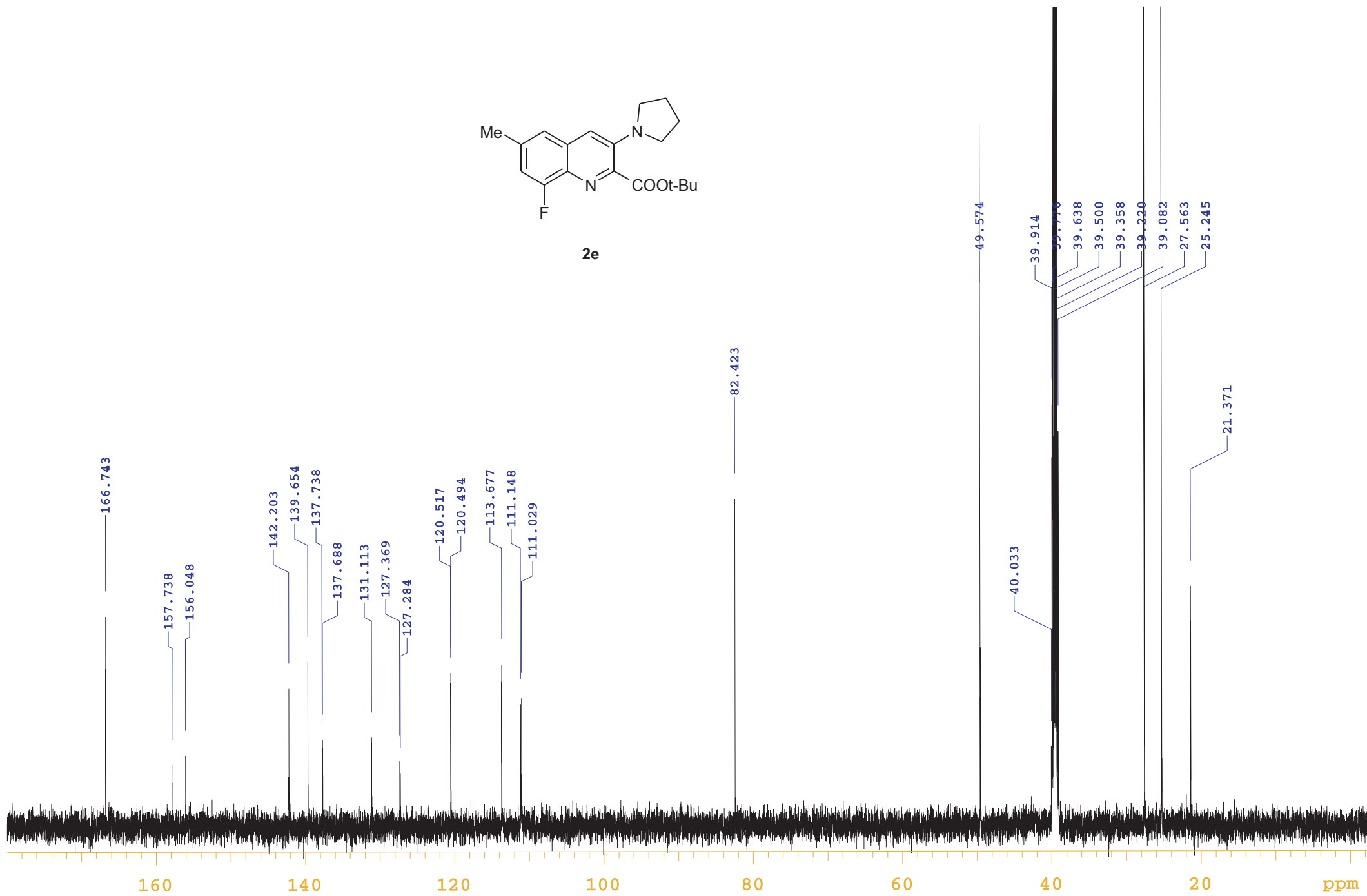


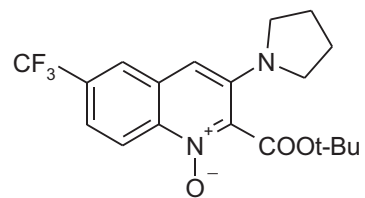
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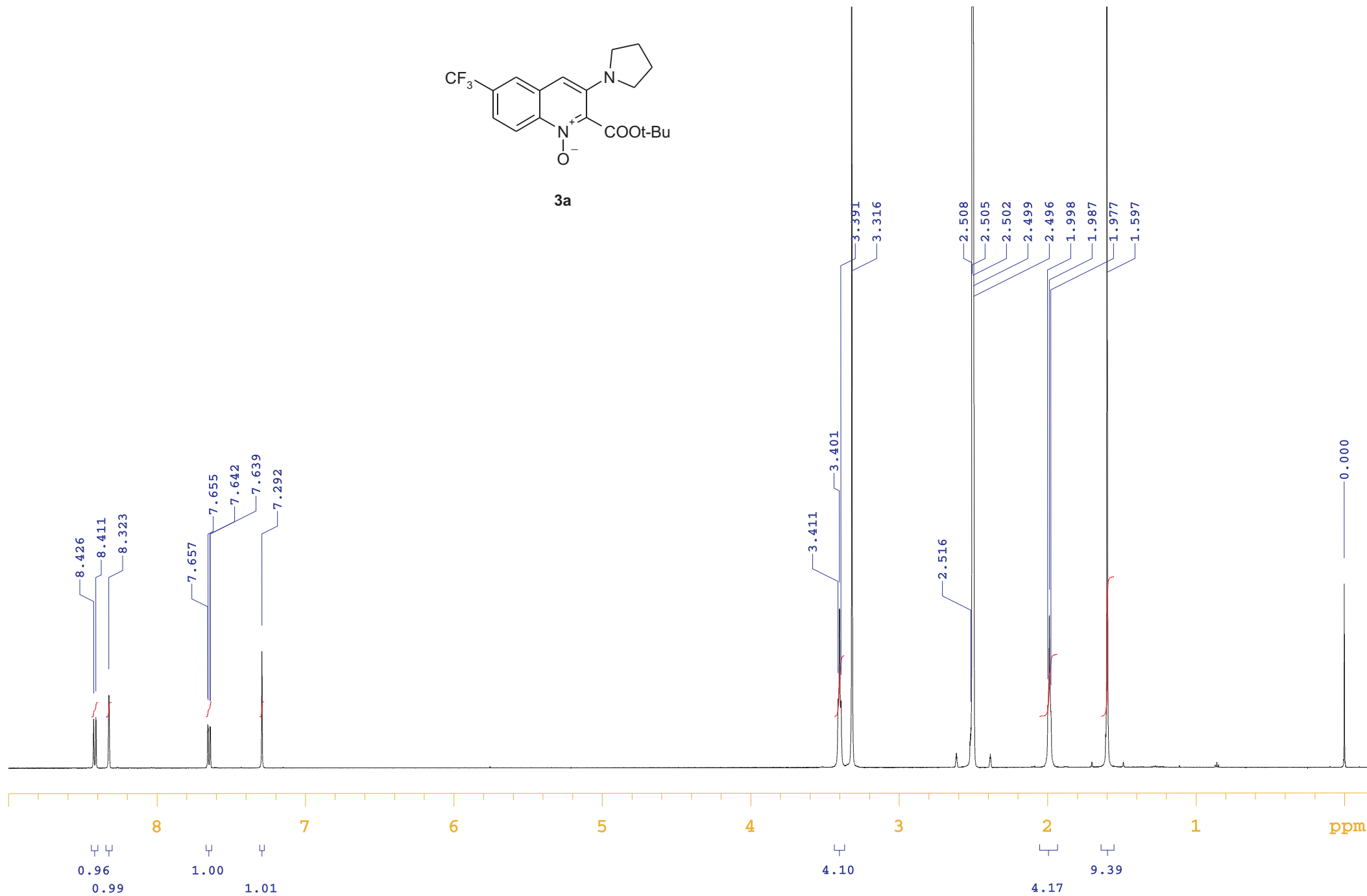


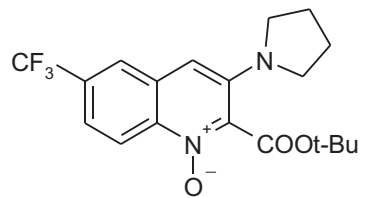
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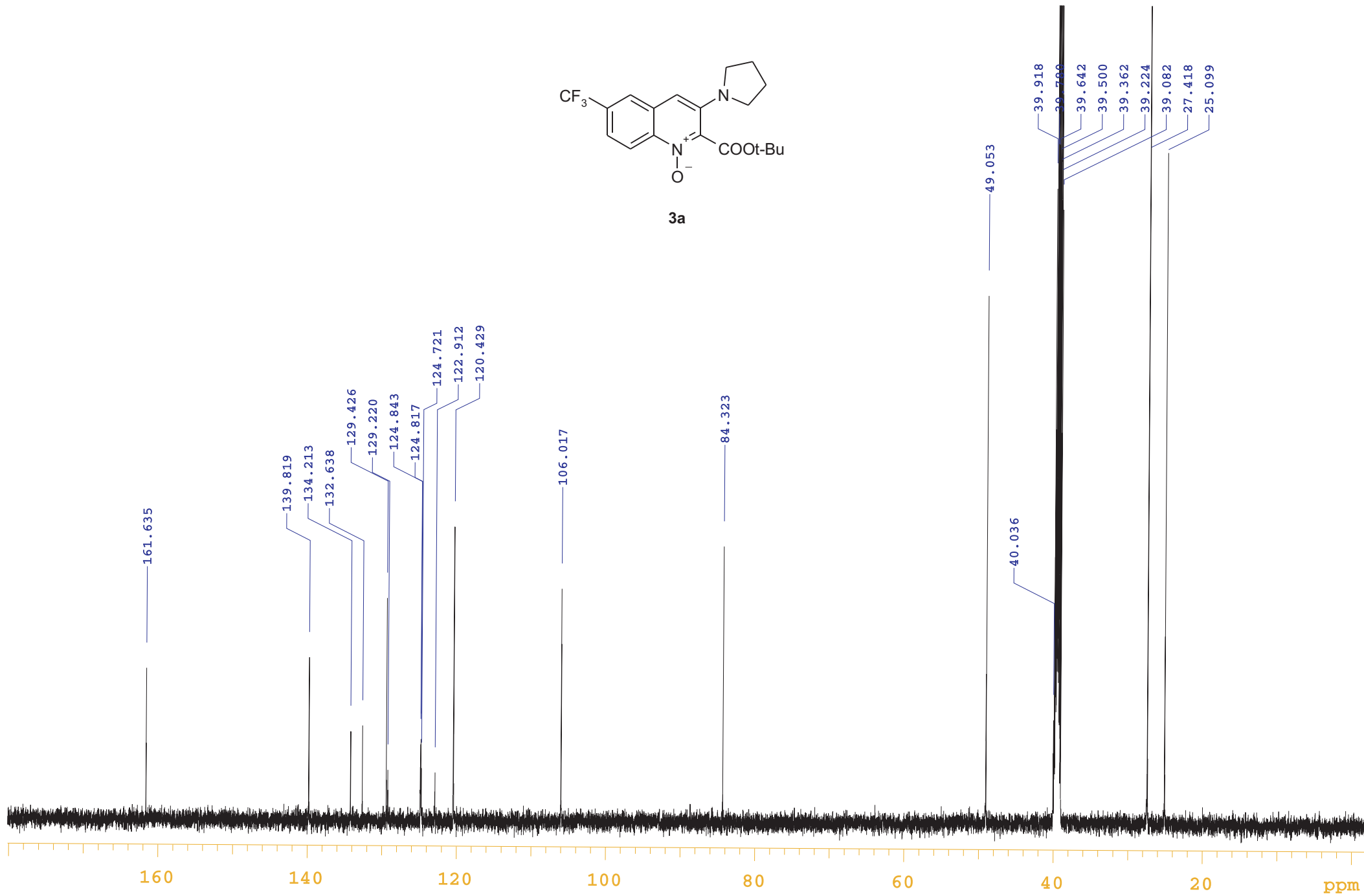


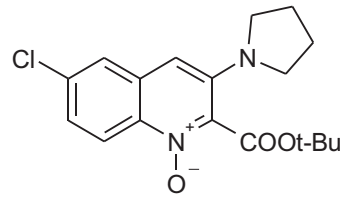
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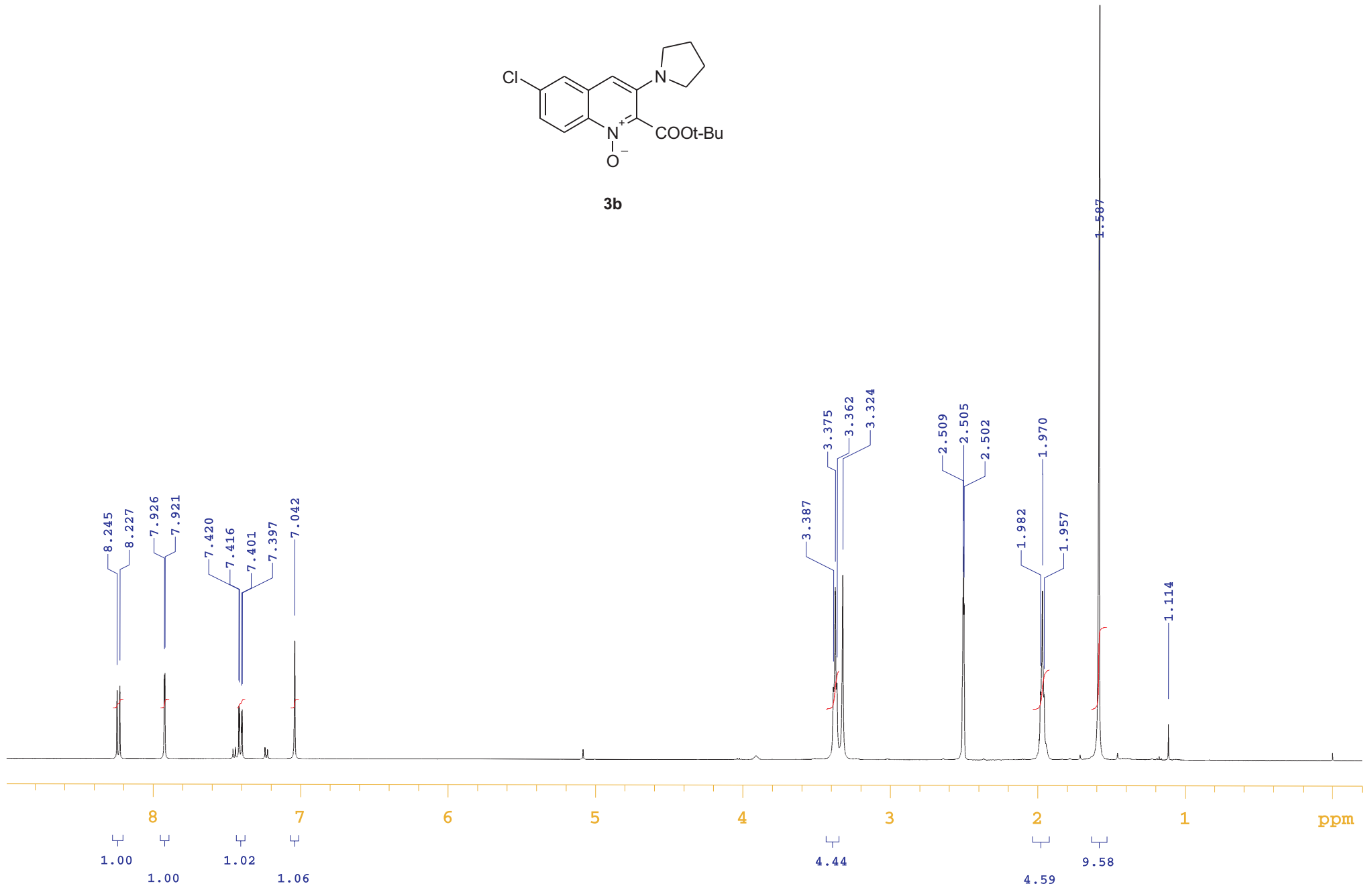


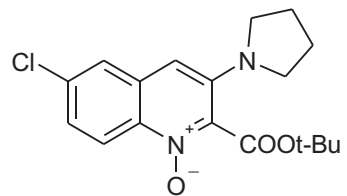
3a



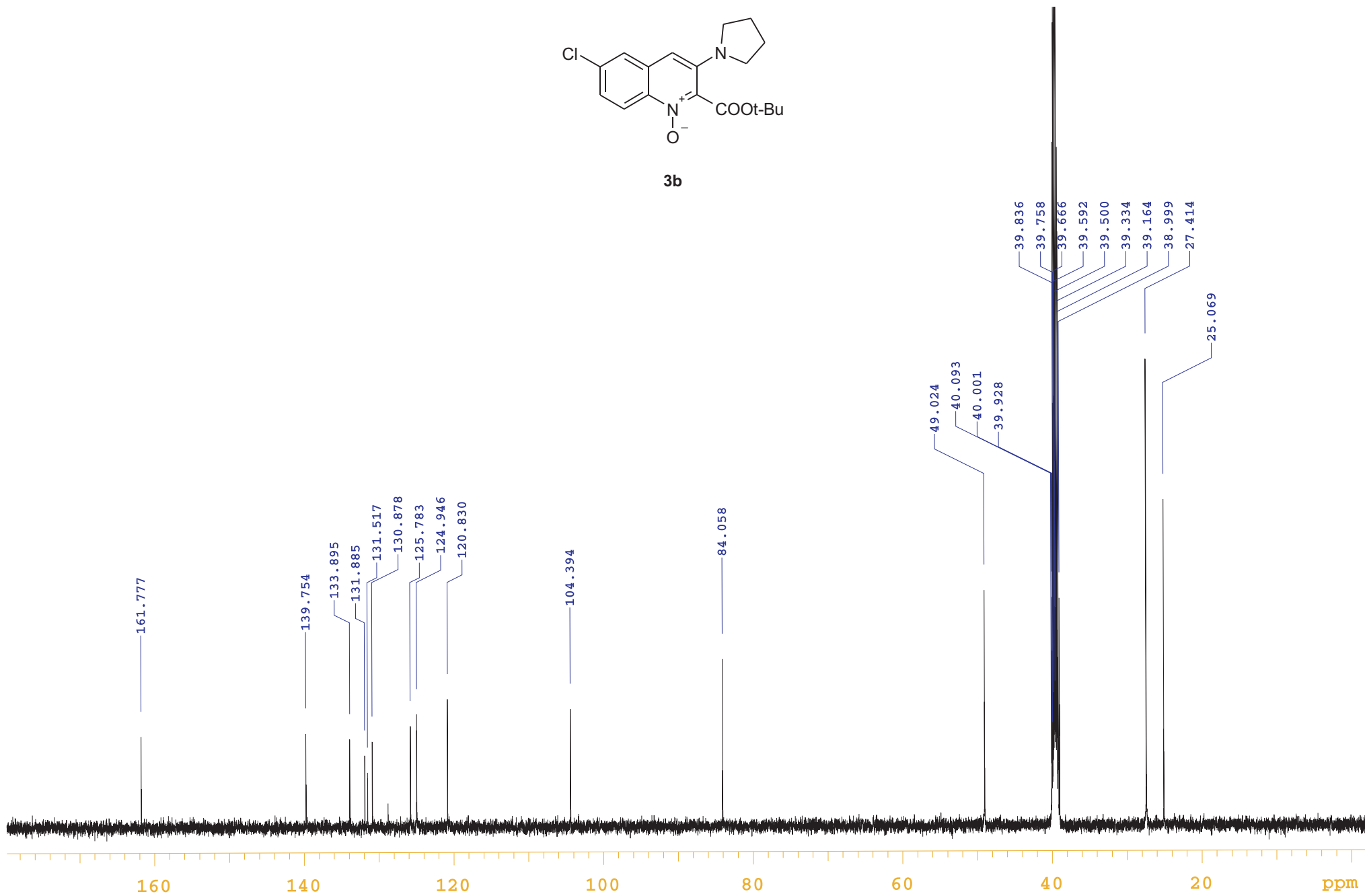


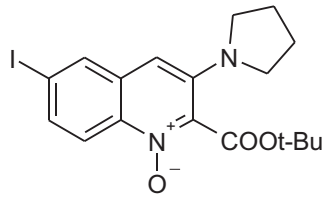
3b



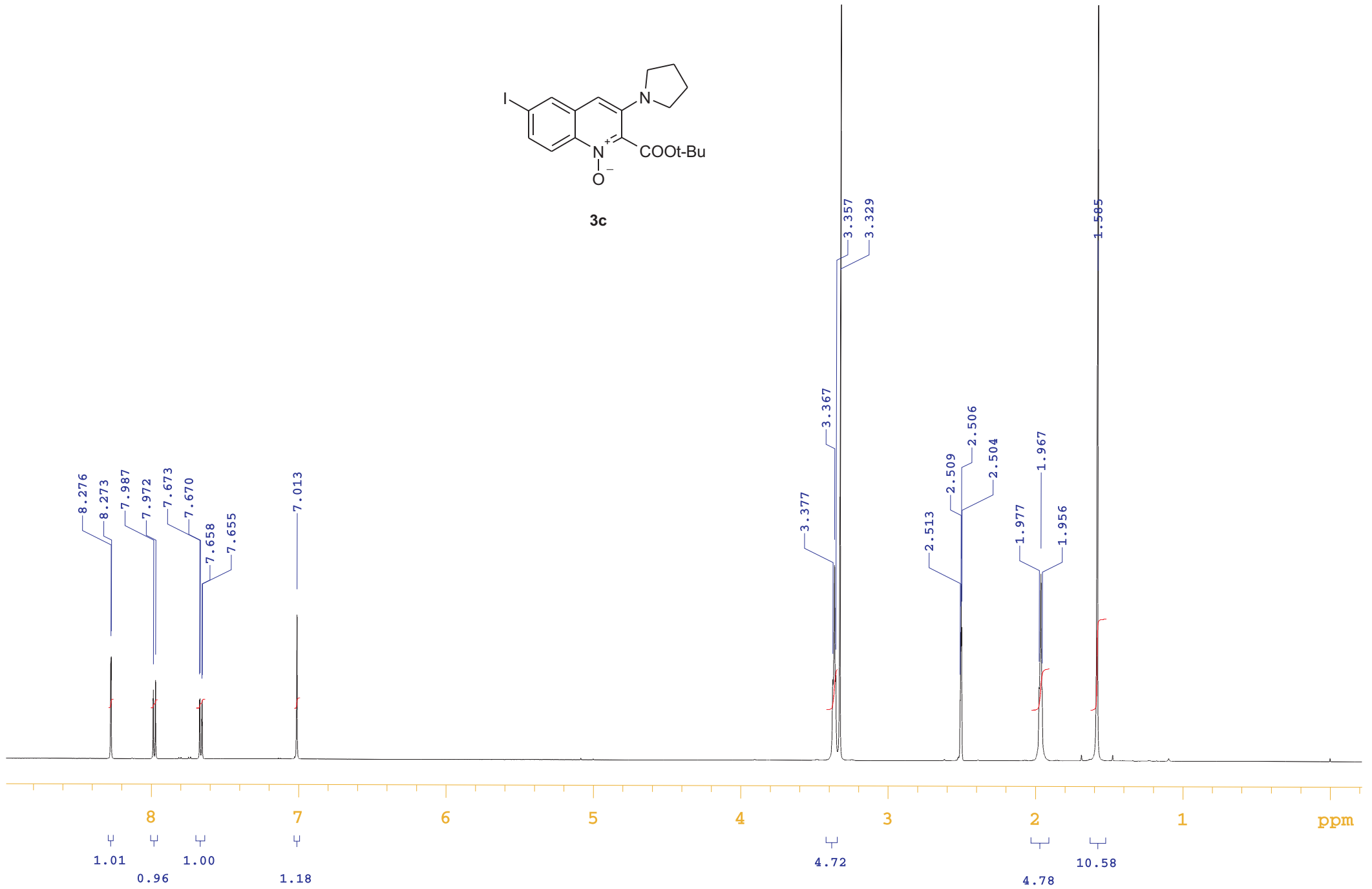


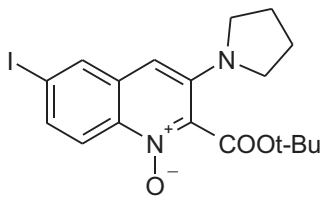
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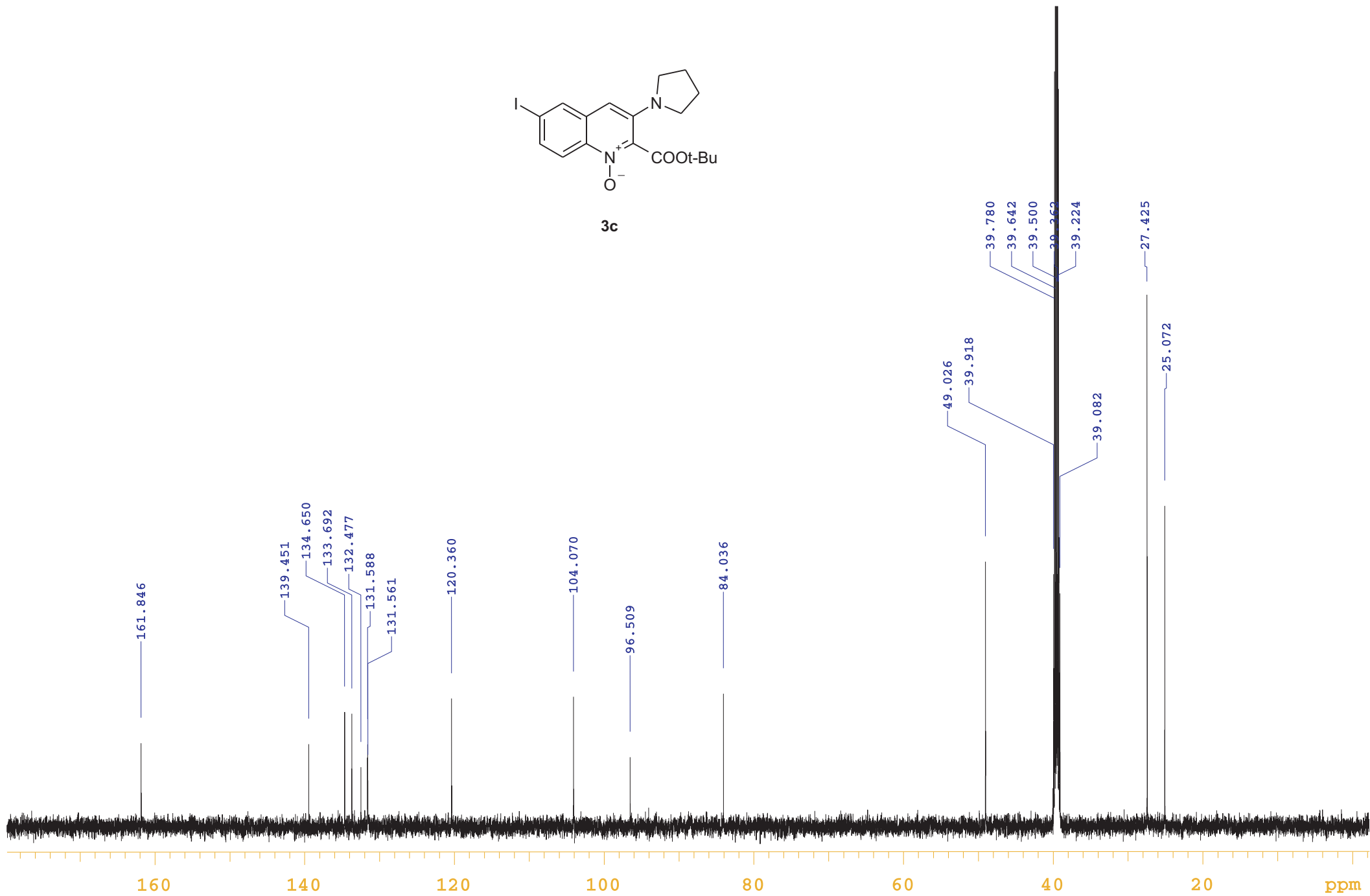


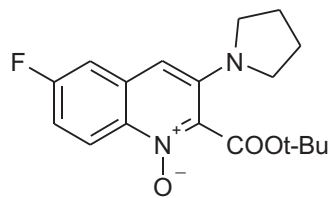
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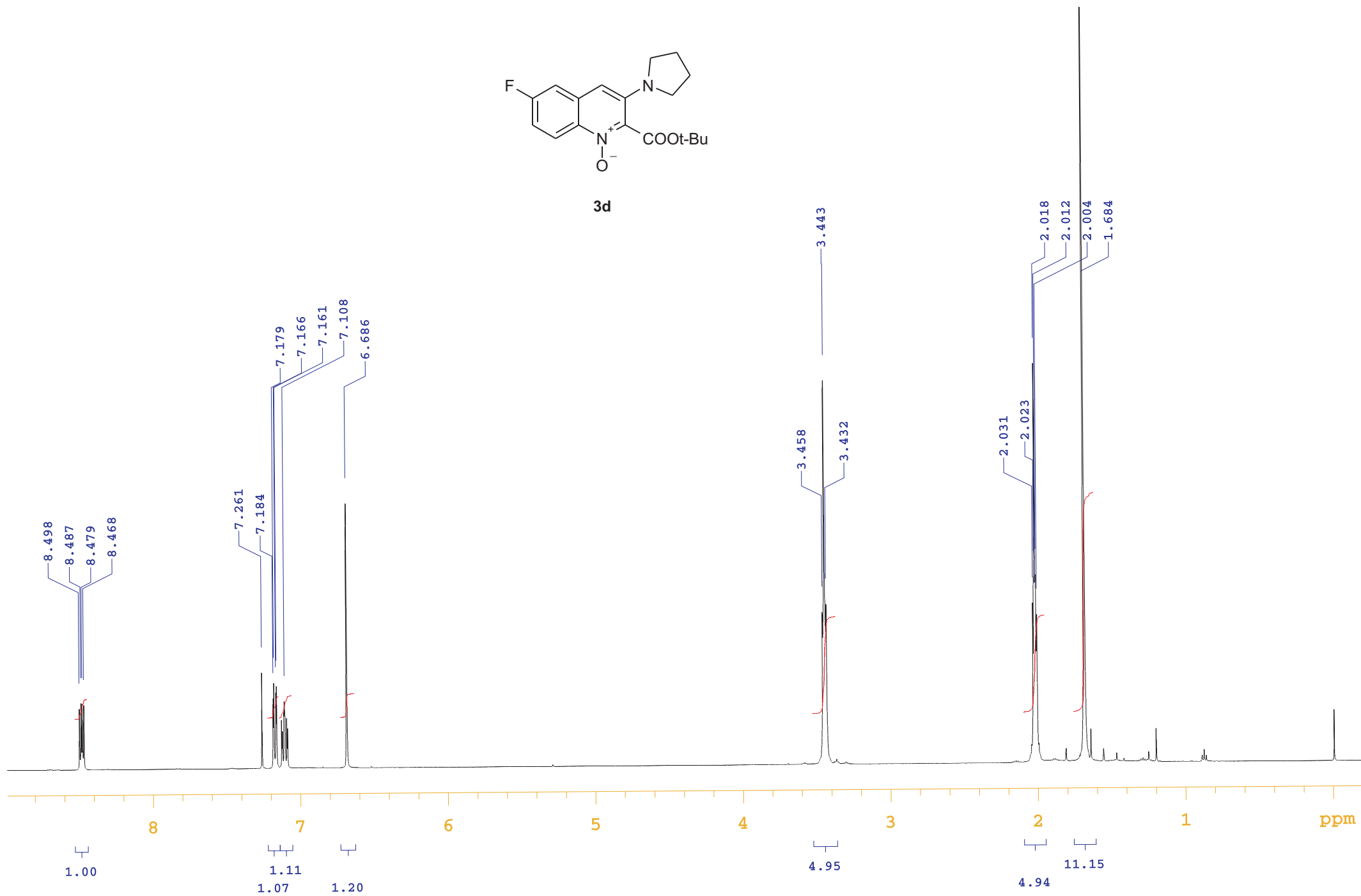


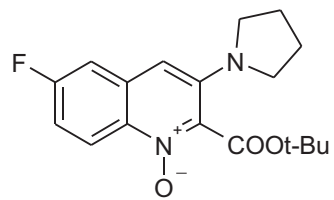
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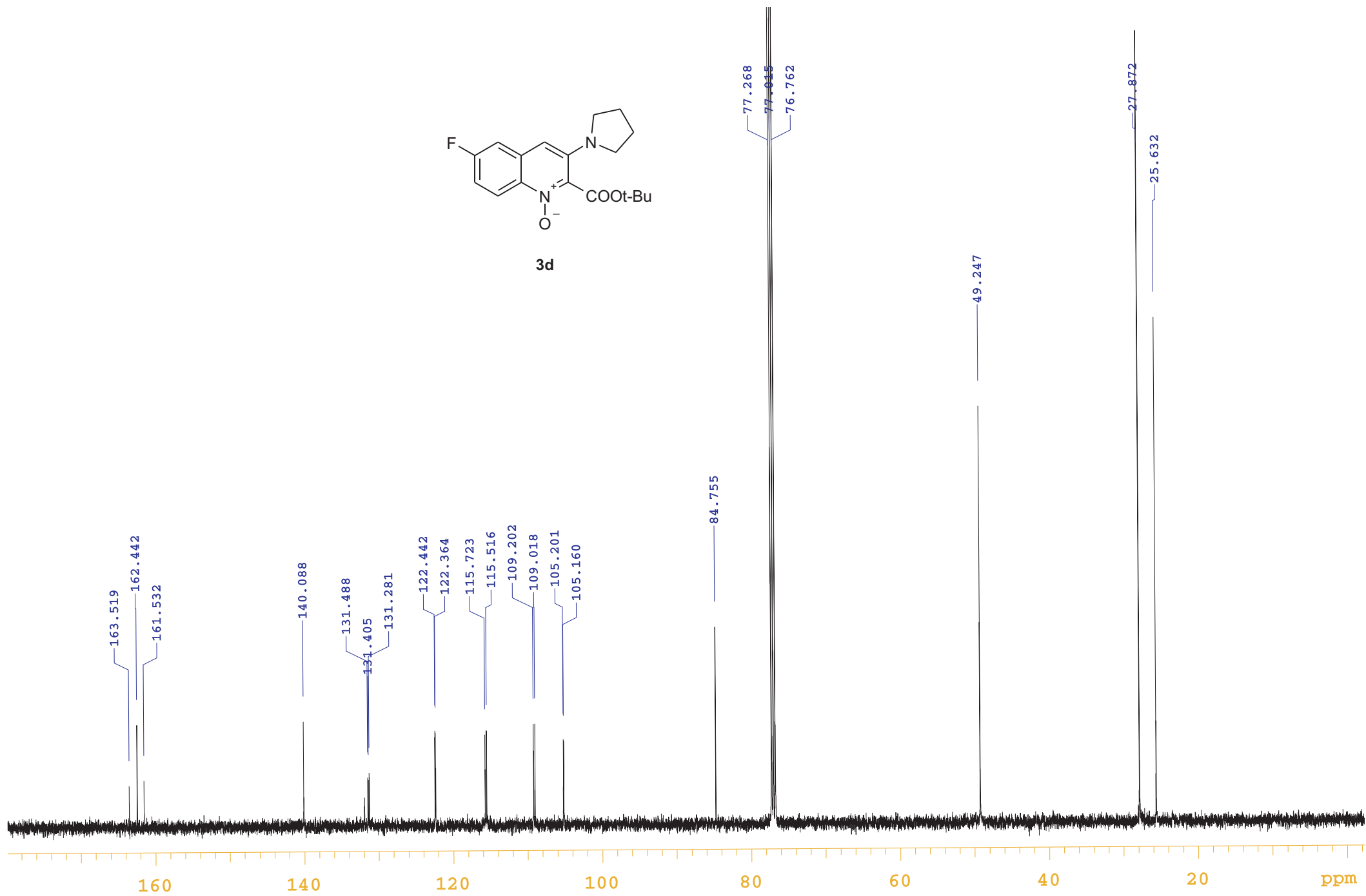


3d

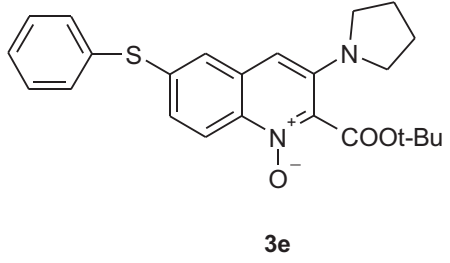




3d



8.376
8.357
7.469
7.456
7.393
7.381
7.366
7.349
7.335
7.318
7.295
7.262
7.214
7.196
6.608



3.419
2.014
2.002
1.682
1.257
1.218
0.000



1.00

2.08

4.59

1.16

1.03

4.31

4.60

10.71

162.54

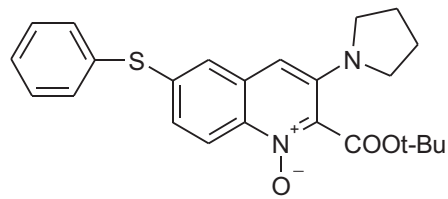
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126.74
124.64
120.15

105.28

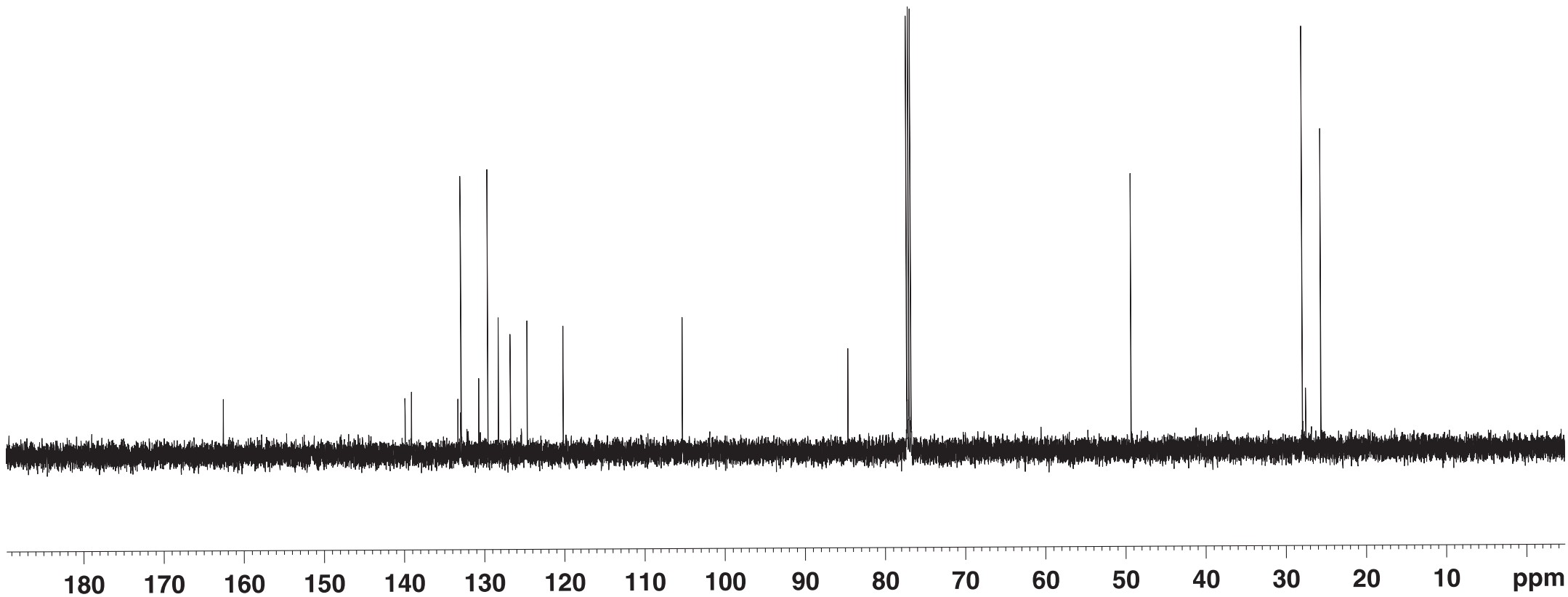
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77.00
76.75

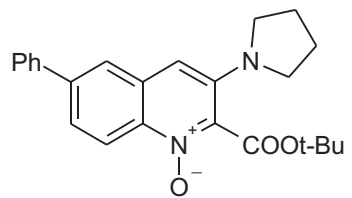
49.28

27.89
27.51
25.60

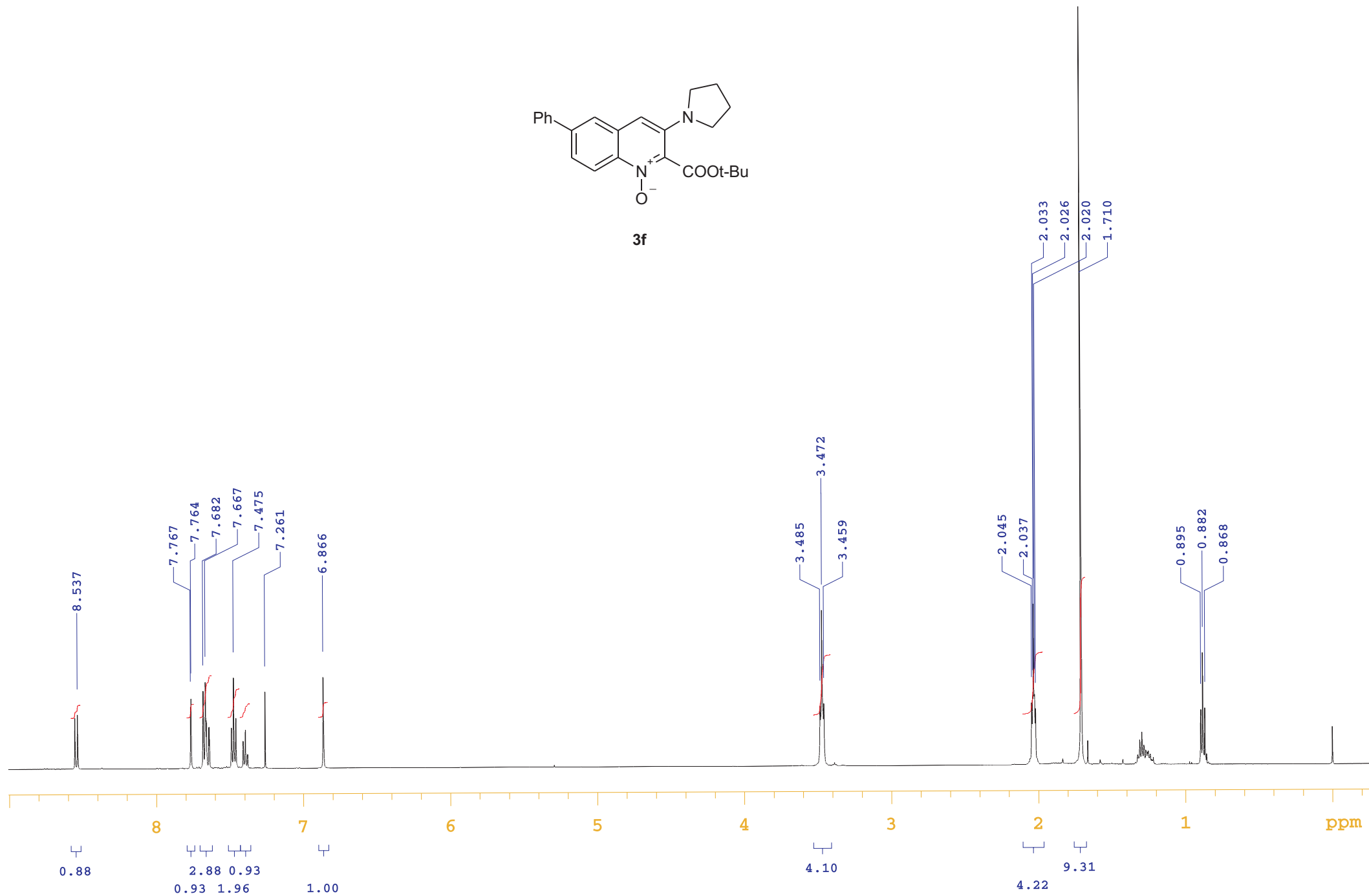


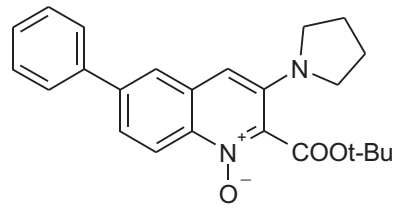
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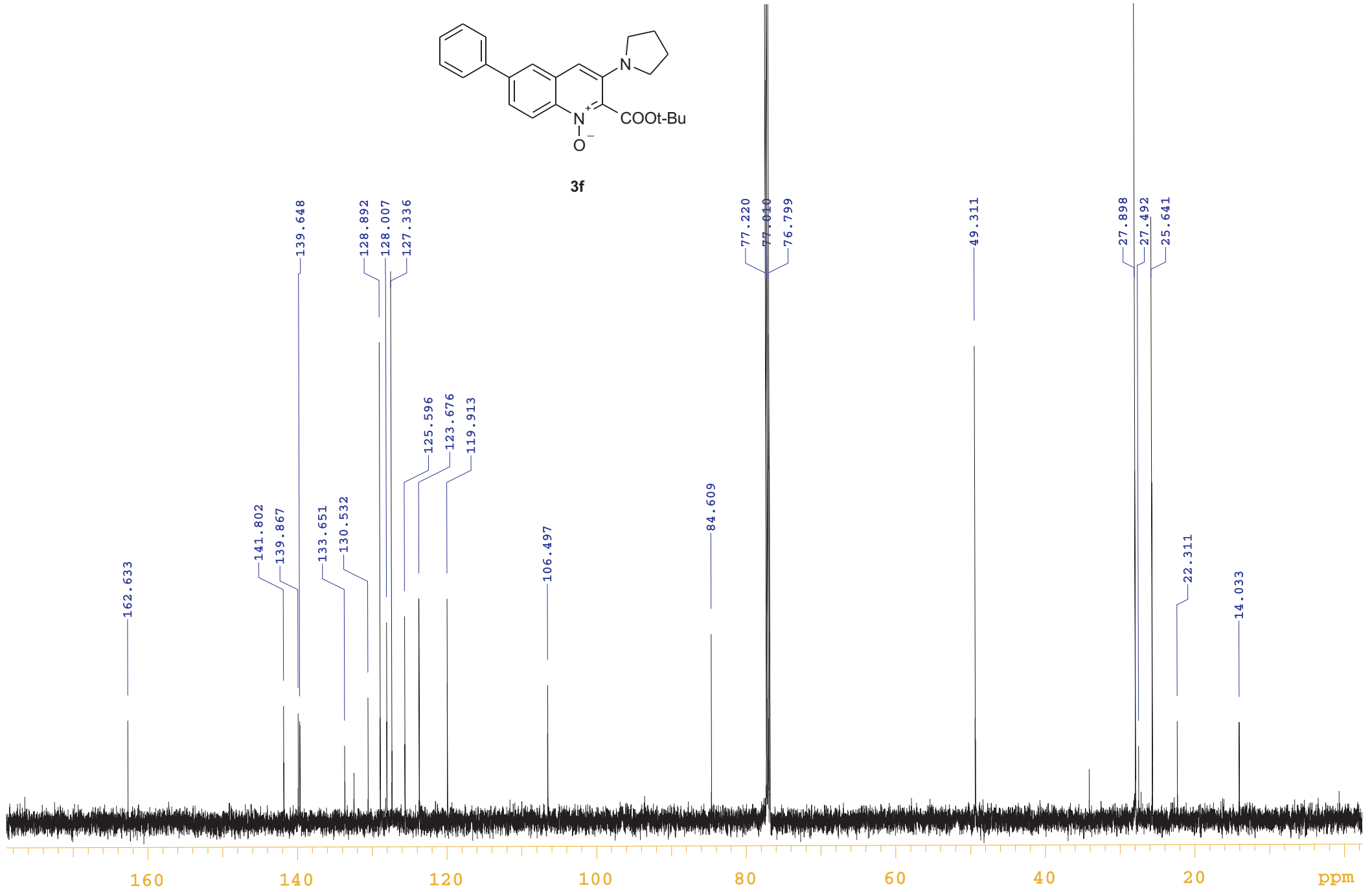


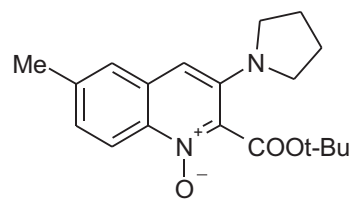
3f



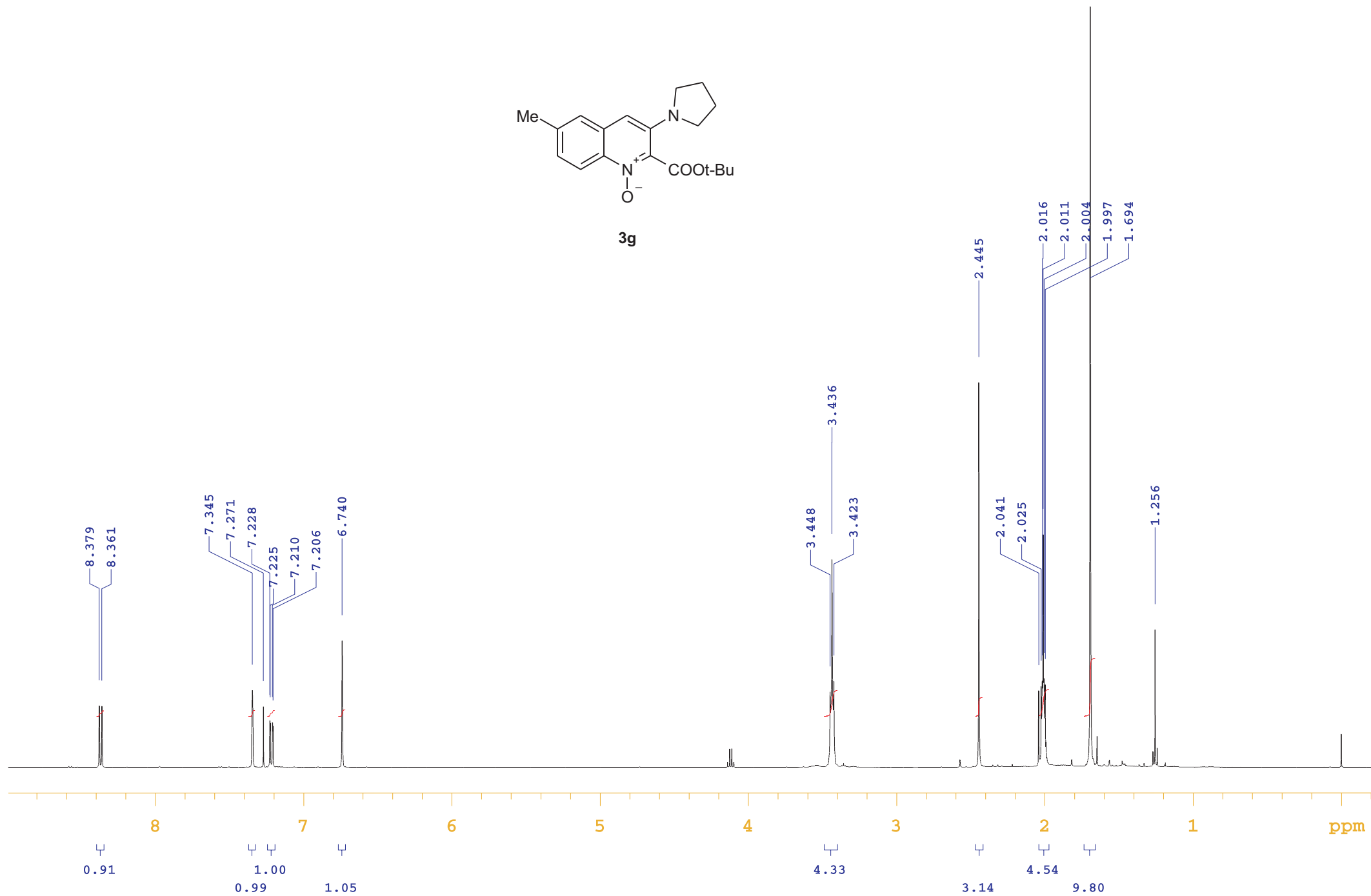


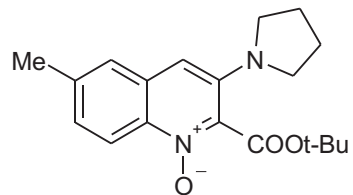
3f



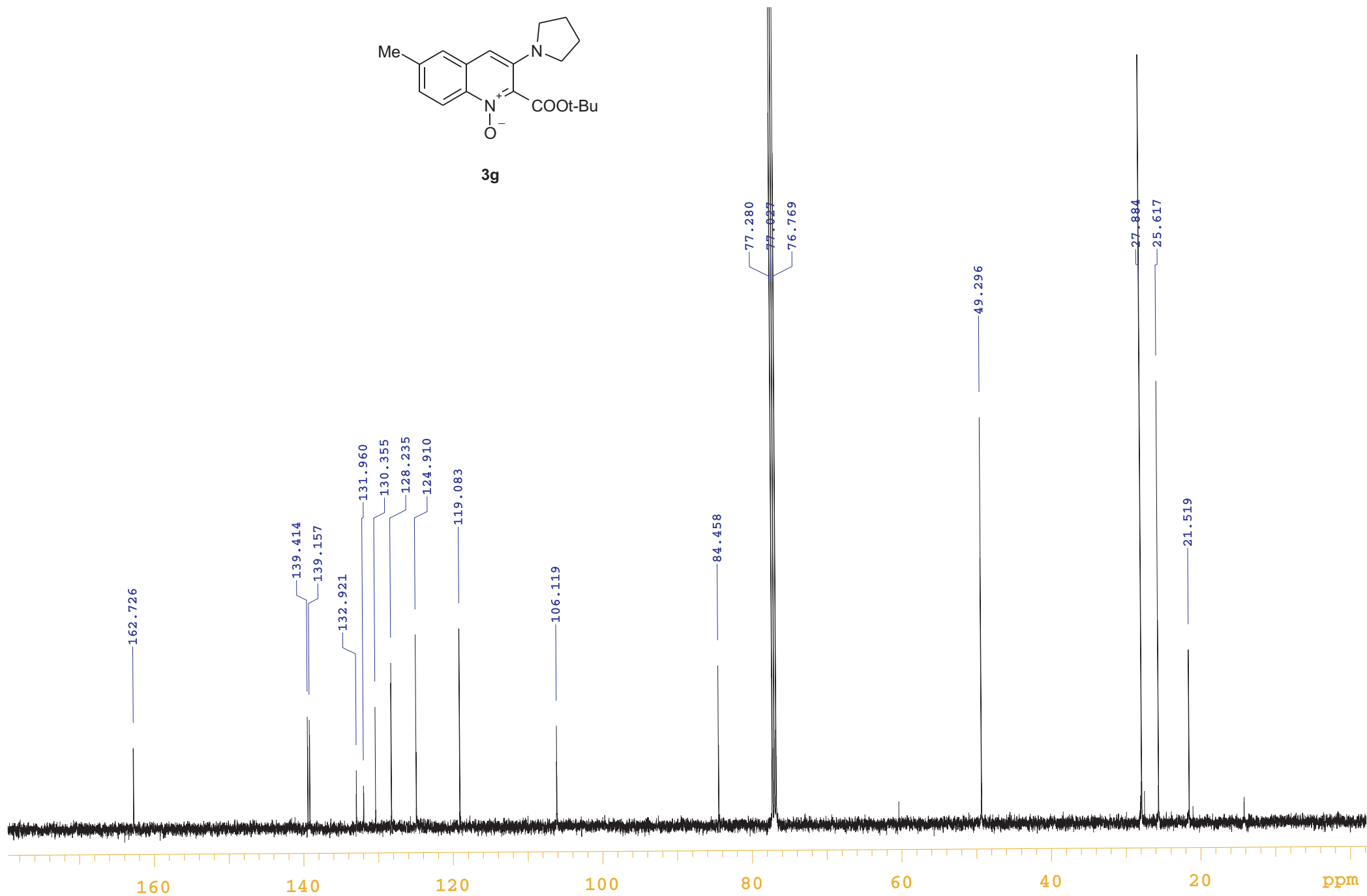


3g





3g



8.410
8.392

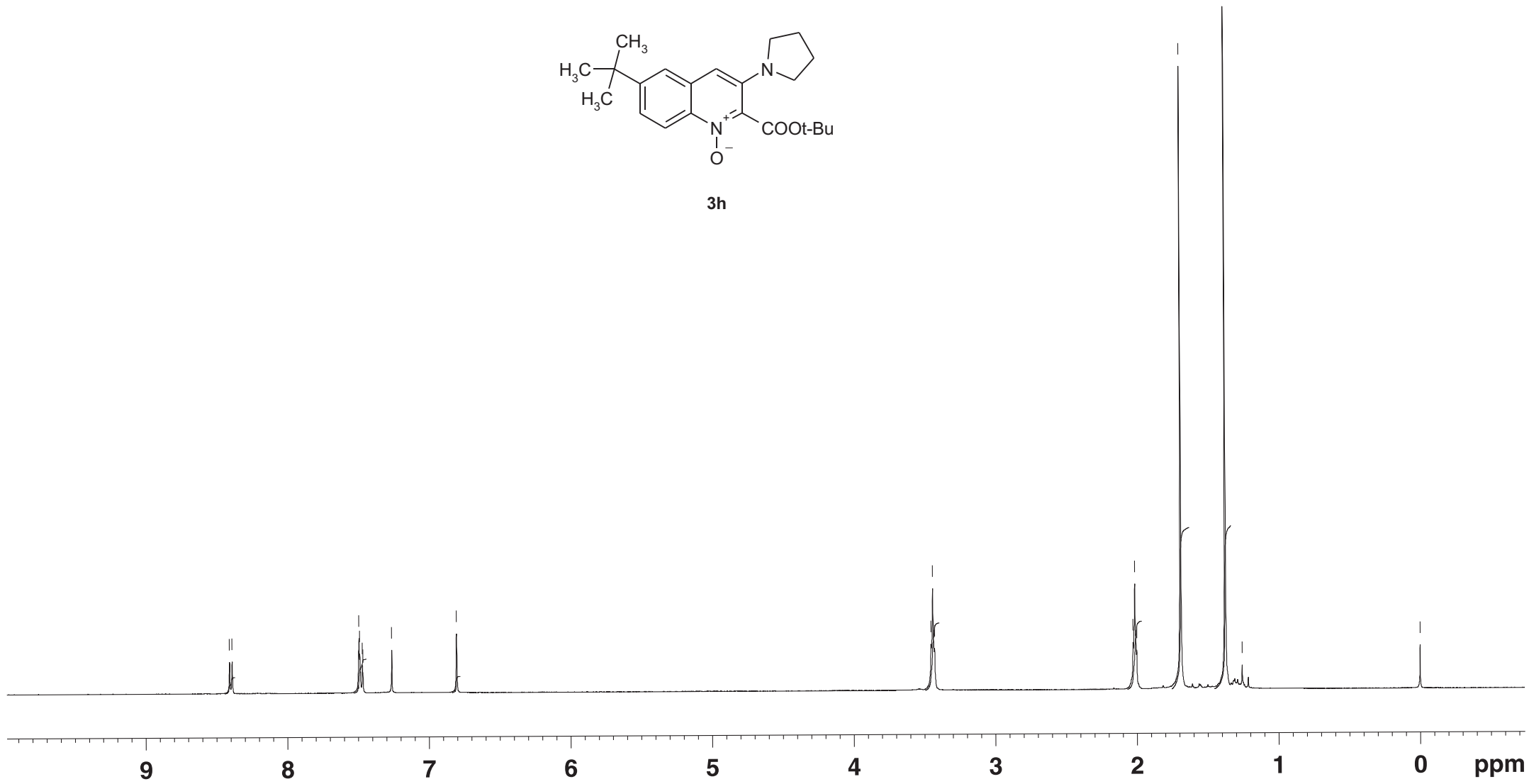
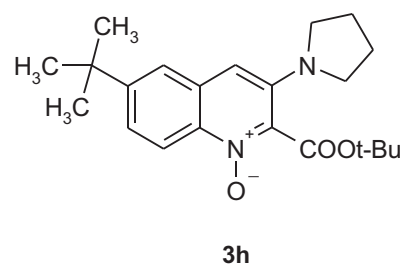
7.495
7.490
7.471
7.468
7.264

6.807

3.455
3.442
3.429

2.028
2.015
2.002
1.691
1.376
1.258

0.001



1.00

2.11

1.02

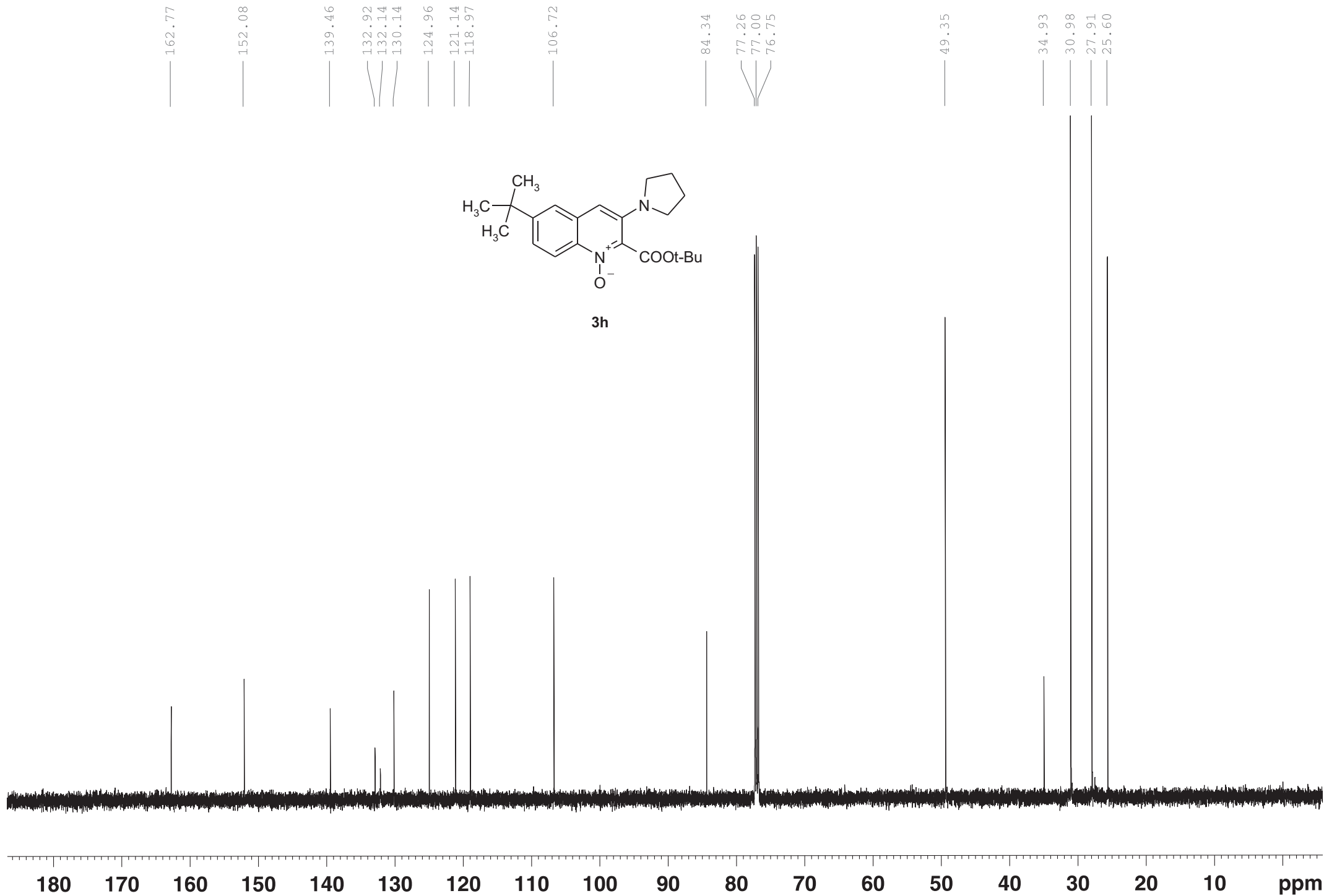
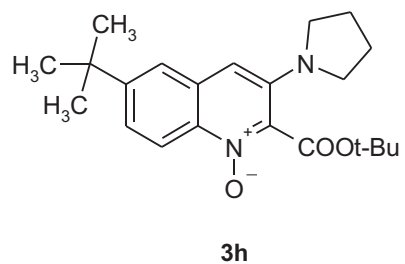
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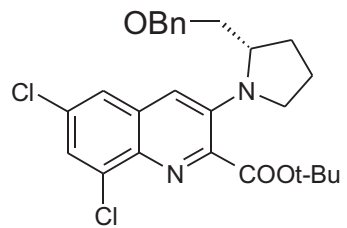
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10.03

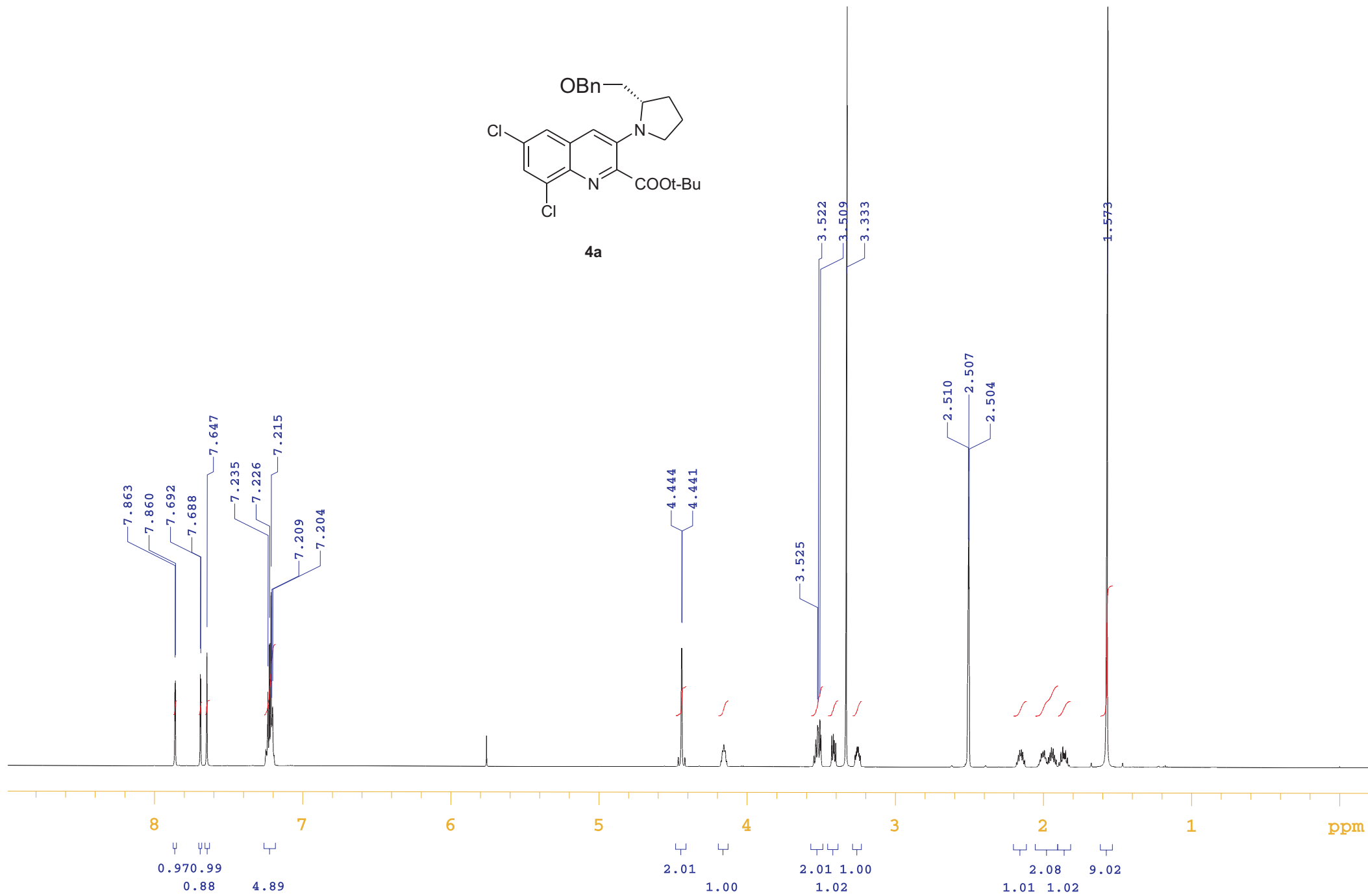
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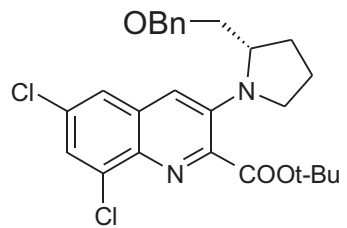
ppm



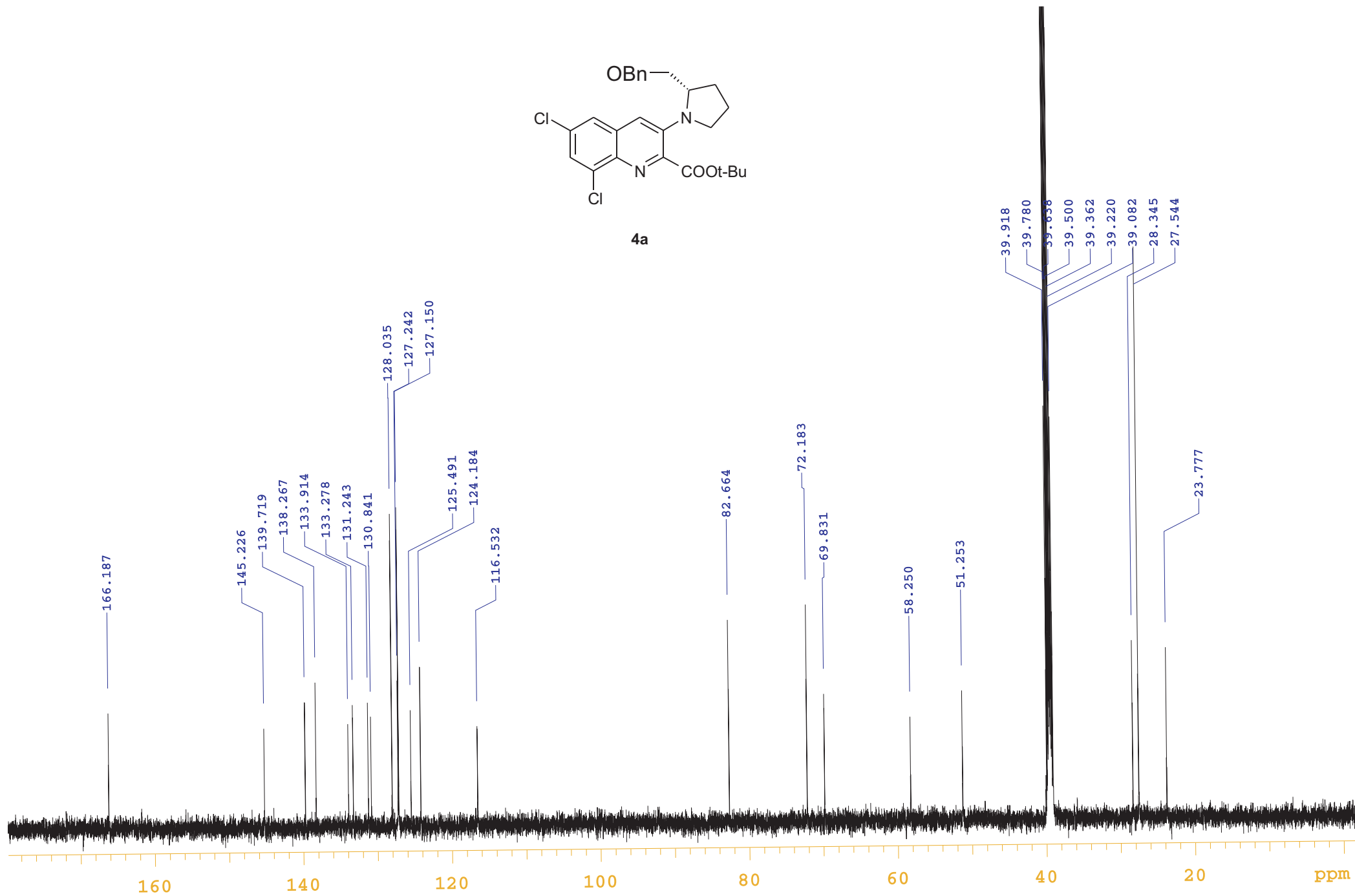


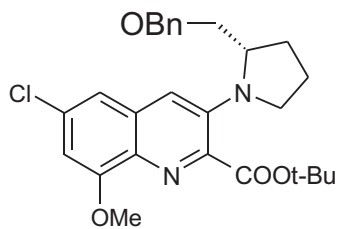
4a



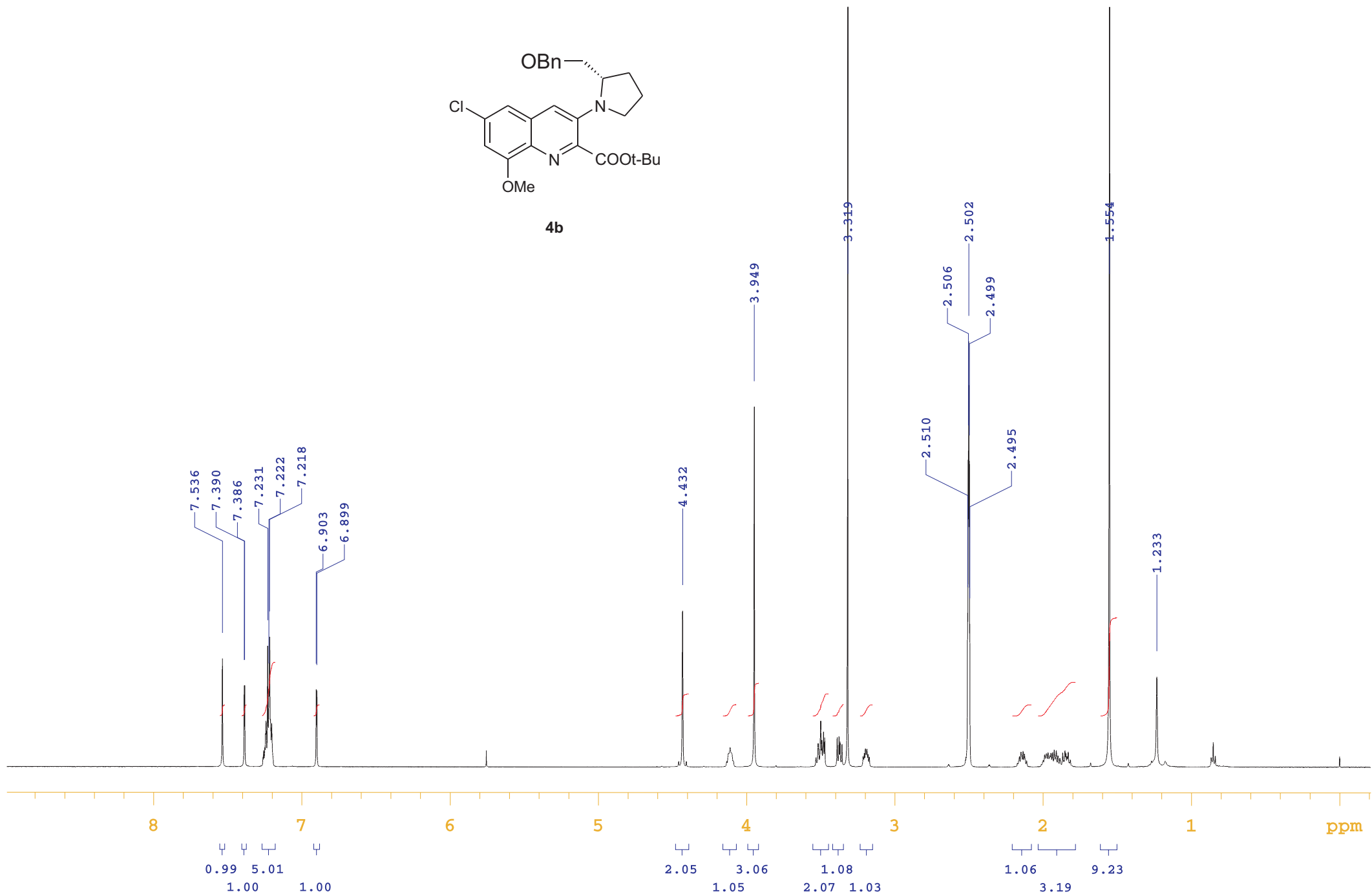


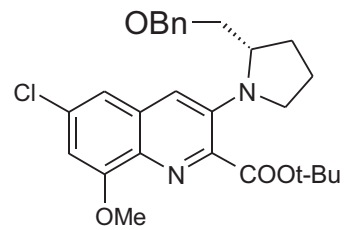
4a



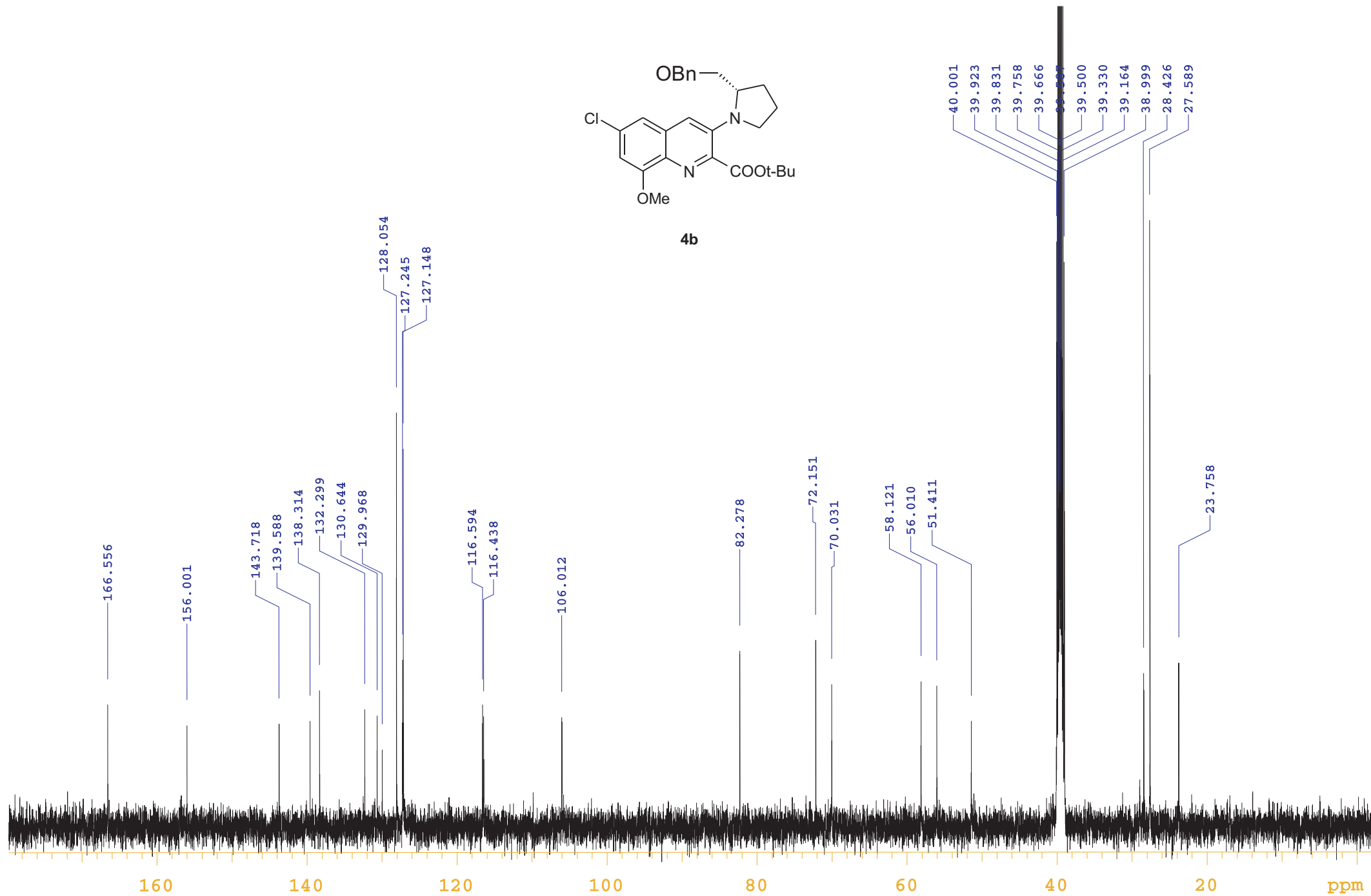


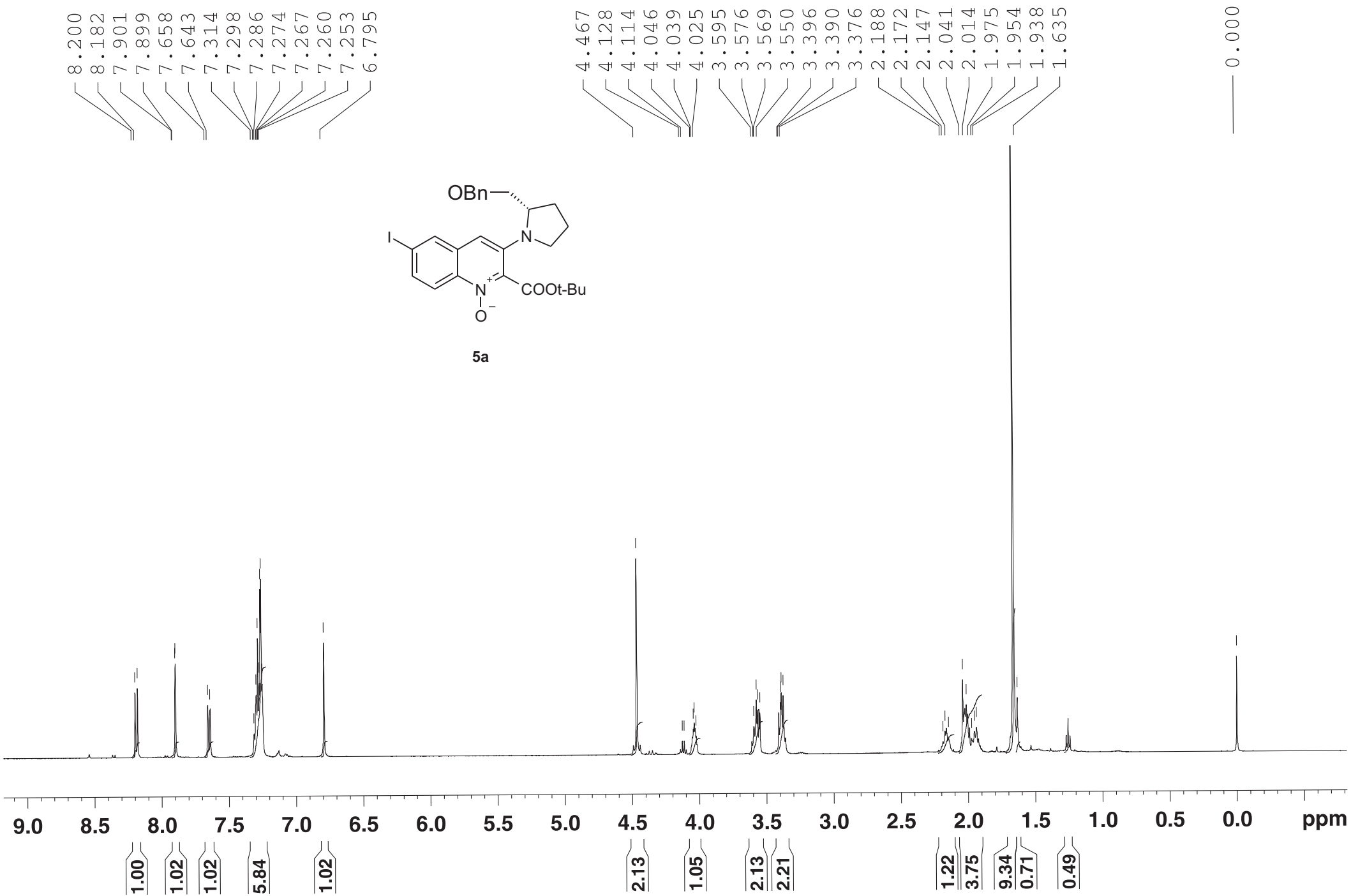
4b





4b





161.93

139.88
138.00
135.00
134.84
134.44
134.08
131.41
128.38
127.77
127.66
121.01

107.75

95.59

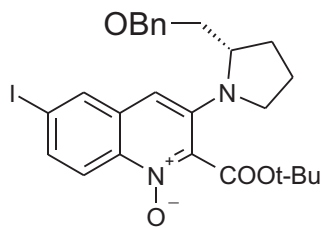
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77.25
77.00
76.75
73.31
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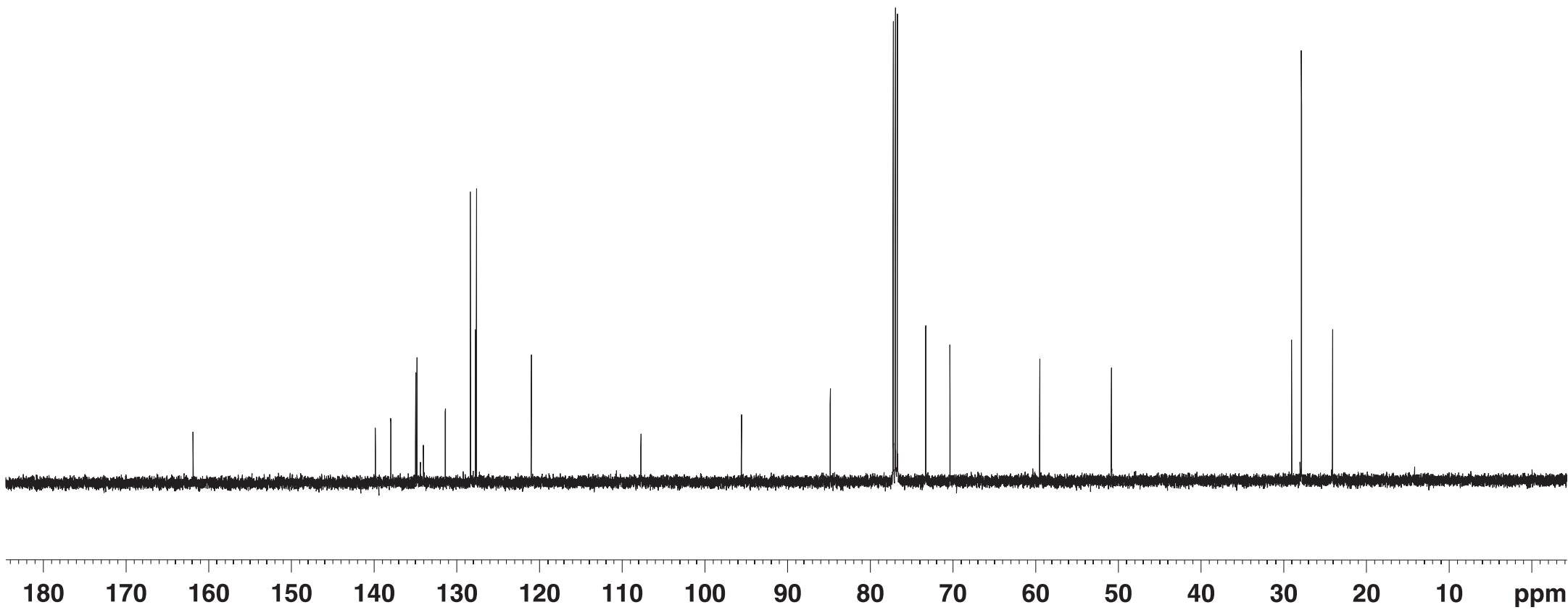
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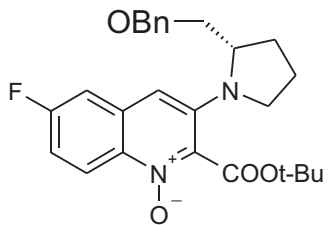
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29.06
28.04
27.88
24.11

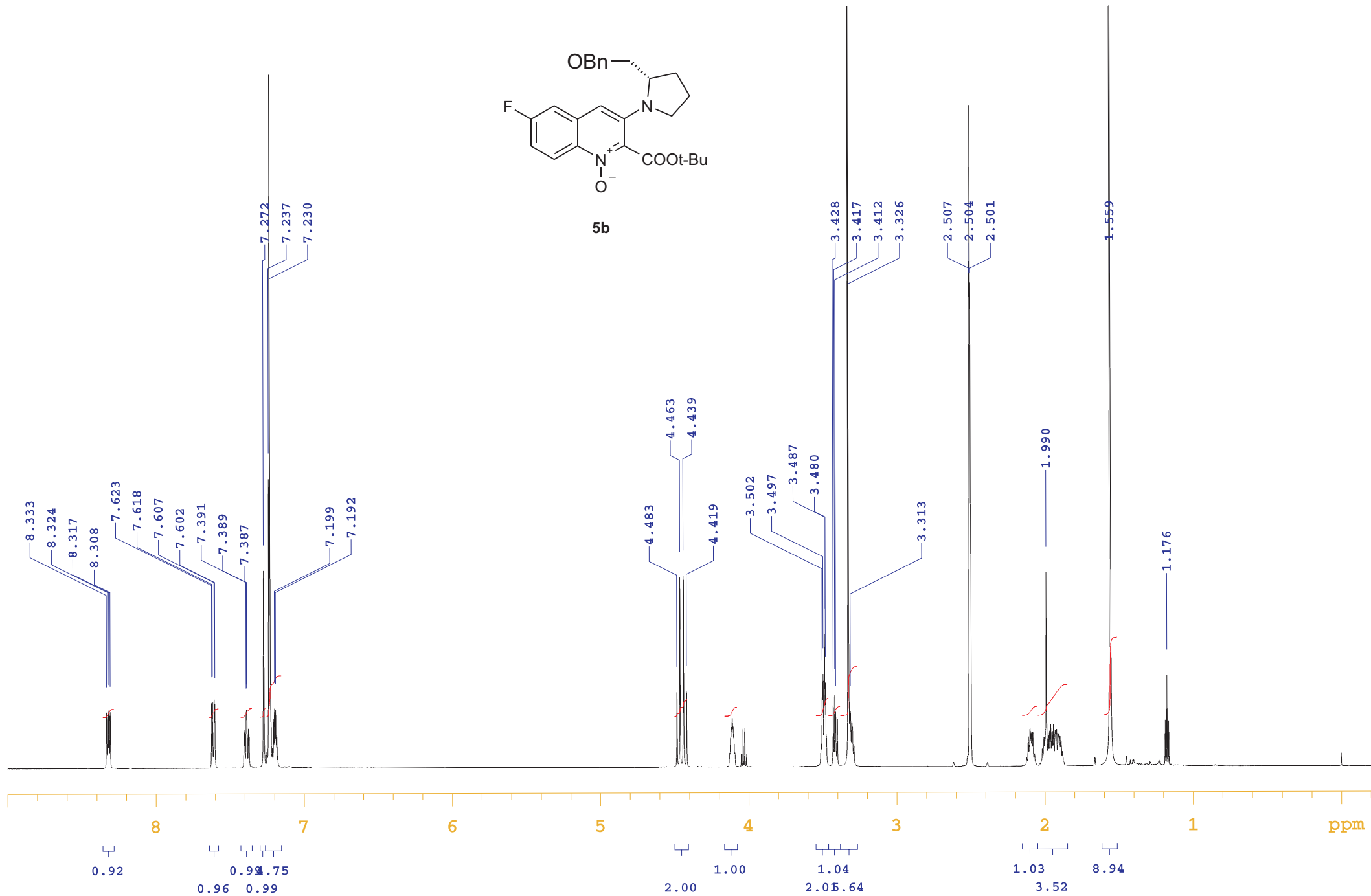


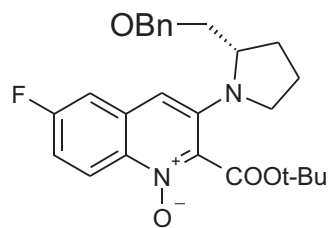
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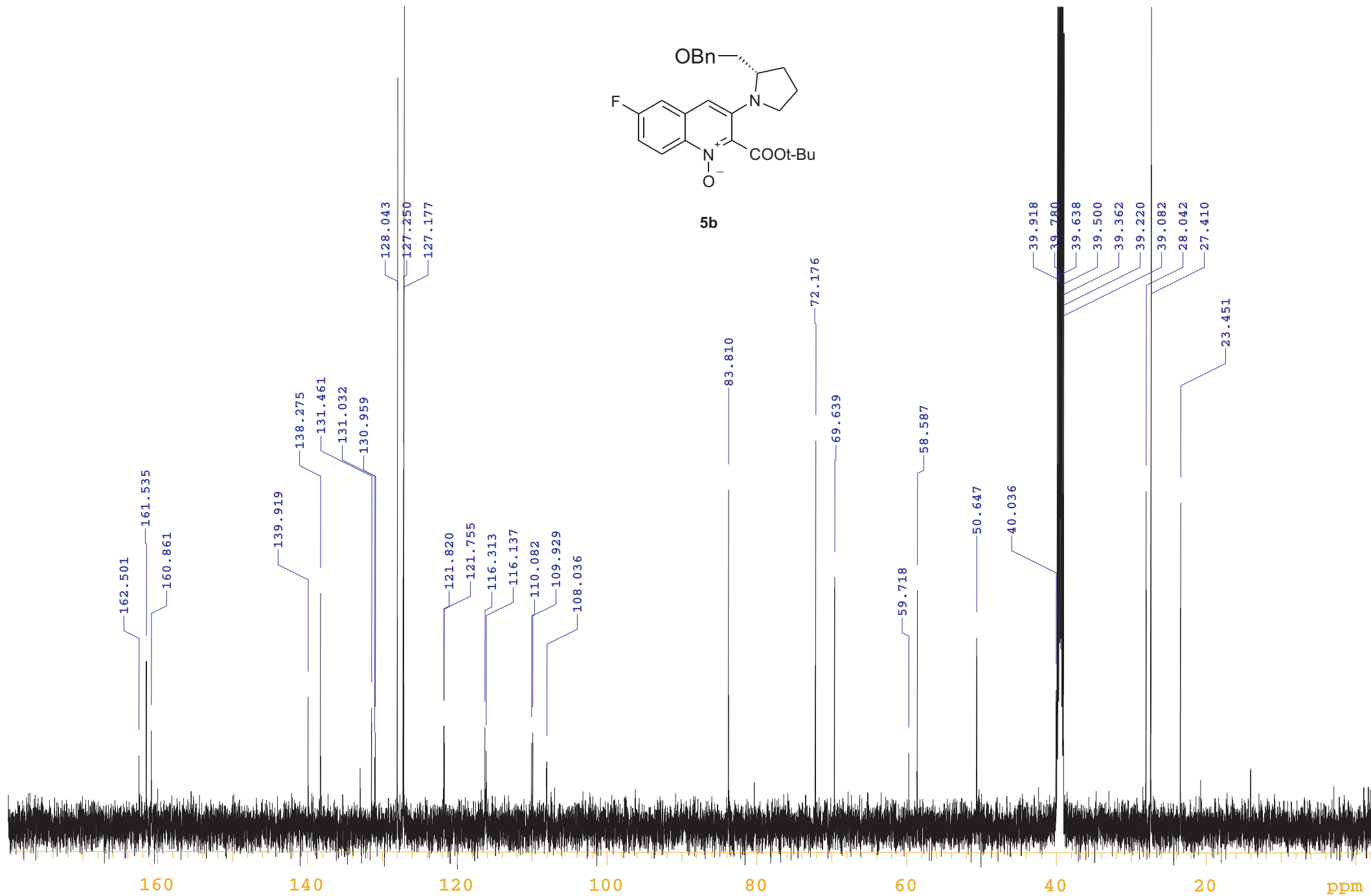


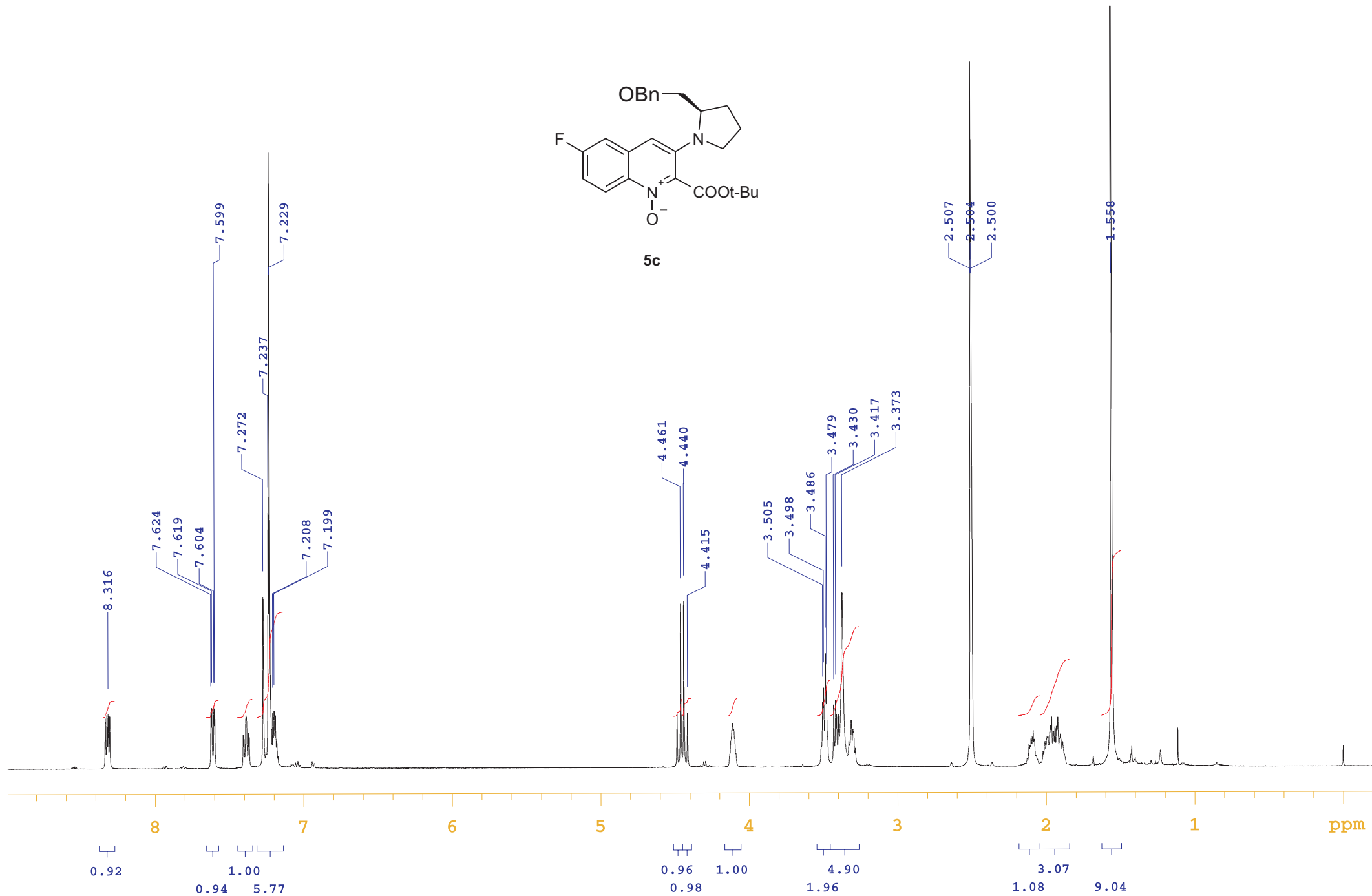
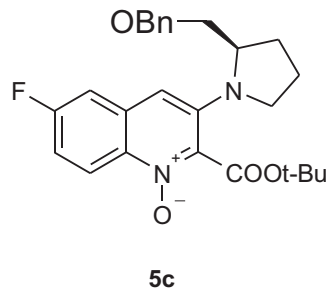
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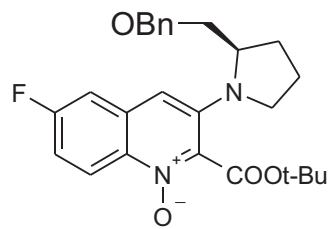




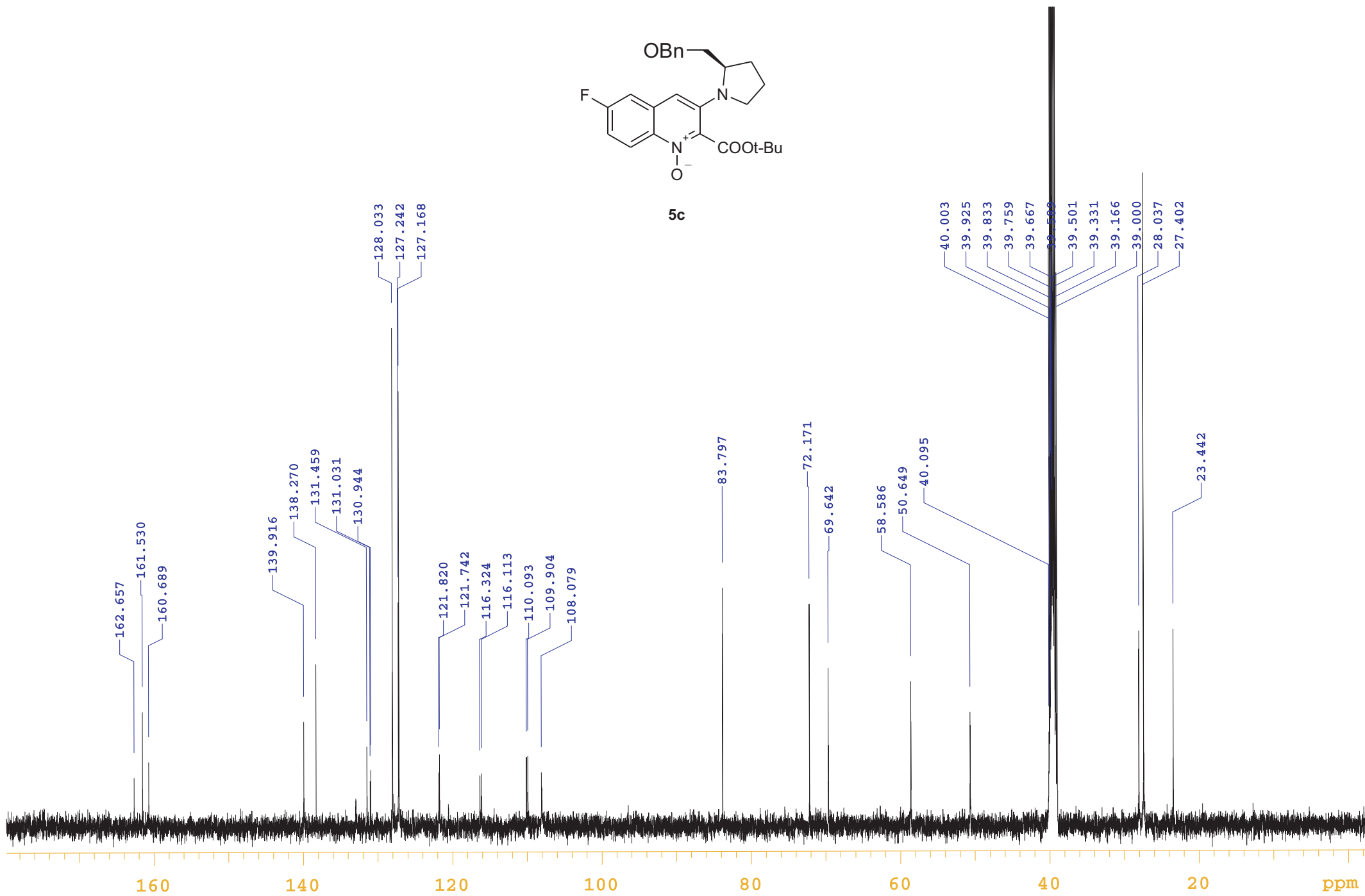
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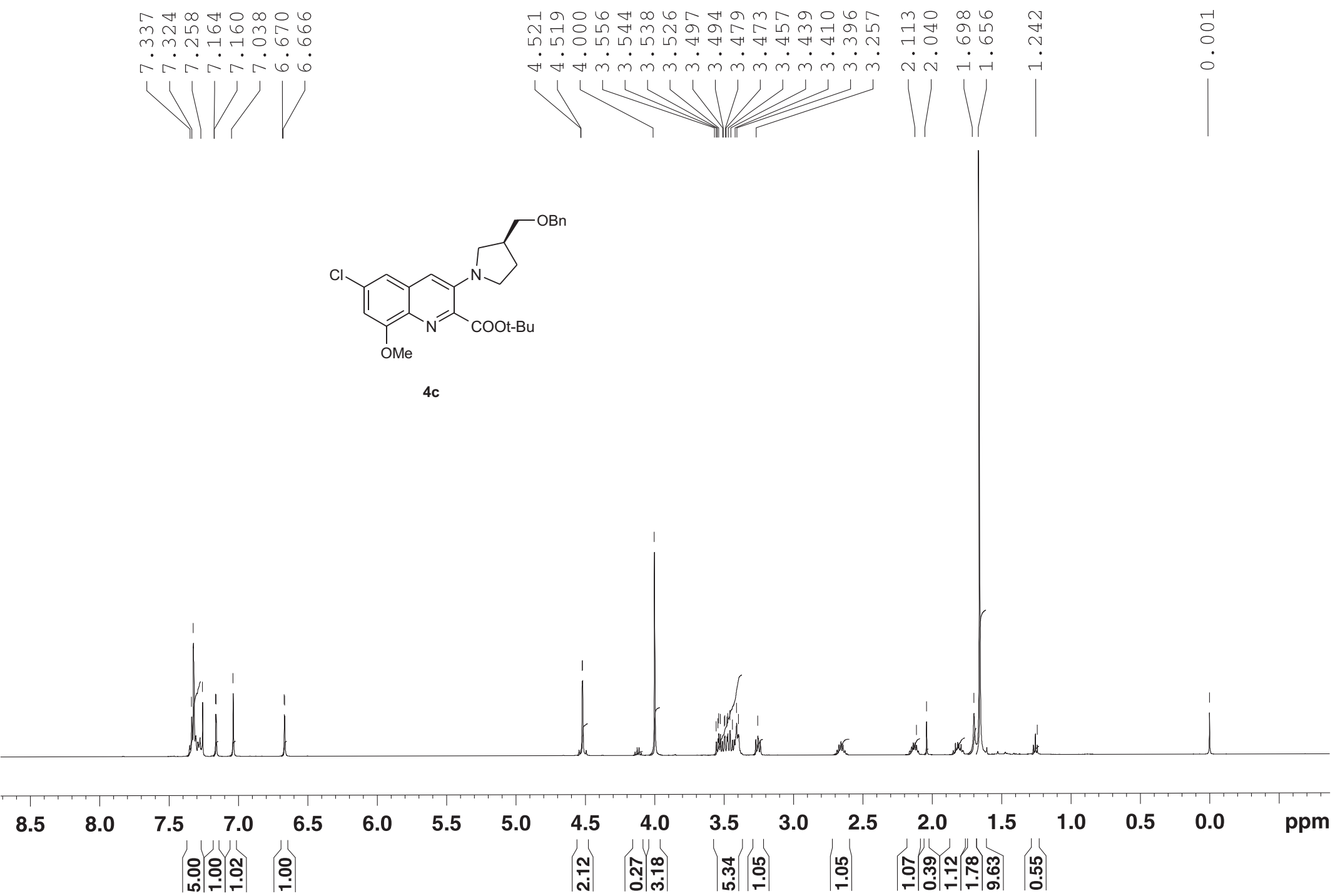






5c





167.14

156.28

141.76

140.61

138.14

133.53

131.24

130.51

128.39

127.66

127.61

116.45

114.12

105.62

82.82

77.26

77.00

76.75

73.28

72.07

56.17

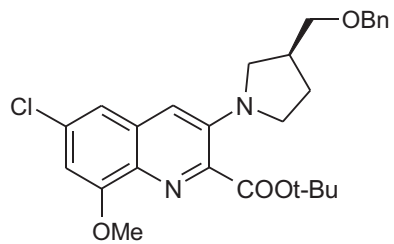
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49.49

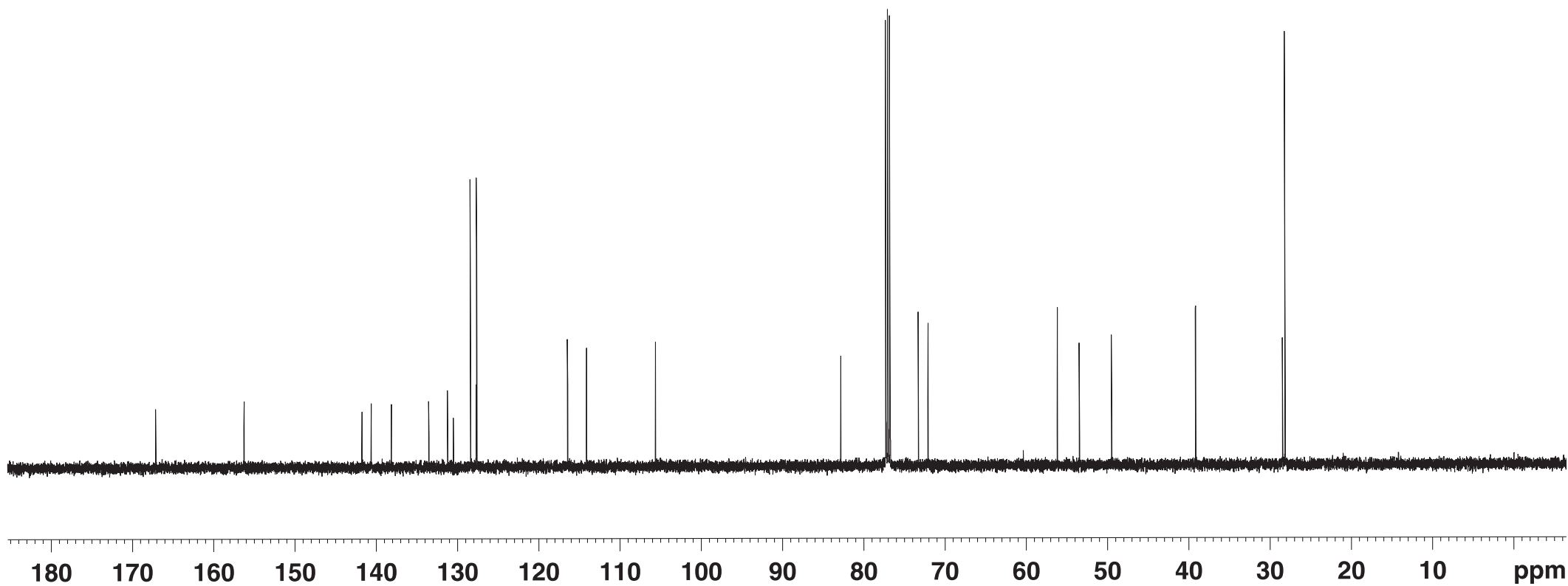
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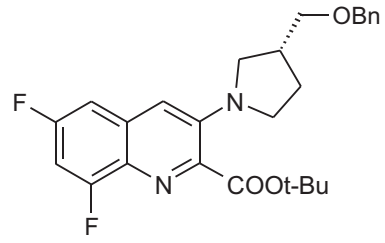
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28.14

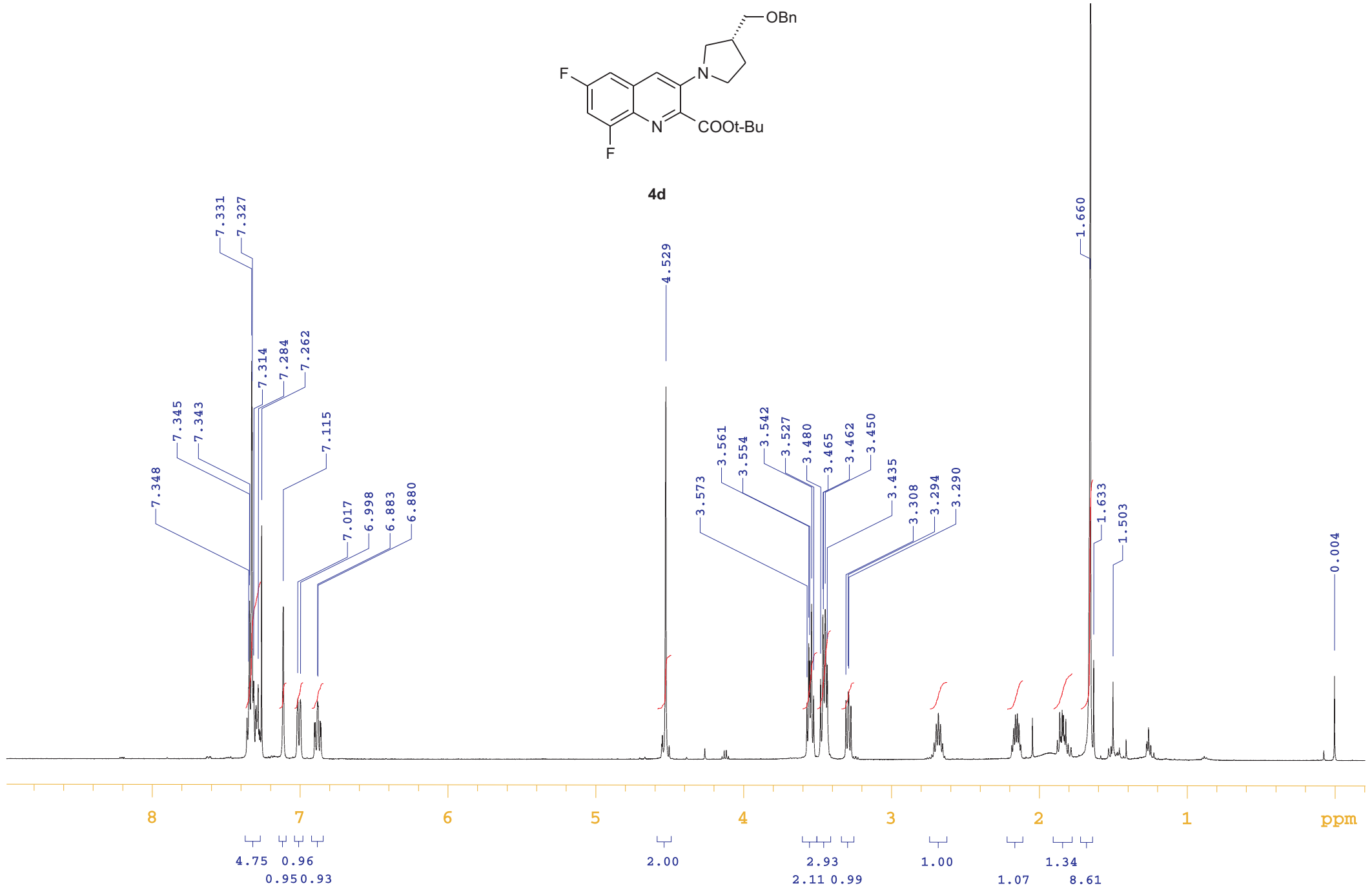


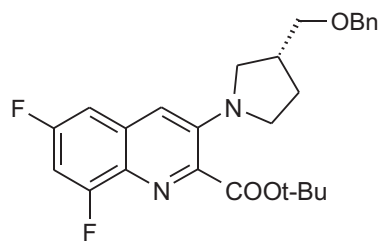
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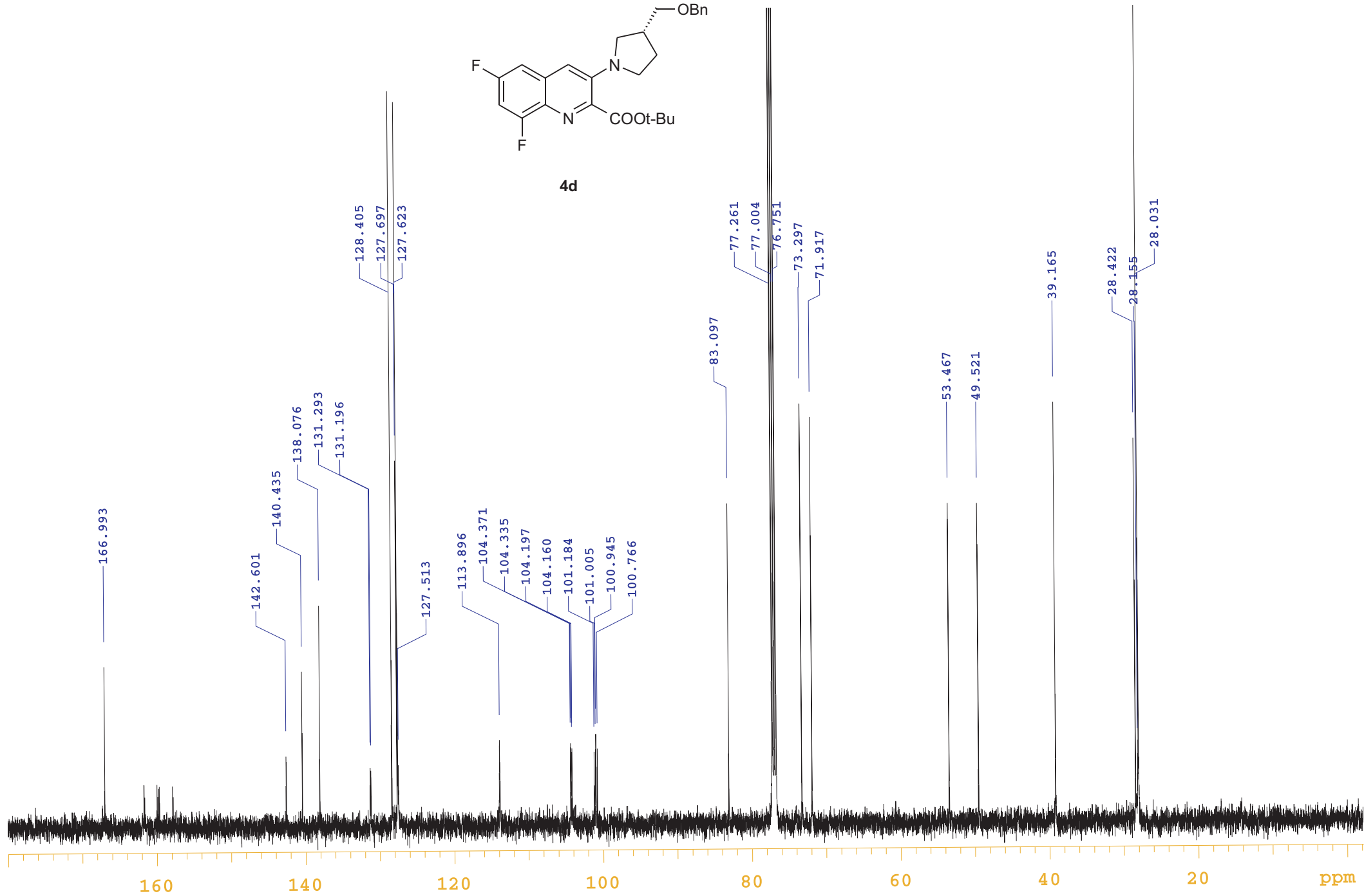


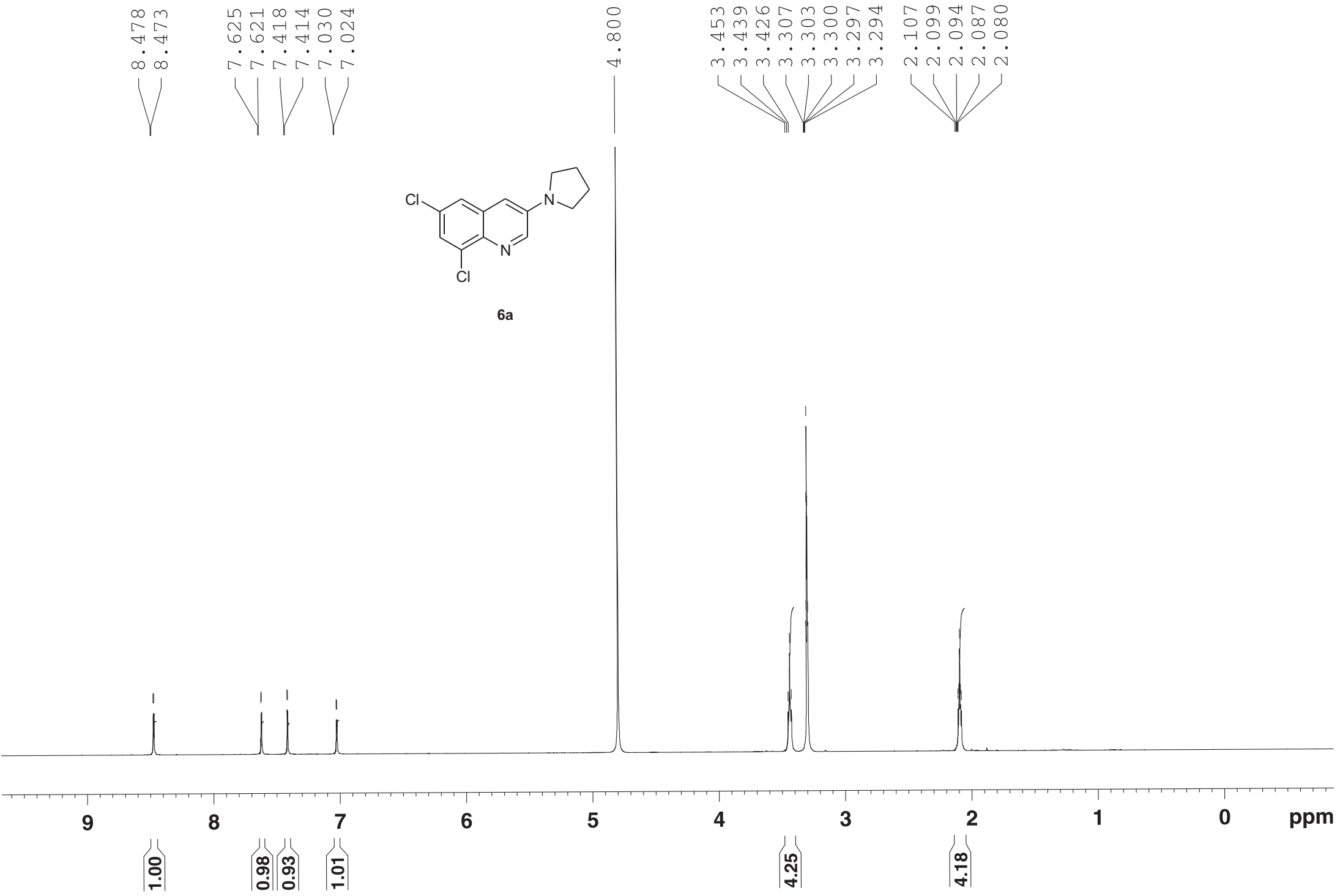
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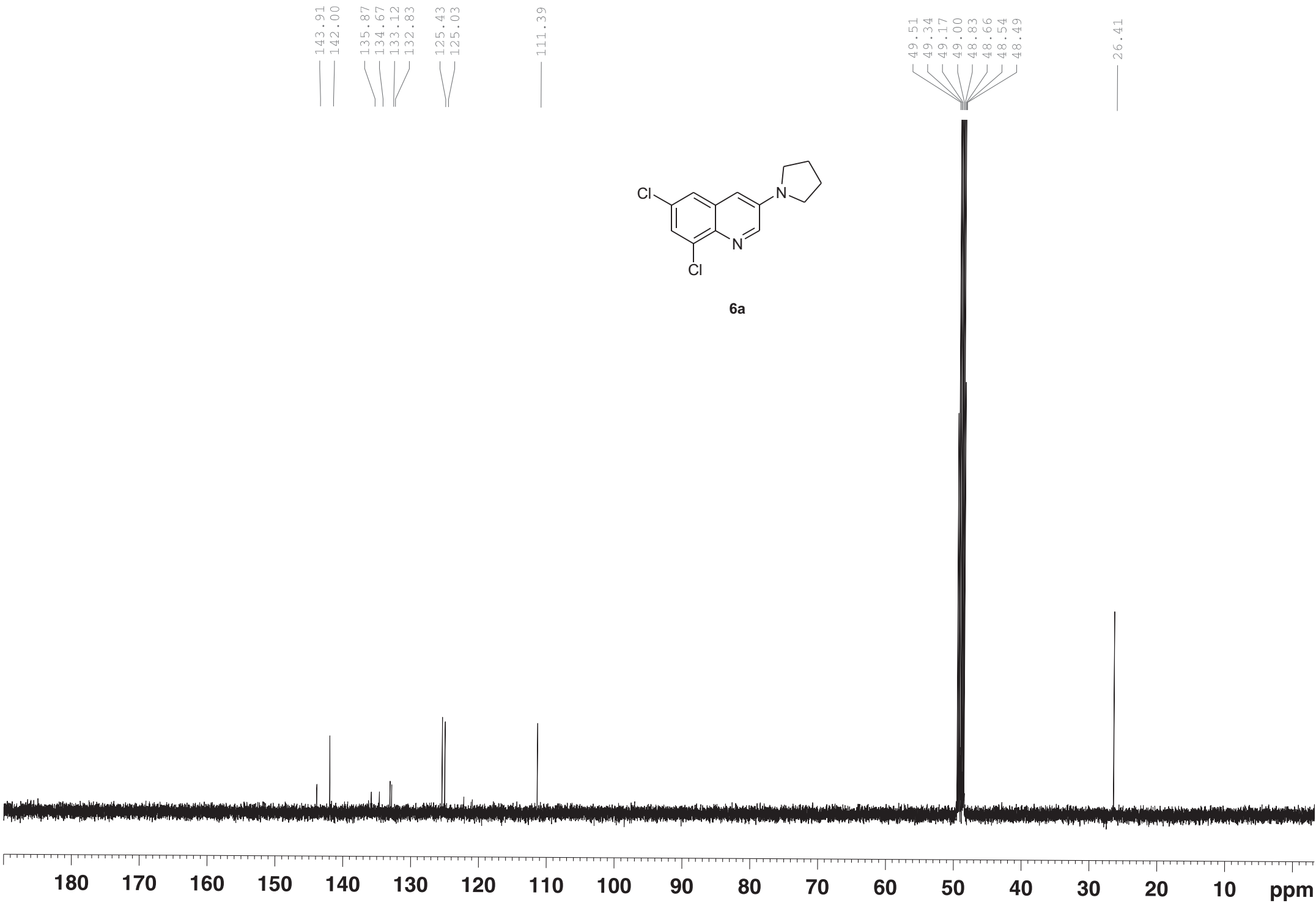


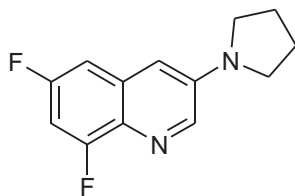


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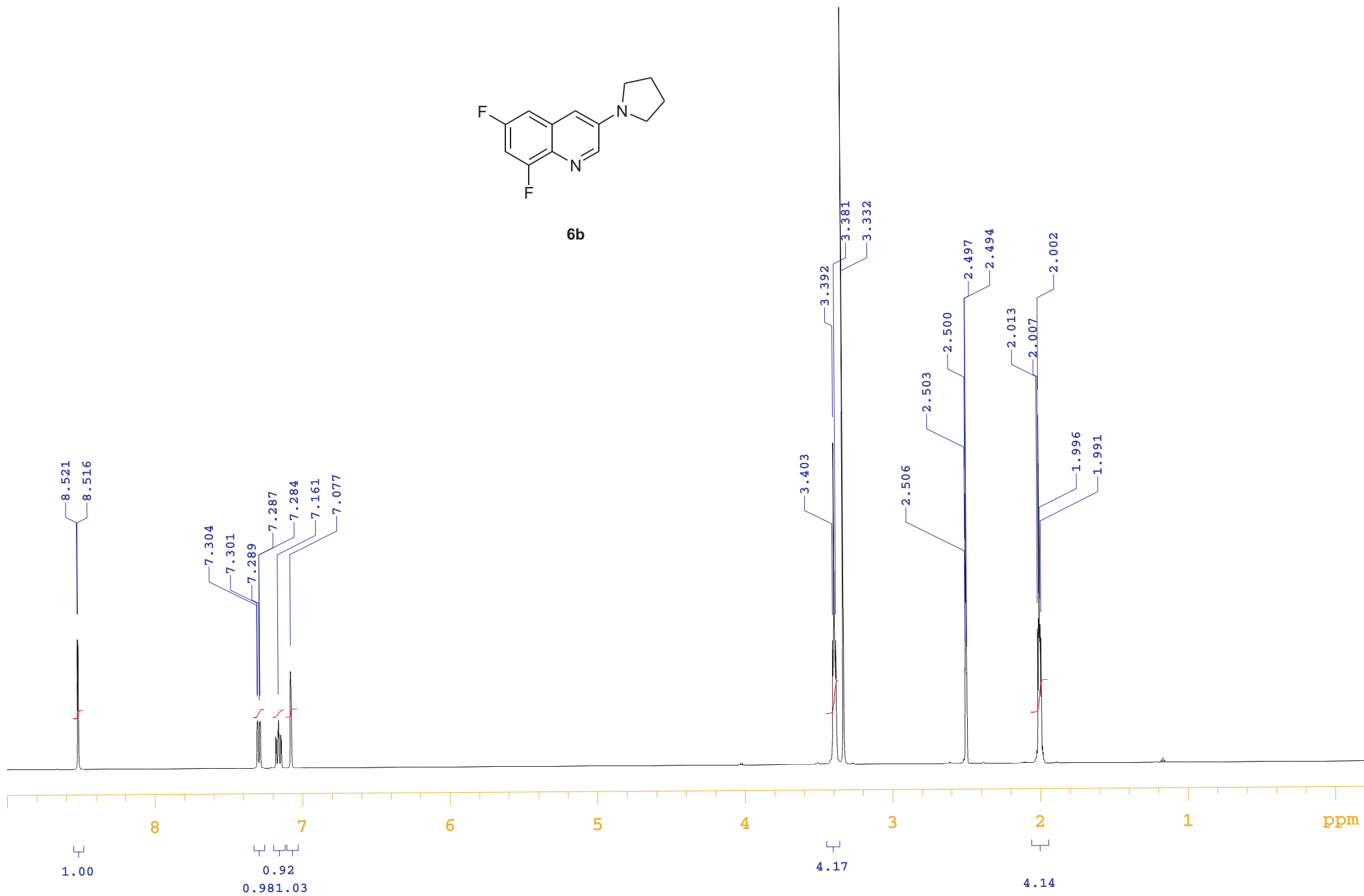


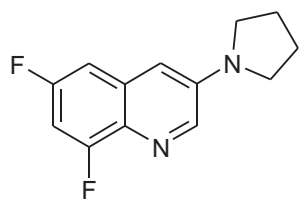




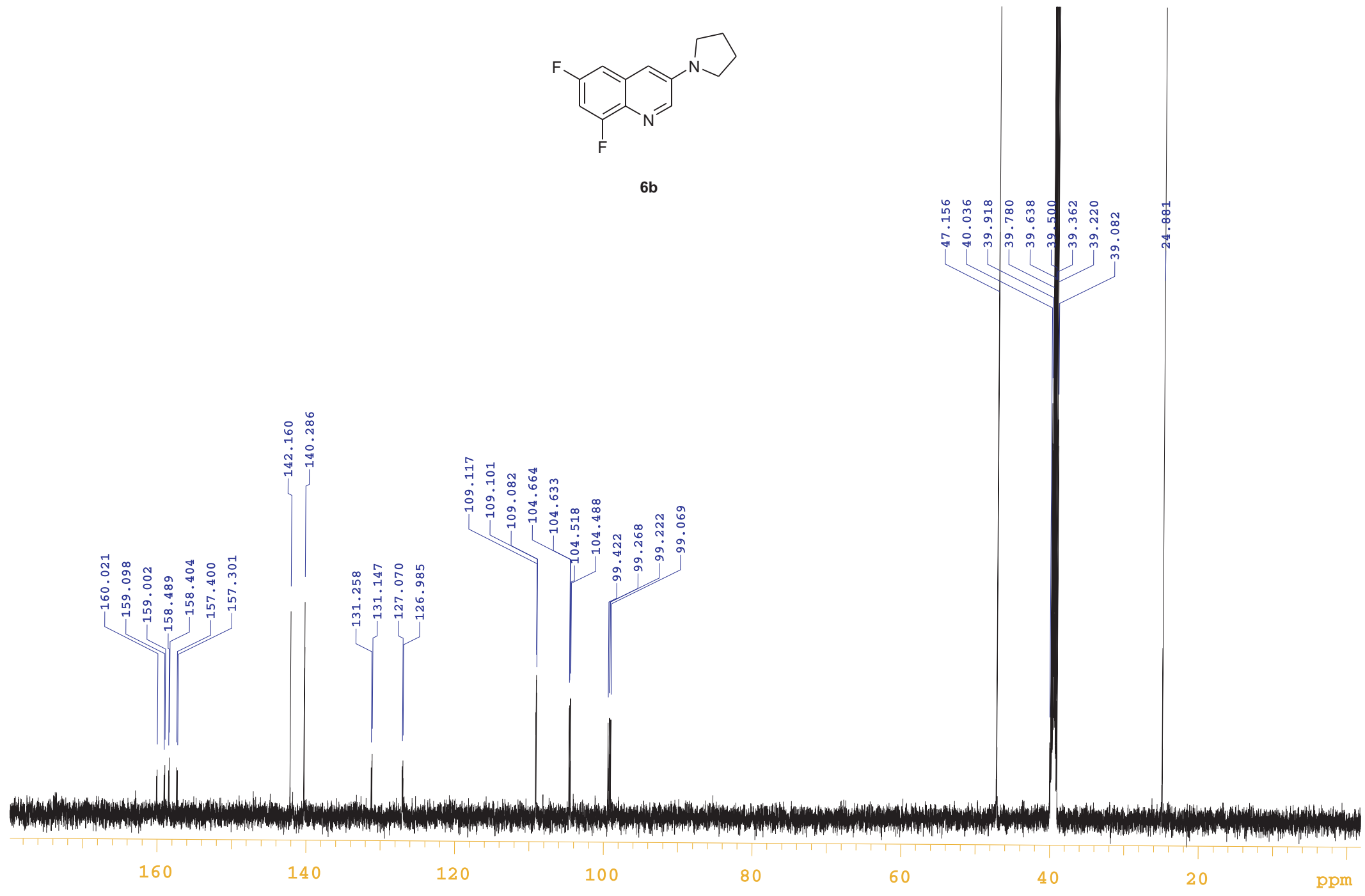


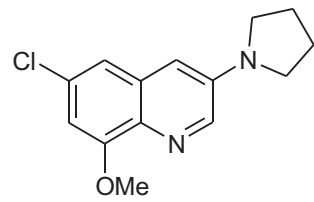
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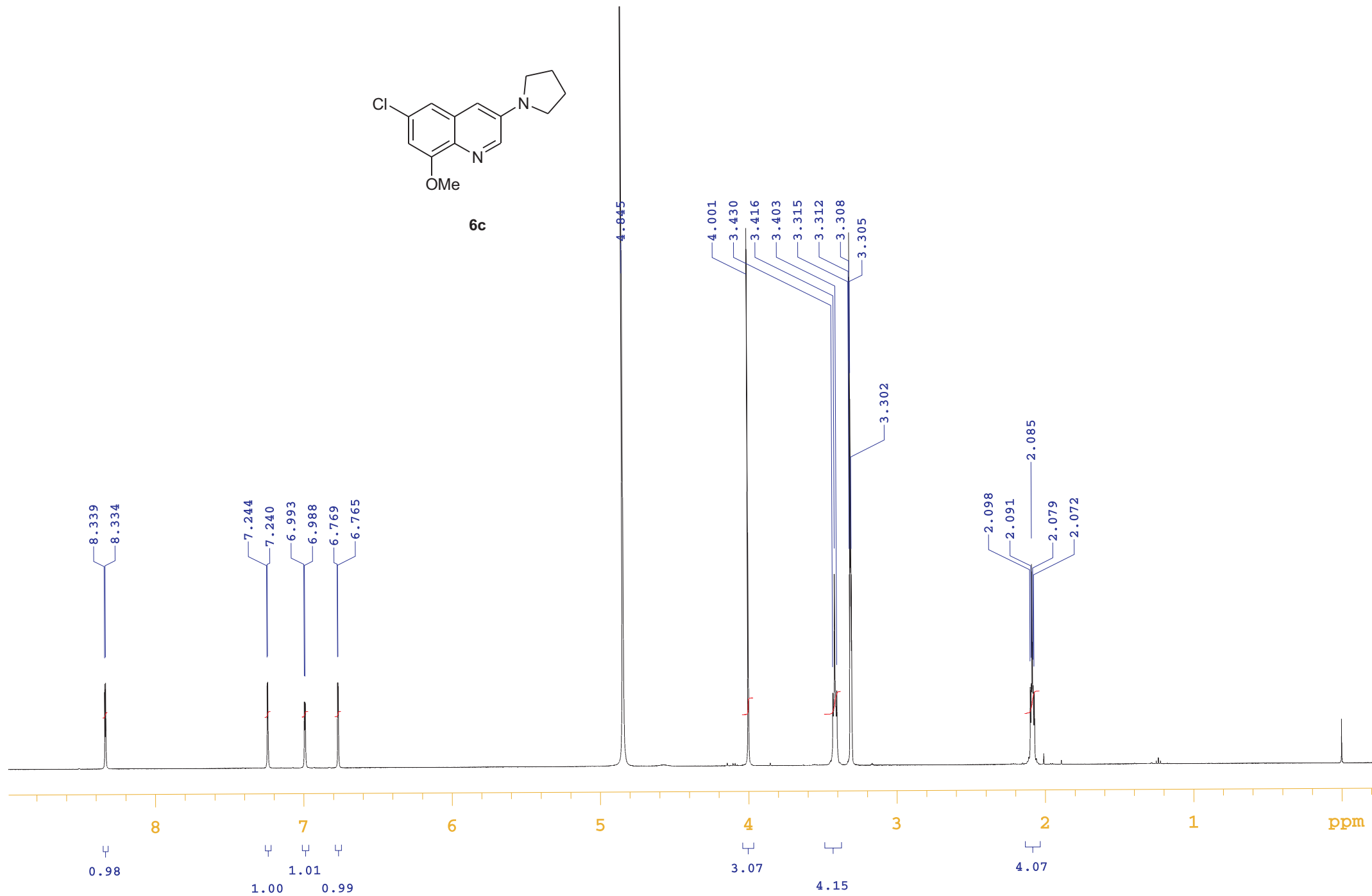


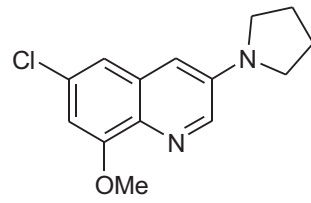
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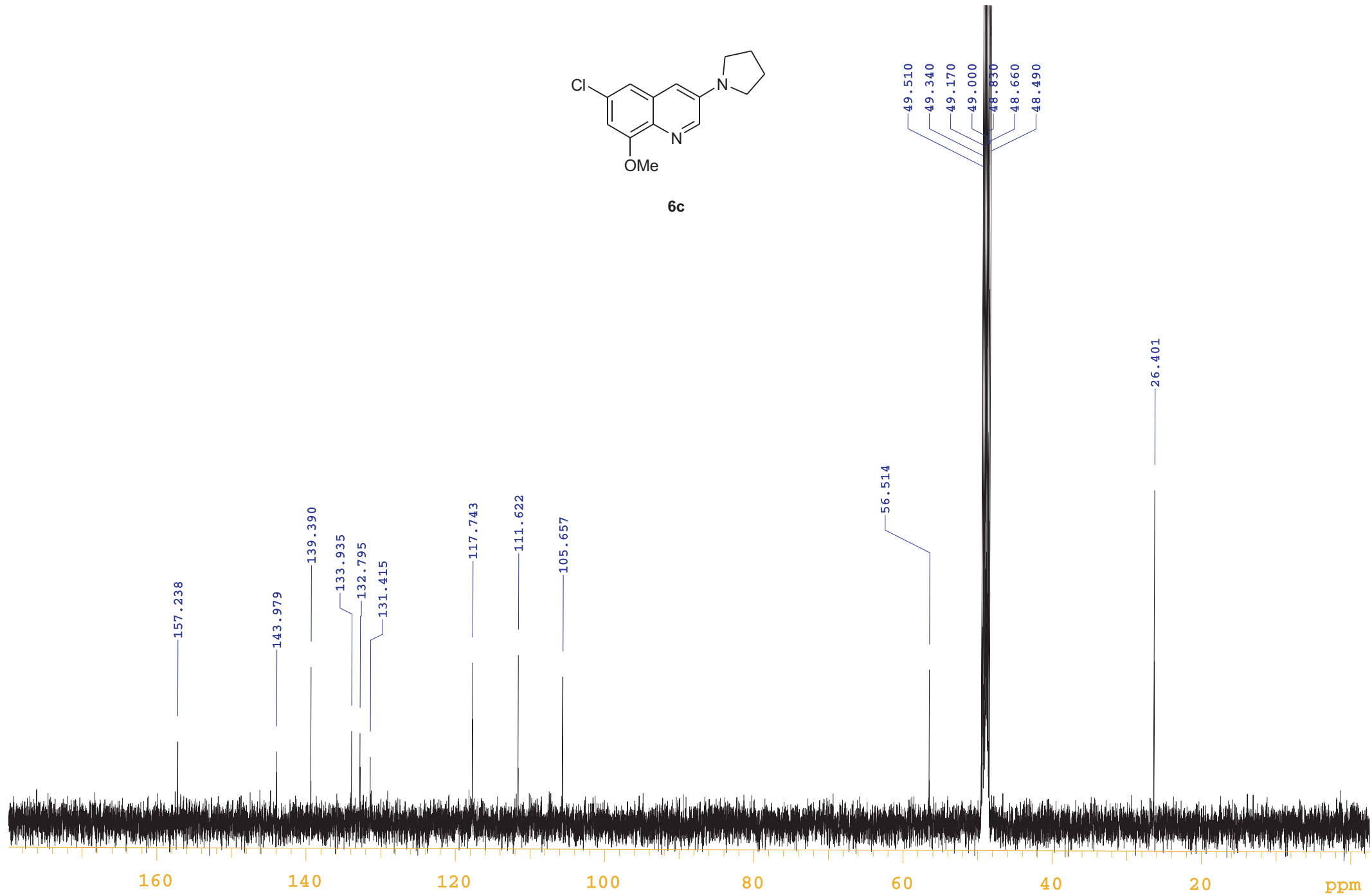


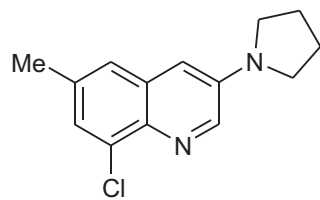
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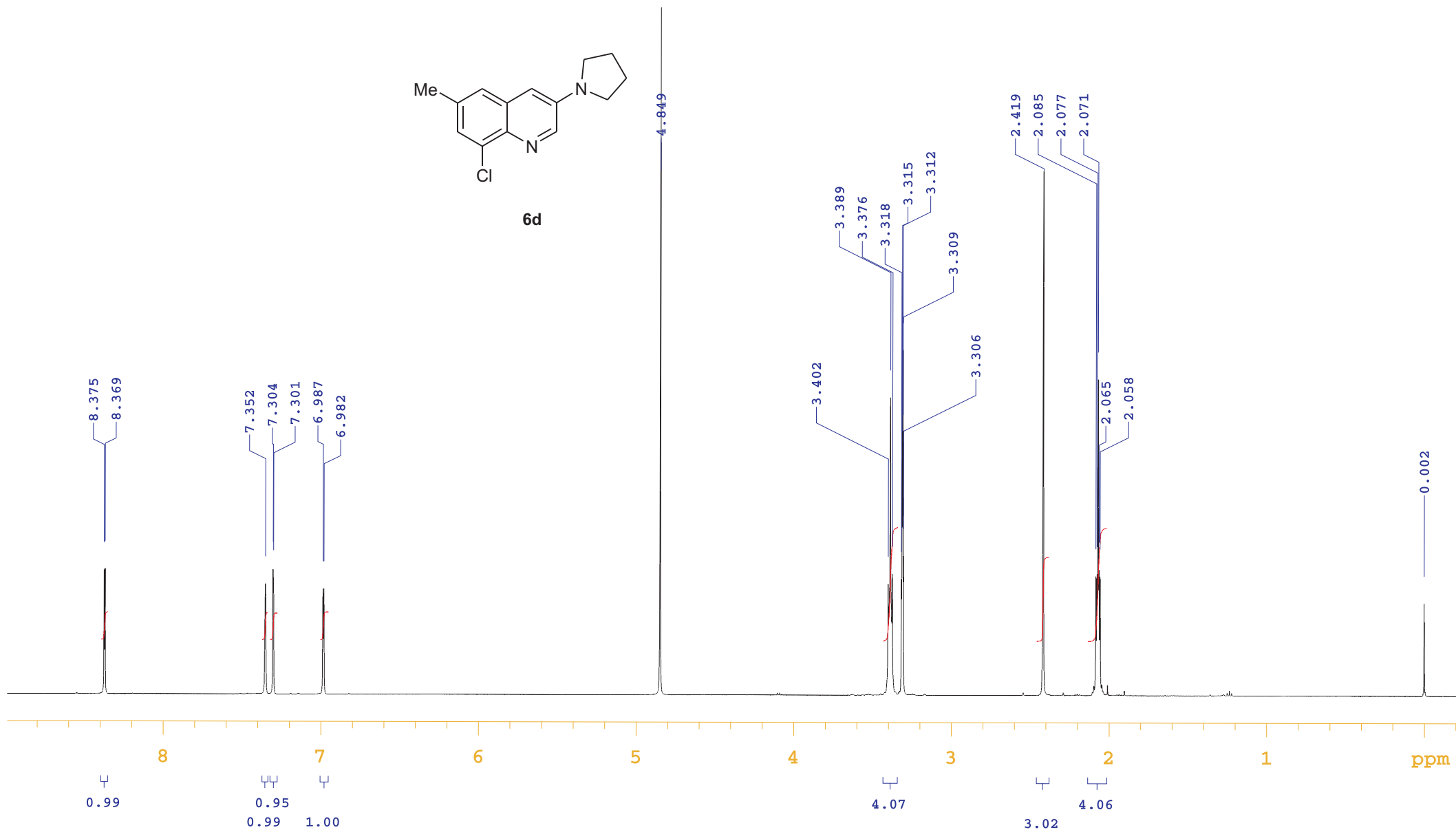


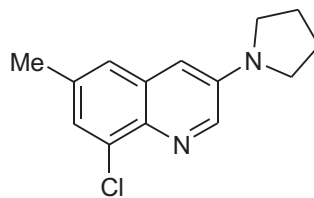
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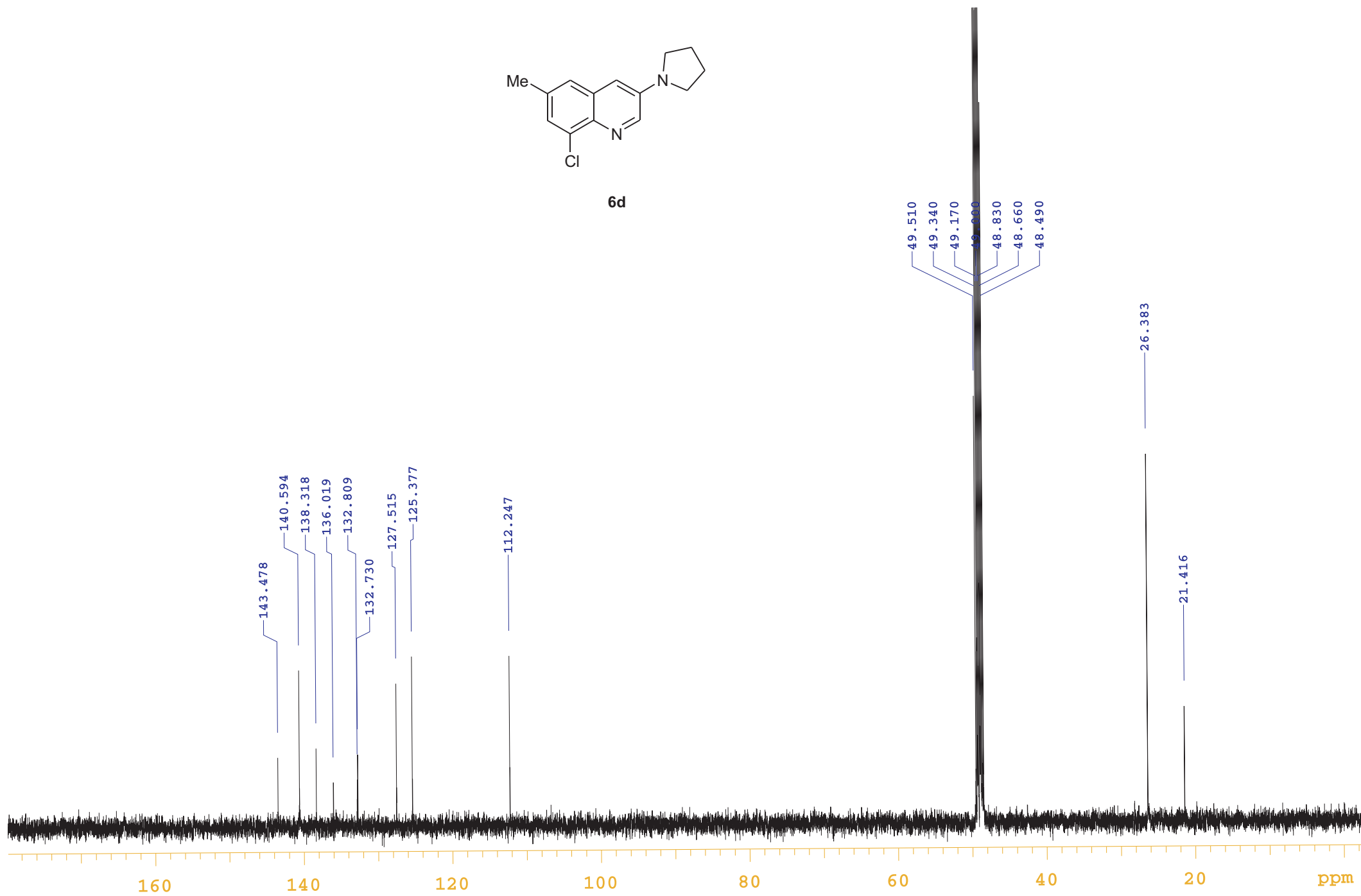


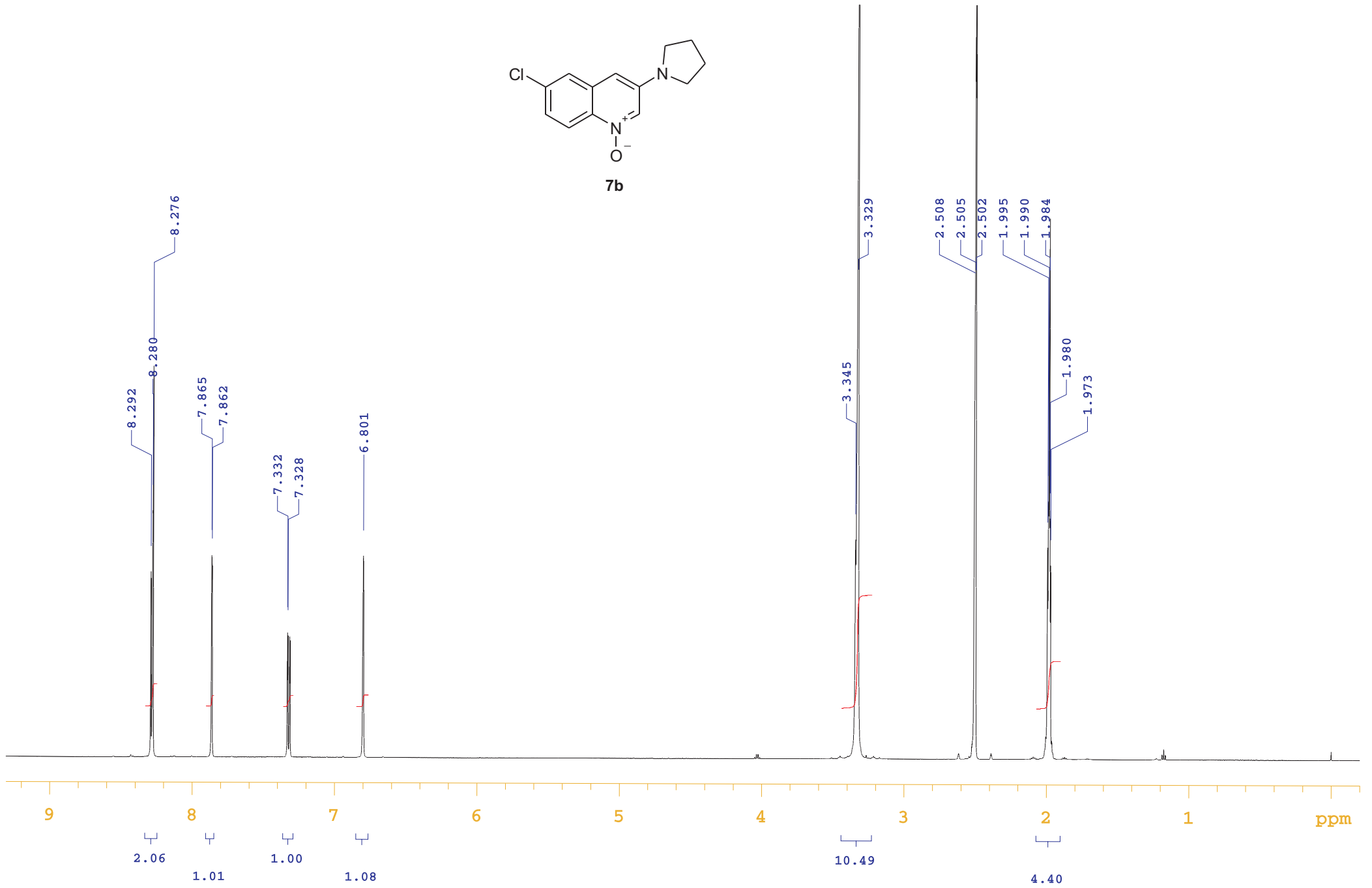
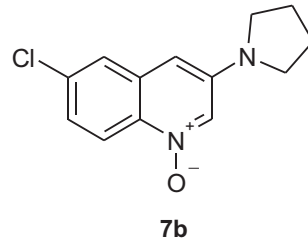
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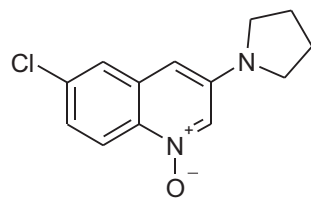




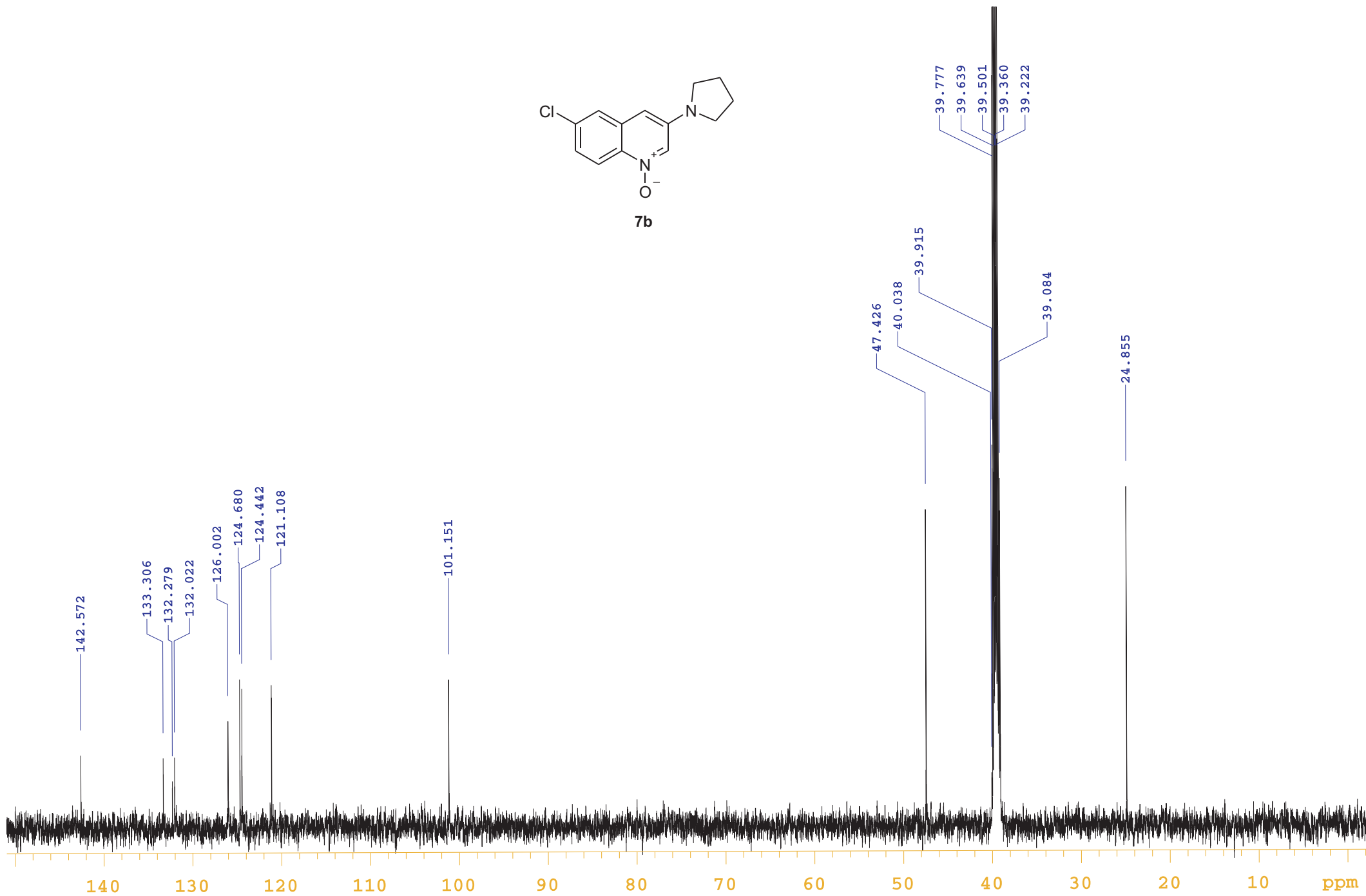
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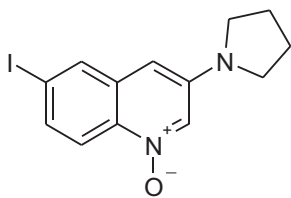




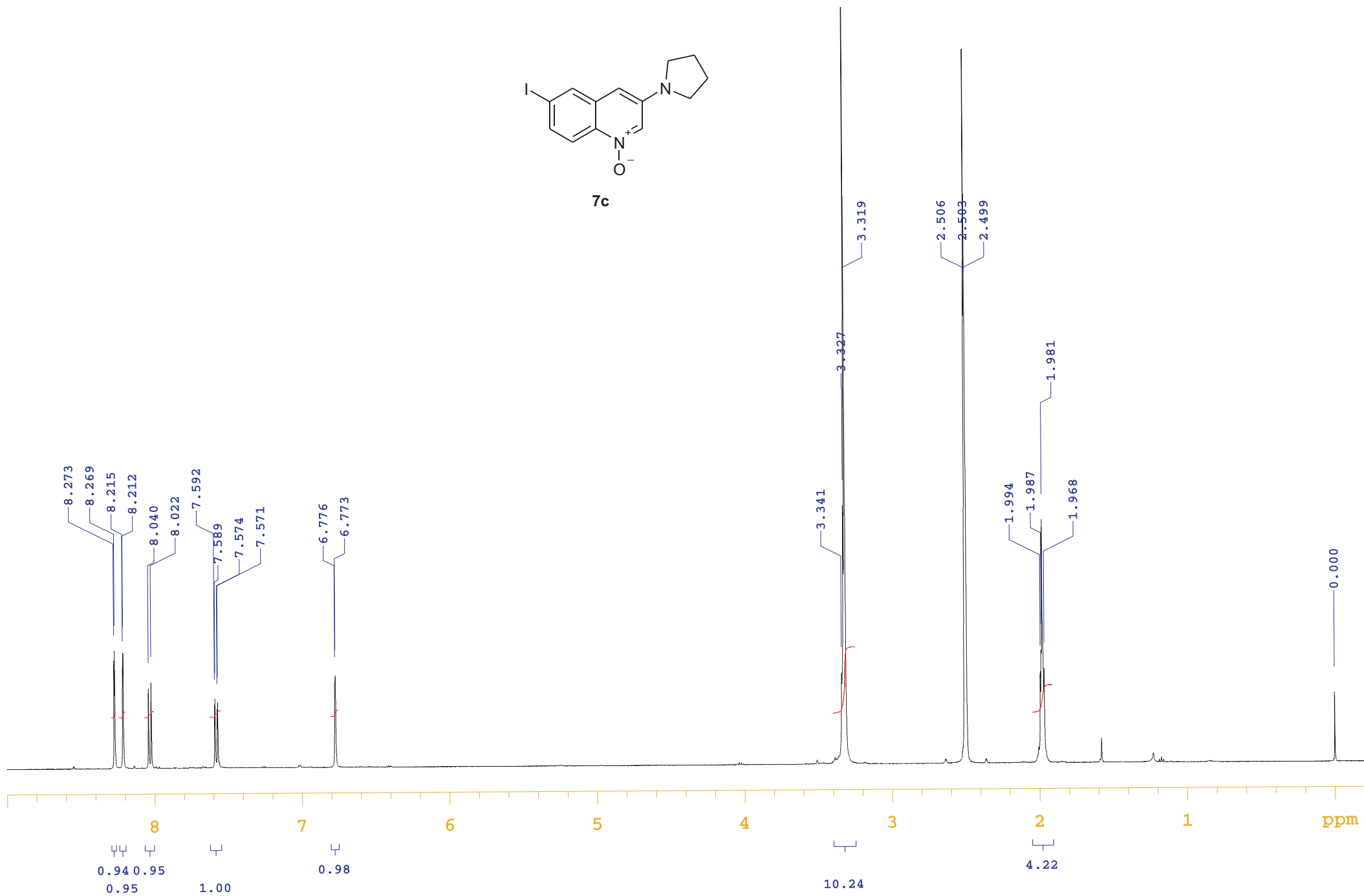


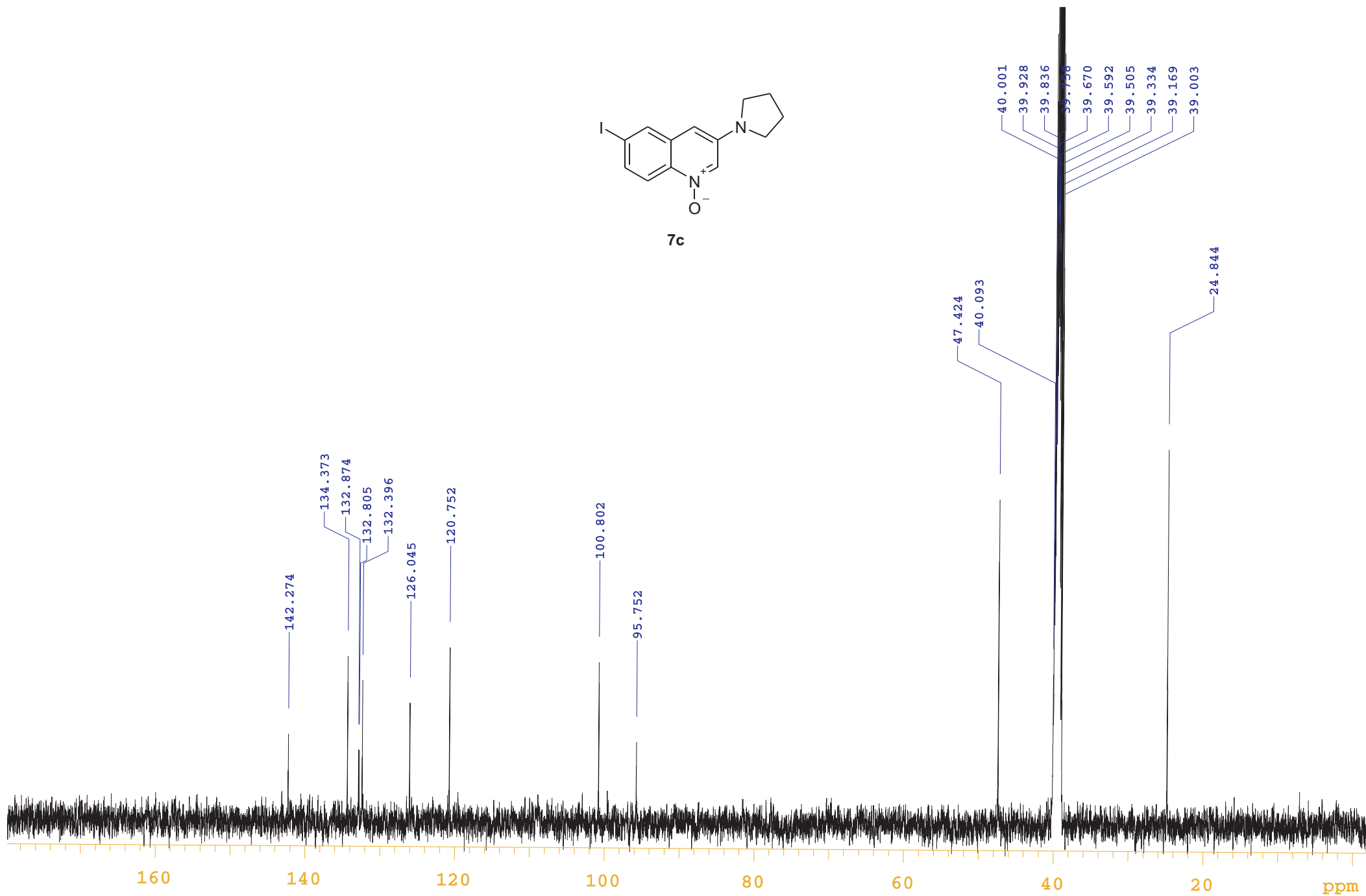
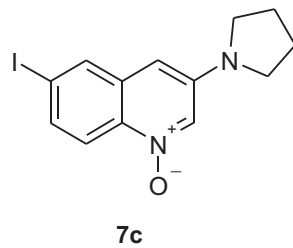
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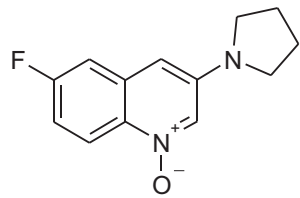




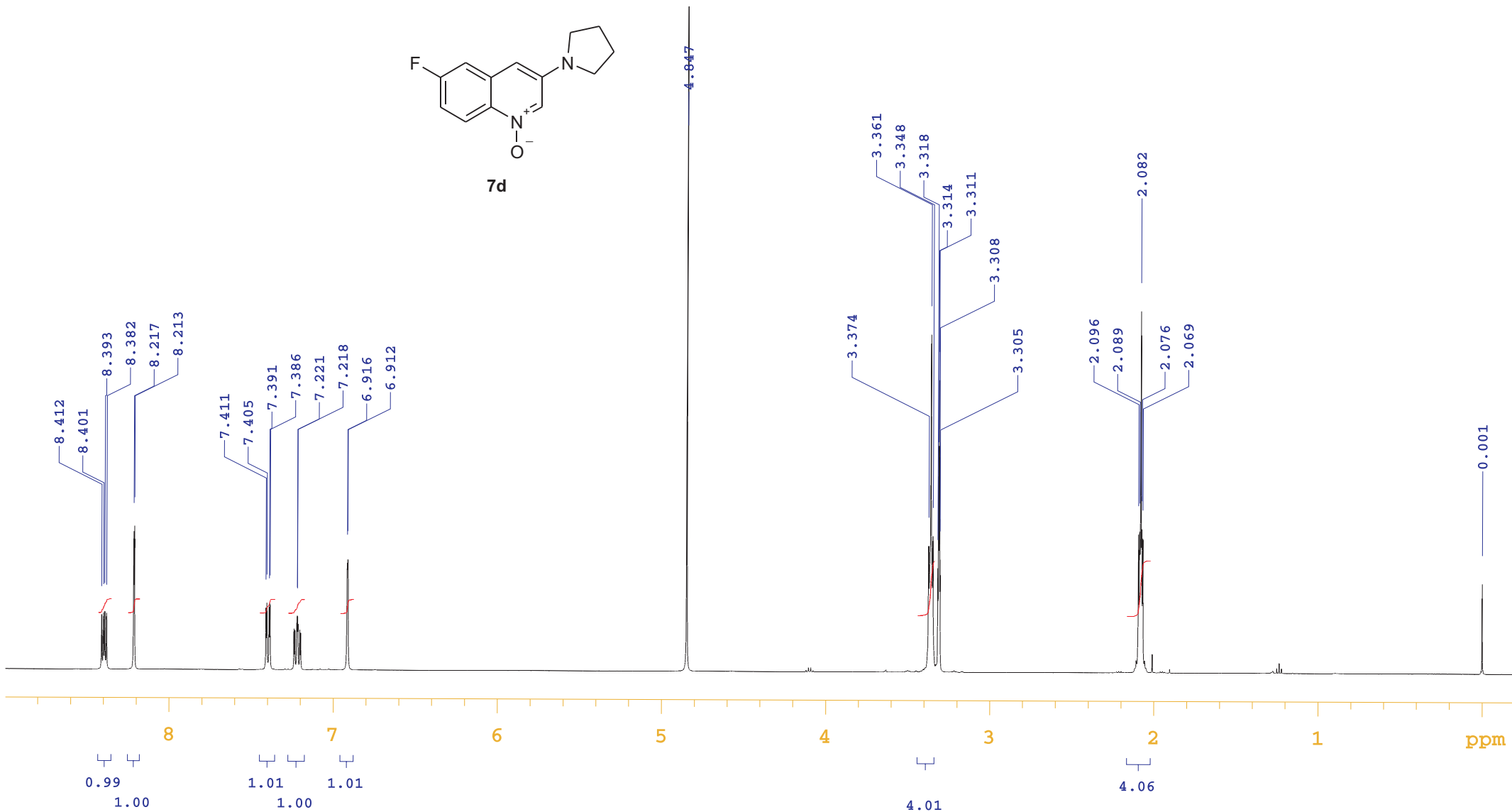
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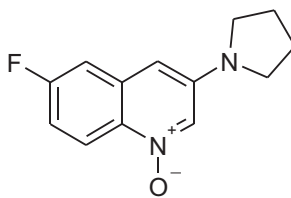




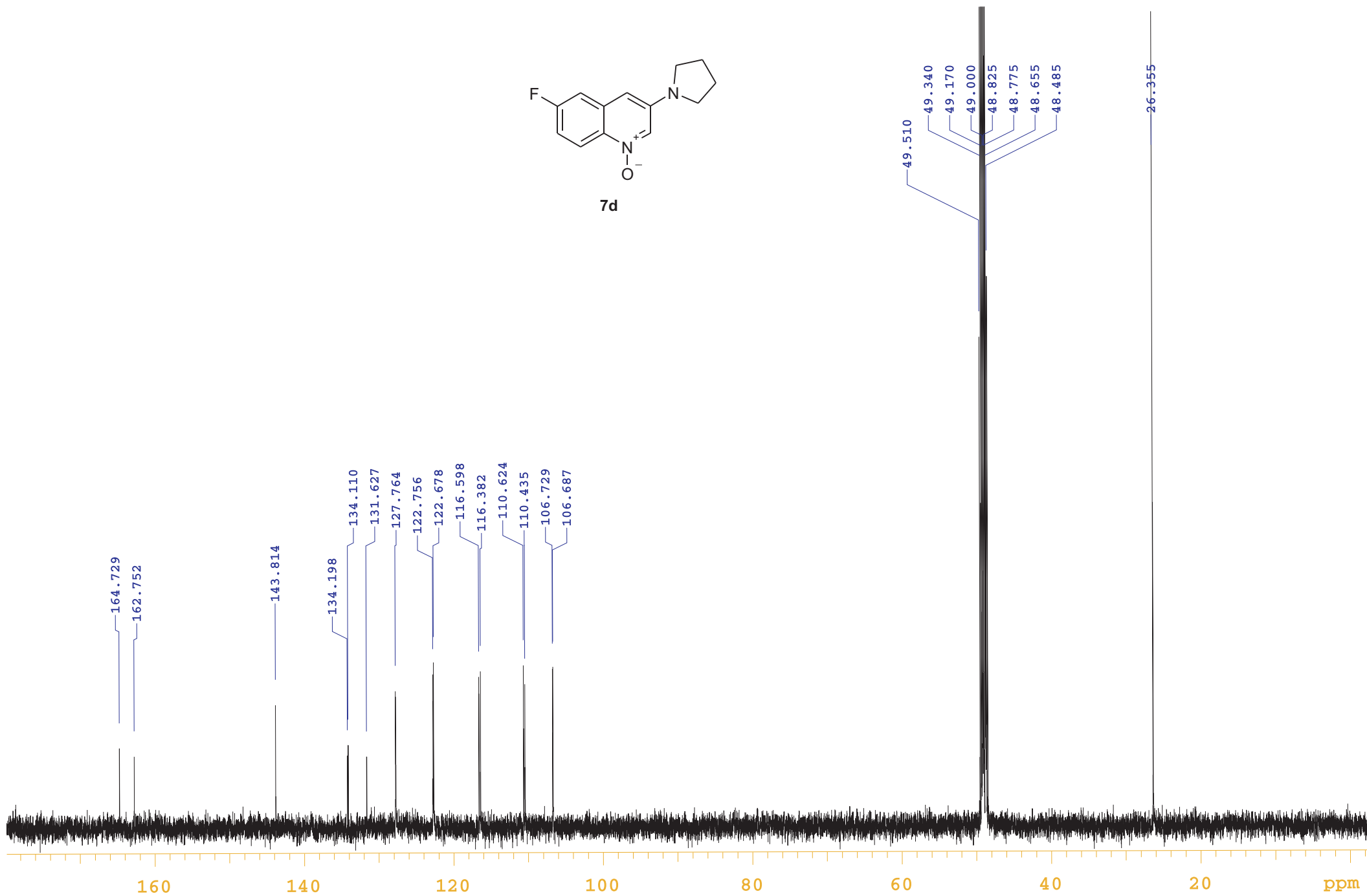


7d





7d



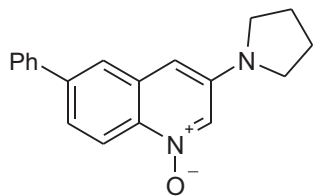
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8.298
7.795
7.792
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7.713
7.688
7.673
7.655
7.652
7.638
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7.497
7.482
7.467
7.446
7.416
7.401
7.387
7.262
6.756

5.294

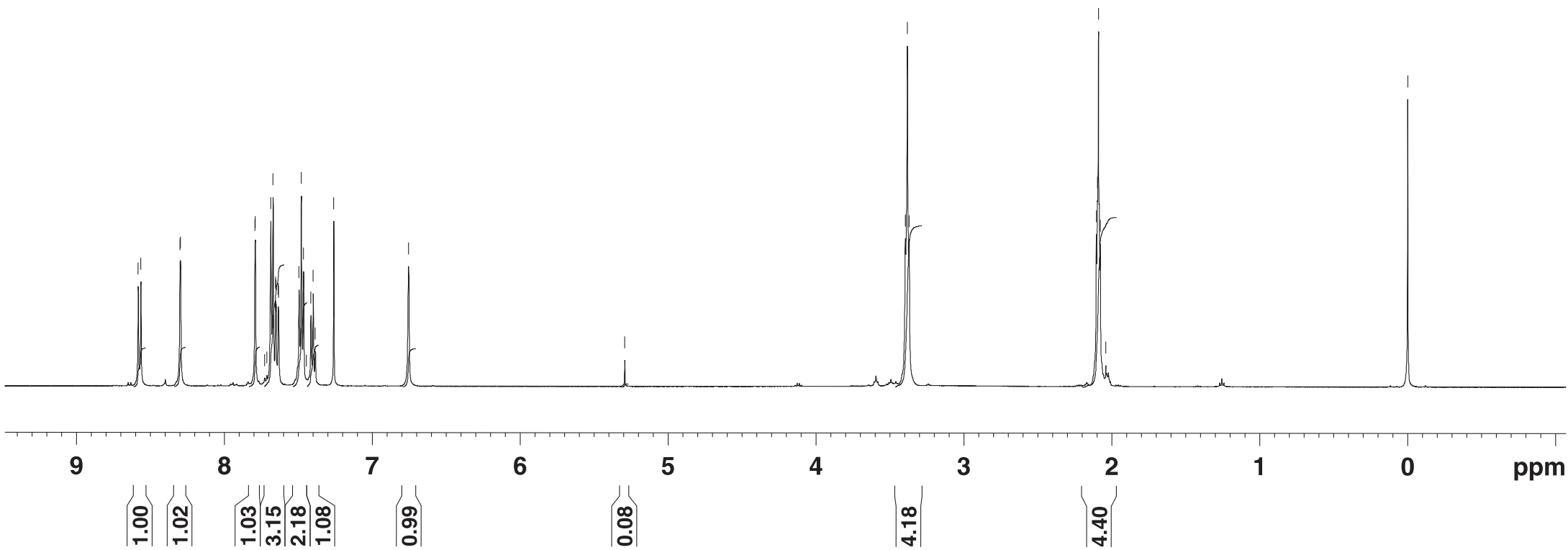
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3.385
3.372

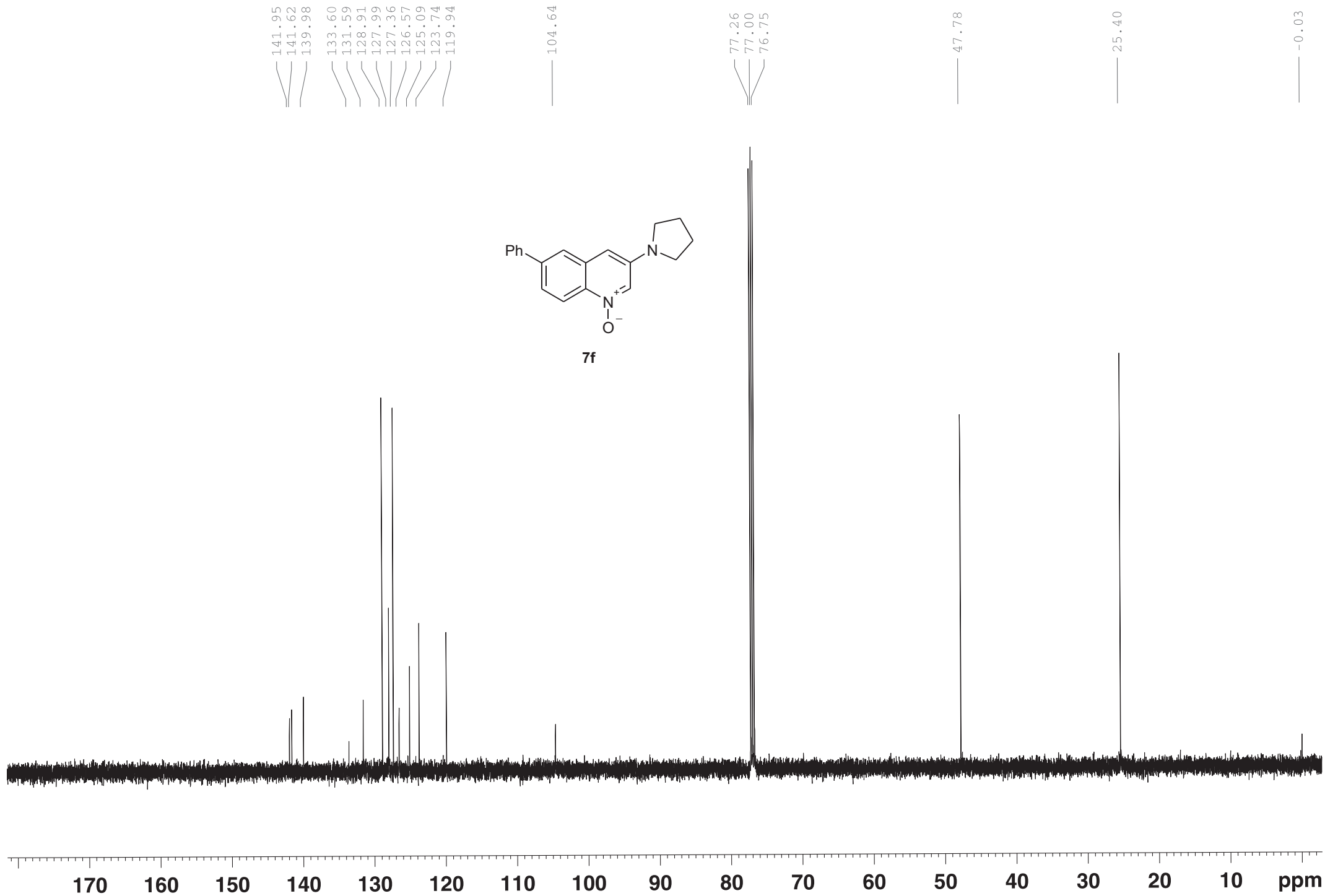
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2.099
2.093
2.080
2.041

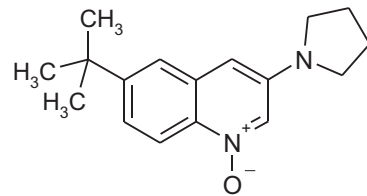
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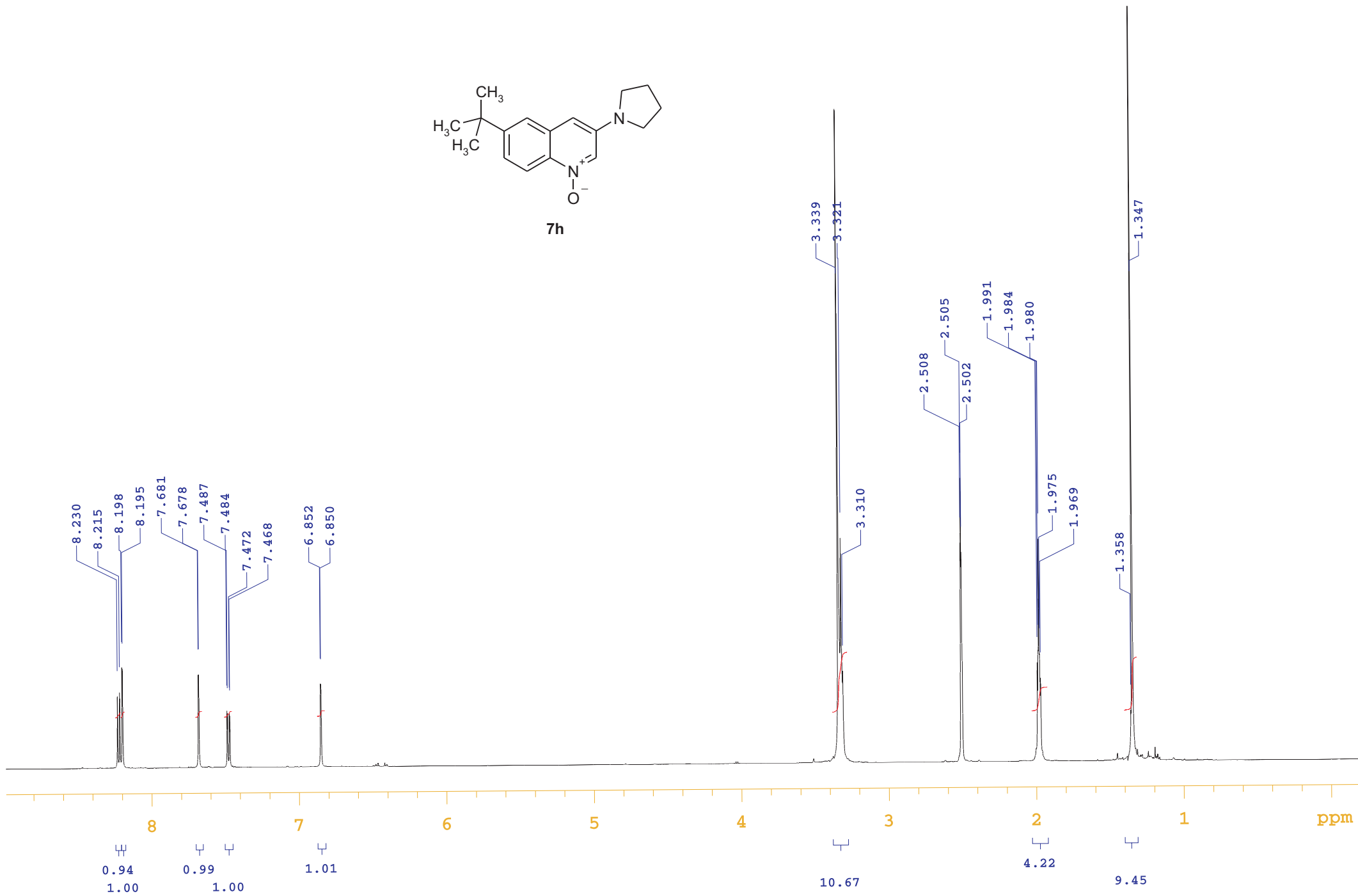
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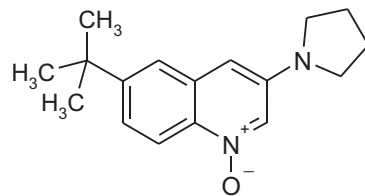




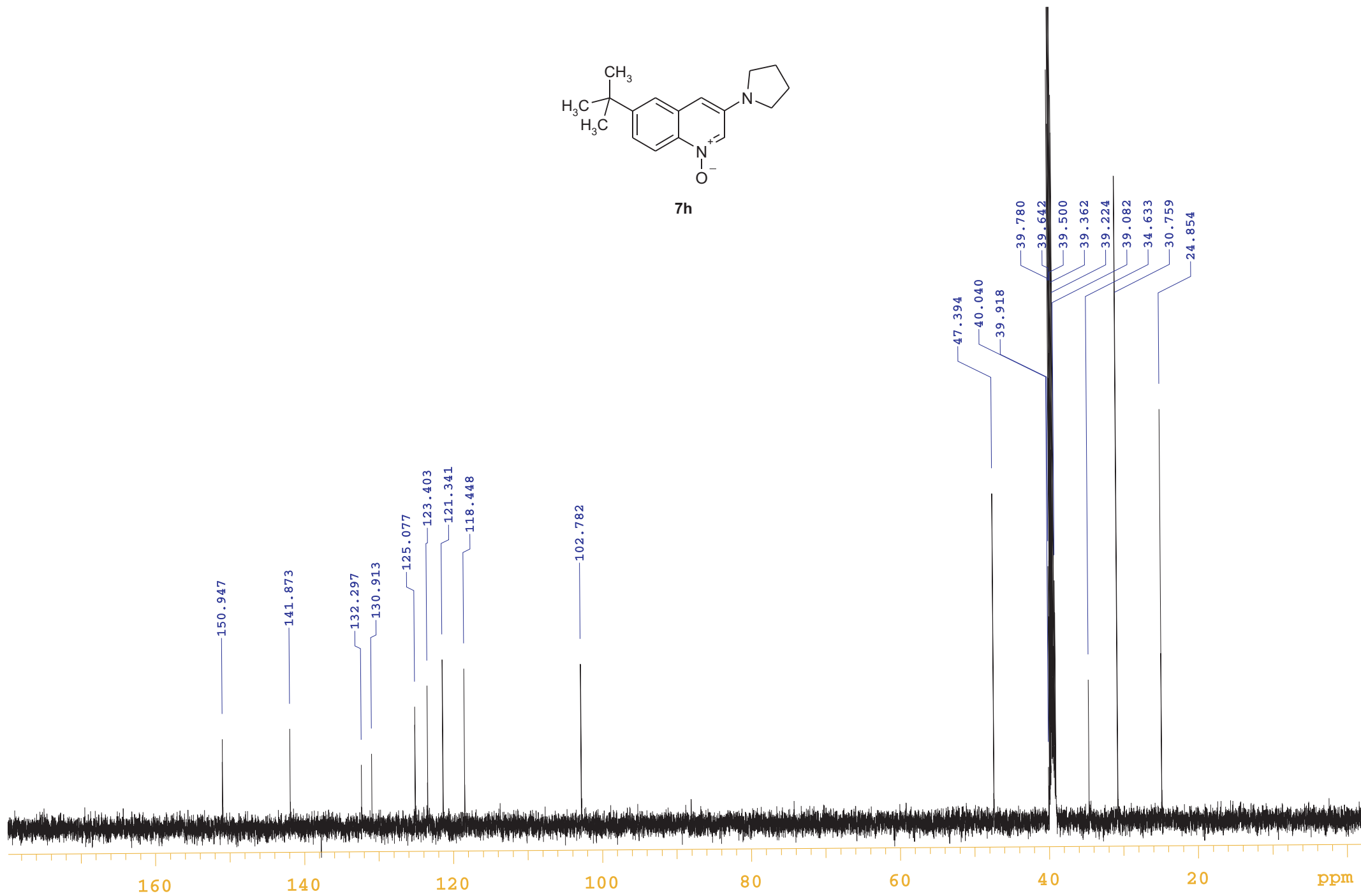


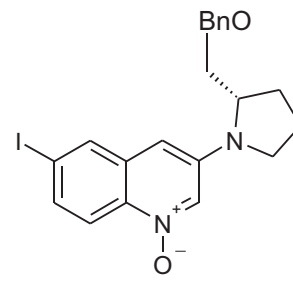
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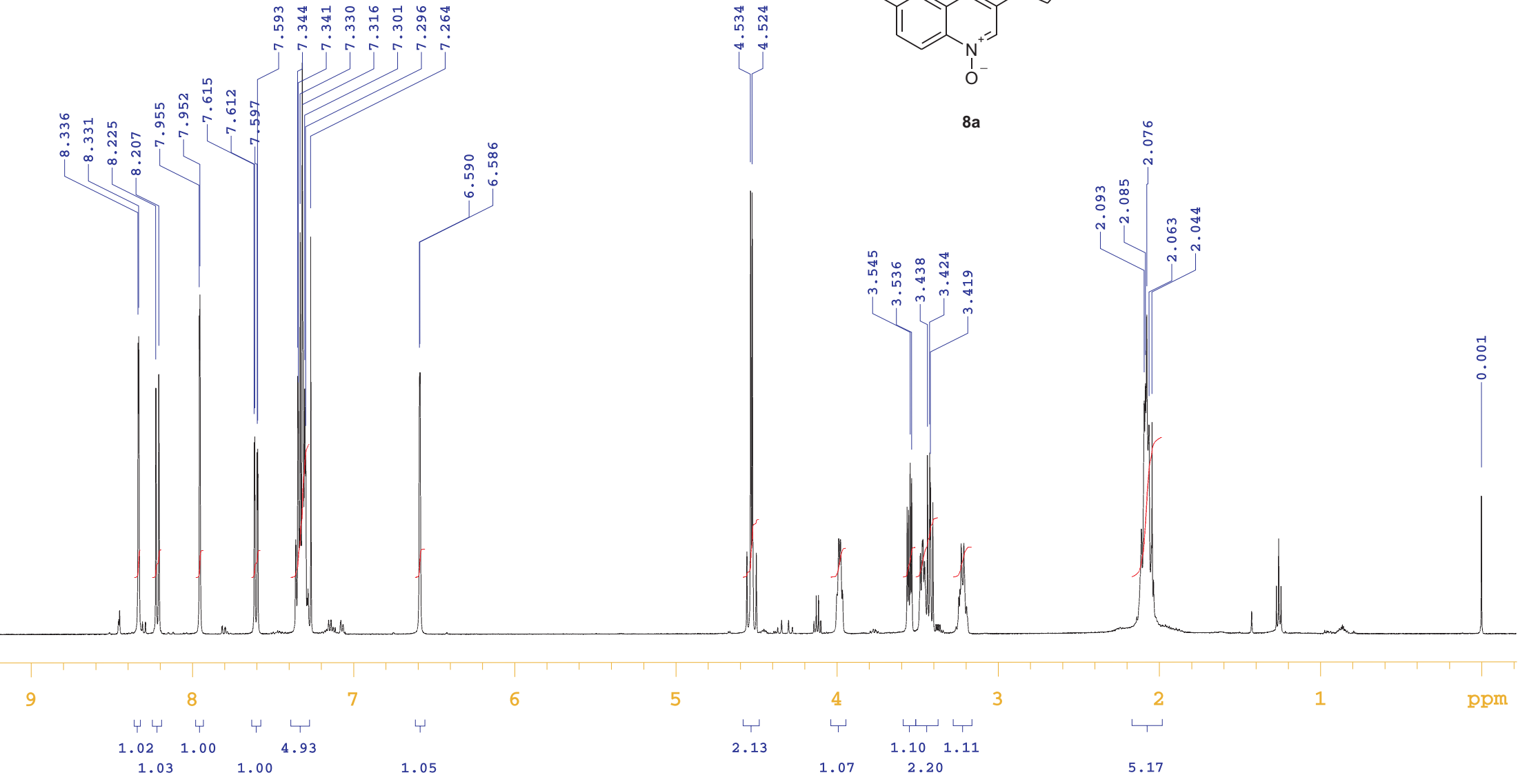


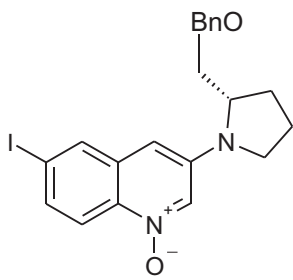
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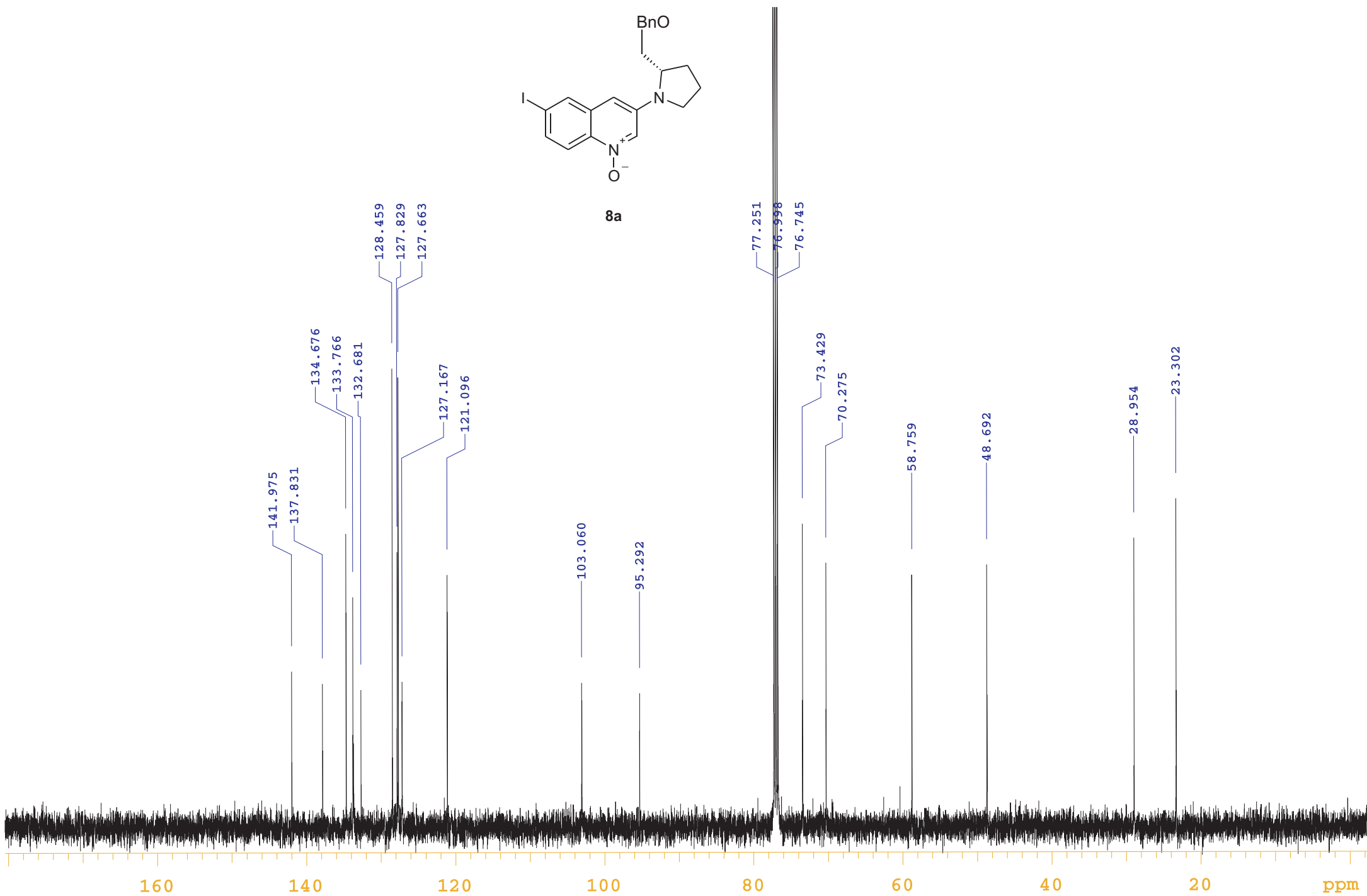


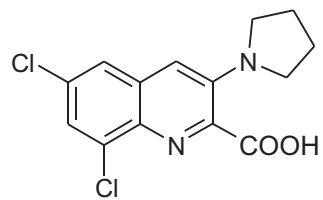
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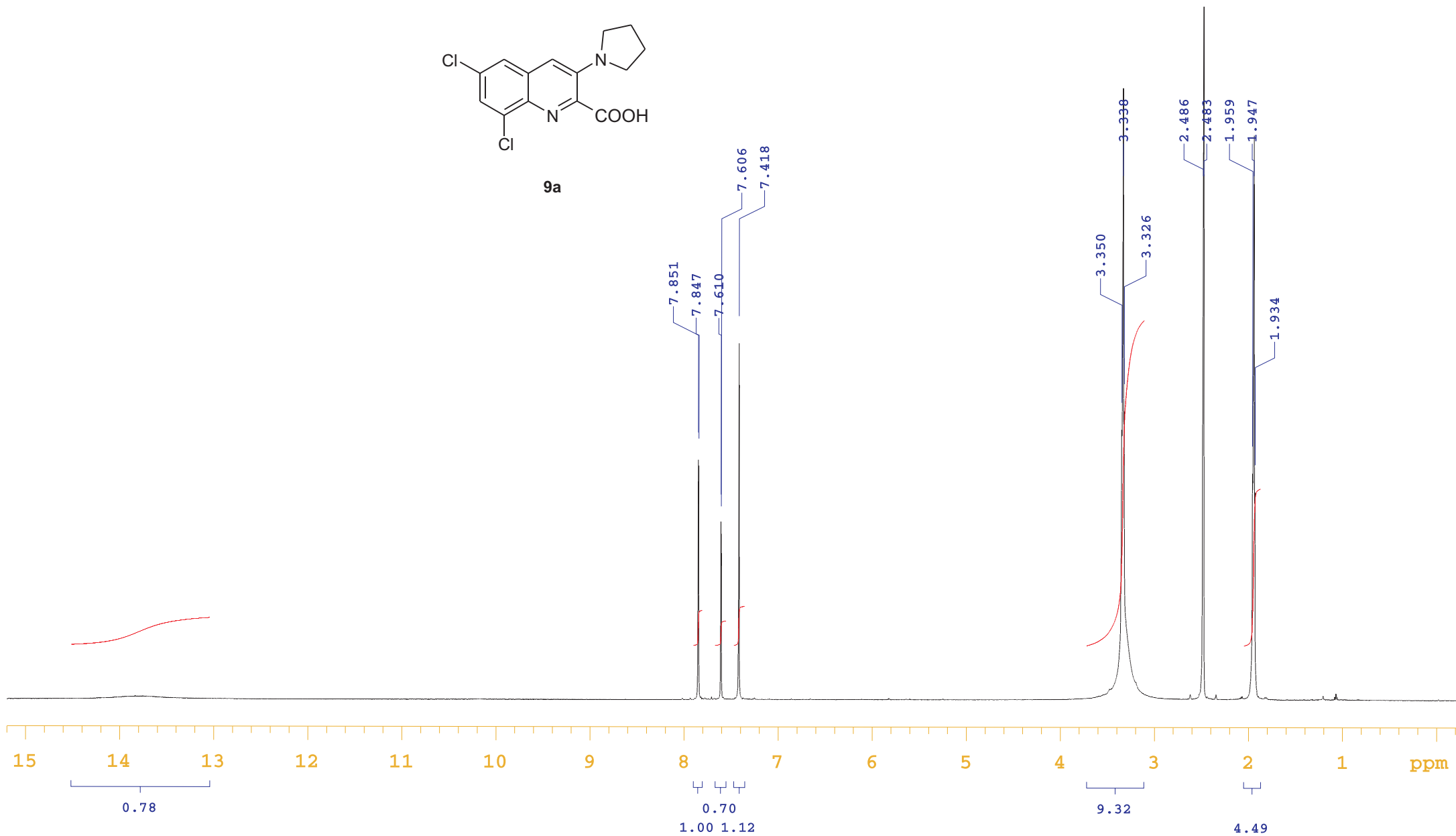


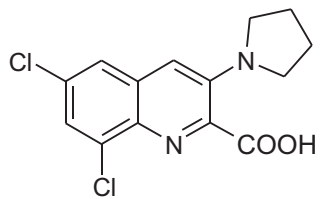
8a





9a





9a

