

Supporting Information

Regioselective Fluorination of Imidazo[1,2-*a*]pyridines with SelectfluorTM in Aqueous Condition

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^bJiangsu Collaborative Innovation Center of Biomedical Functional Materials, Nanjing 210023, China
sunpeipei@njnu.edu.cn

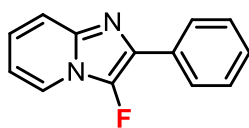
Contents:

NMR spectra	S2-S37
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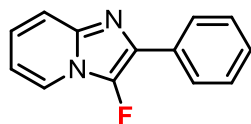
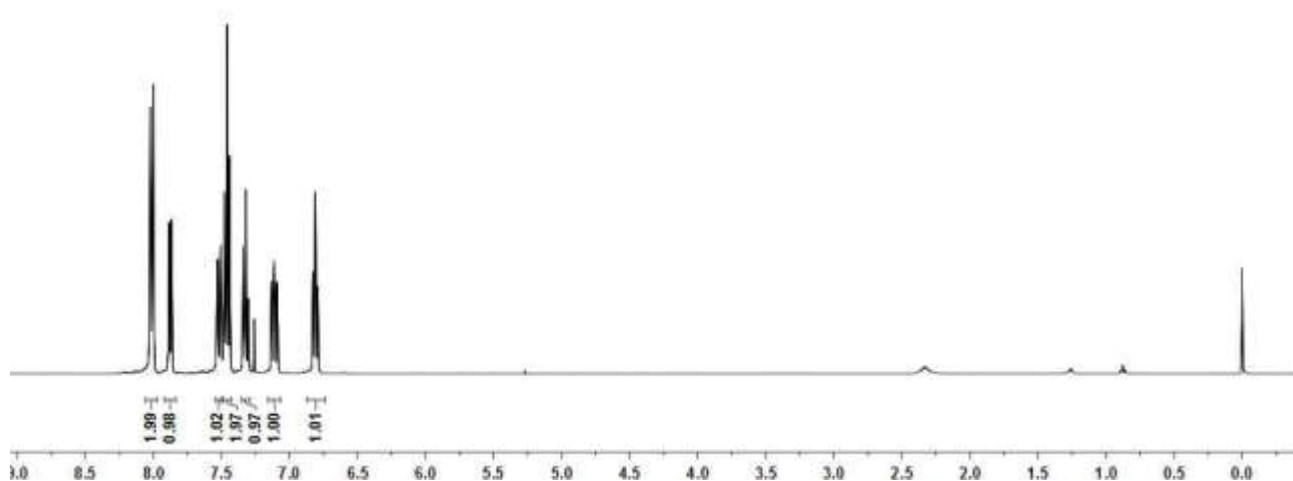
lp1-072-1a

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7.867
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7.528
7.526
7.508
7.505
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7.478
7.459
7.439
7.342
7.339
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7.321
7.317
7.305
7.302
7.289
7.259
7.132
7.129
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6.791

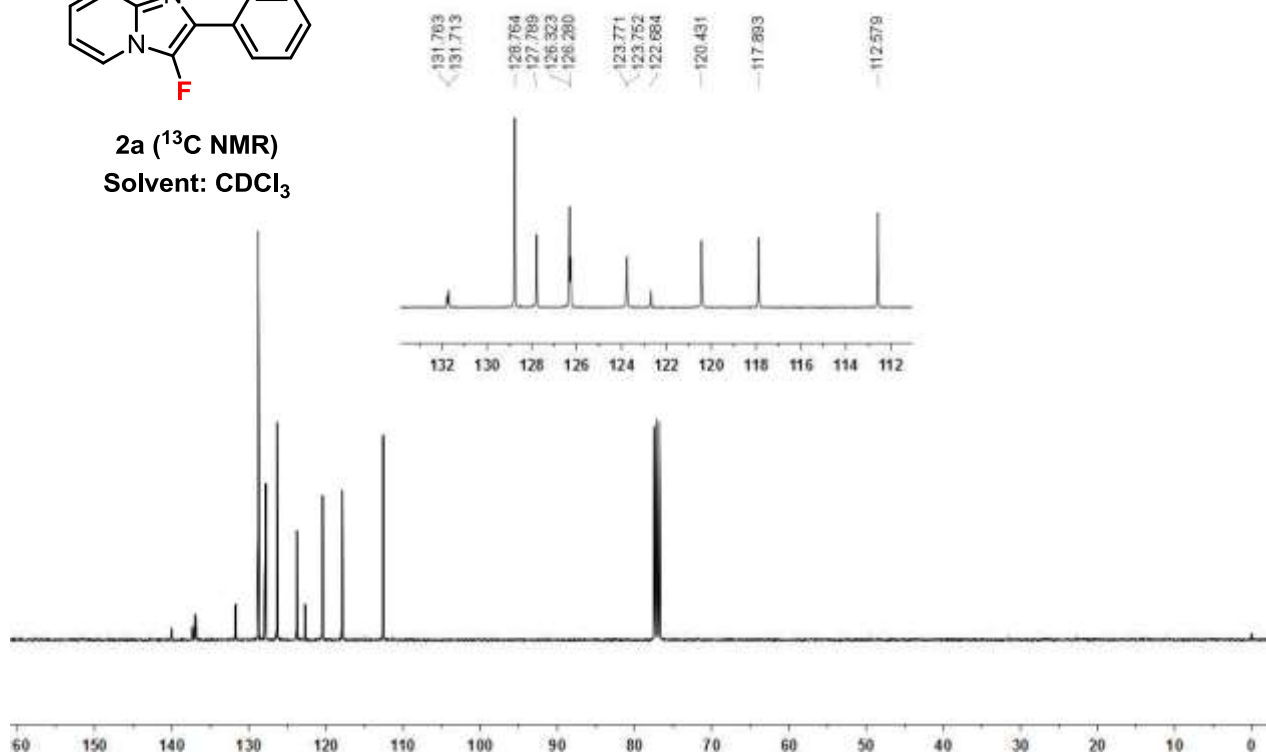
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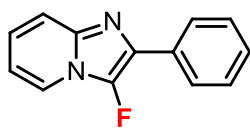
2a (¹H NMR)
Solvent: CDCl₃



2a (¹³C NMR)
Solvent: CDCl₃

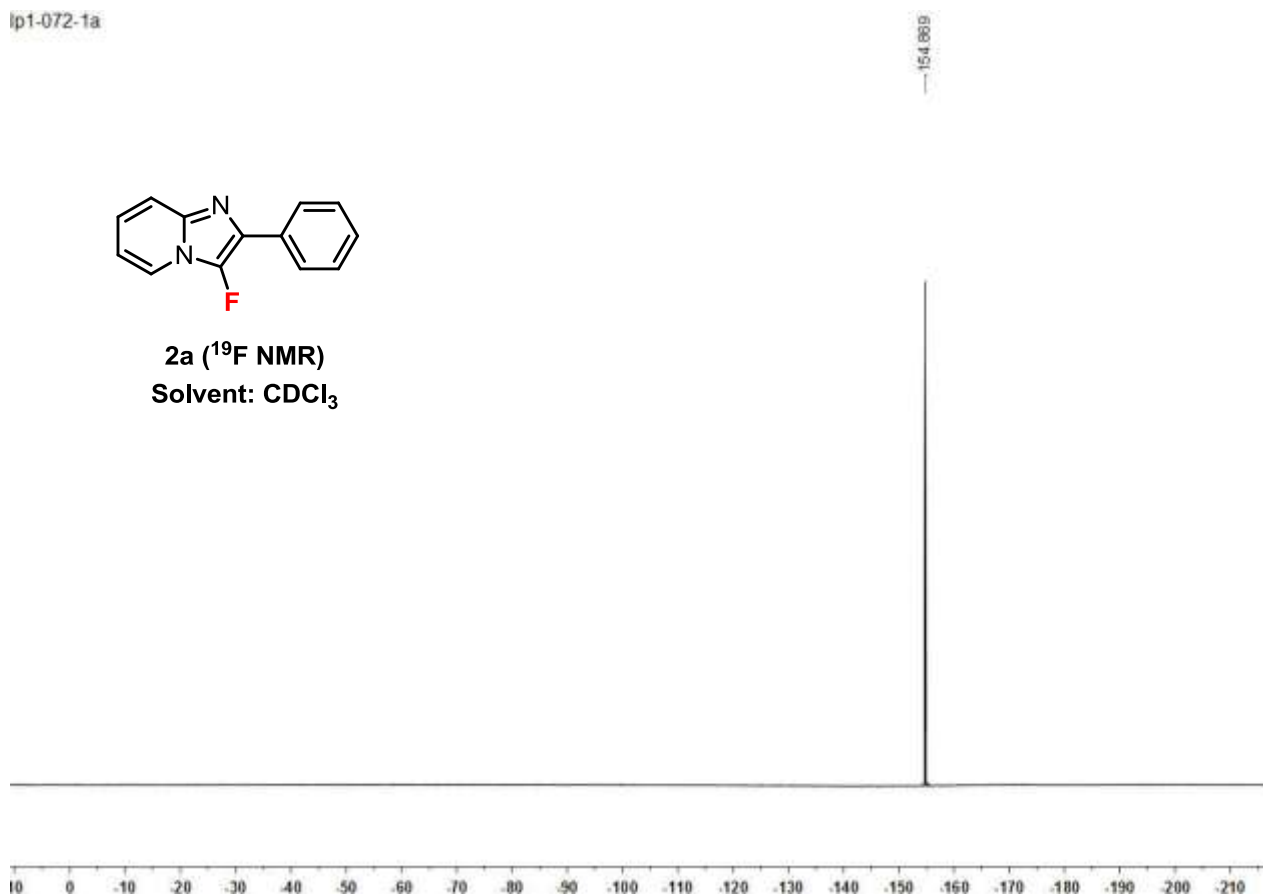


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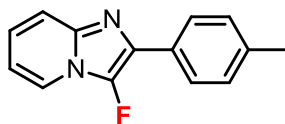


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Solvent: CDCl_3

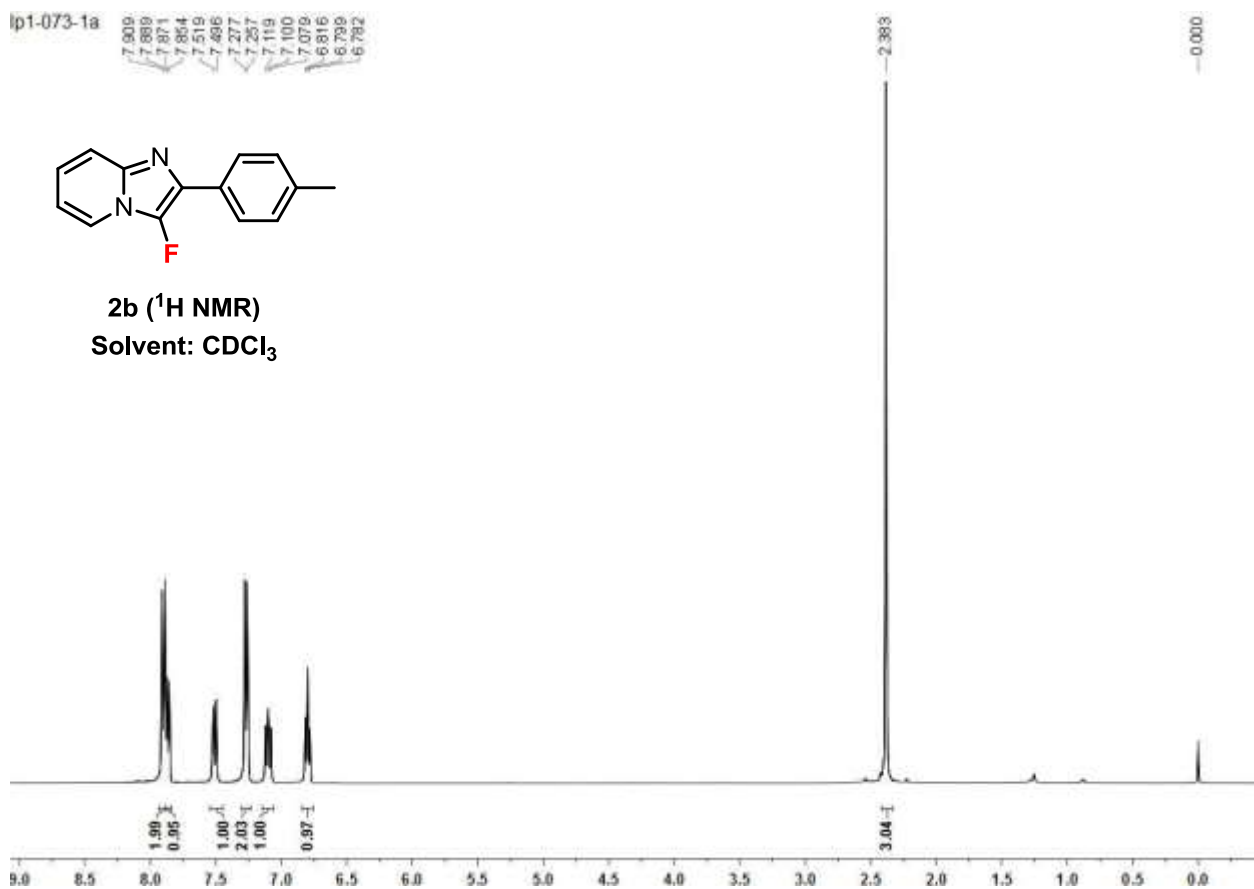


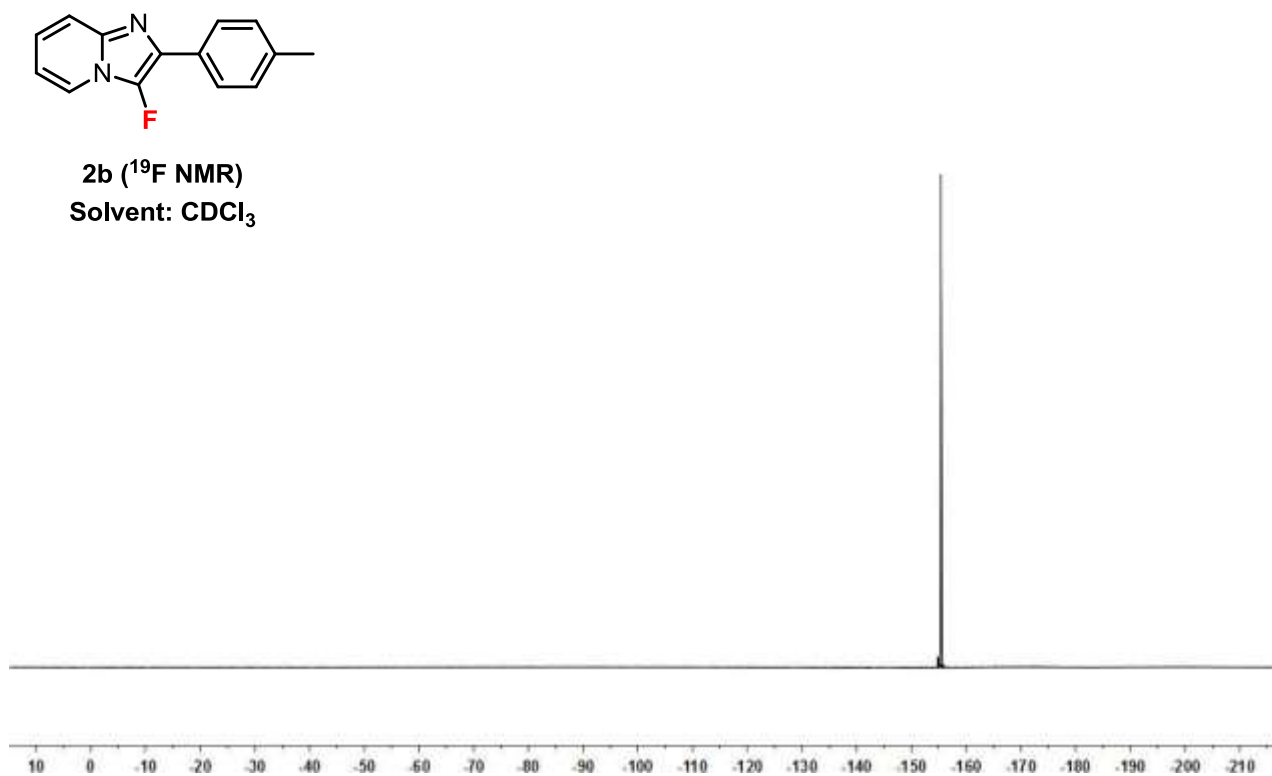
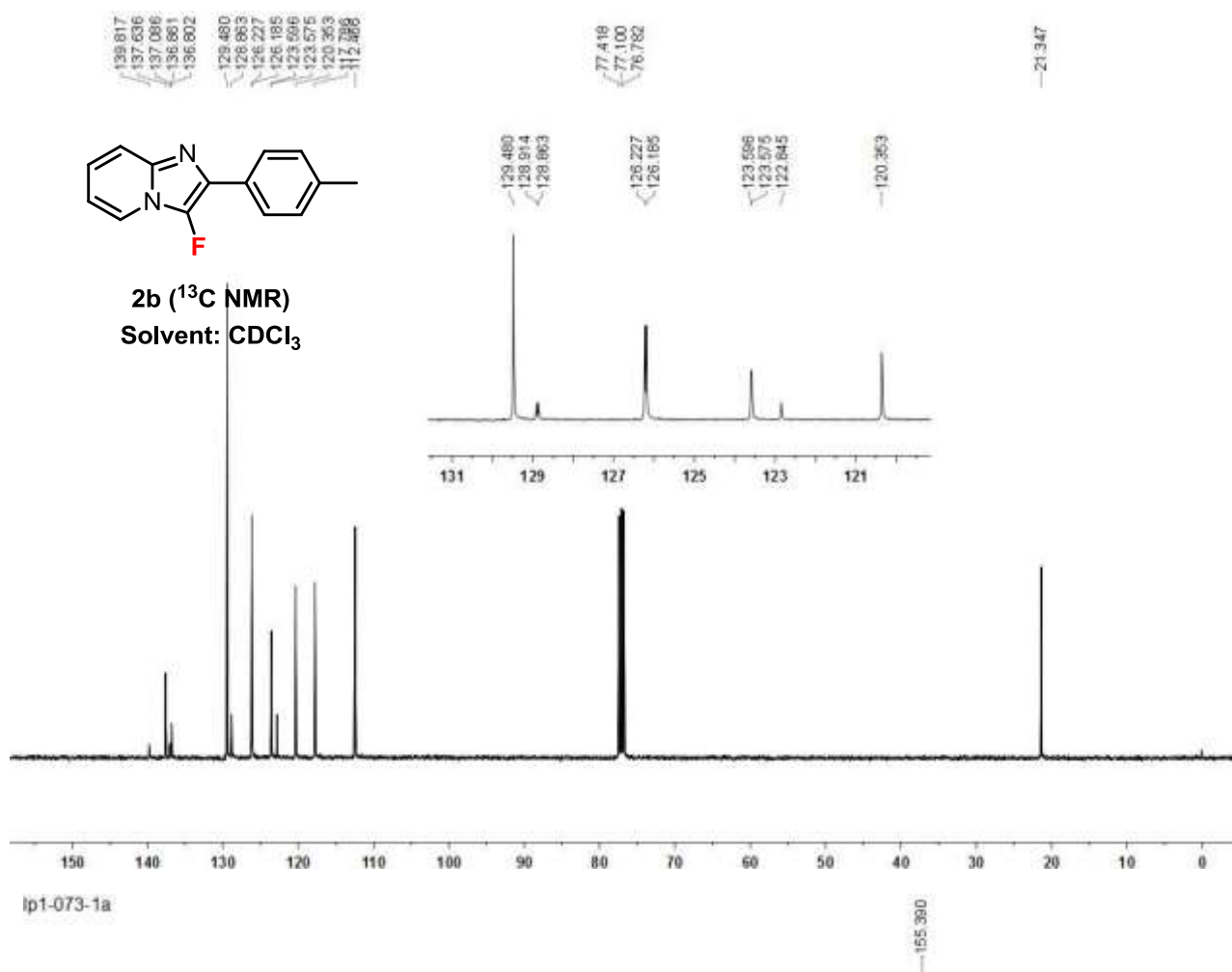
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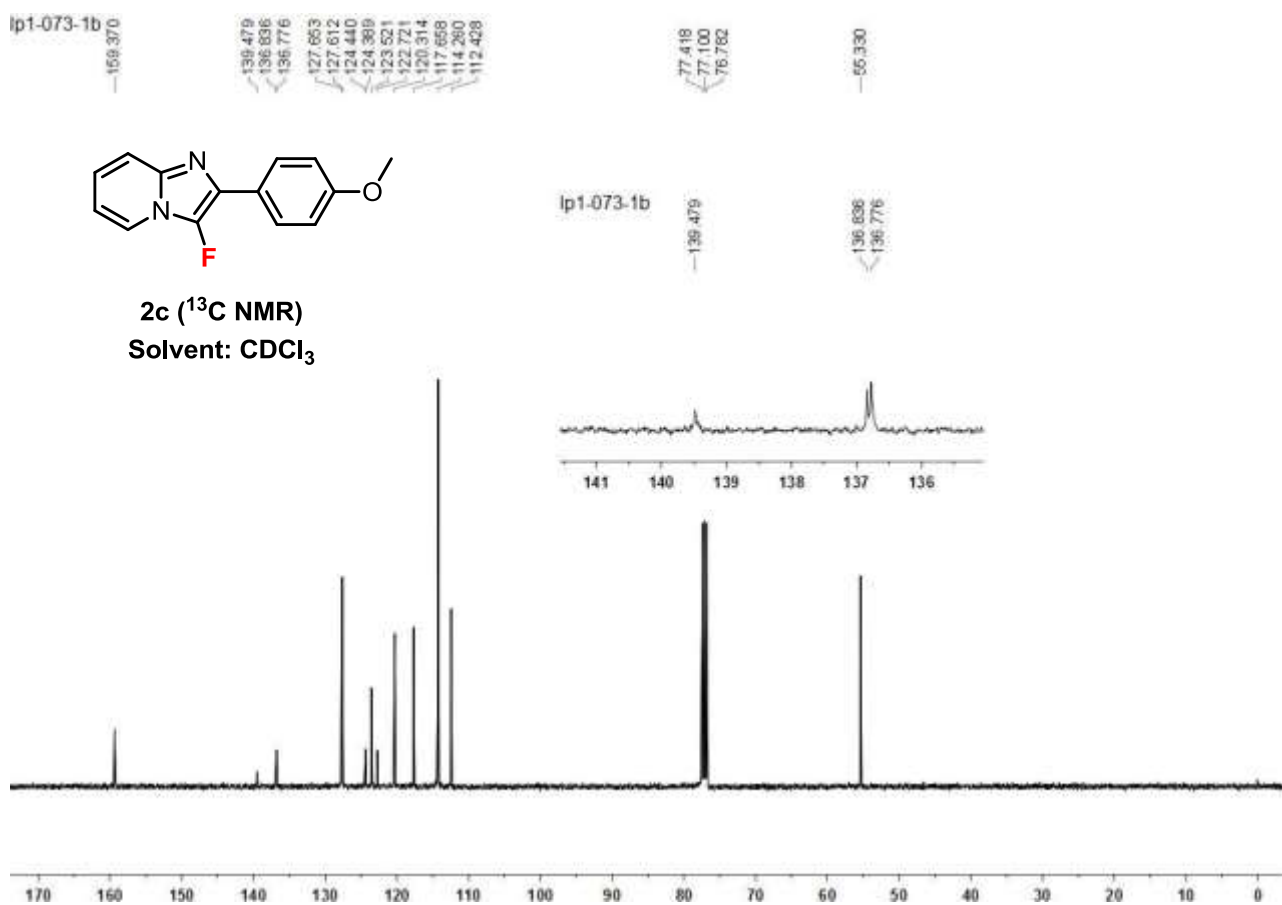
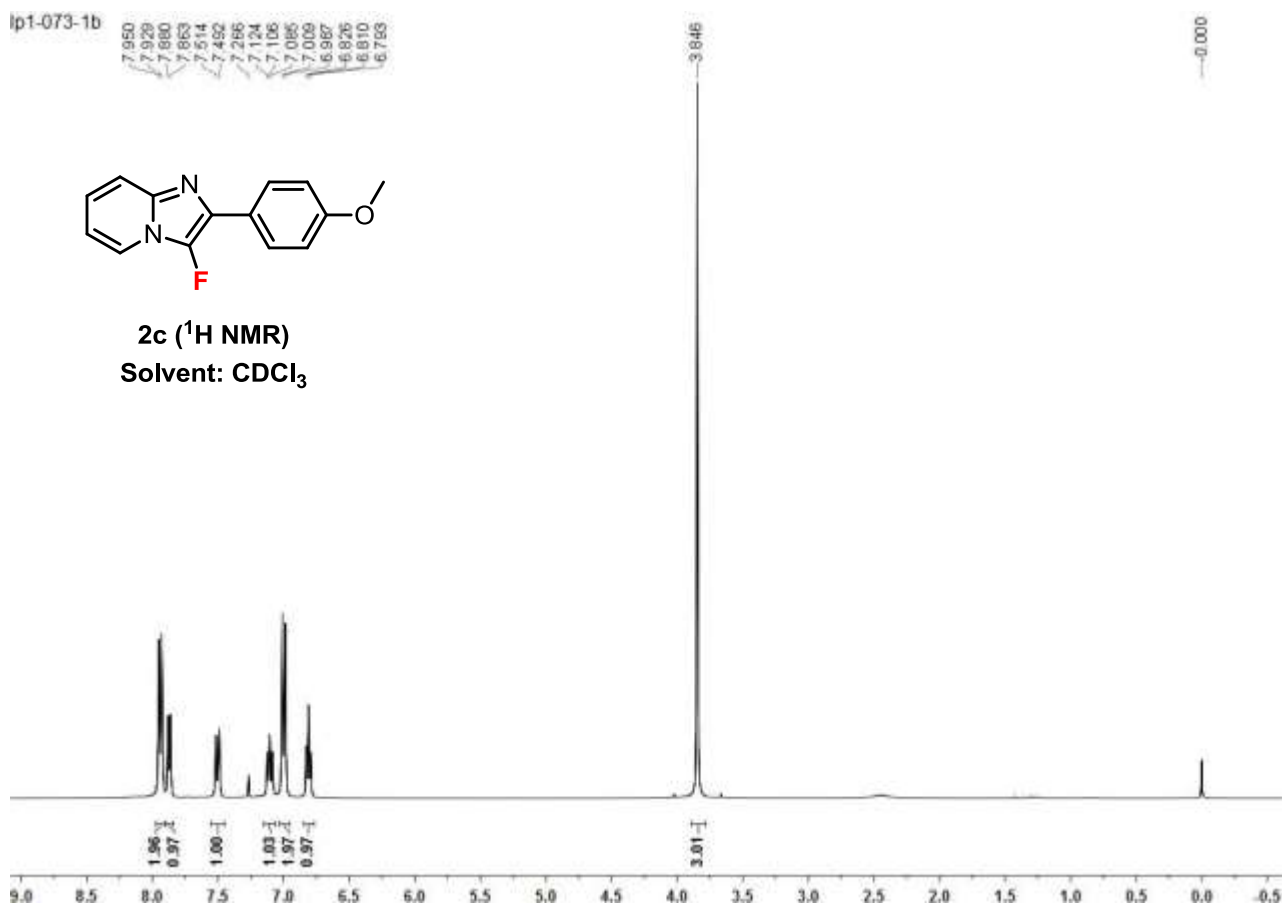


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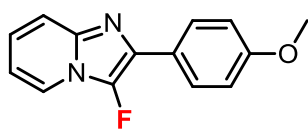
Solvent: CDCl_3



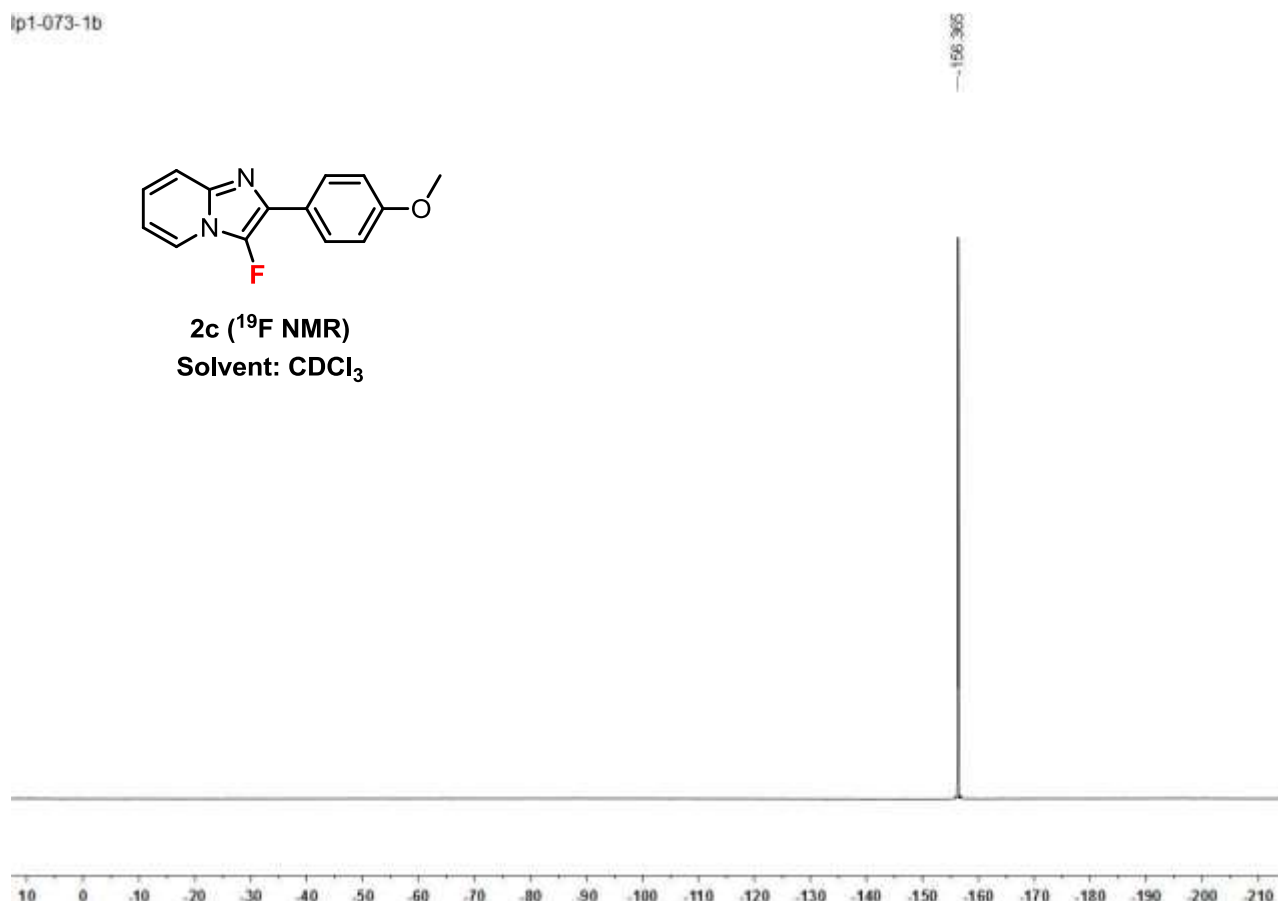




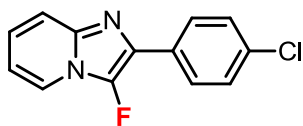
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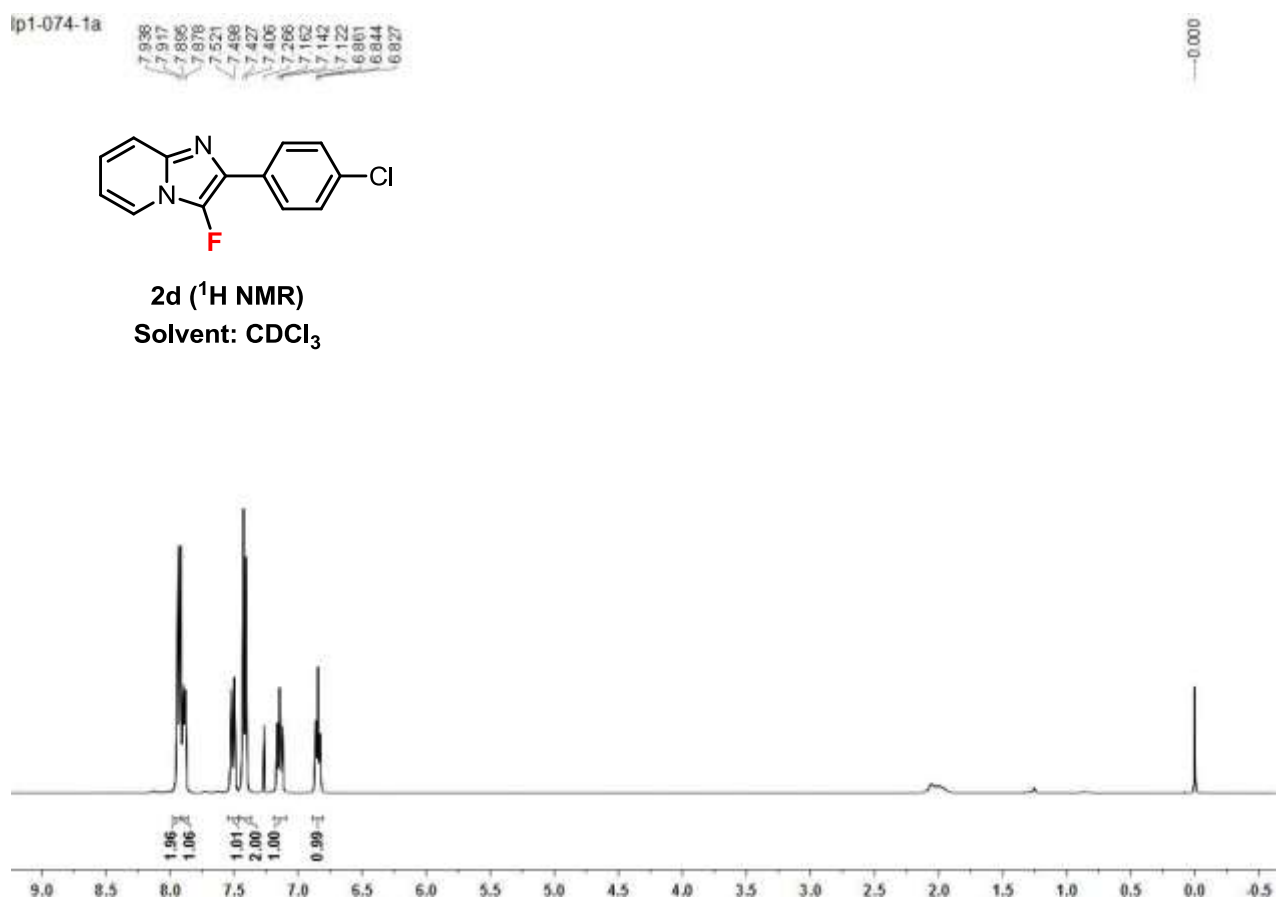
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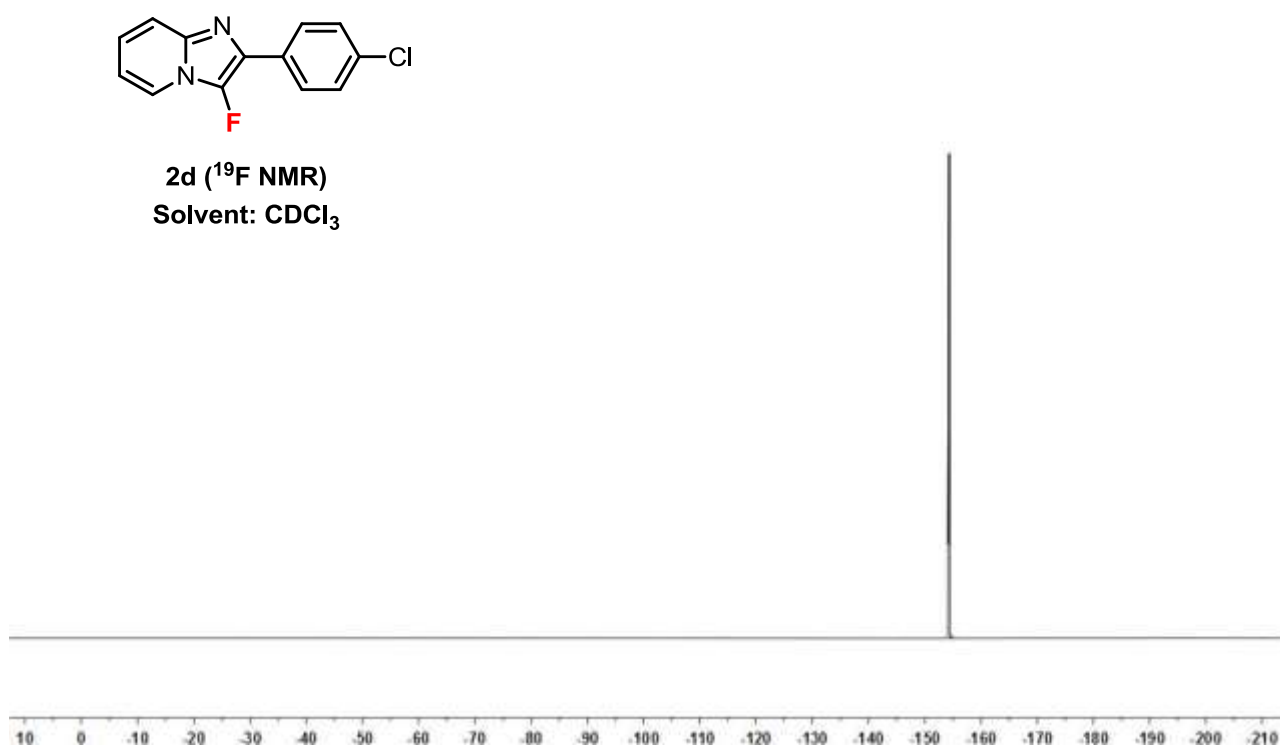
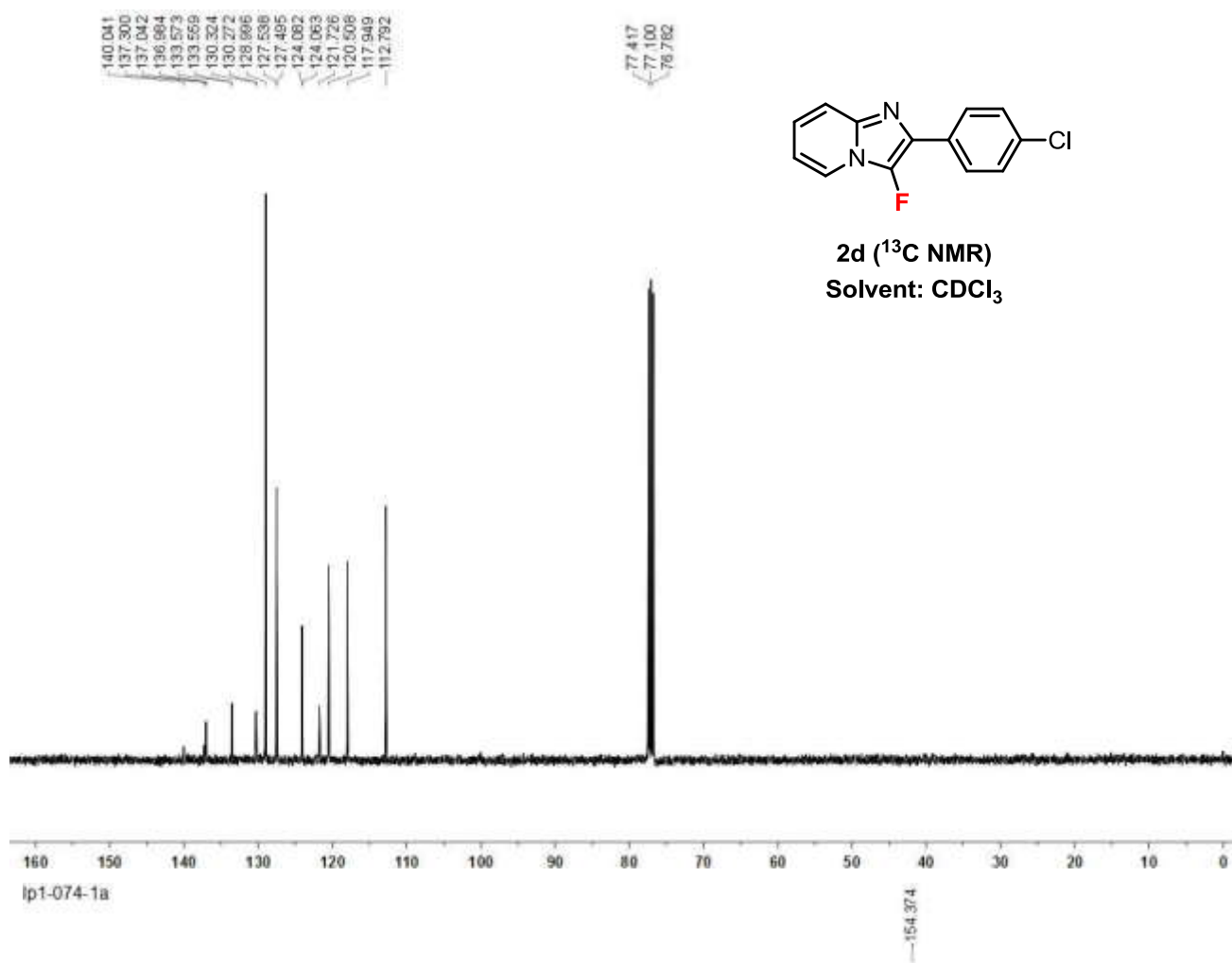


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2d (^1H NMR)
Solvent: CDCl_3

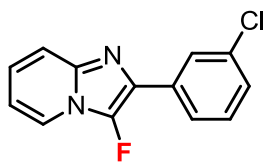




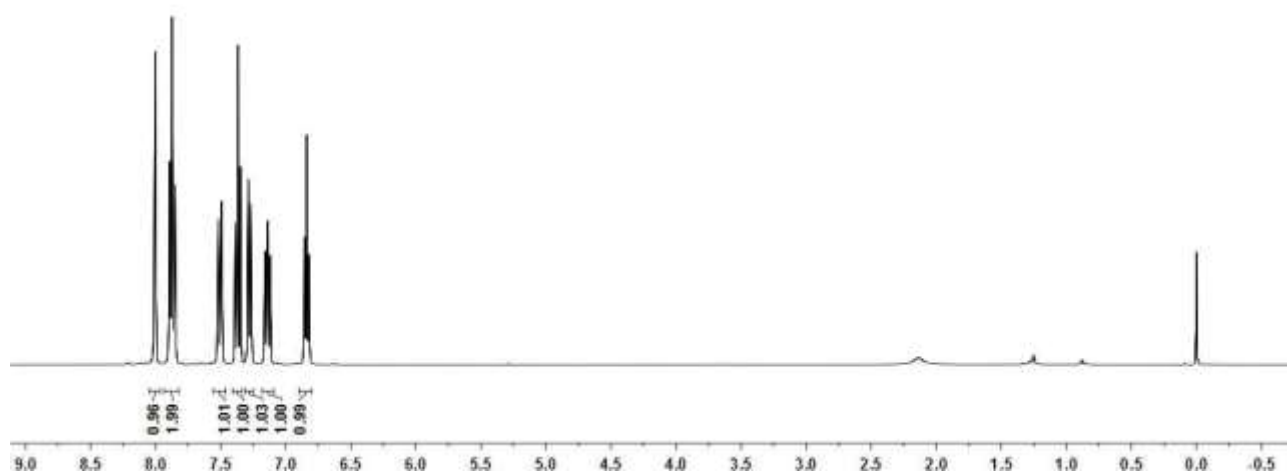
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7.873
7.851
7.517
7.494
7.387
7.367
7.348
7.290
7.286
7.286
7.283
7.269
7.266
7.159
7.157
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7.140
7.137
7.134
7.120
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6.636
6.621

-0.000

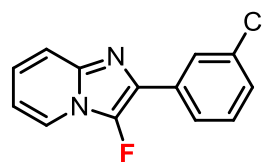


2e (^1H NMR)
Solvent: CDCl_3

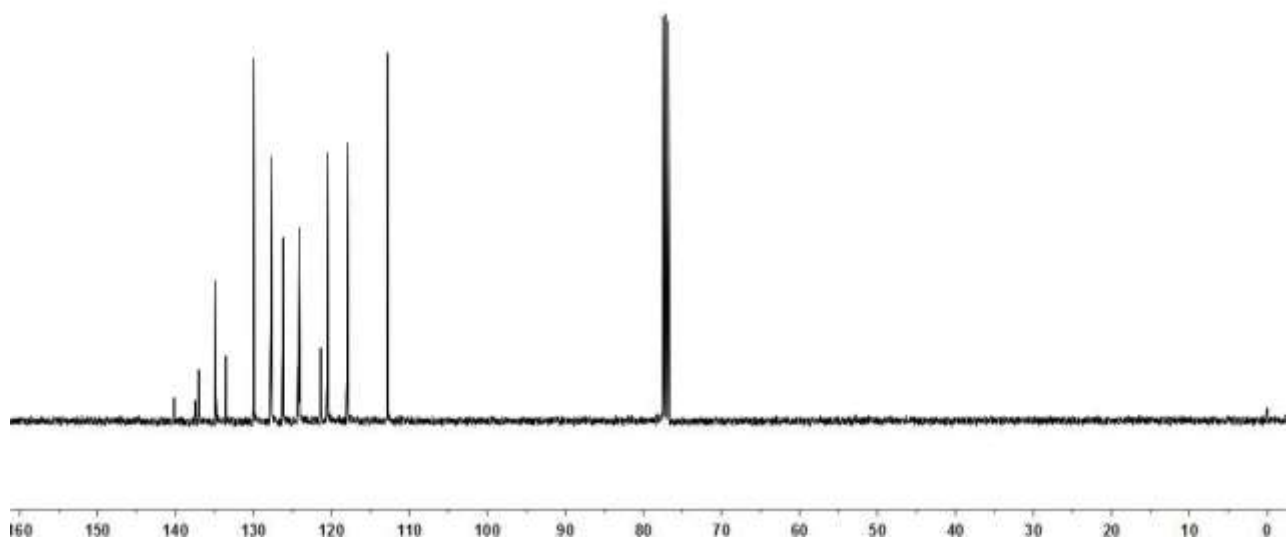


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133.570
133.518
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126.212
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124.176
124.160
121.364
120.528
117.973
112.836

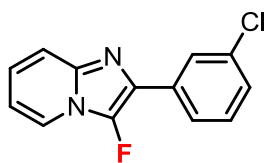
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77.100
76.783



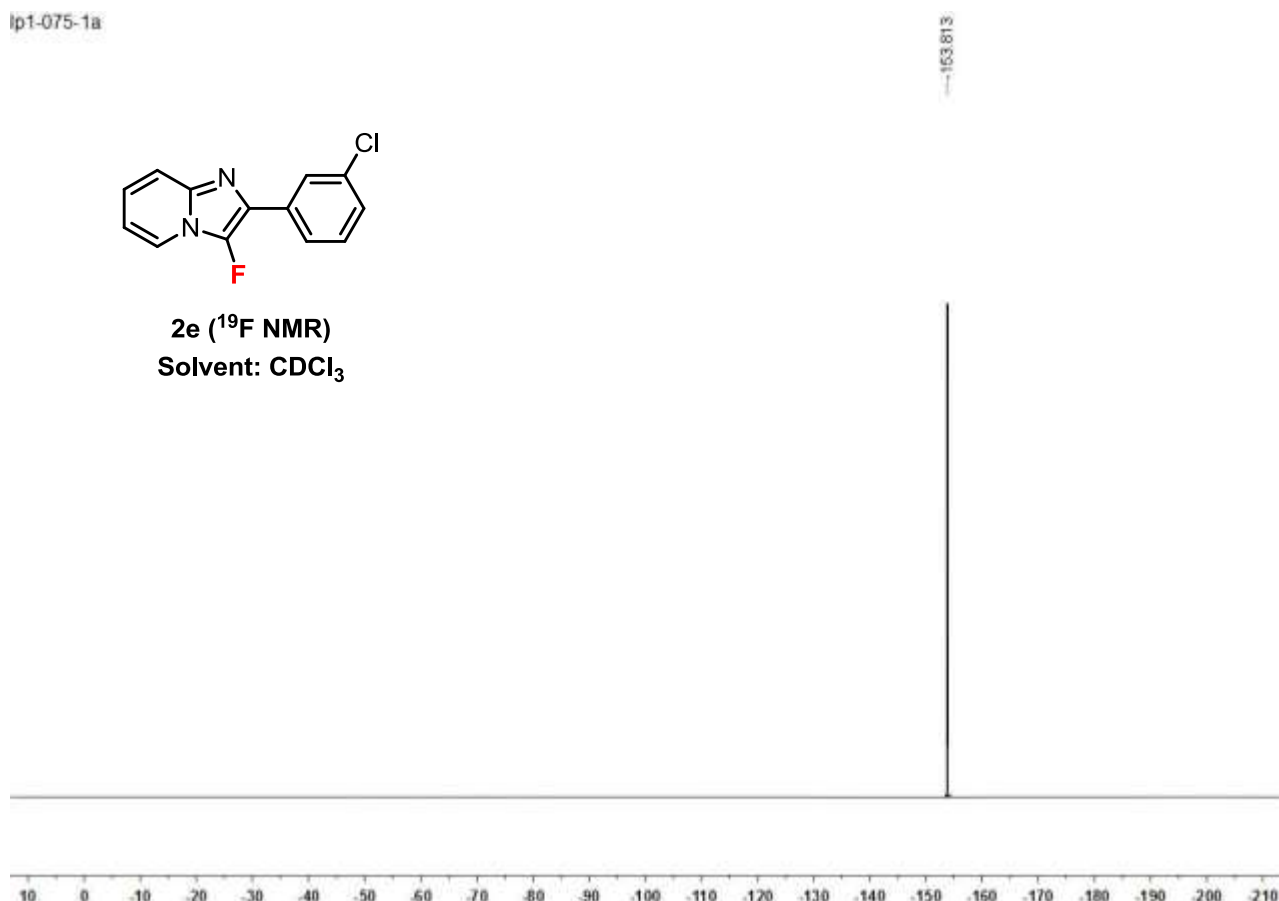
2e (^{13}C NMR)
Solvent: CDCl_3



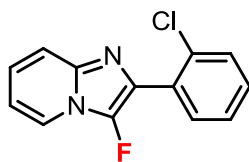
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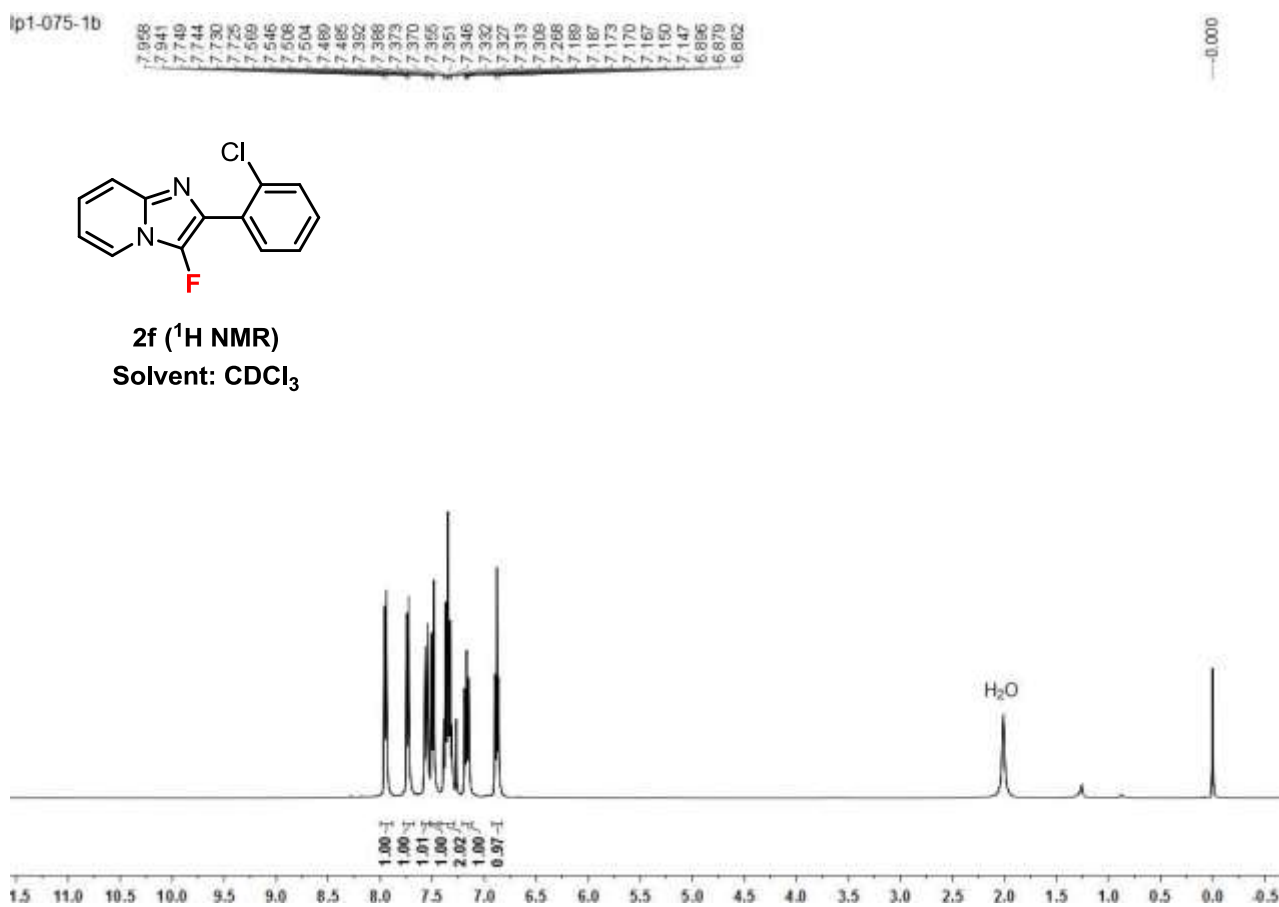
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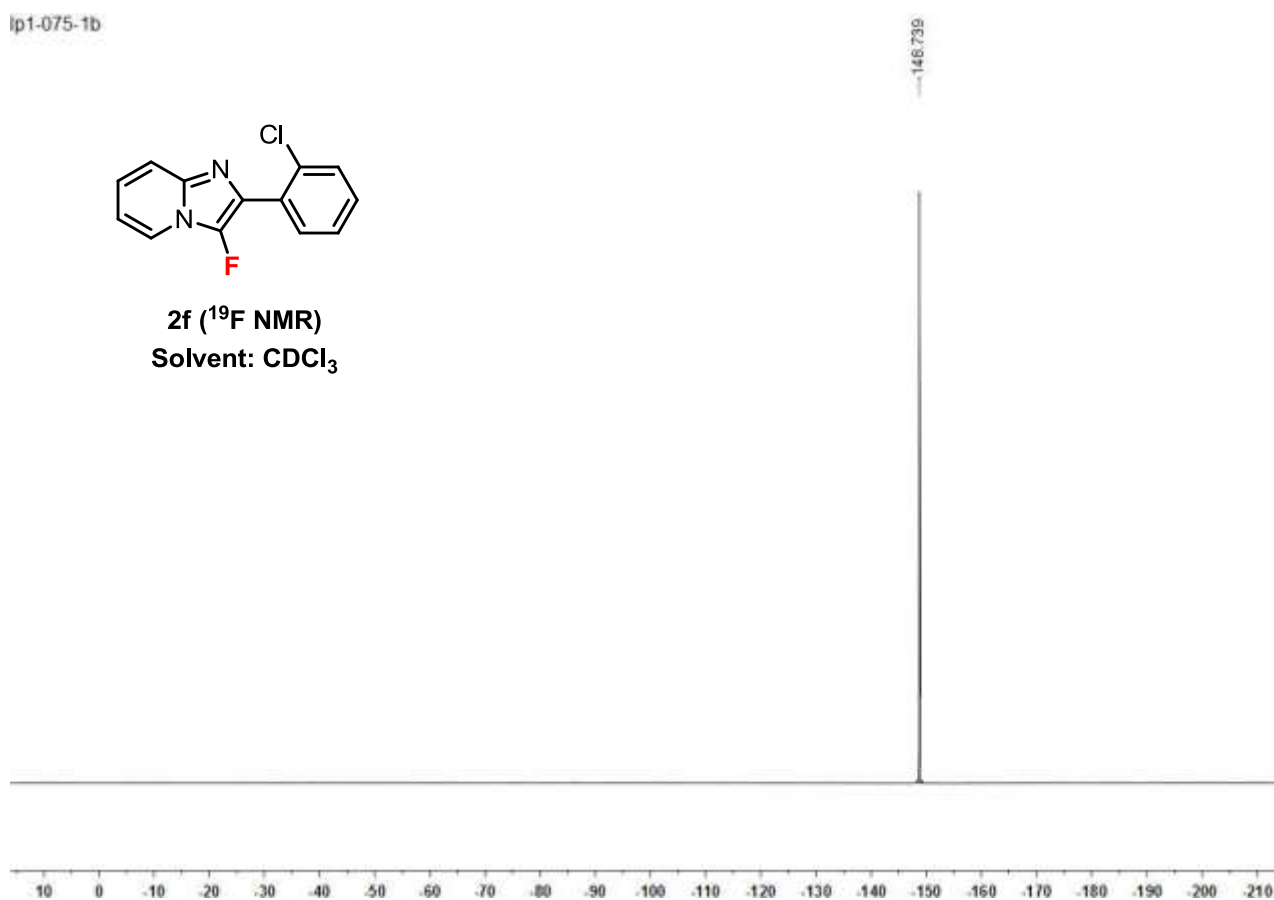
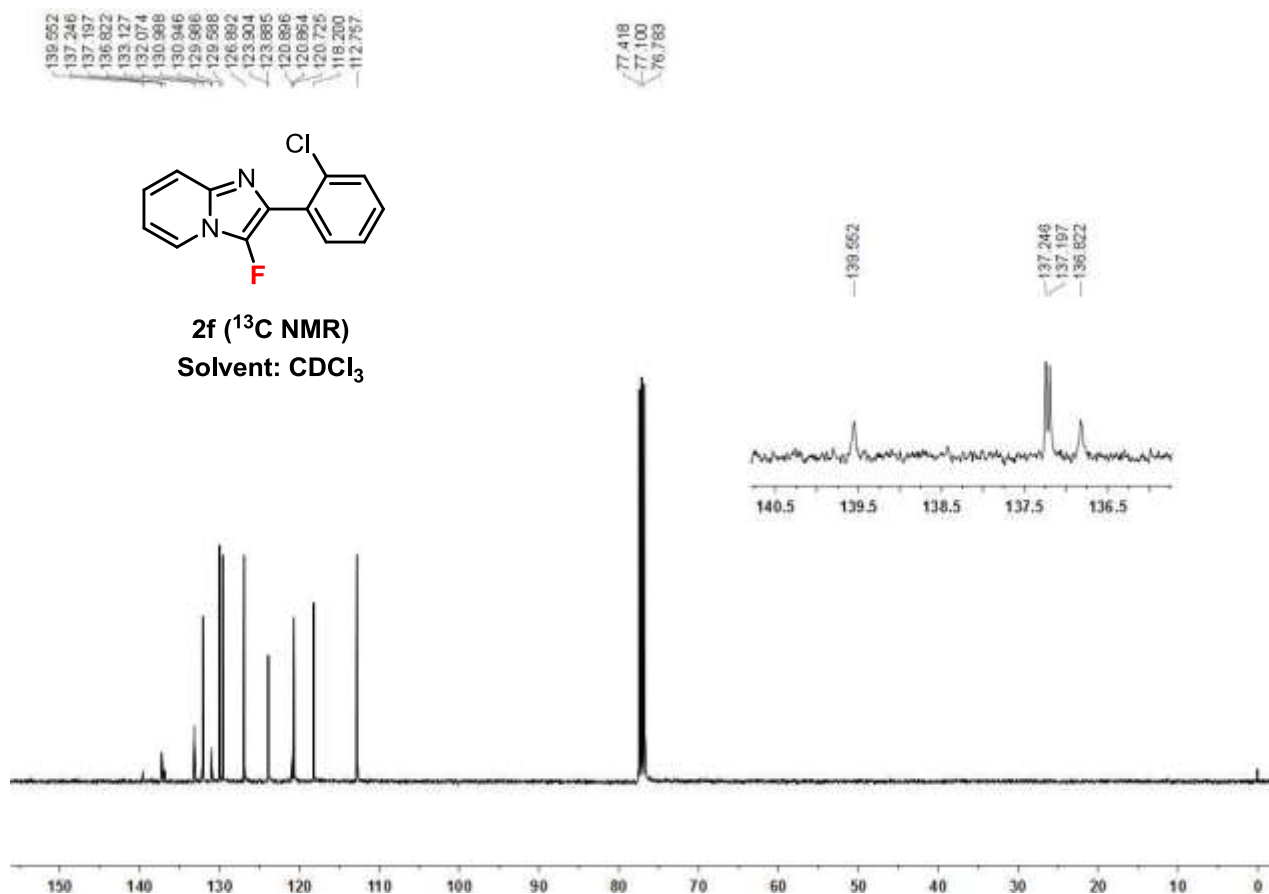


lp1-075-1b



2f (^1H NMR)
Solvent: CDCl_3

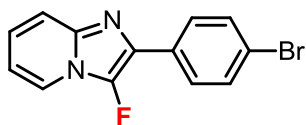




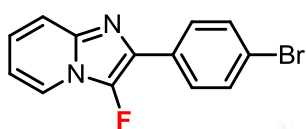
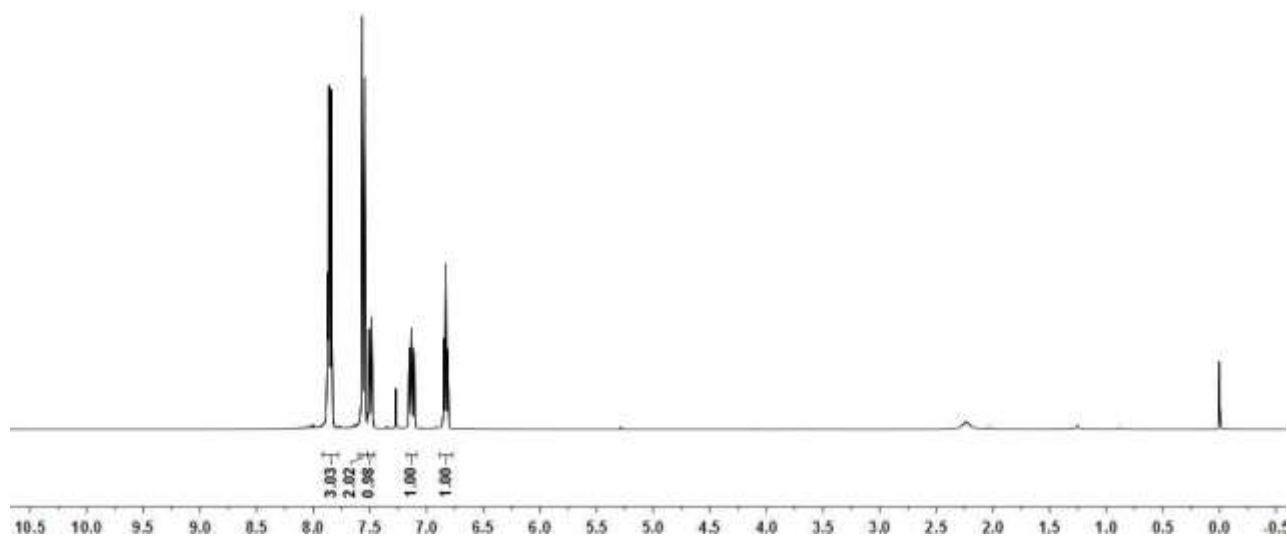
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7.836
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7.549
7.545
7.538
7.506
7.506
7.504
7.485
7.483
7.481
7.270
7.150
7.148
7.133
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7.125
7.110
7.108
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6.830
6.828
6.813
6.811

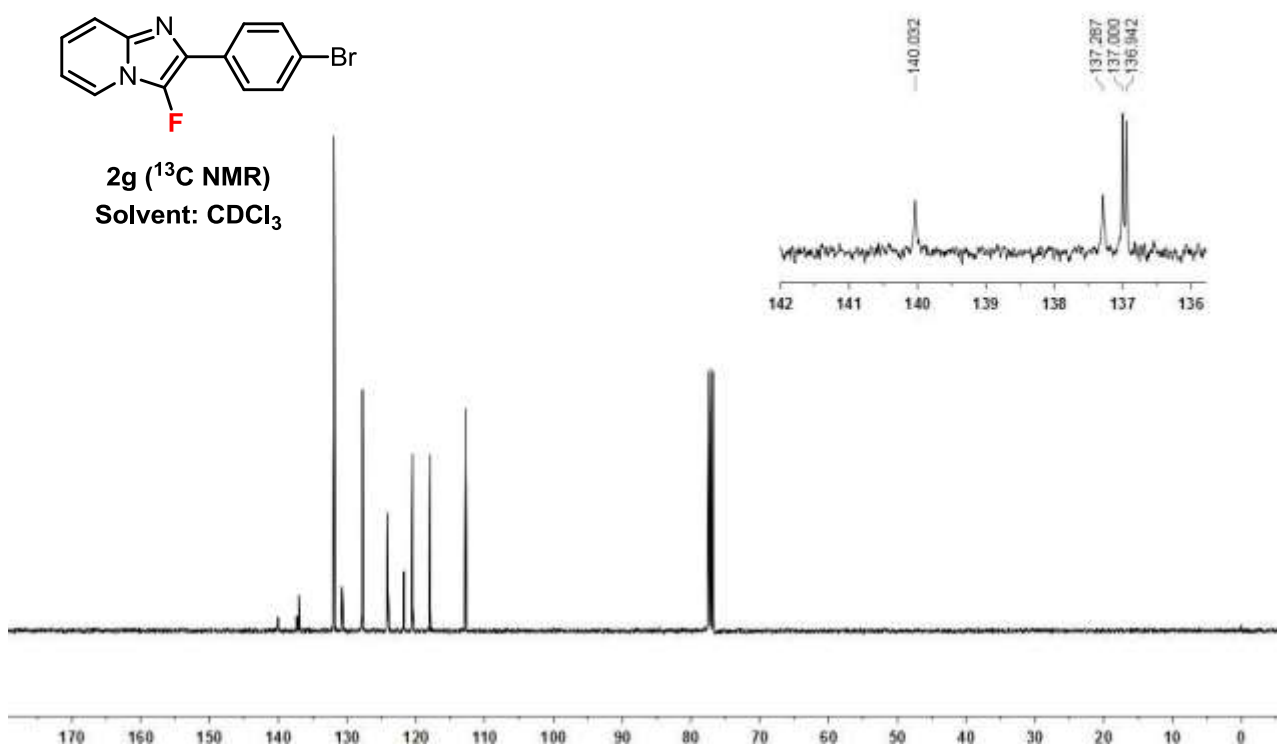
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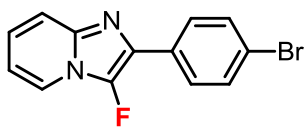
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Solvent: CDCl₃



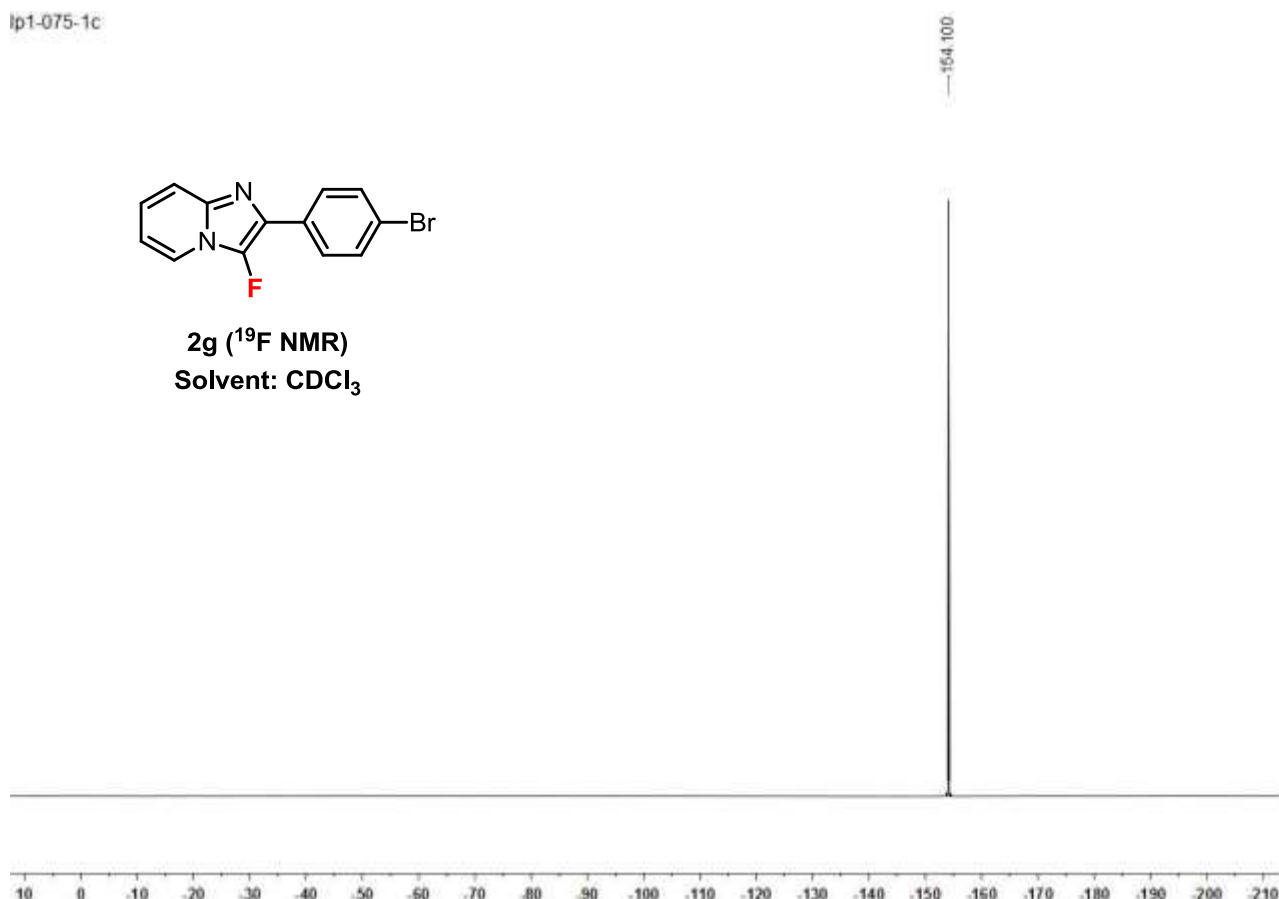
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Solvent: CDCl₃



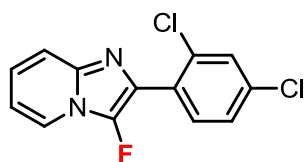
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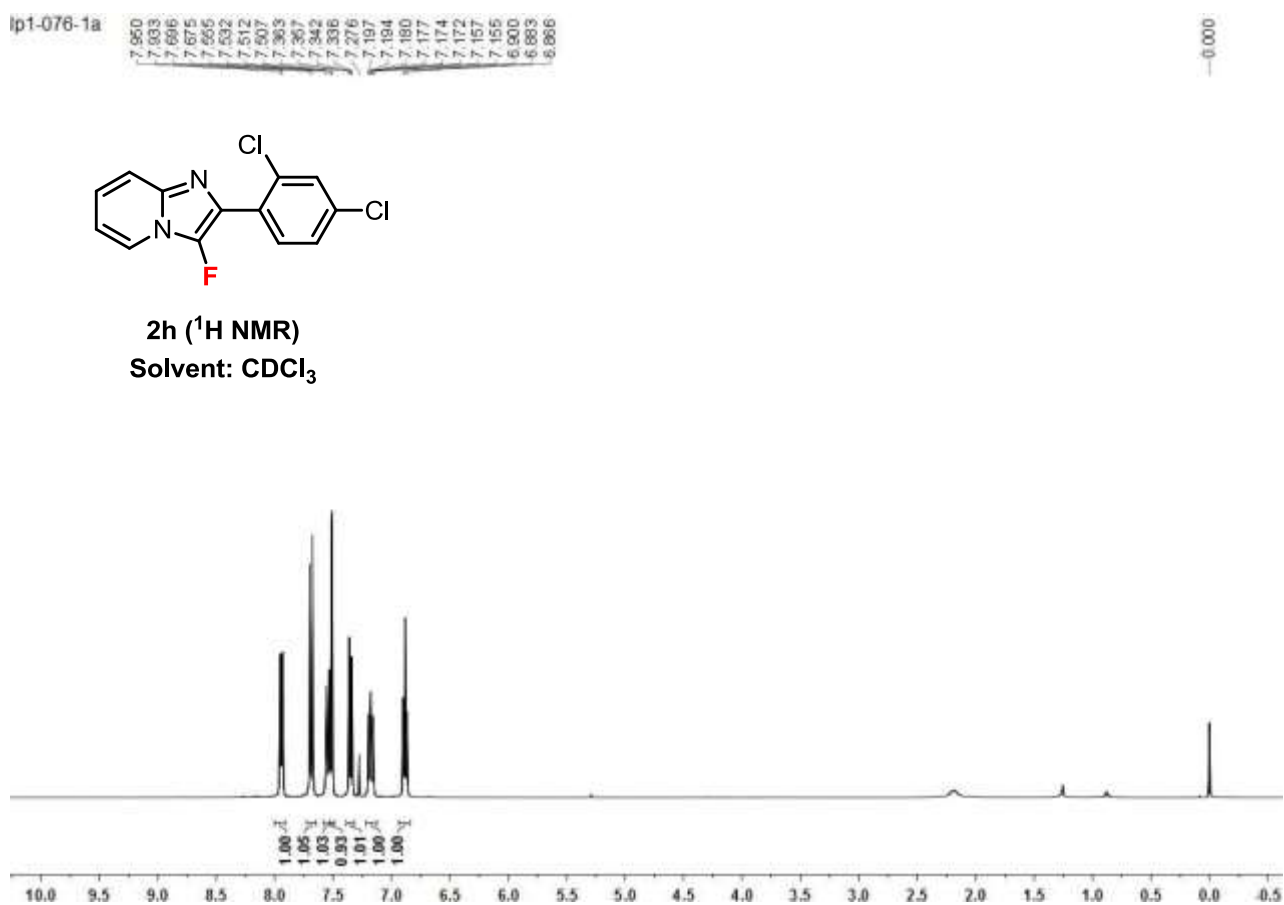
2g (^{19}F NMR)
Solvent: CDCl_3

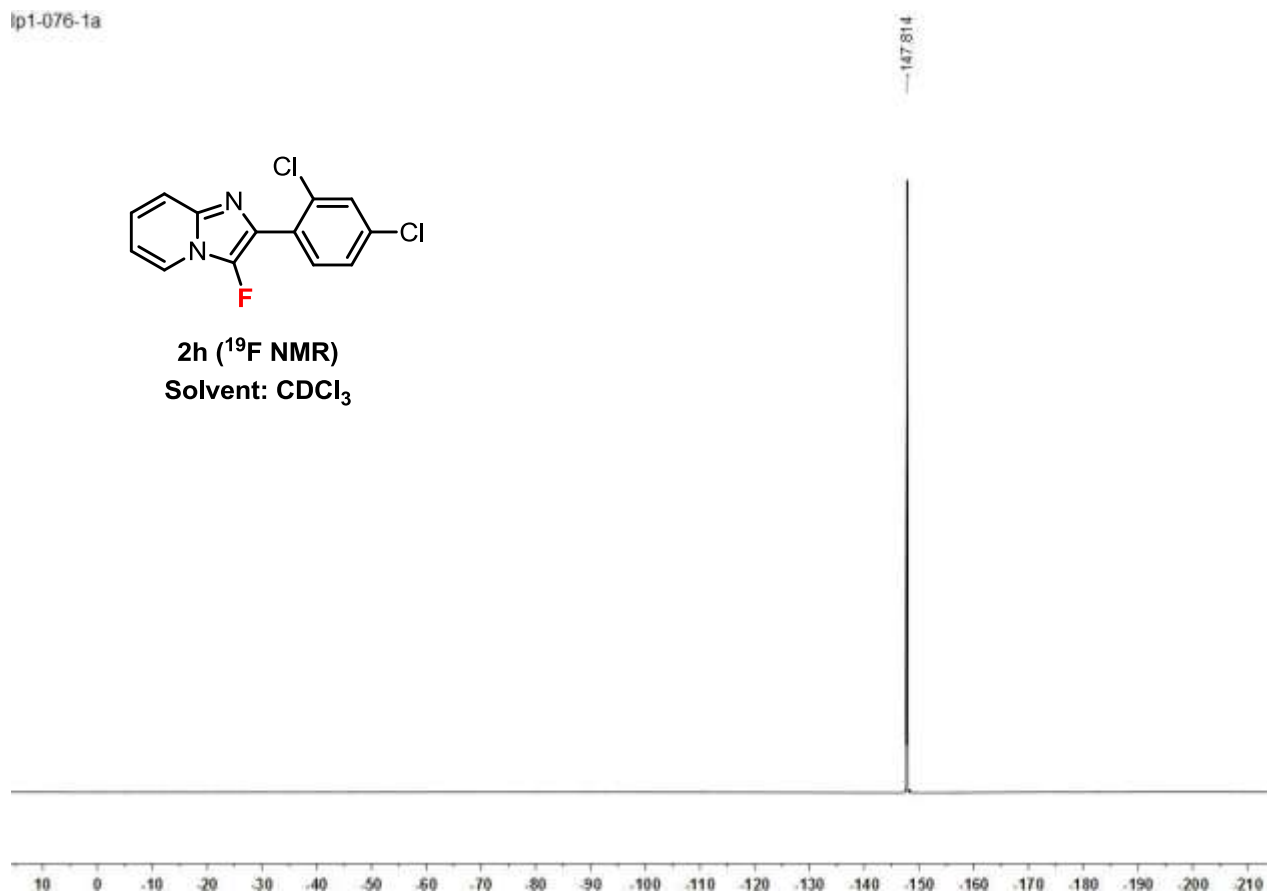
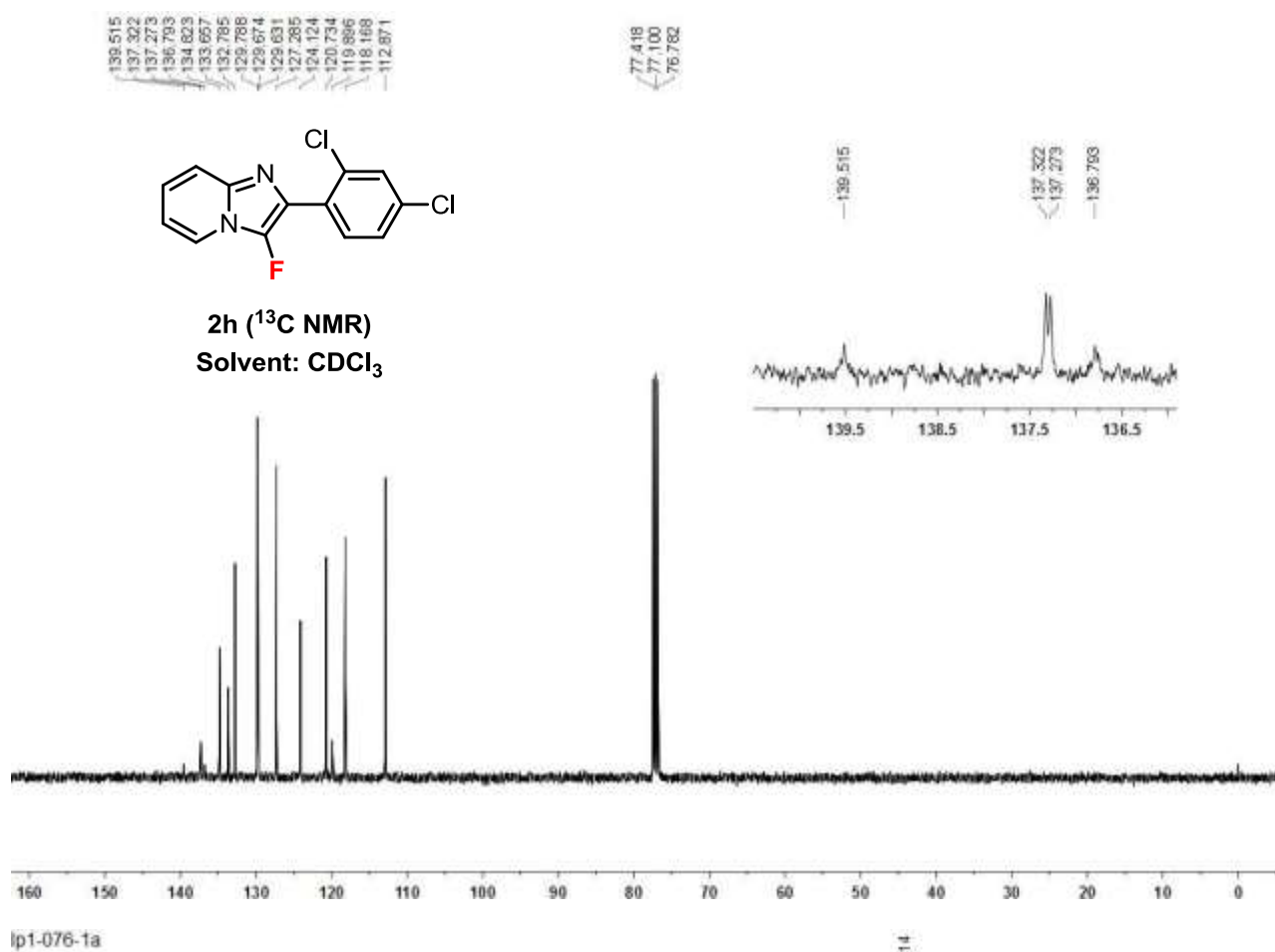


lp1-076-1a



2h (^1H NMR)
Solvent: CDCl_3



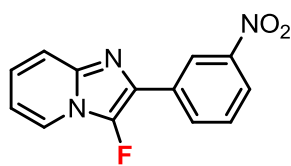


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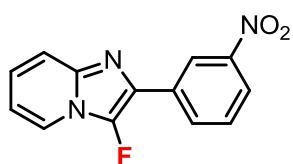
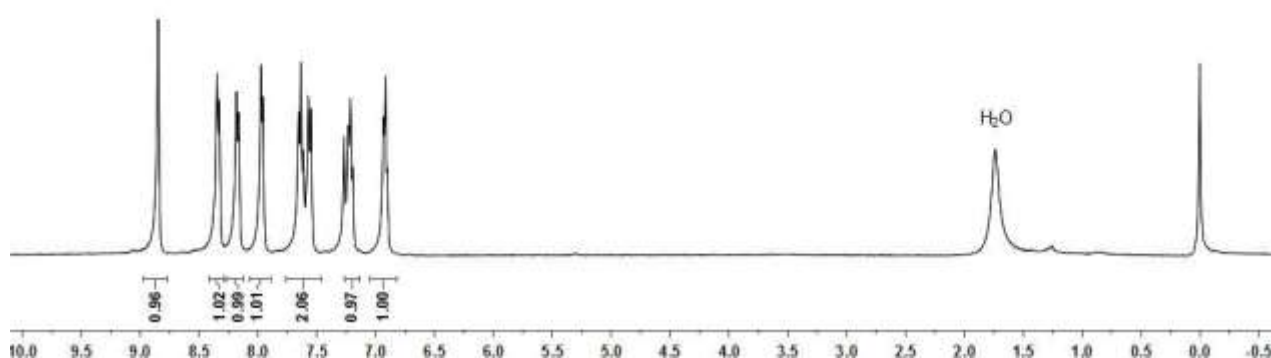
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6.934
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6.902

1.736

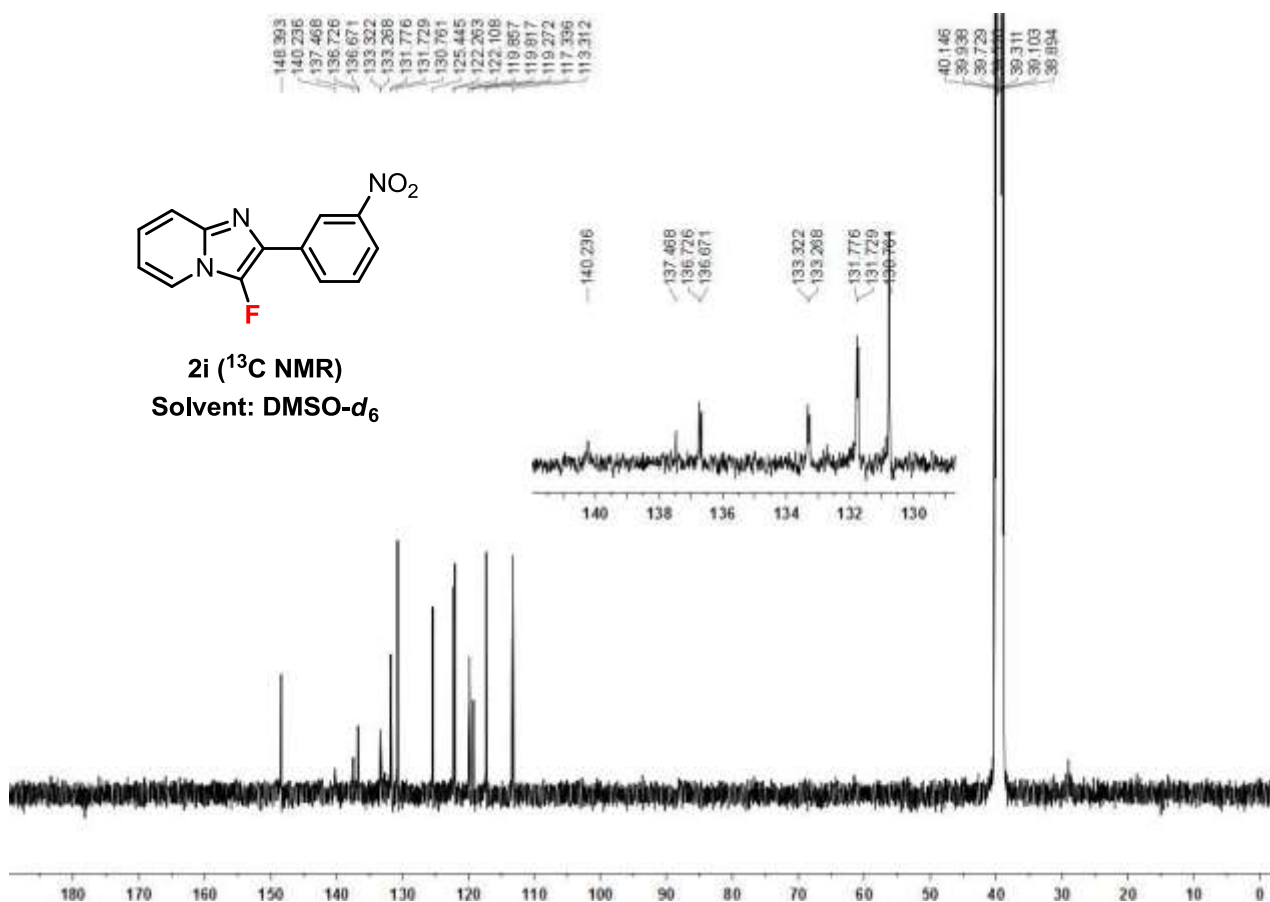
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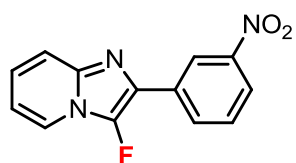
2i (¹H NMR)
Solvent: CDCl₃



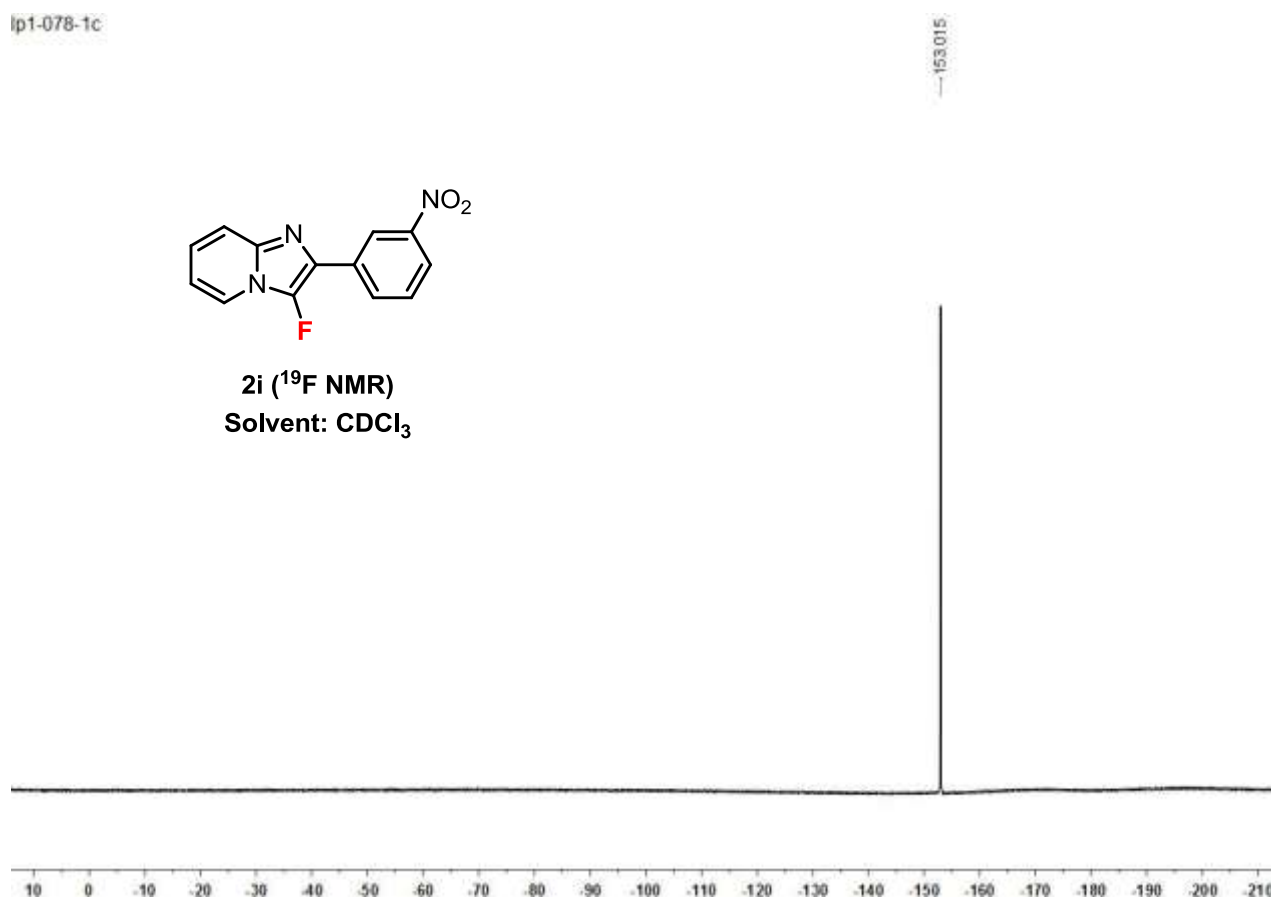
2i (¹³C NMR)
Solvent: DMSO-*d*₆



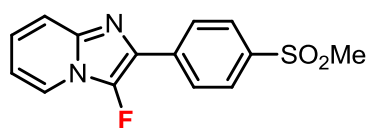
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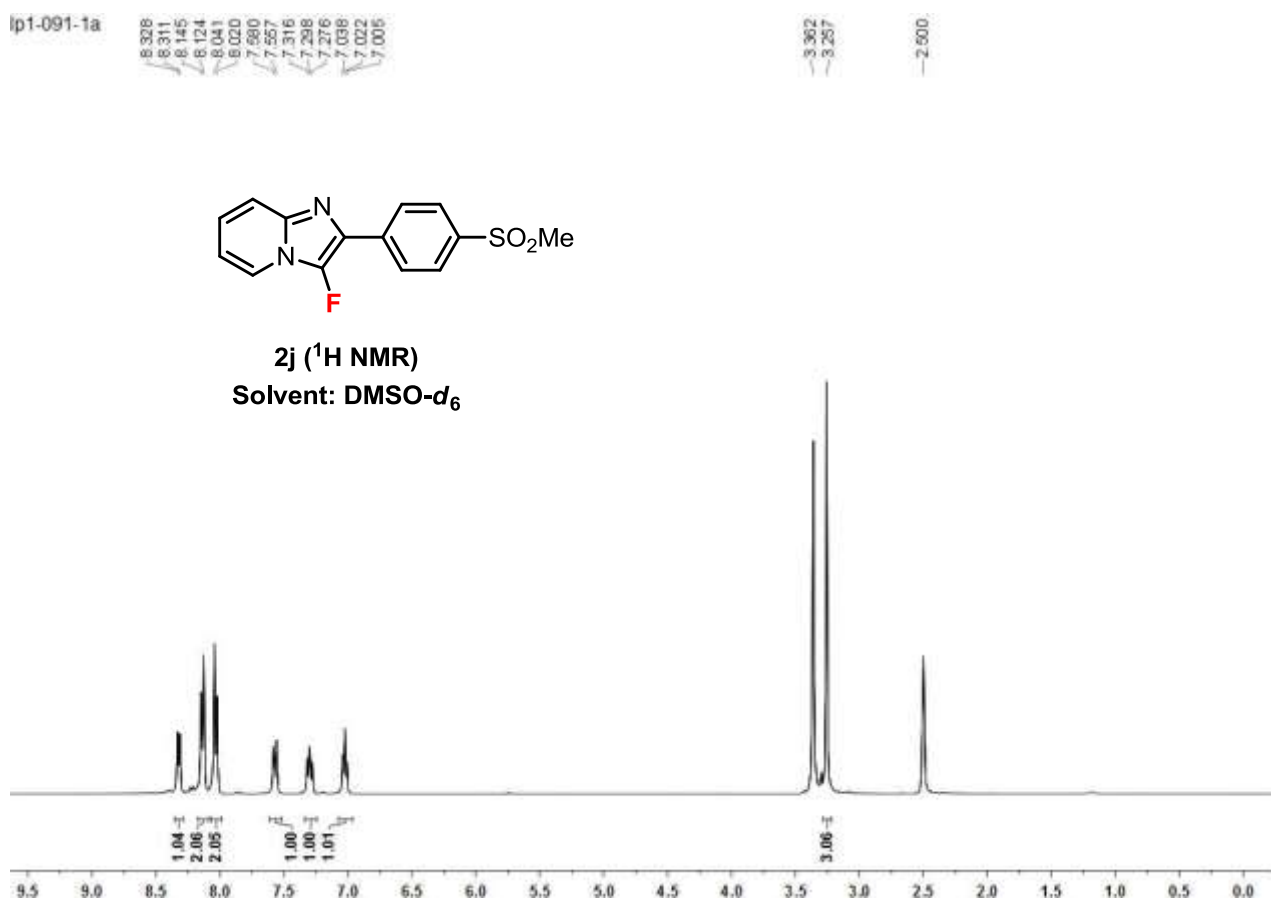
2i (^{19}F NMR)
Solvent: CDCl_3

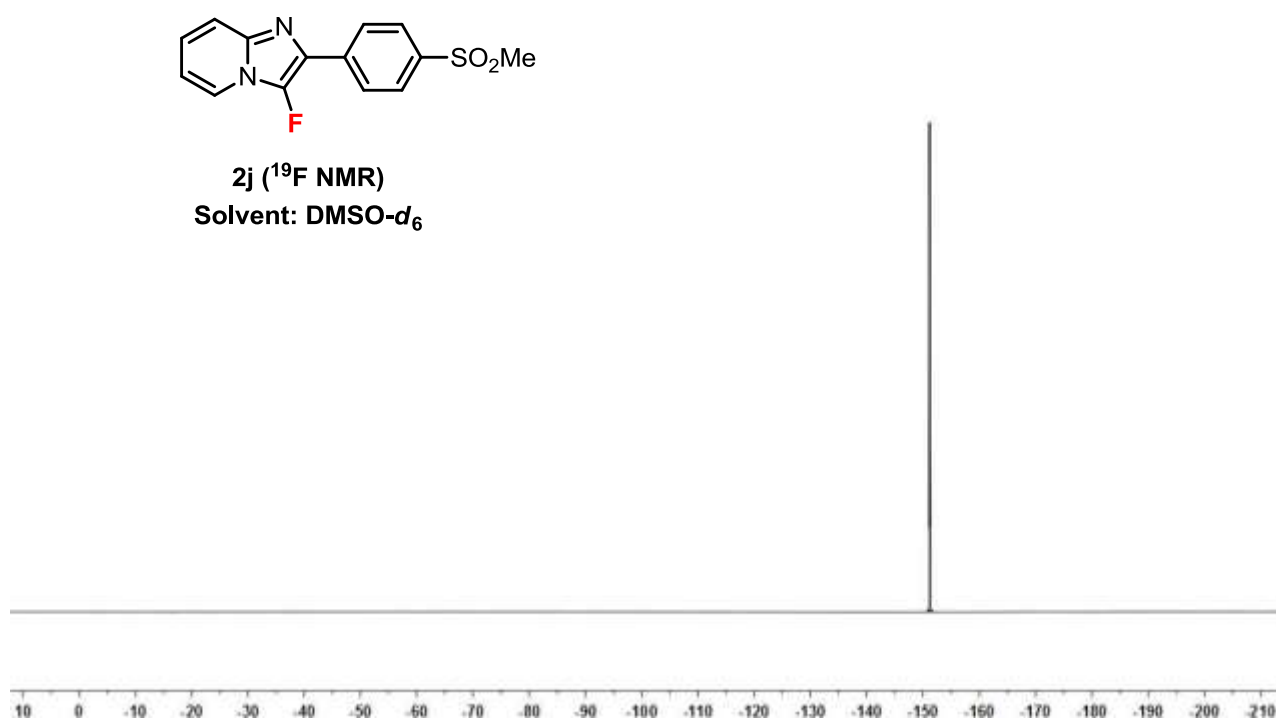
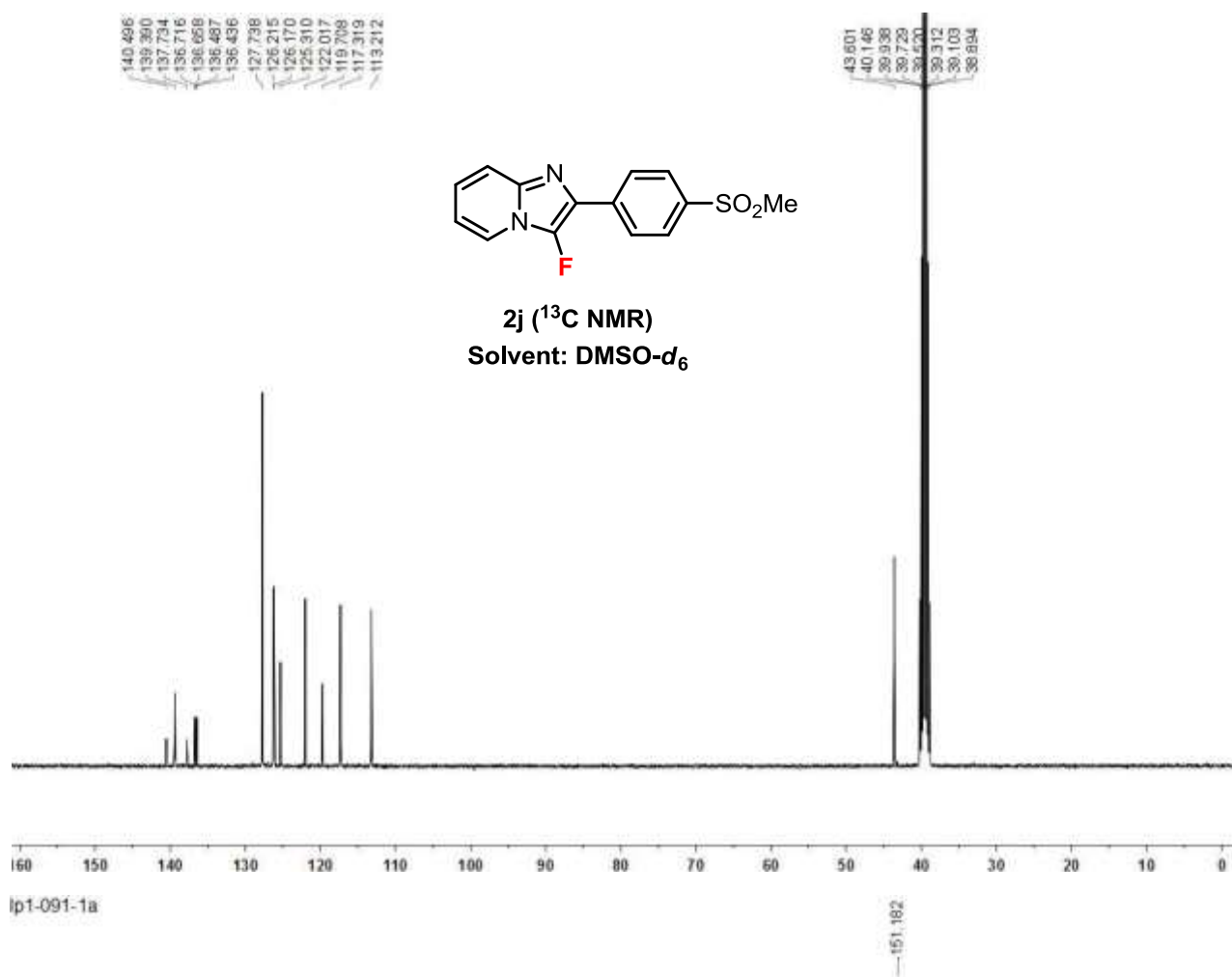


lp1-091-1a



2j (^1H NMR)
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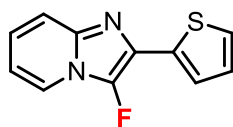




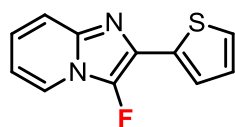
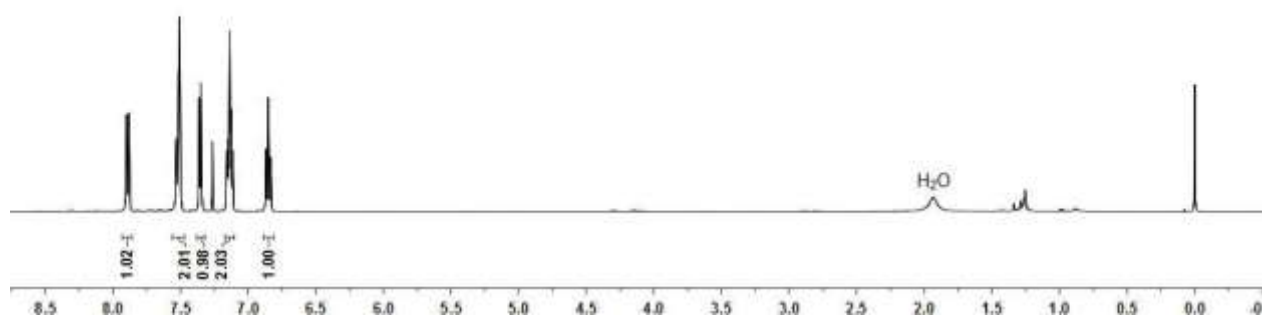
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7.531
7.528
7.515
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7.506
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7.360
7.350
7.347
7.264
7.157
7.154
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7.125
7.117
7.114
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6.850
6.835
6.833

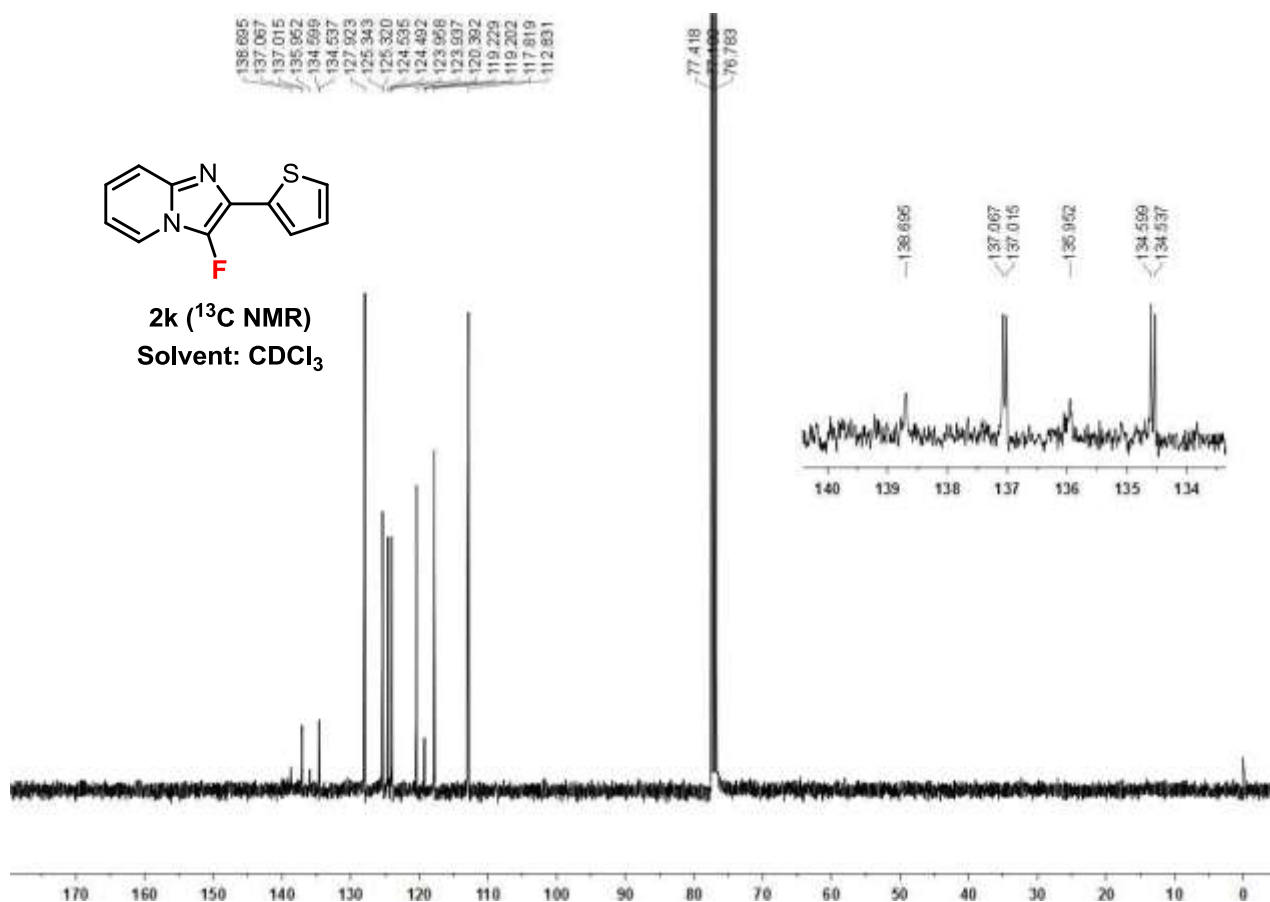
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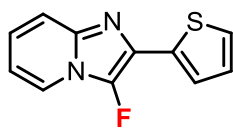
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Solvent: CDCl₃



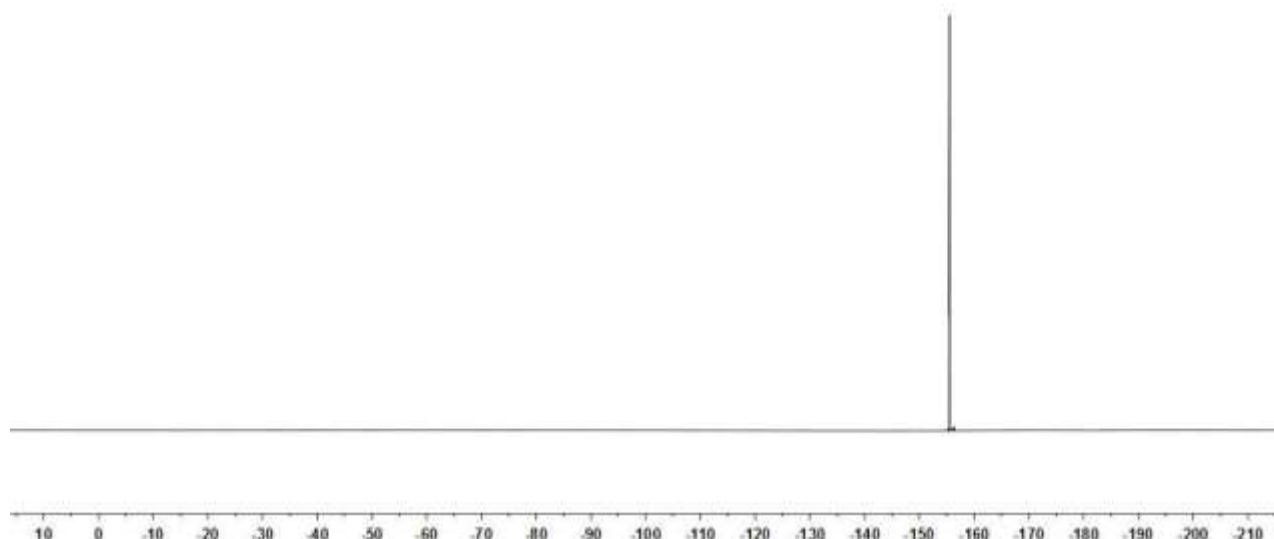
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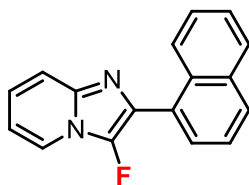
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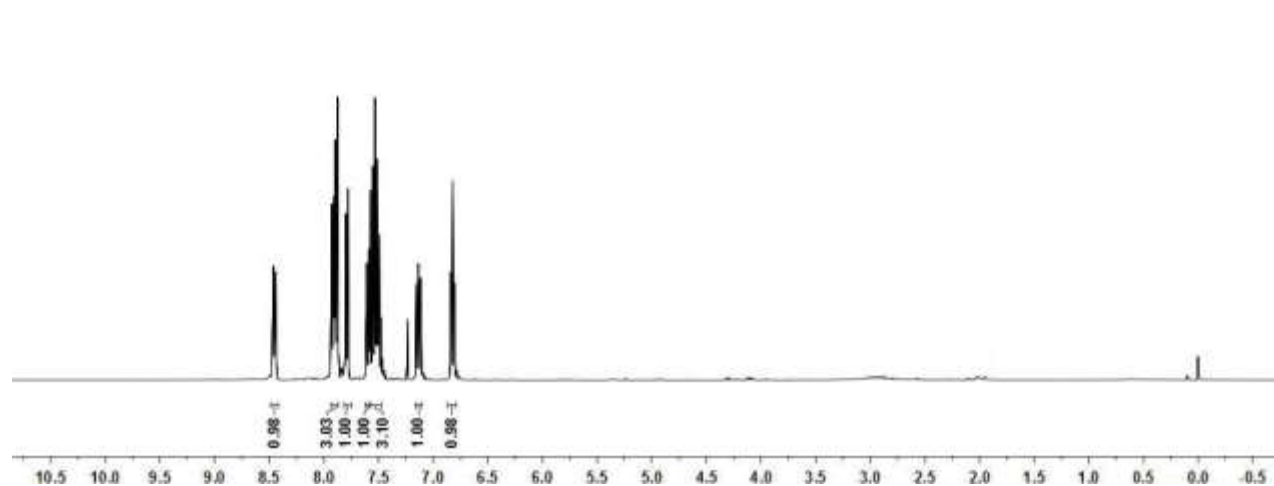
2k (^{19}F NMR)
Solvent: CDCl_3



lp1-081-1c

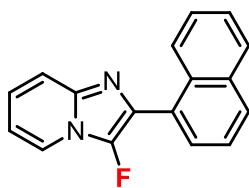


2l (^1H NMR)
Solvent: CDCl_3

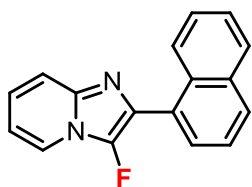
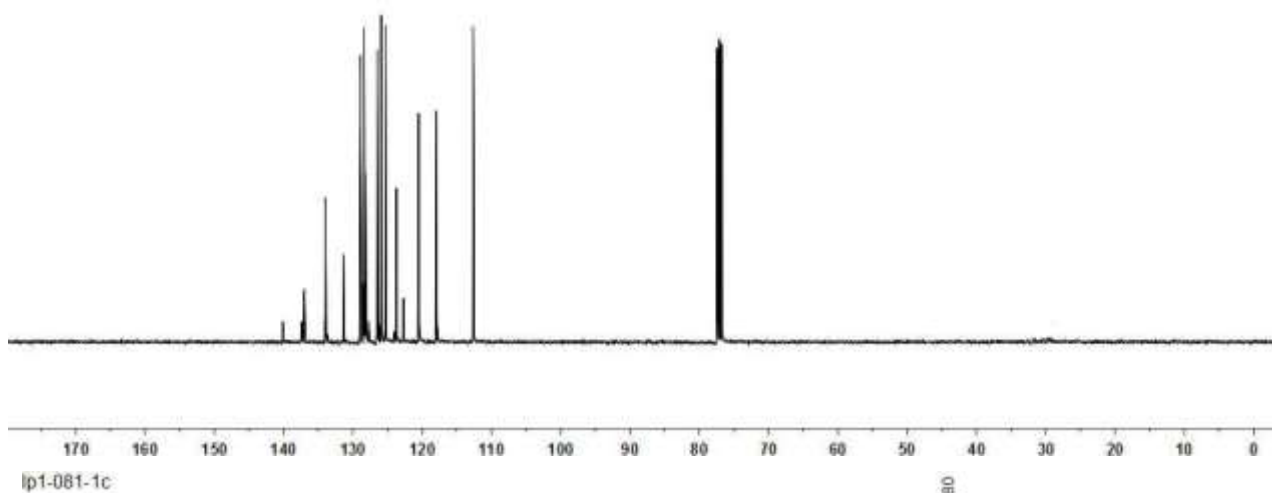


140.124
137.411
137.004
136.879
133.953
131.364
126.893
126.656
126.617
126.344
126.201
126.179
126.496
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125.881
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123.725
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122.707
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118.020
112.634

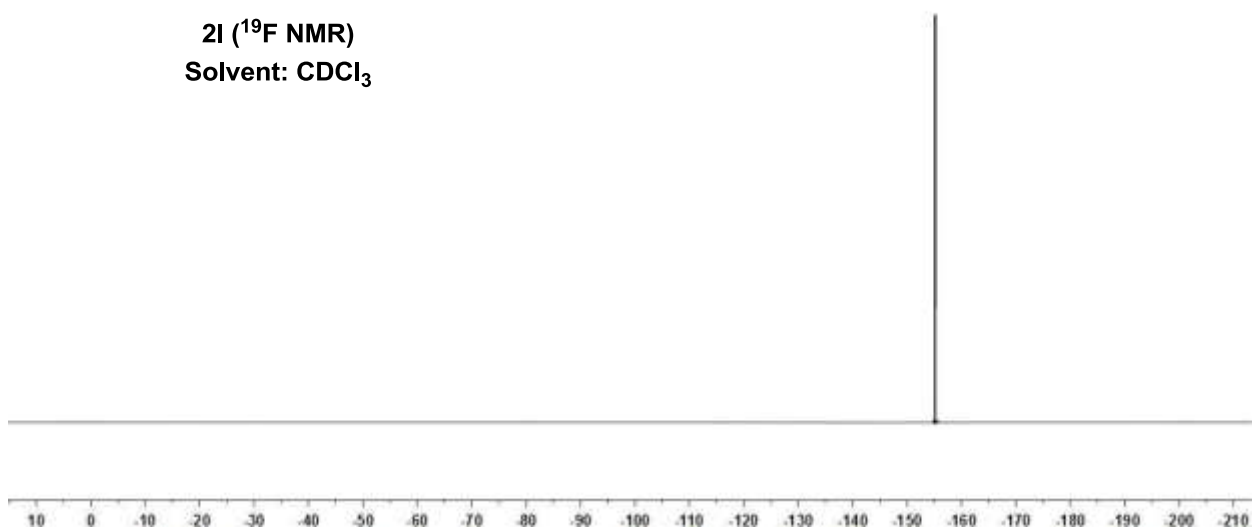
77.418
77.100
76.782

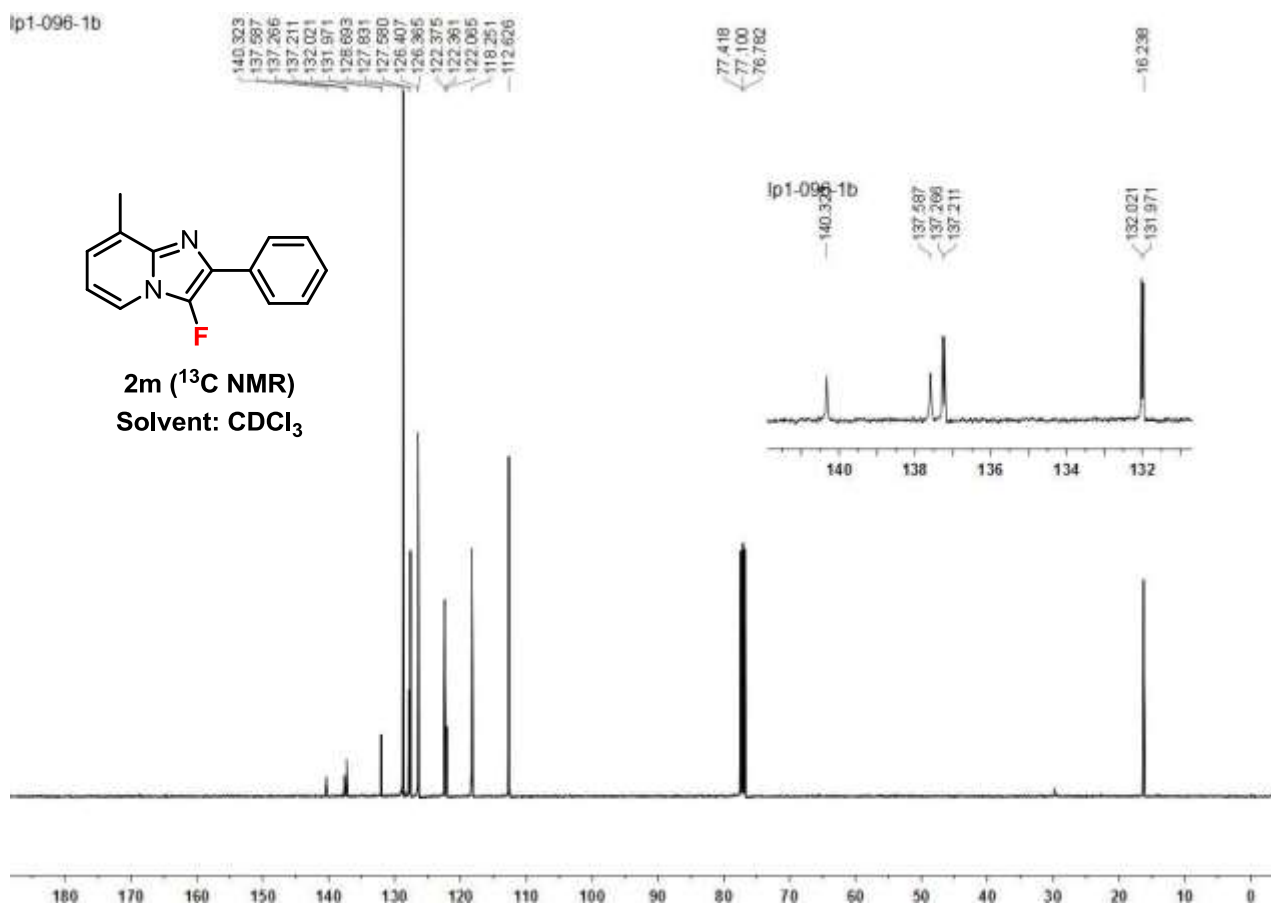
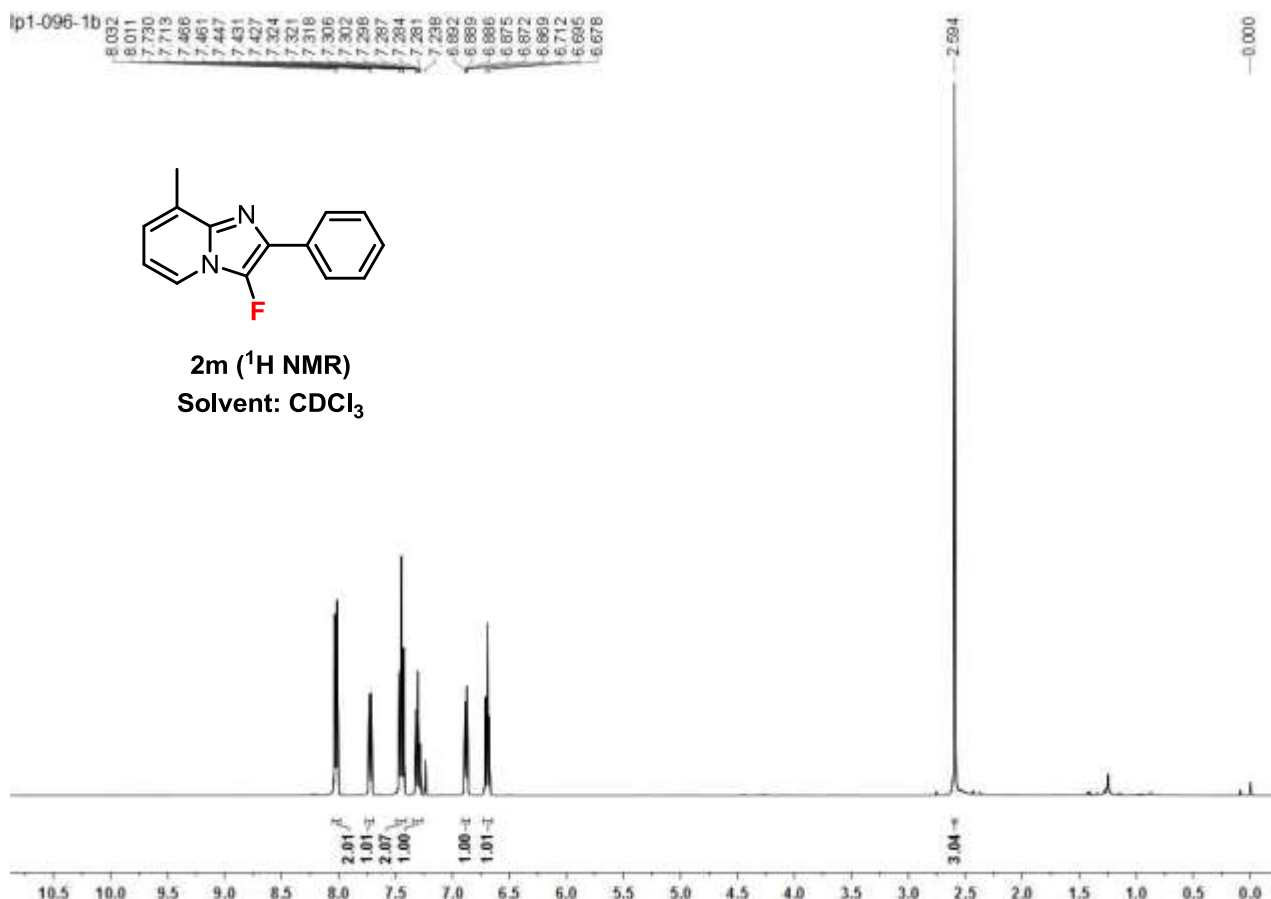


2I (^{13}C NMR)
Solvent: CDCl_3

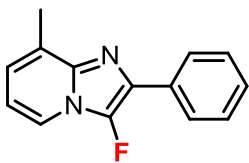


2I (^{19}F NMR)
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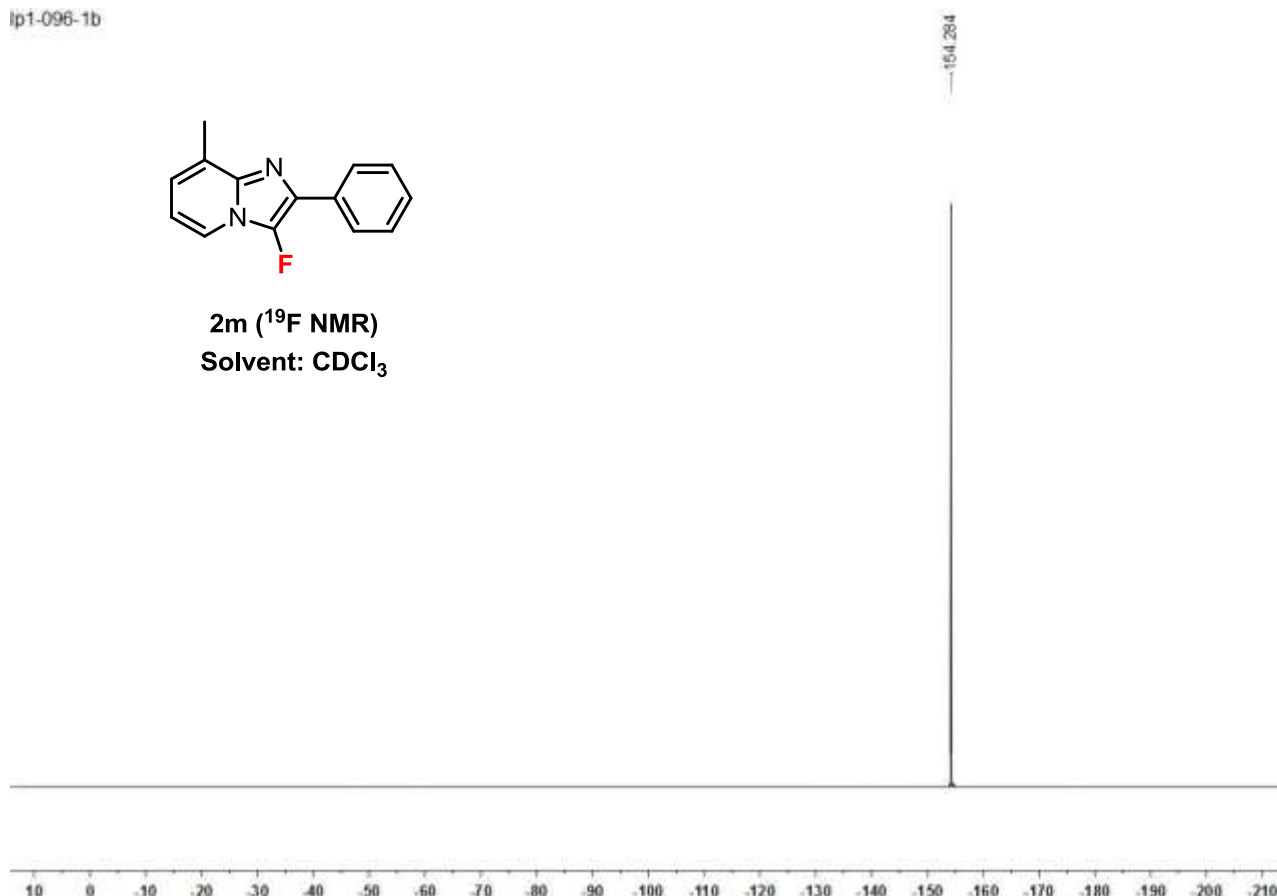




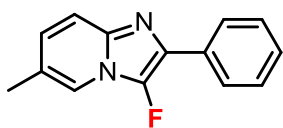
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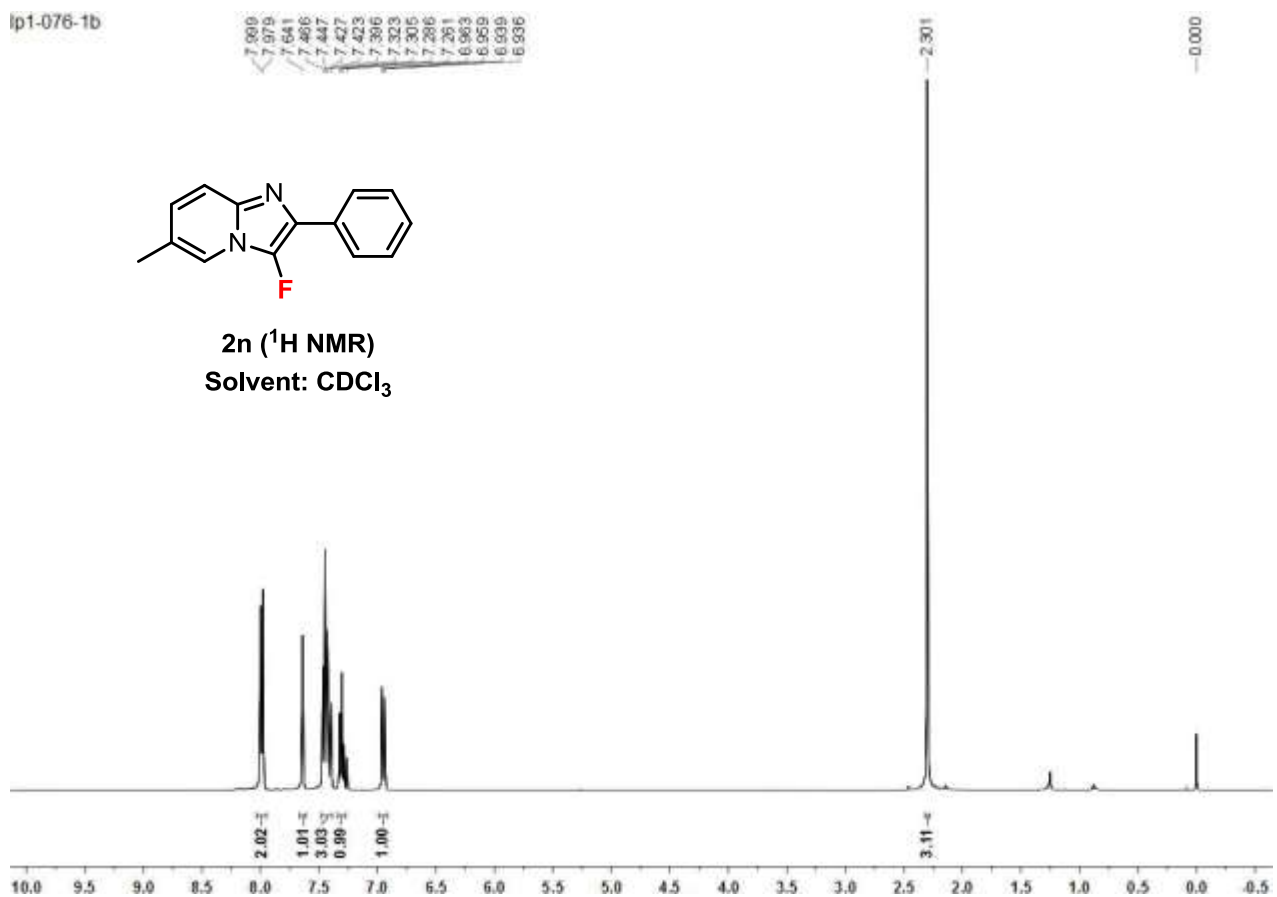
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lp1-076-1b



2n (^1H NMR)
Solvent: CDCl_3

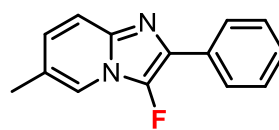


lp1-076-1b

139.859
137.124
136.138
136.079
131.982
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127.597
127.100
127.081
126.192
126.150
122.498
122.413
117.803
117.192

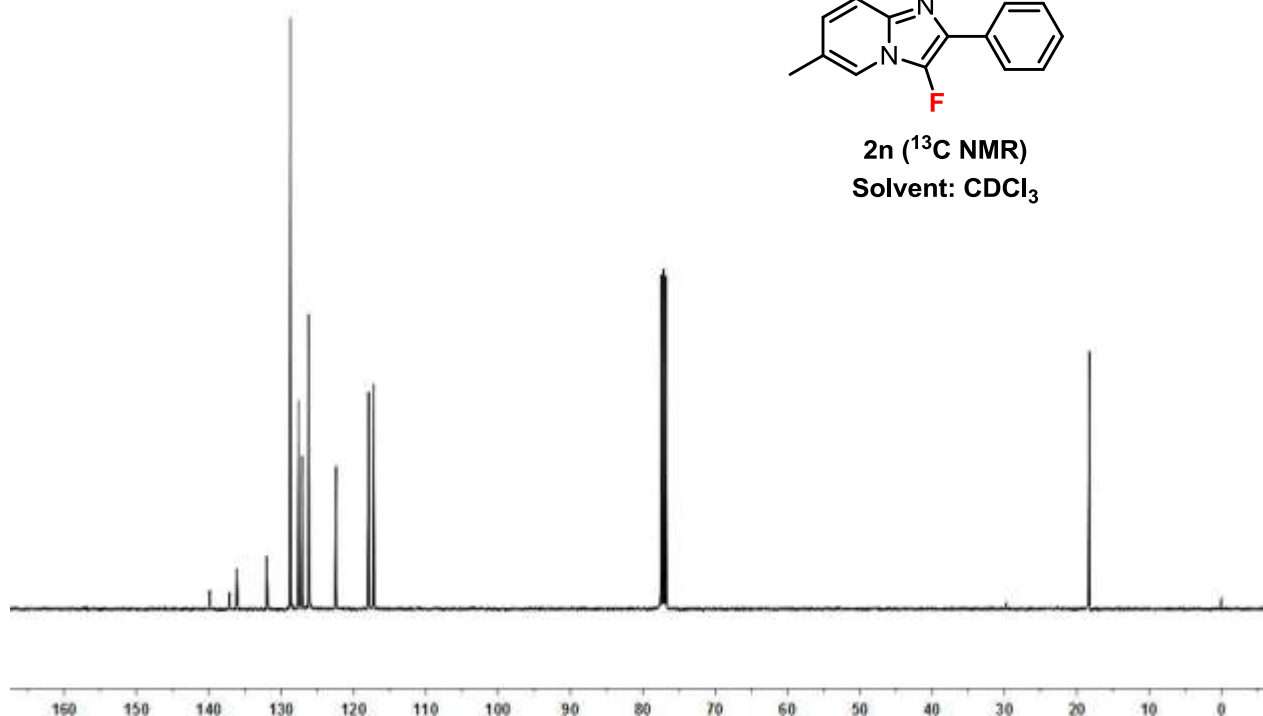
77.417
77.100
76.782

18.262



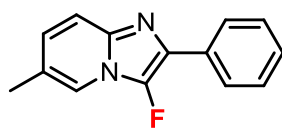
2n (¹³C NMR)

Solvent: CDCl₃



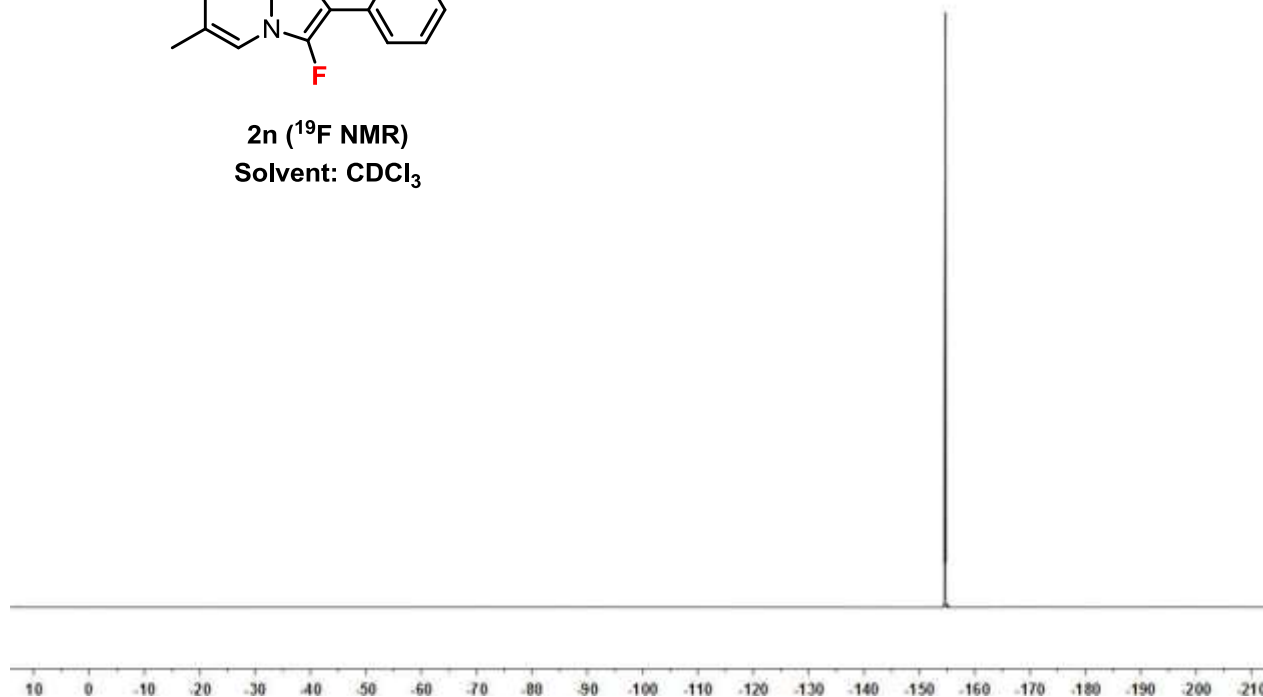
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154.721



2n (¹⁹F NMR)

Solvent: CDCl₃

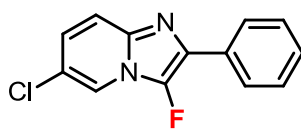


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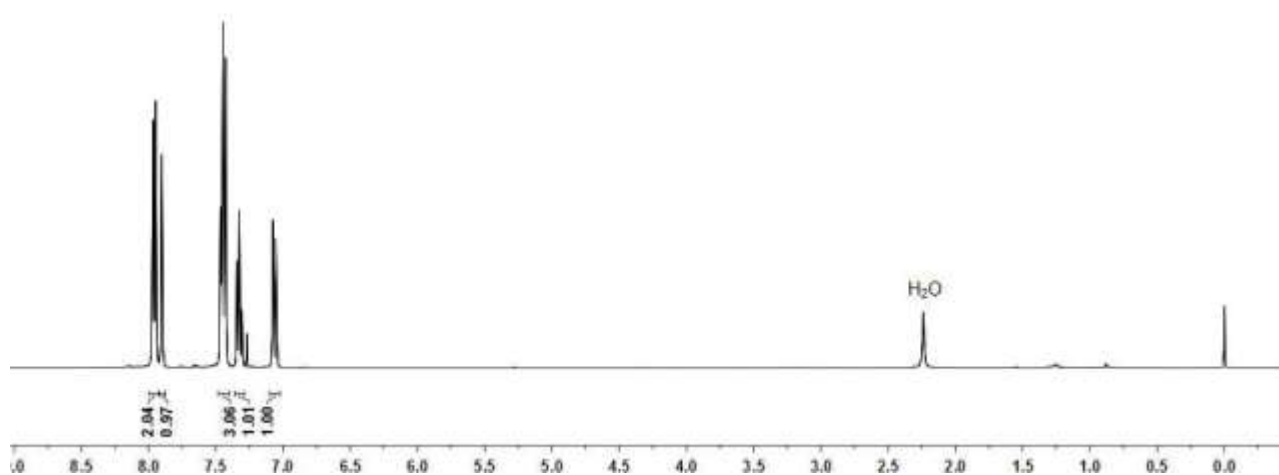
7.966
7.946
7.900
7.464
7.459
7.445
7.426
7.342
7.324
7.305
7.269
7.077
7.072
7.053
7.048

-2.236

-0.000



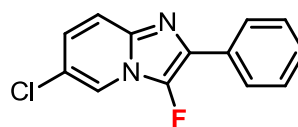
2o (¹H NMR)
Solvent: CDCl₃



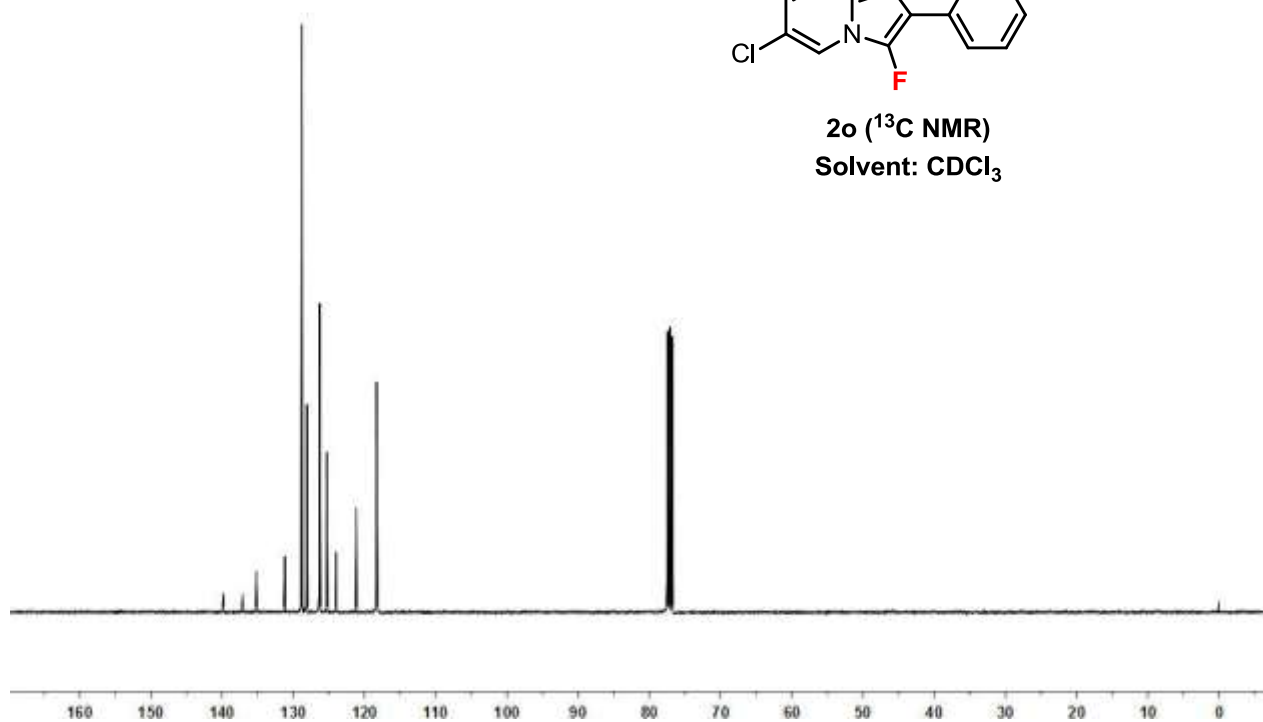
lp1-078-1a

139.873
137.115
135.178
135.119
131.224
131.174
128.790
128.087
126.277
126.234
125.278
125.257
123.965
121.143
118.287
118.228

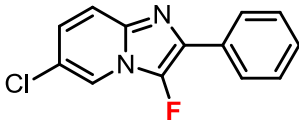
77.417
77.100
76.782



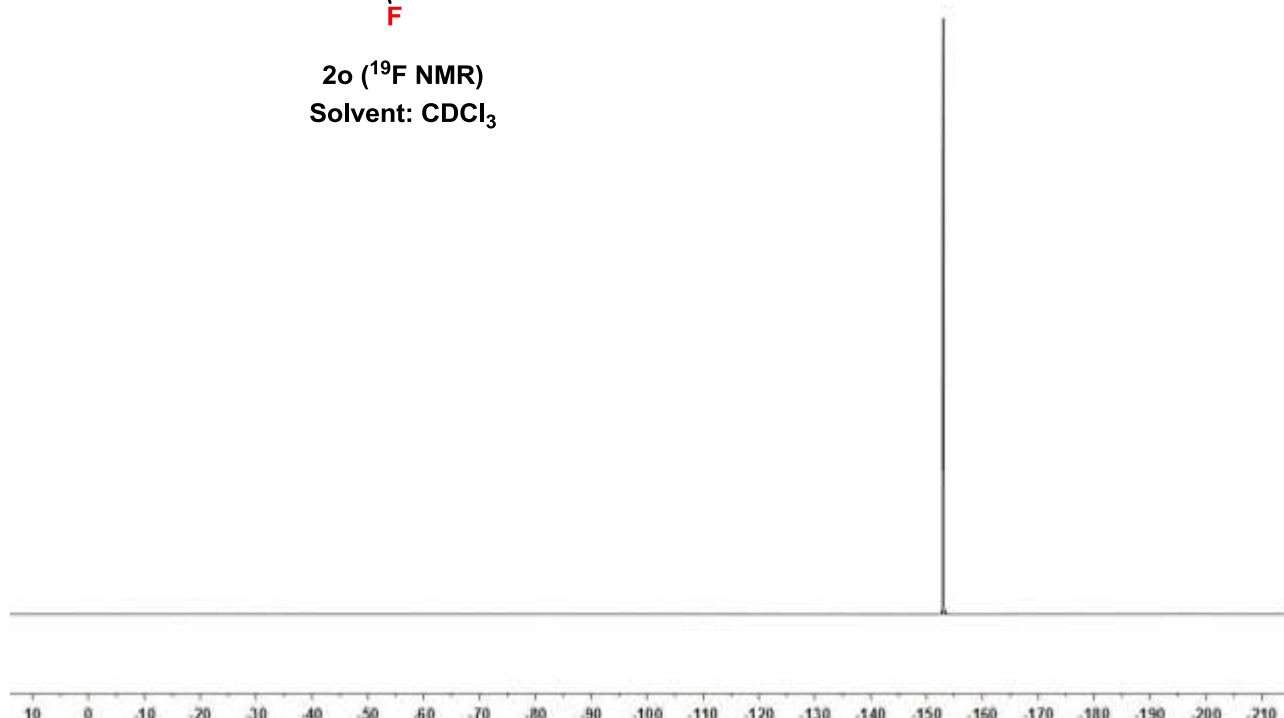
2o (¹³C NMR)
Solvent: CDCl₃



ip1-078-1a



2o (^{19}F NMR)
Solvent: CDCl_3



ip1-078-1b

7.992
7.990
7.987
7.968
7.965
7.963
7.946
7.944
7.941
7.457
7.442
7.421
7.420
7.399
7.397
7.395
7.393
7.375
7.373
7.370
7.368
7.343
7.340
7.337
7.326
7.322
7.317
7.306
7.303
7.300
7.258
7.162
7.157
7.138
7.133

0.000

Brc1ccc2nc(F)c(c2n1)-c3ccccc3

2p (^1H NMR)
Solvent: CDCl_3

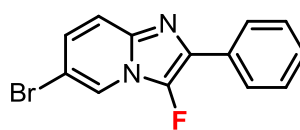
3.00H
2.07H
1.02H
1.00H
1.00H

9.5 9.0 8.5 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 -0.5

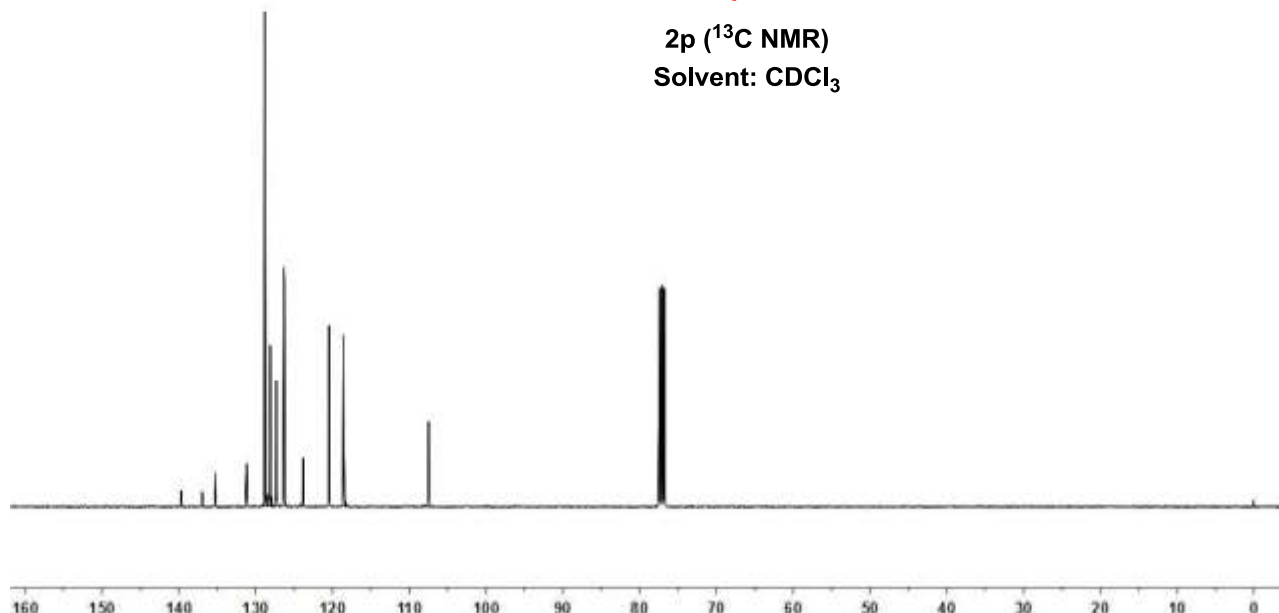
lp1-078-1b

130.684
126.923
135.248
135.188
131.208
131.158
129.808
129.114
127.290
127.269
126.314
126.272
123.779
120.431
118.527
— 107.494

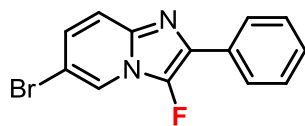
77.417
77.100
76.782



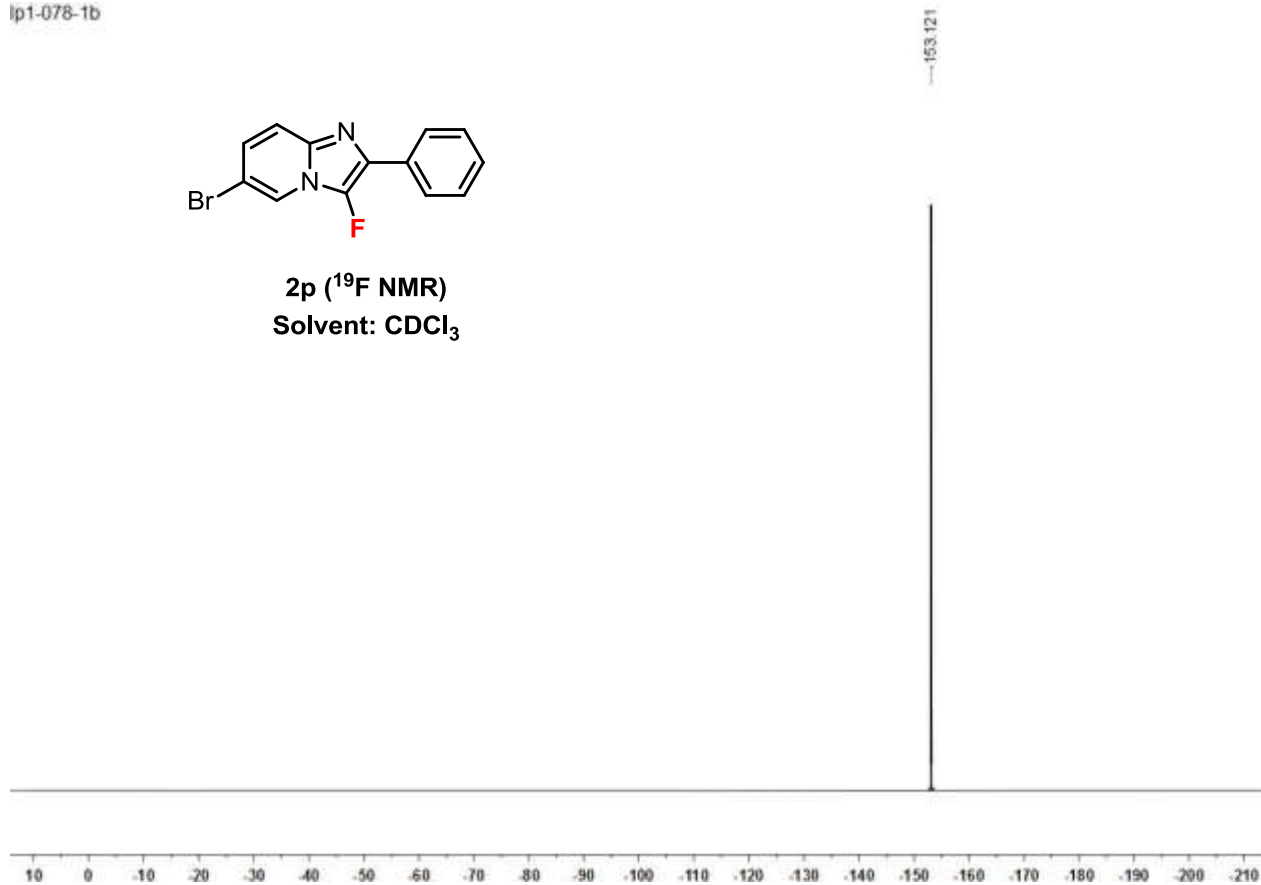
2p (^{13}C NMR)
Solvent: CDCl_3

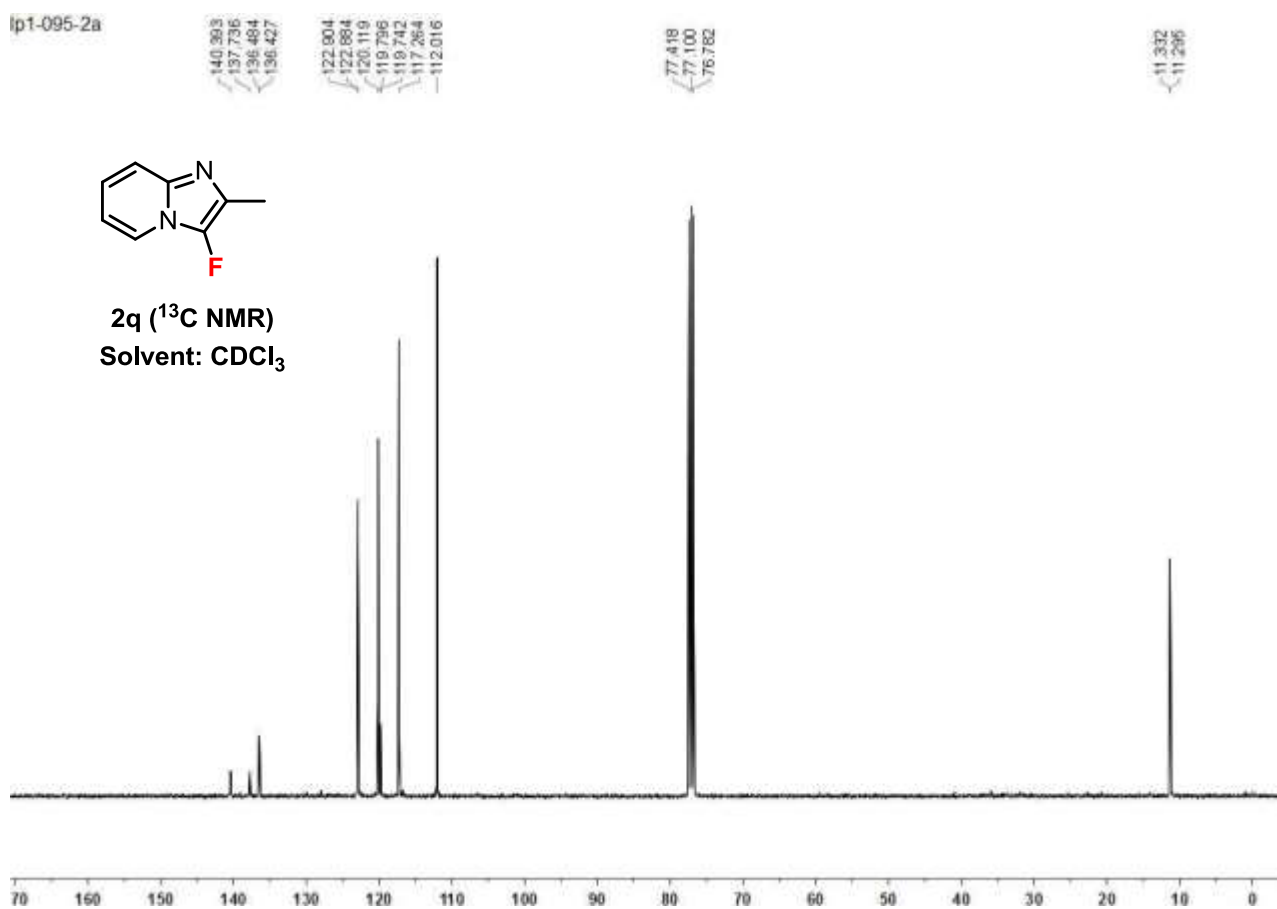
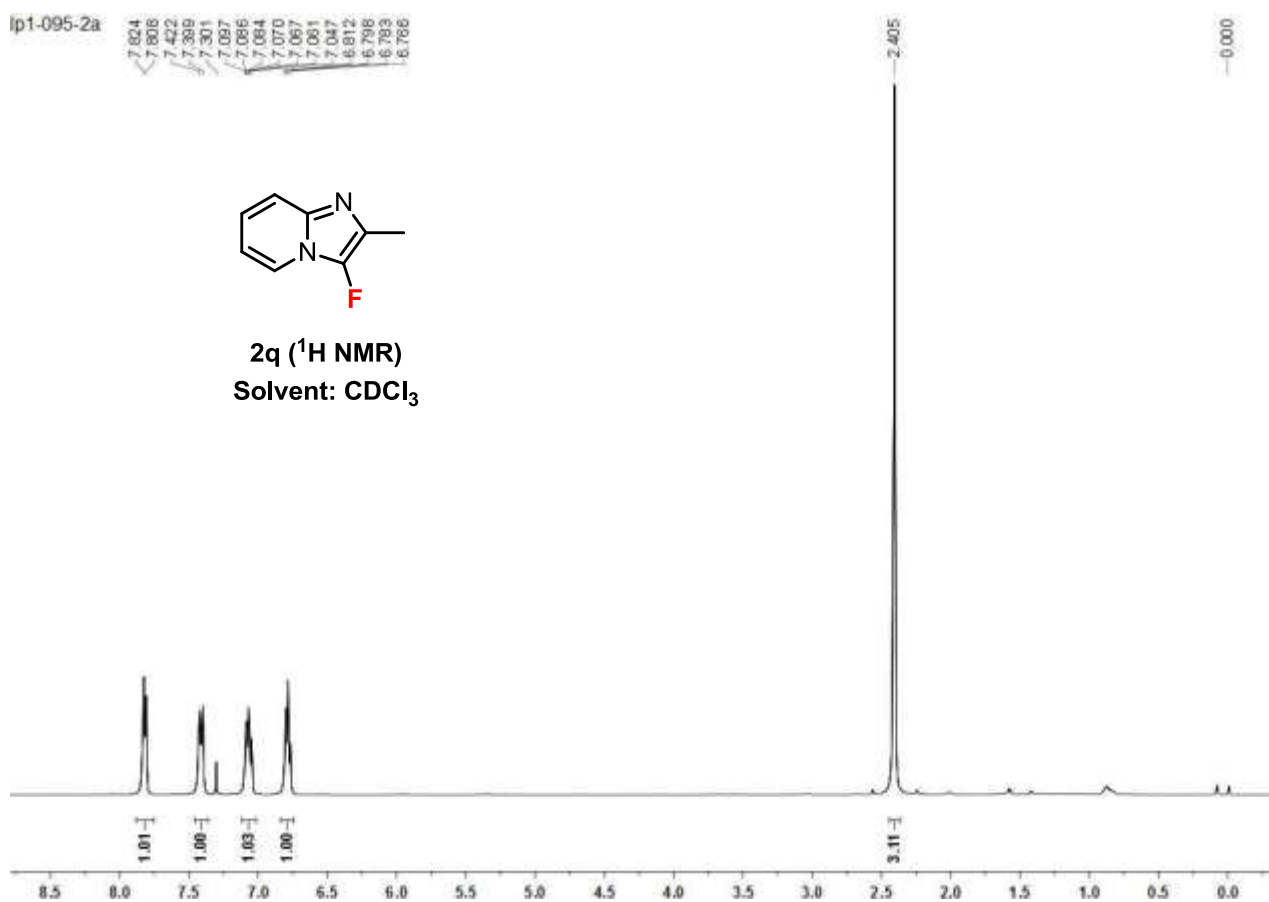


lp1-078-1b

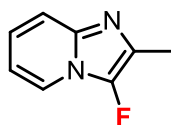


2p (^{19}F NMR)
Solvent: CDCl_3

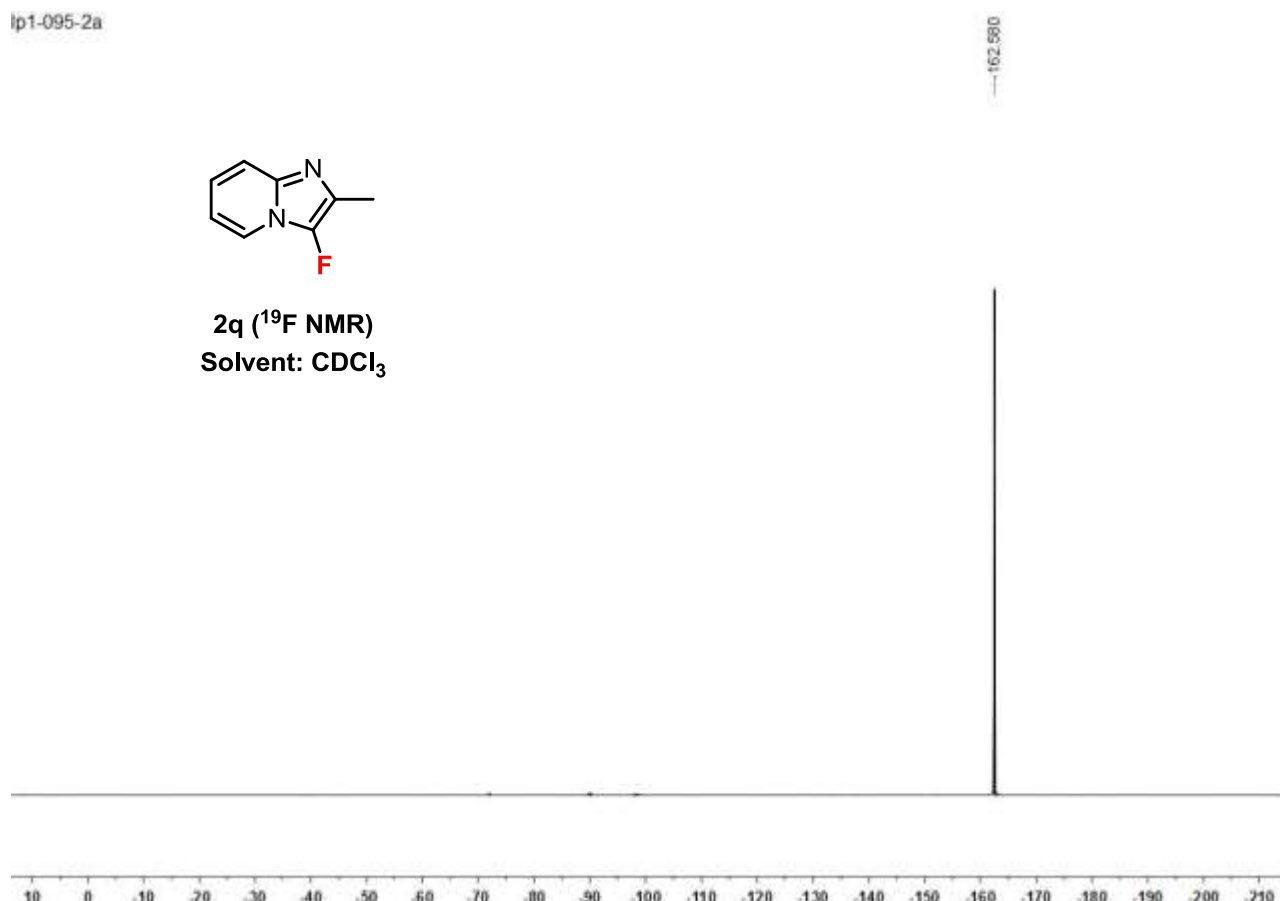




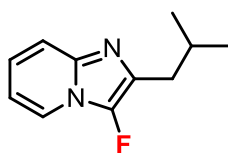
lp1-095-2a



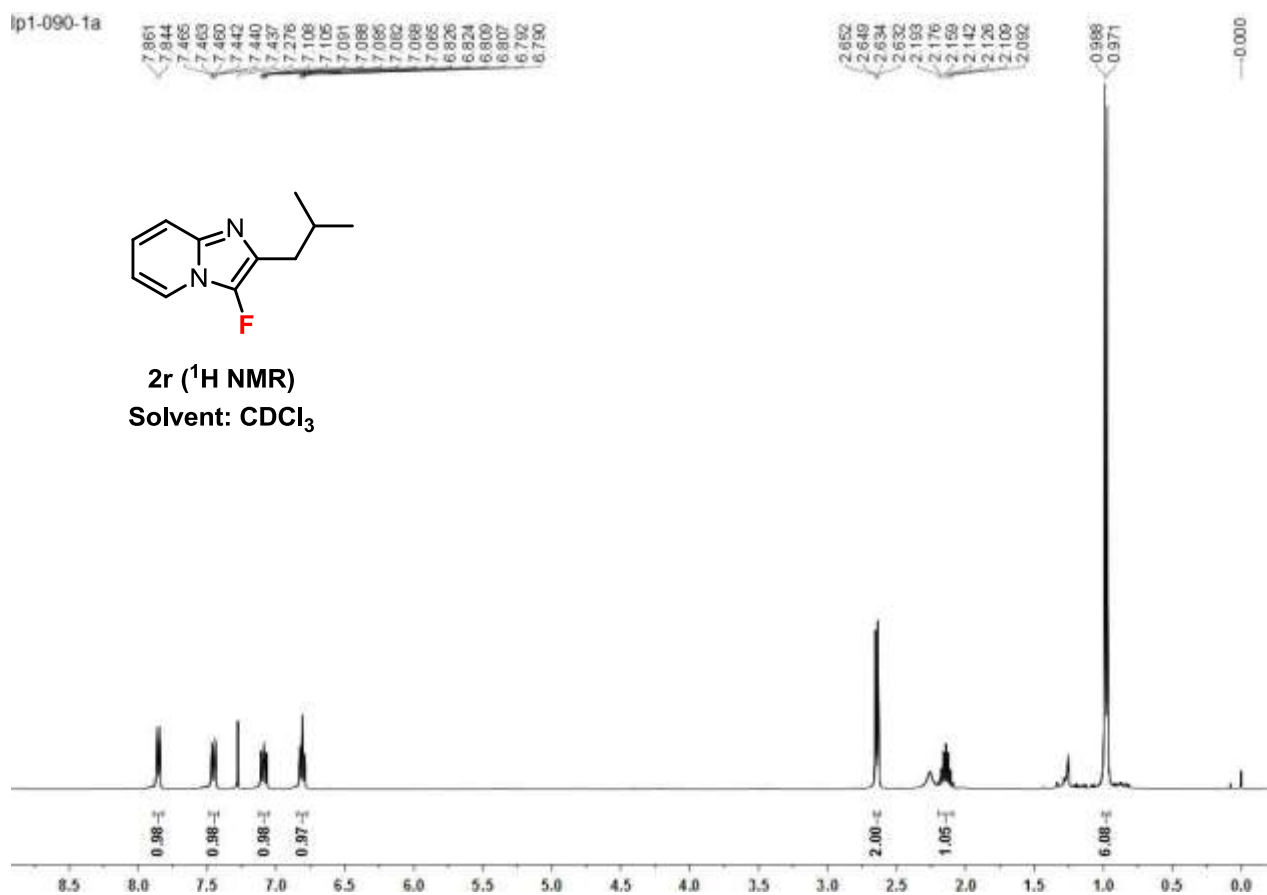
2q (^{19}F NMR)
Solvent: CDCl_3



lp1-090-1a



2r (^1H NMR)
Solvent: CDCl_3



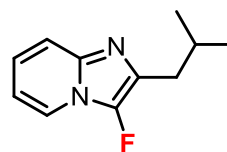
lp1-090-1a

140.773
138.116
136.598
136.542

123.513
123.481
122.886
122.872
120.235
117.537
112.068

77.418
77.101
76.783

36.313
35.275
28.465
28.483
22.505



2r (¹³C NMR)
Solvent: CDCl₃

lp1-090-1a

140.773

138.116

136.598

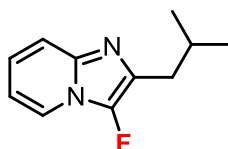
136.542

141 140 139 138 137 136 135 134

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0

lp1-090-1a

162.113



2r (¹⁹F NMR)
Solvent: CDCl₃

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

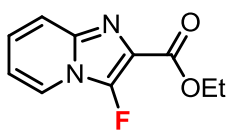
lp1-094-1b

7.954
7.947
7.576
7.553
7.335
7.266
7.255
7.239
7.237
7.234
7.216
6.960
6.943
6.926

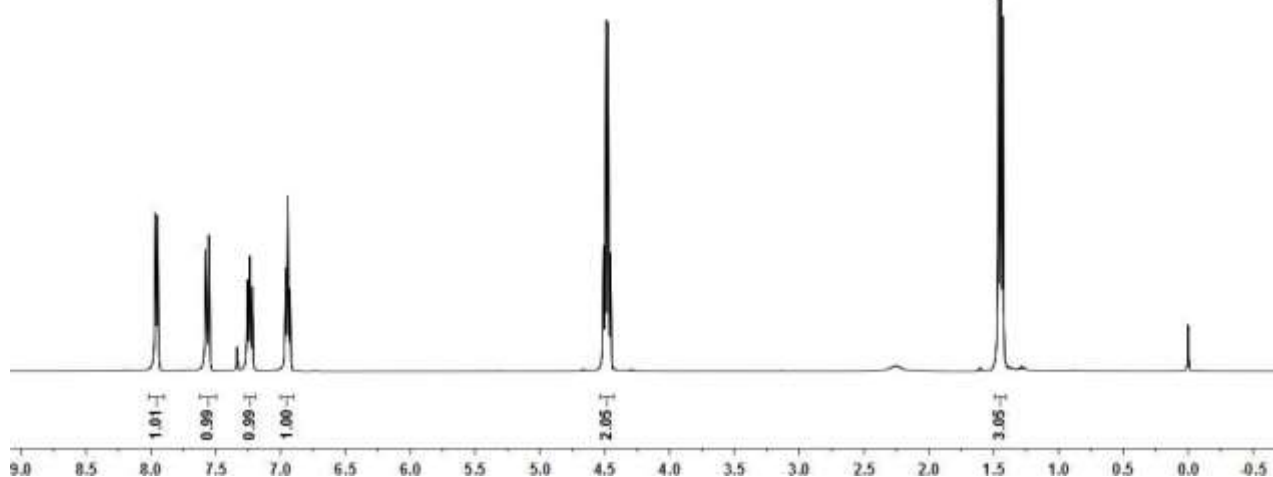
4.508
4.490
4.473
4.455

1.464
1.446
1.429

0.000



2s (¹H NMR)
Solvent: CDCl₃



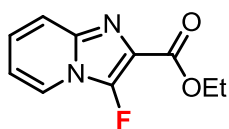
lp1-094-1b

161.618
161.509
144.478
141.626
136.080
136.611
125.565
120.991
119.169
114.809
113.937

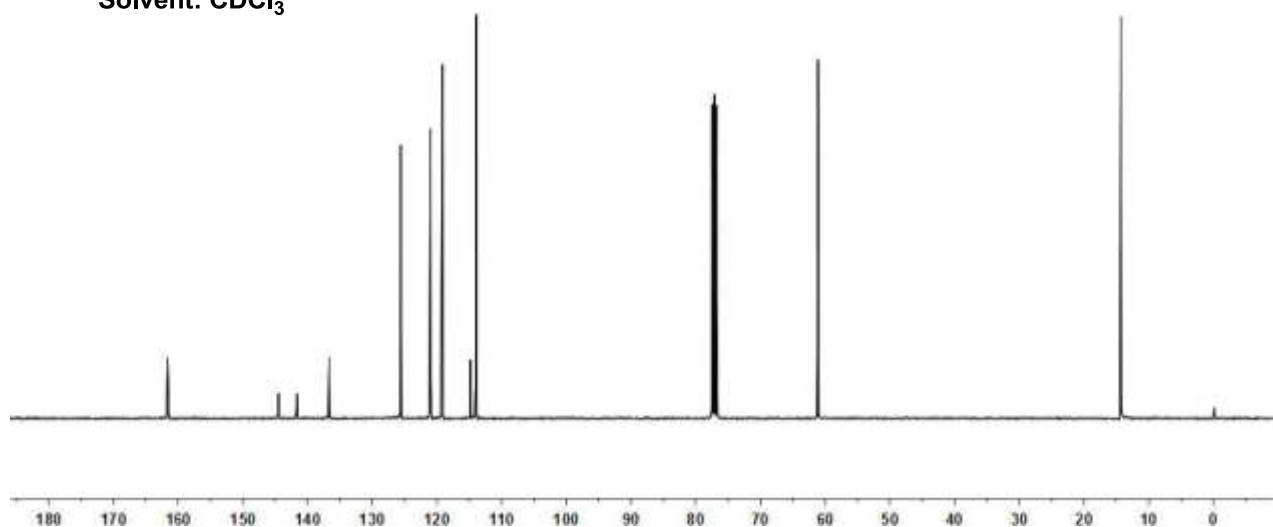
77.418
77.100
76.781

61.122

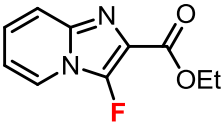
14.309



2s (¹³C NMR)
Solvent: CDCl₃

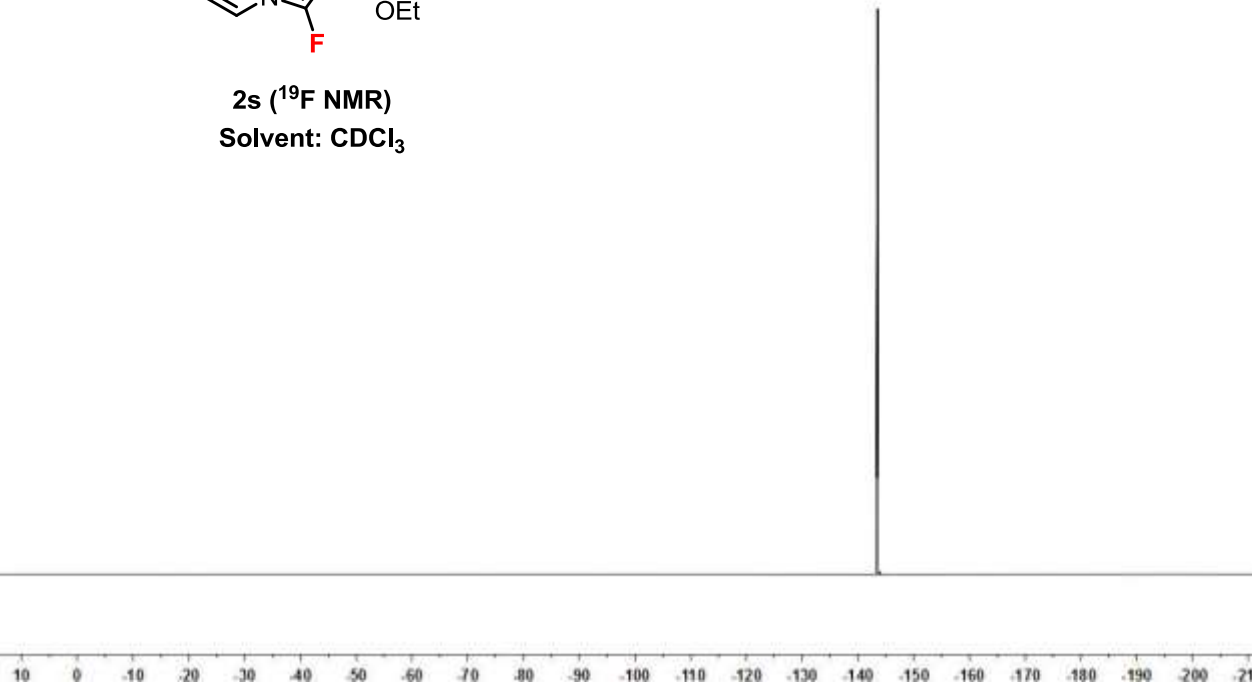


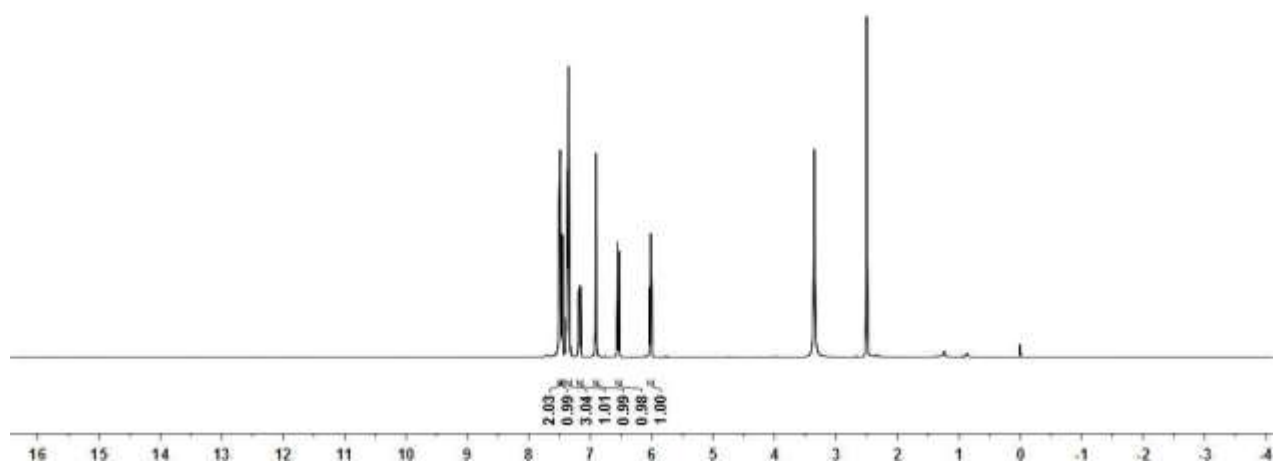
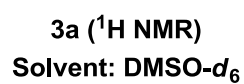
lp1-094-1b

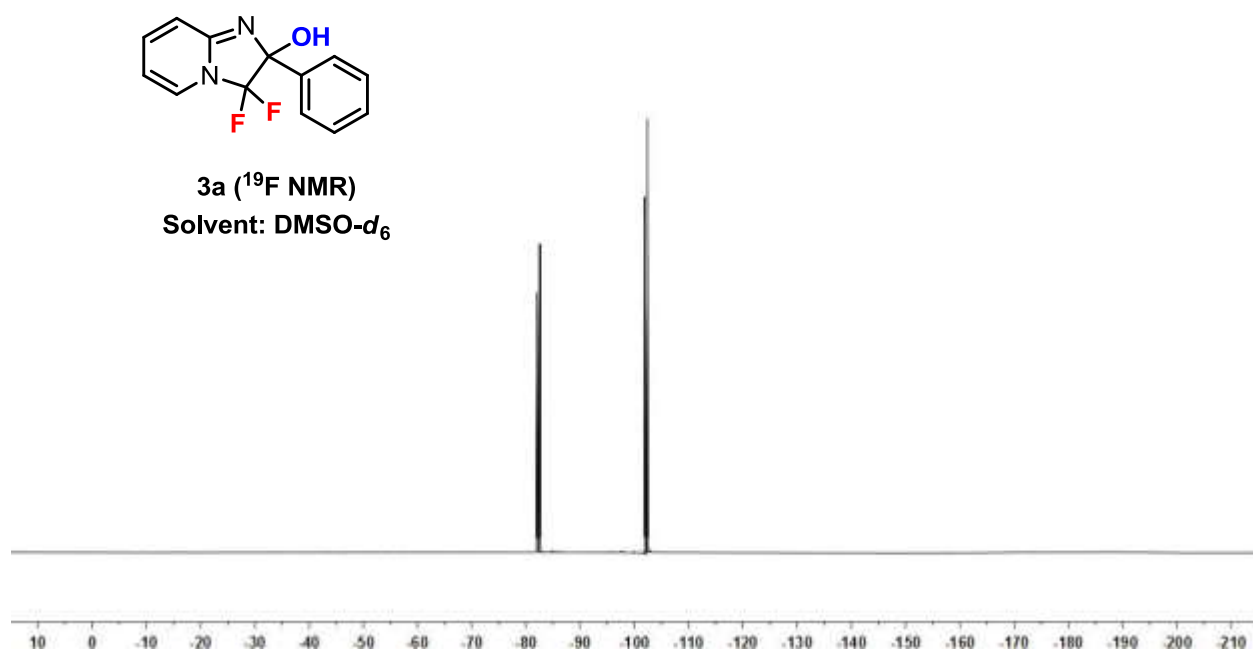
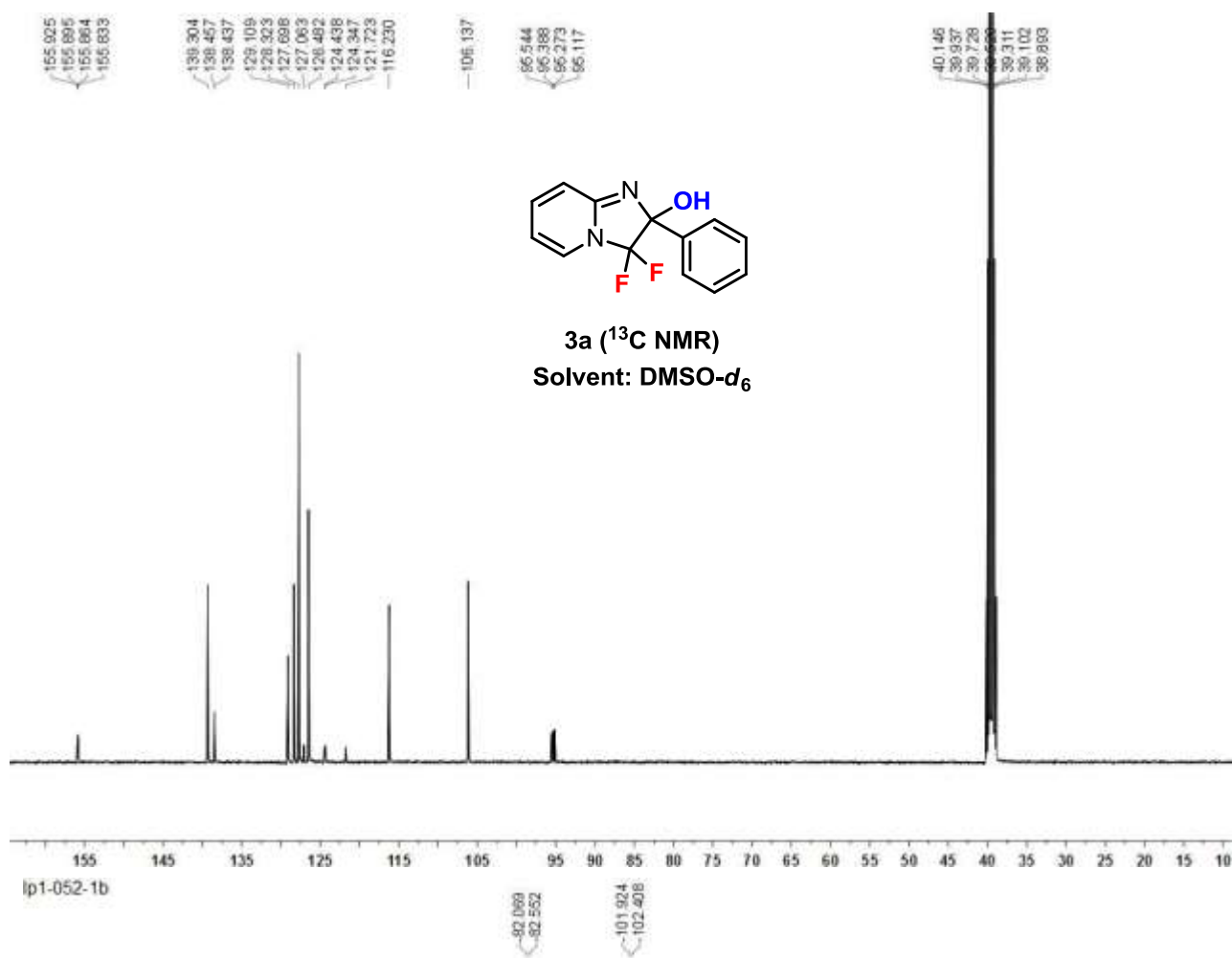


2s (^{19}F NMR)

Solvent: CDCl_3



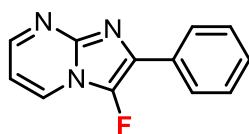




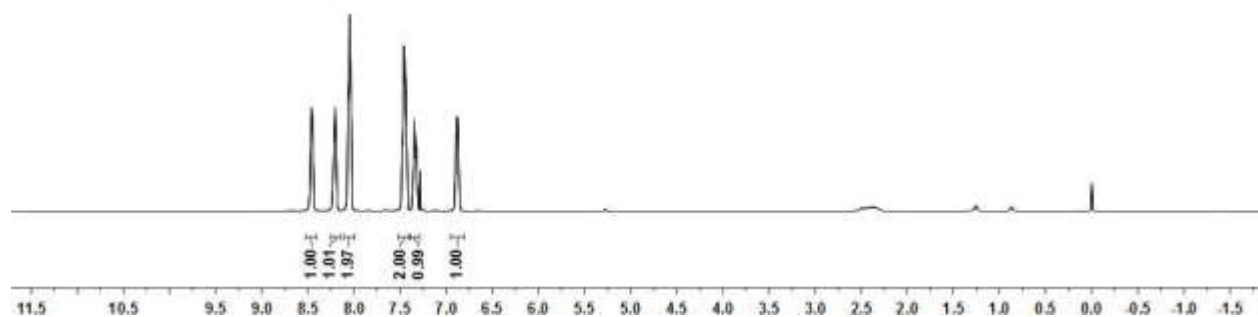
lp1-079-1a

8.459
8.451
8.219
8.207
8.204
8.057
8.055
8.044
7.476
7.472
7.468
7.468
7.465
7.450
7.441
7.423
7.398
7.355
7.350
7.340
7.336
7.324
7.279
6.901
6.881
6.884
6.881
6.874
6.864
6.854

0.000



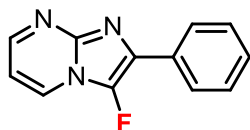
5a (^1H NMR)
Solvent: CDCl_3



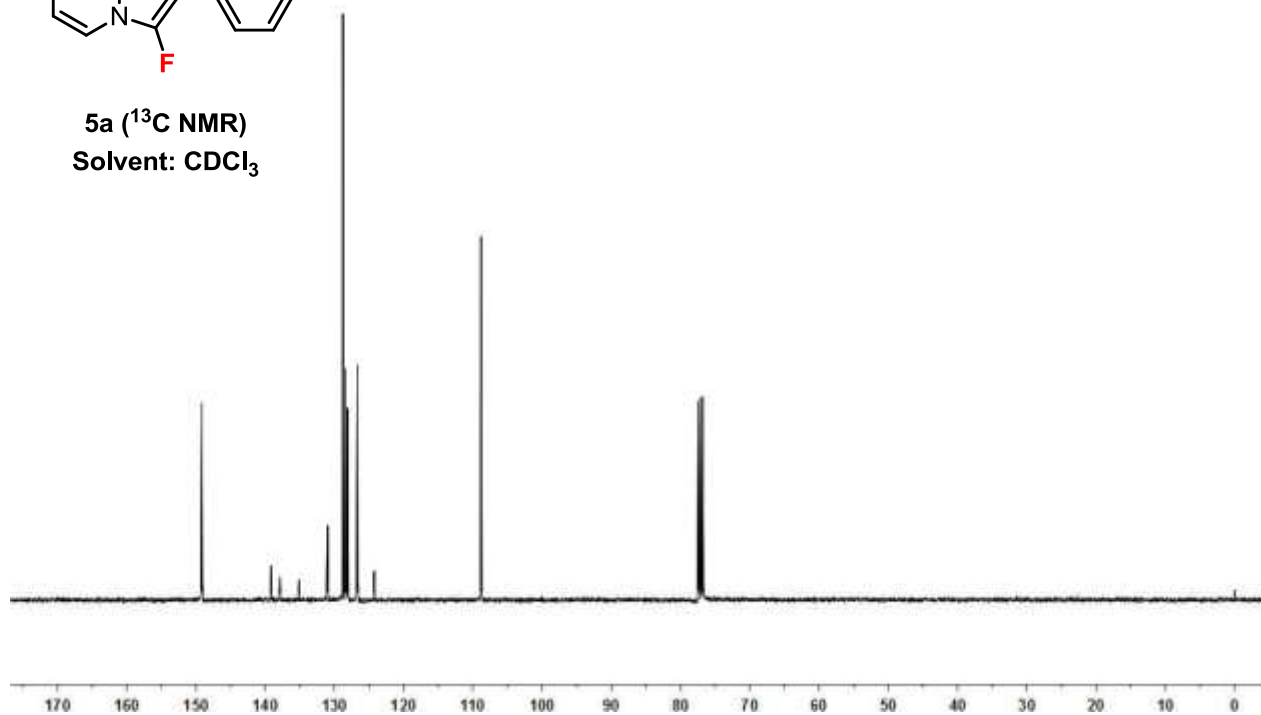
lp1-079-1a

149.125
149.095
139.140
139.108
137.886
135.076
131.006
130.856
128.743
128.344
128.071
126.715
126.674
124.245
124.189
108.789

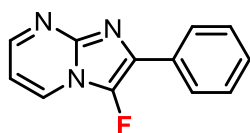
77.418
77.100
76.782



5a (^{13}C NMR)
Solvent: CDCl_3

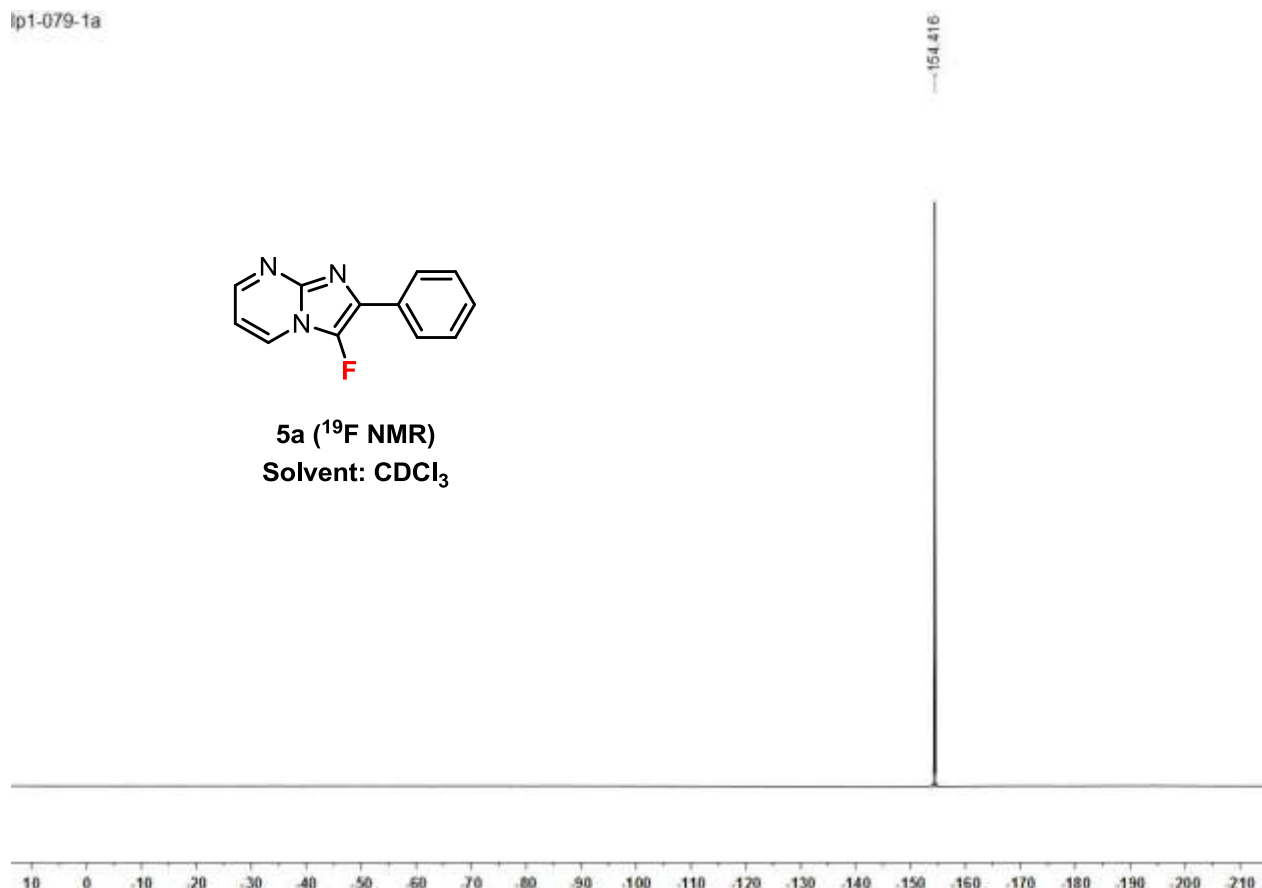


lp1-079-1a



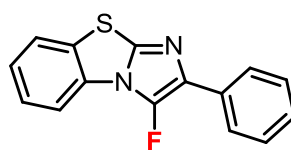
5a (^{19}F NMR)

Solvent: CDCl_3



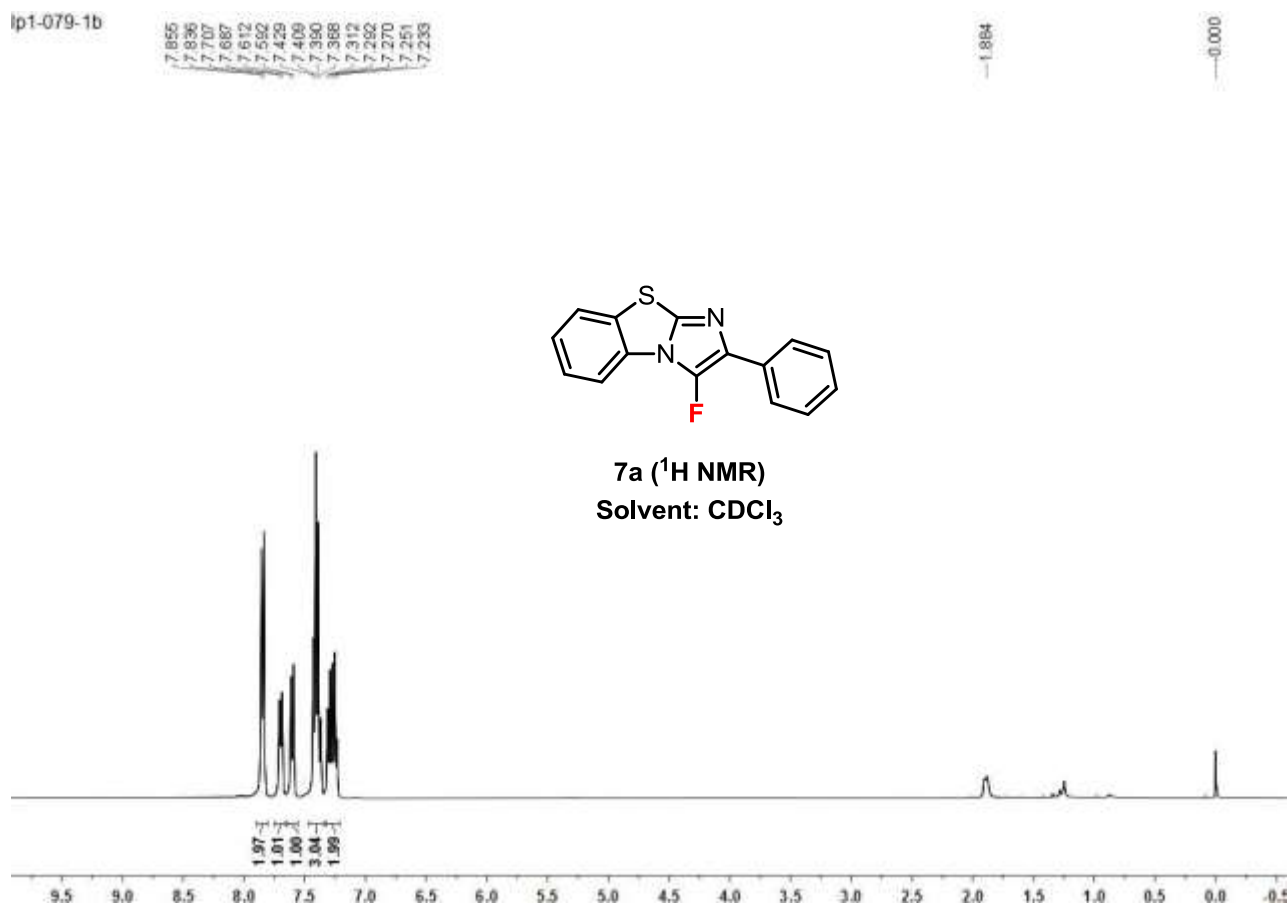
lp1-079-1b

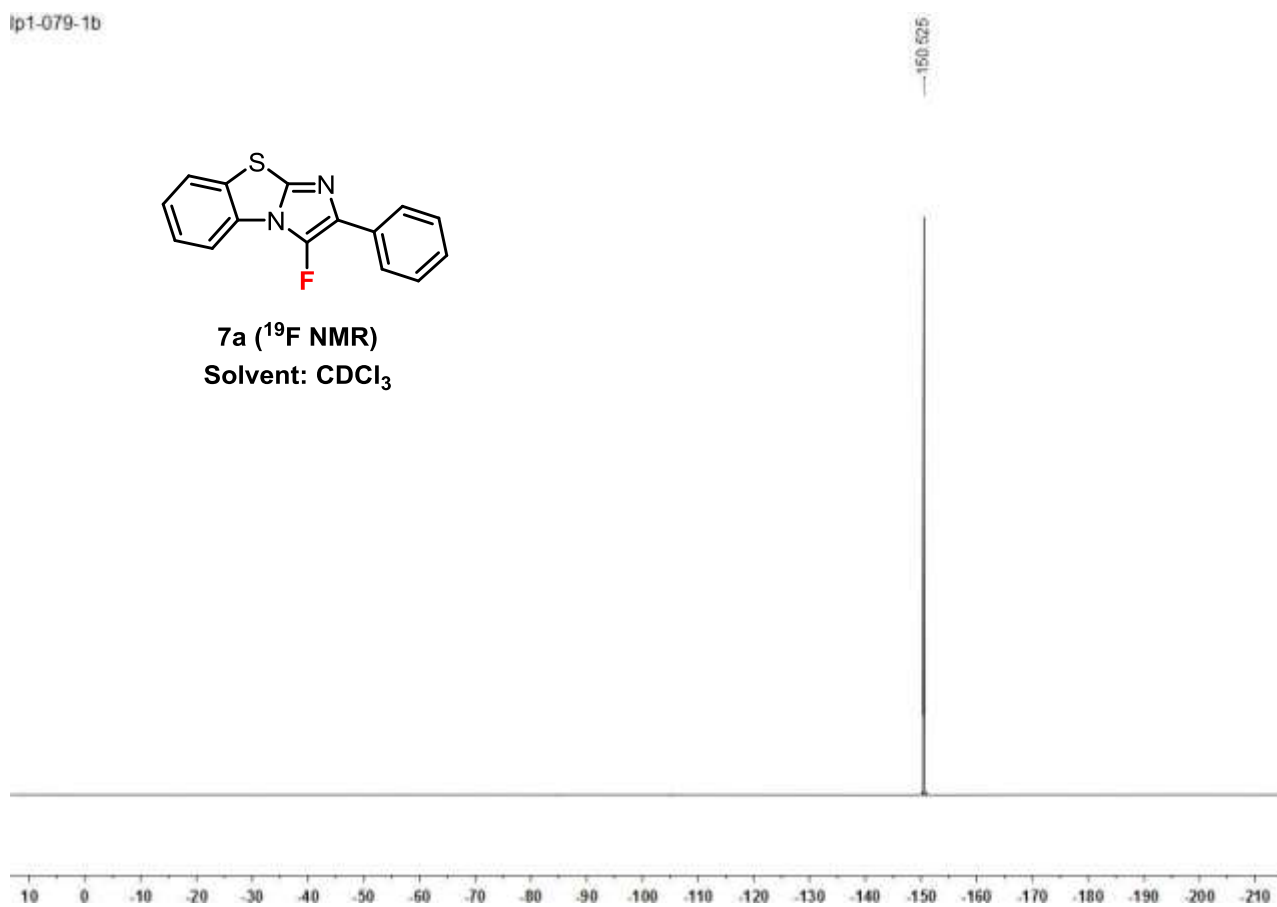
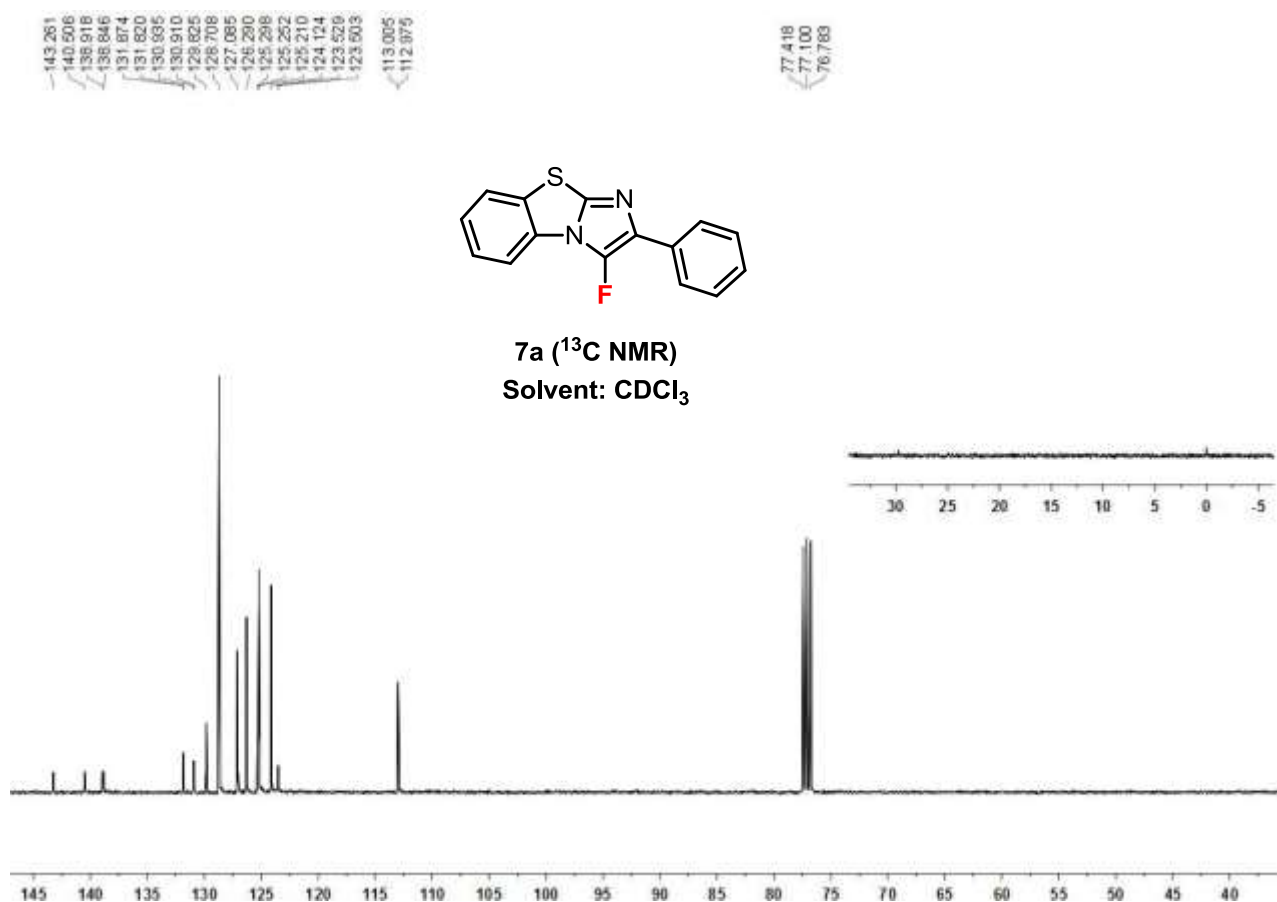
7.855
7.836
7.707
7.687
7.612
7.592
7.429
7.409
7.350
7.368
7.312
7.292
7.270
7.251
7.233

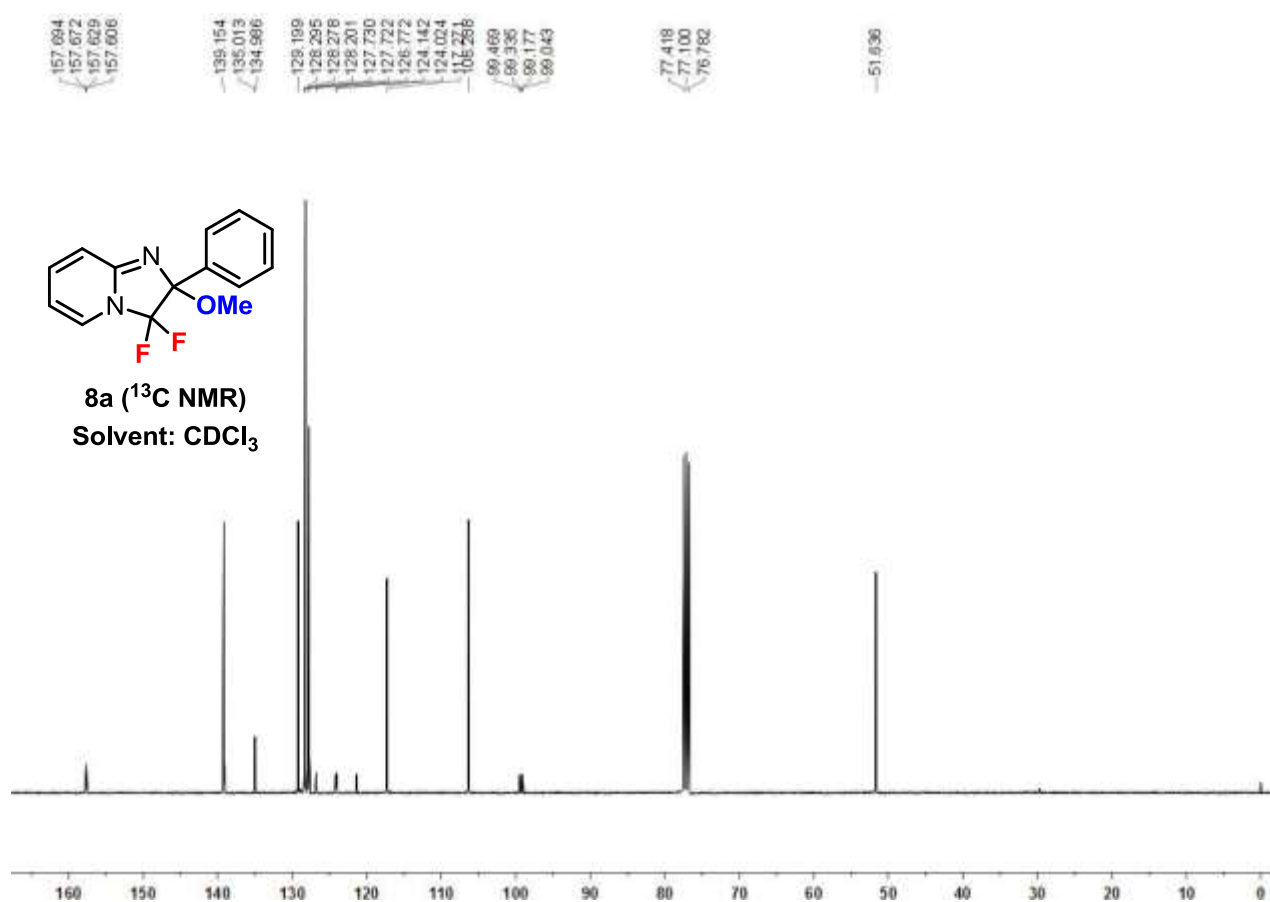
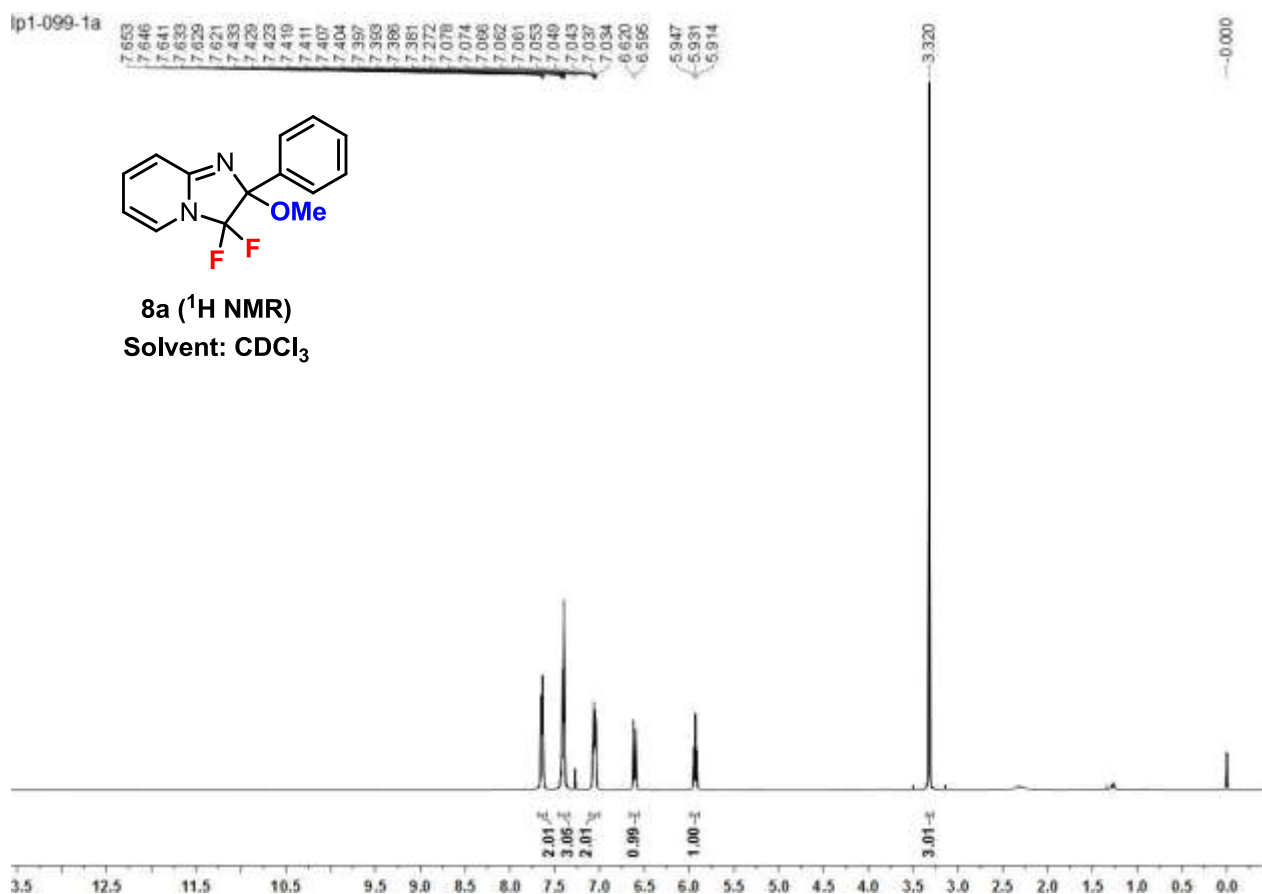


7a (^1H NMR)

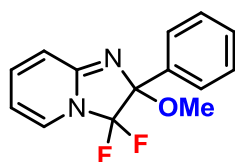
Solvent: CDCl_3



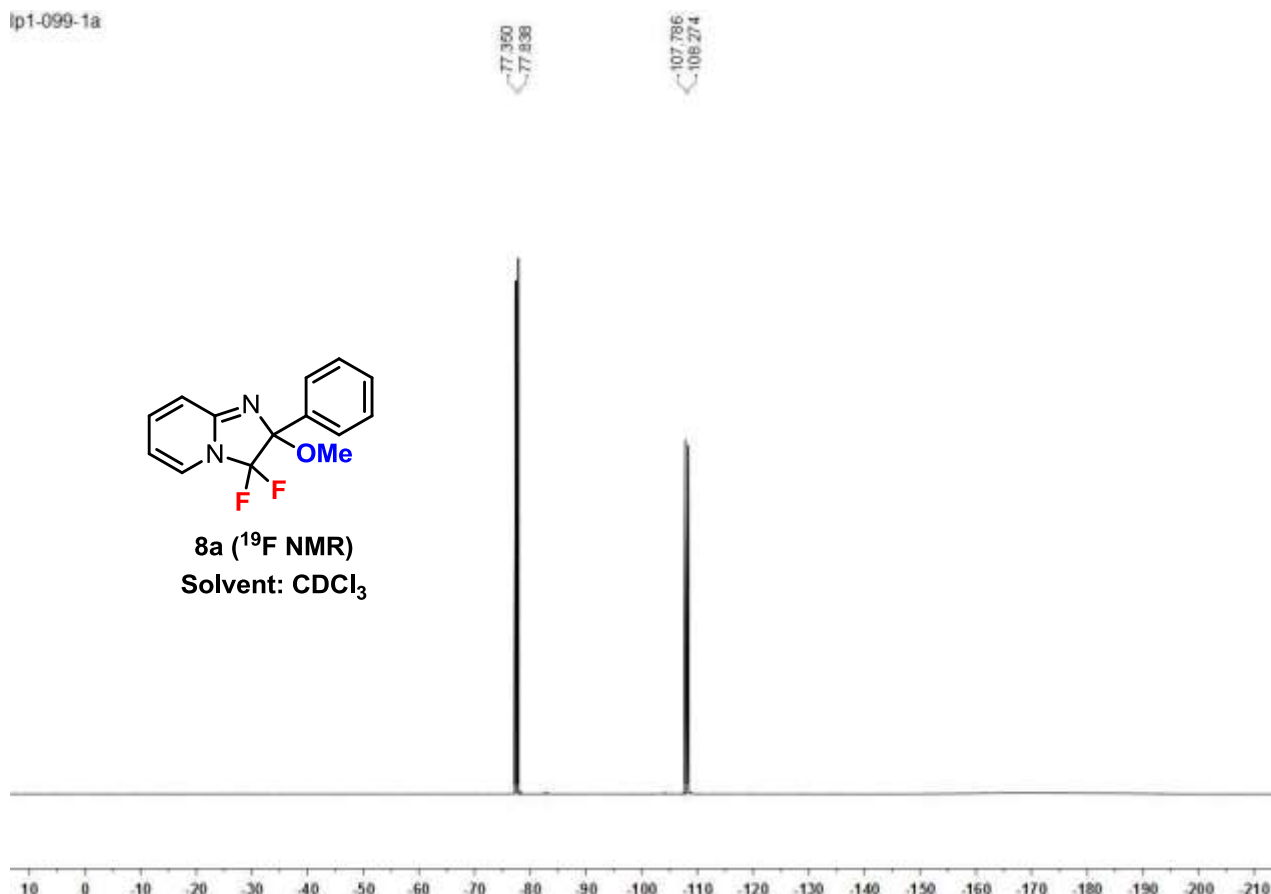




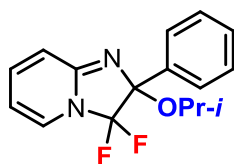
lp1-099-1a



8a (^{19}F NMR)
Solvent: CDCl_3



lp1-100-1a



8b (^1H NMR)
Solvent: CDCl_3

