

Regioselective Synthesis of 3-Bromoquinoline Derivatives and Diastereoselective Synthesis of Tetrahydroquinolines via Acid-promoted Rearrangement of Arylmethyl Azides

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Charnsak Thongsornkleeb^{a, b} and Somsak Ruchirawat^{a, b}

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Health and Toxicology (EHT), Ministry of Education, 54 Kamphaeng Phet 6, Laksi, Bangkok 10210,
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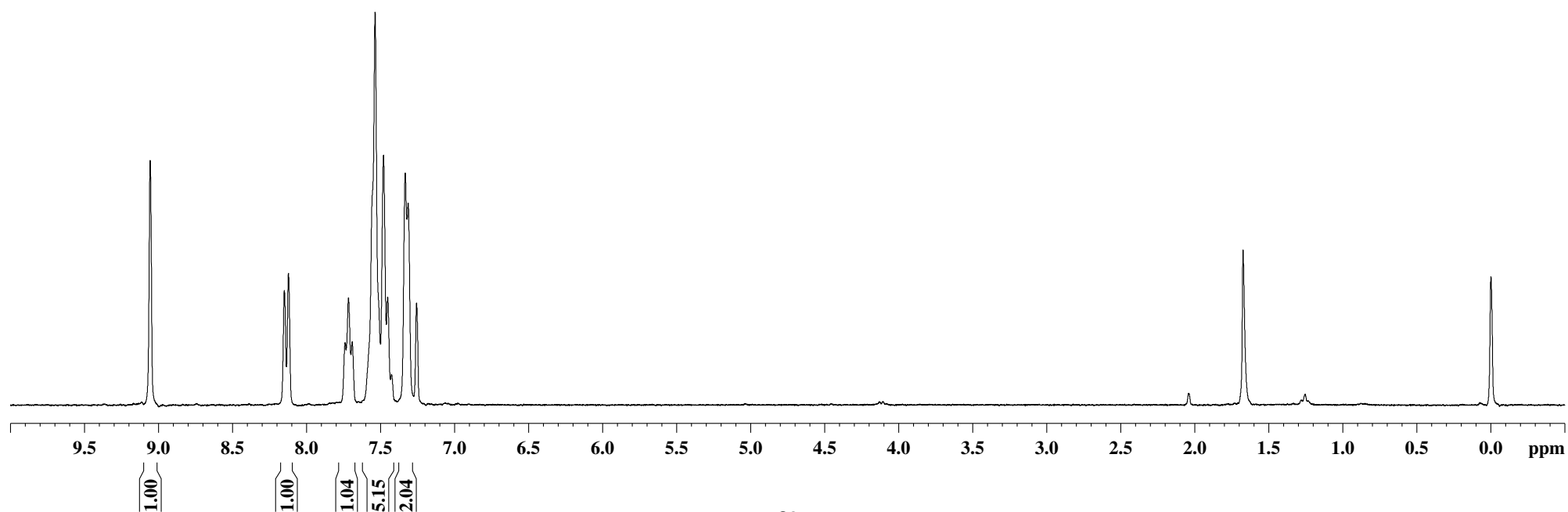
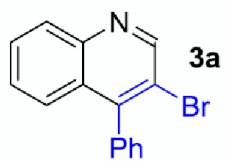
Supporting Information

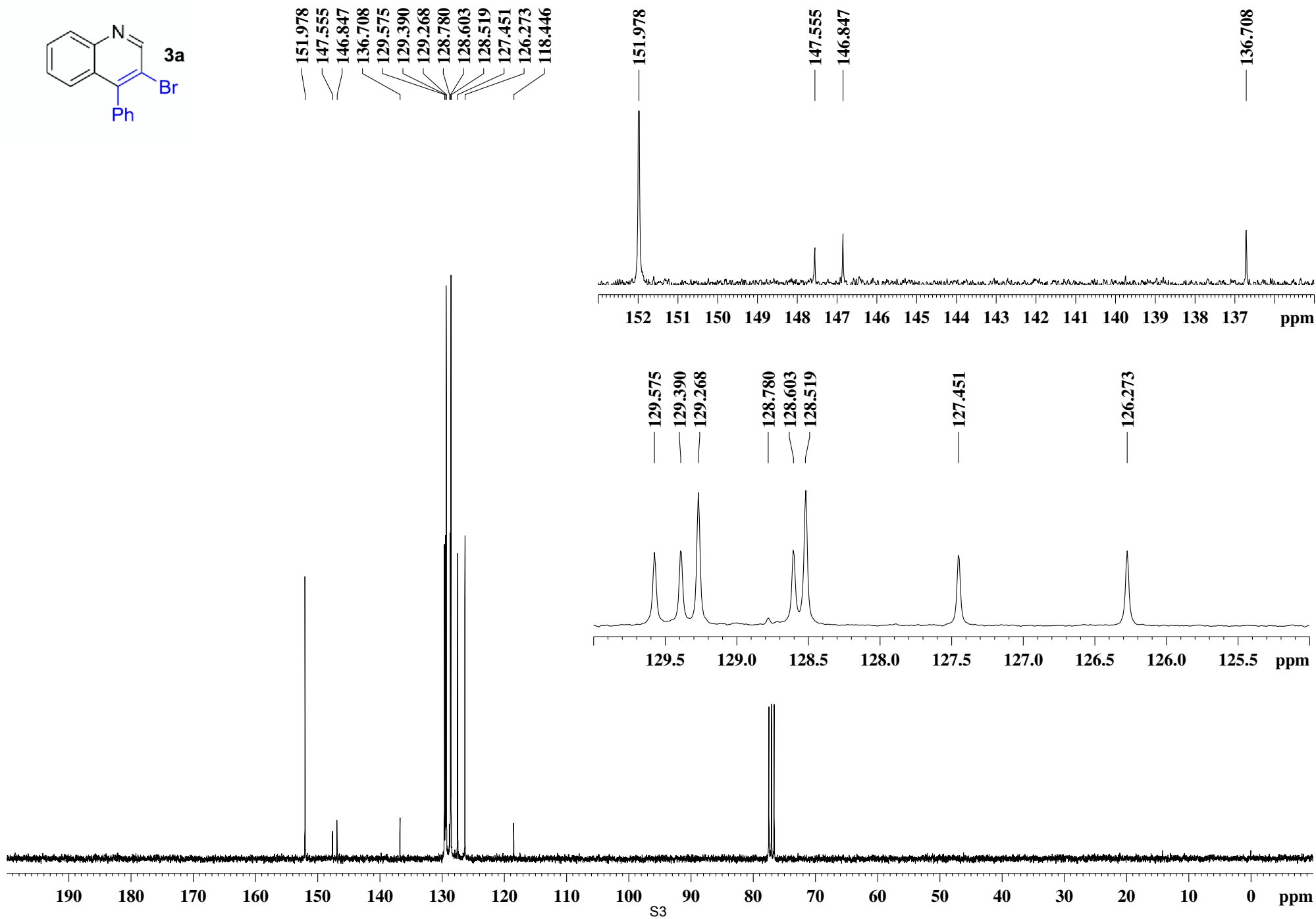
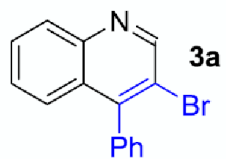
Contents:	Pages
1. Copies of ¹ H and ¹³ C- NMR spectra for compound 3a-3r , 4b-4j , and 6a-6p	S2-S89
2. Copies of ¹ H, ¹³ C- NMR and 1D nOe spectra for compound 6n-2	S90-S92

PP-1-025

9.055

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7.481
7.454
7.335
7.316
7.258



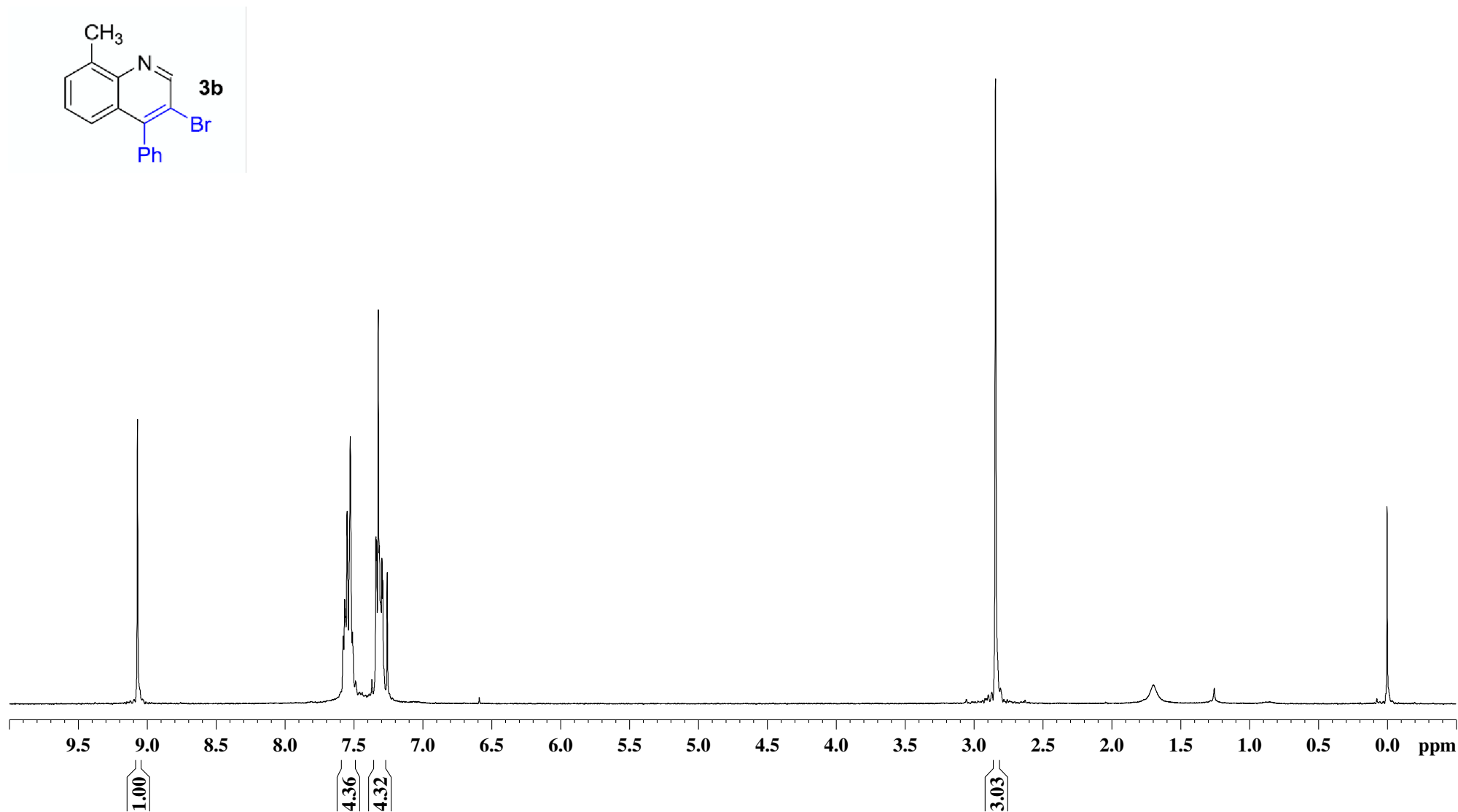
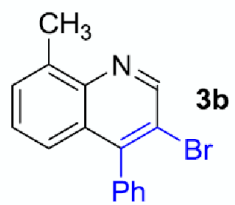


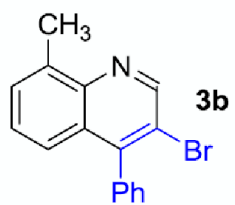
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7.294
7.289

2.841





150.596
 147.624
 145.866
 137.395
 137.153
 129.632
 129.250
 128.855
 128.421
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 124.364
 118.477

150.596

147.624

145.866

137.395

137.153

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128.855

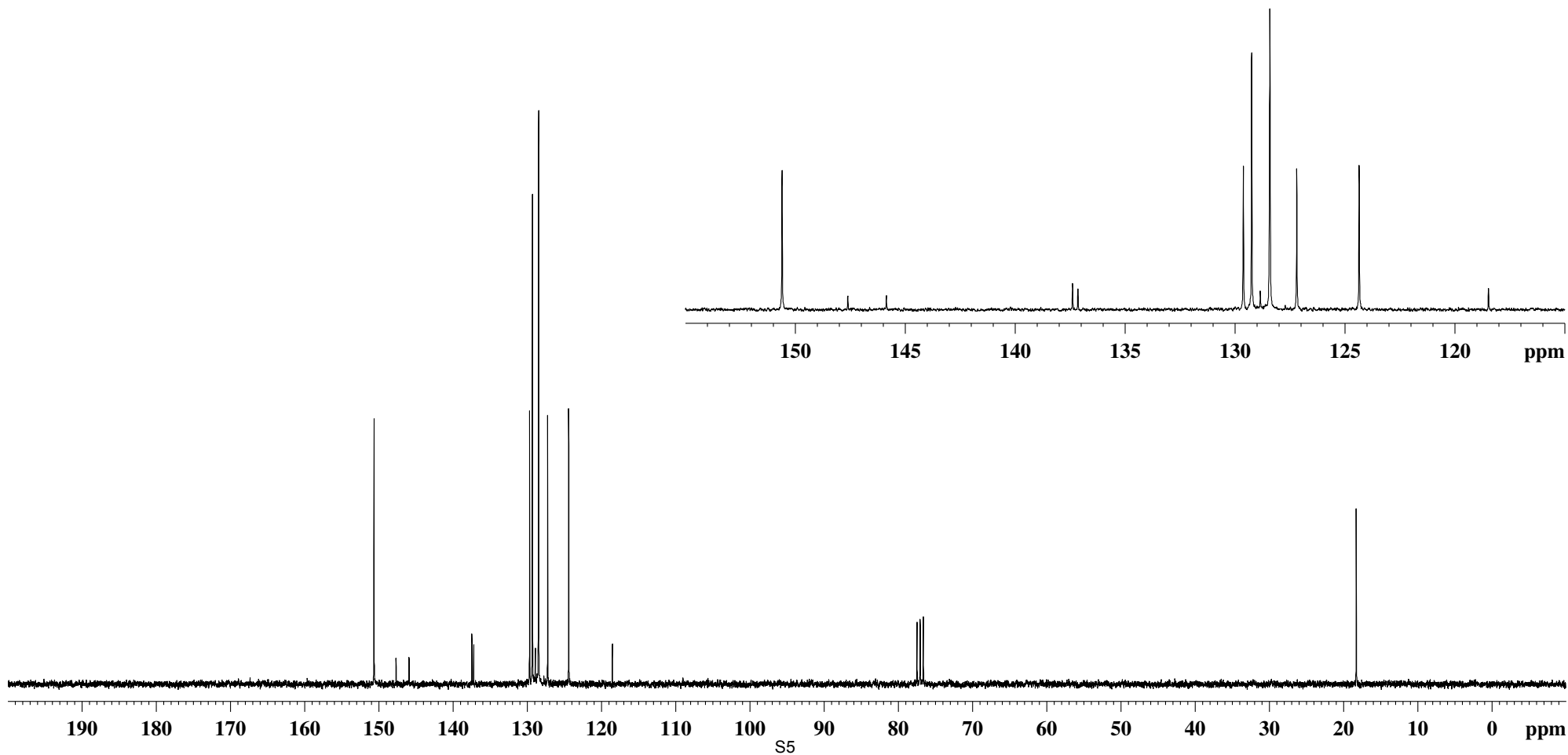
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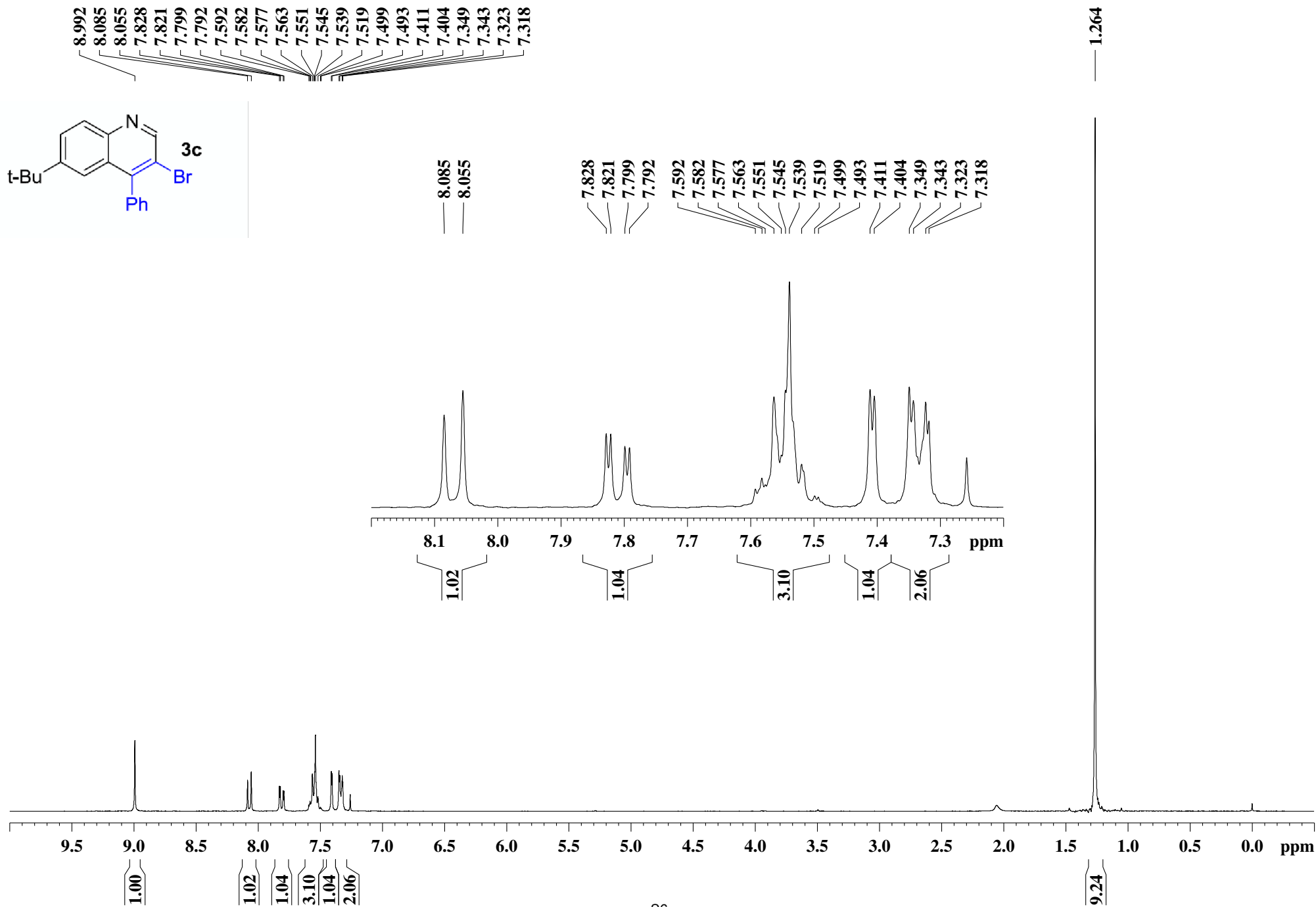
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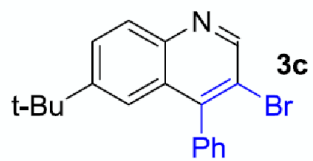
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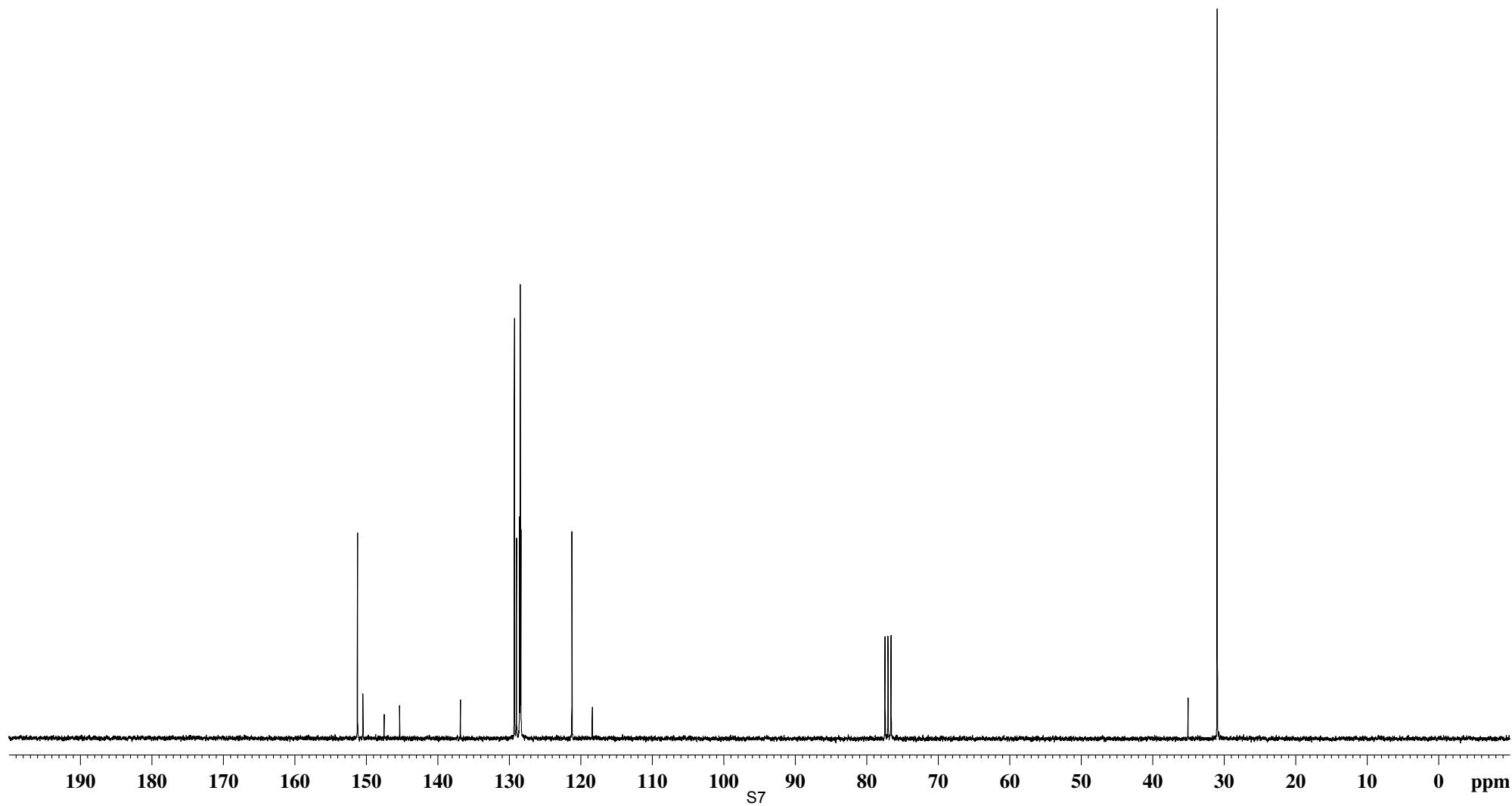


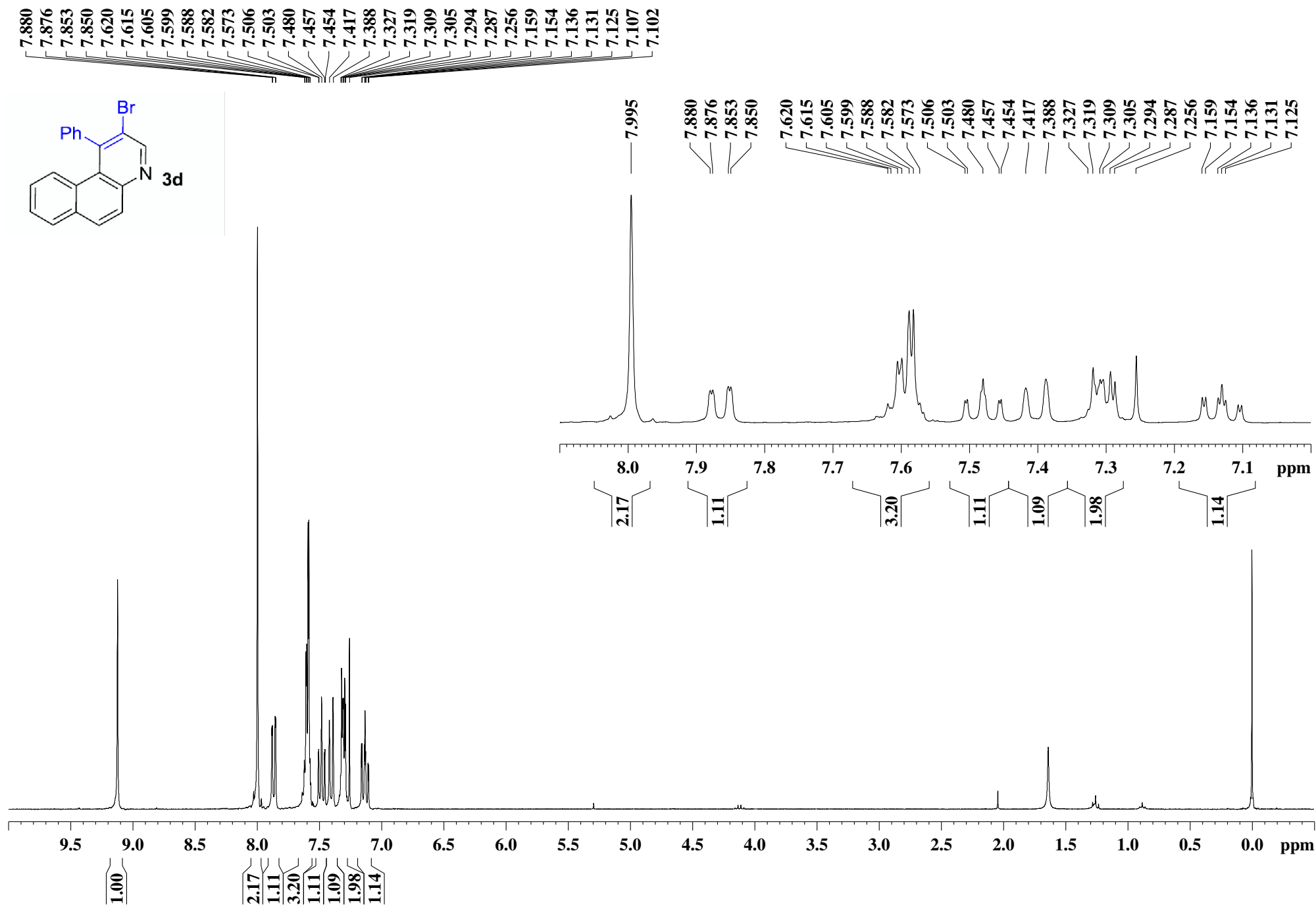


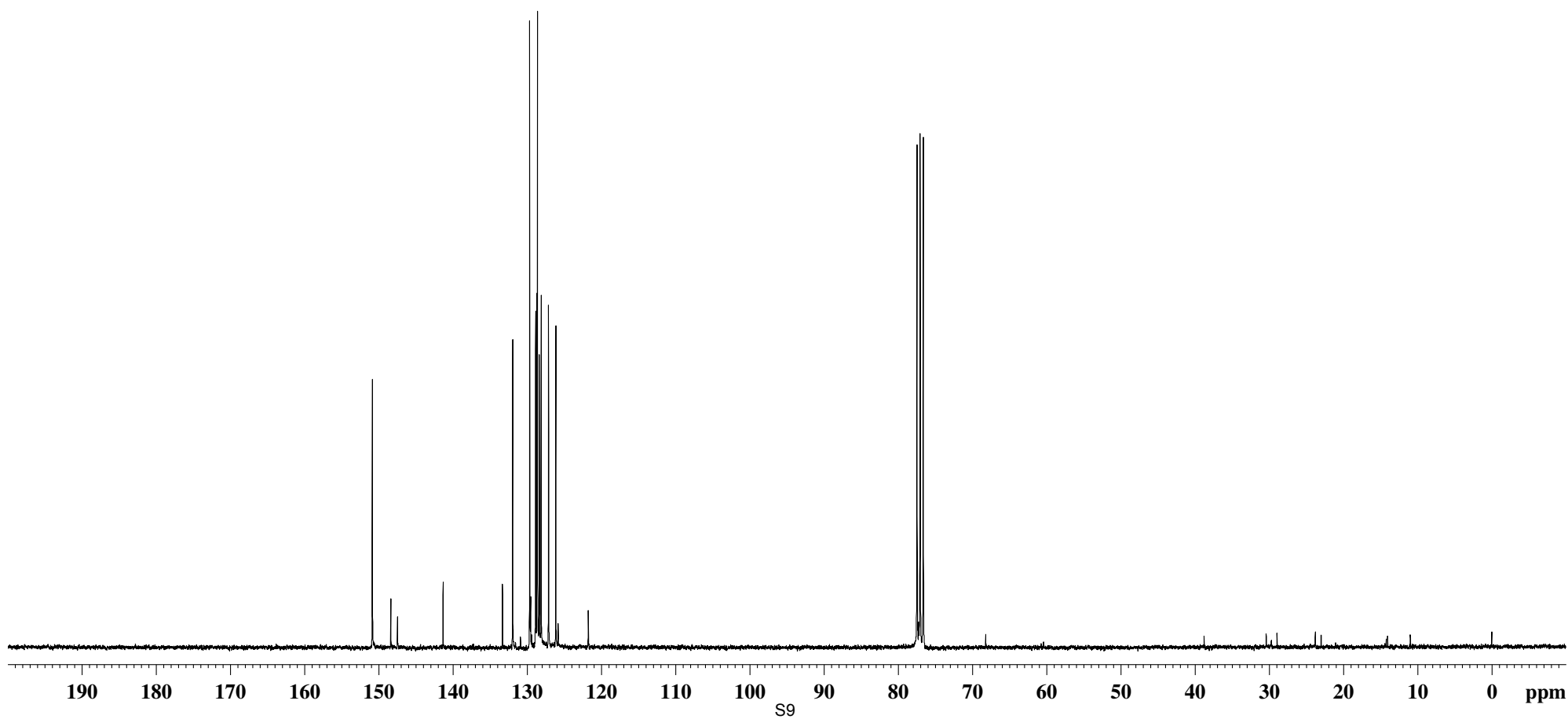
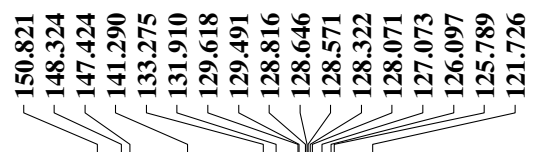
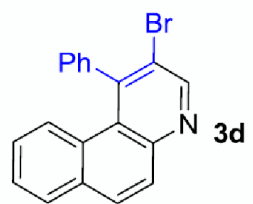


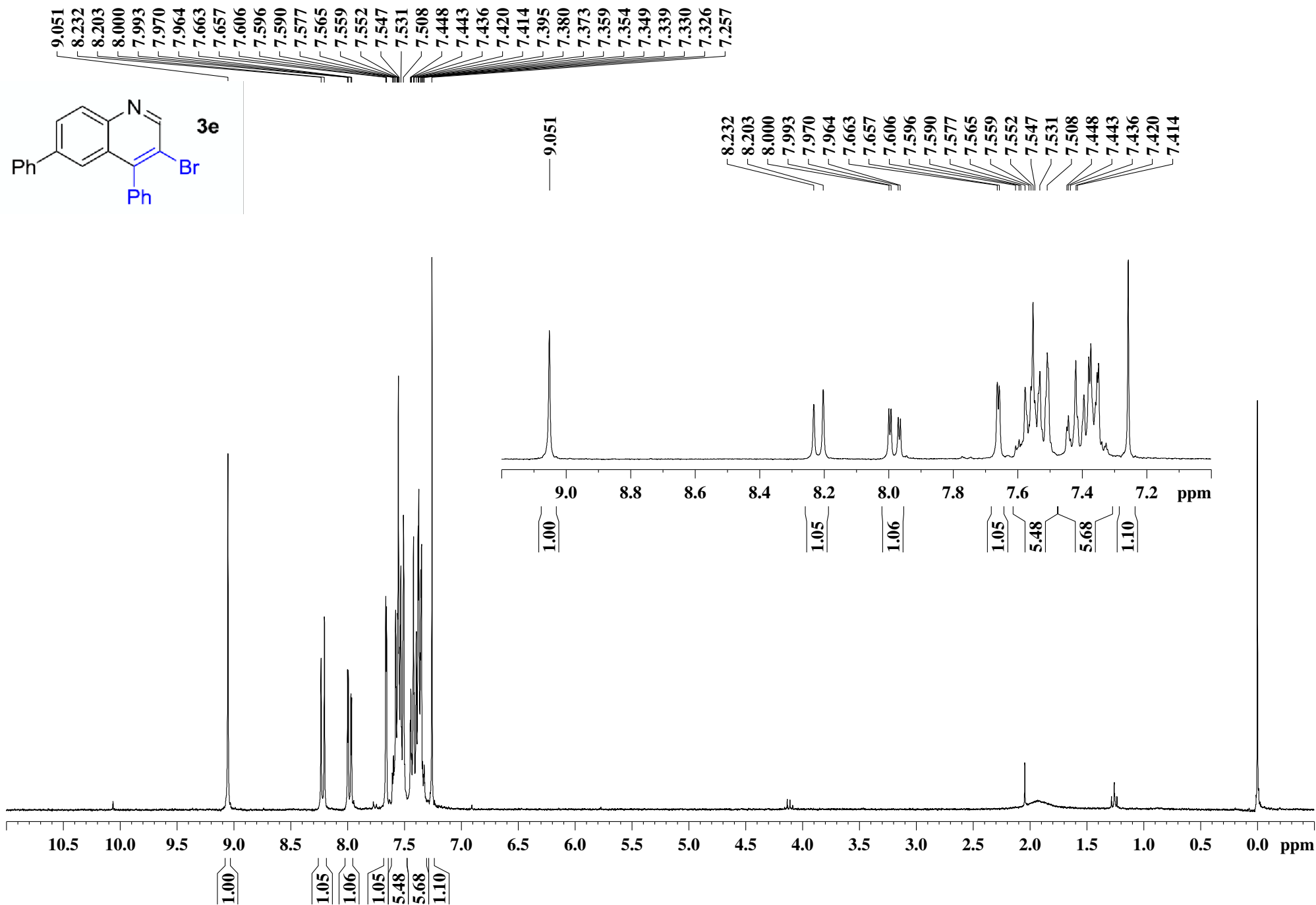
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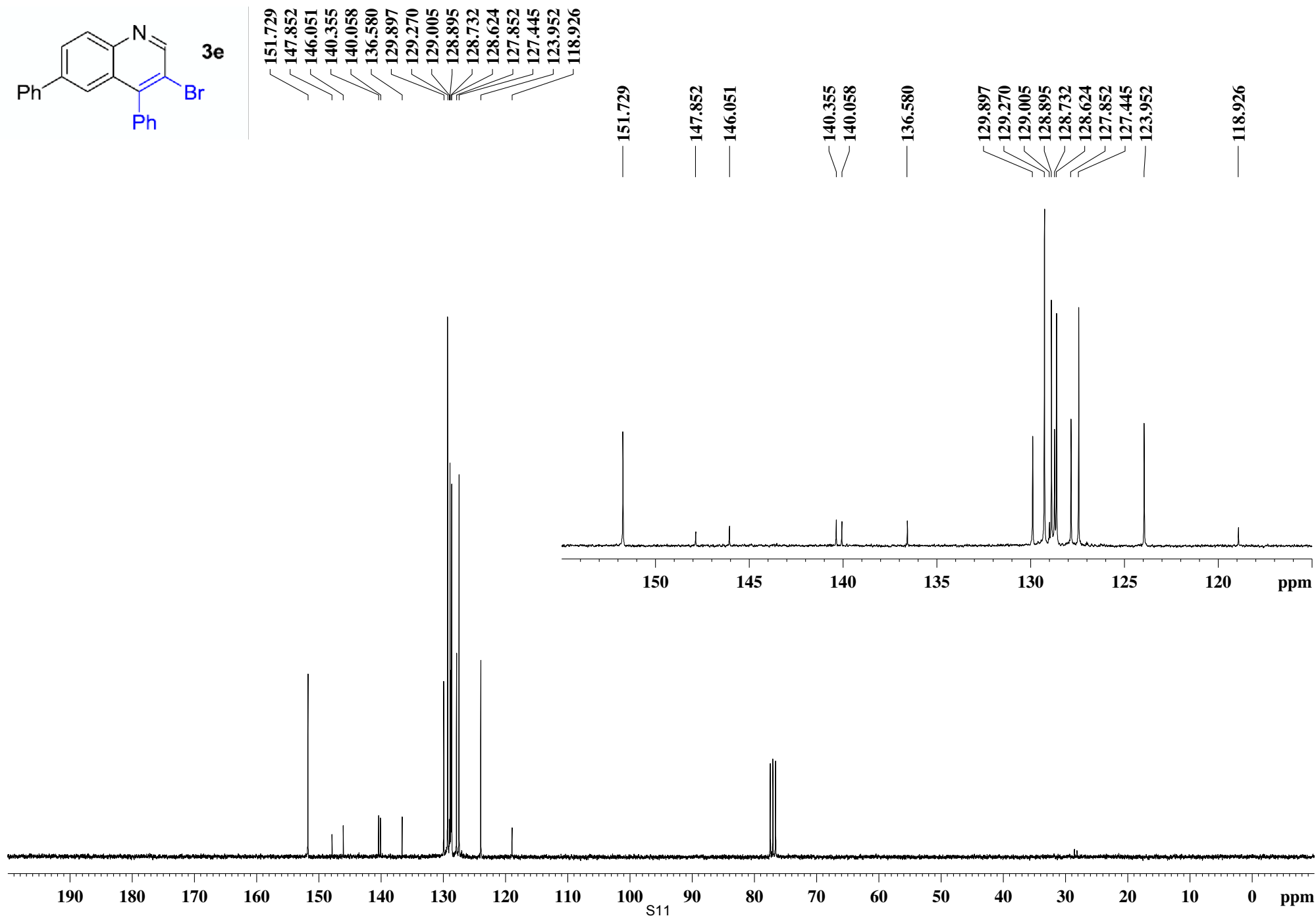
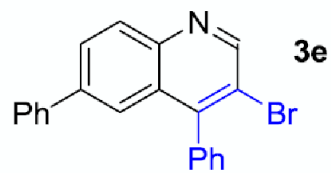
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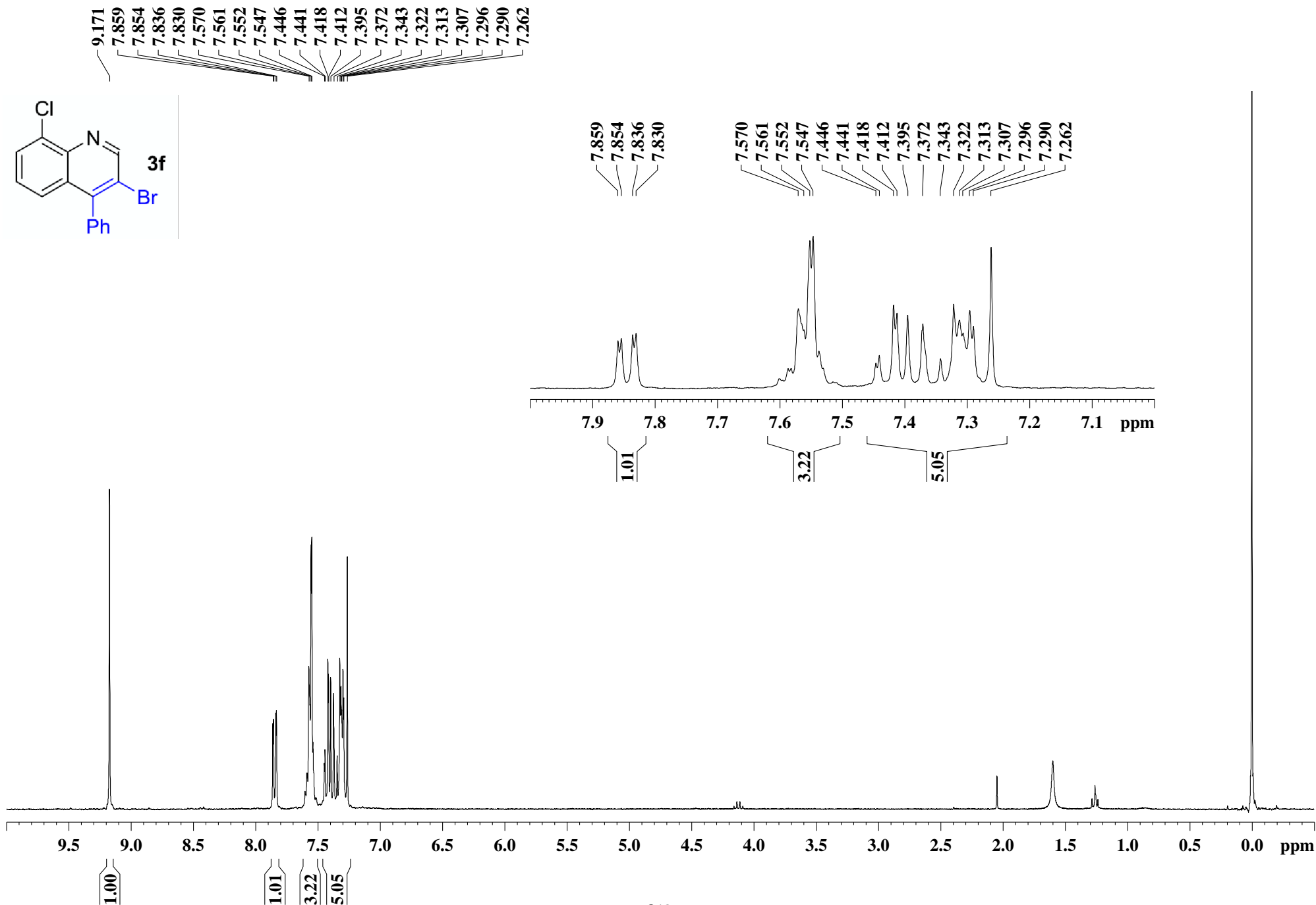


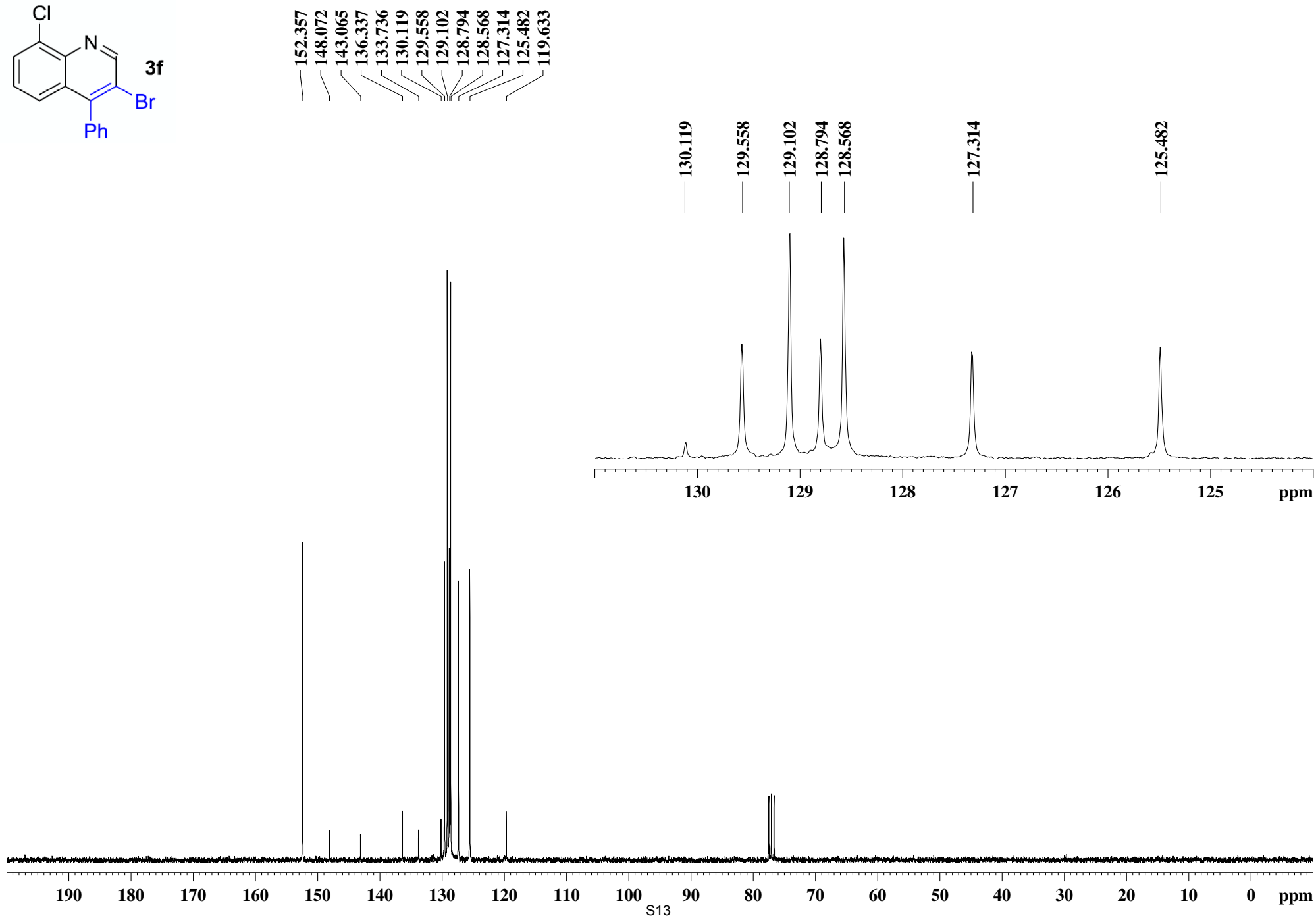
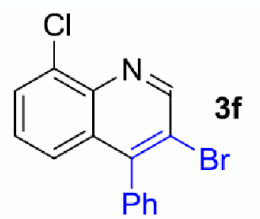




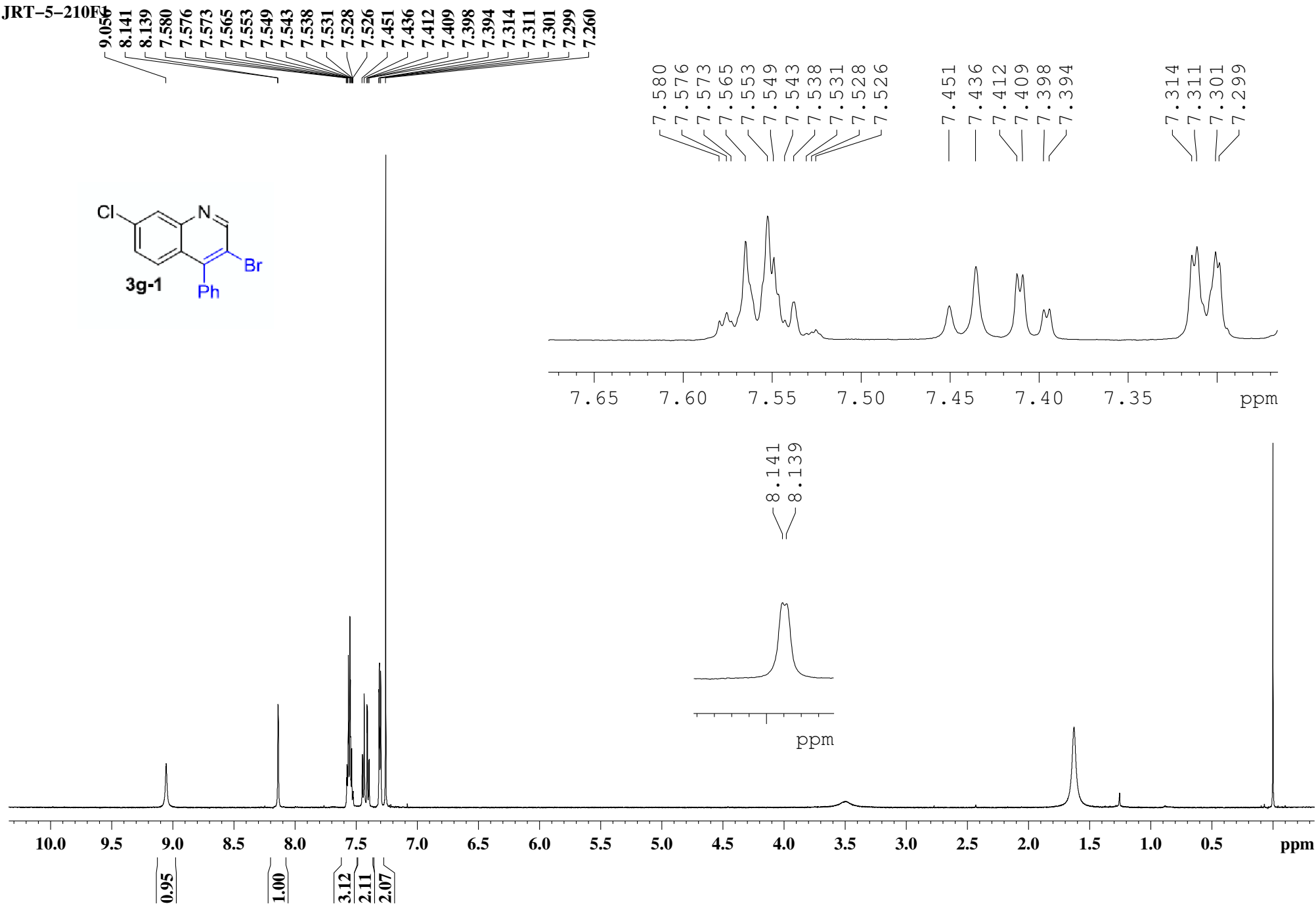
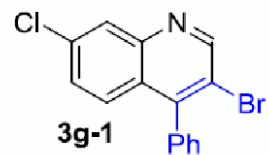




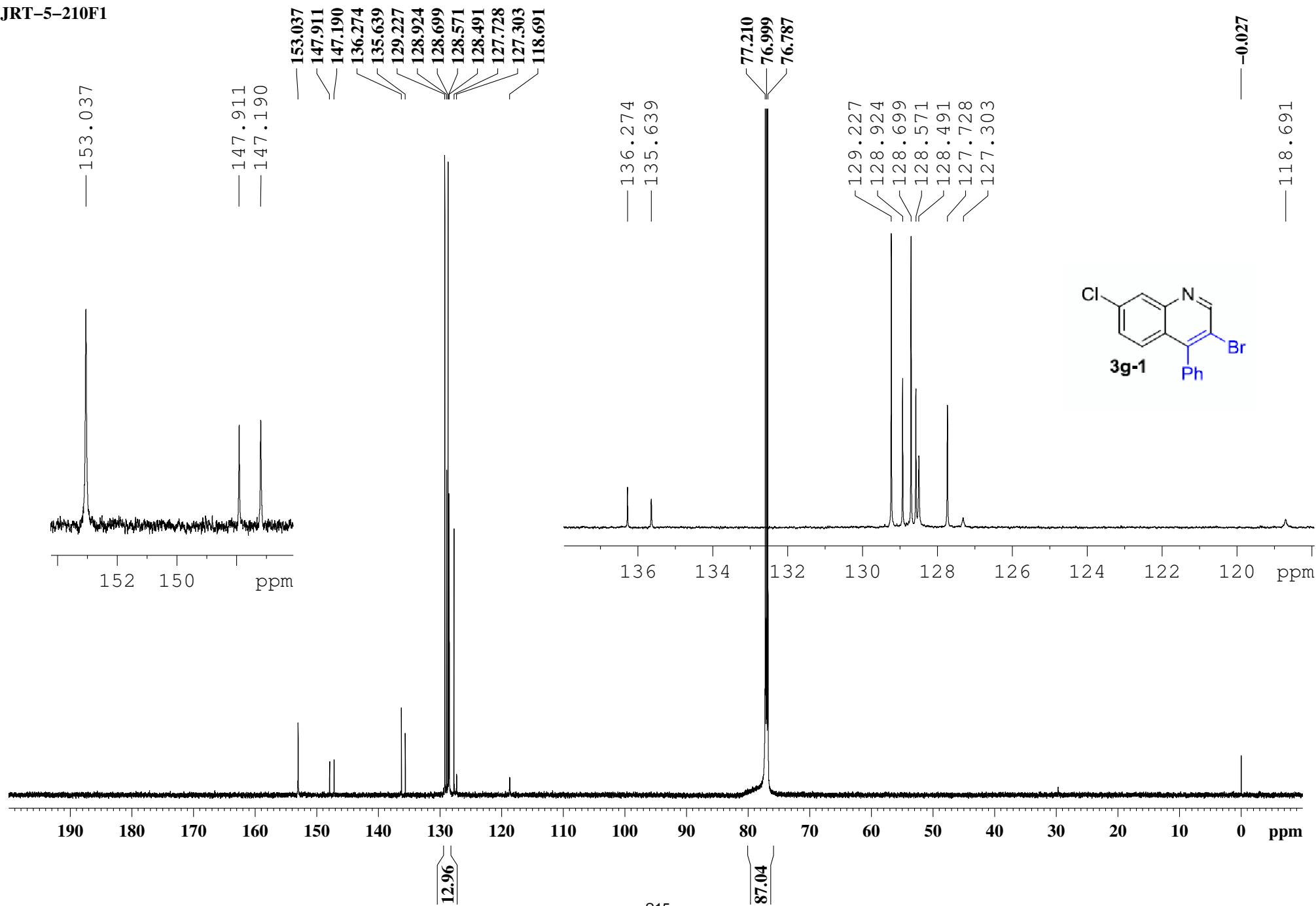


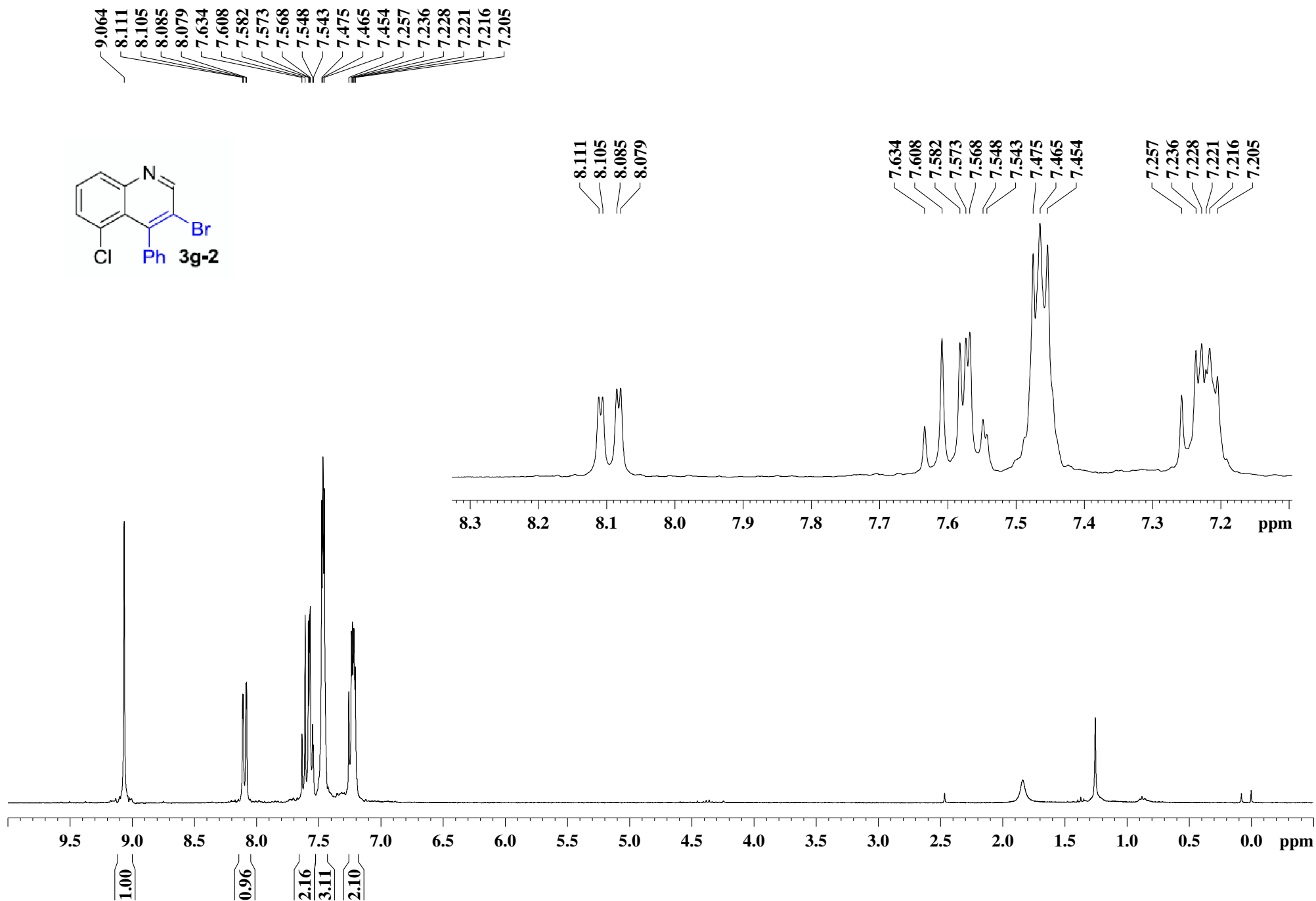
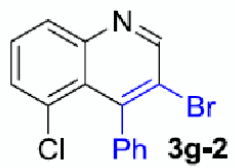


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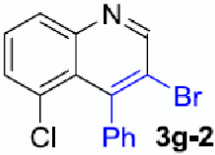


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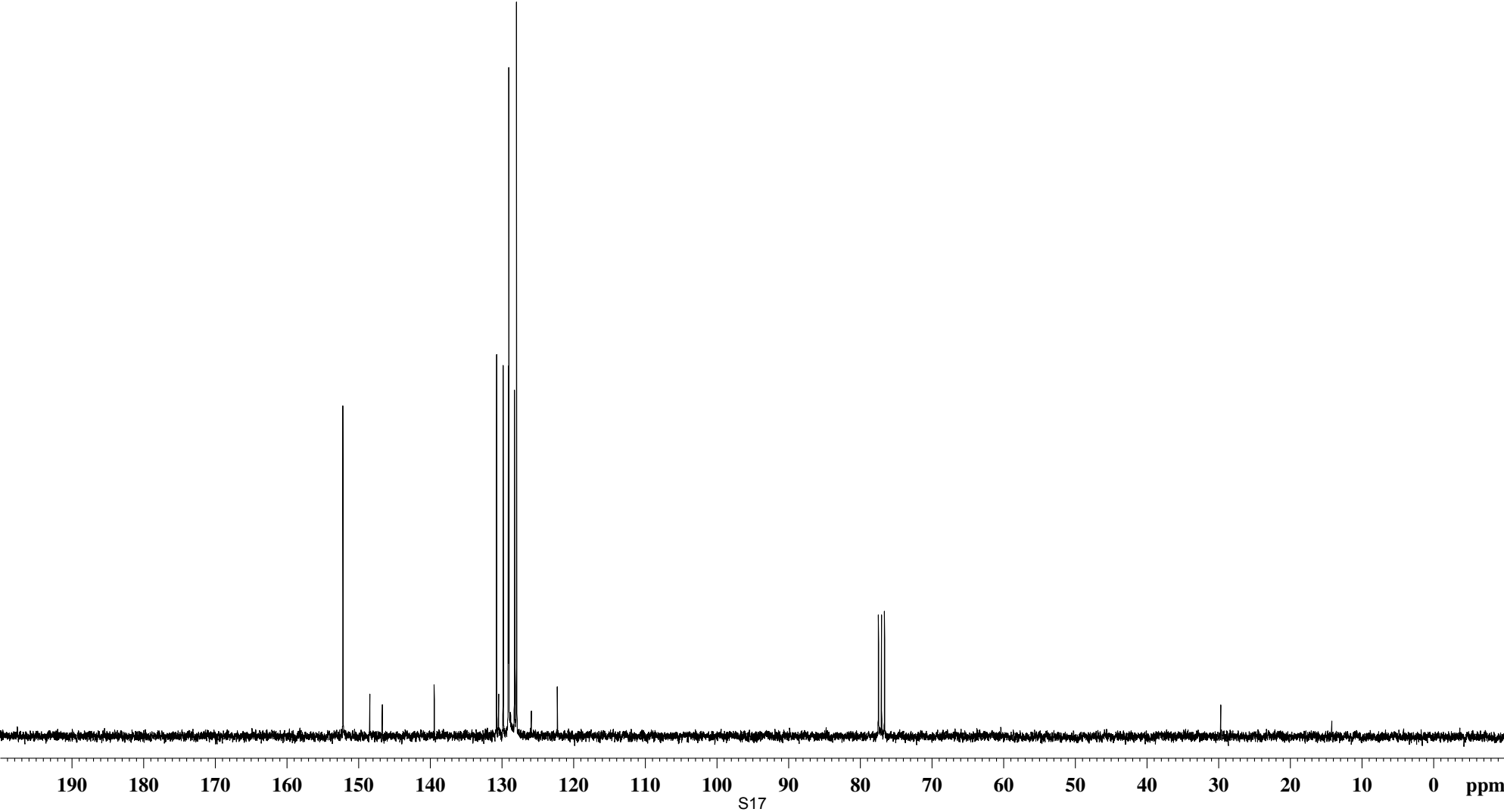




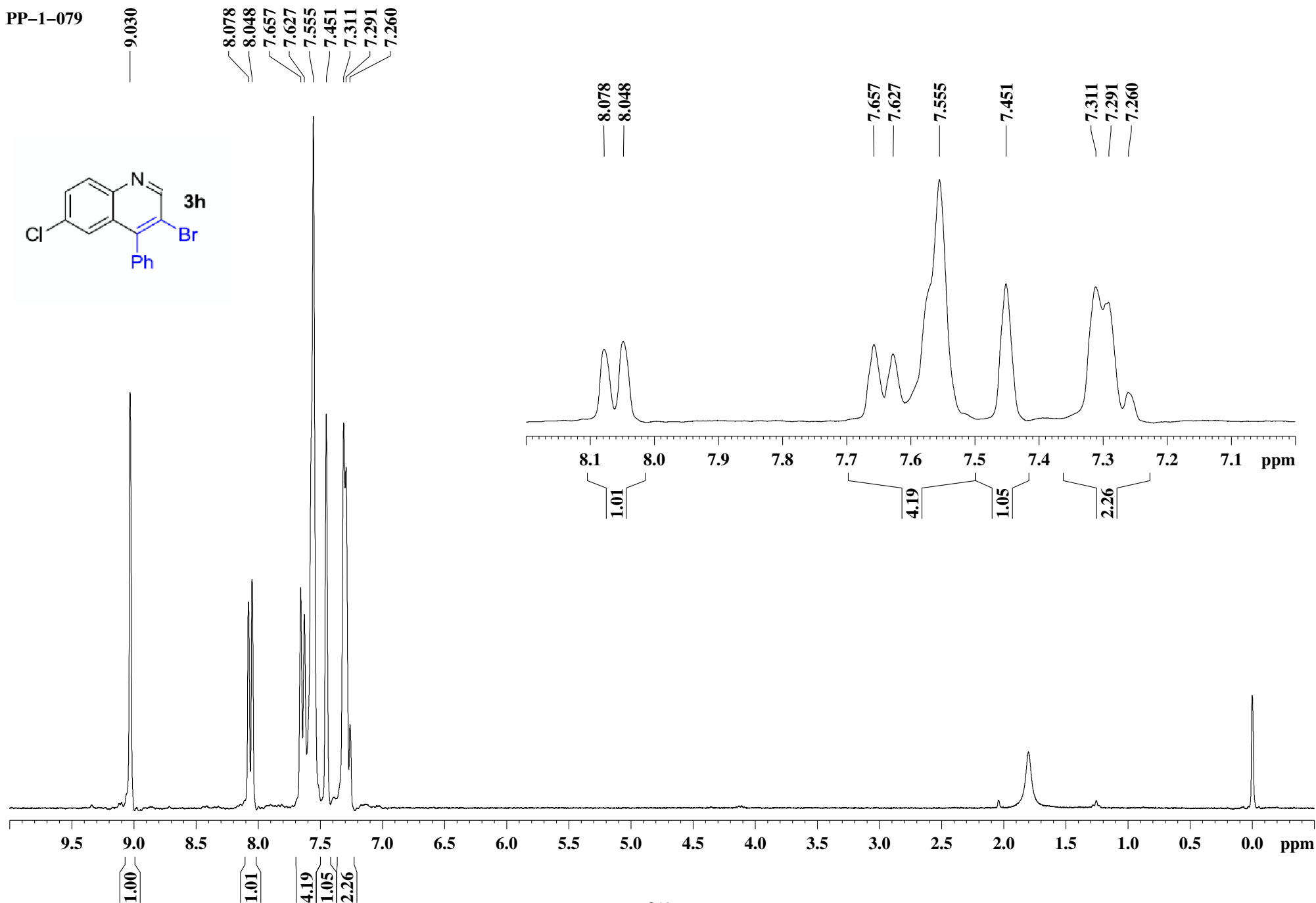
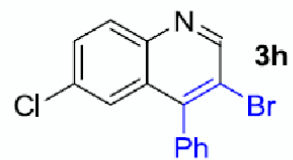
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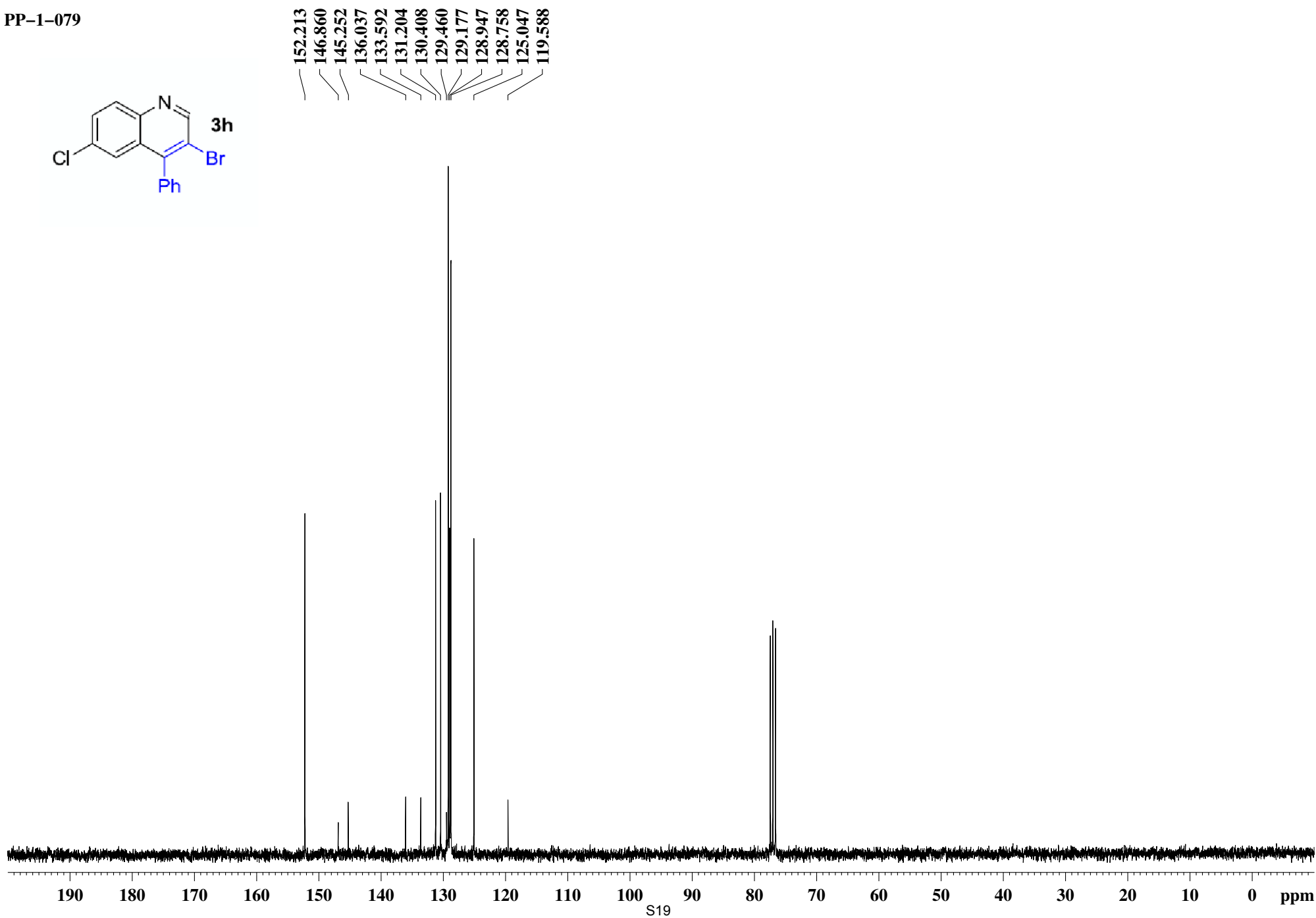
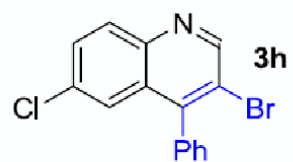
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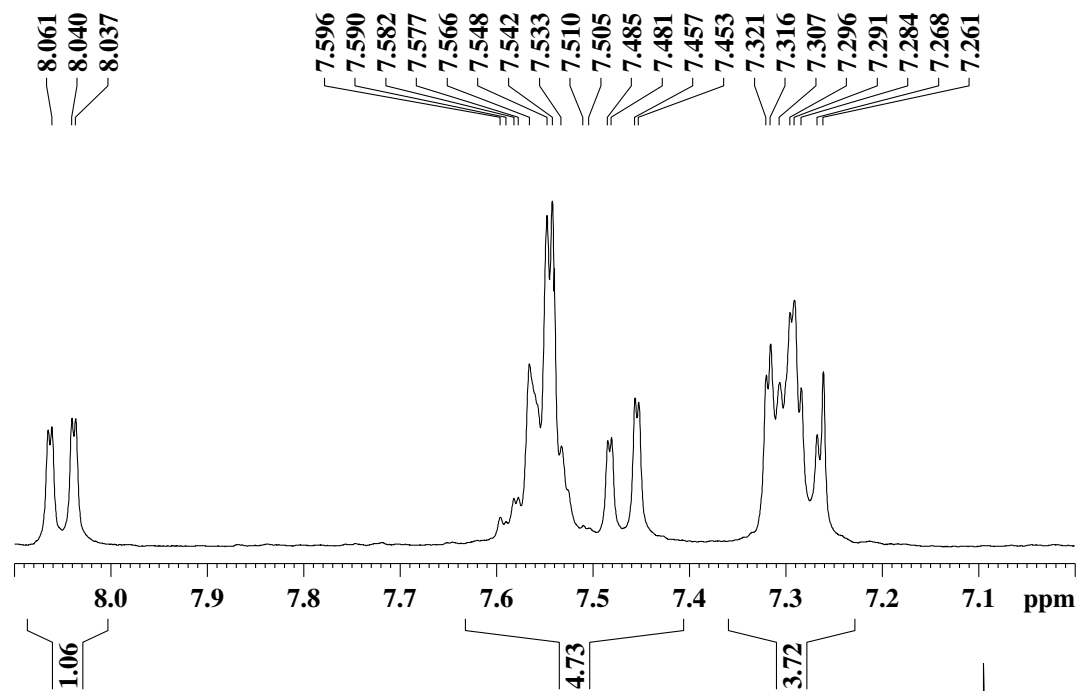
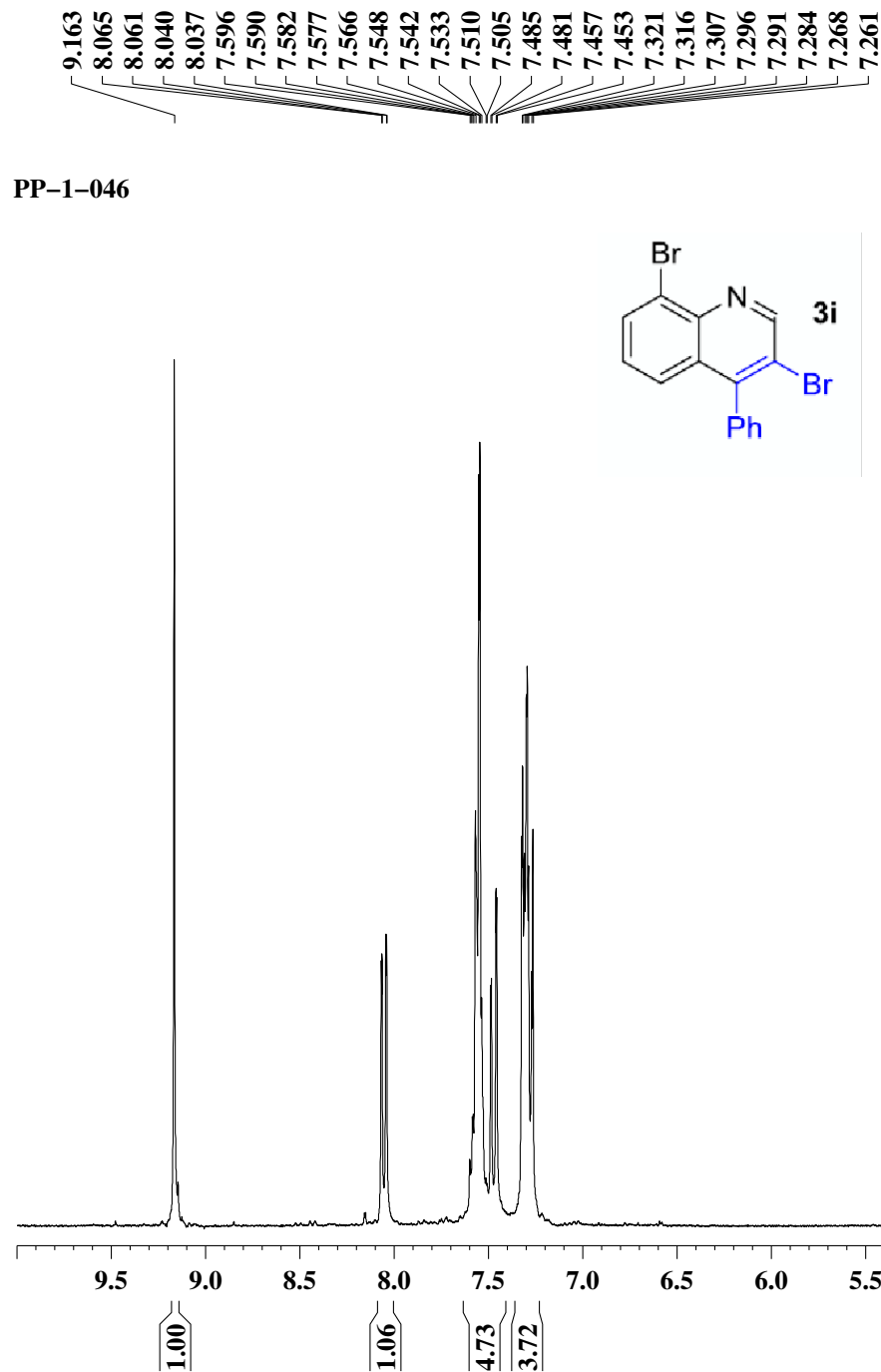


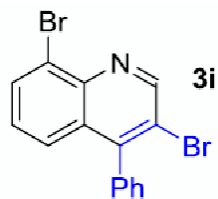
PP-1-079



PP-1-079







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133.206
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127.798
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124.995
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136.386

133.206

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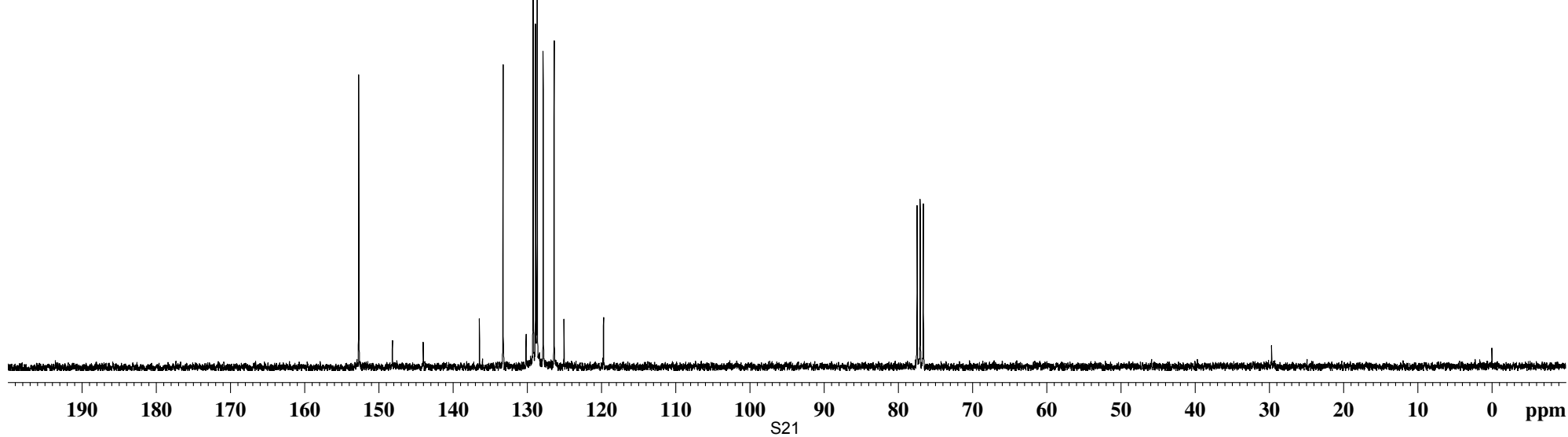
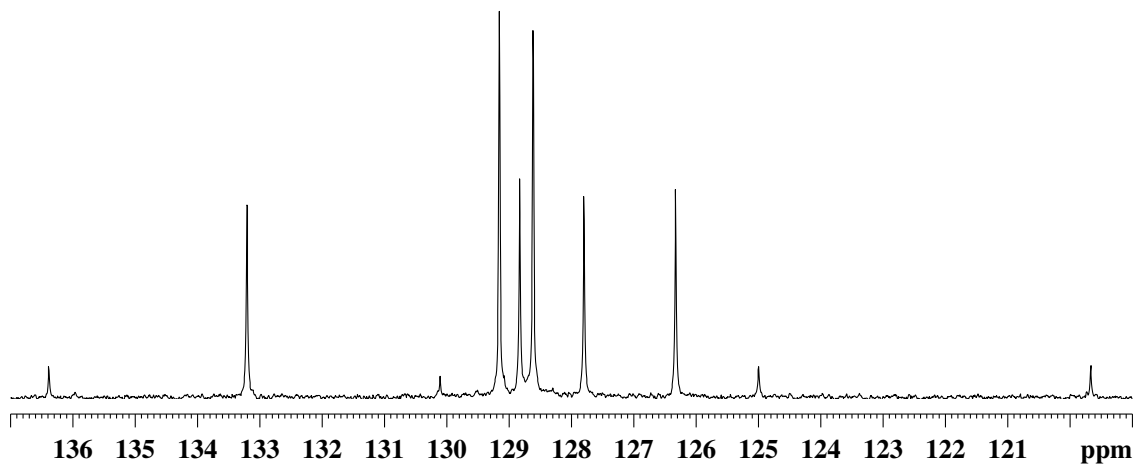
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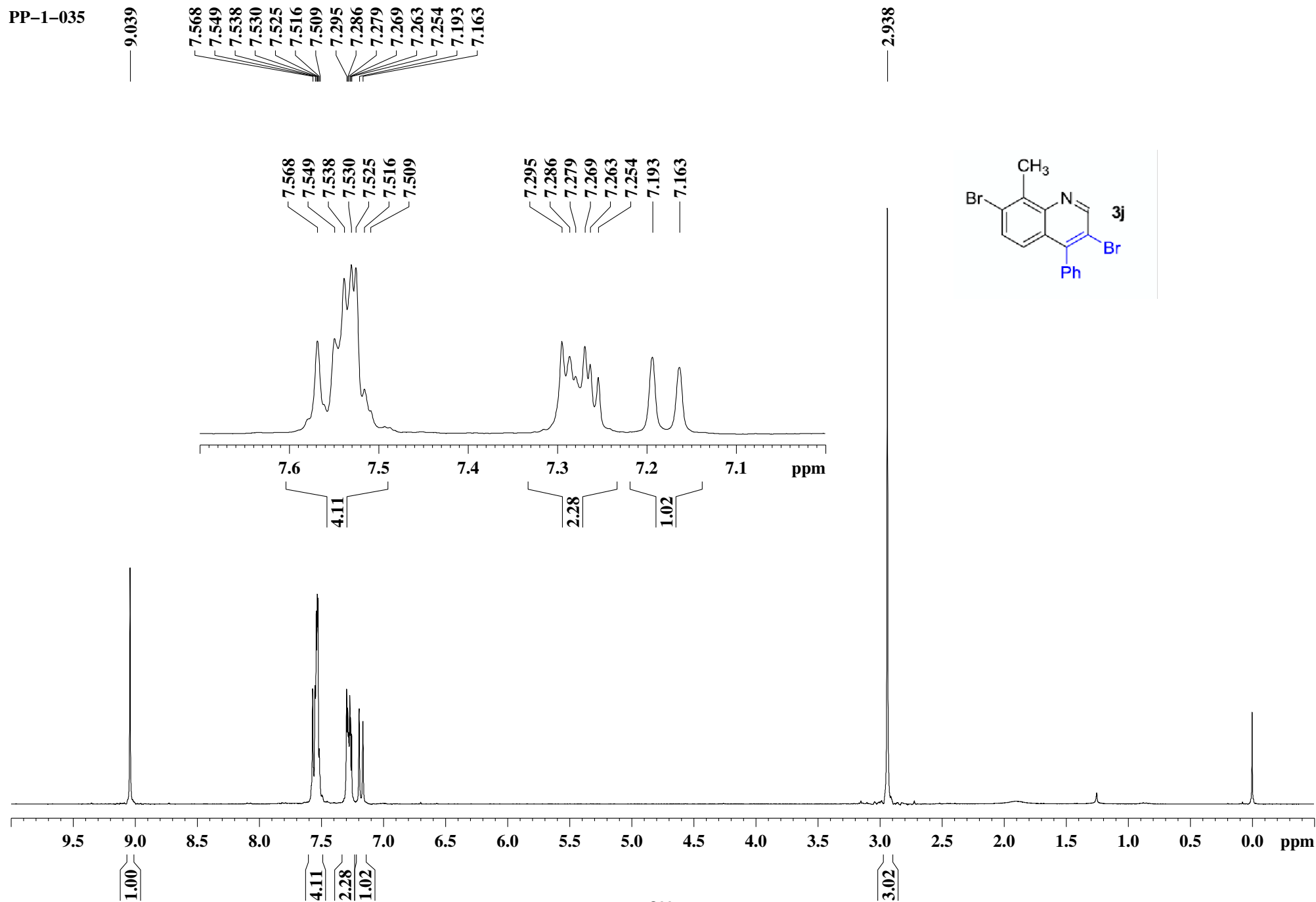
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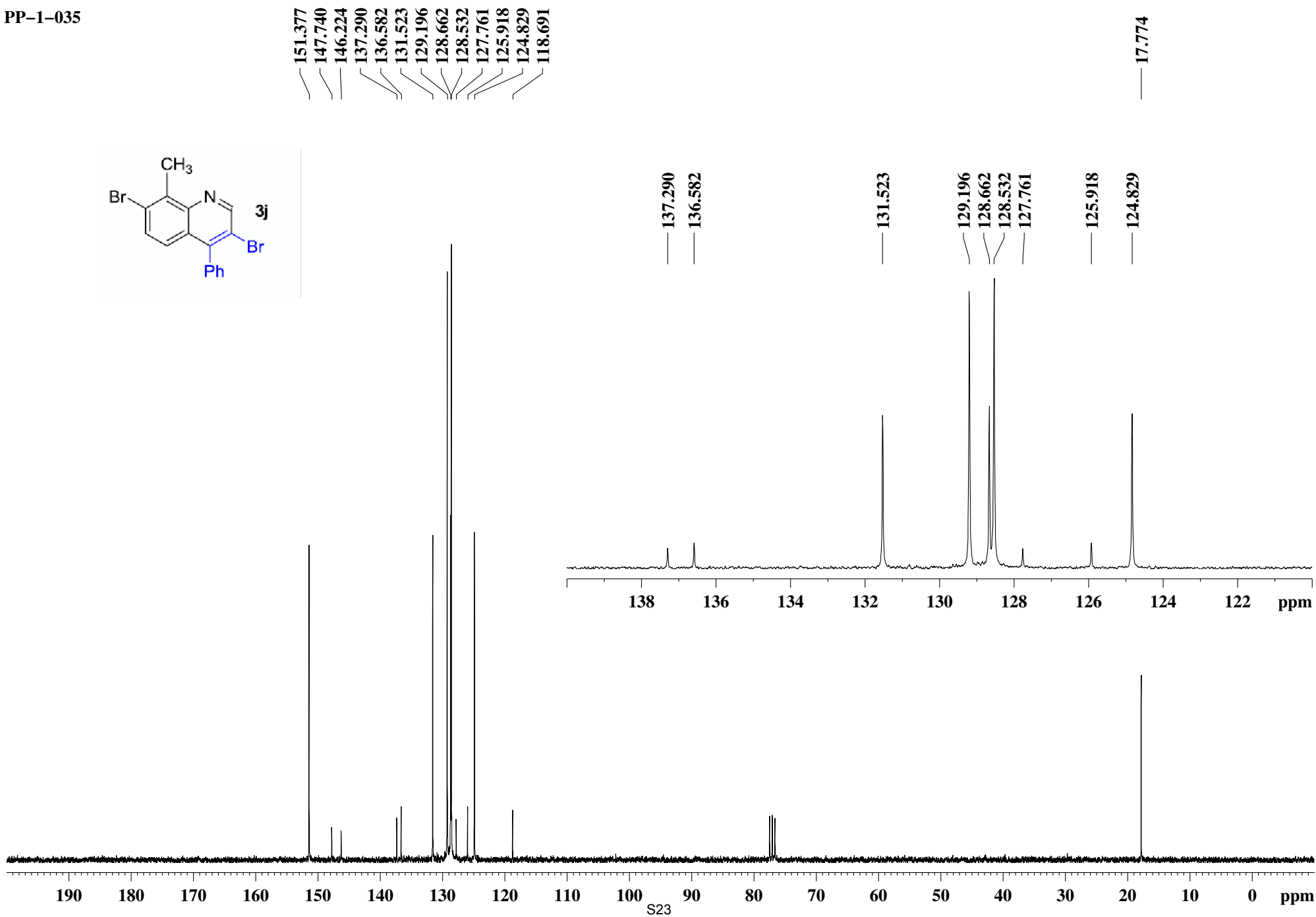
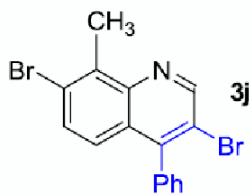
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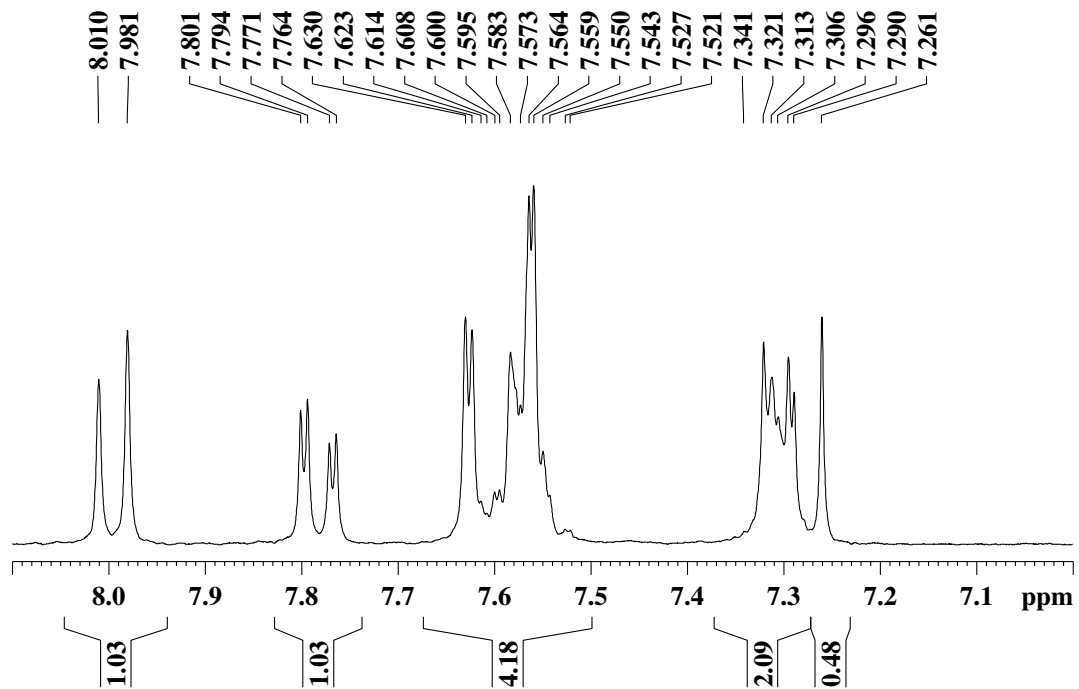
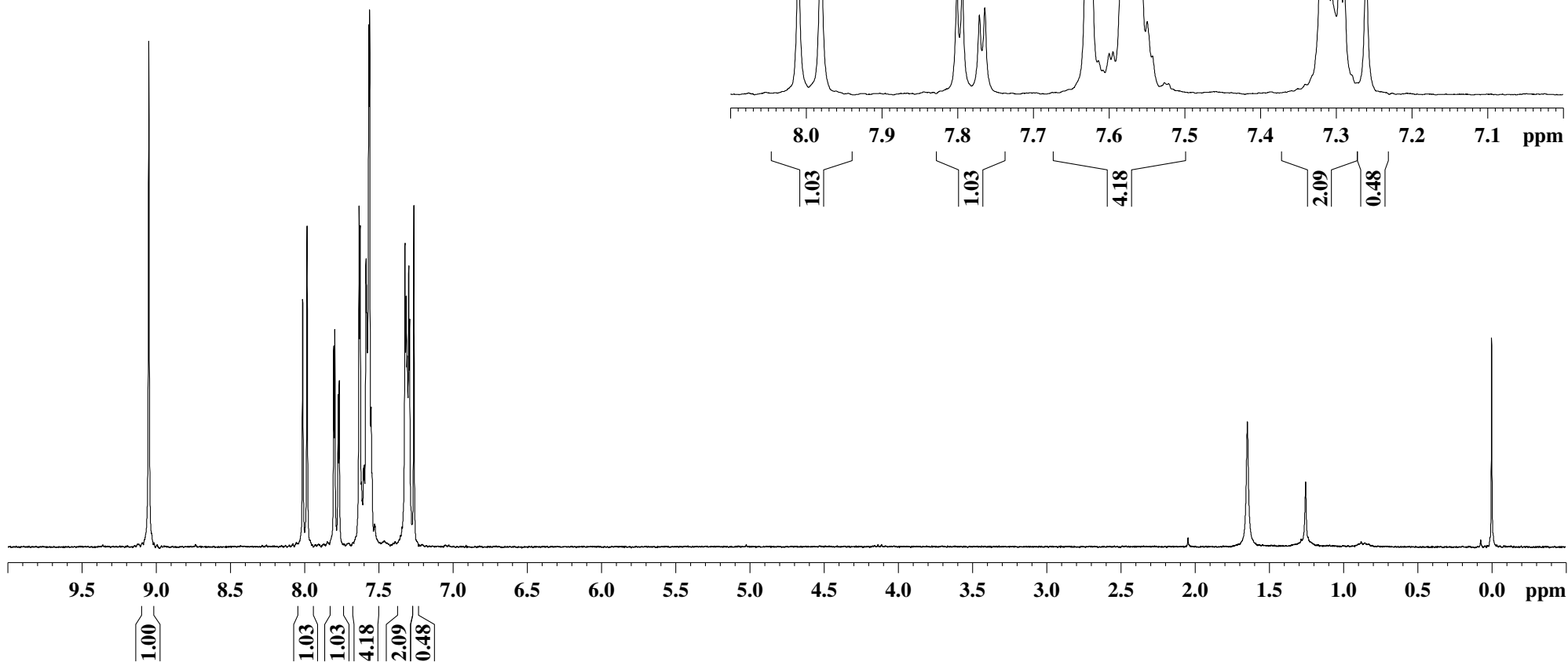
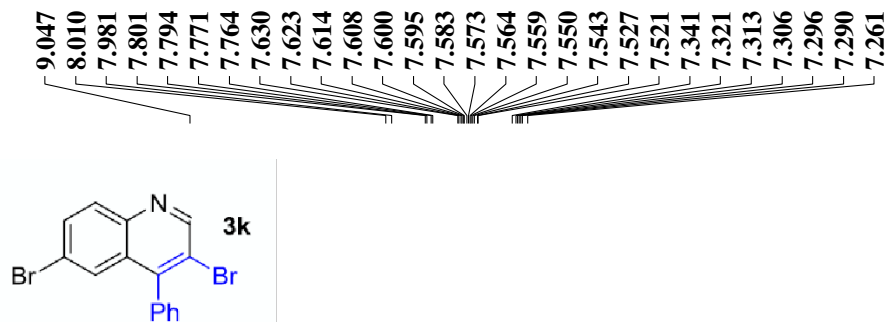


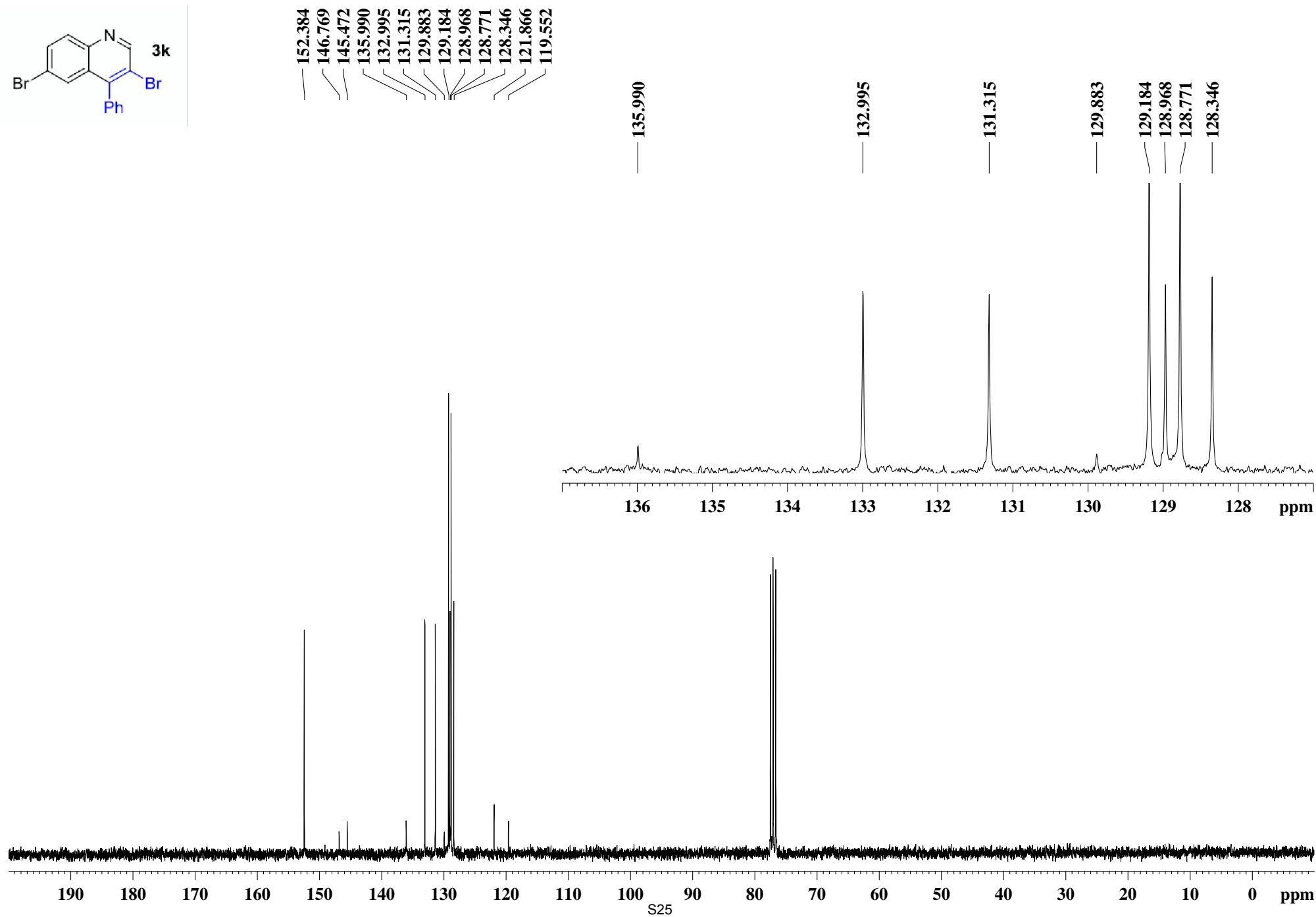
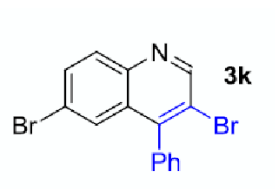
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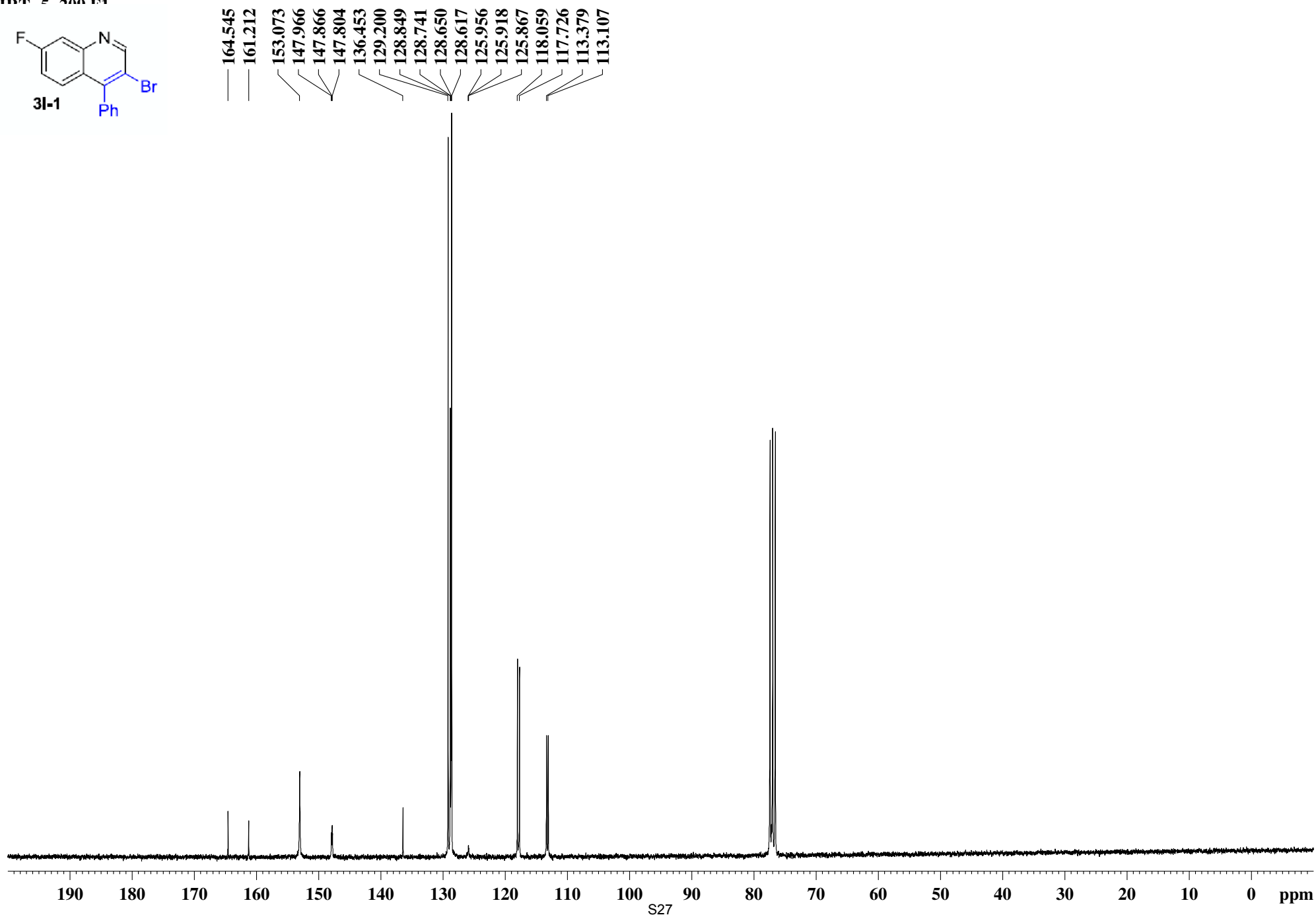
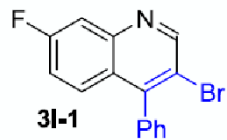
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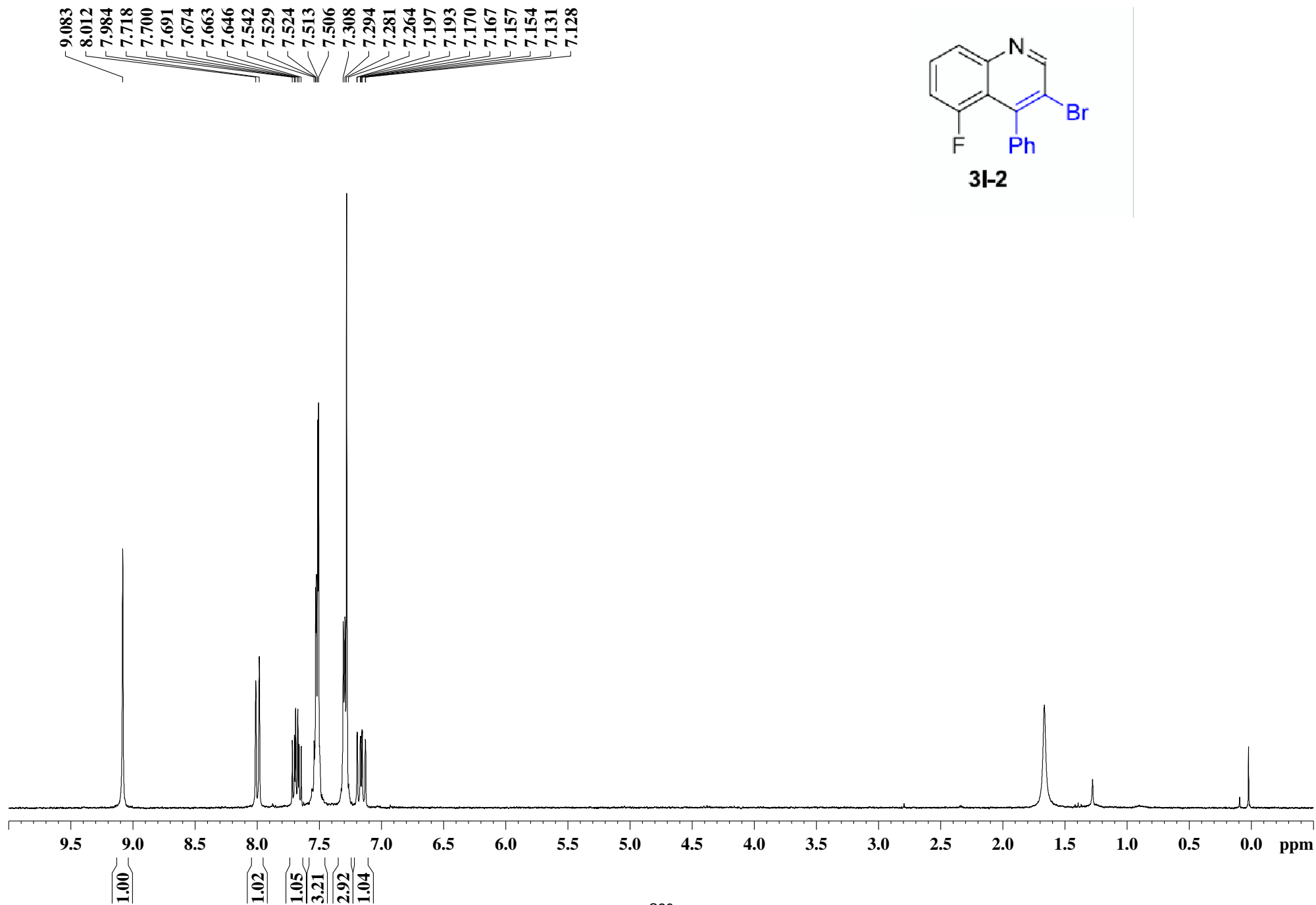




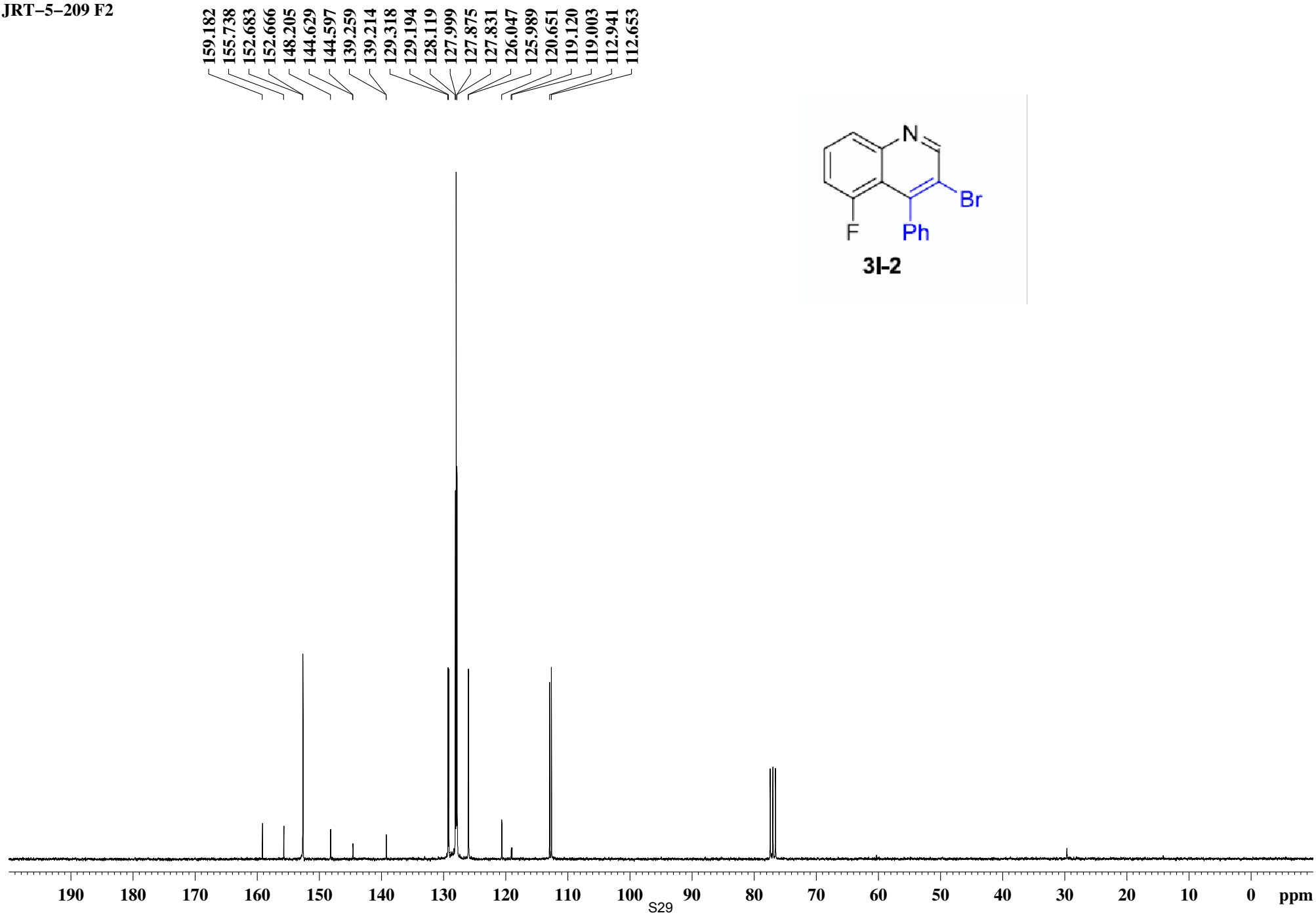


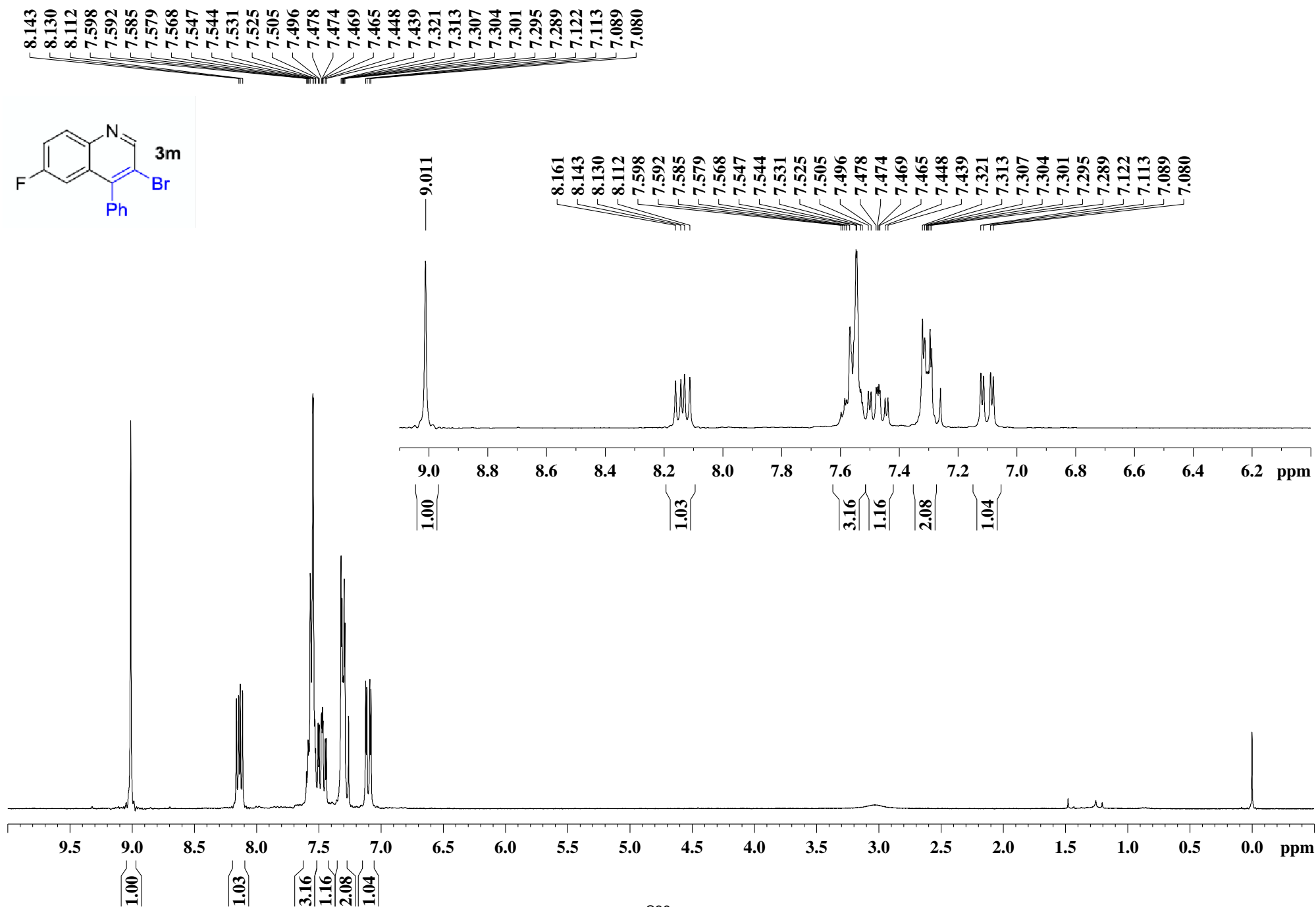
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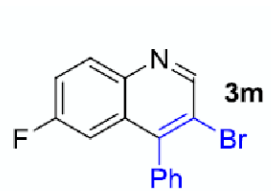




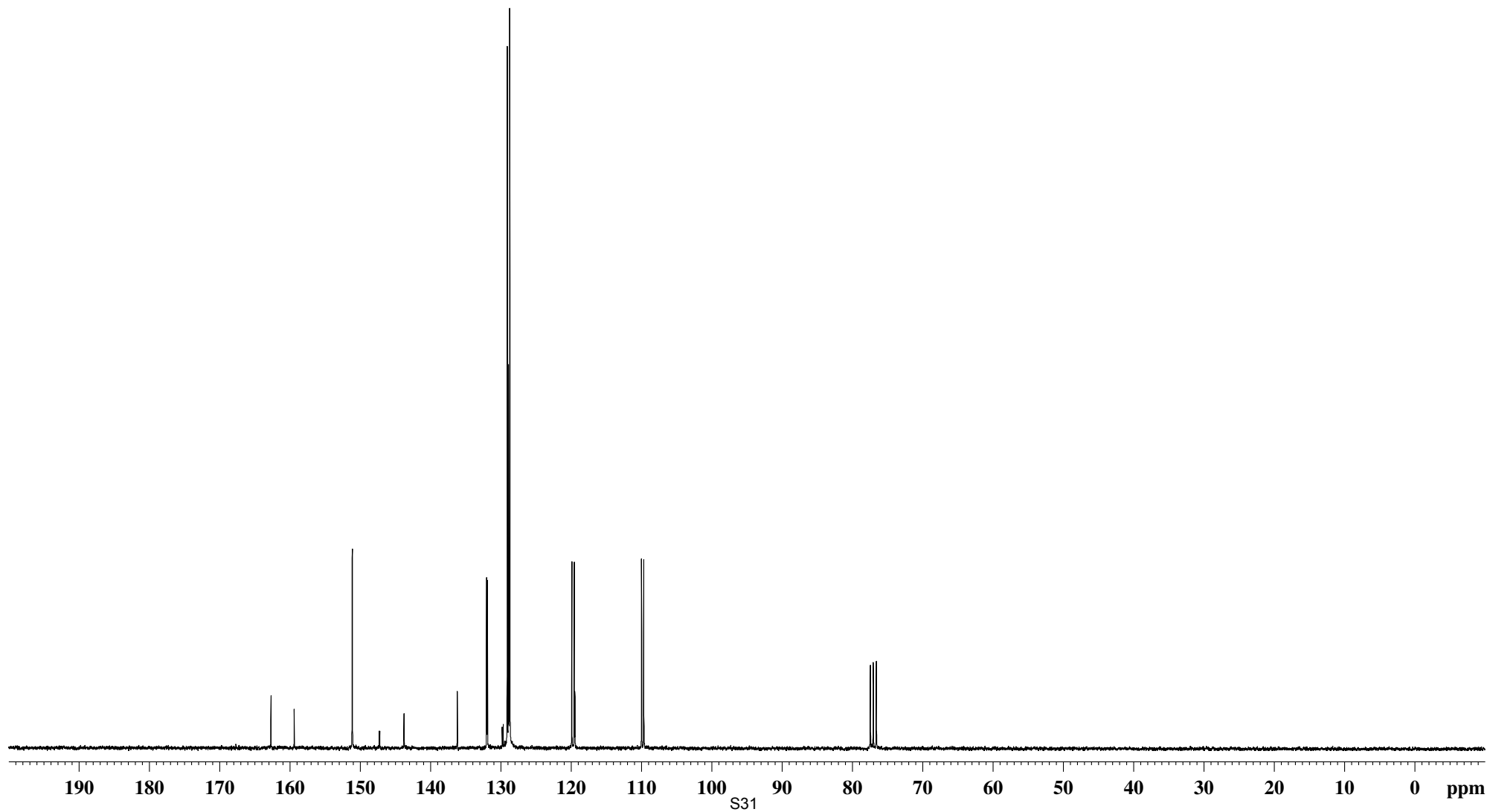
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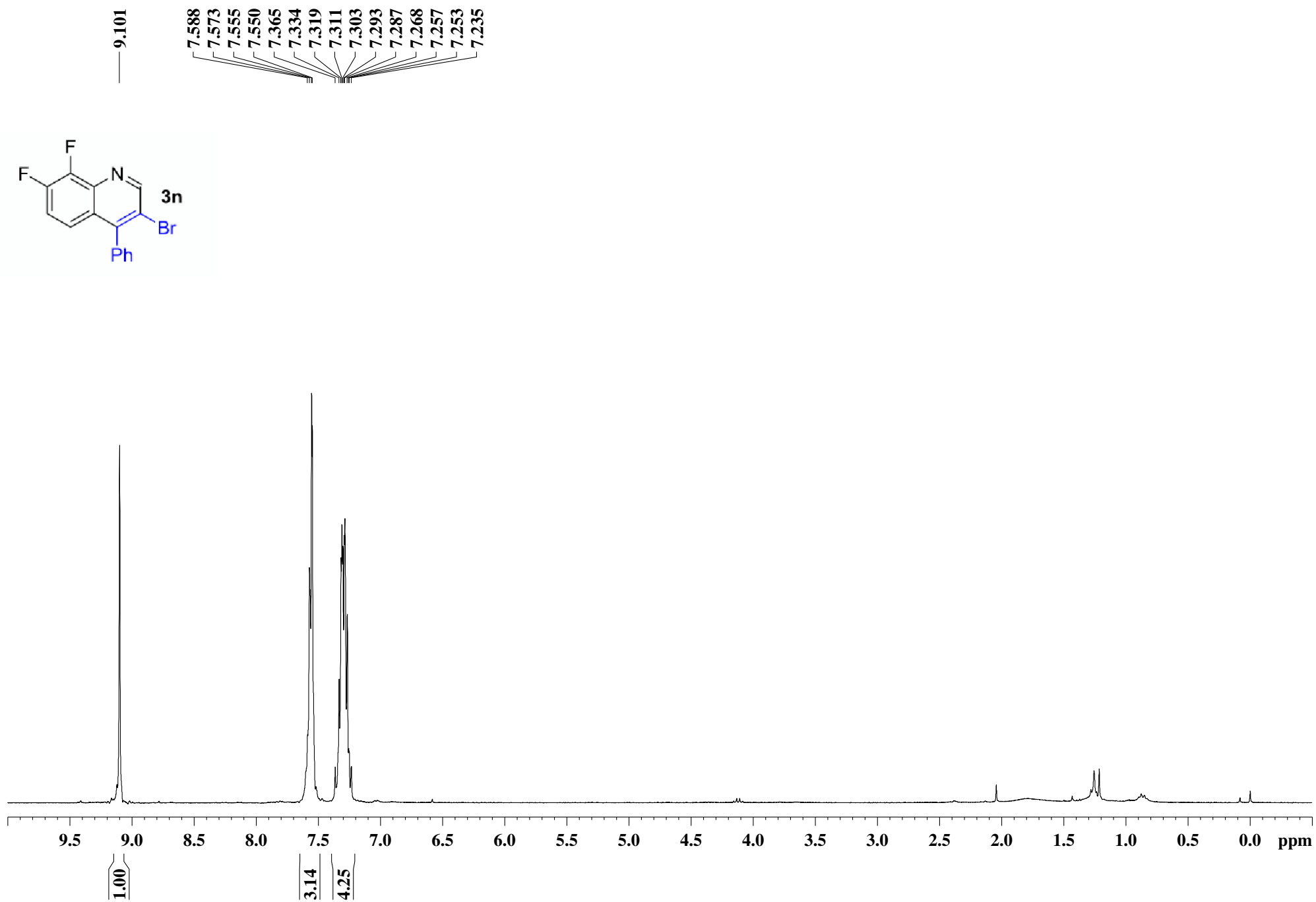


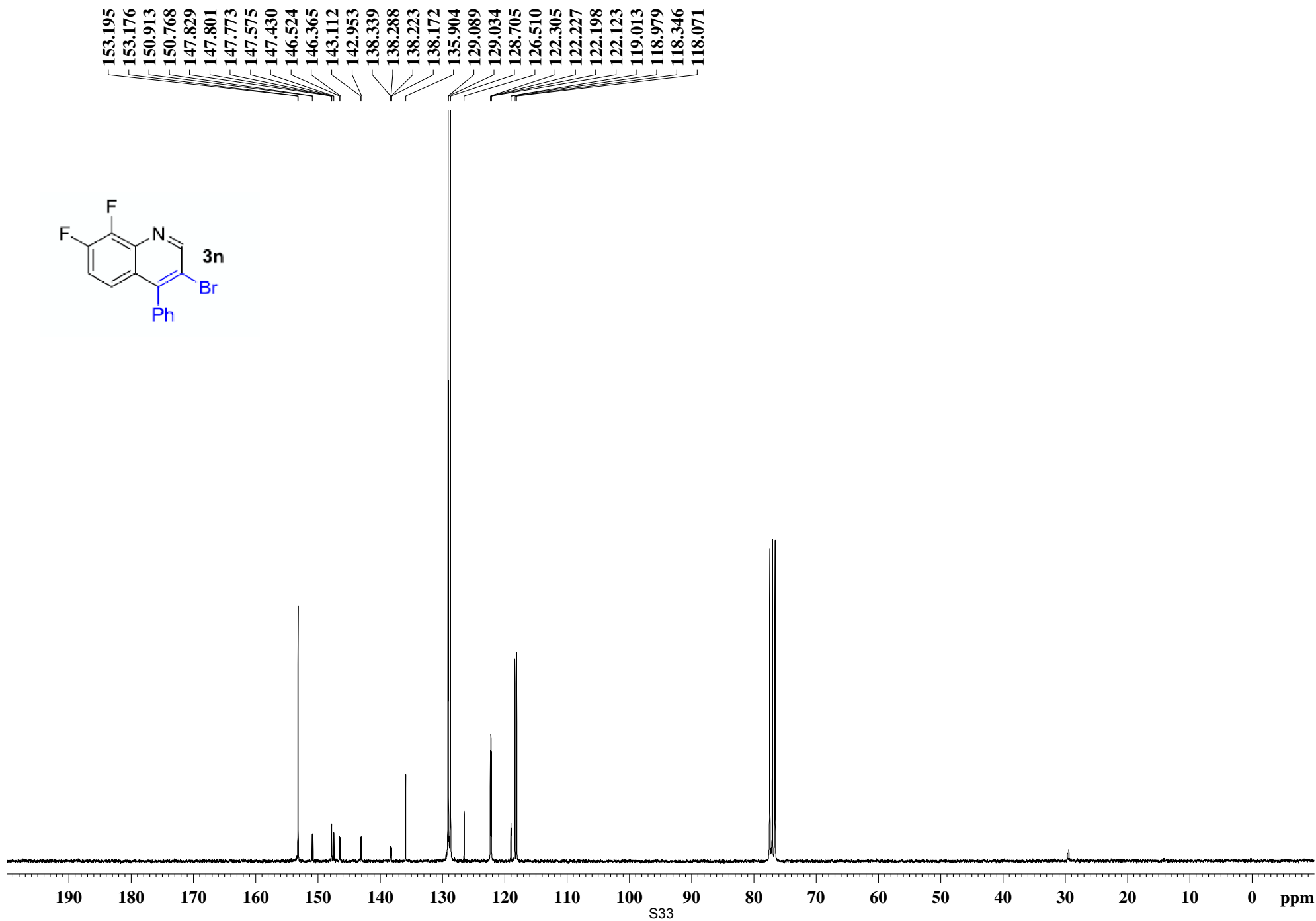




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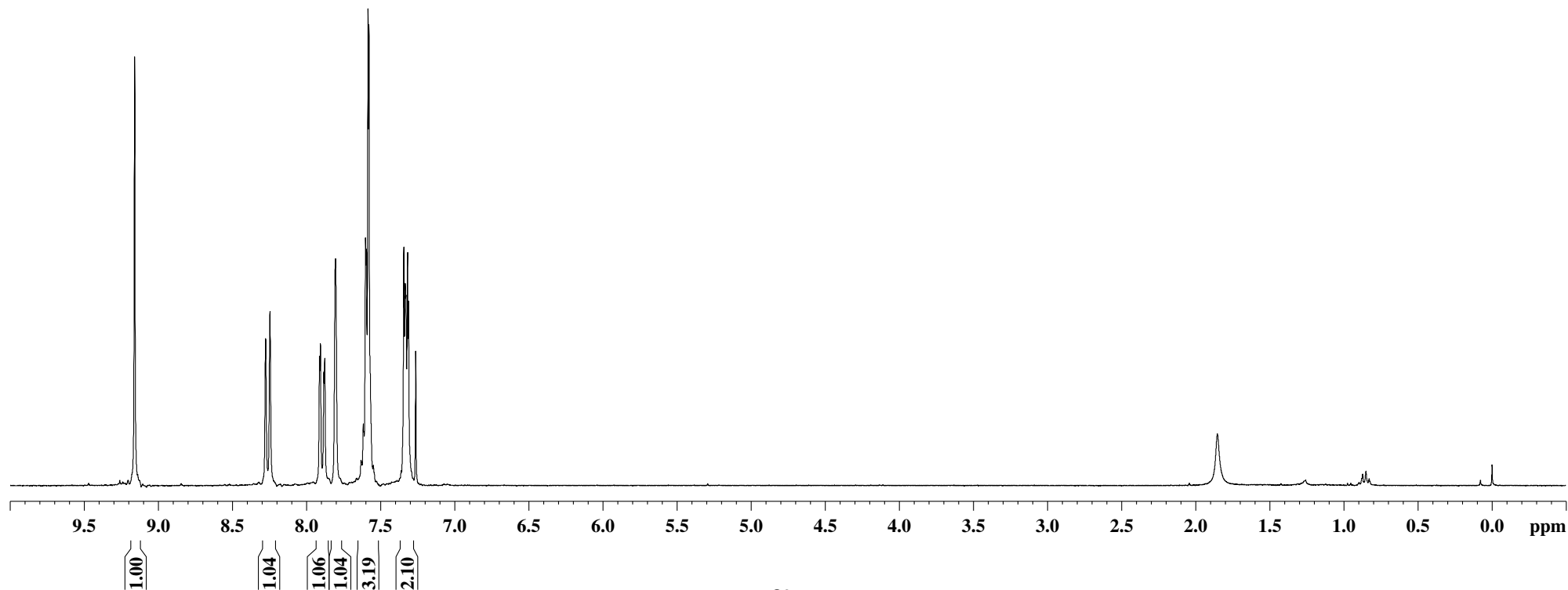
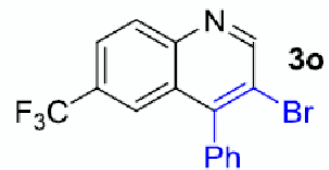


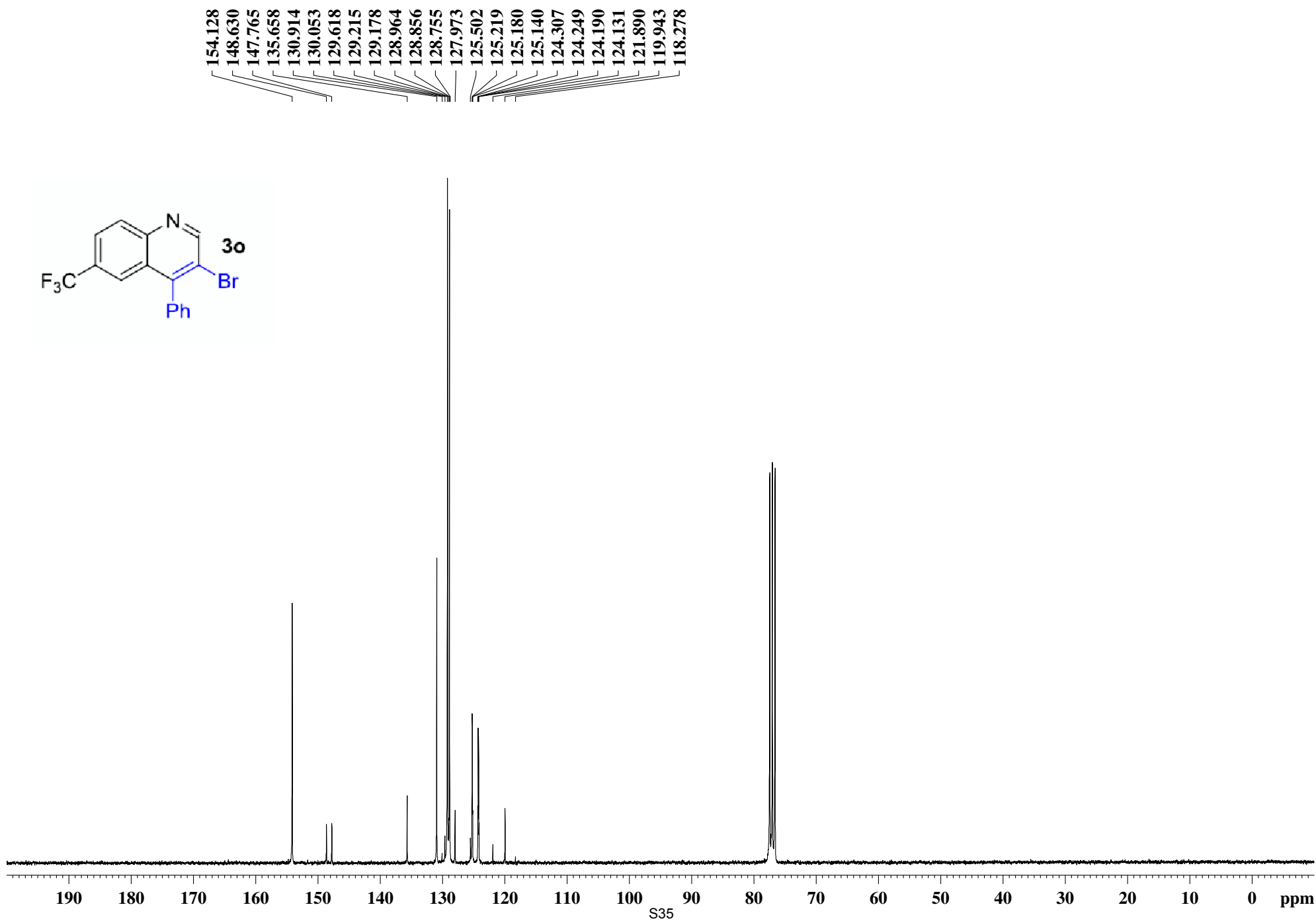
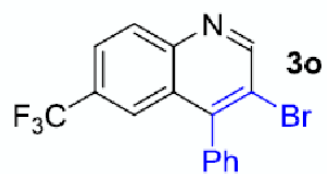




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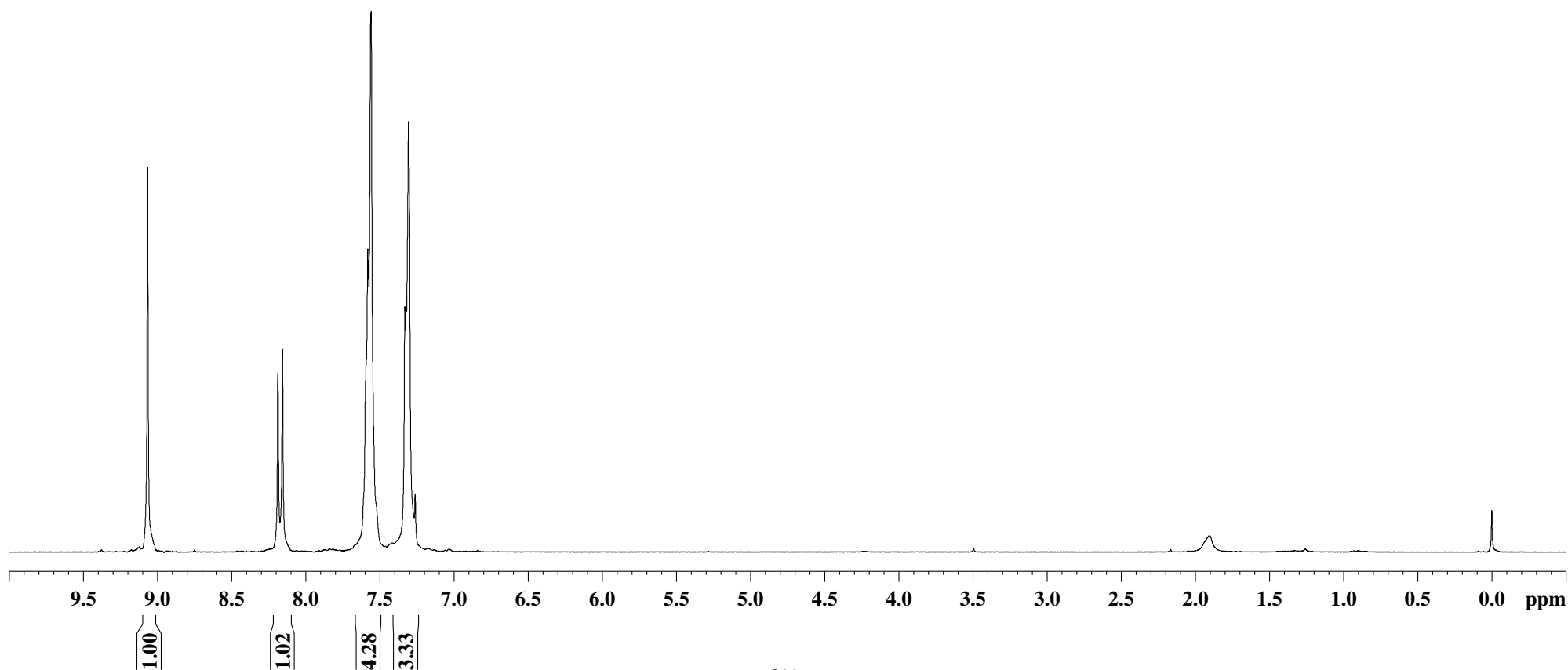
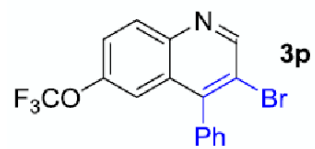
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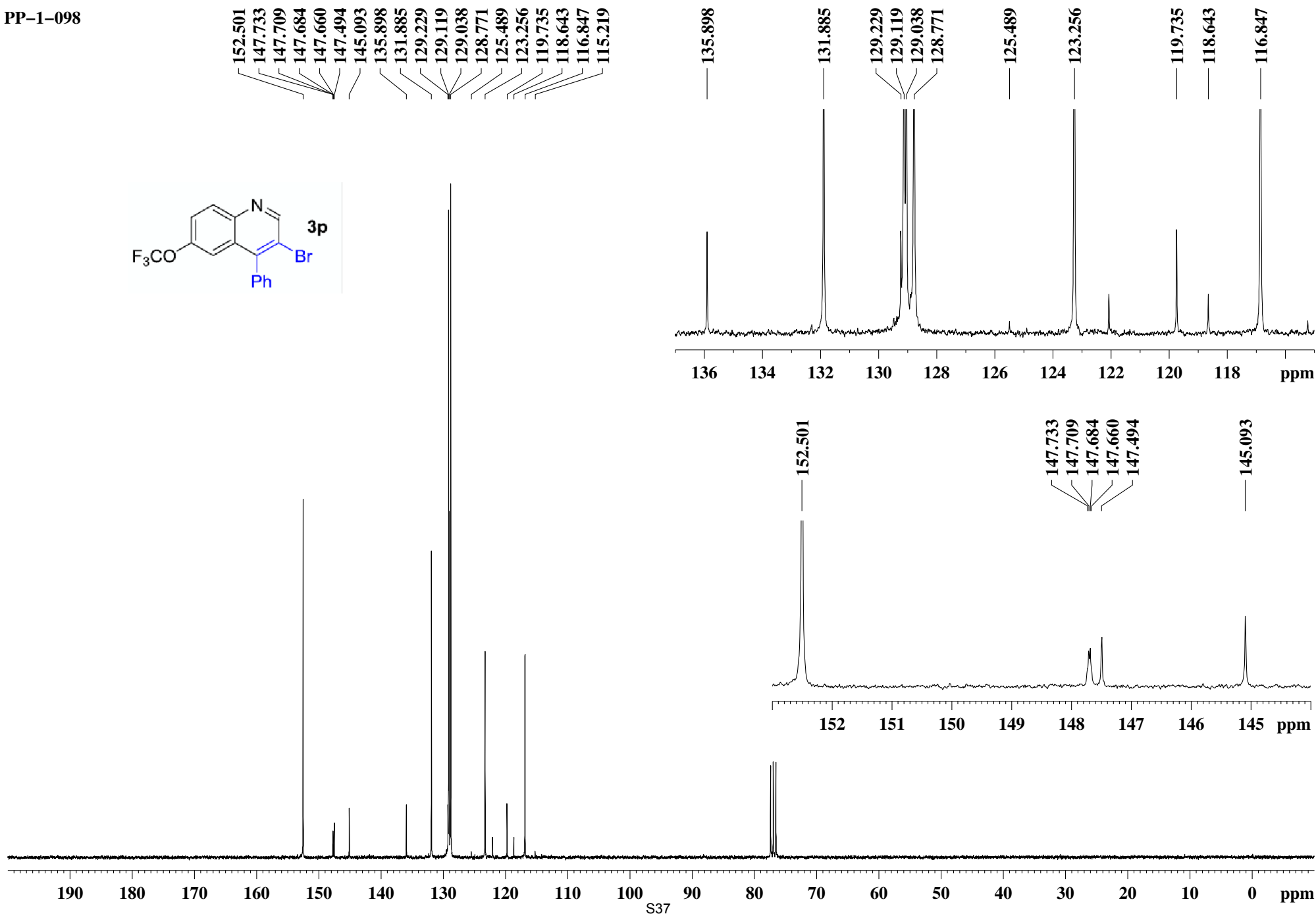
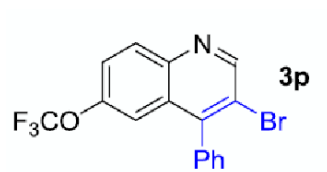


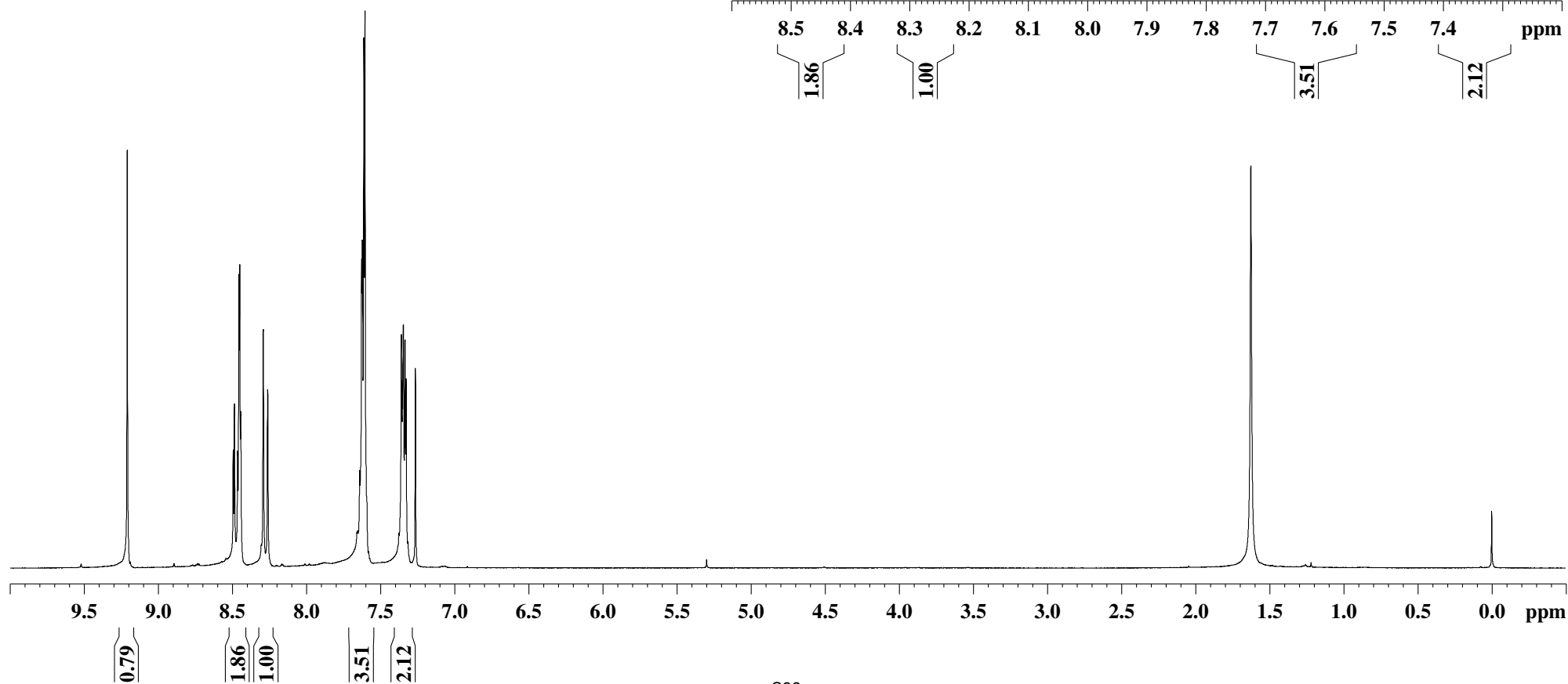
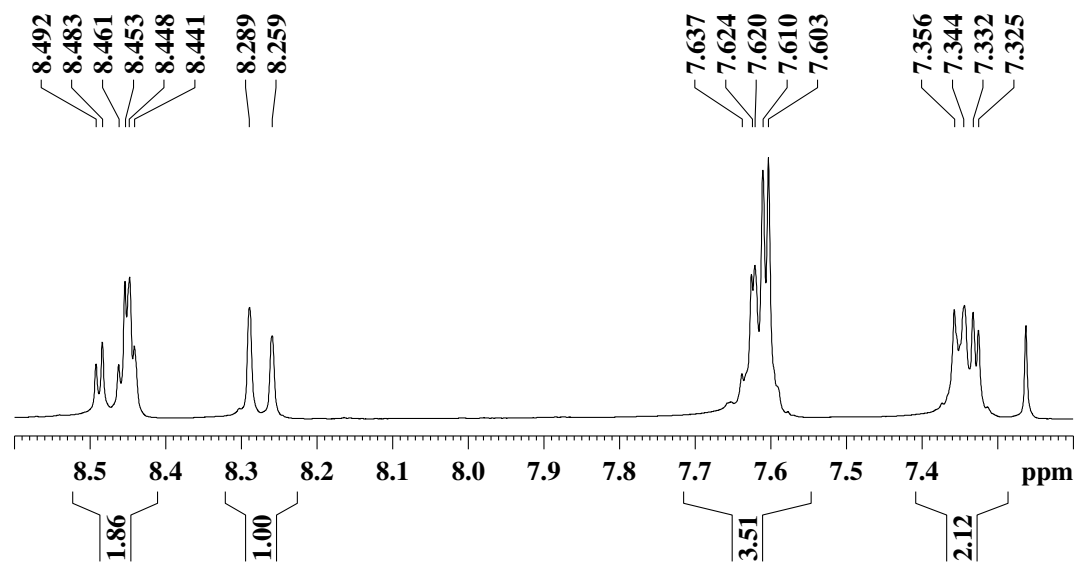
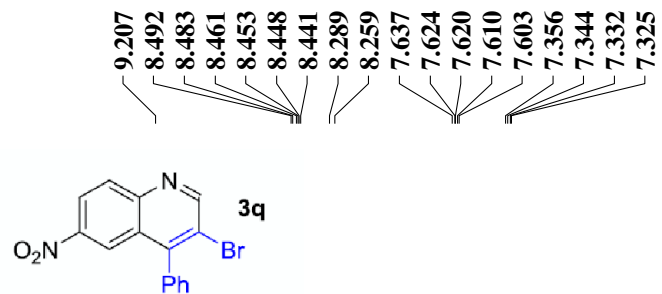
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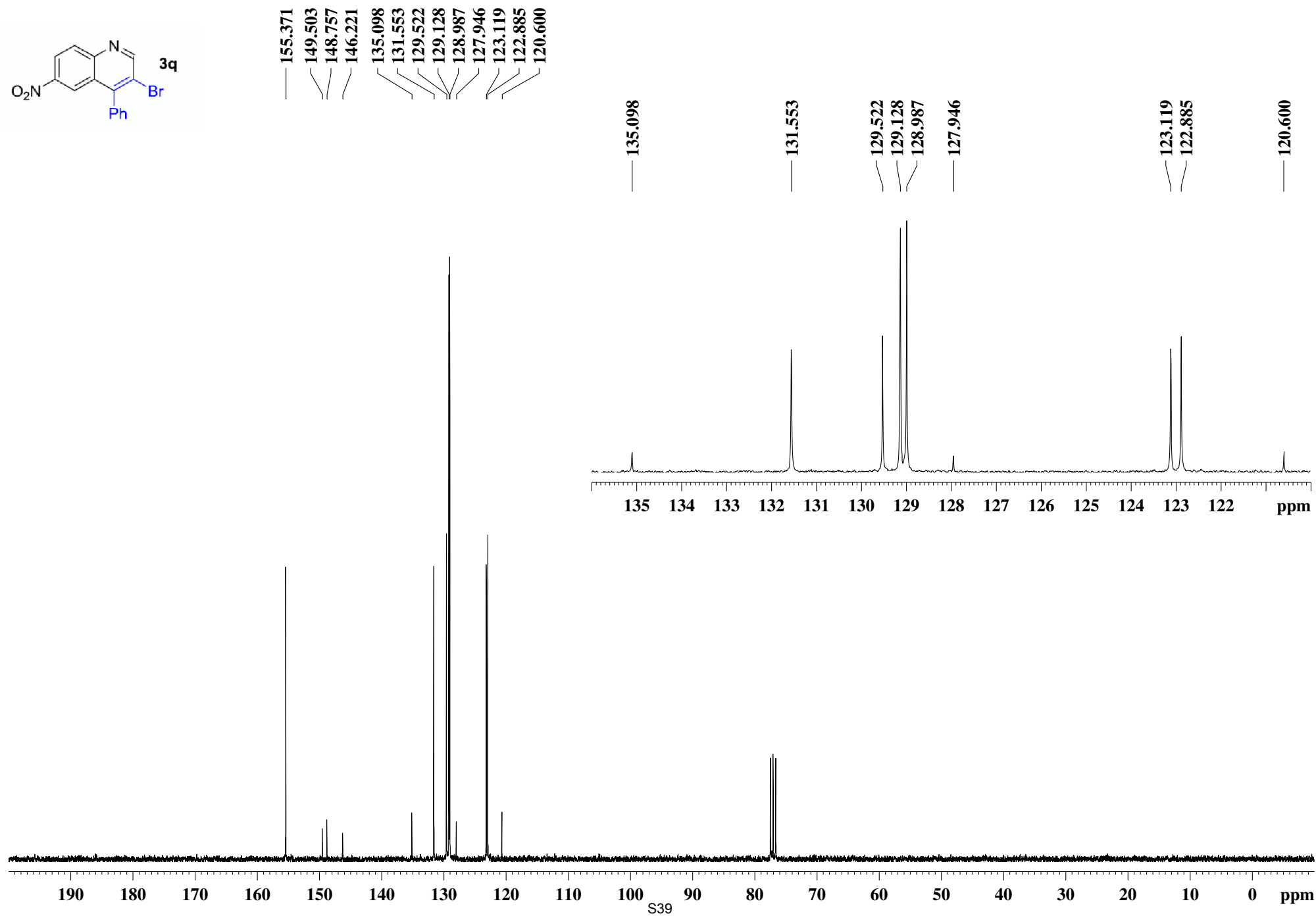
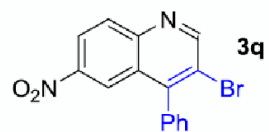
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PP-1-098

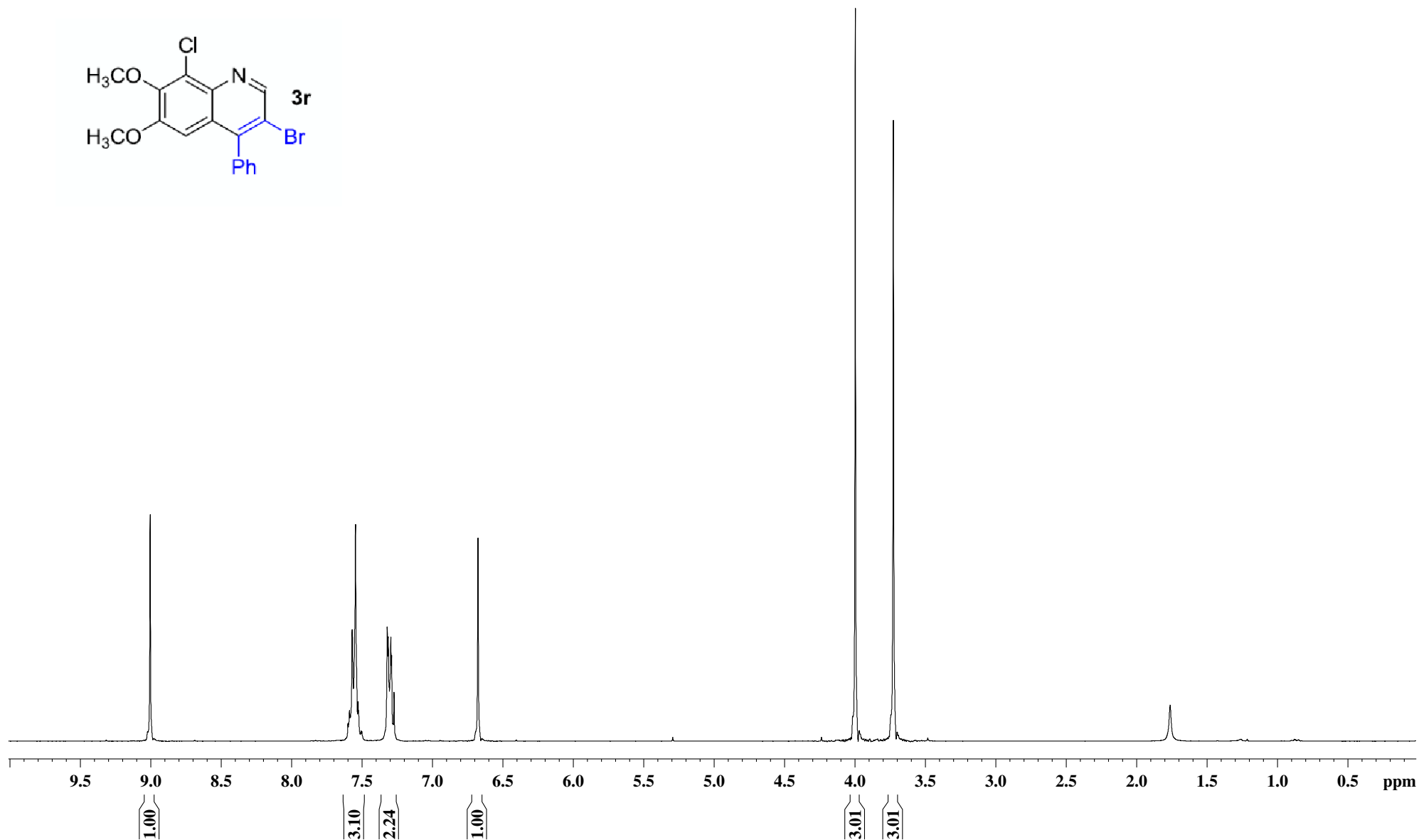
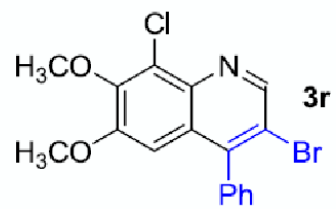




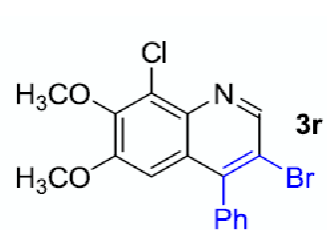


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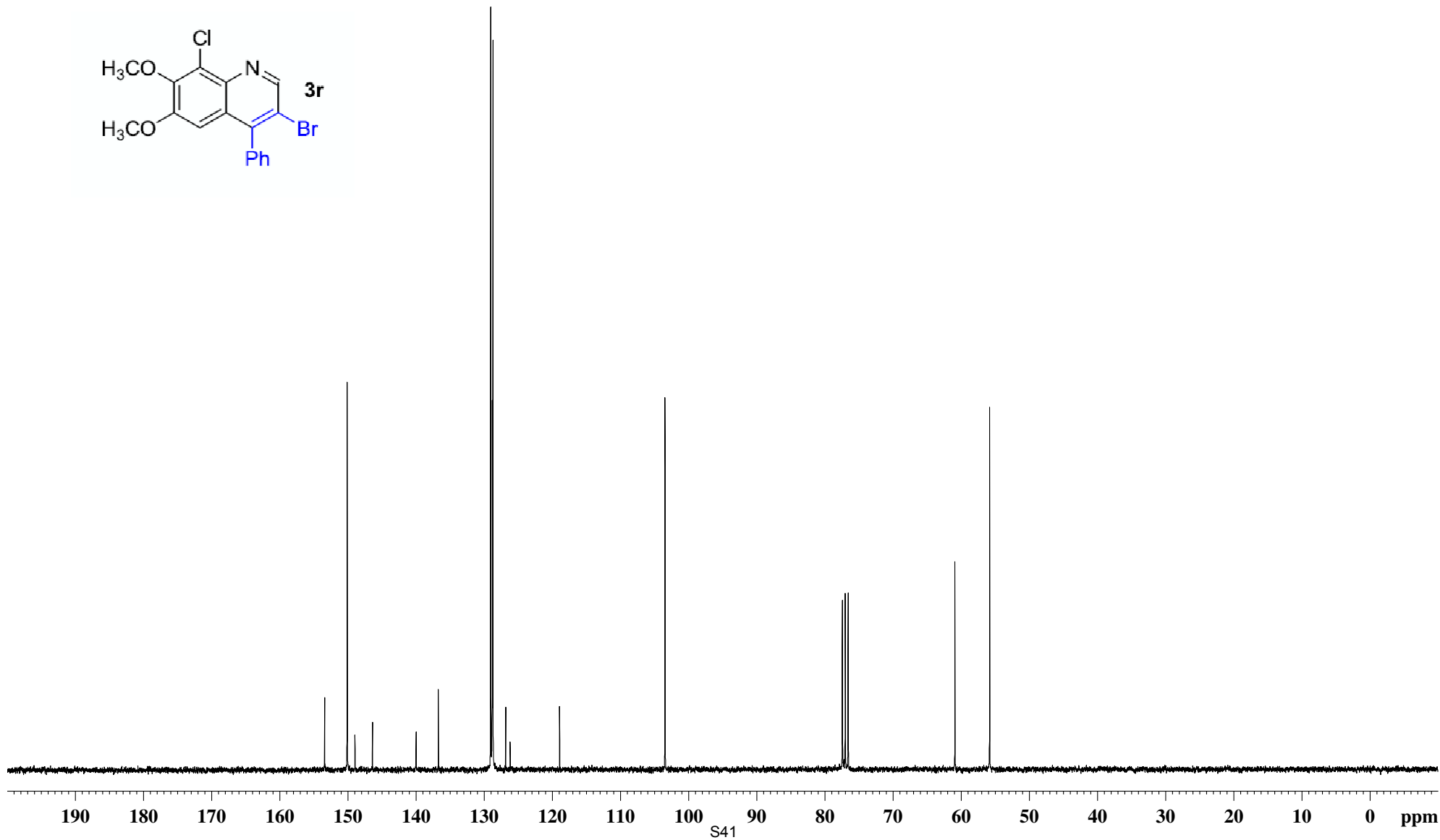
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JRT-4-125



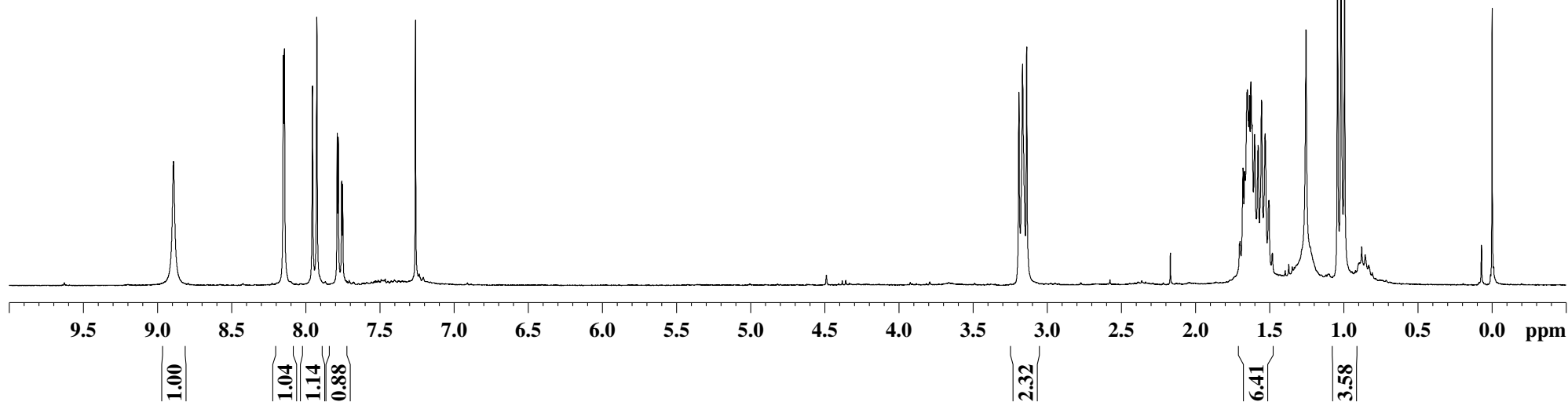
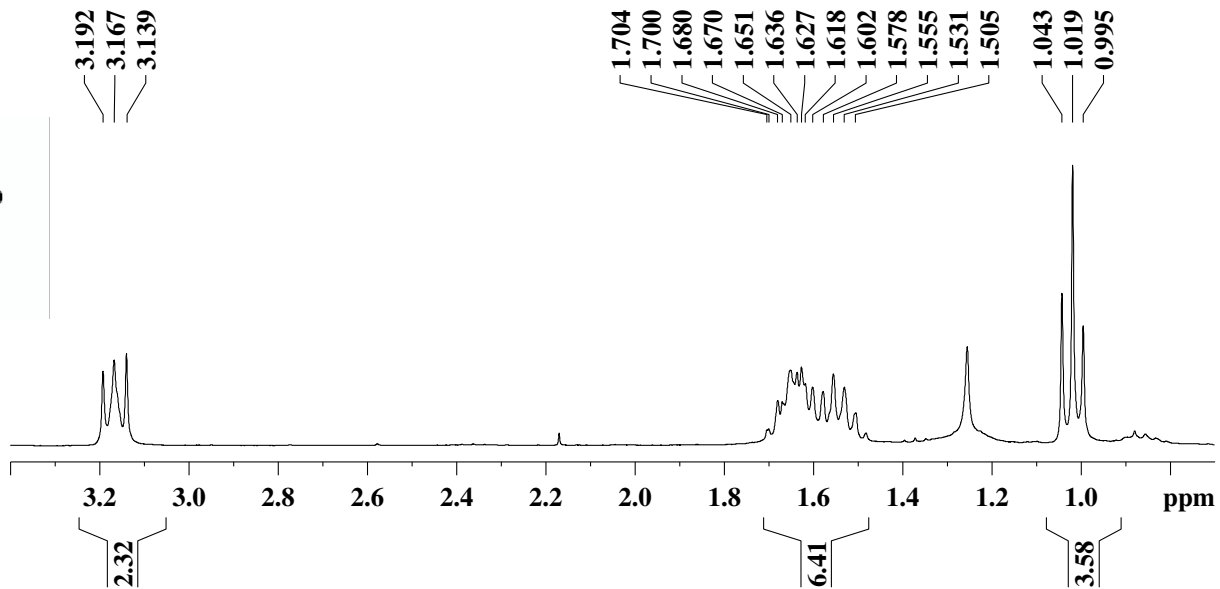
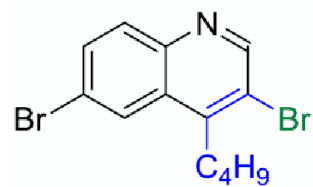
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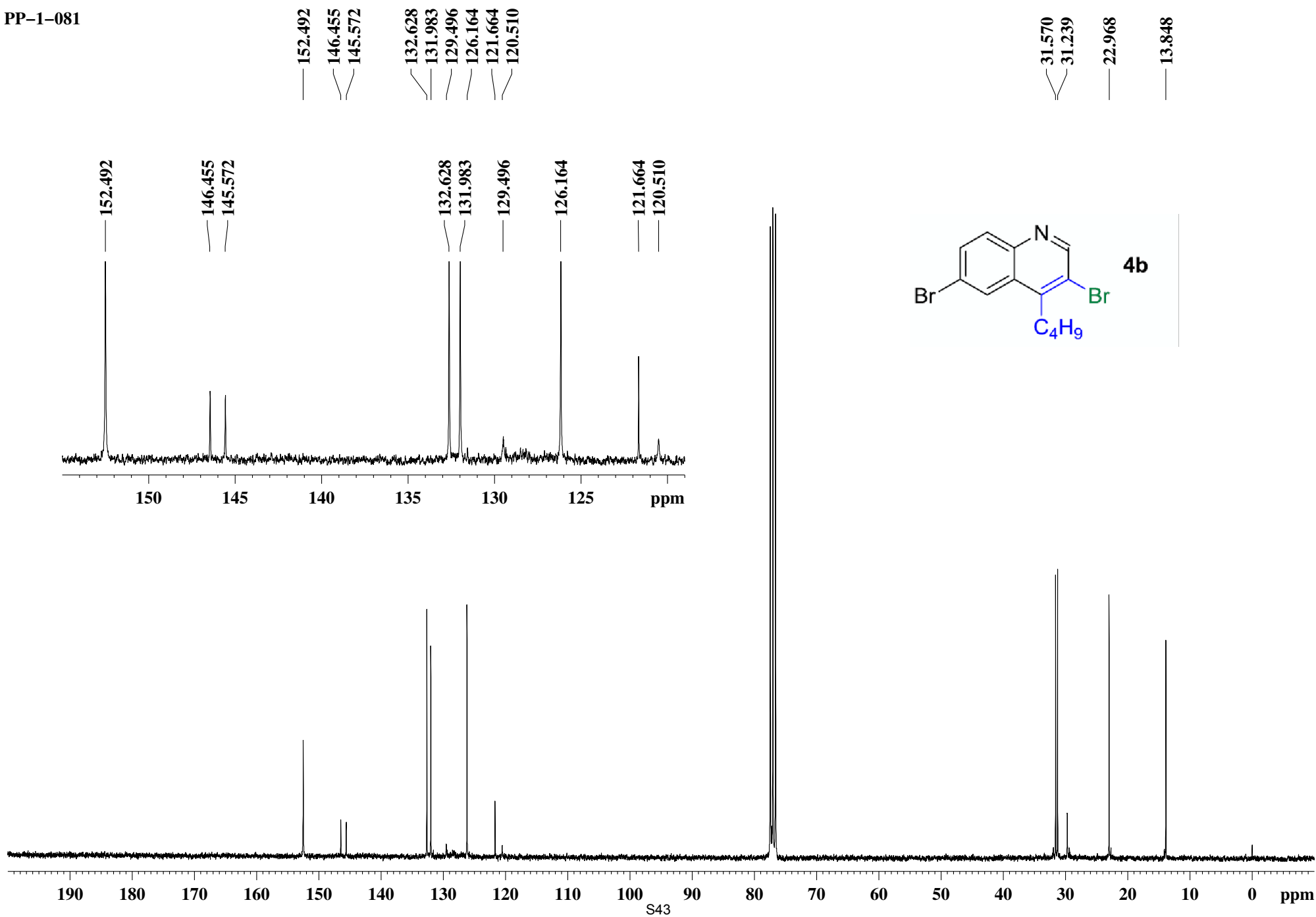
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3.139
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1.680
1.670
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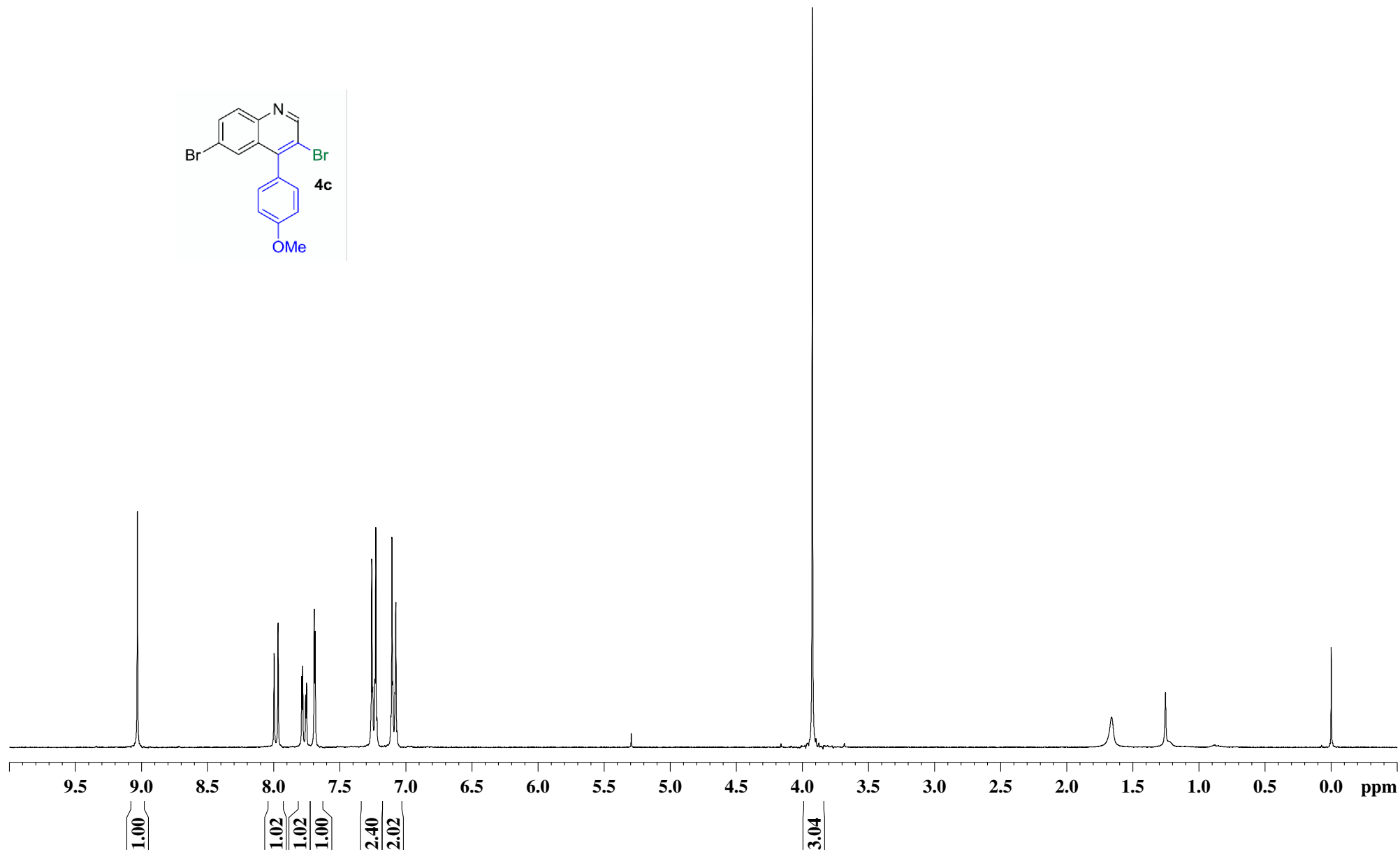
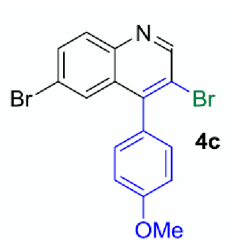
PP-1-081



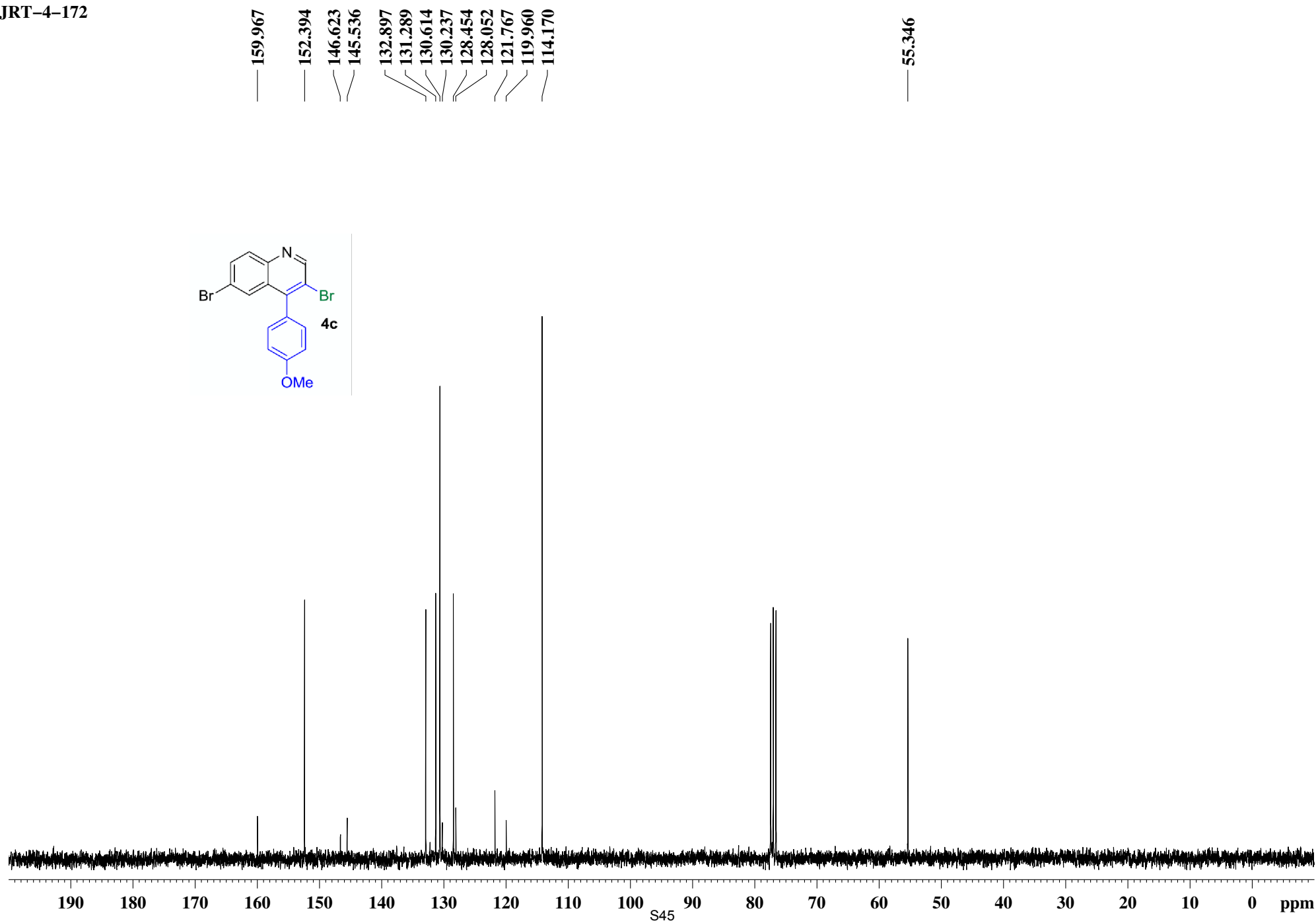
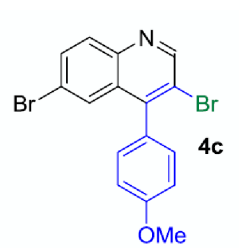
JRT-4-172

9.030
7.995
7.966
7.790
7.783
7.760
7.753
7.695
7.688
7.260
7.252
7.236
7.229
7.221
7.115
7.107
7.100
7.084
7.077

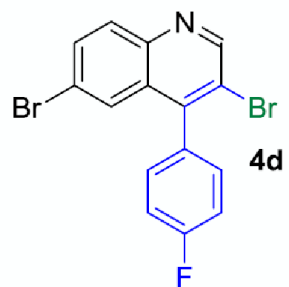
3.926



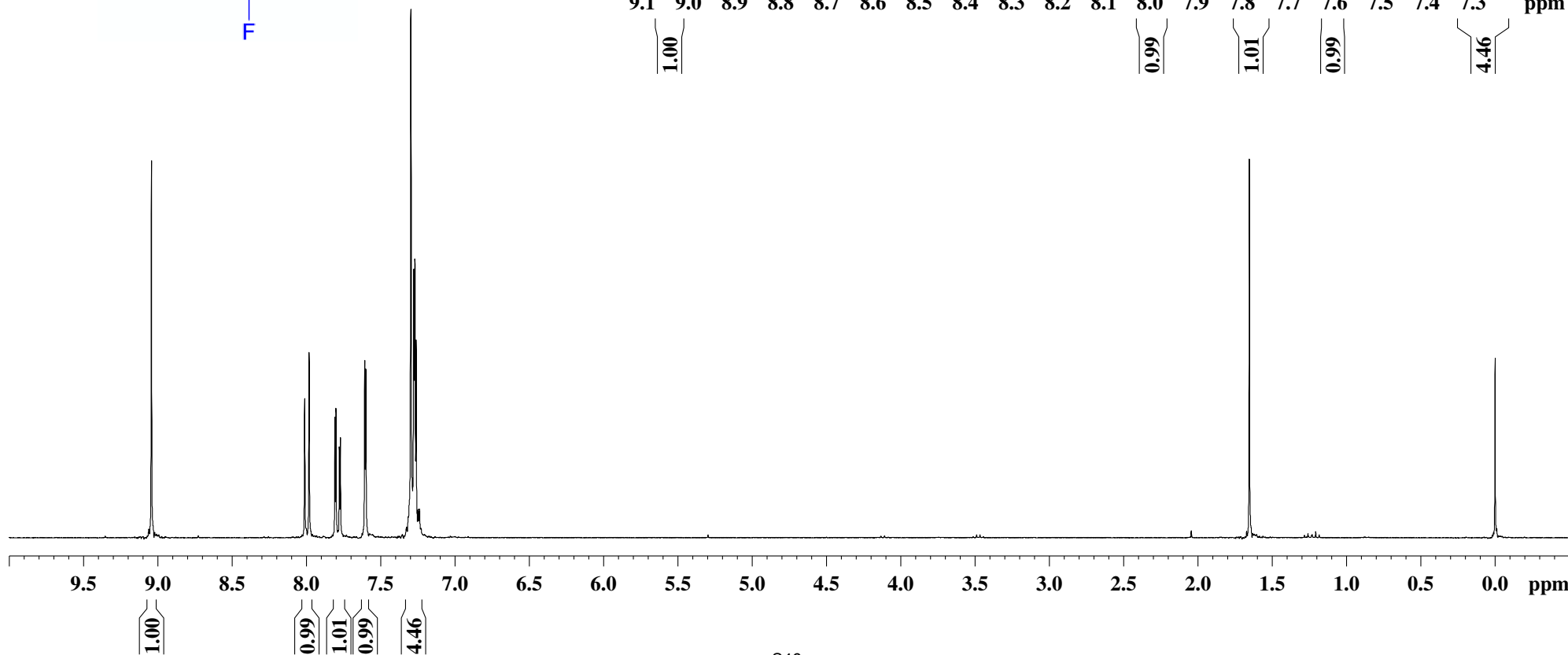
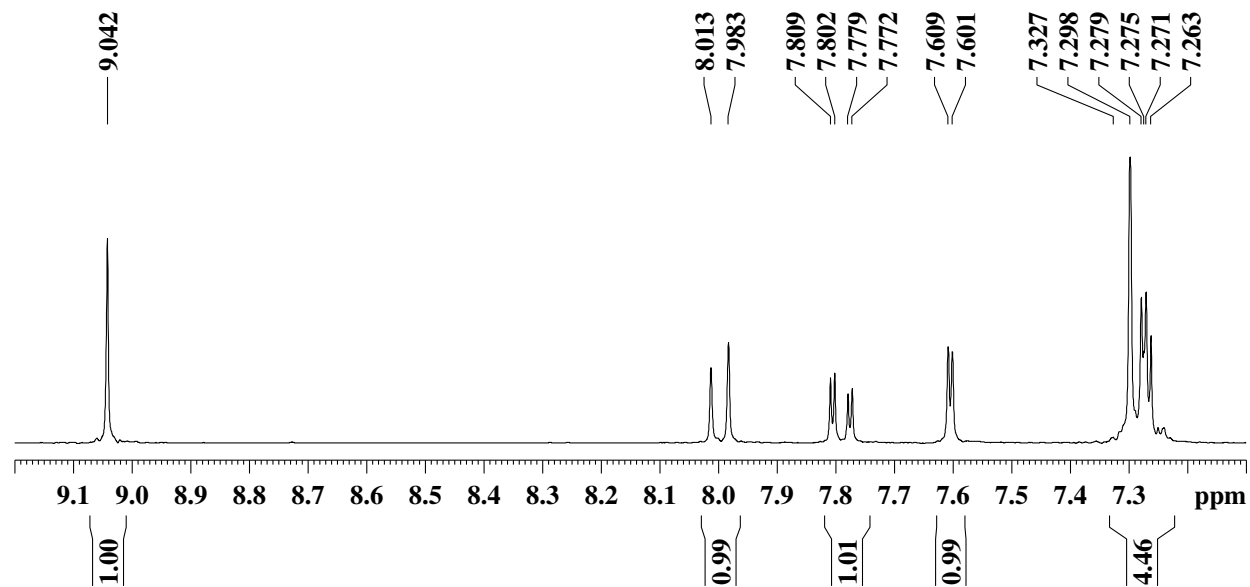
JRT-4-172



JRT-4-181

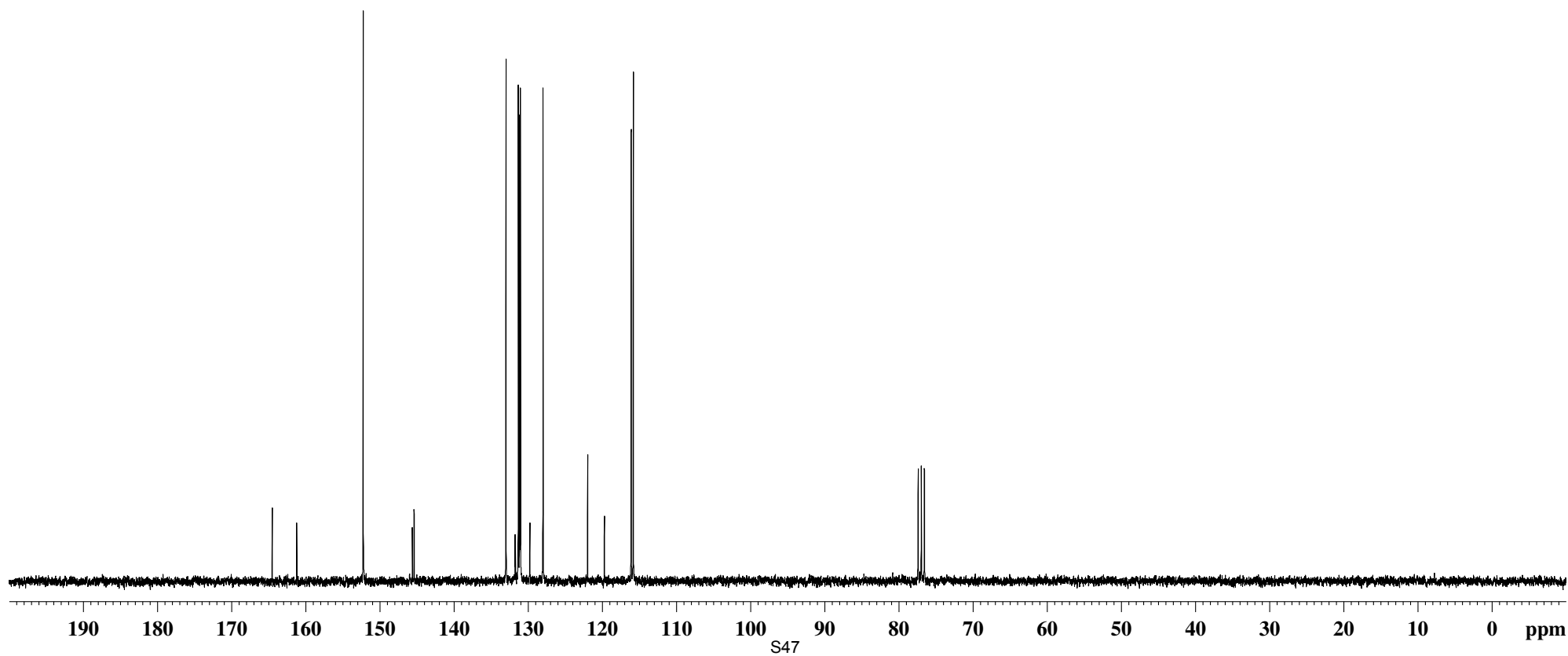
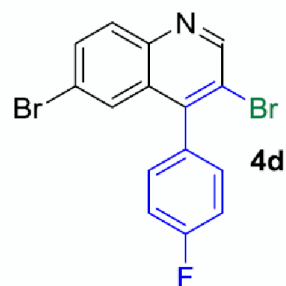


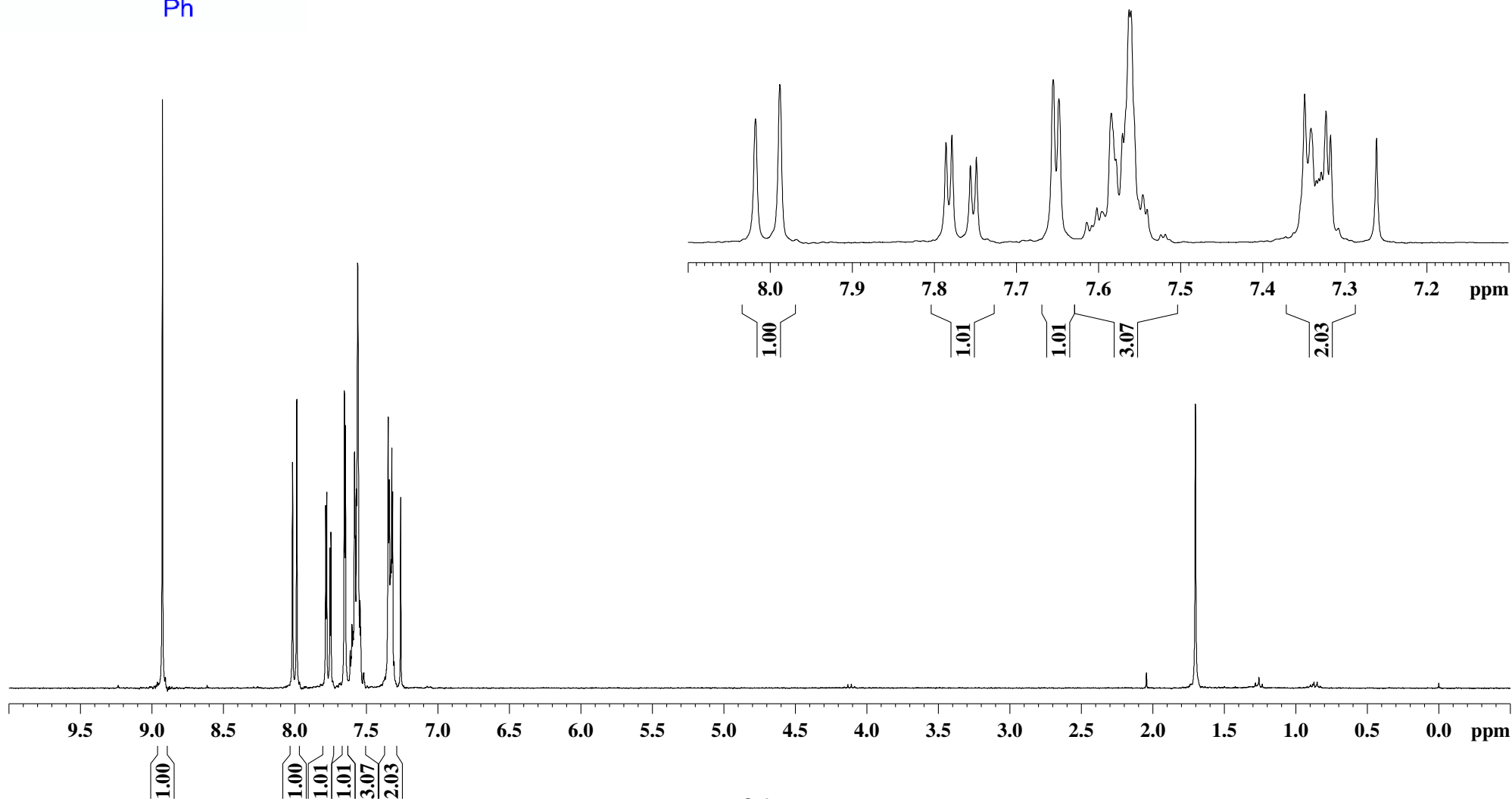
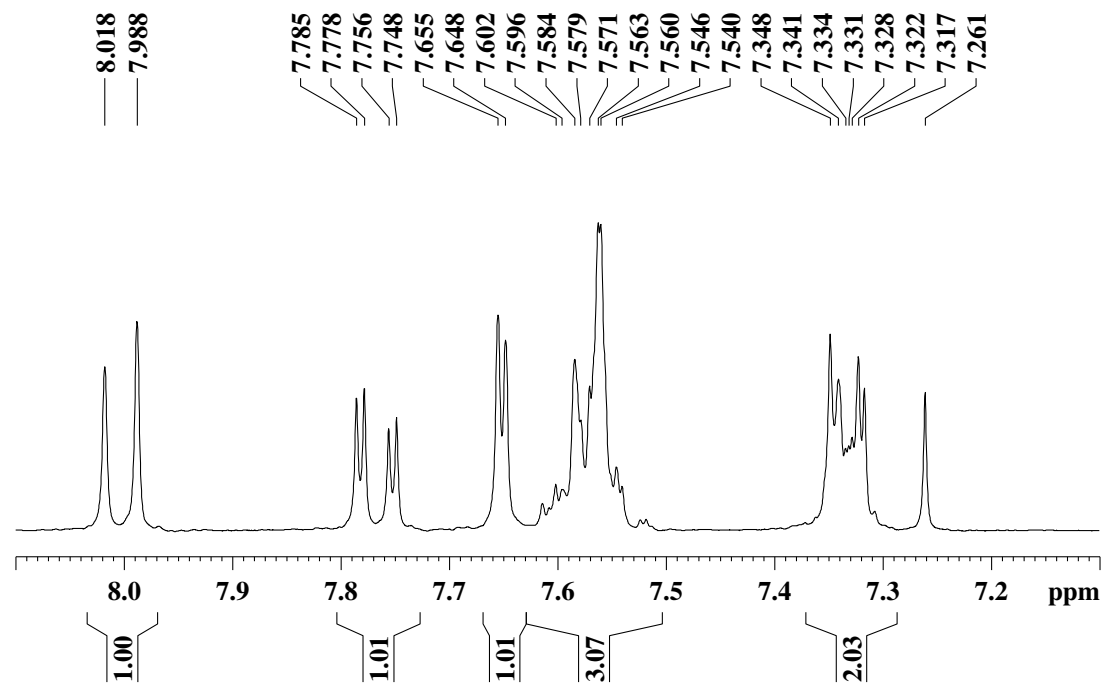
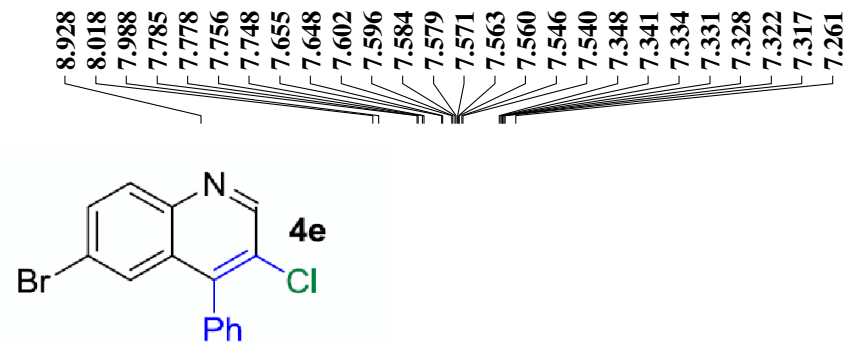
9.042
8.013
7.983
7.809
7.802
7.779
7.772
7.609
7.601
7.327
7.298
7.279
7.275
7.271
7.263
7.250
7.240

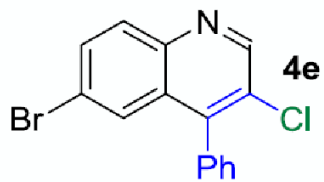


JRT-4-181

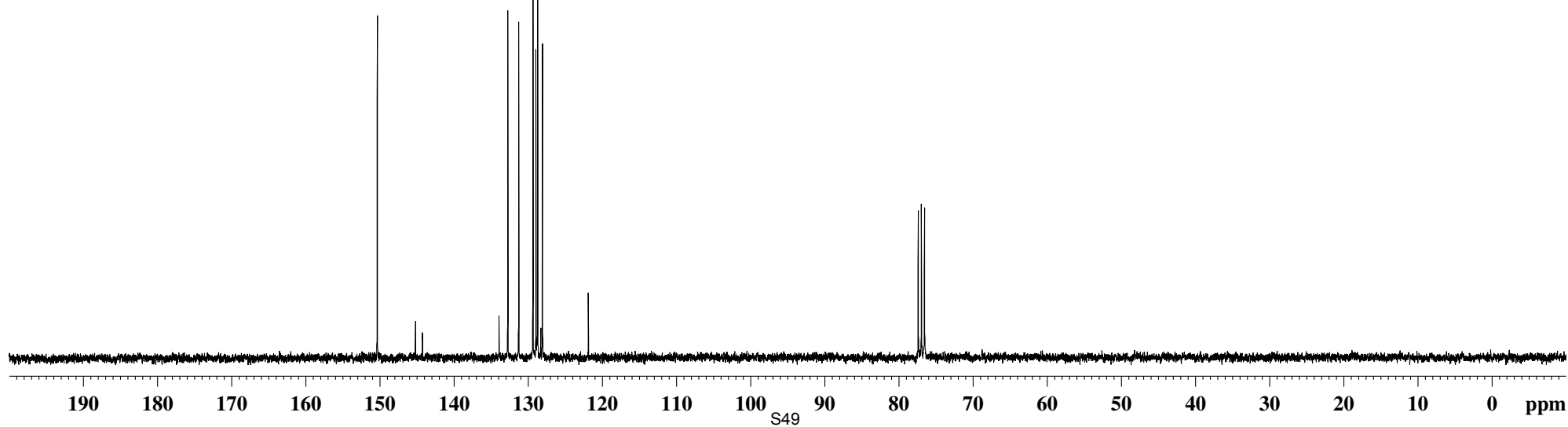
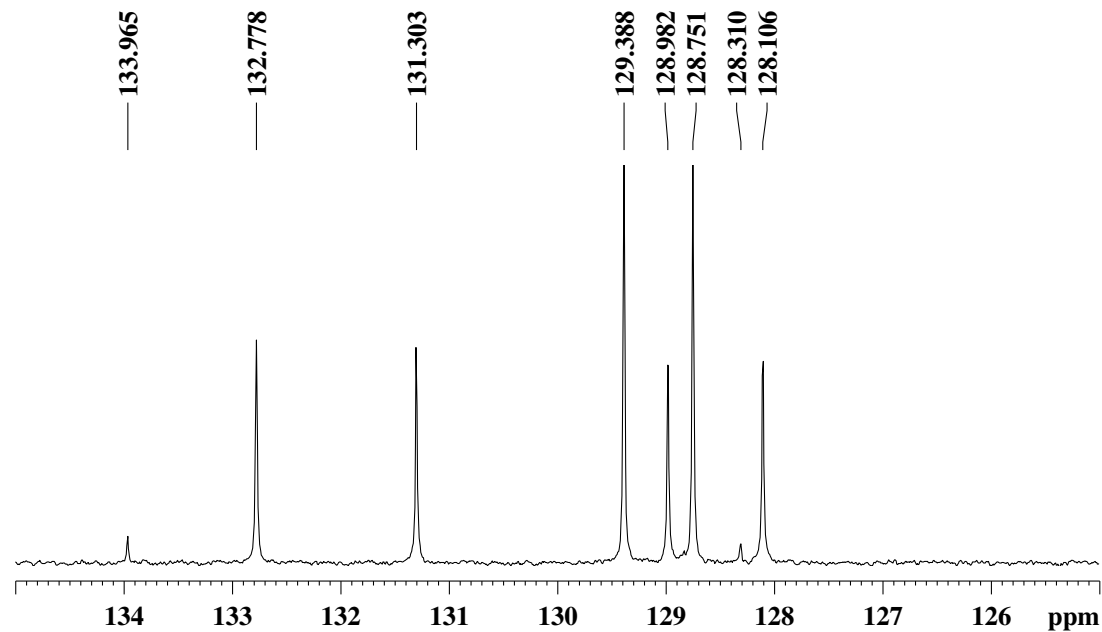
164.559
161.257
152.282
145.652
145.410
133.026
131.794
131.745
131.363
131.179
131.069
129.799
128.030
122.012
119.749
116.140
115.851





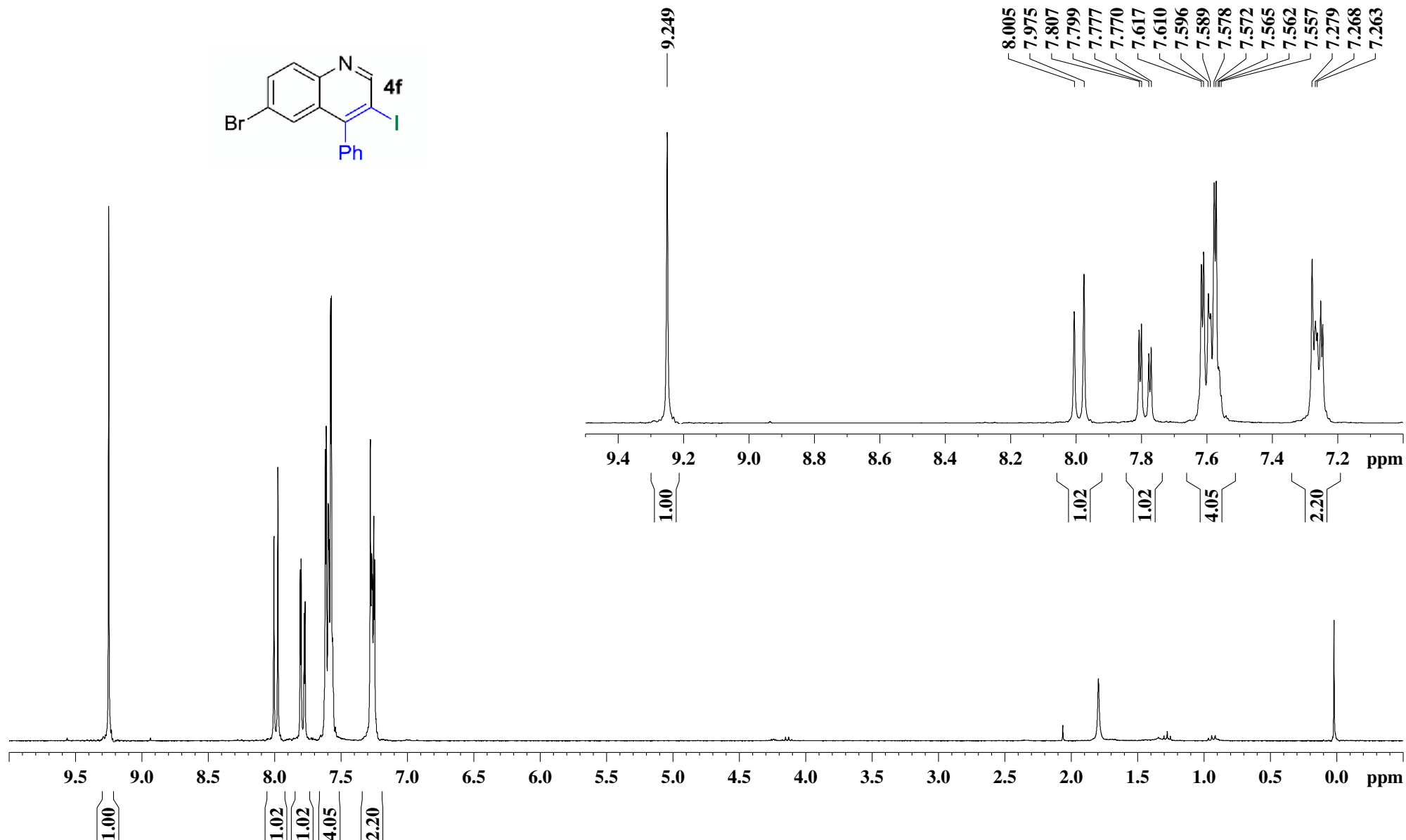
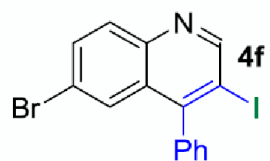


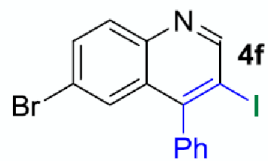
150.384
145.226
144.288
133.965
132.778
131.303
129.388
128.982
128.751
128.310
128.106
121.915



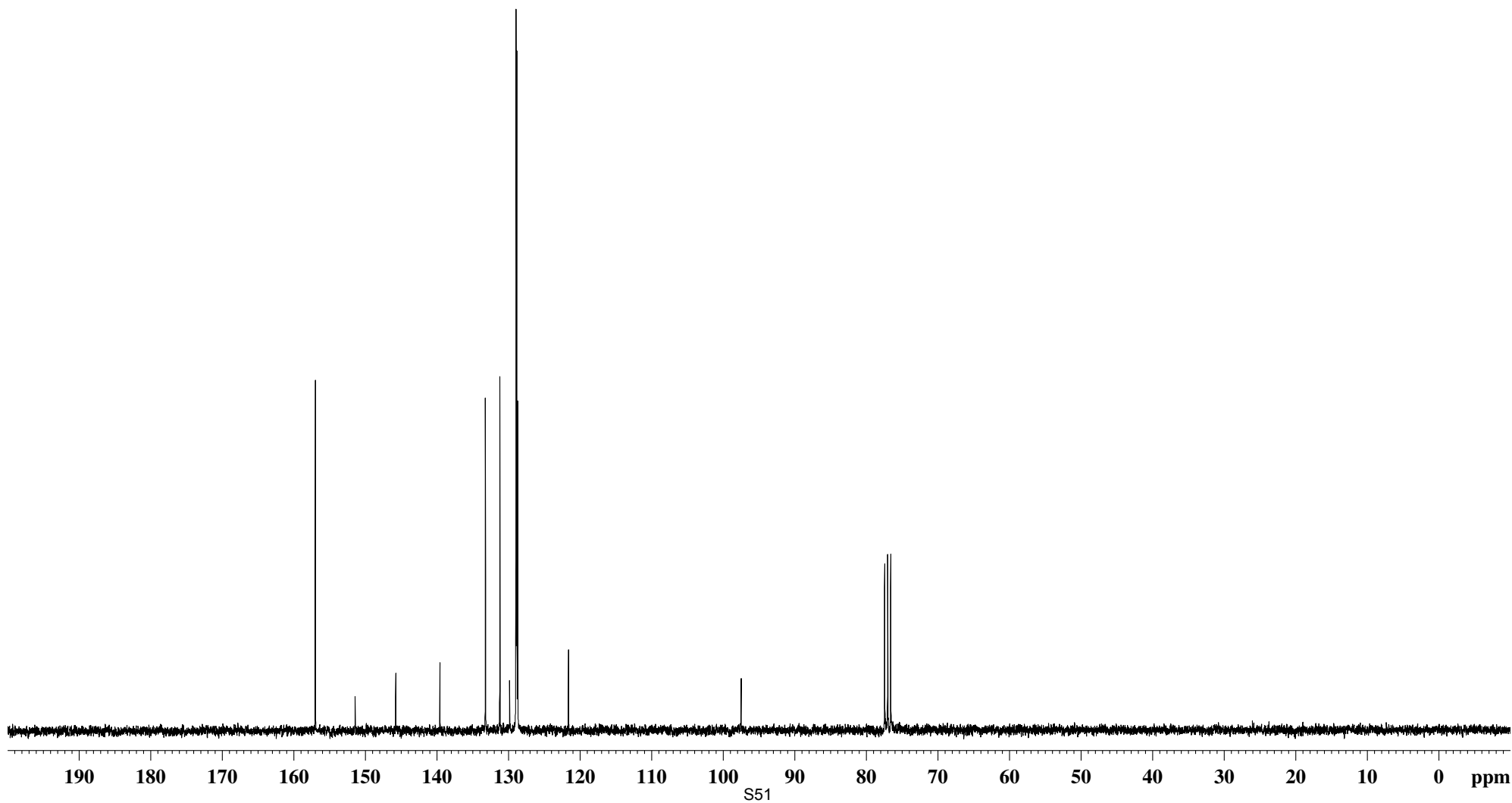
PP-1-107

9.249
8.005
7.975
7.807
7.799
7.777
7.770
7.617
7.610
7.596
7.589
7.578
7.572
7.565
7.562
7.557
7.279
7.268
7.263
7.252
7.246





156.980
 151.424
 145.746
 139.571
 133.213
 131.195
 129.833
 128.955
 128.913
 128.828
 128.706
 121.602
 97.476



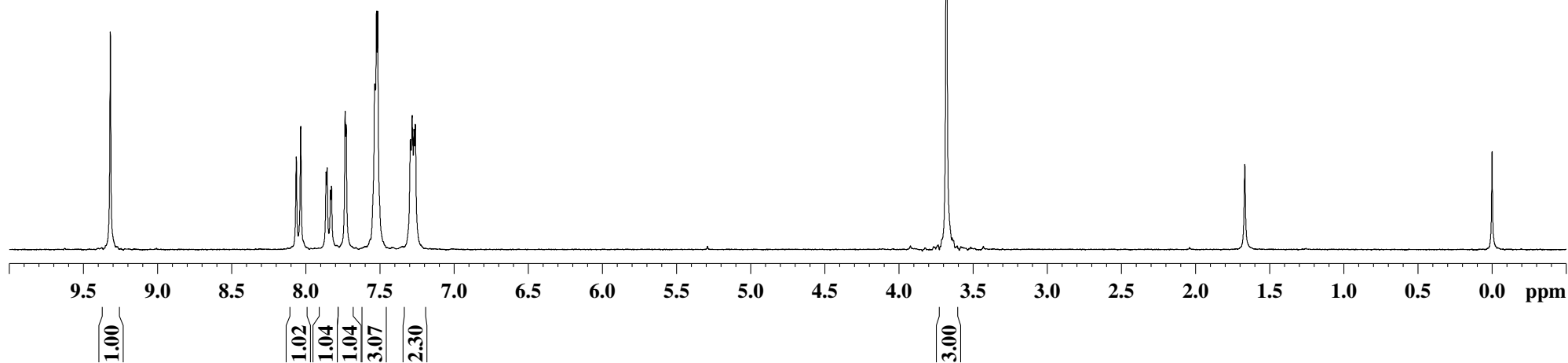
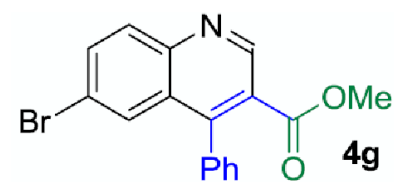
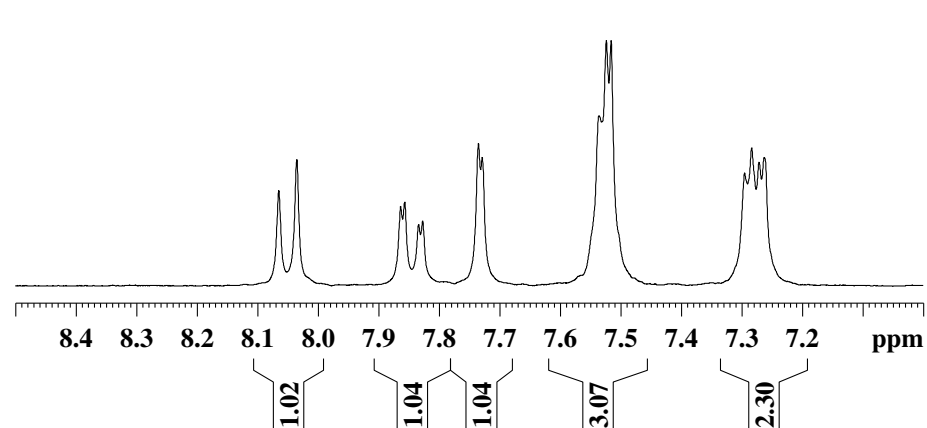
PP-1-088

9.319

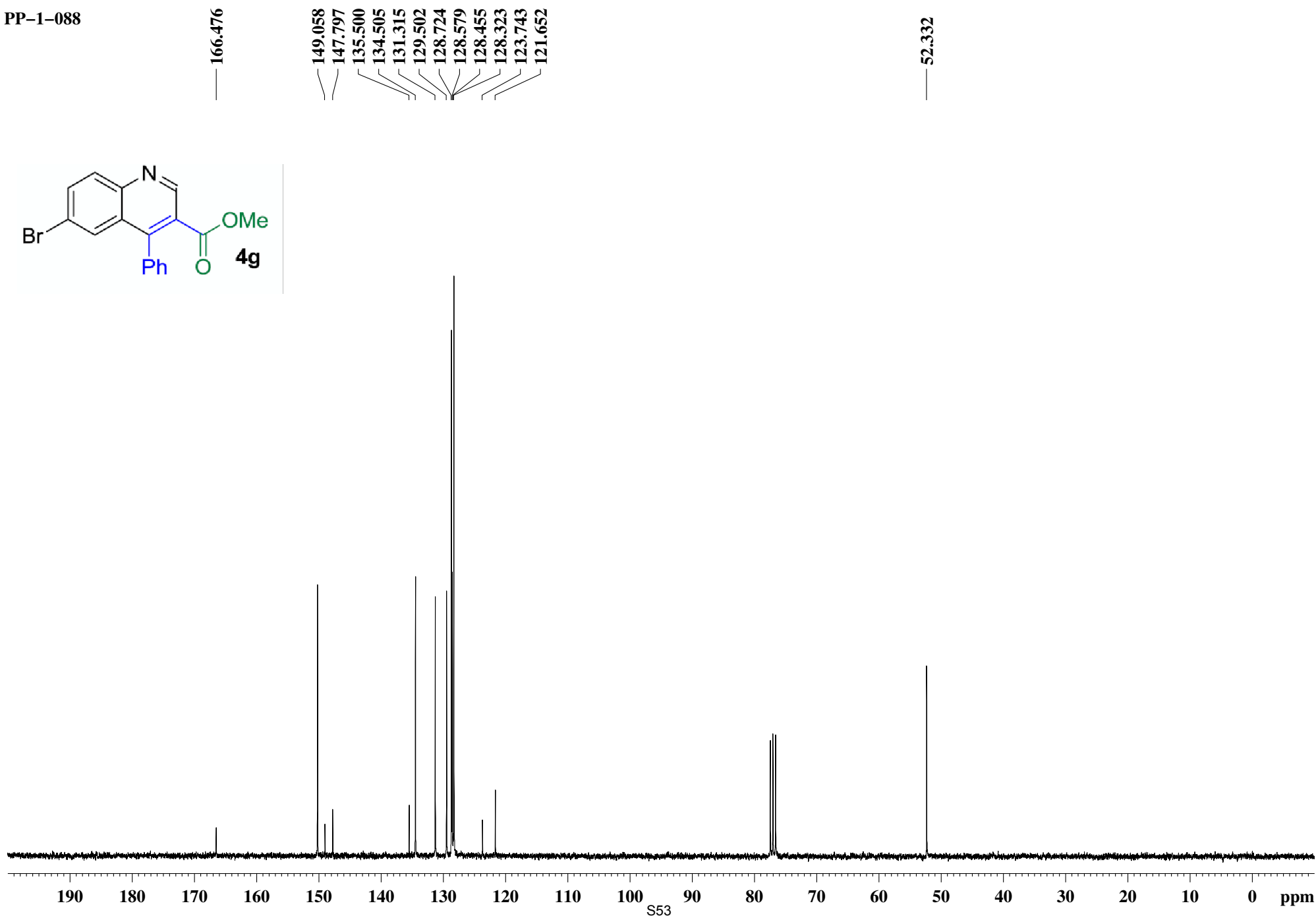
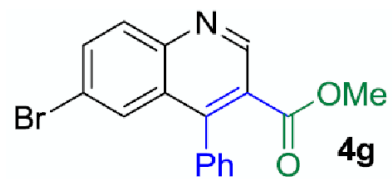
8.066
8.036
7.864
7.857
7.834
7.828
7.736
7.729
7.536
7.524
7.516
7.296
7.284
7.272
7.263

3.680

8.066
8.036
7.864
7.857
7.834
7.828
7.736
7.729
7.536
7.524
7.516
7.296
7.284
7.272
7.263

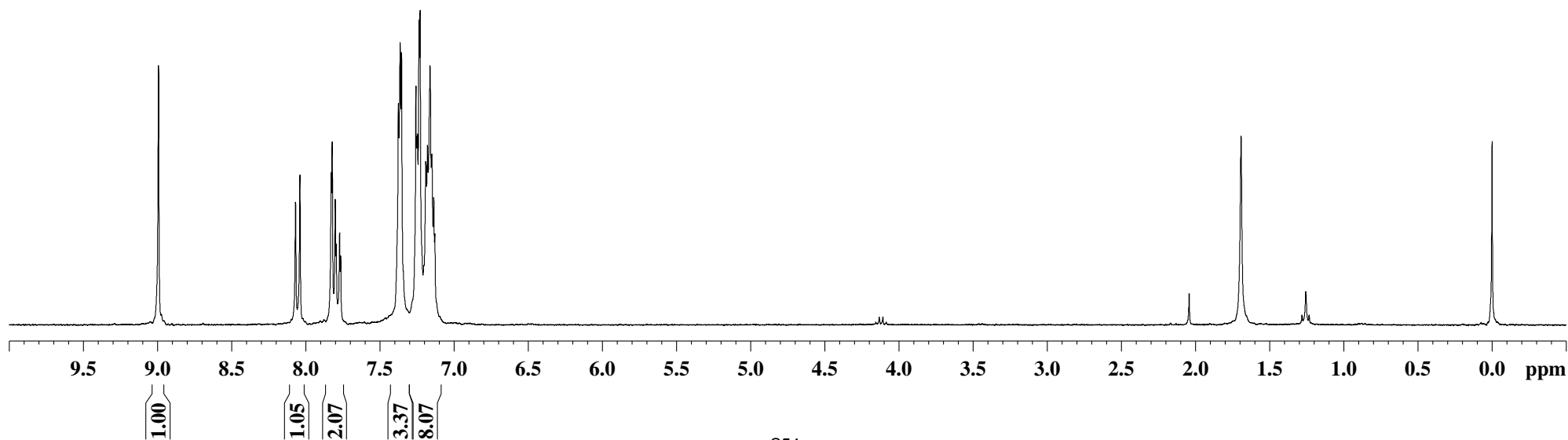
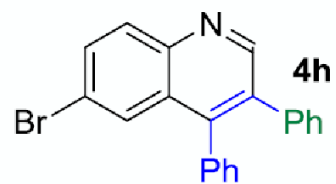


PP-1-088



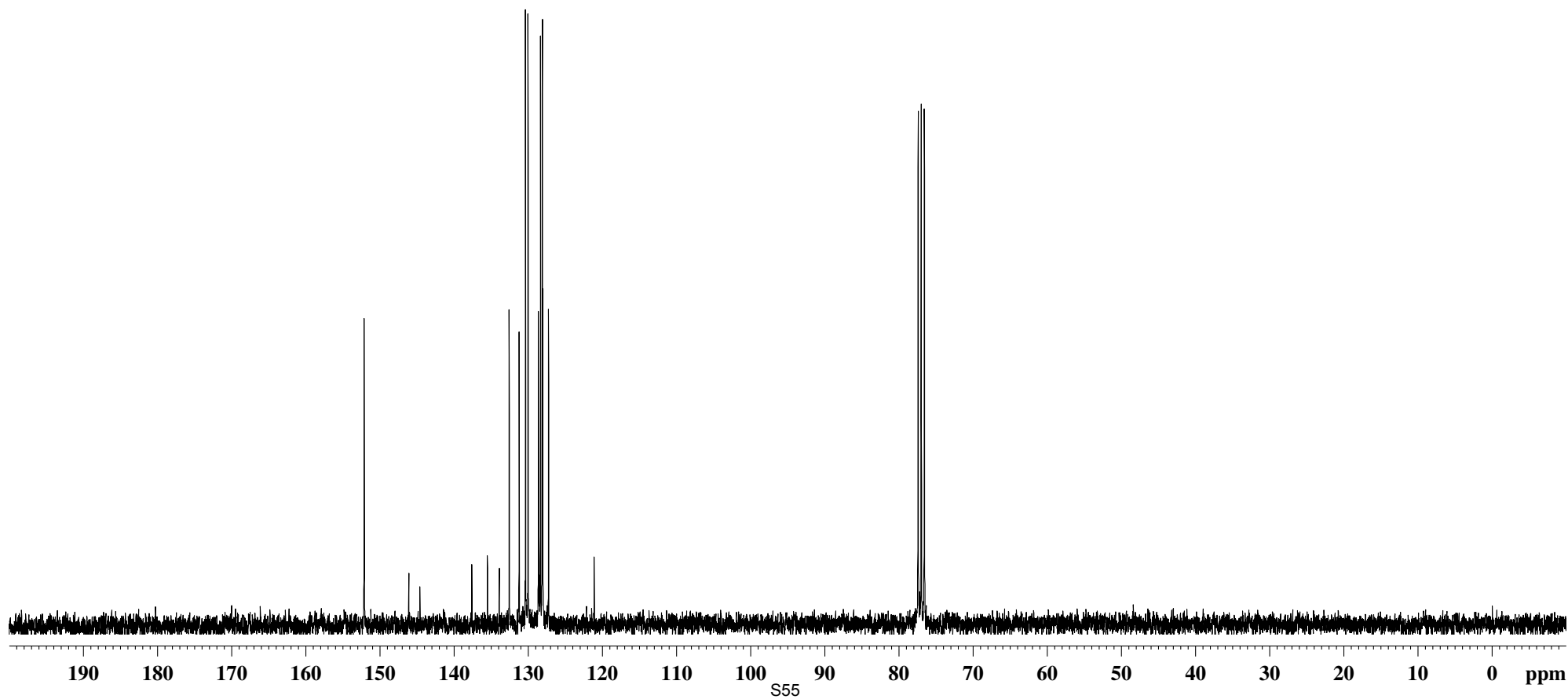
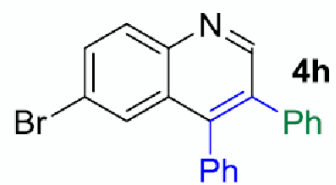
PP-1-1002

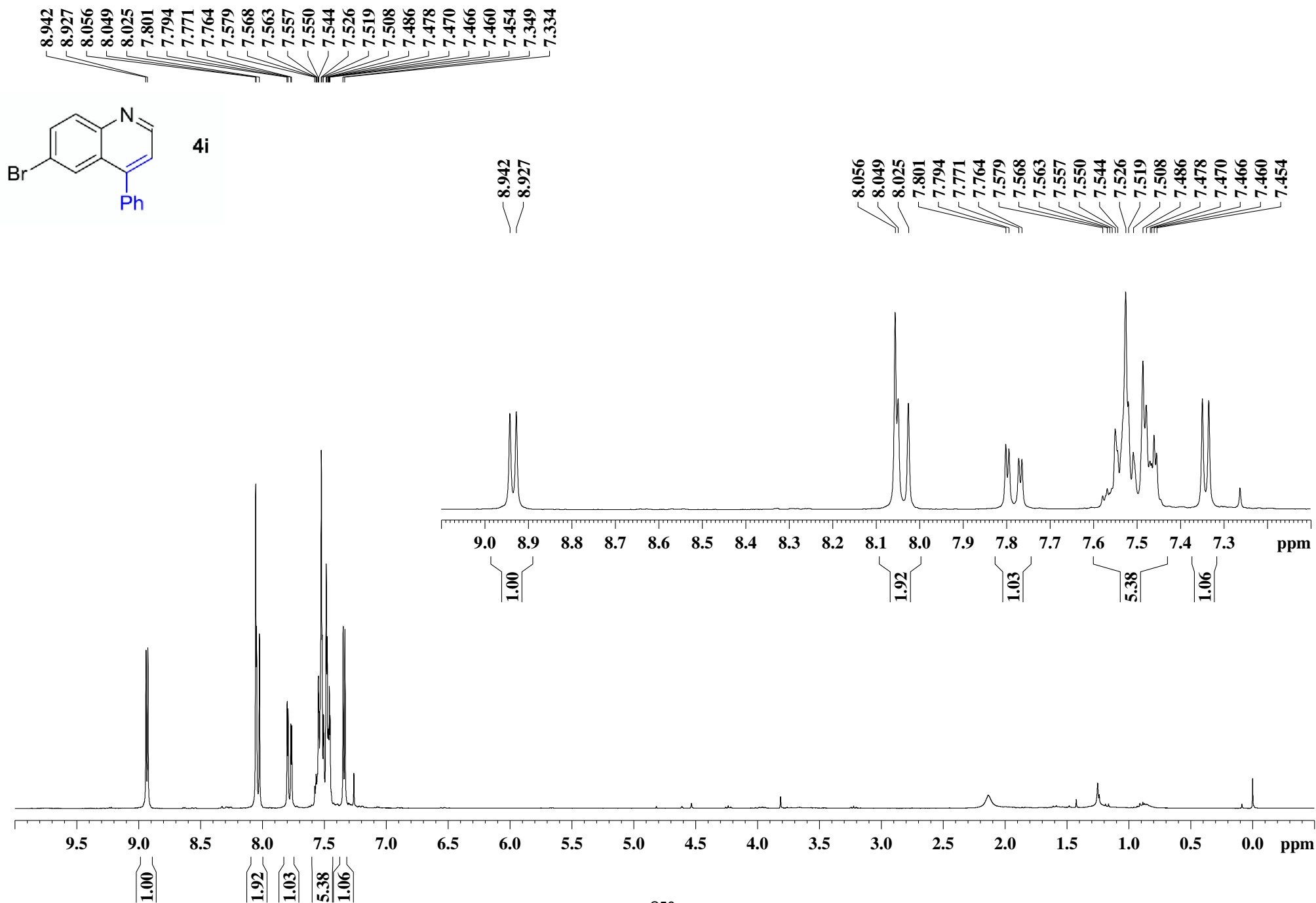
8.992
8.070
8.041
7.830
7.823
7.803
7.795
7.773
7.766
7.377
7.365
7.356
7.259
7.253
7.248
7.237
7.231
7.192
7.181
7.175
7.164
7.152
7.139
7.131

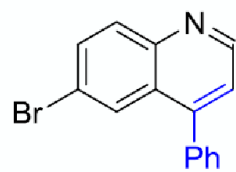


PP-1-100

152.152
146.136
144.630
137.640
135.520
133.922
132.584
131.251
130.389
130.045
128.638
128.527
128.367
128.116
128.042
127.275
121.125

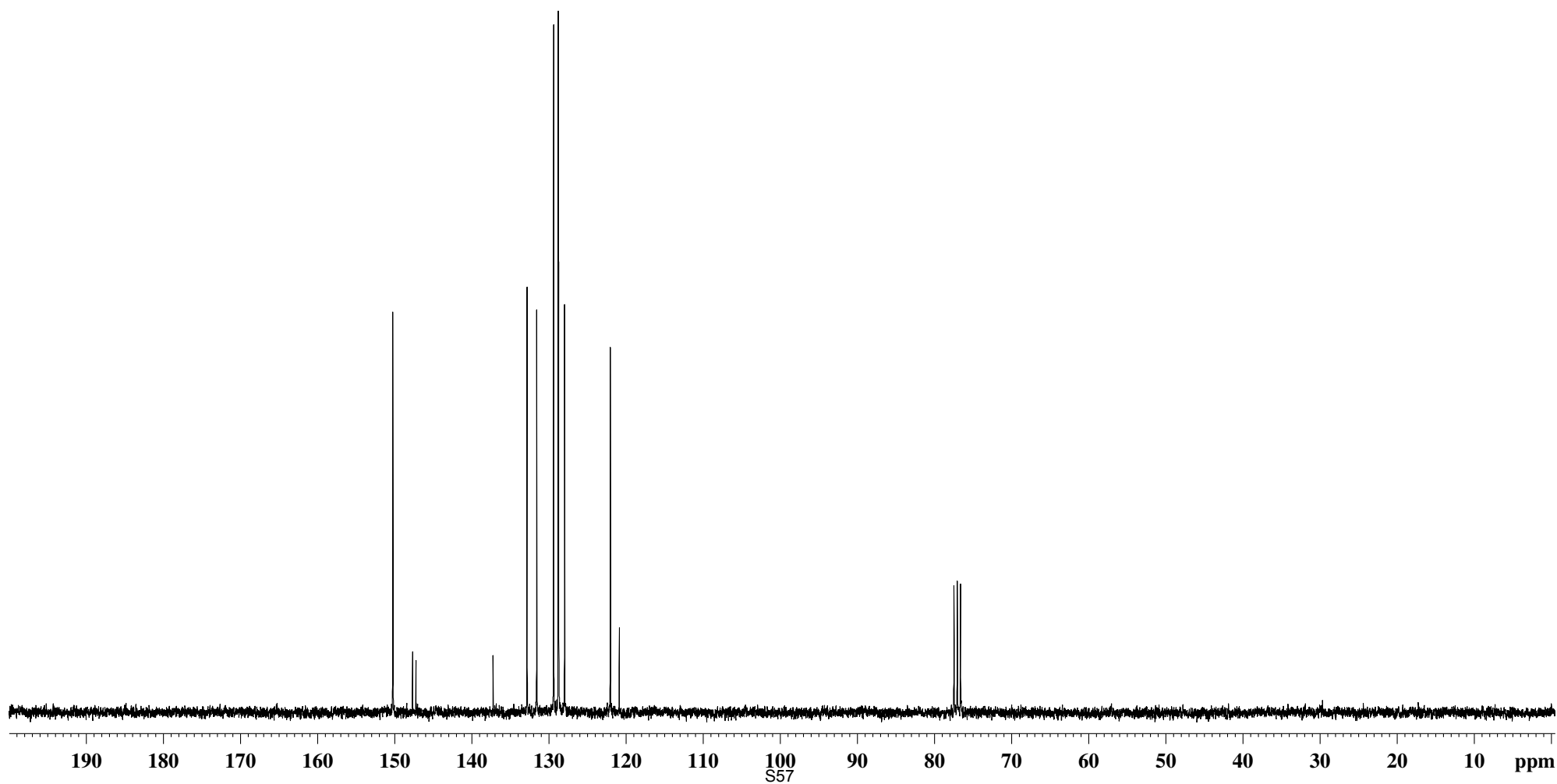




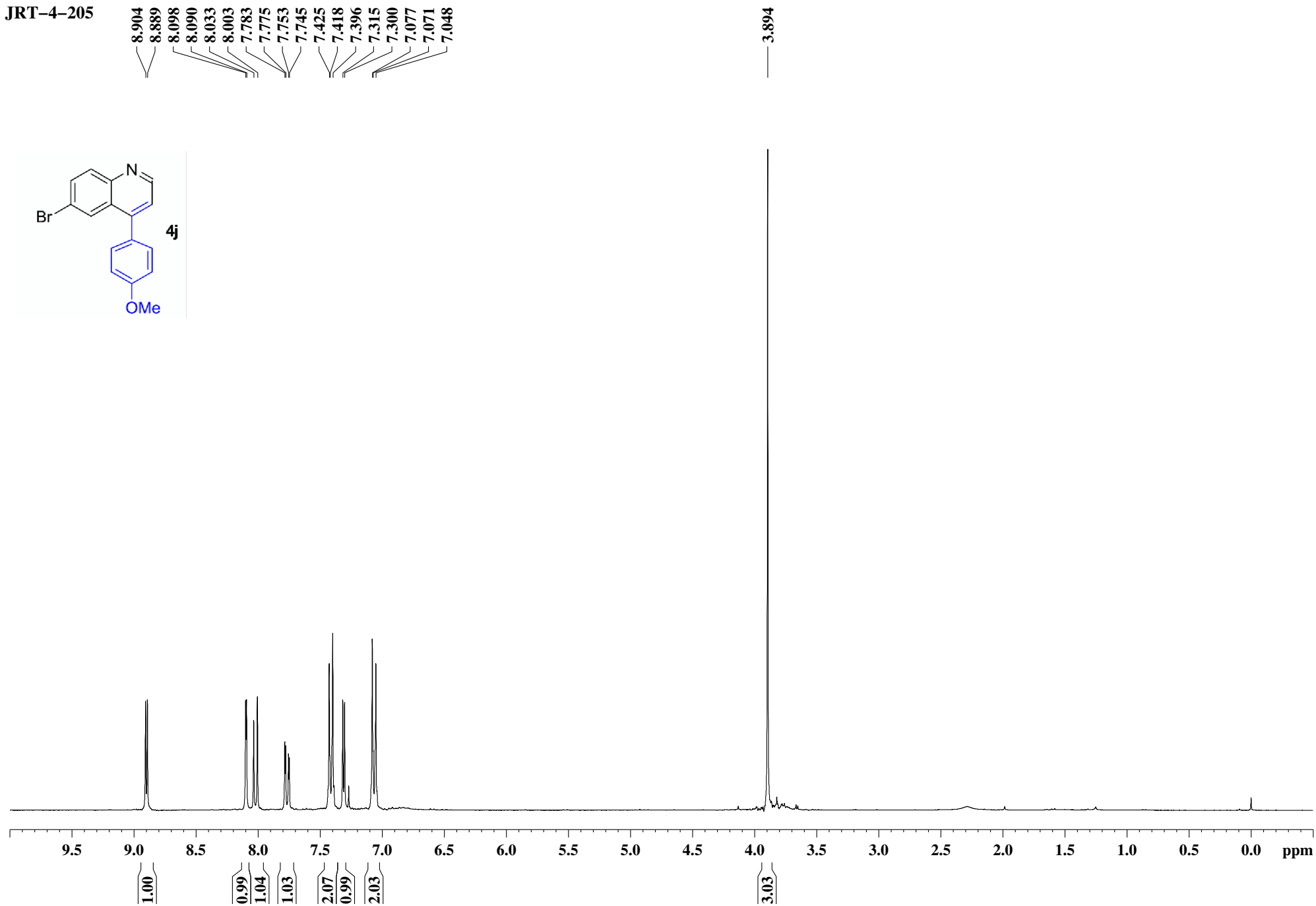
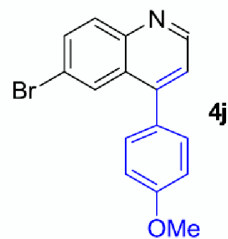


4i

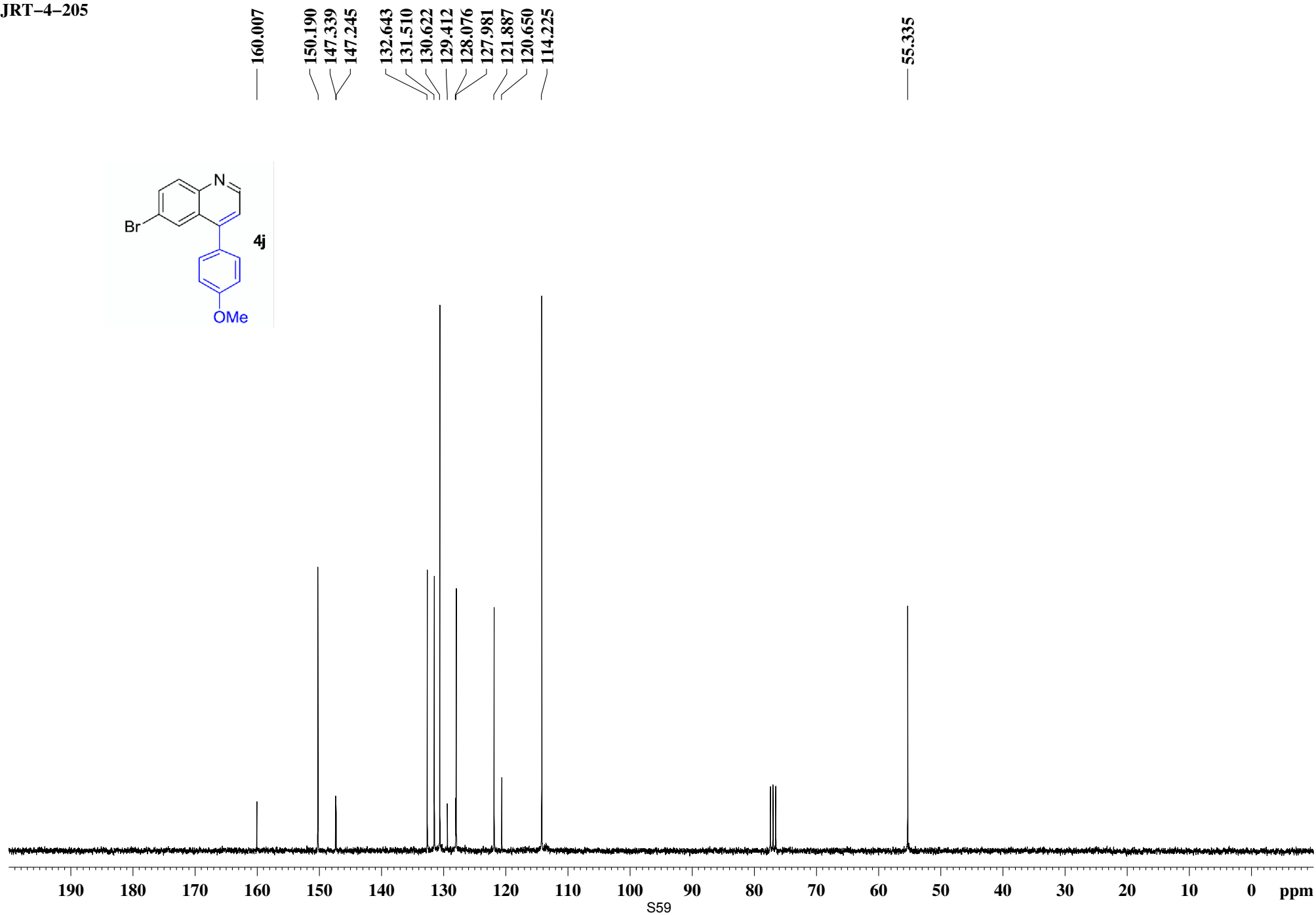
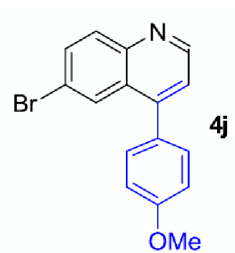
150.211
147.652
147.208
137.216
132.801
131.553
129.363
128.761
128.698
127.941
127.918
122.001
120.845

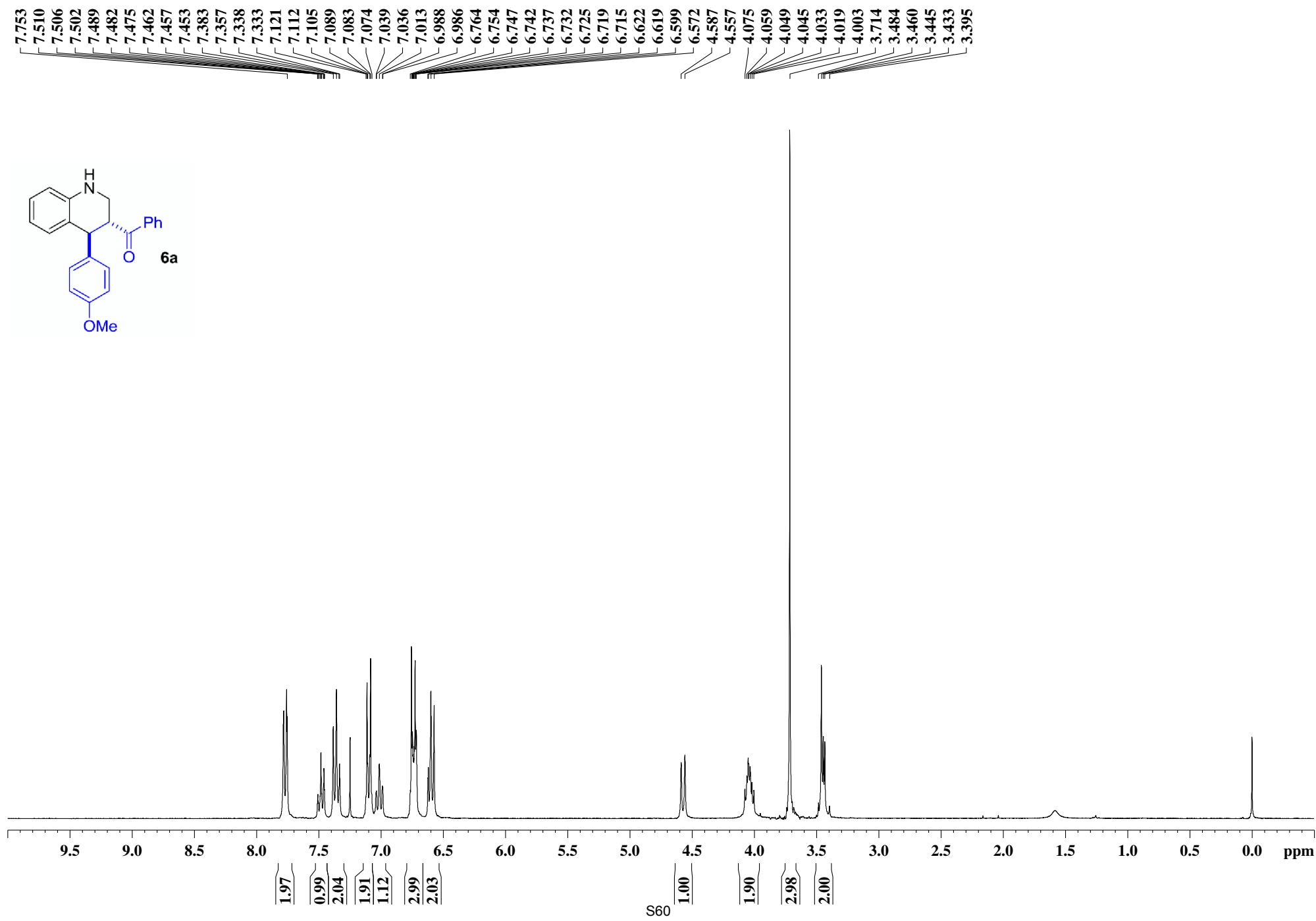


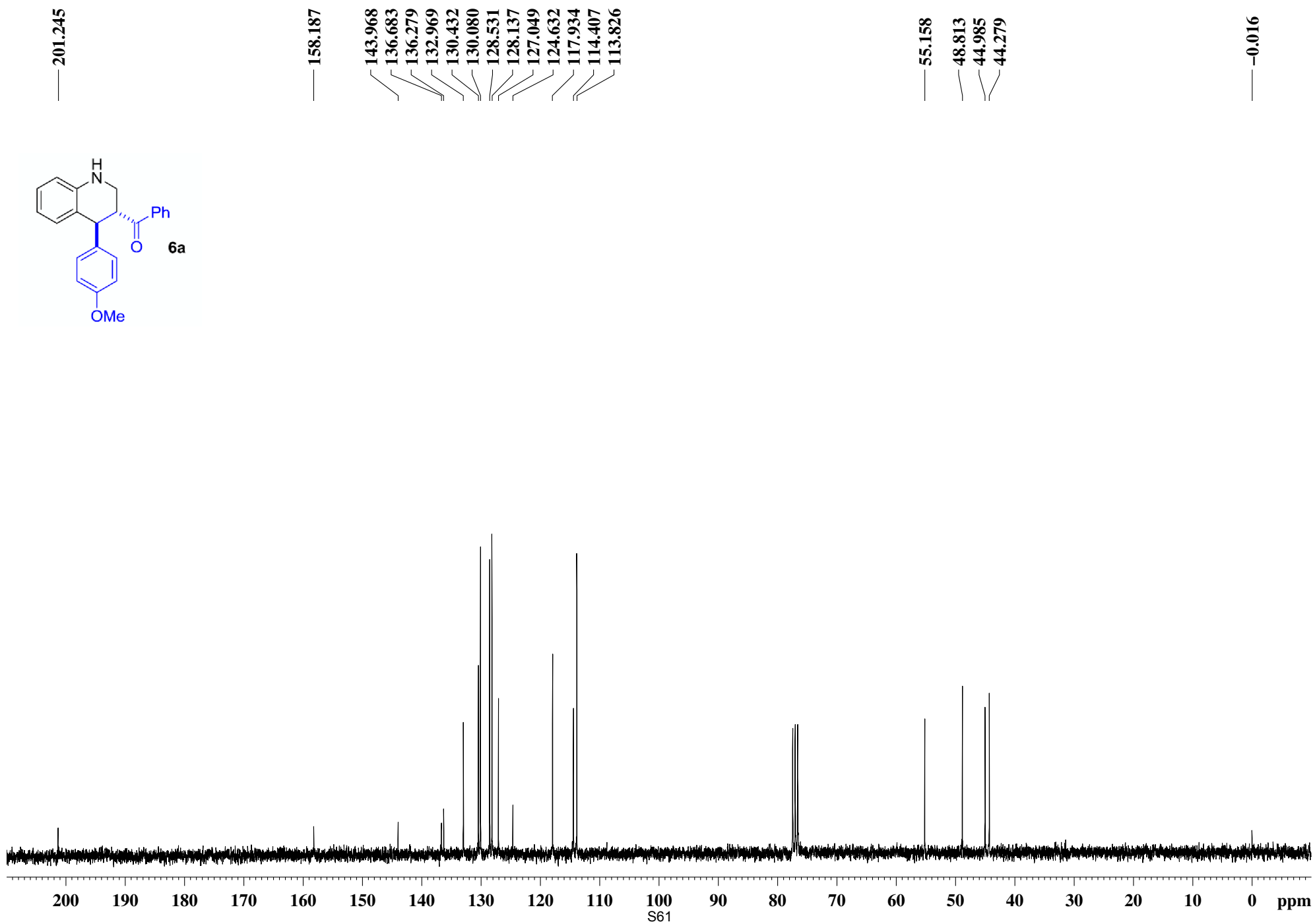
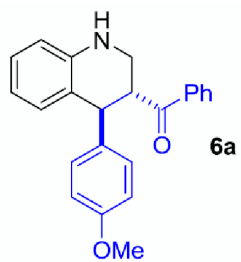
JRT-4-205



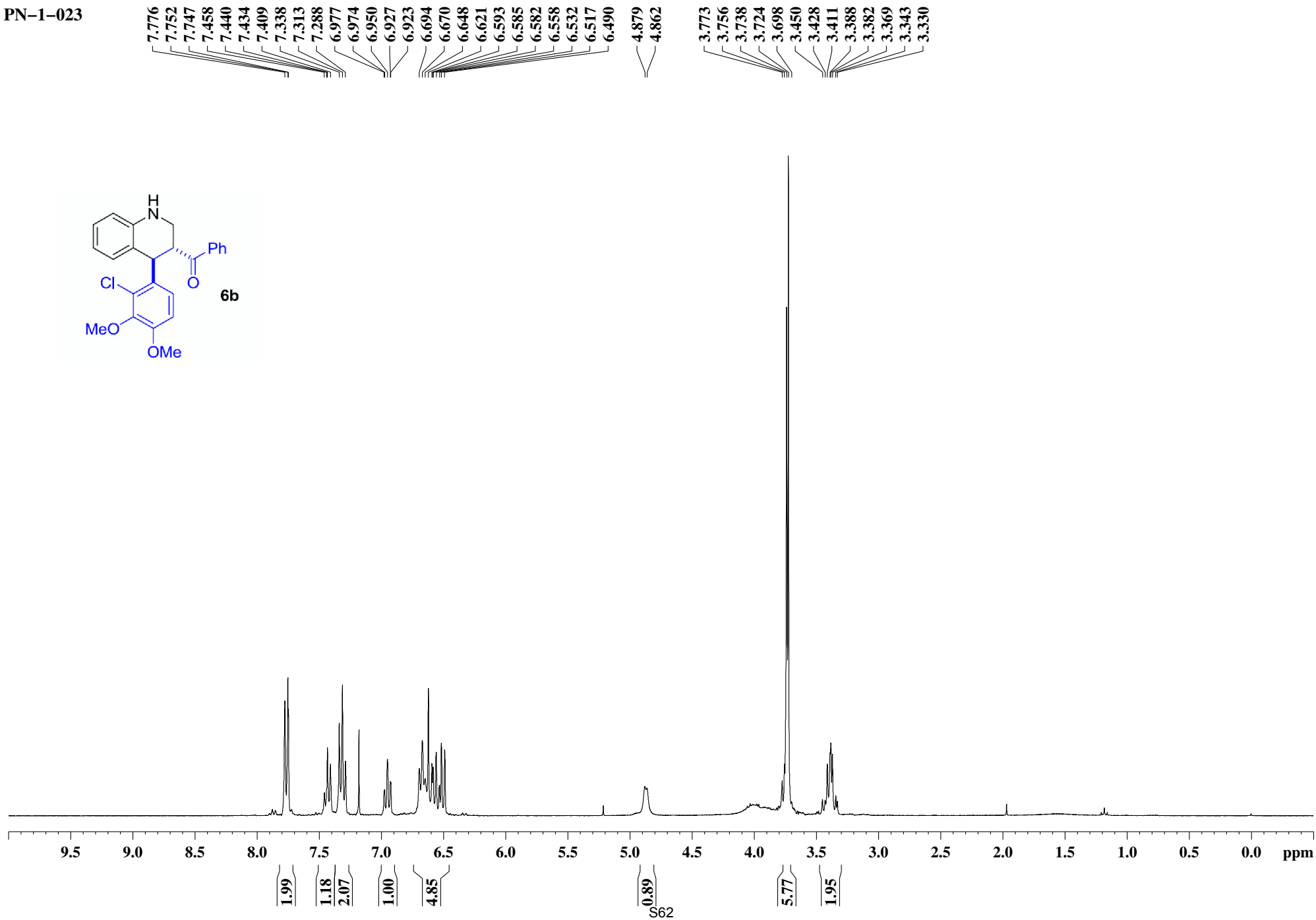
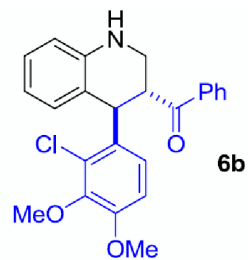
JRT-4-205







PN-1-023



200.606

152.146

143.909

136.324

132.780

129.898

128.438

128.247

128.065

127.036

126.211

122.685

118.008

114.444

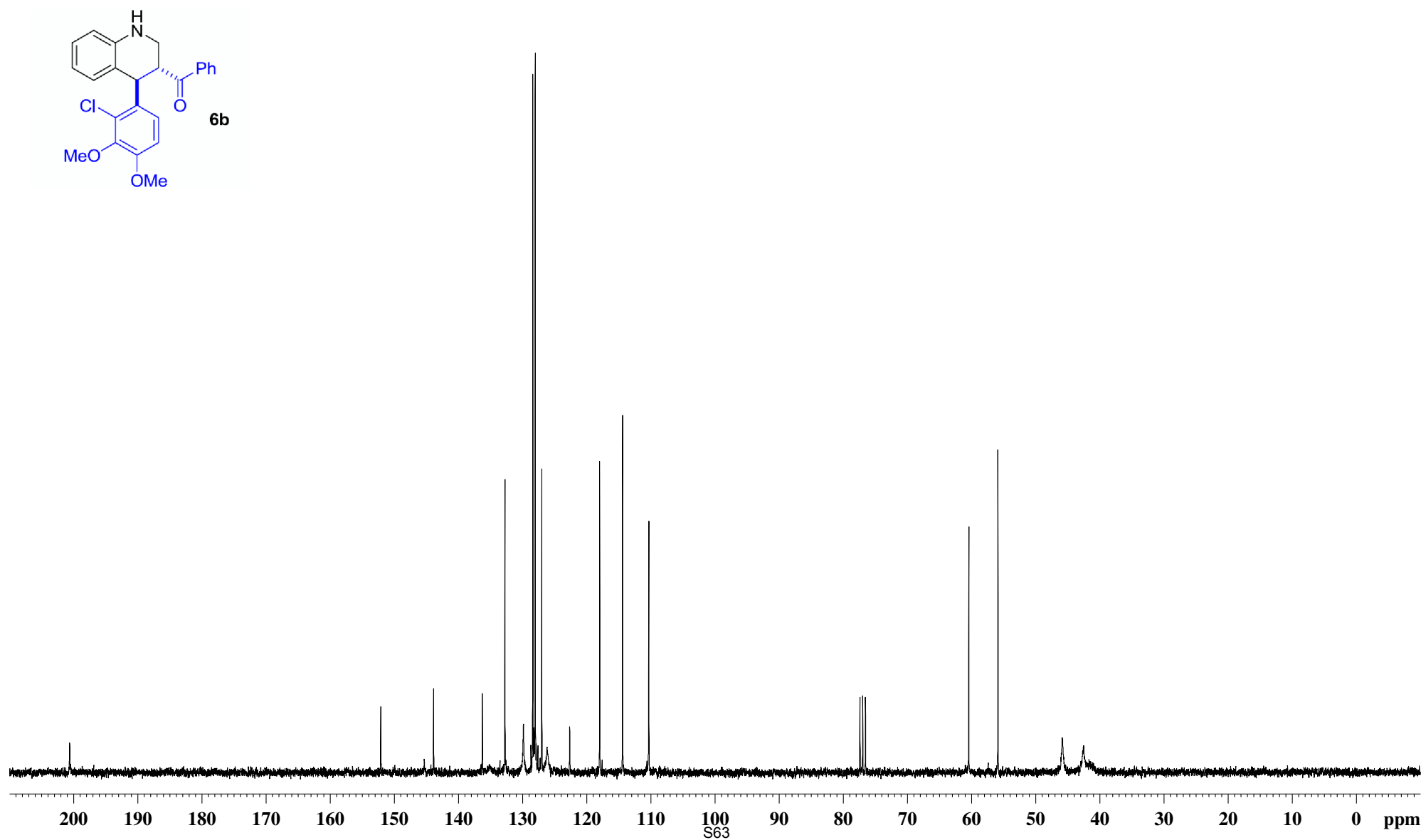
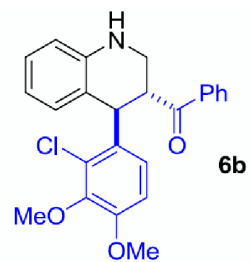
110.347

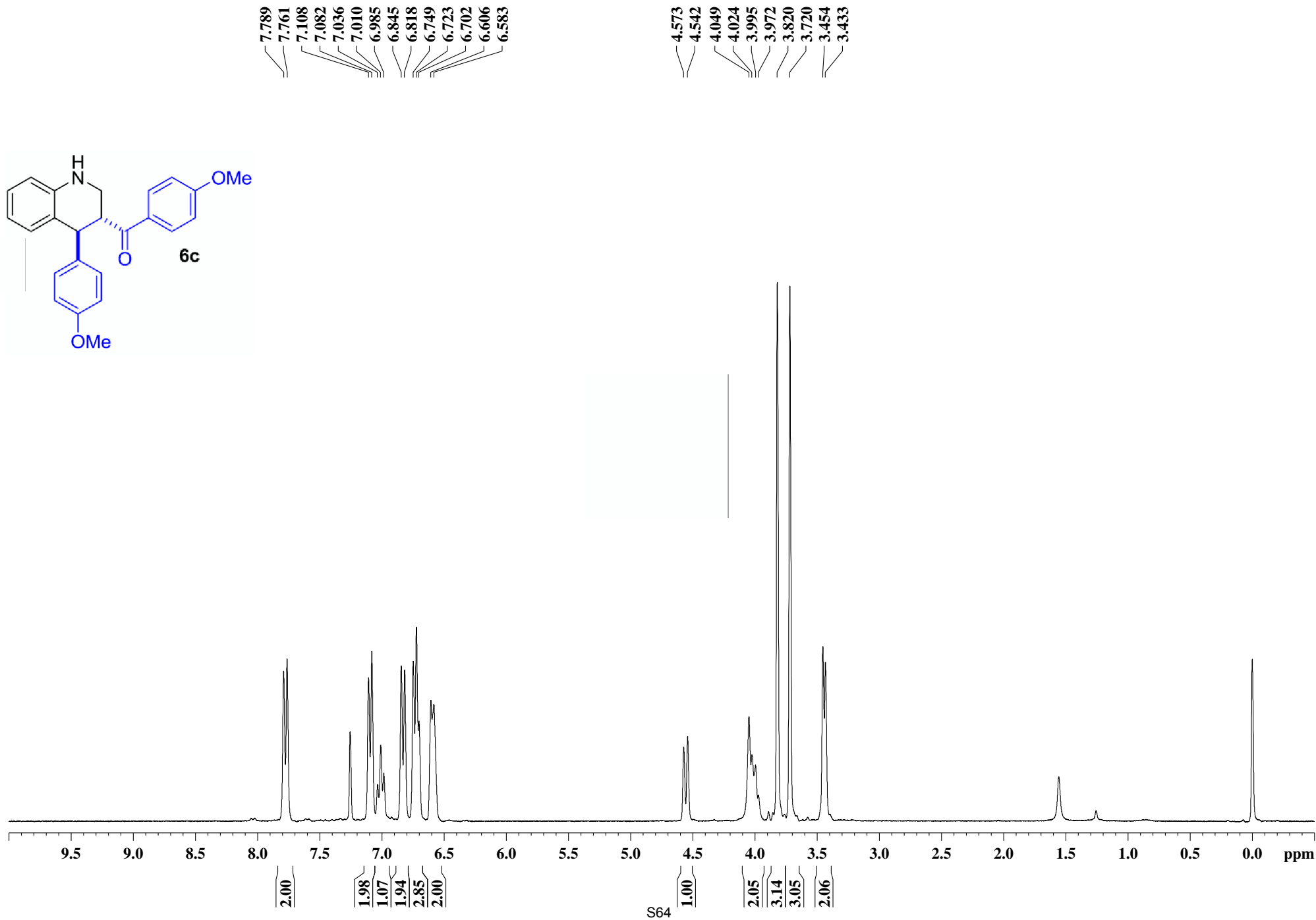
60.446

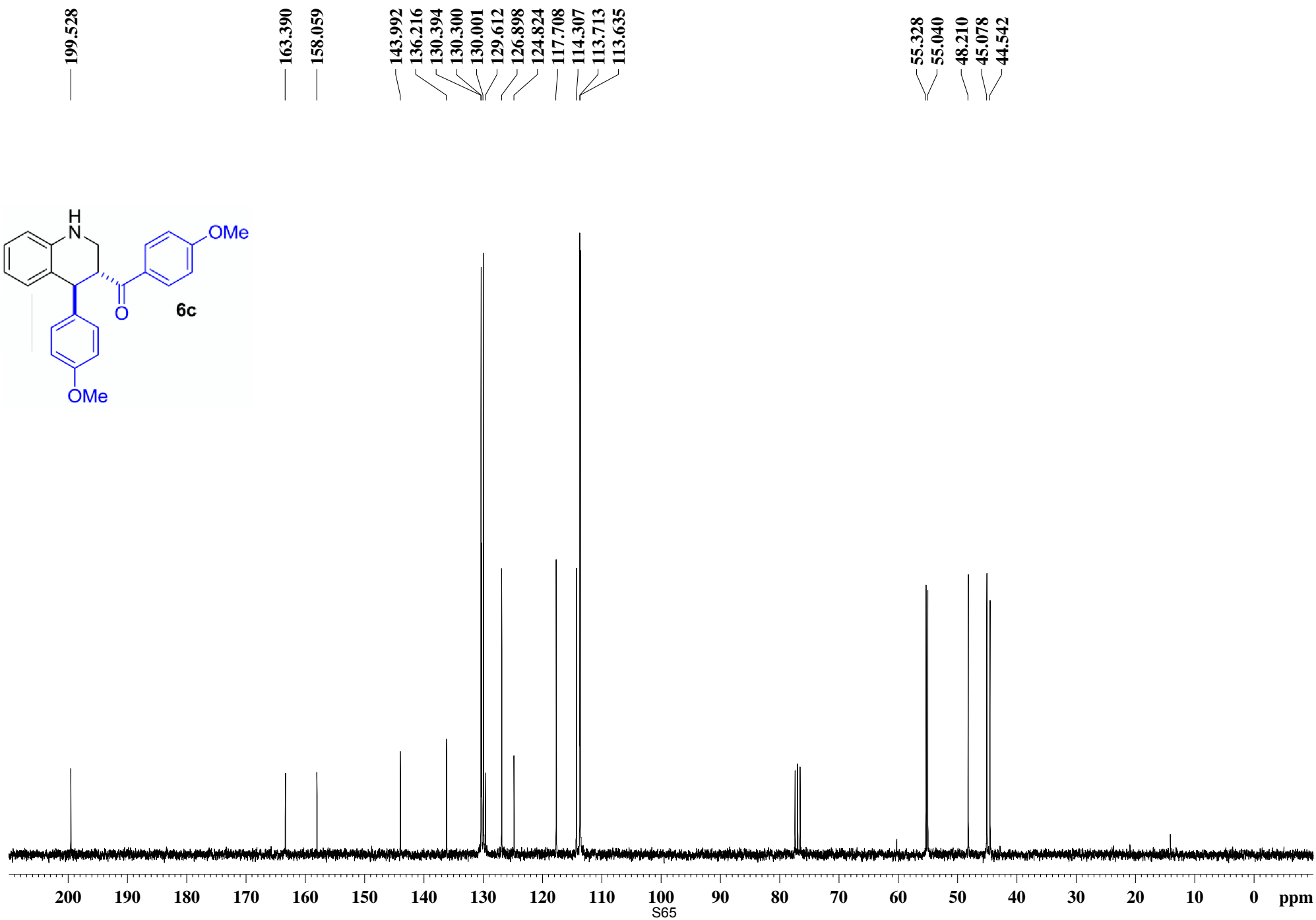
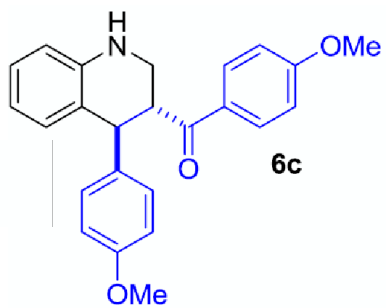
55.898

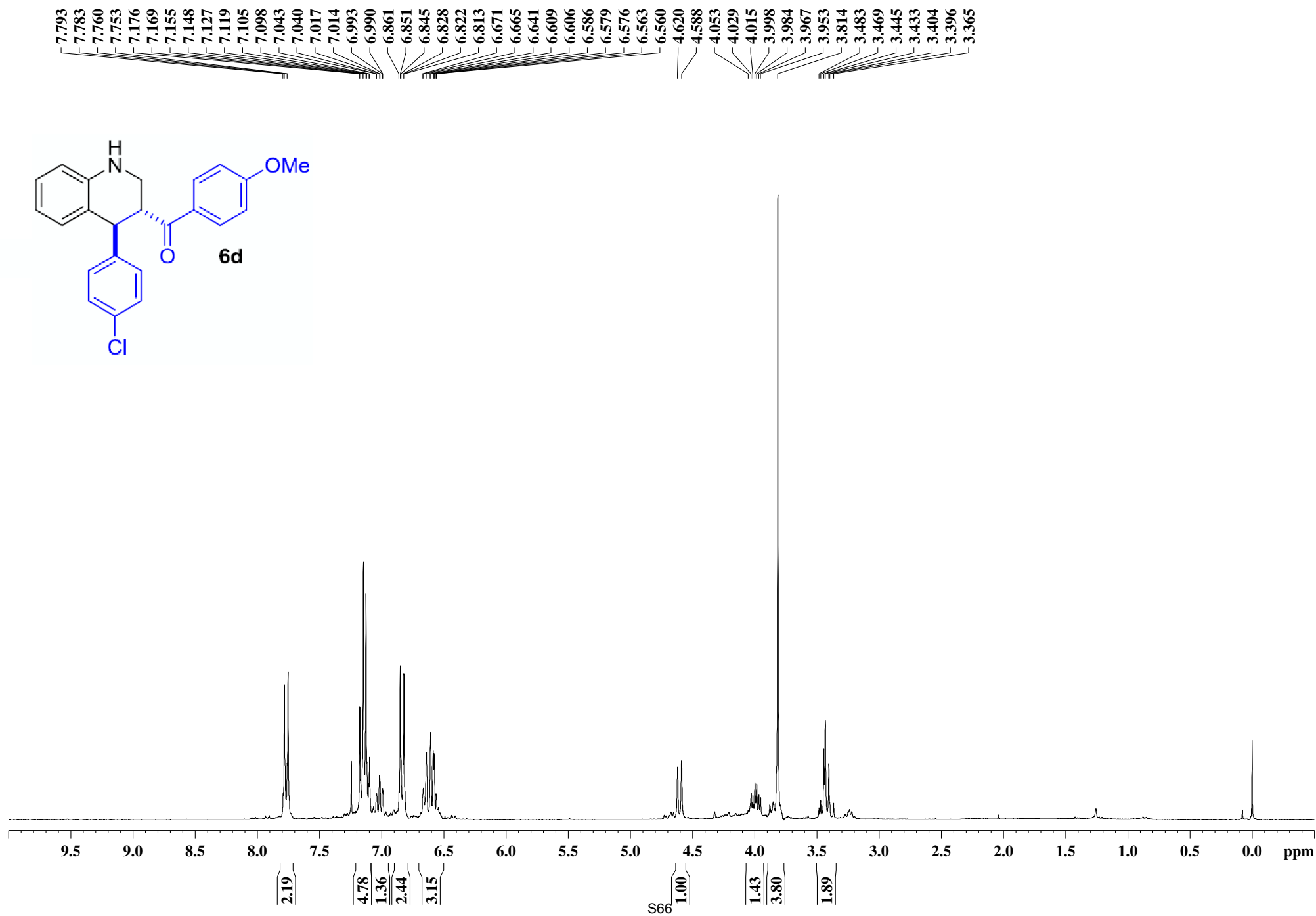
45.892

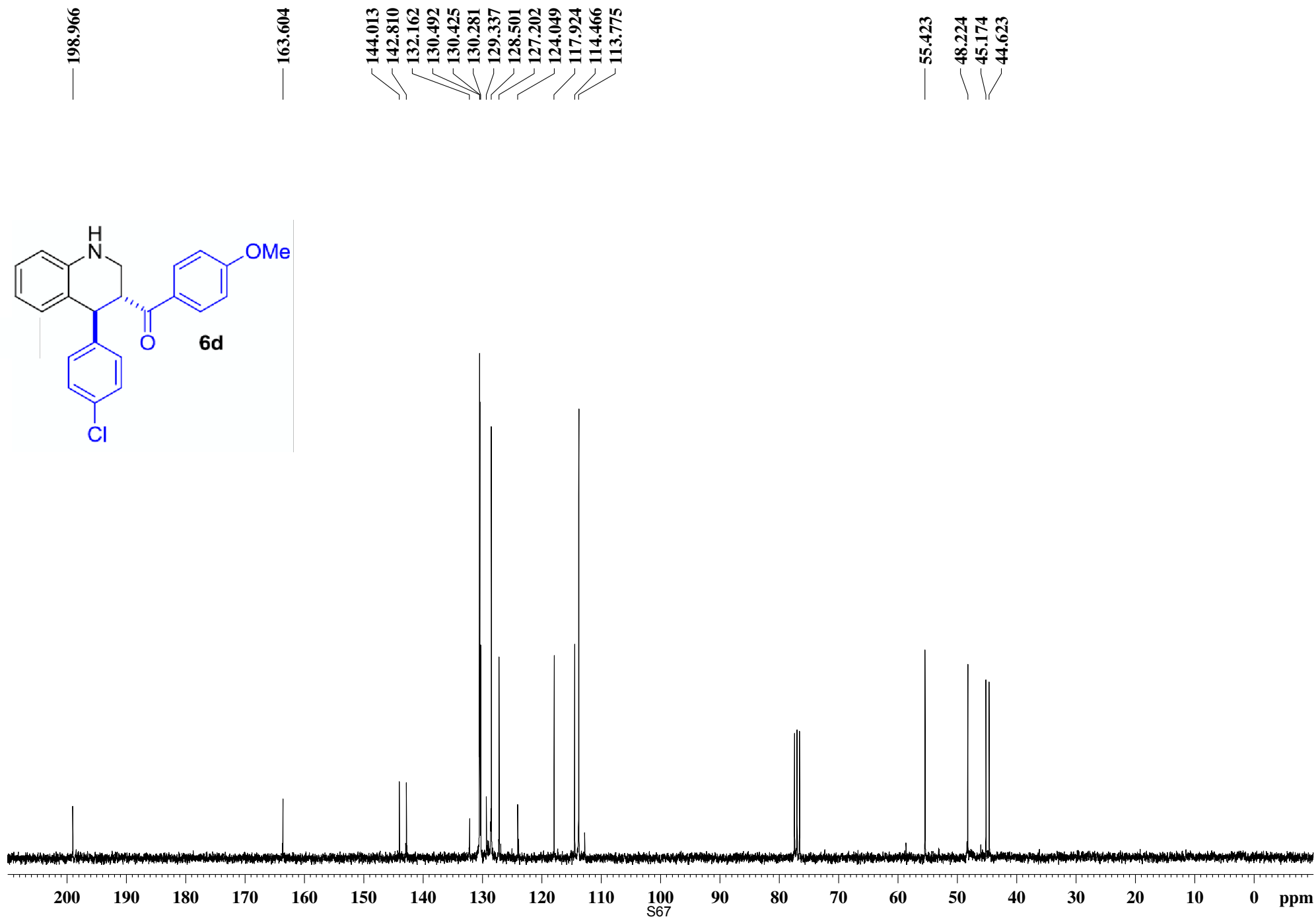
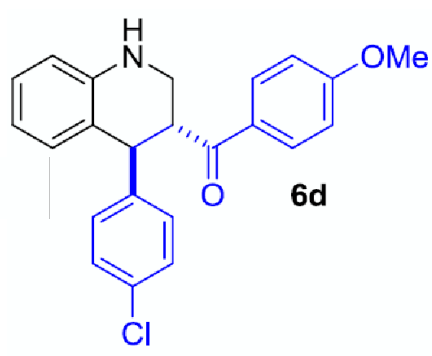
42.524

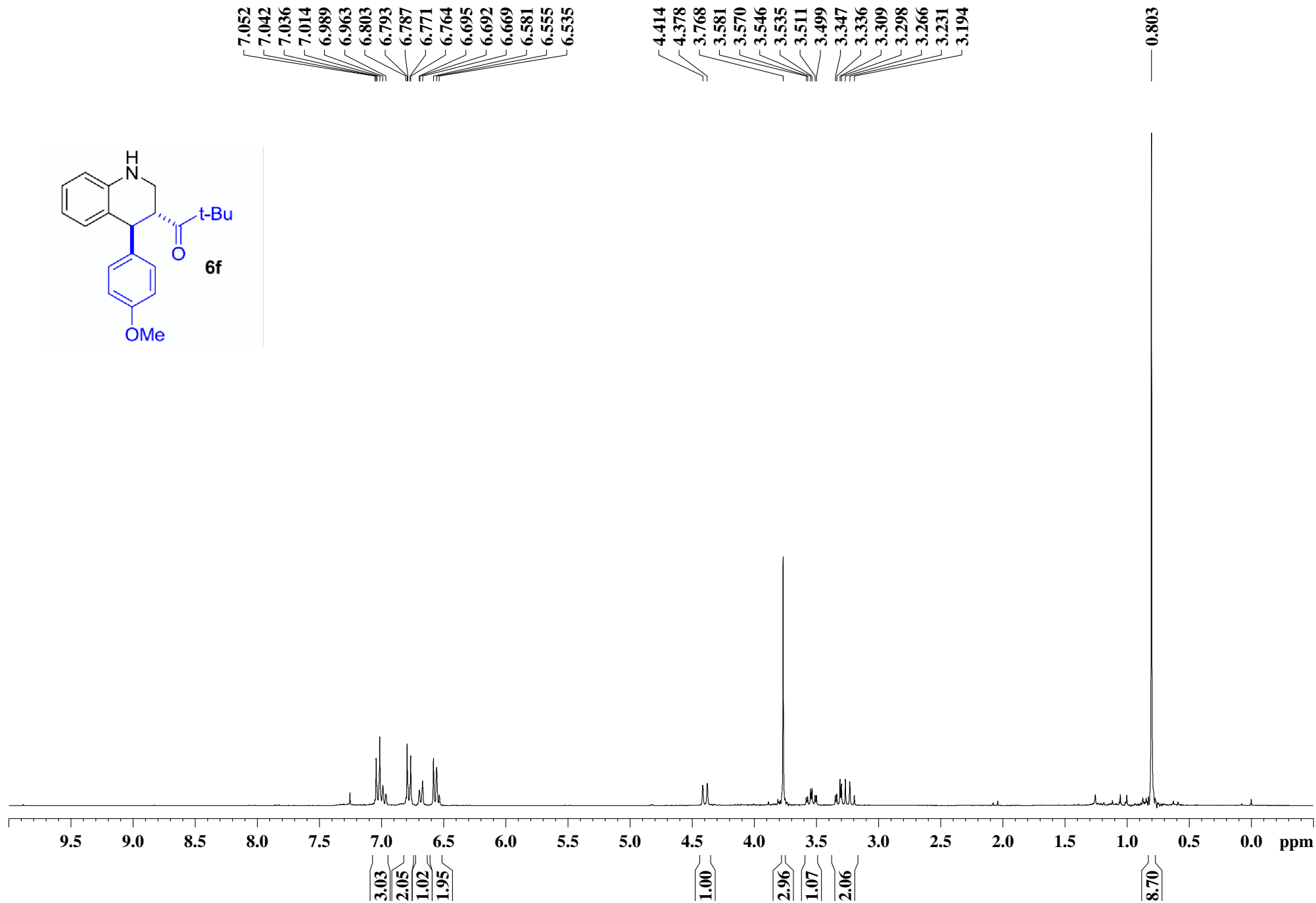


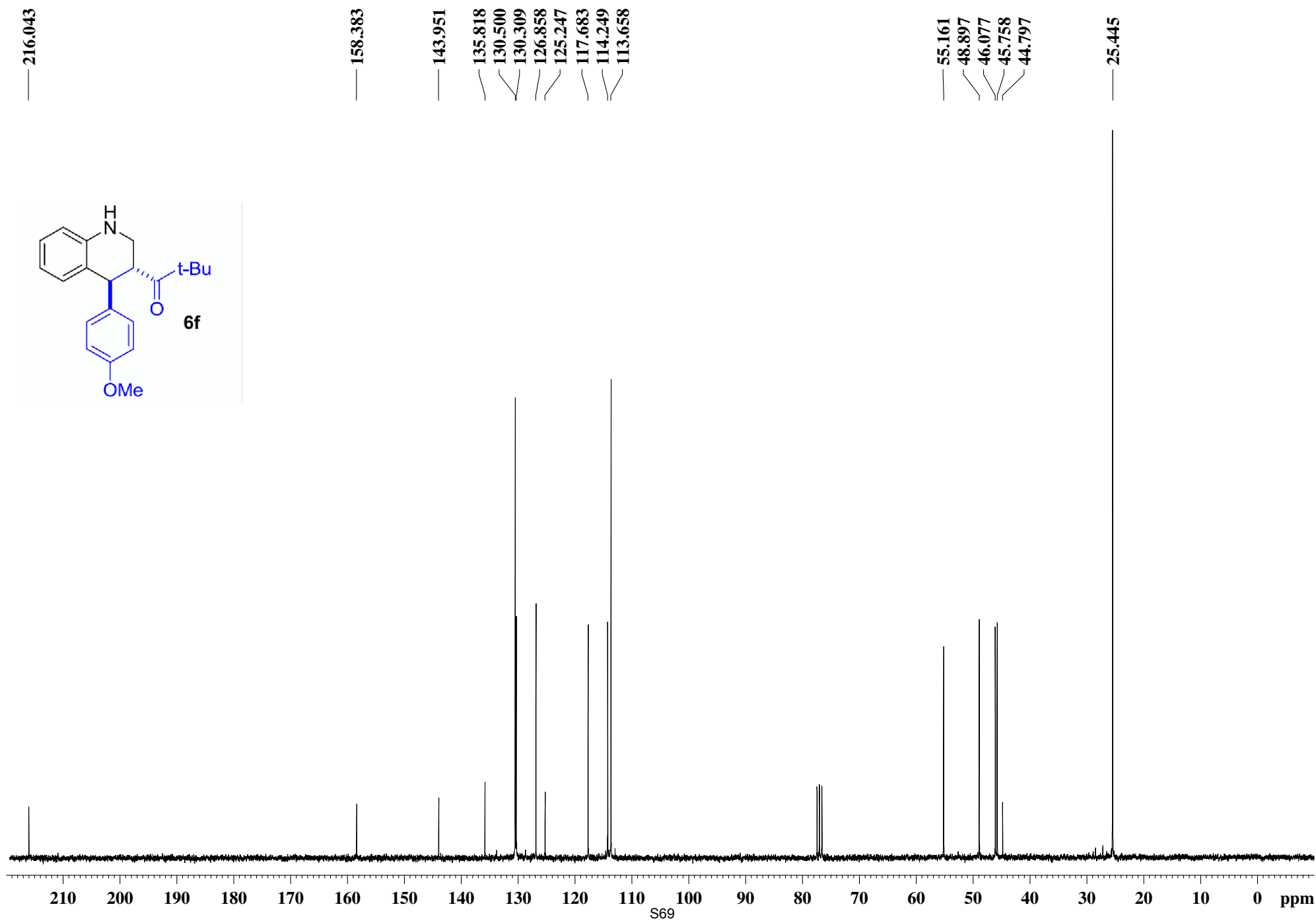
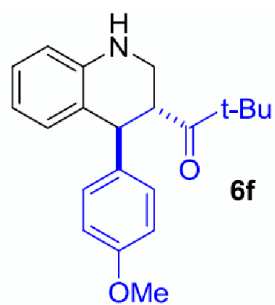


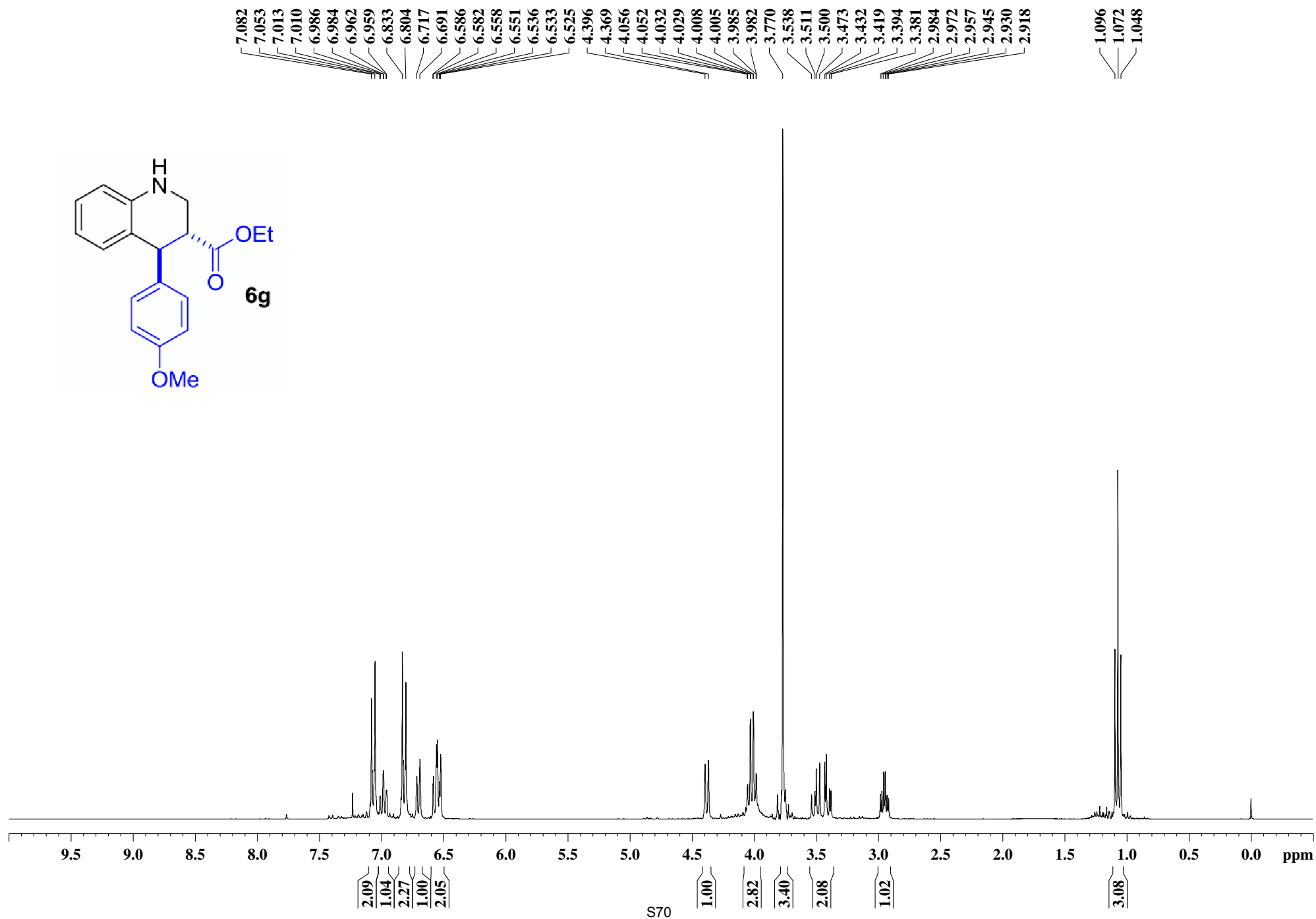
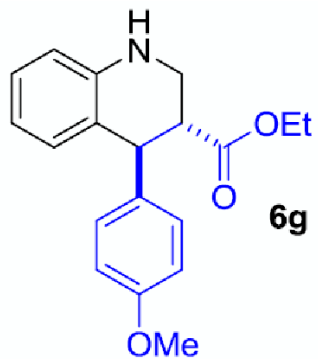




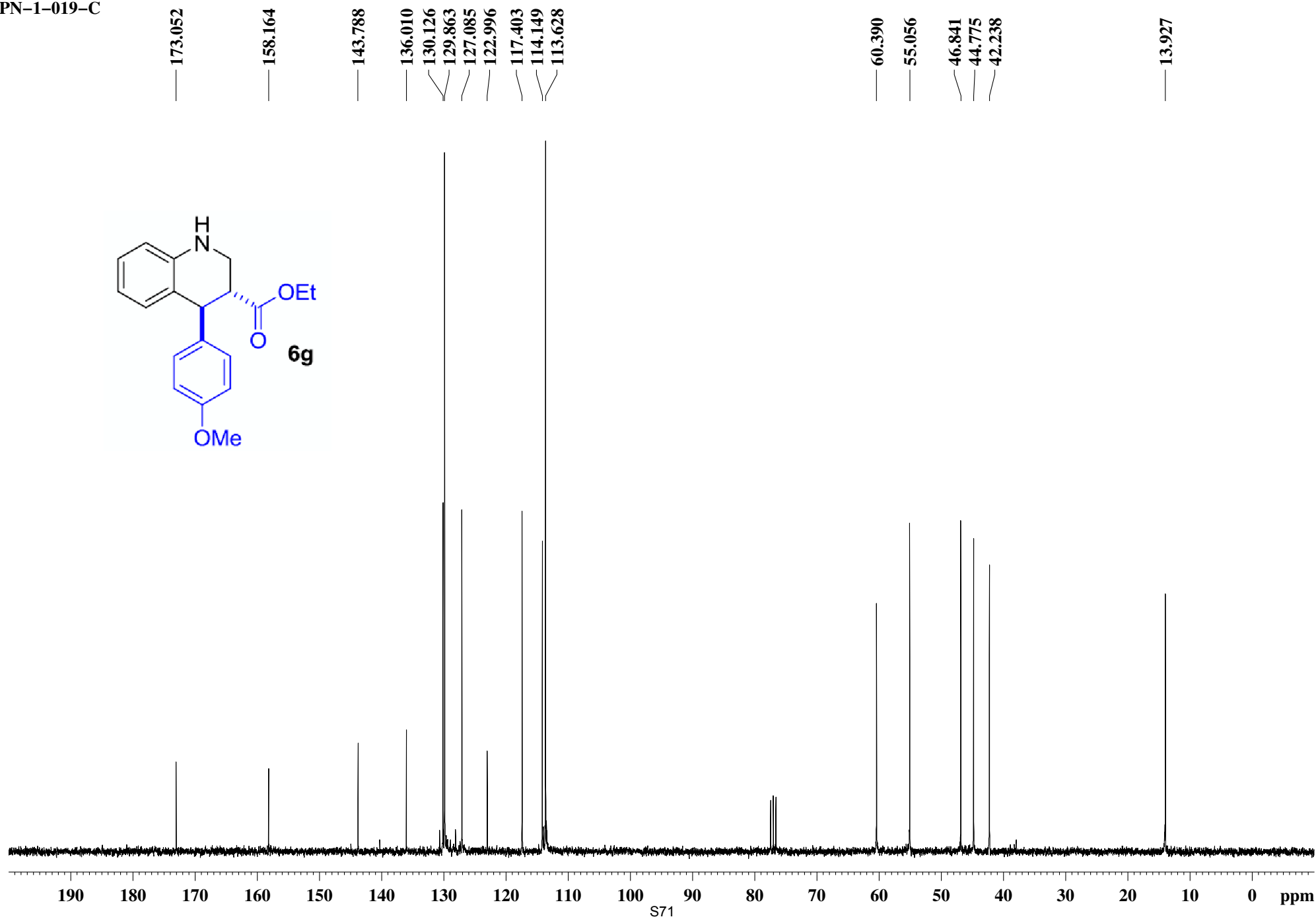
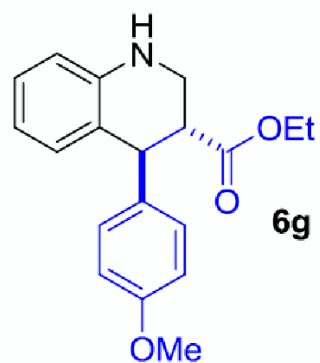




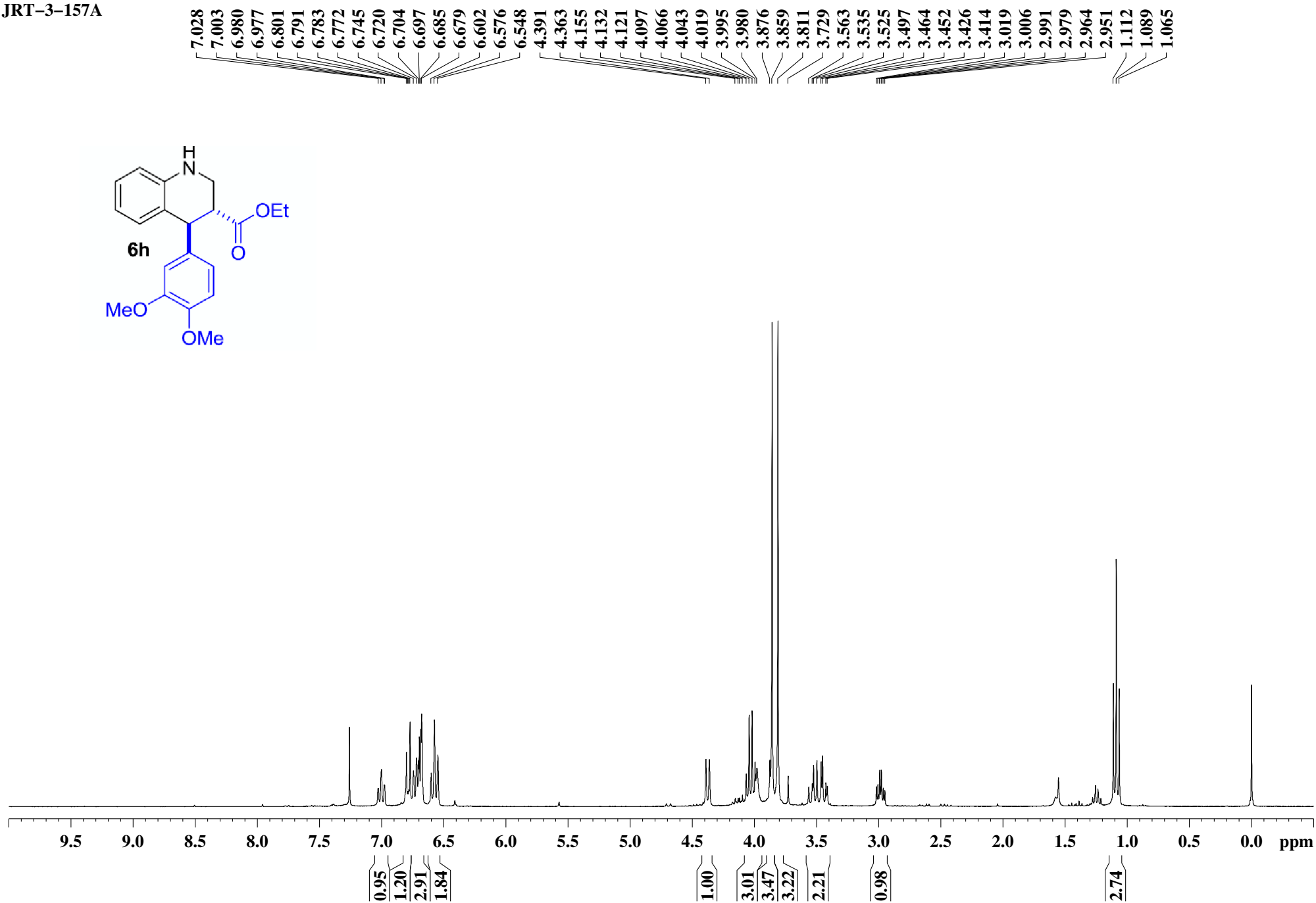
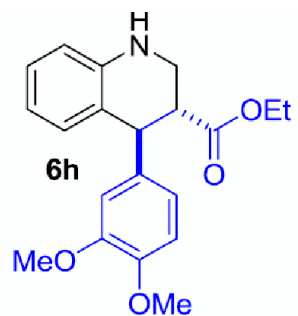


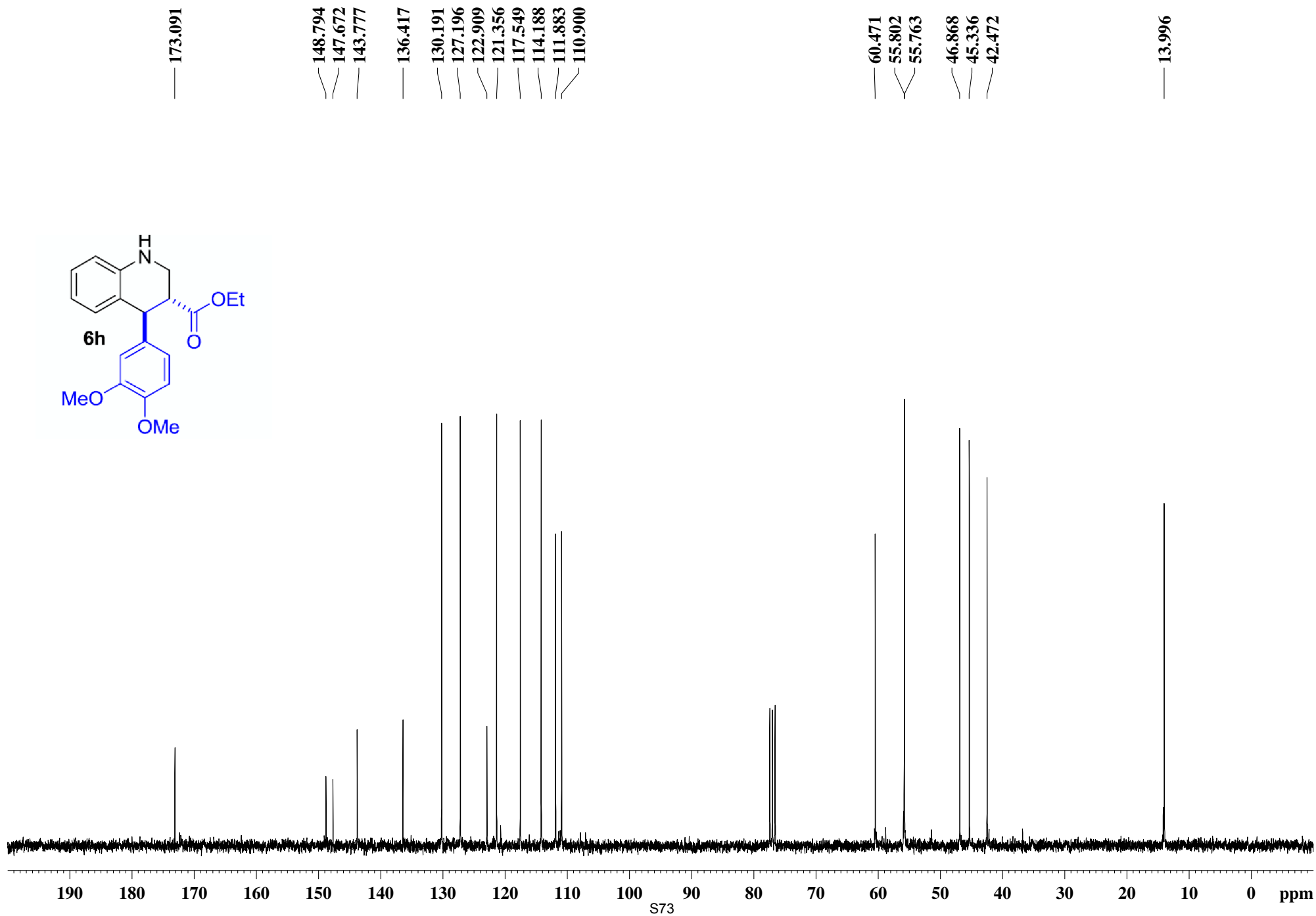
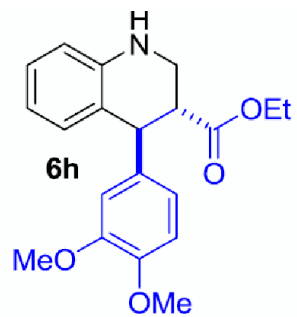


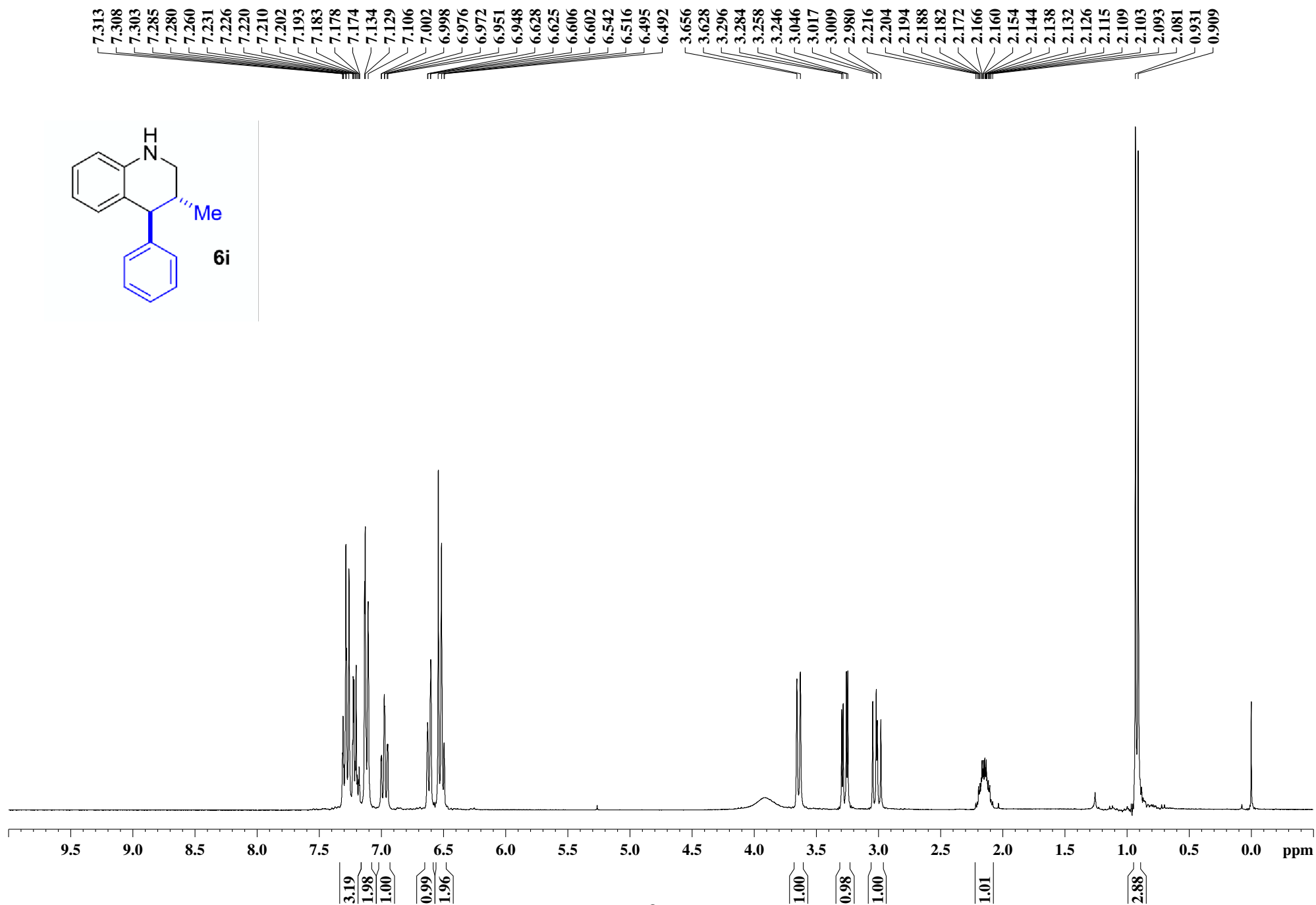
PN-1-019-C

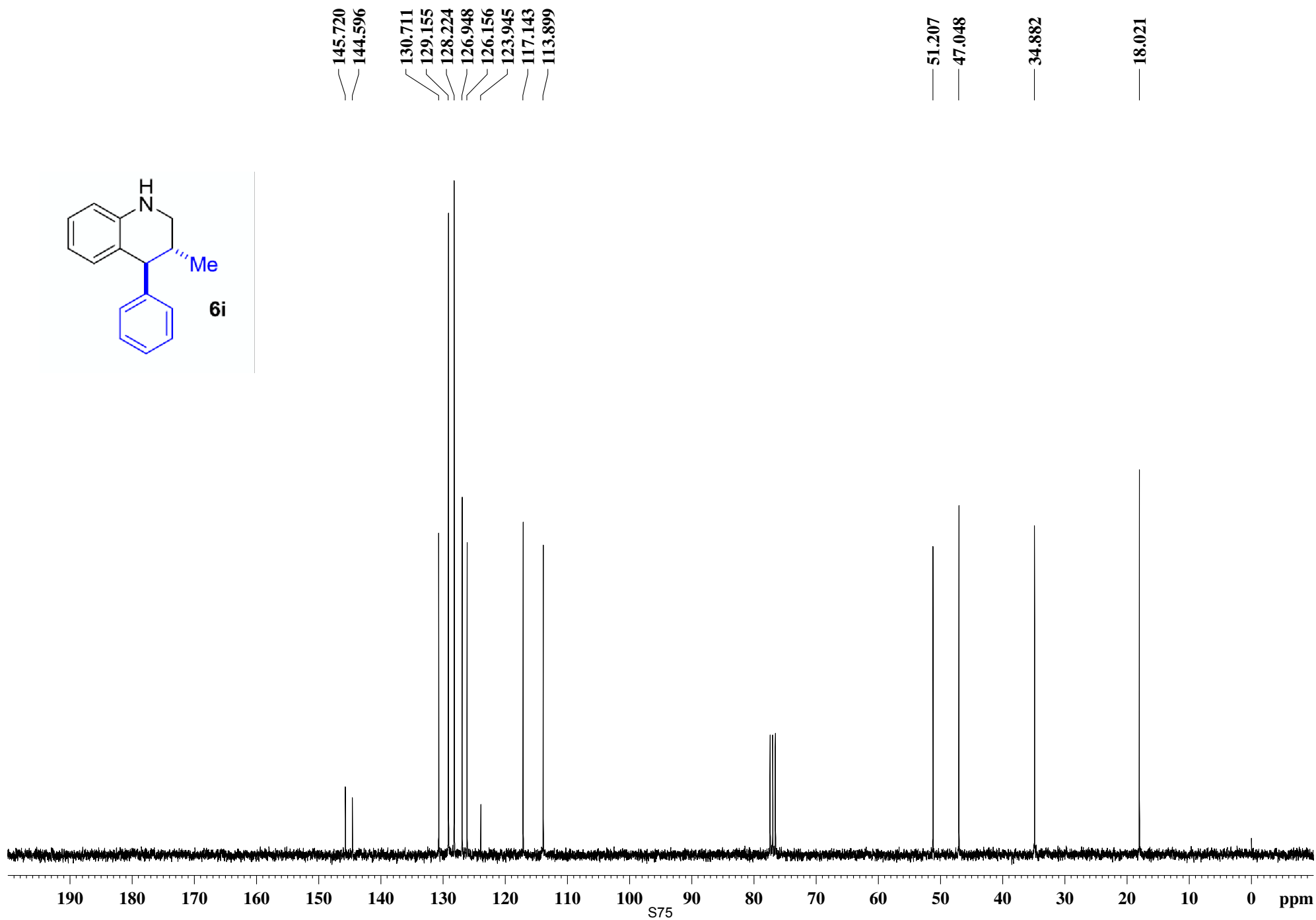
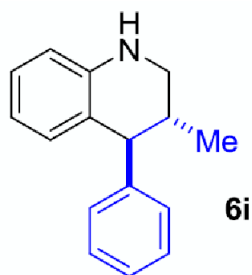


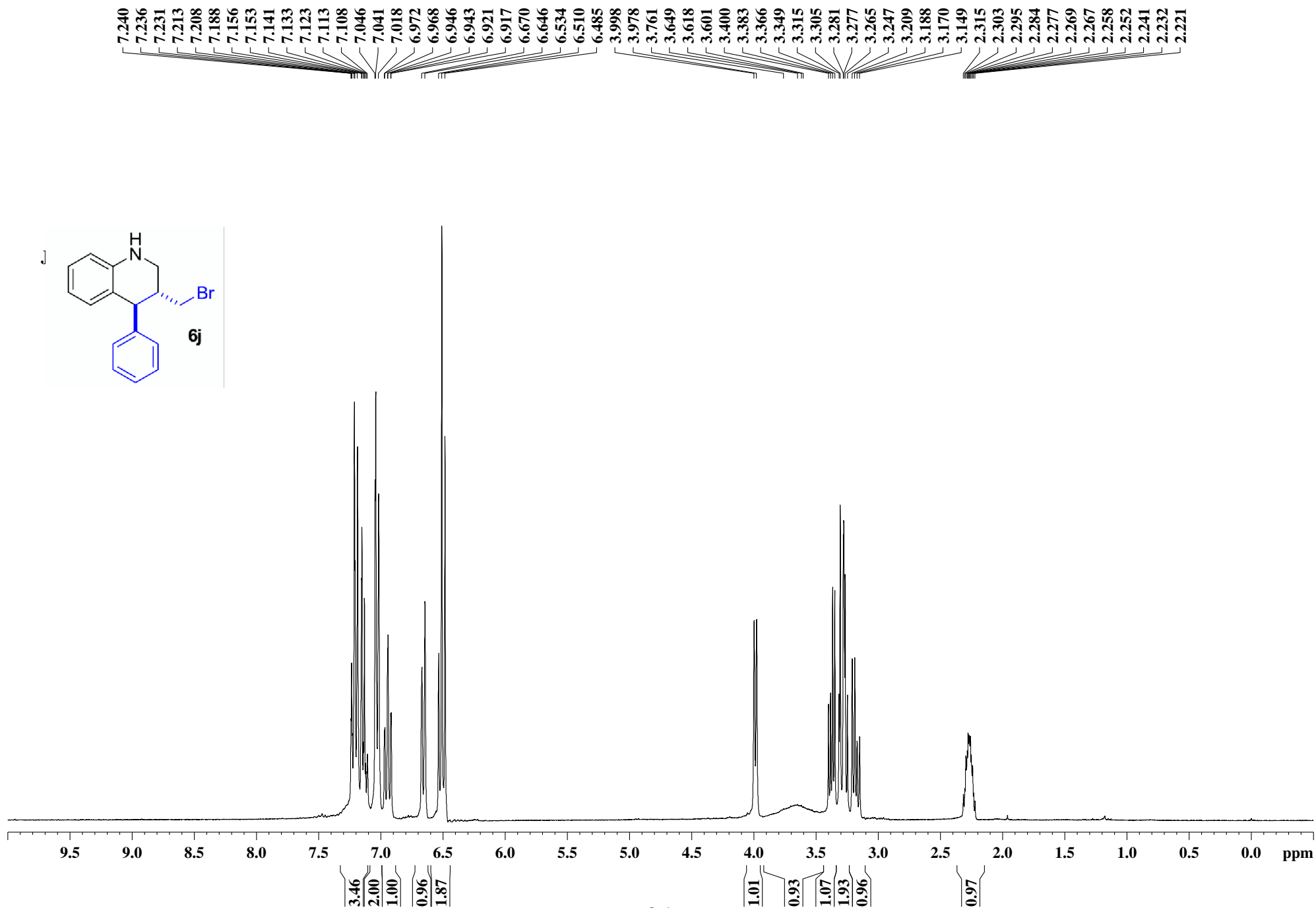
JRT-3-157A

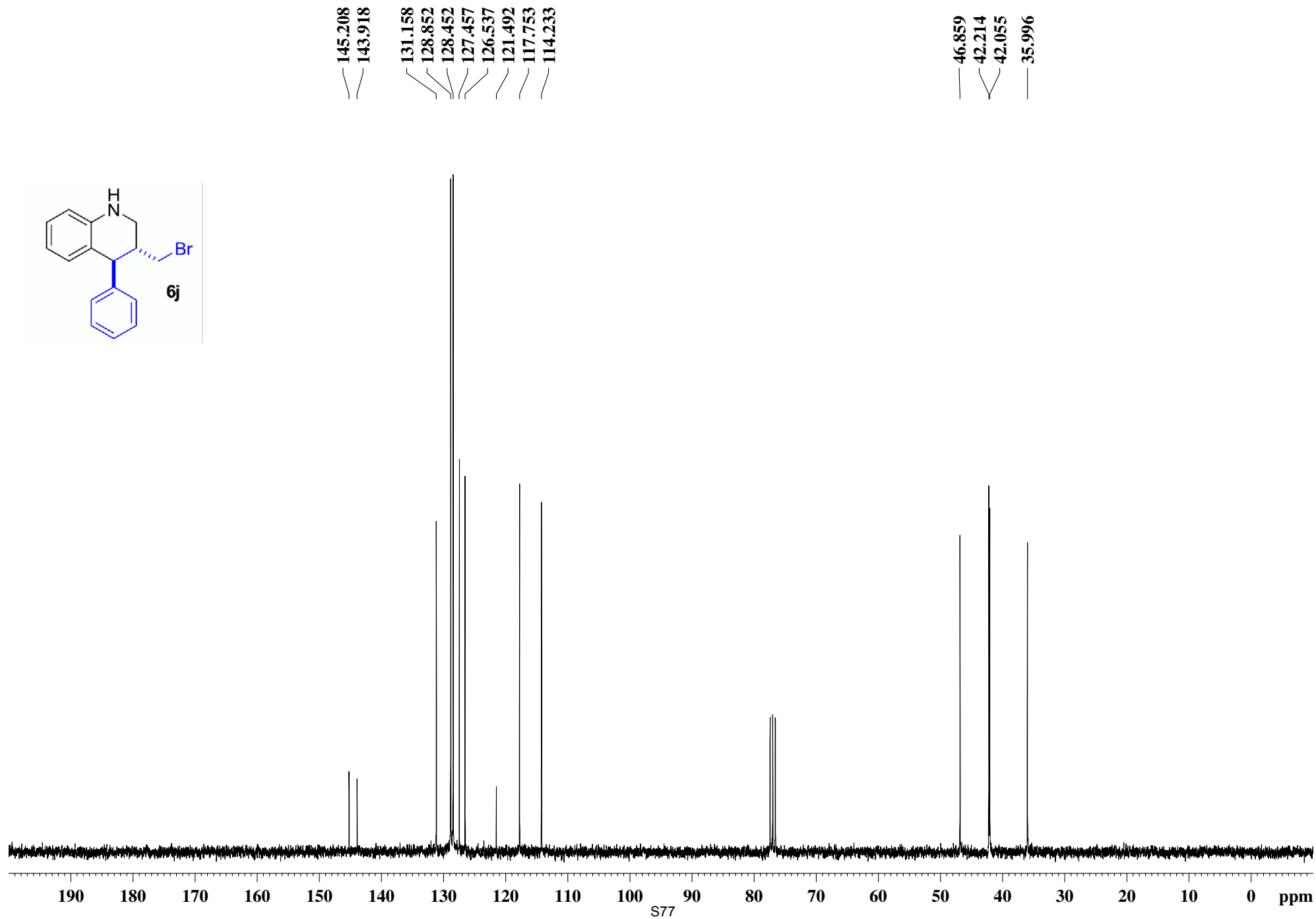


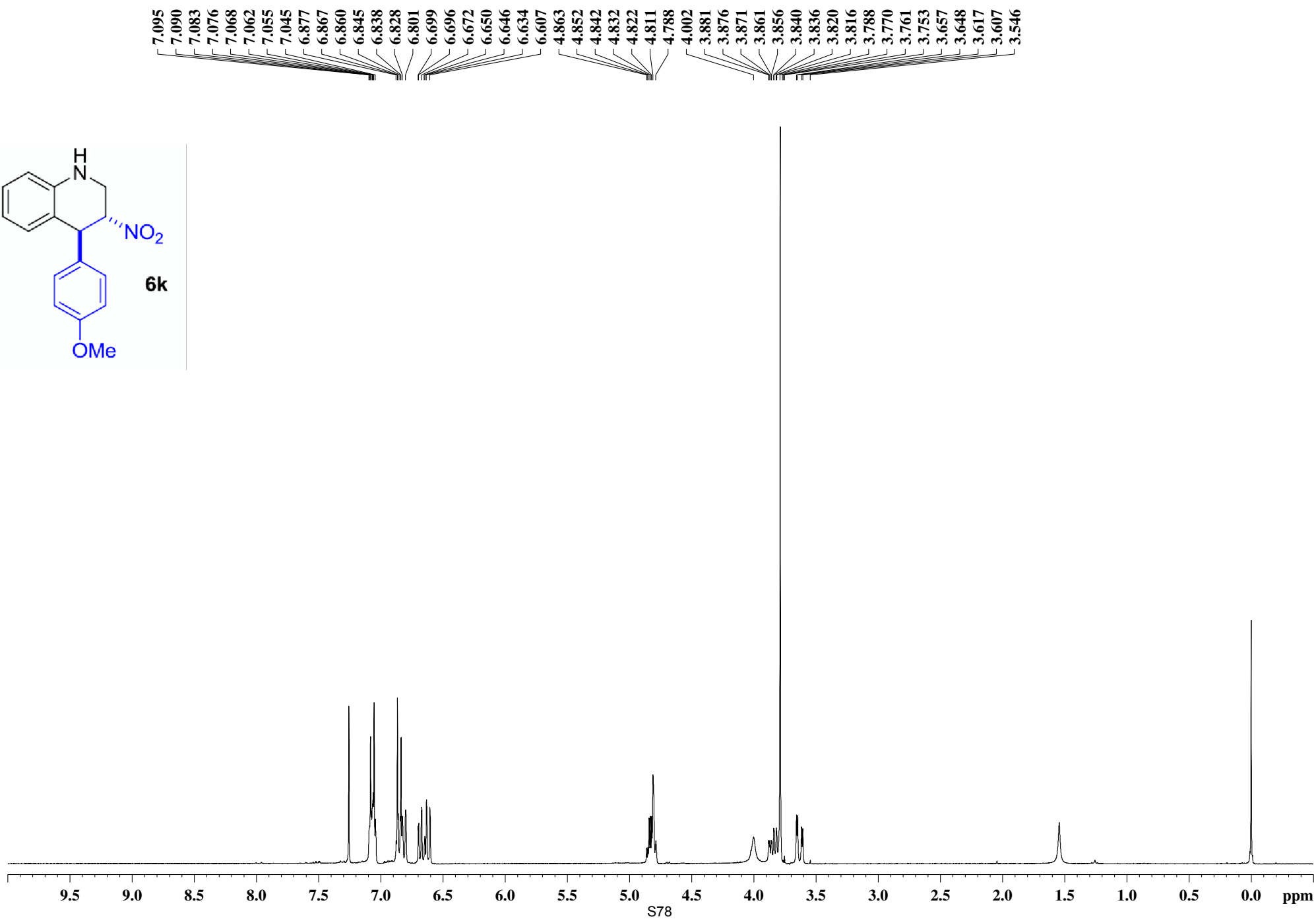
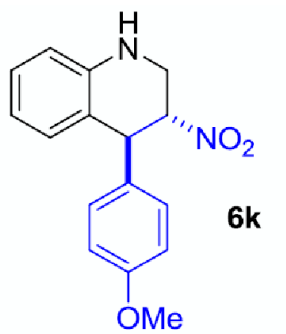




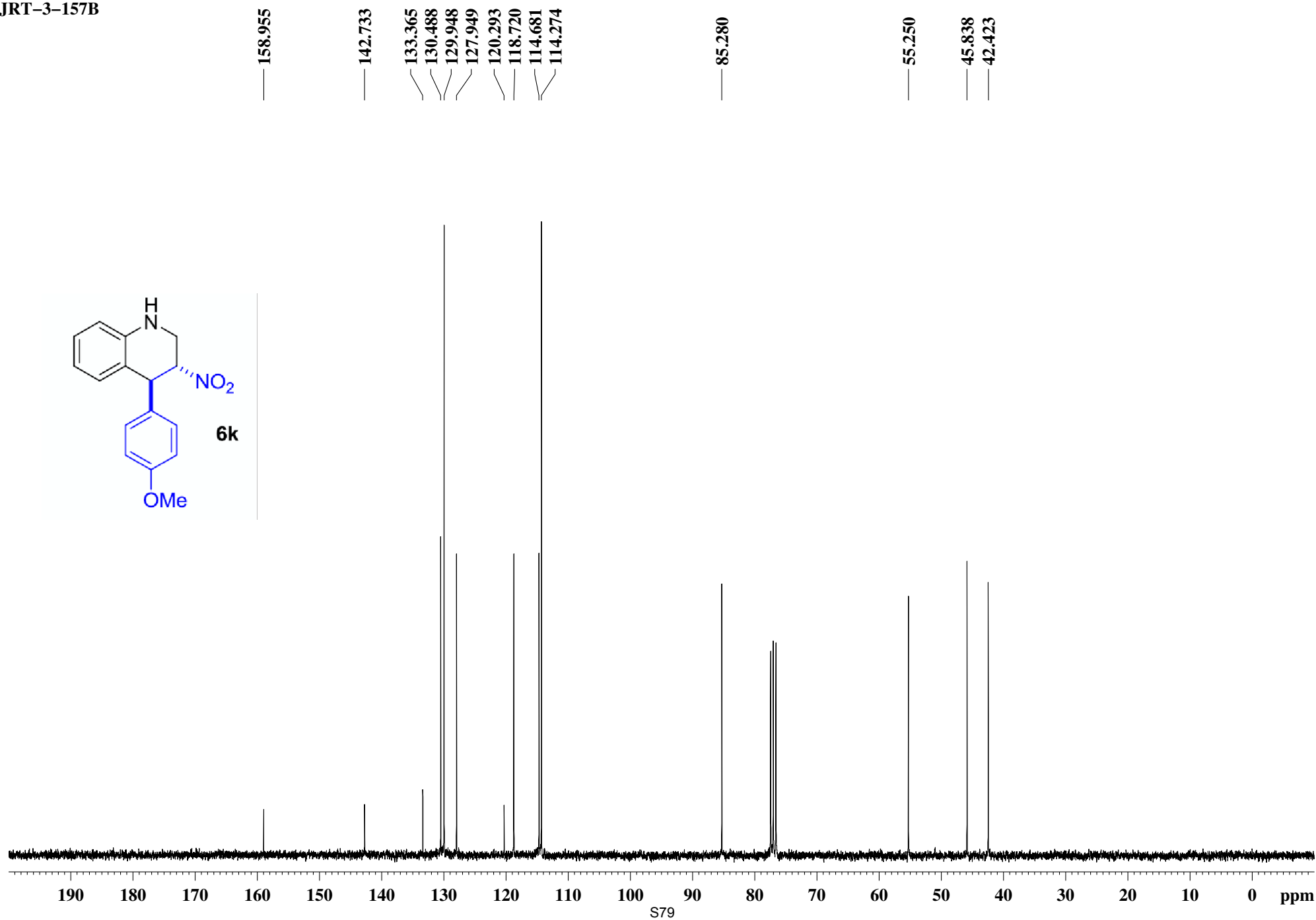
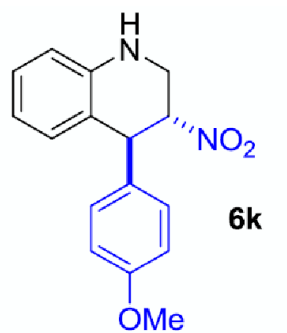


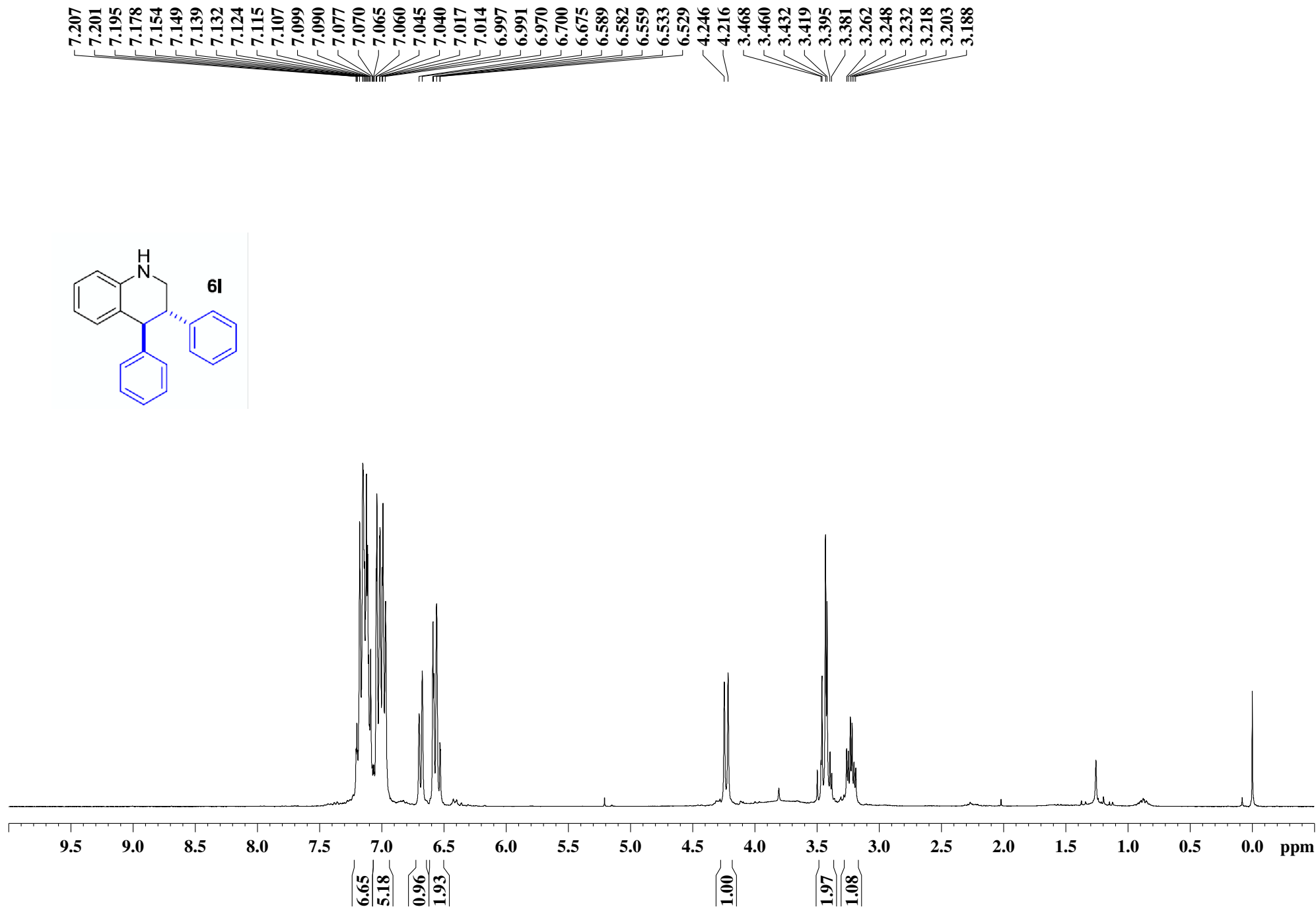


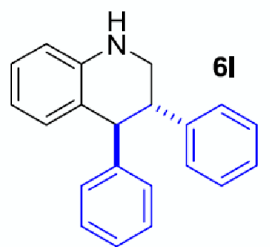




JRT-3-157B

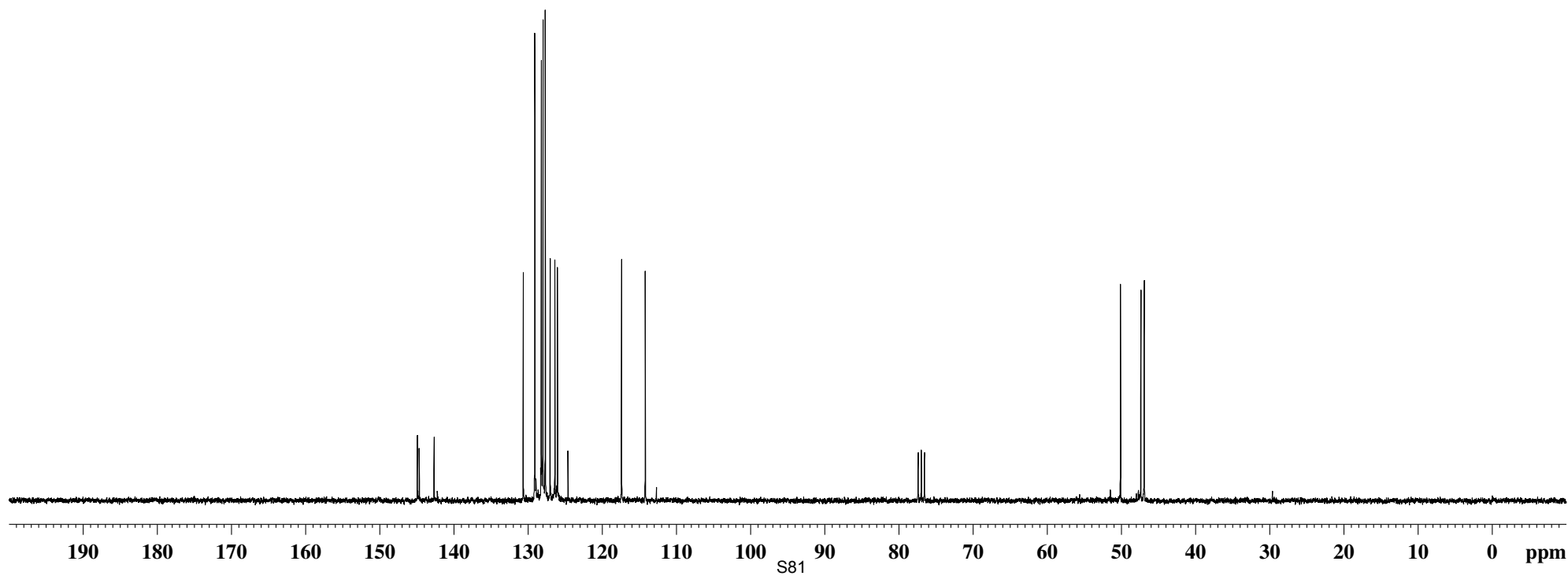




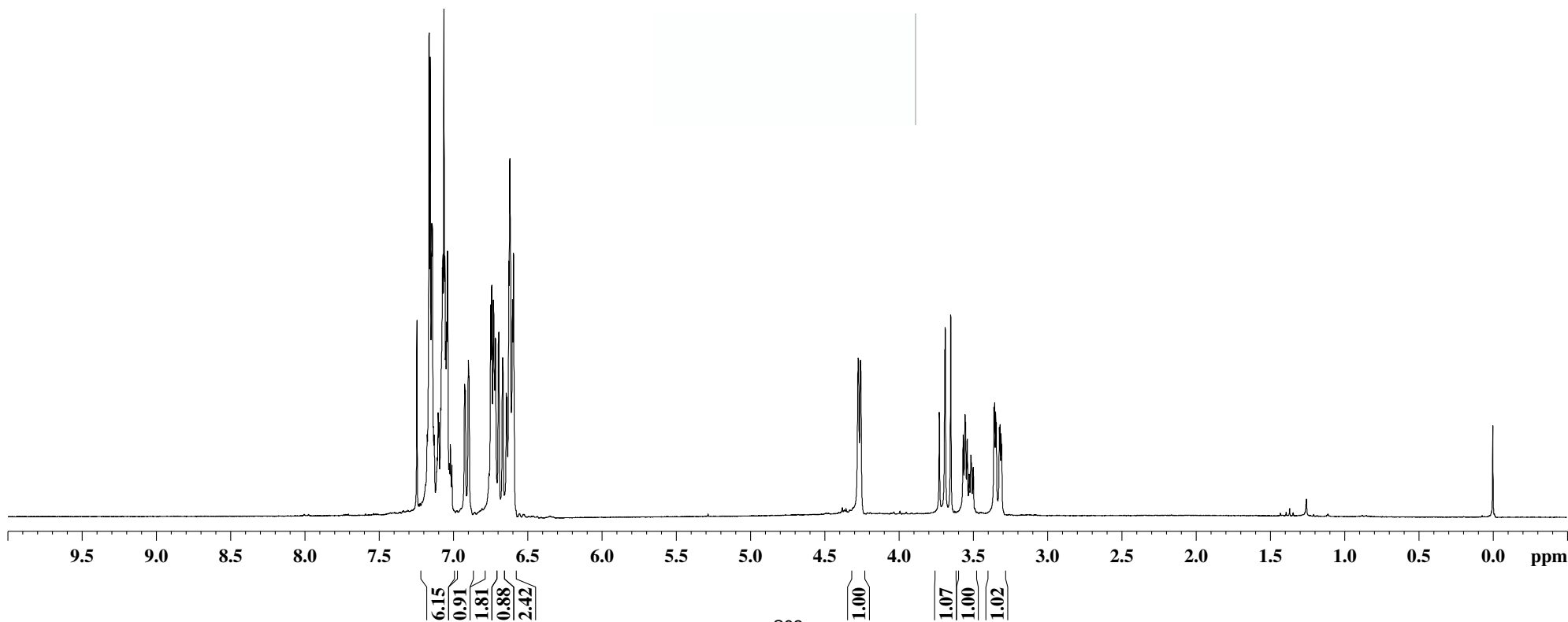
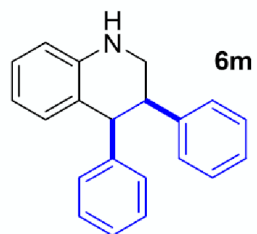


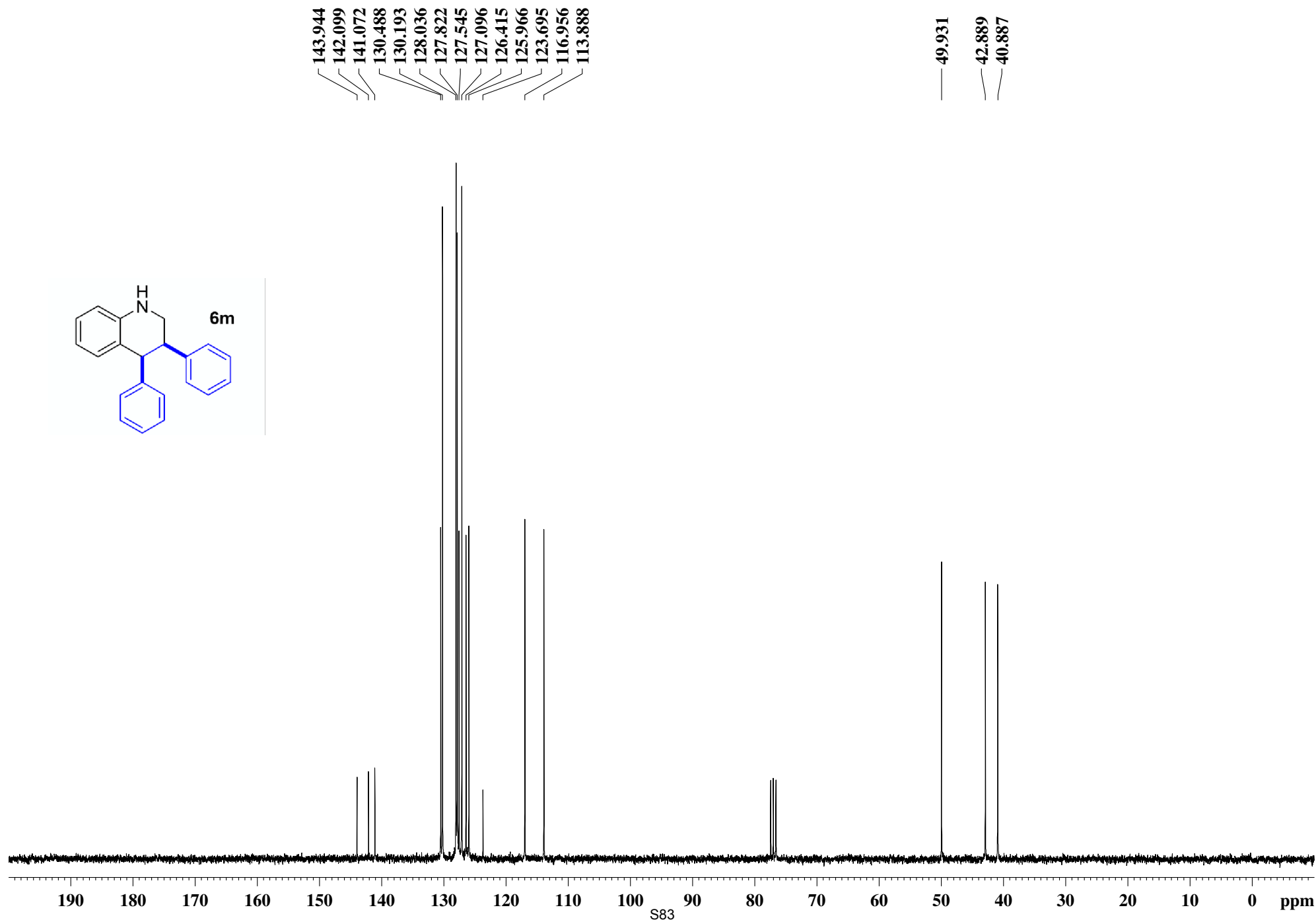
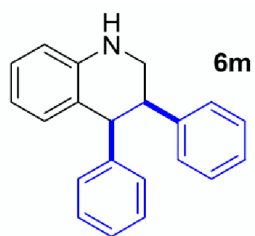
144.970
144.704
142.708
130.684
129.117
128.240
128.024
127.706
127.064
126.414
126.070
124.655
117.424
114.230

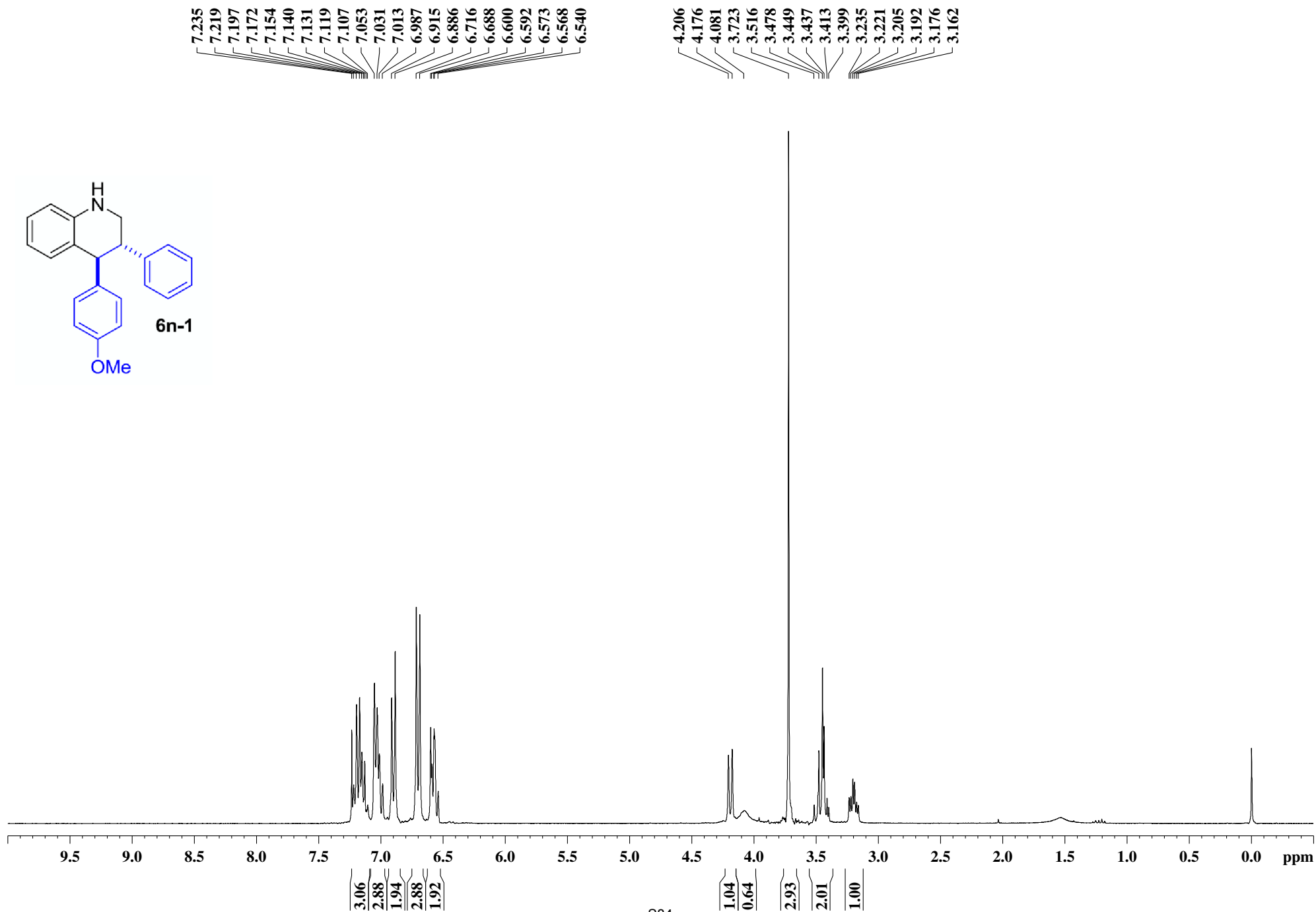
50.136
47.395
46.941

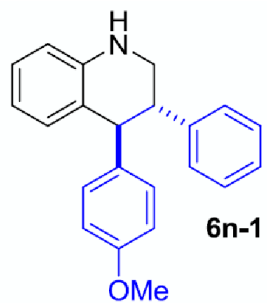


7.176
7.163
7.156
7.145
7.141
7.134
7.129
7.108
7.102
7.097
7.085
7.072
7.069
7.063
7.056
7.051
7.045
7.039
7.026
7.020
7.009
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6.920
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6.602
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4.258
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3.687
3.650
3.566
3.554
3.539
3.526
3.514
3.499
3.359
3.355
3.348
3.343
3.323
3.318
3.312
3.307









— 157.842

144.730

142.879

137.077

130.672

130.010

128.271

127.779

127.027

126.395

125.056

117.435

114.231

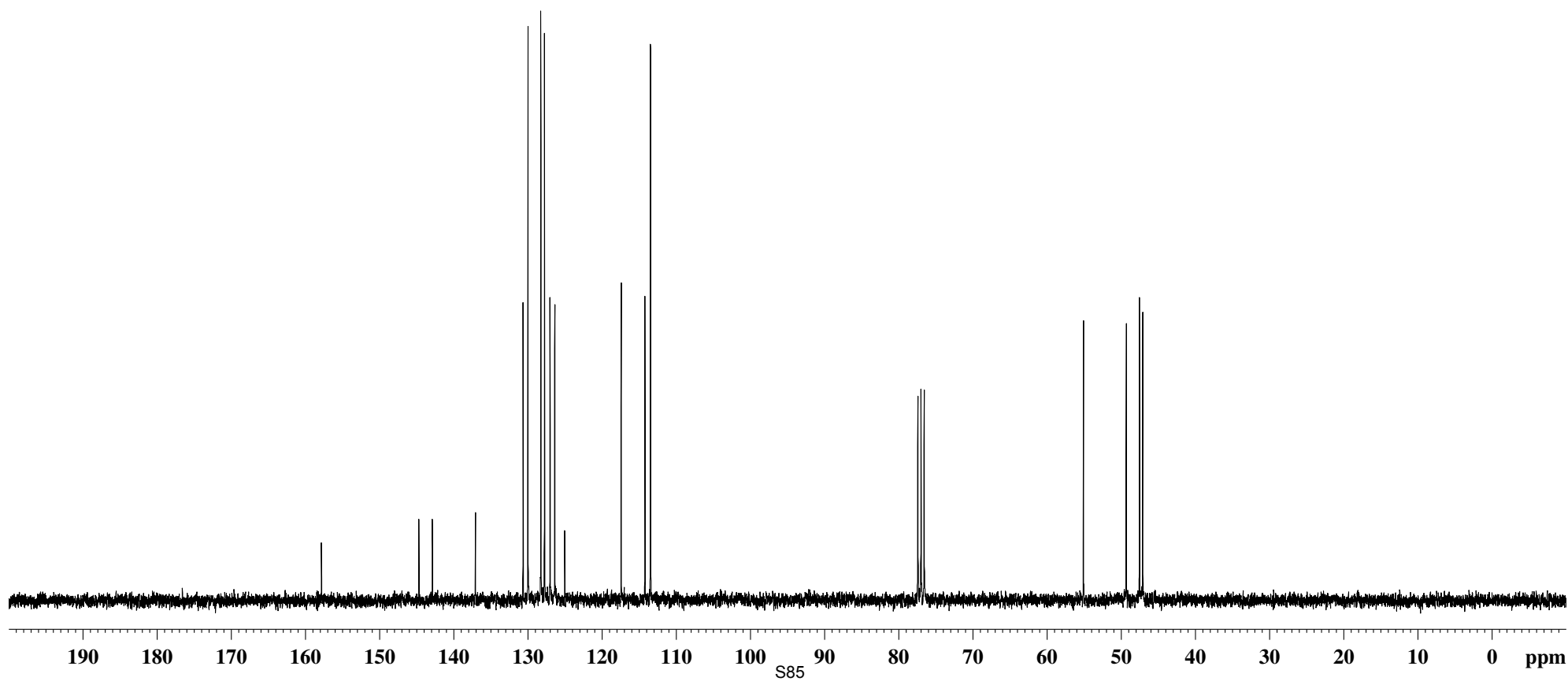
113.467

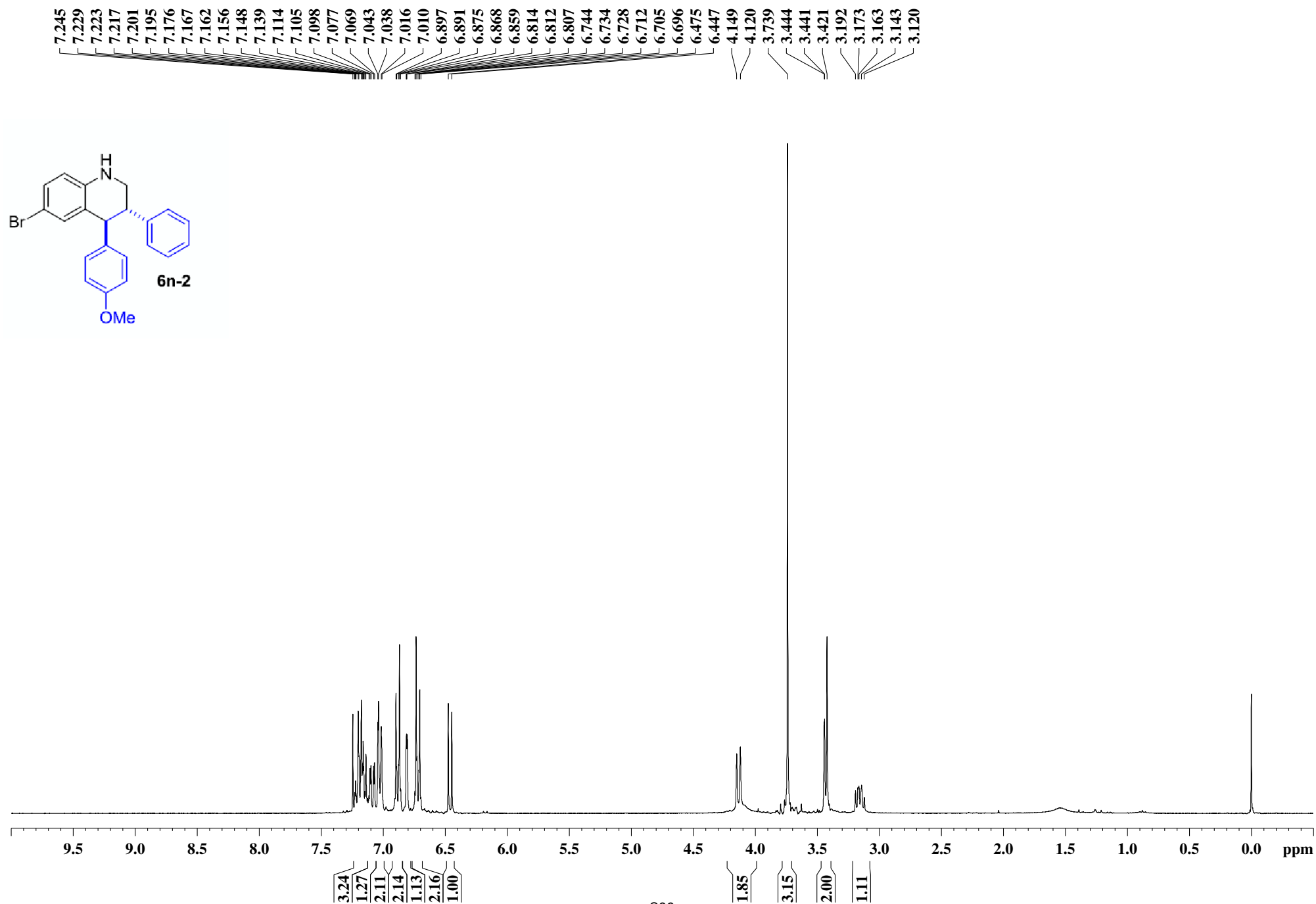
— 55.087

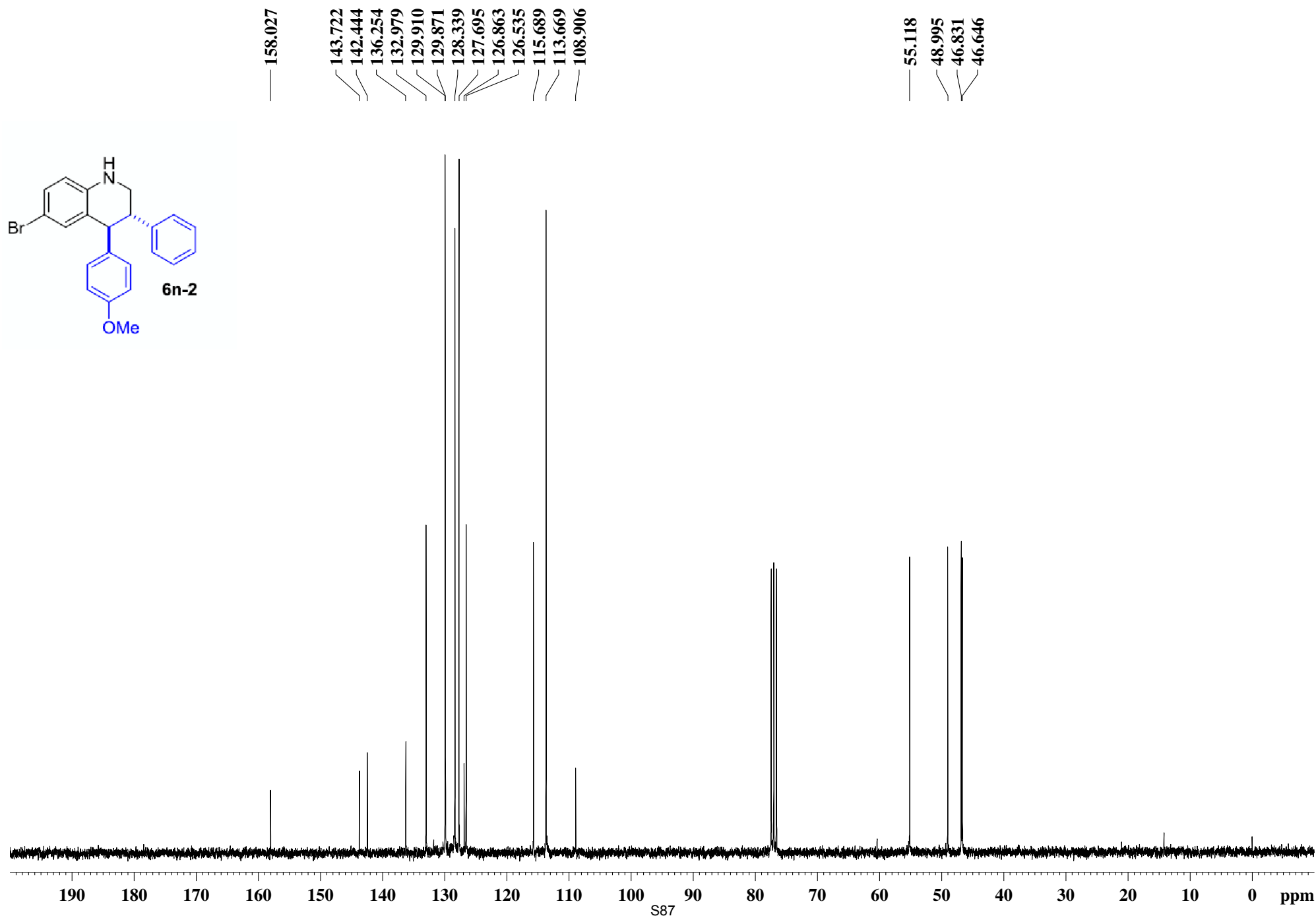
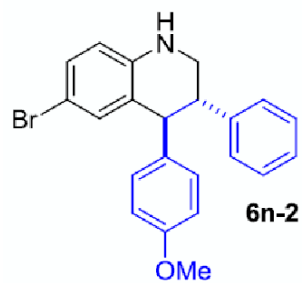
49.312

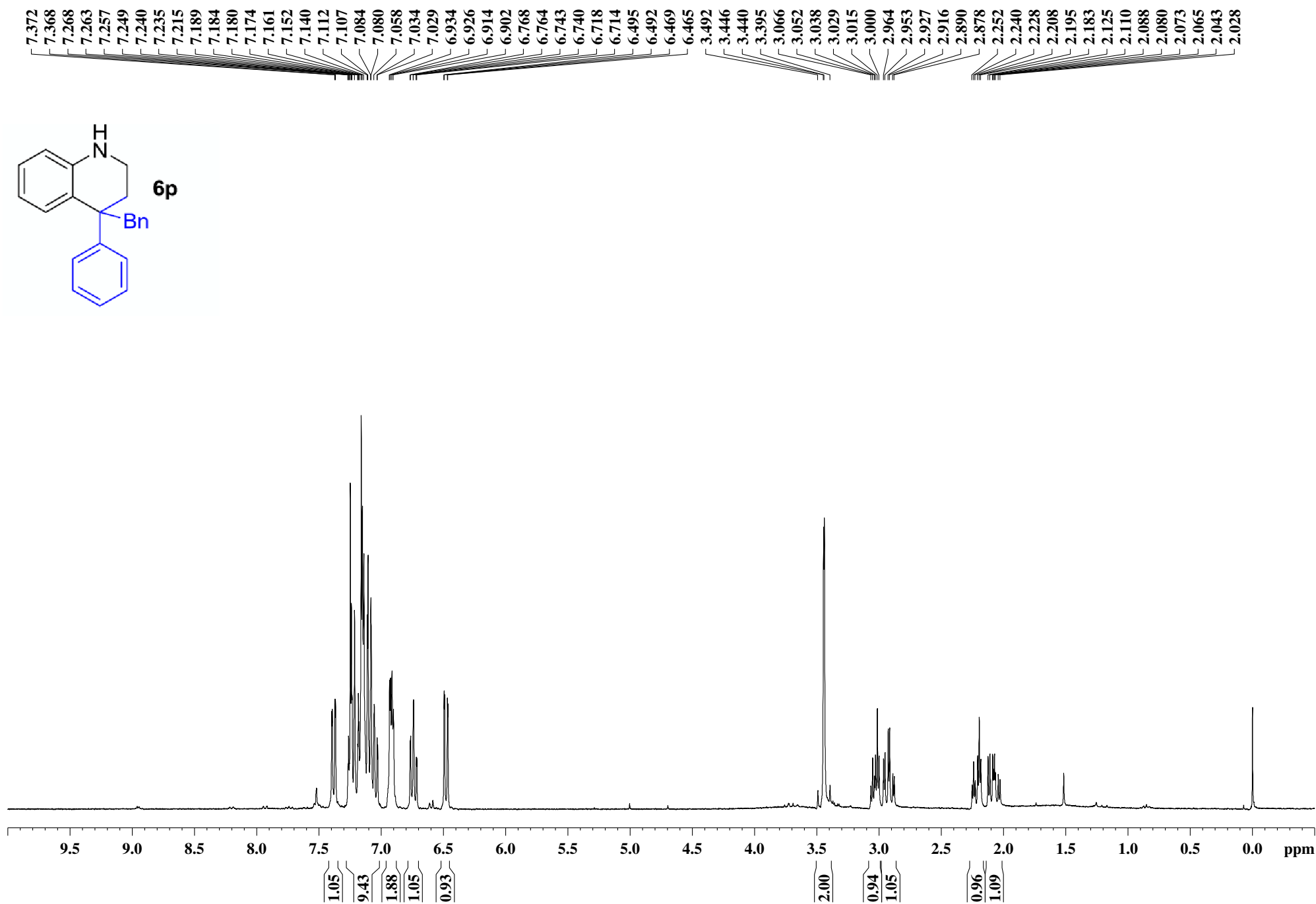
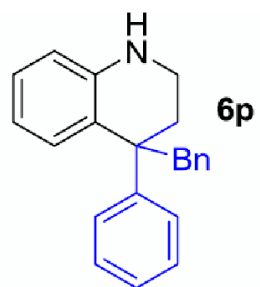
47.521

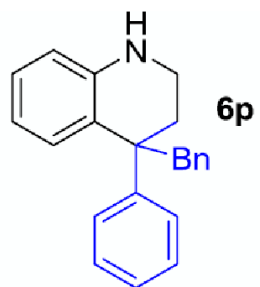
47.097





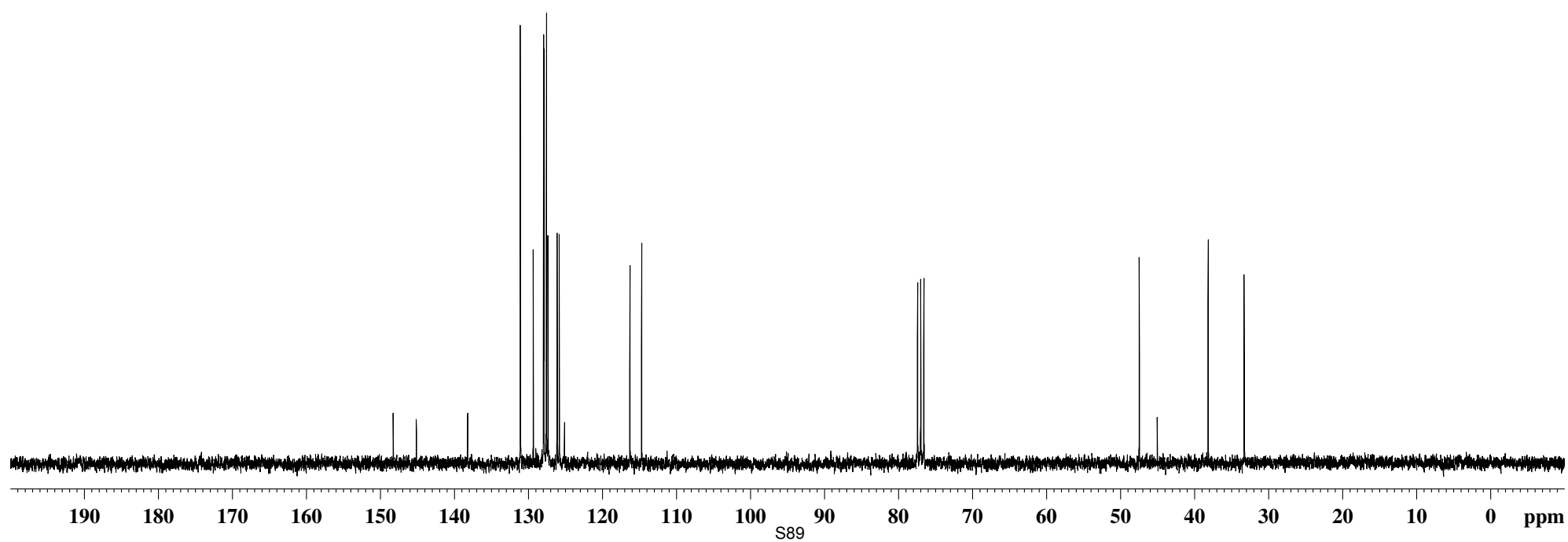




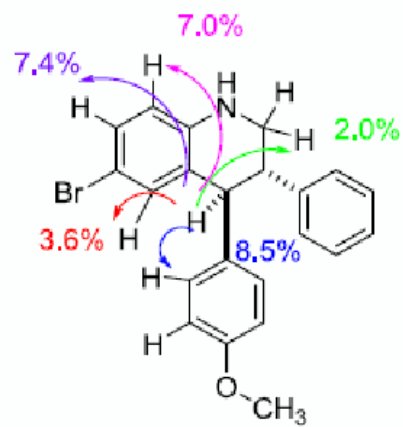


148.290
145.154
138.223
131.105
129.365
127.969
127.917
127.577
127.366
126.135
125.849
125.137
116.303
114.716

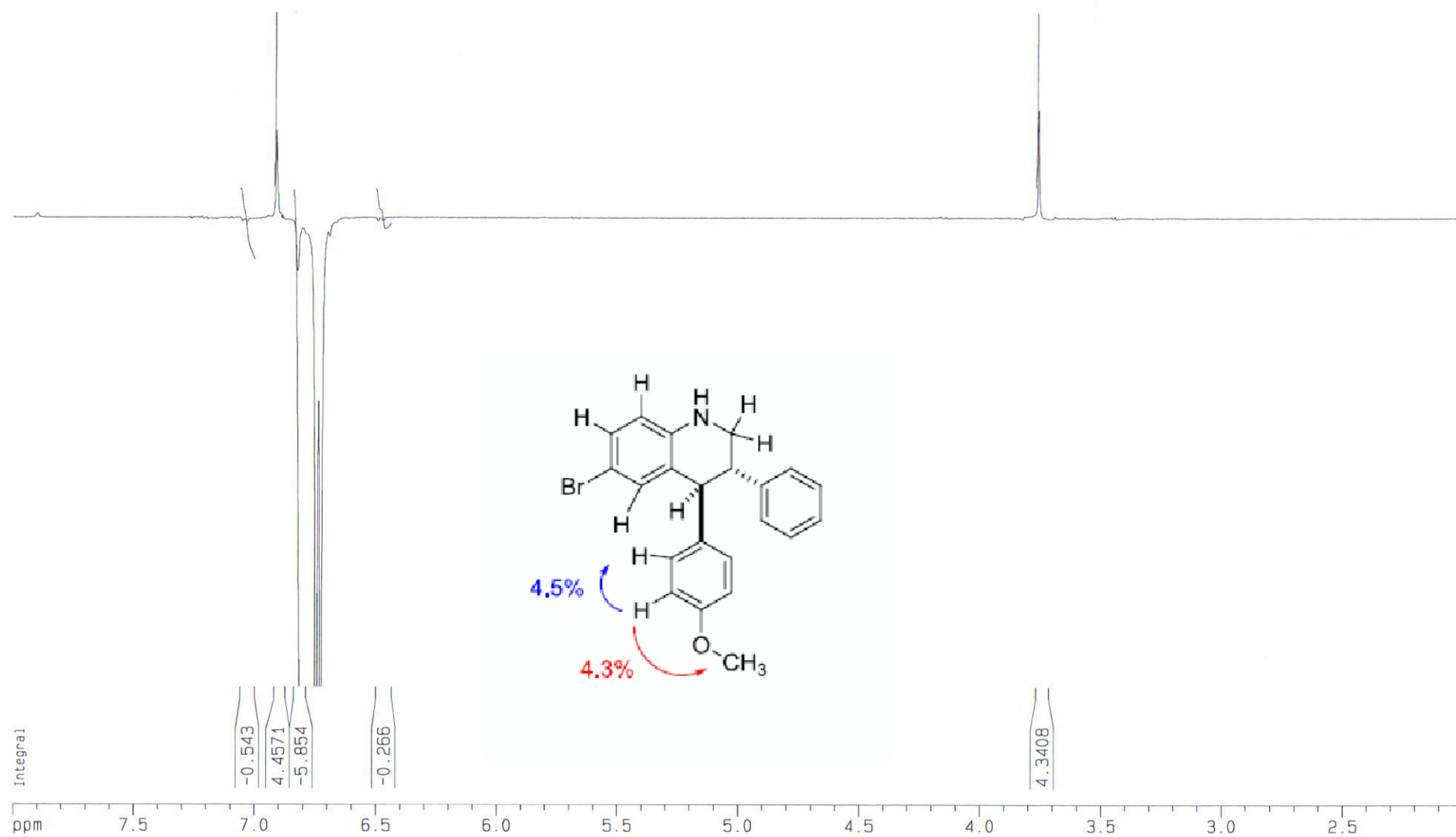
47.467
45.045
38.160
33.299



JRT-4-282
NOE irr at 4.1



JAT-4-282
NOE irr at 6.7



JRT-4-282
NOE irr at 6.9

