Supporting Information

Visible-light-induced radical trifluoromethylthiolation of *N*-(*o*-cyanobiaryl)acrylamides

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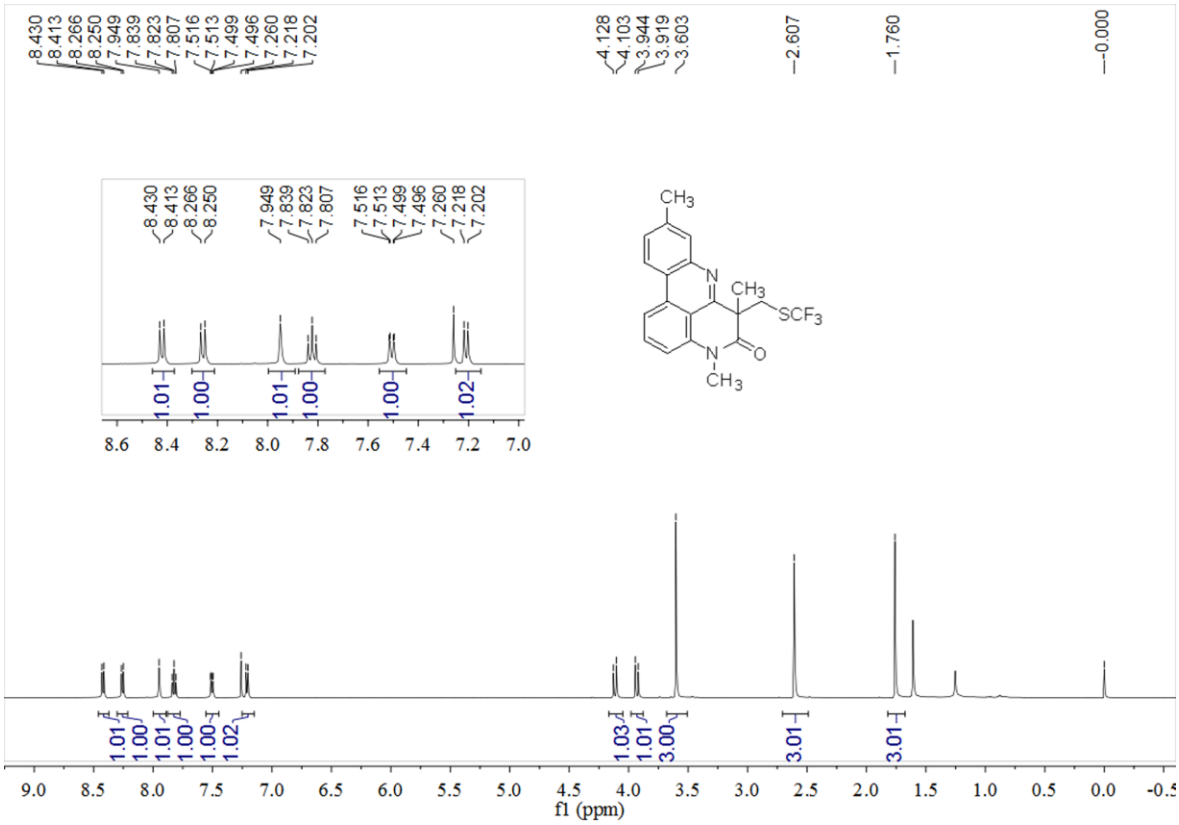
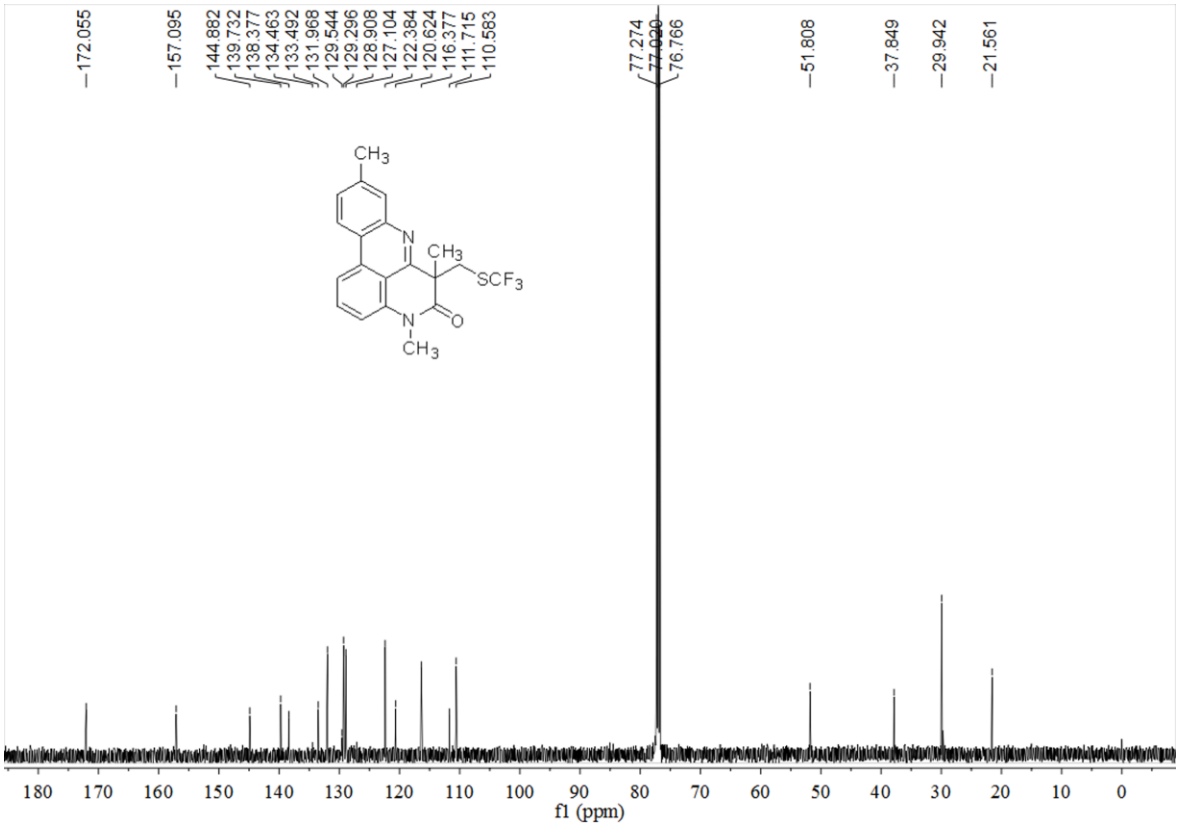
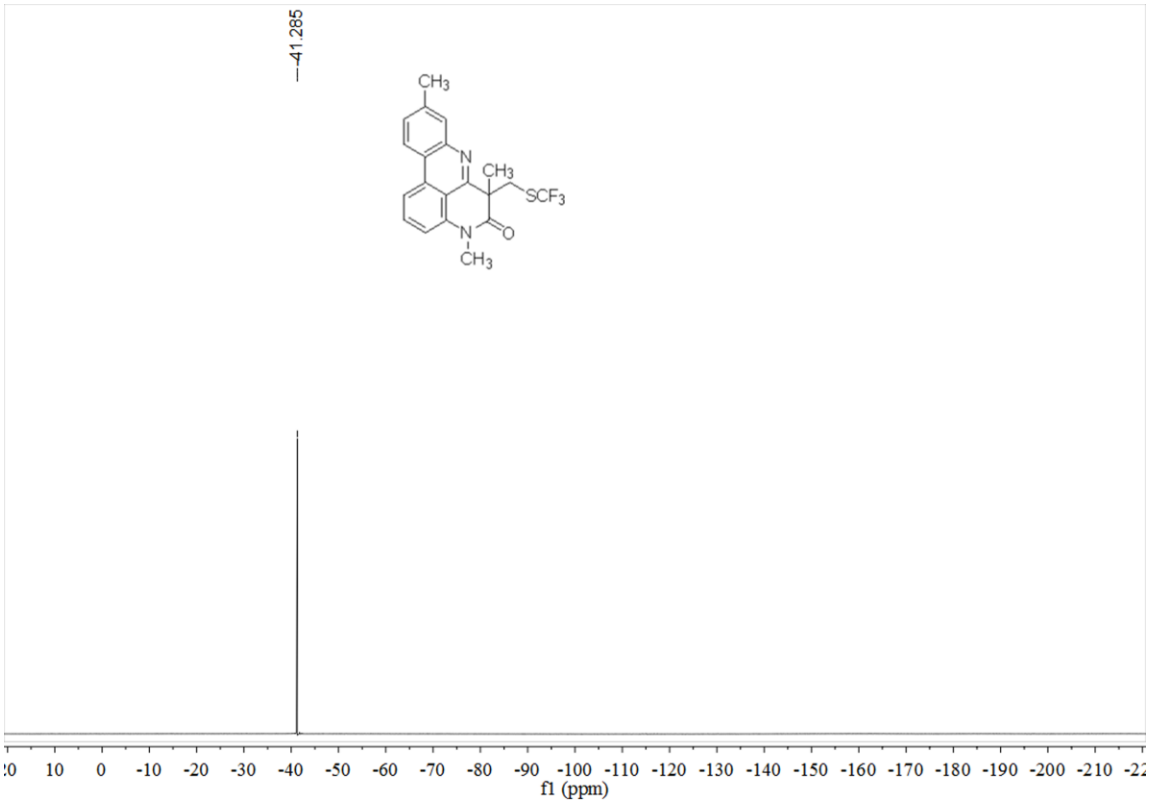
Table of contents

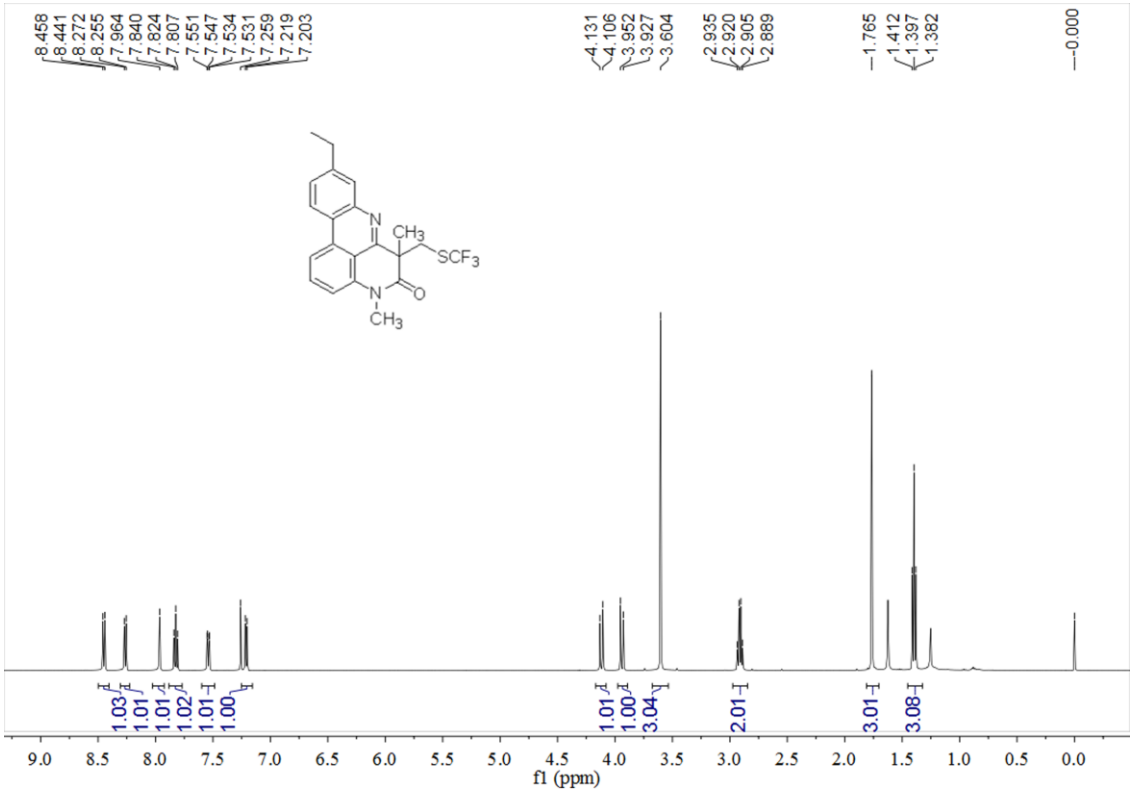
^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3a:**

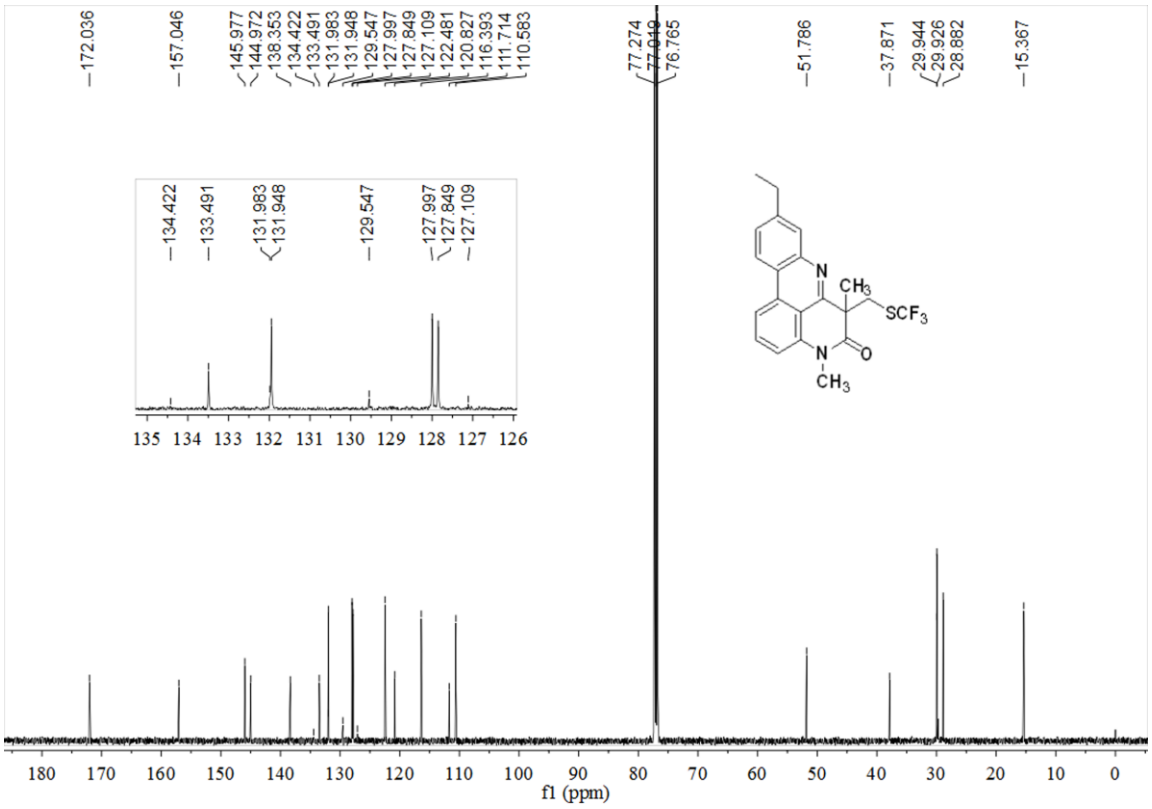






^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3b:**

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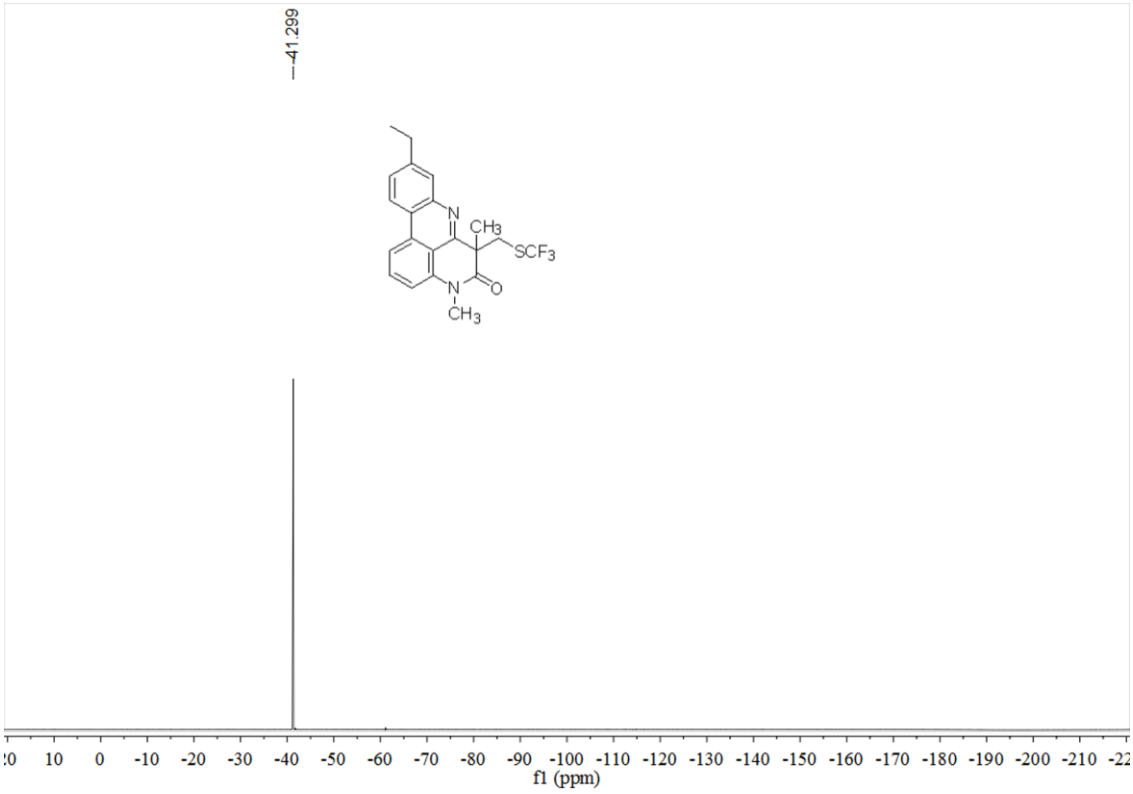
144.972
138.353
134.422
133.491
131.983
131.948
129.547
127.997
127.849
127.109
122.481
120.827
116.393
111.714
110.583
77.274
77.019
76.765
51.786
37.871
29.944
29.926
28.882
15.367
134.422
133.491
131.983
131.948
129.547
127.997
127.849
127.109
135 134 133 132 131 130 129 128 127 126
N
CH3
SCF3
N
O
CH3
180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0
f1 (ppm)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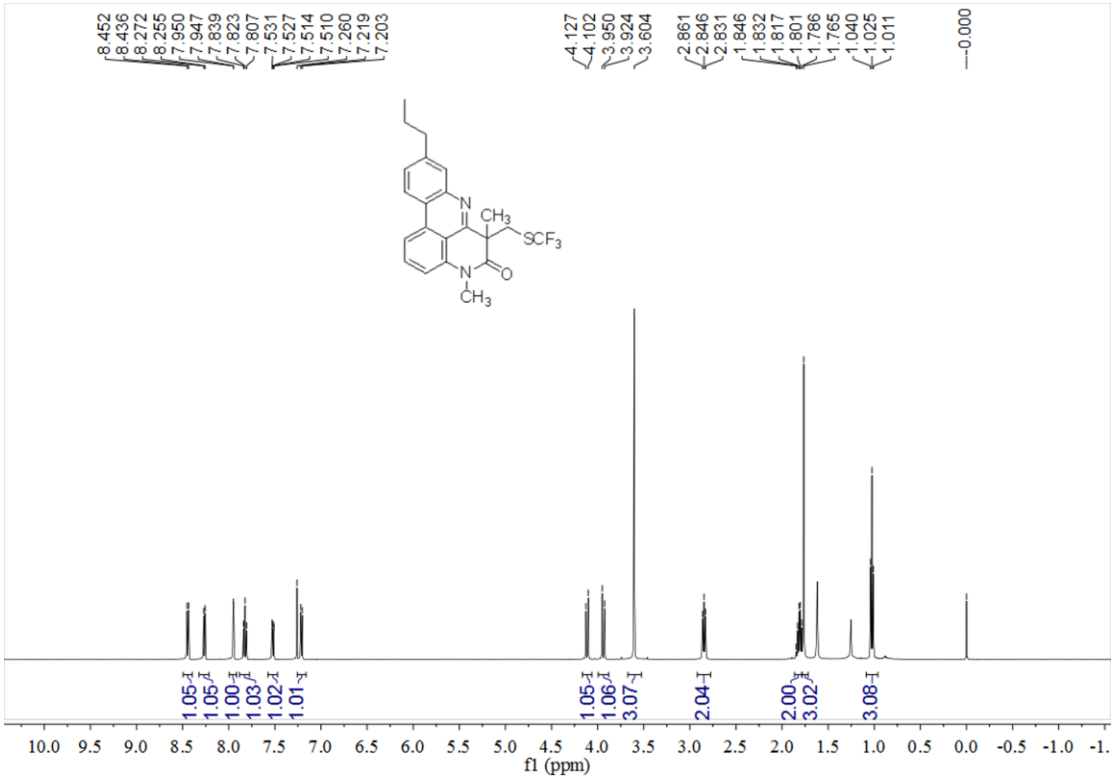
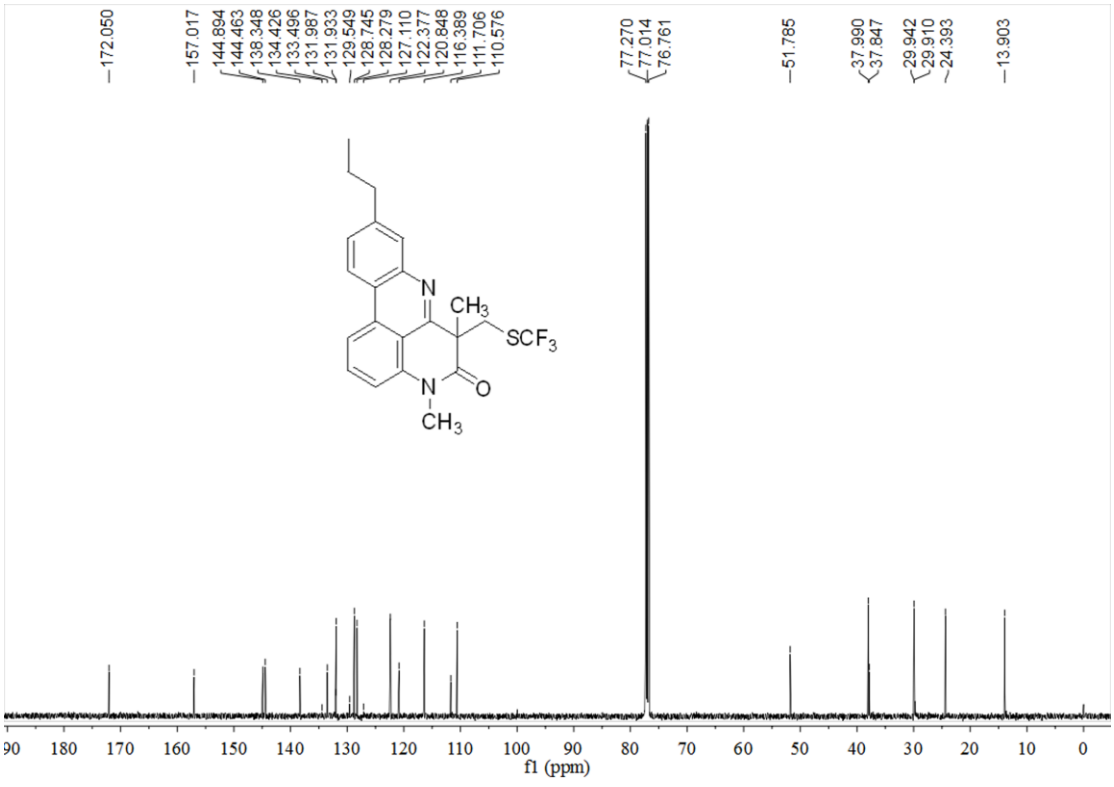
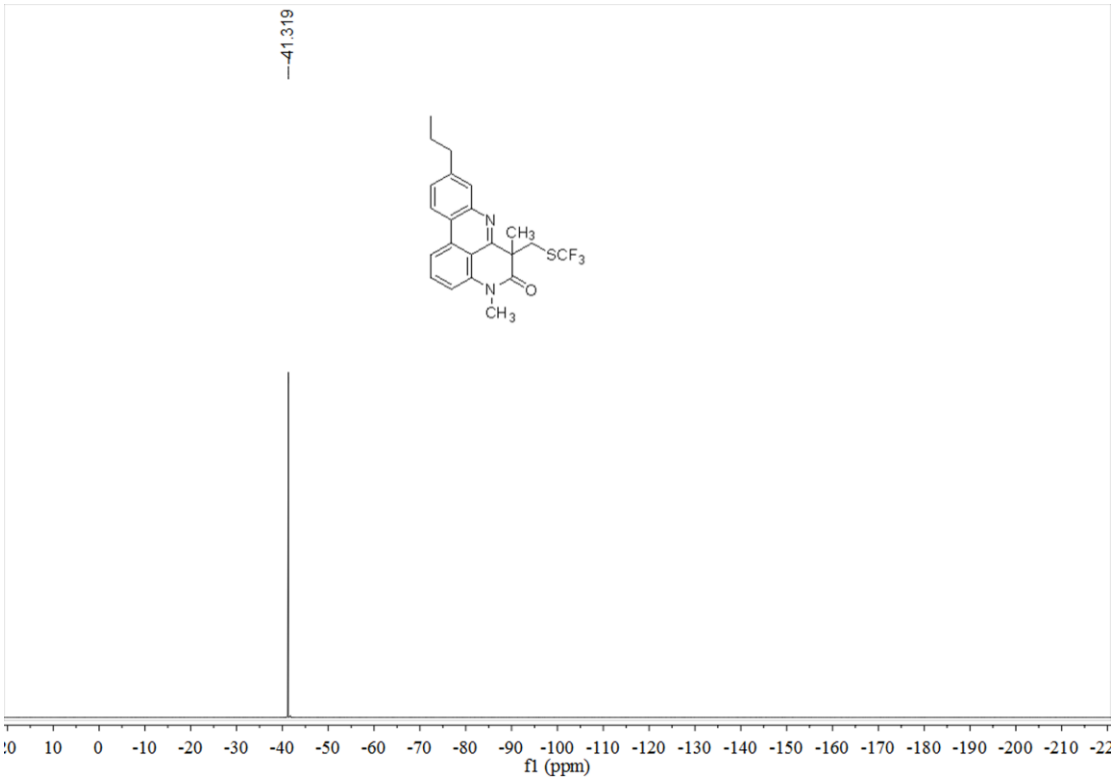
SCF3
N
O
CH3
10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110 -120 -130 -140 -150 -160 -170 -180 -190 -200 -210
f1 (ppm)

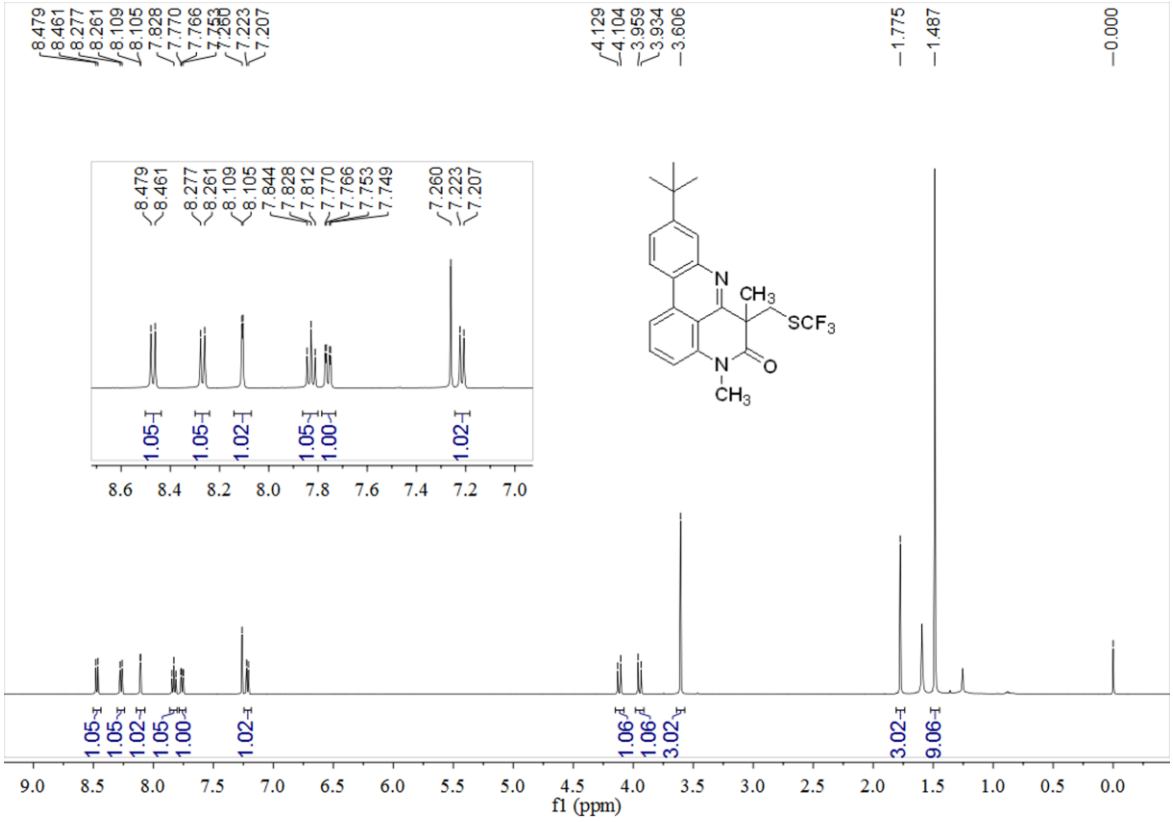
^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3c:**

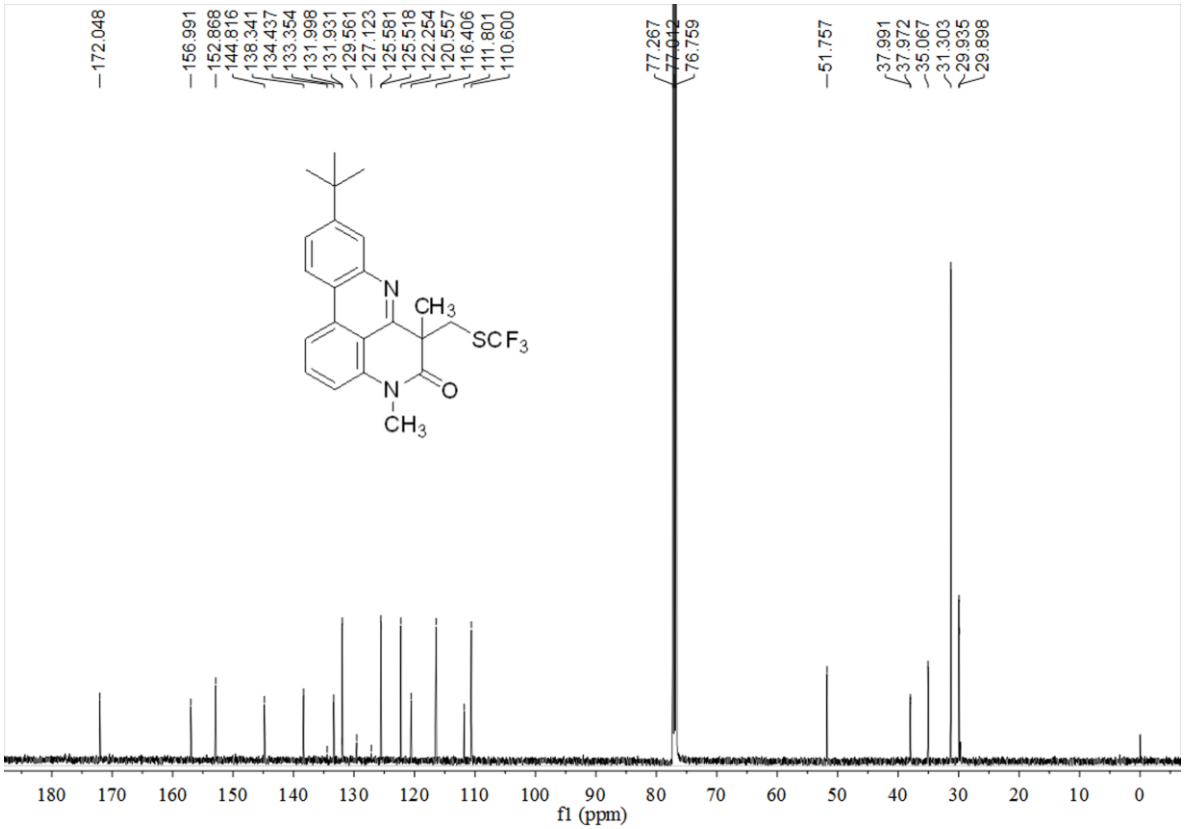






^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3d:**

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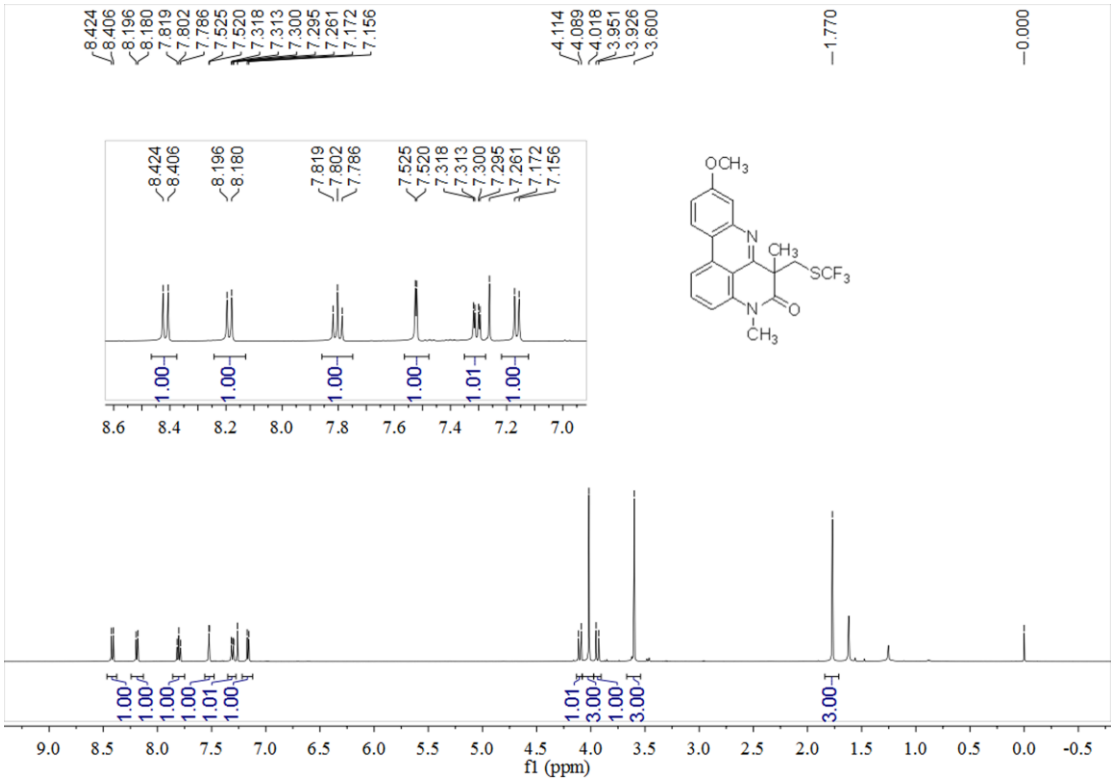
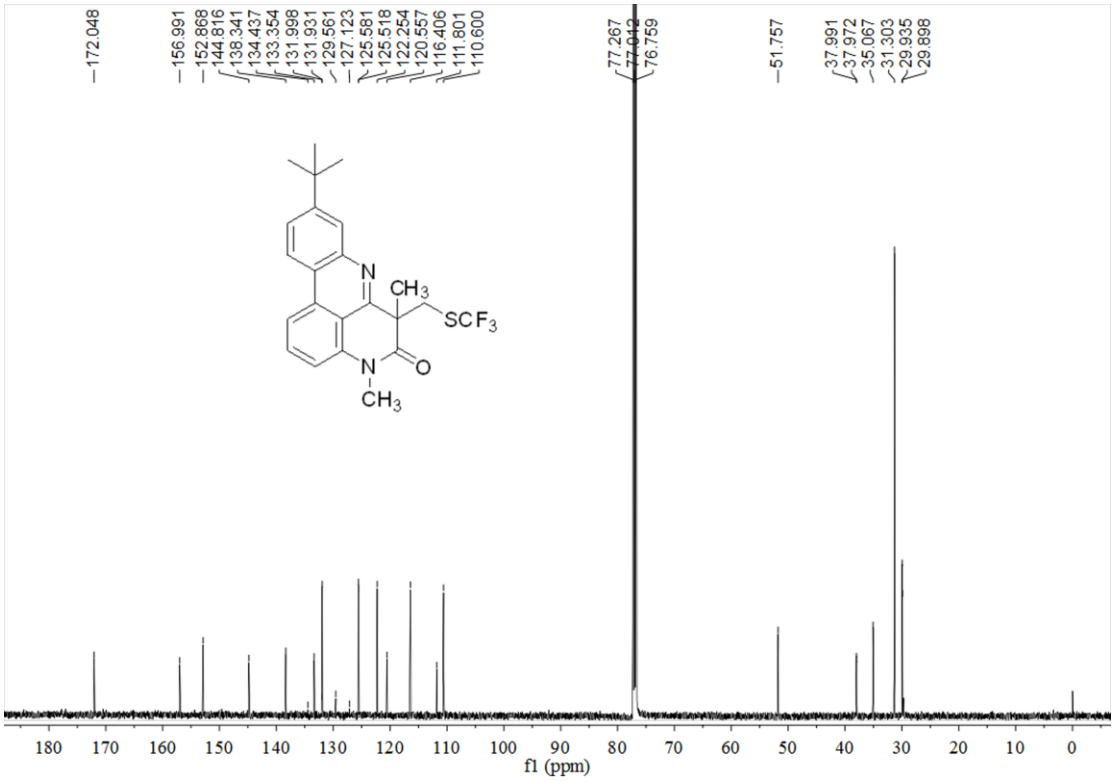
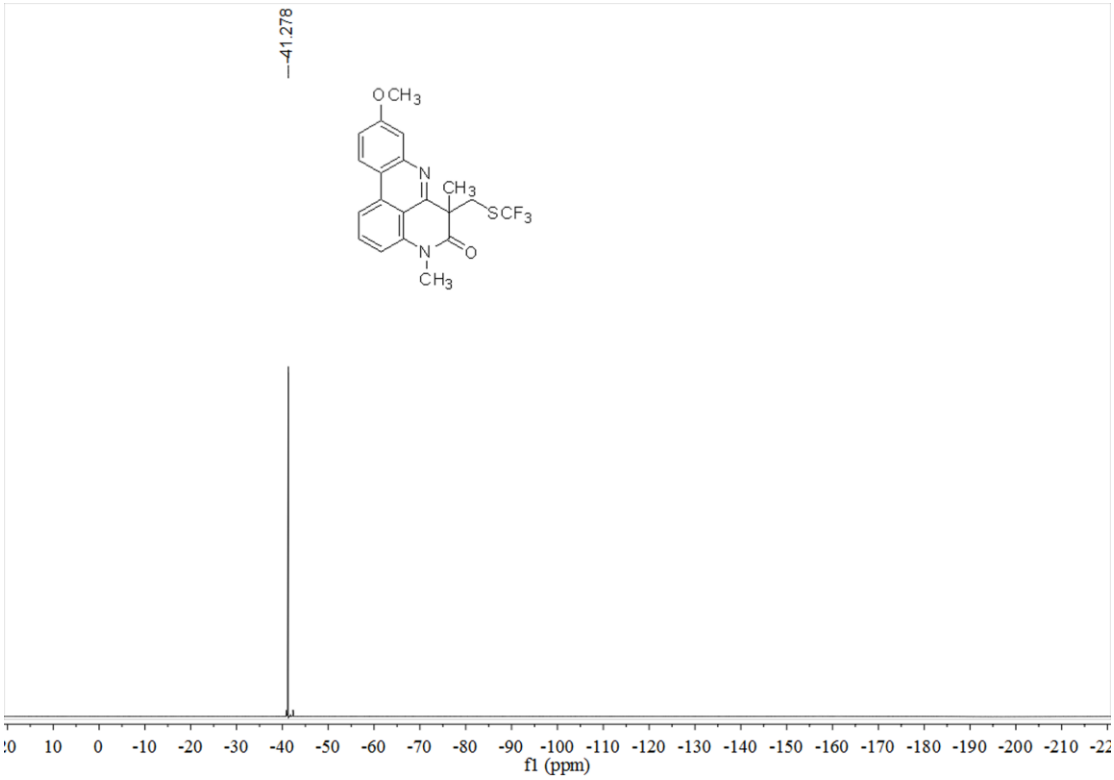
152.868
144.816
138.341
134.437
133.354
131.998
131.931
129.561
127.123
125.581
125.518
122.254
120.557
116.406
111.801
110.600
77.267
77.042
76.759
51.757
37.991
37.972
35.067
31.303
29.935
29.898
N
CH3
SCF3
N
O
CH3
180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0
f1 (ppm)


41.285
N
CH3
SCF3
N
O
CH3
10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110 -120 -130 -140 -150 -160 -170 -180 -190 -200 -210
f1 (ppm)

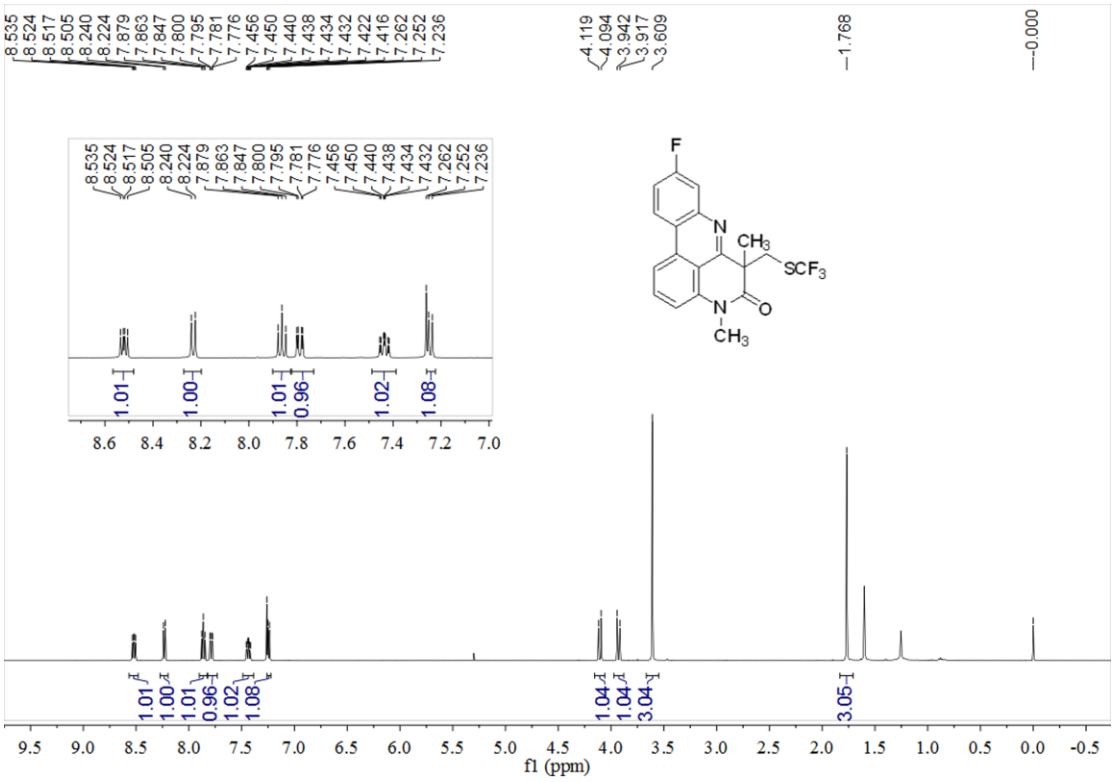
^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3e:**

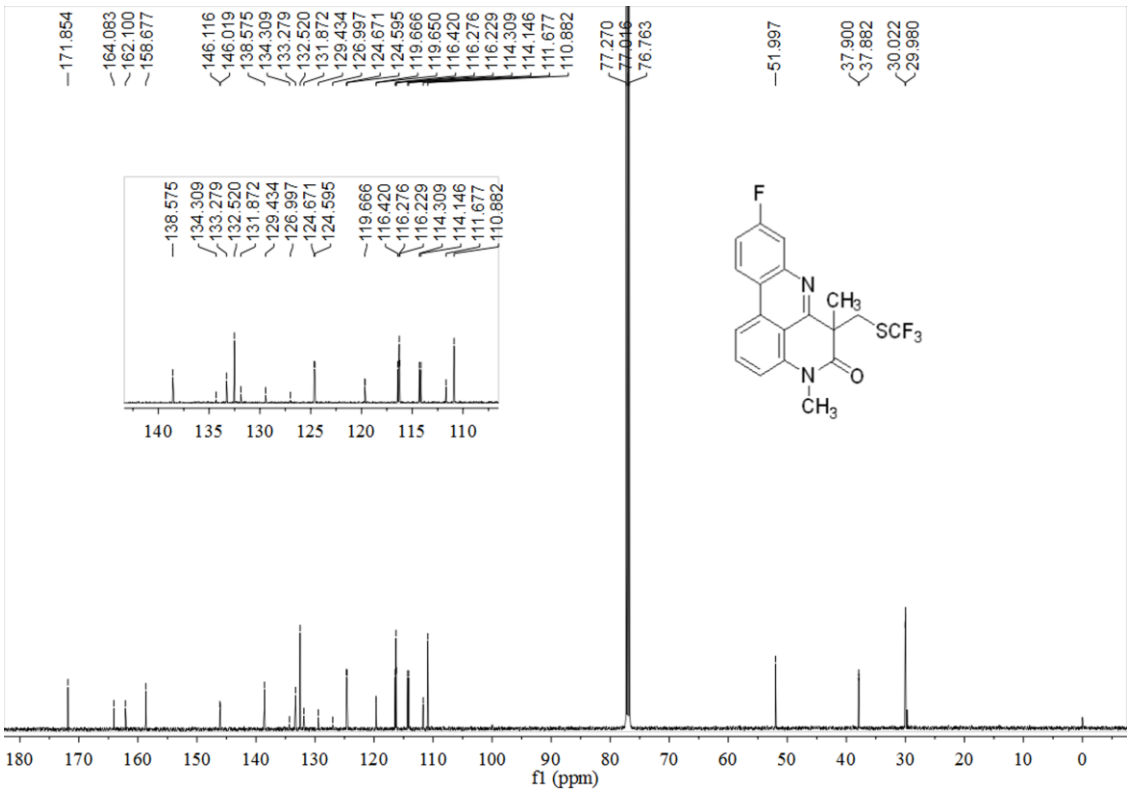






^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3f:**

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132.520
131.872
129.434
126.997
124.671
124.595
119.666
119.650
116.420
116.276
116.229
114.309
114.146
111.677
110.882
77.270
77.046
76.763
51.997
37.900
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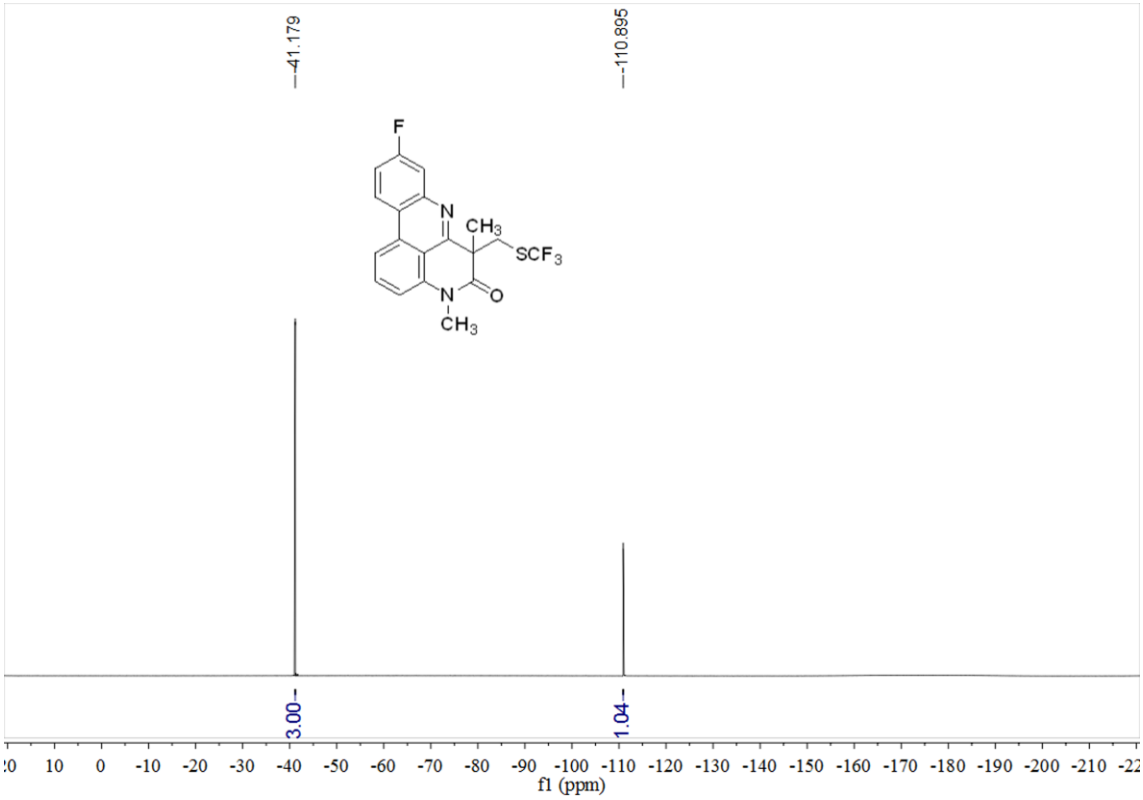
N
CH3
SCF3
O
N
CH3
f1 (ppm)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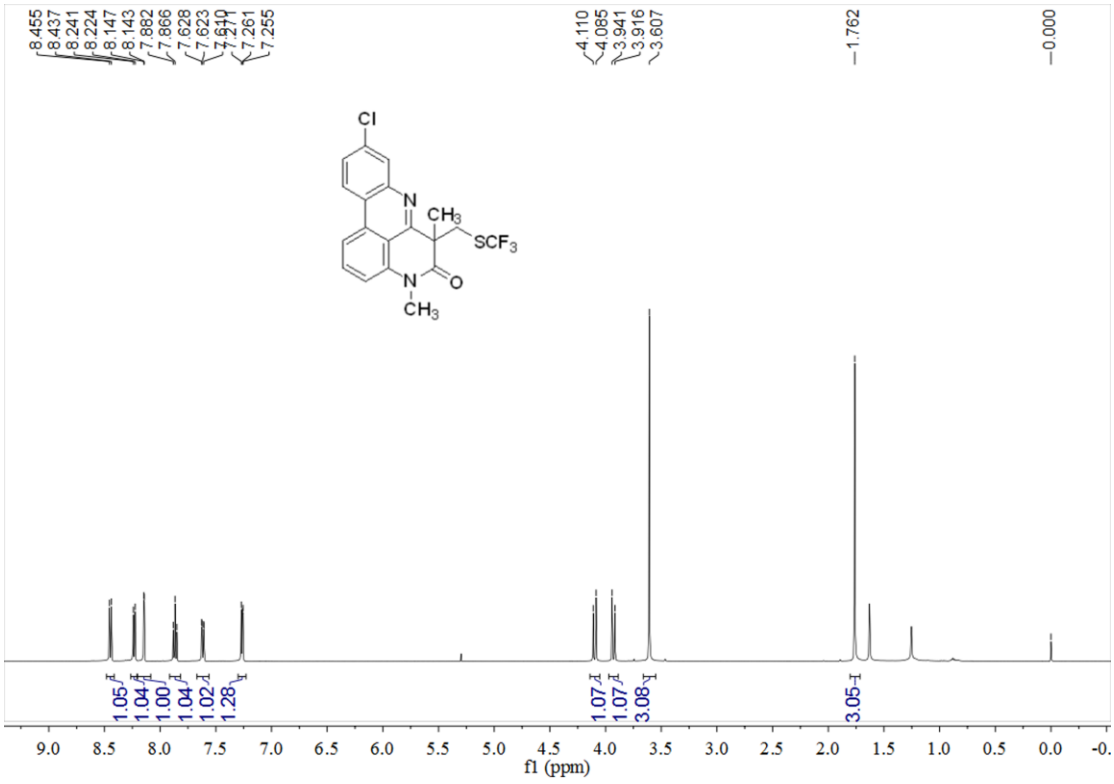
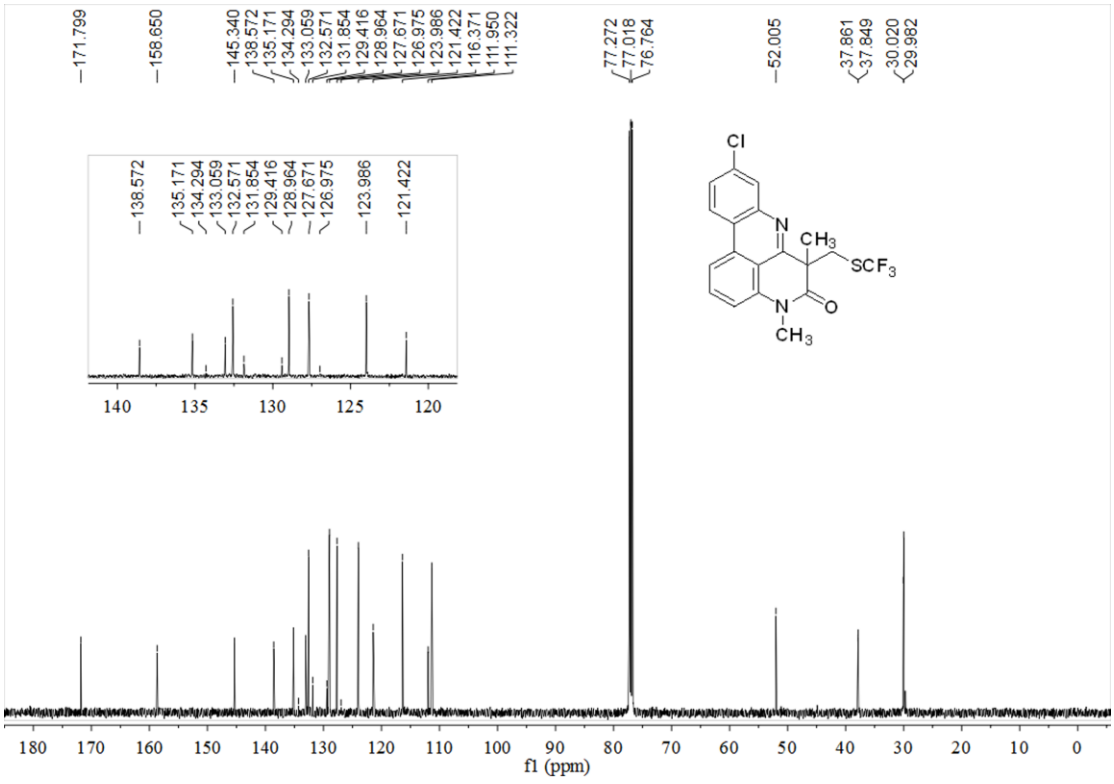
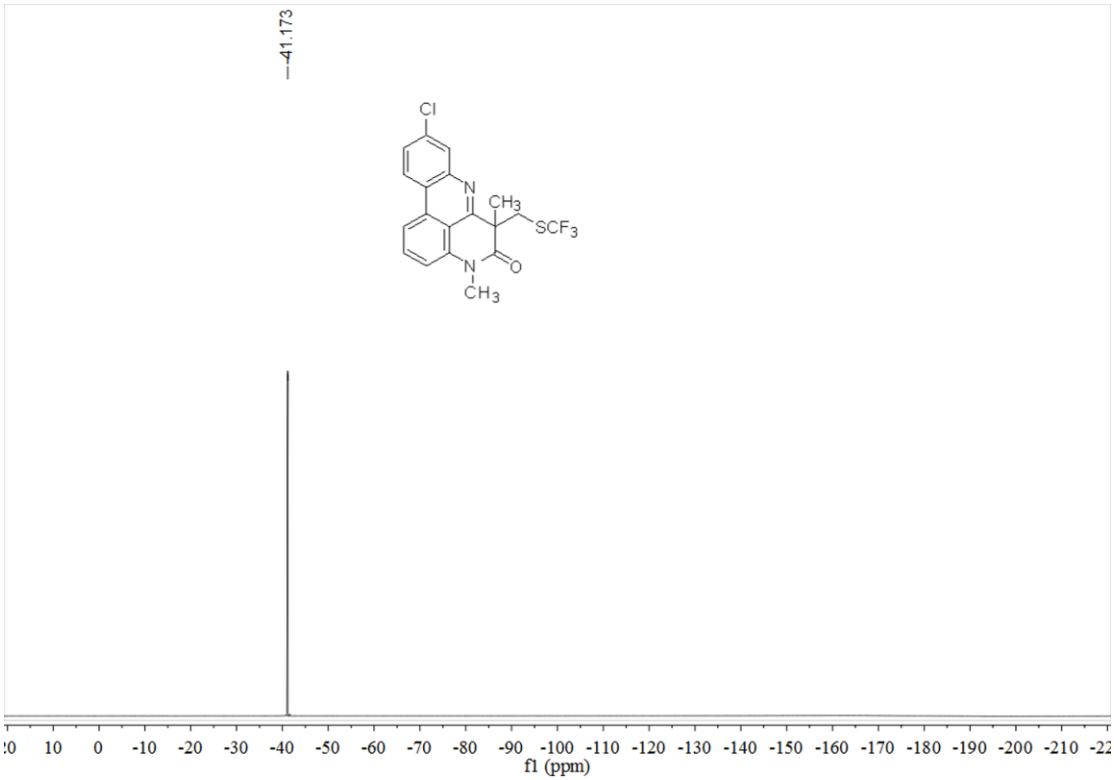
F
N
CH3
SCF3
O
N
CH3
3.00
1.04
f1 (ppm)

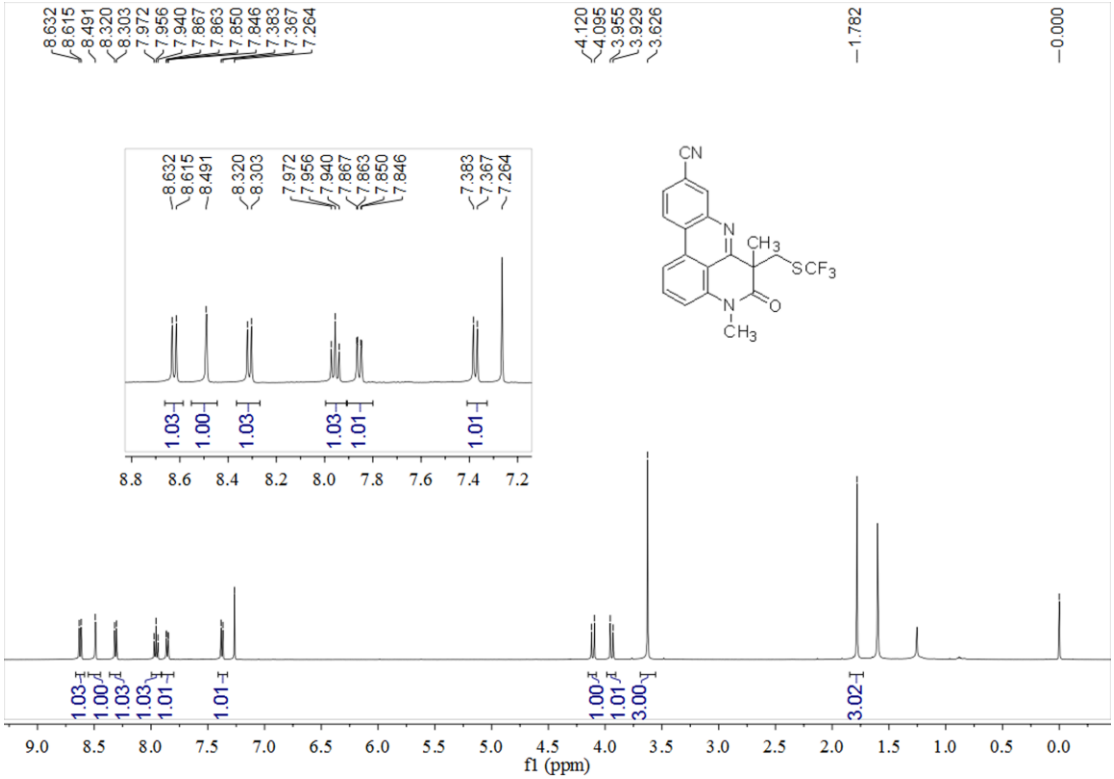
^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3g:**

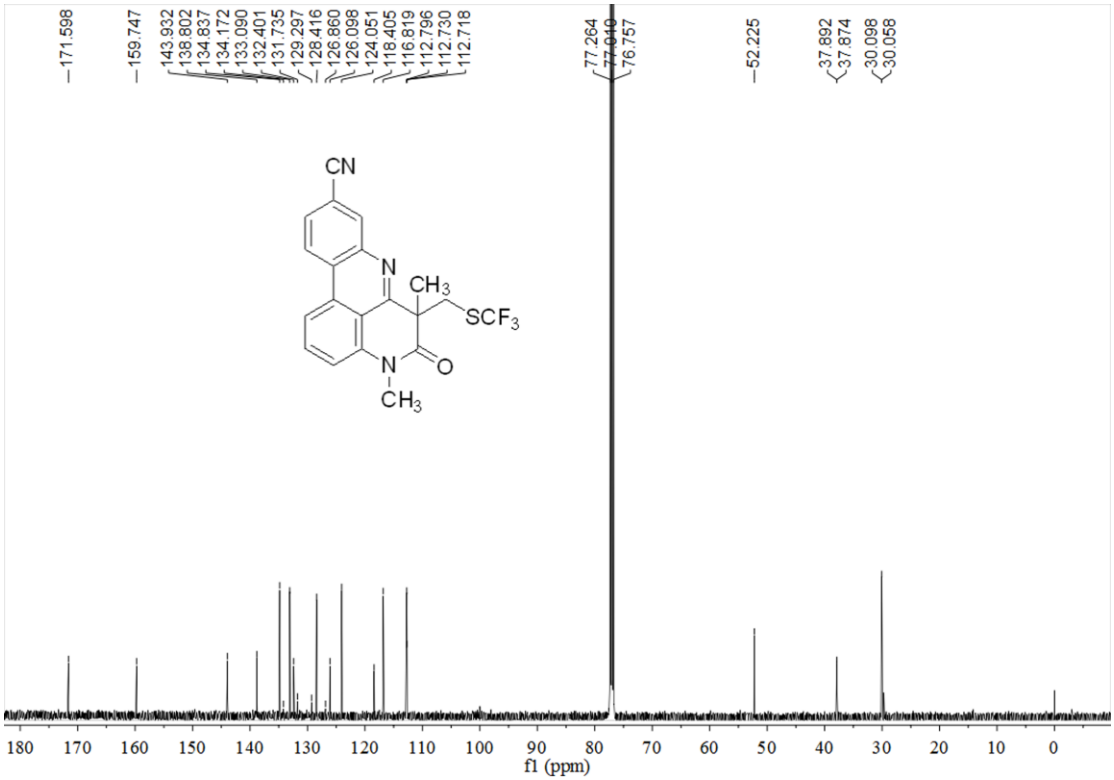






^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3h:**

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133.090
132.401
131.735
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126.860
126.098
124.051
118.405
116.819
112.796
112.730
112.718
77.264
77.040
76.757
52.225
37.892
37.874
30.098
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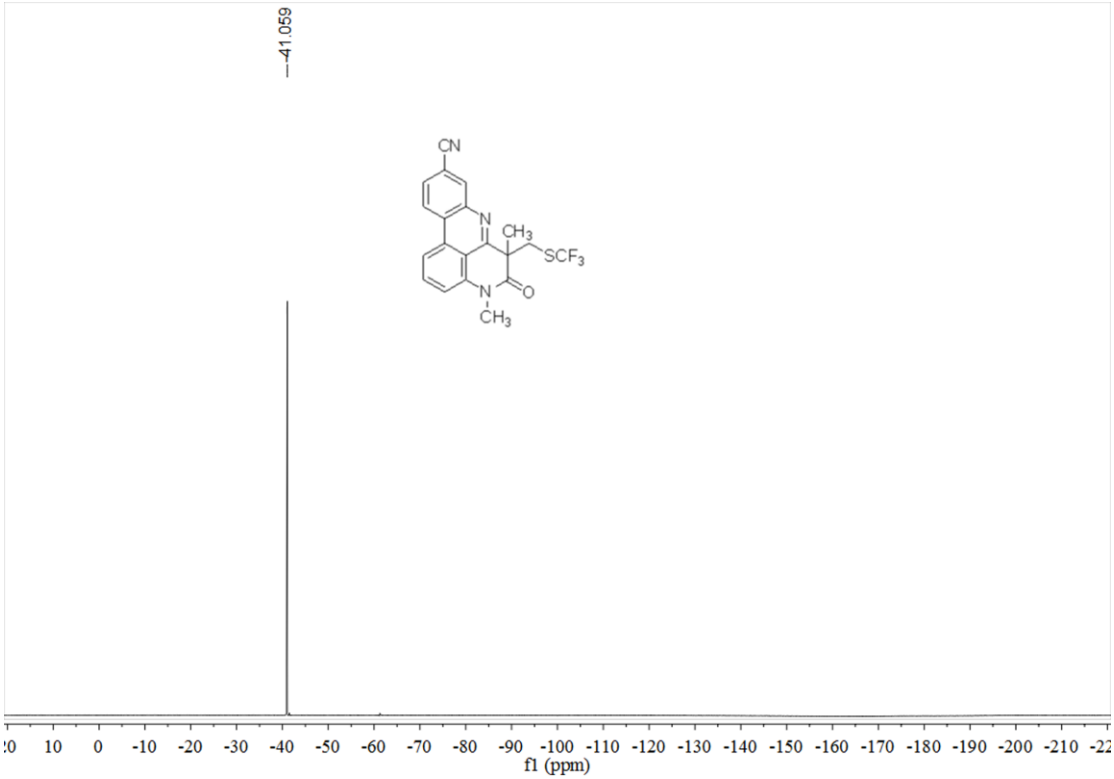
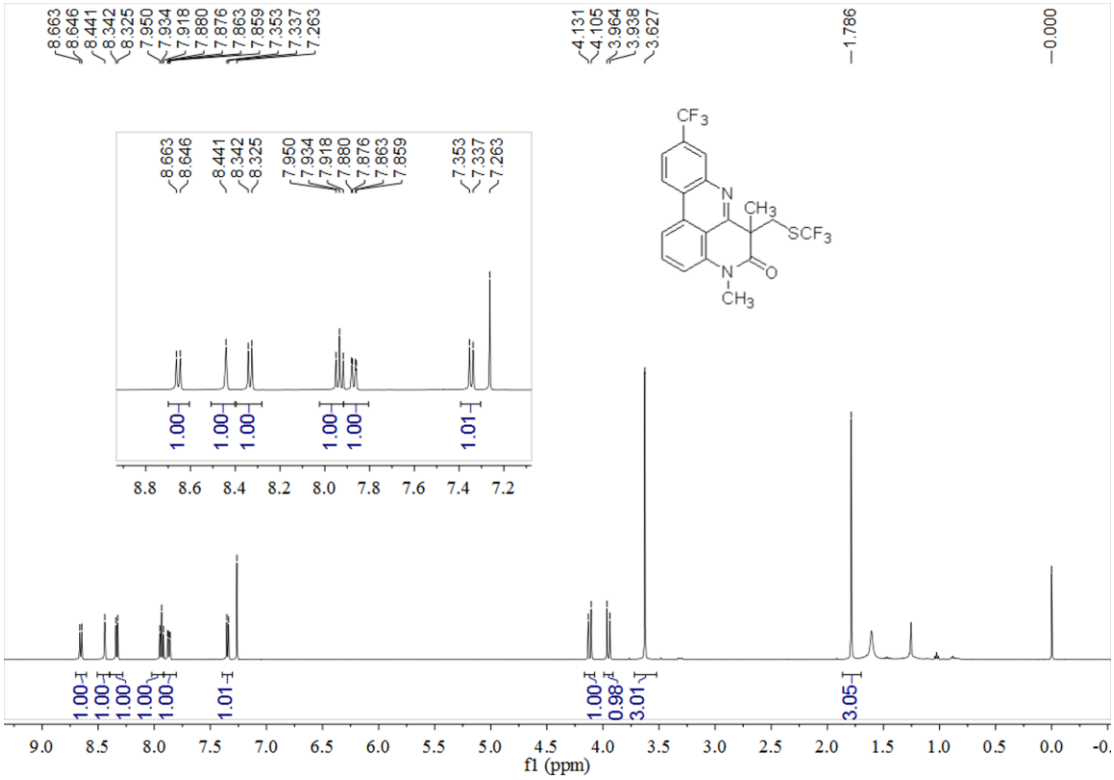
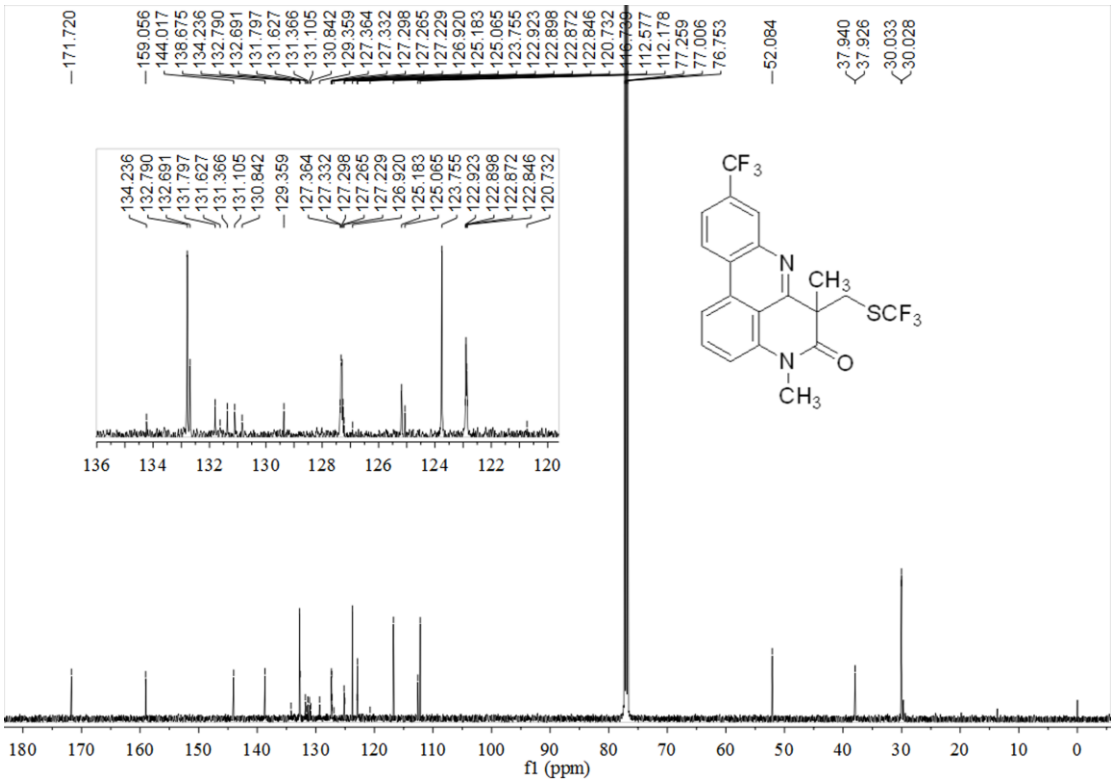
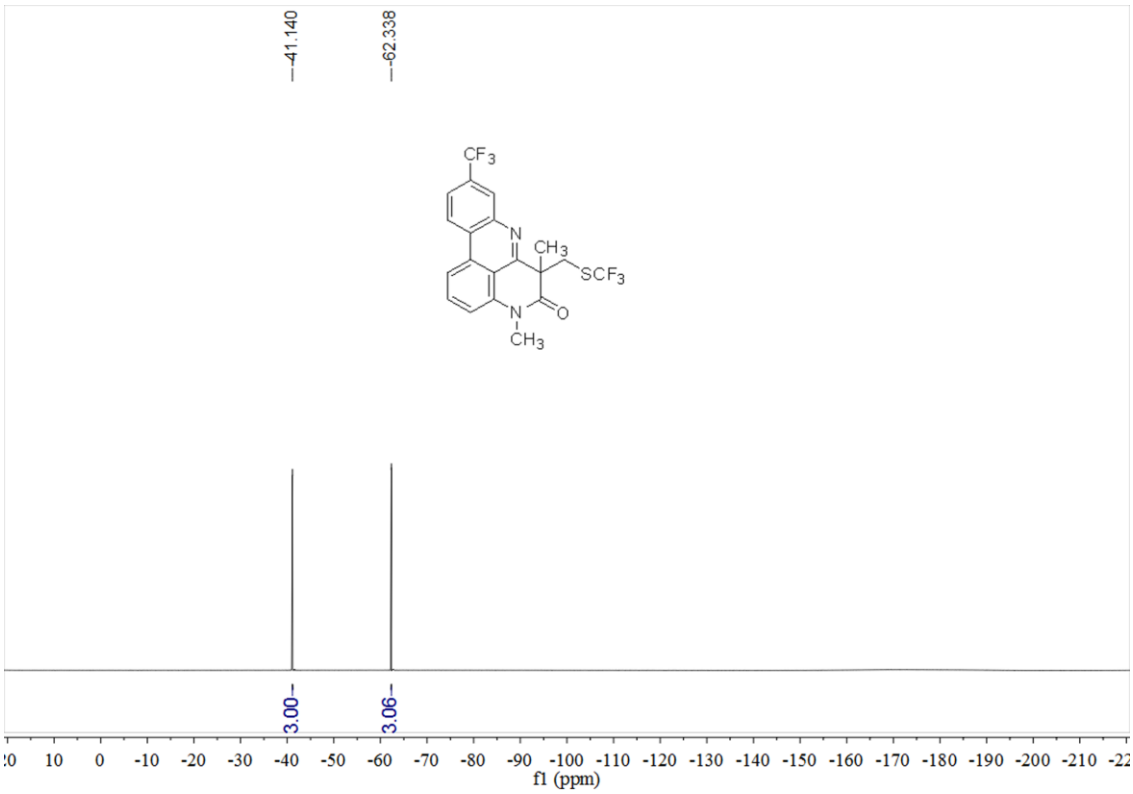
CH3
SCF3
N
O
CH3
180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0
f1 (ppm)


41.059
CN
N
CH3
SCF3
N
O
CH3
10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110 -120 -130 -140 -150 -160 -170 -180 -190 -200 -210
f1 (ppm)

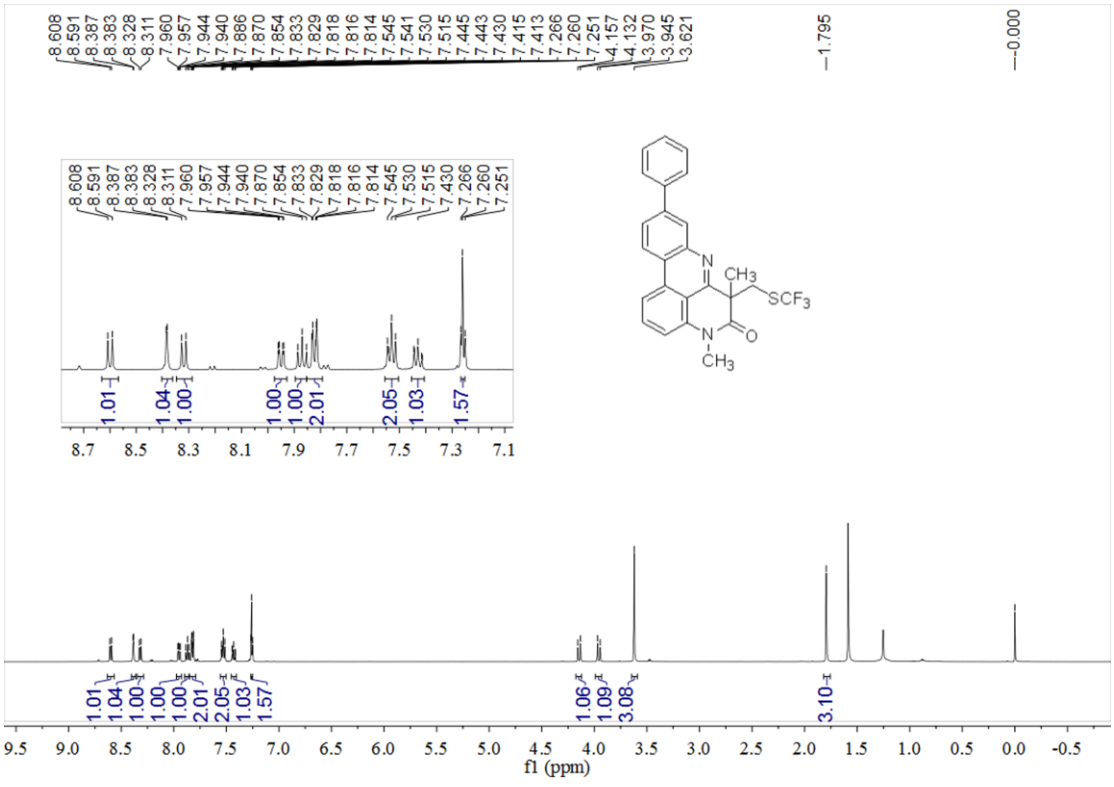
^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3i:**

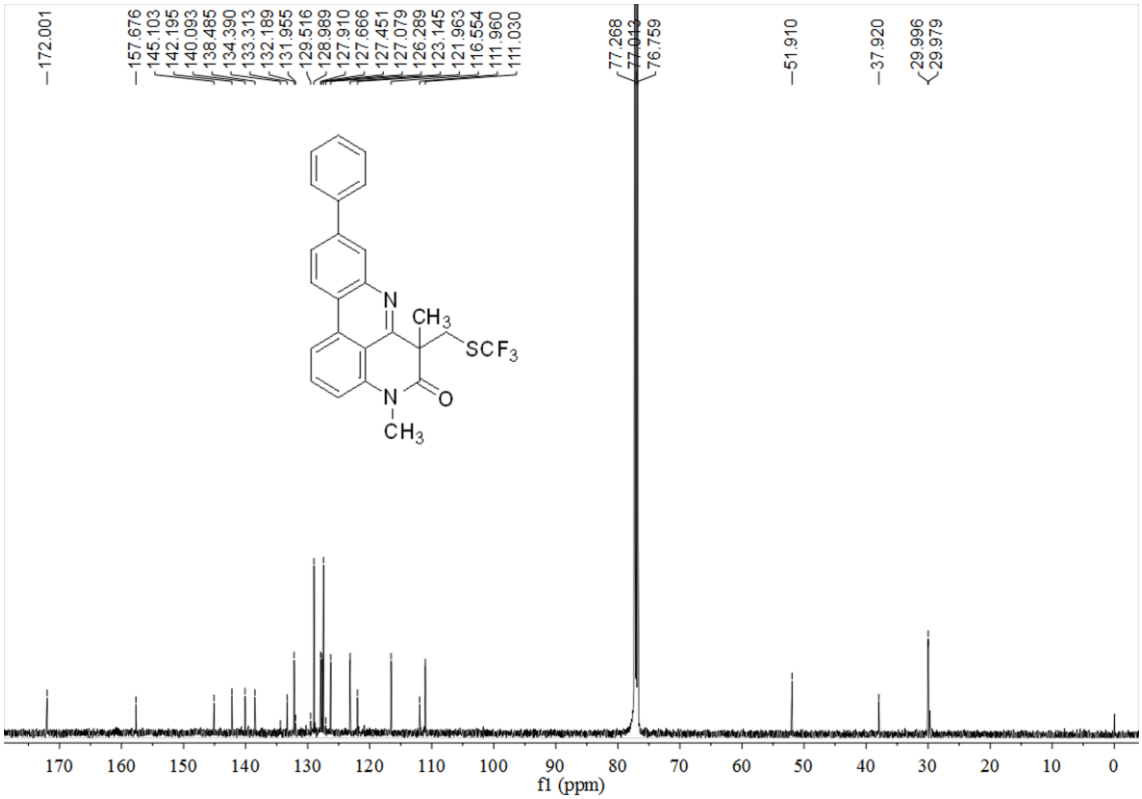






^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3j :**

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140.093
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127.666
127.451
127.079
126.289
123.145
121.963
116.554
111.960
111.030
77.268
77.043
76.759
51.910
37.920
29.996
29.979
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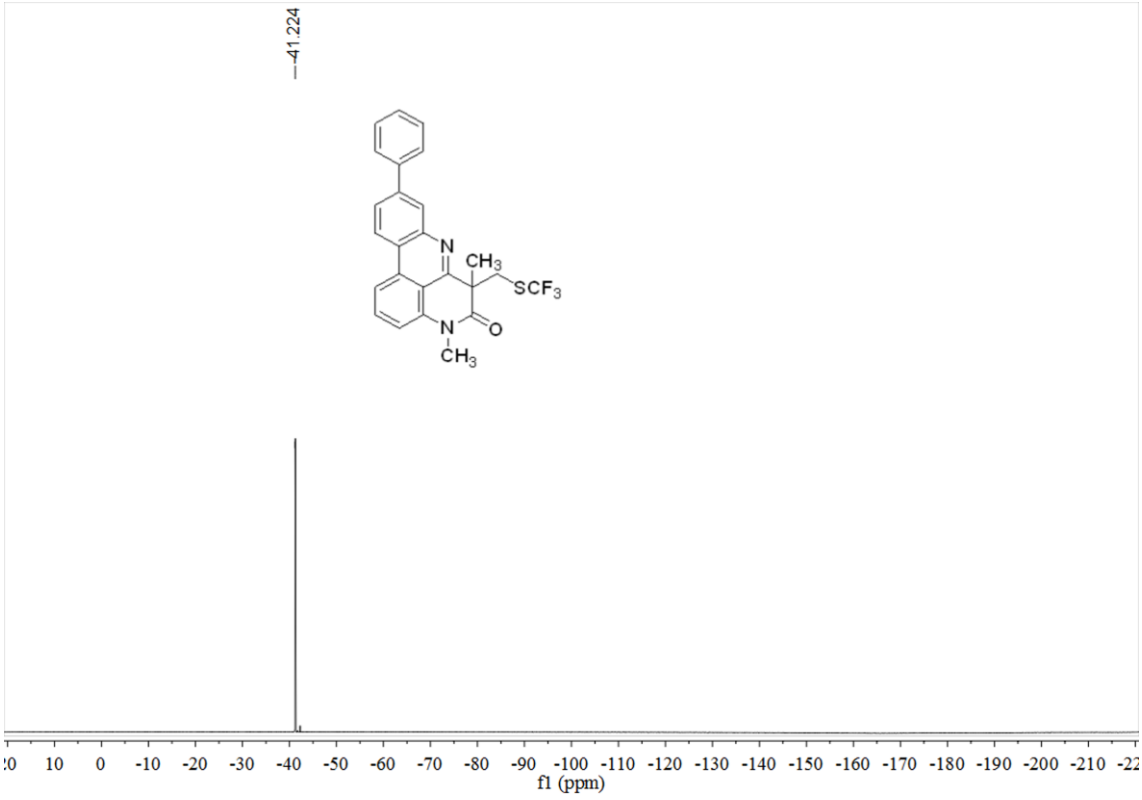
CH3
SCF3
N
O
CH3
170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0
f1 (ppm)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SCF3
N
O
CH3
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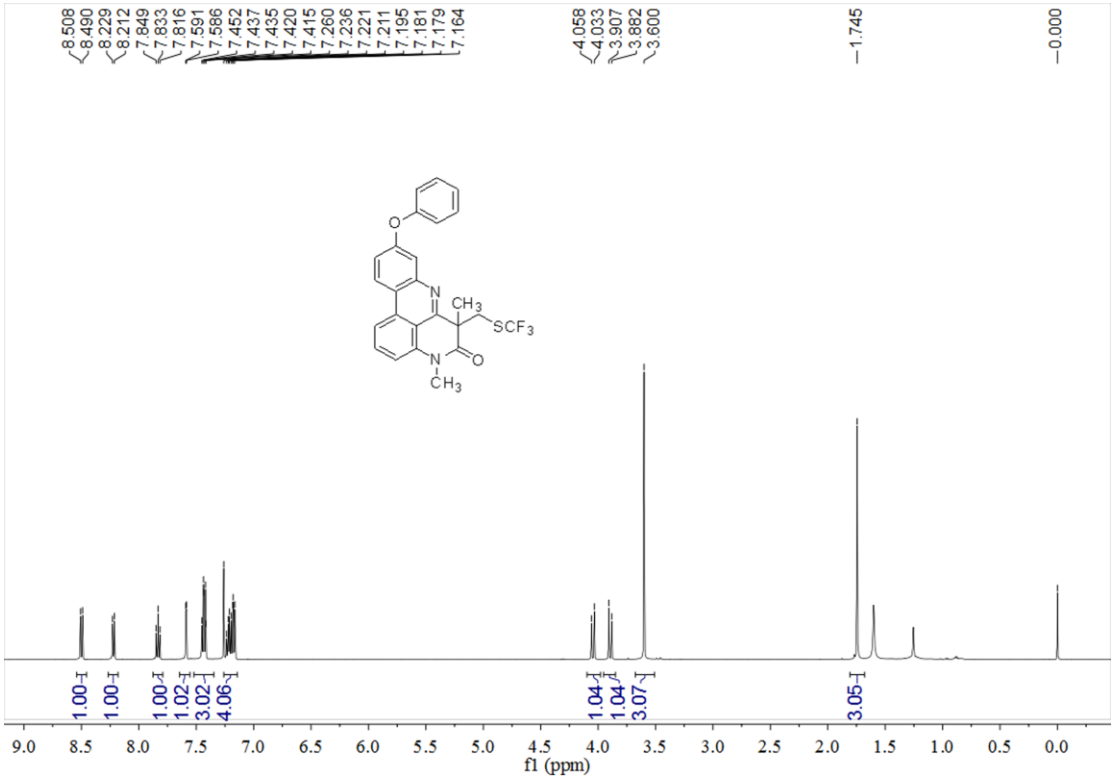
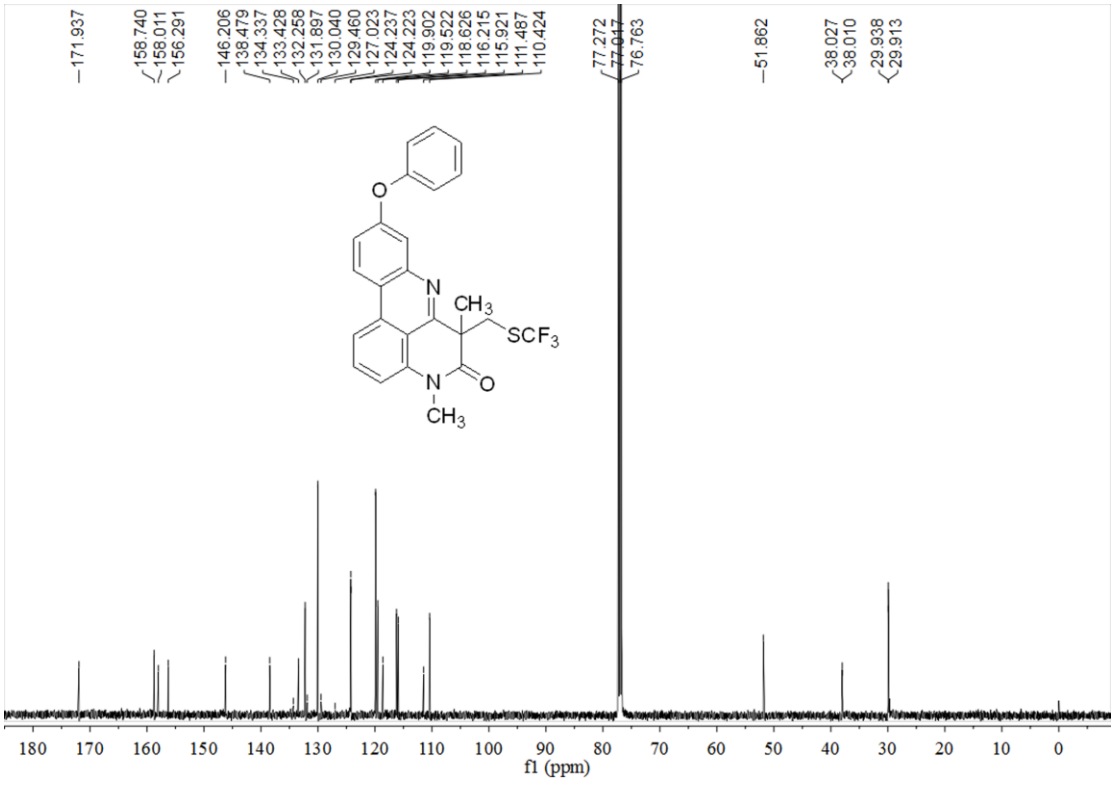
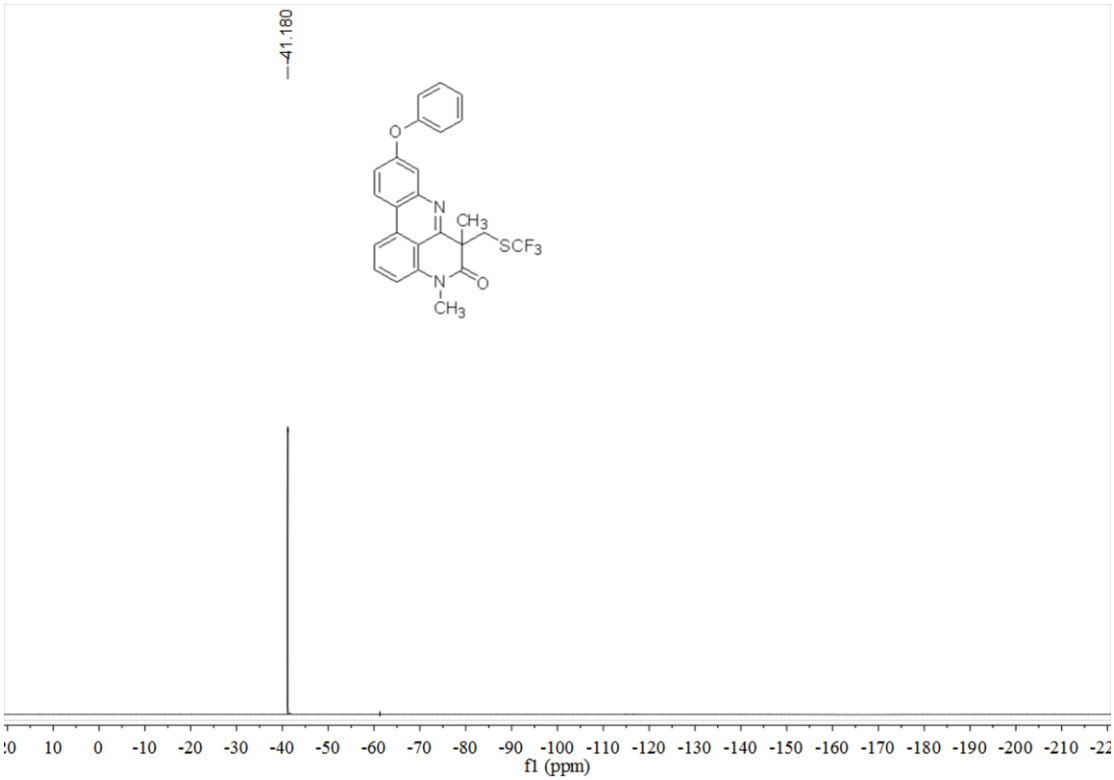
f1 (ppm)

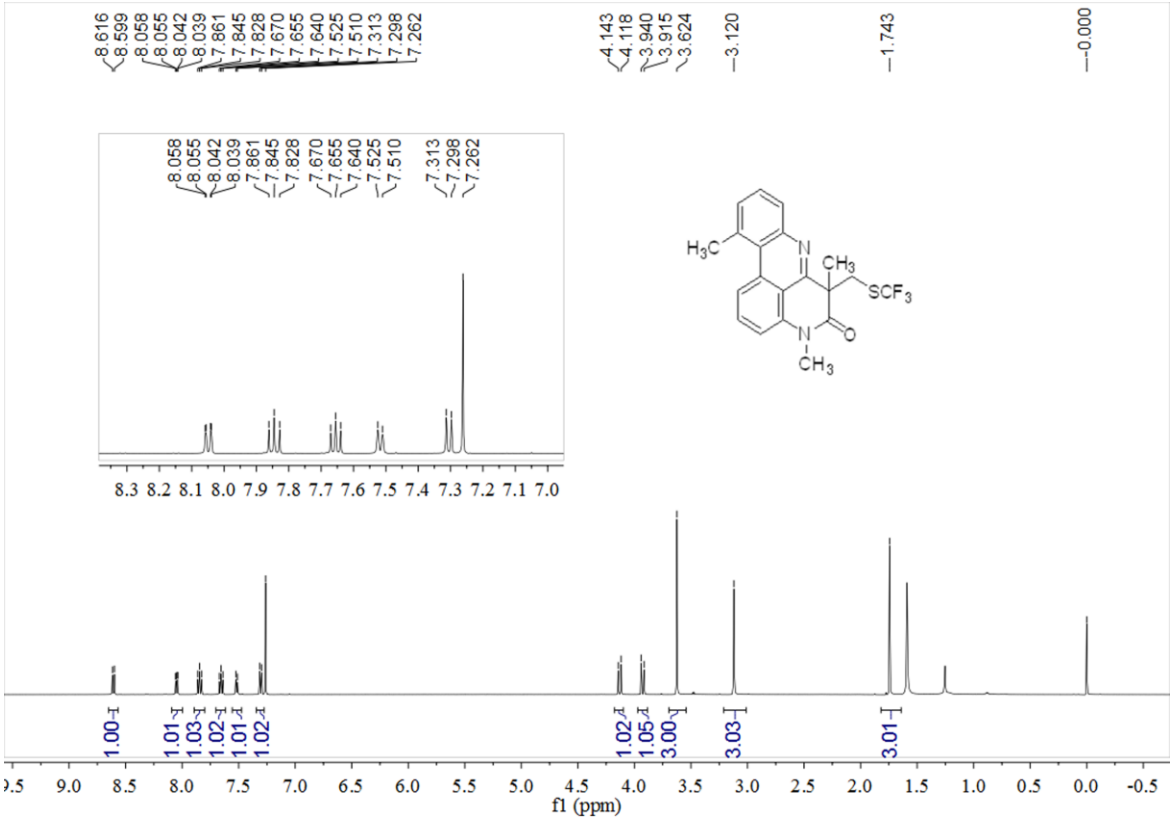
^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3k :**

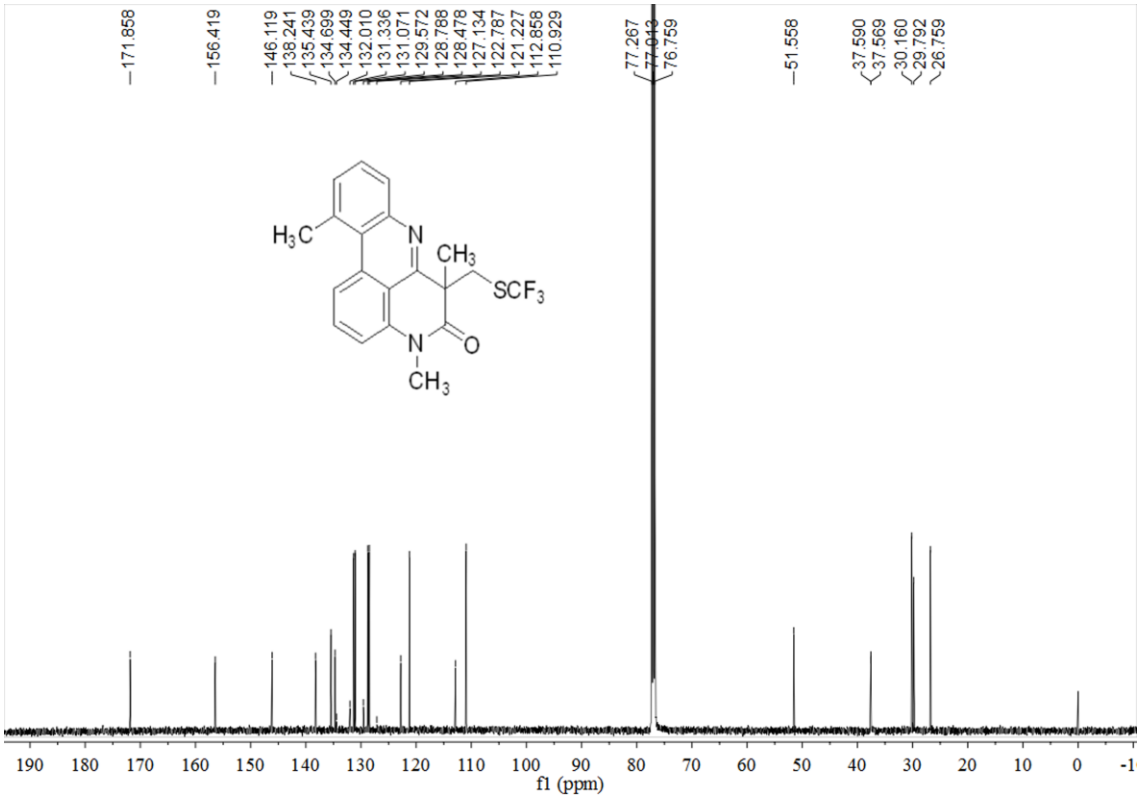






^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3l :**

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156.419
146.119
138.241
135.439
134.699
134.449
132.010
131.336
131.071
129.572
128.788
128.478
127.134
122.787
121.227
112.858
110.929
77.267
77.043
76.759
51.558
37.590
37.569
30.160
29.792
26.759
H3C
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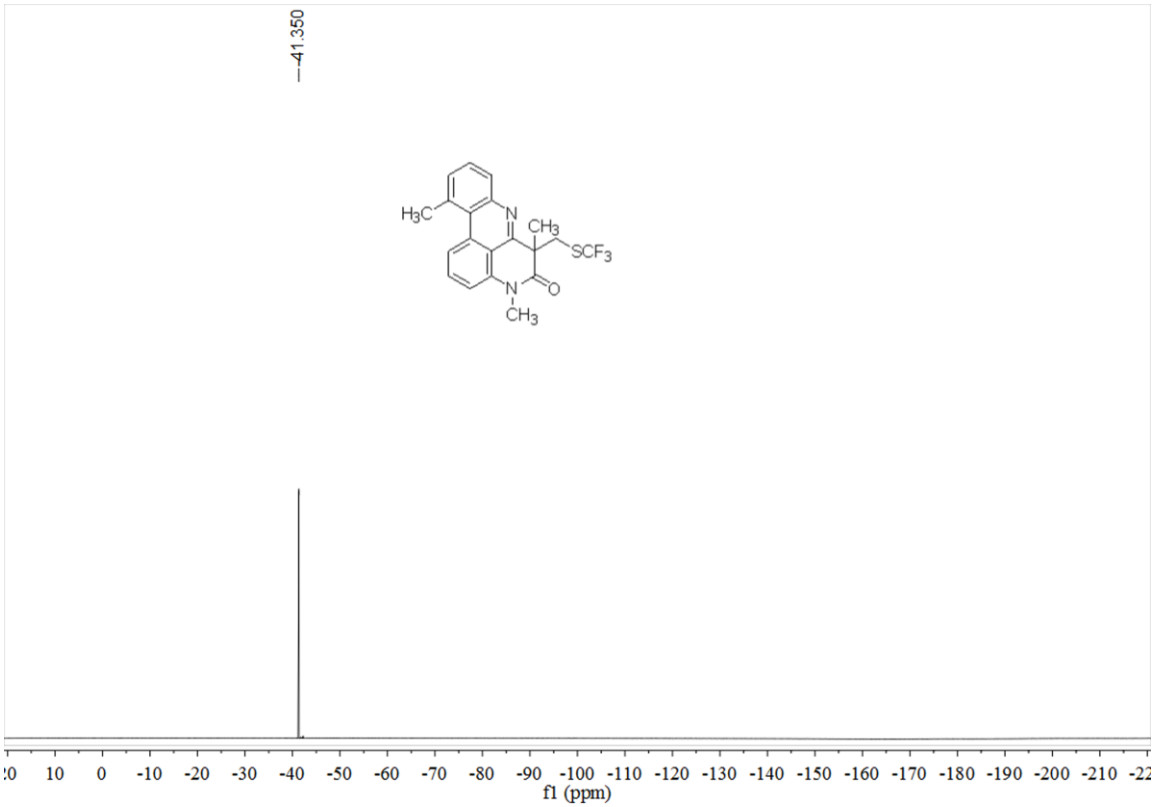
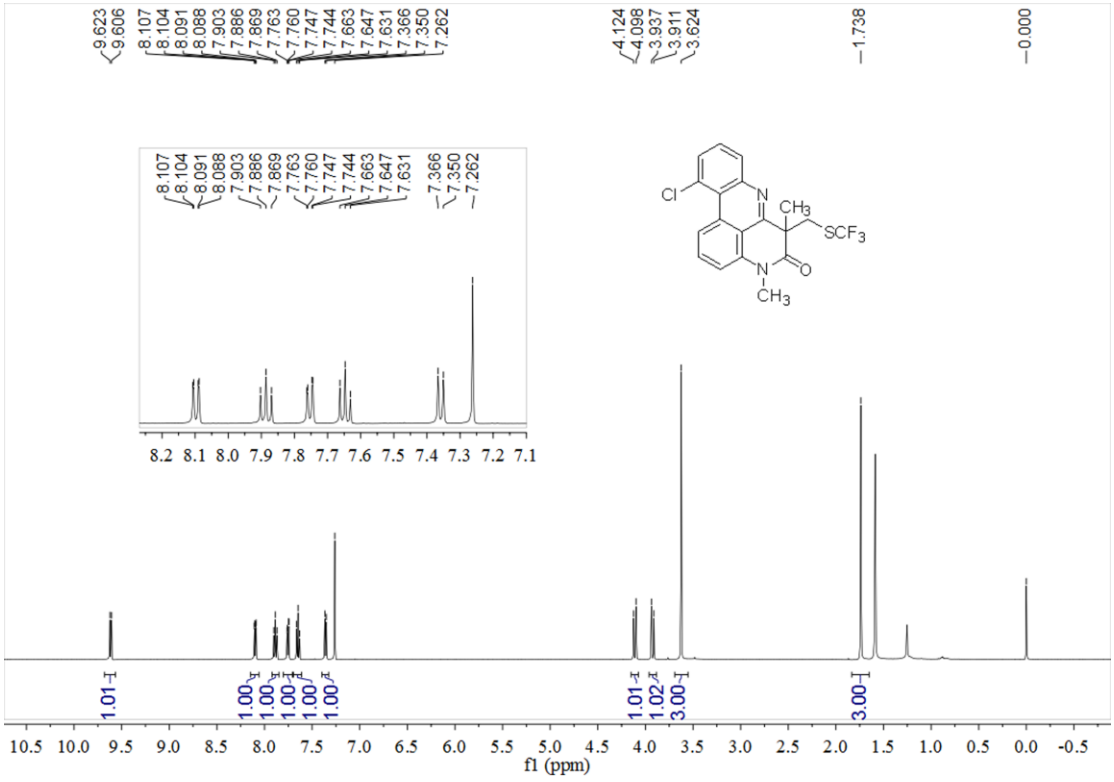
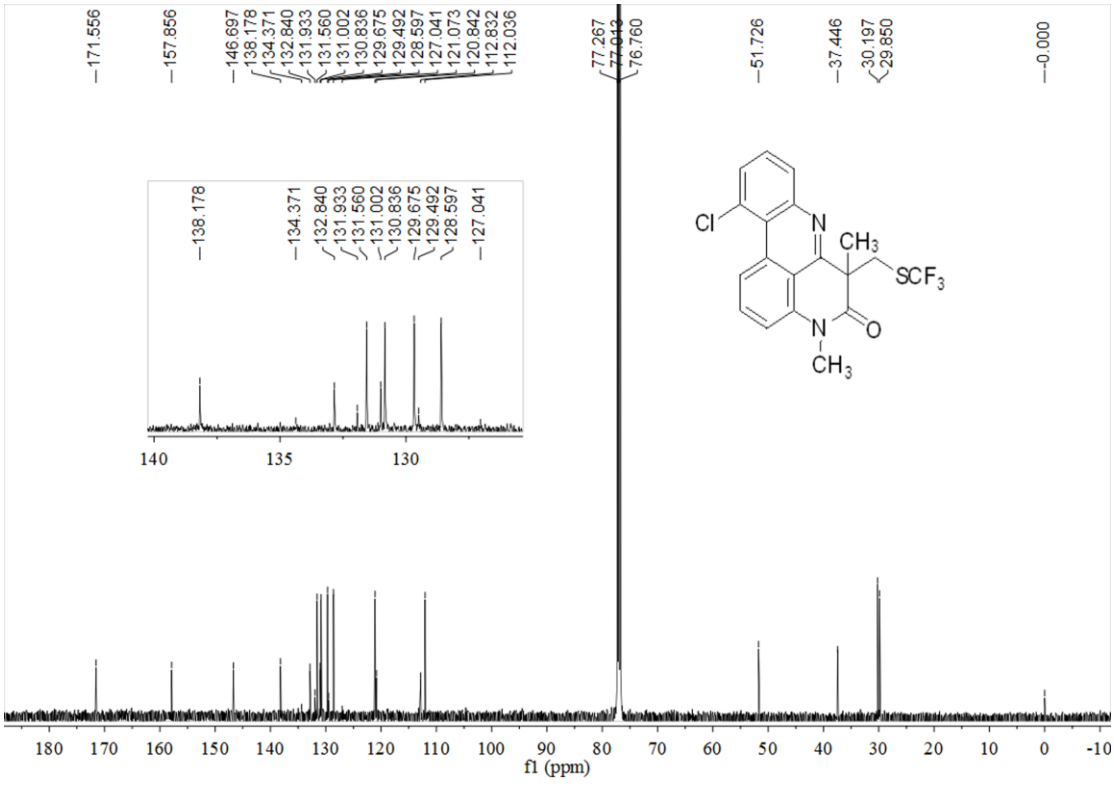
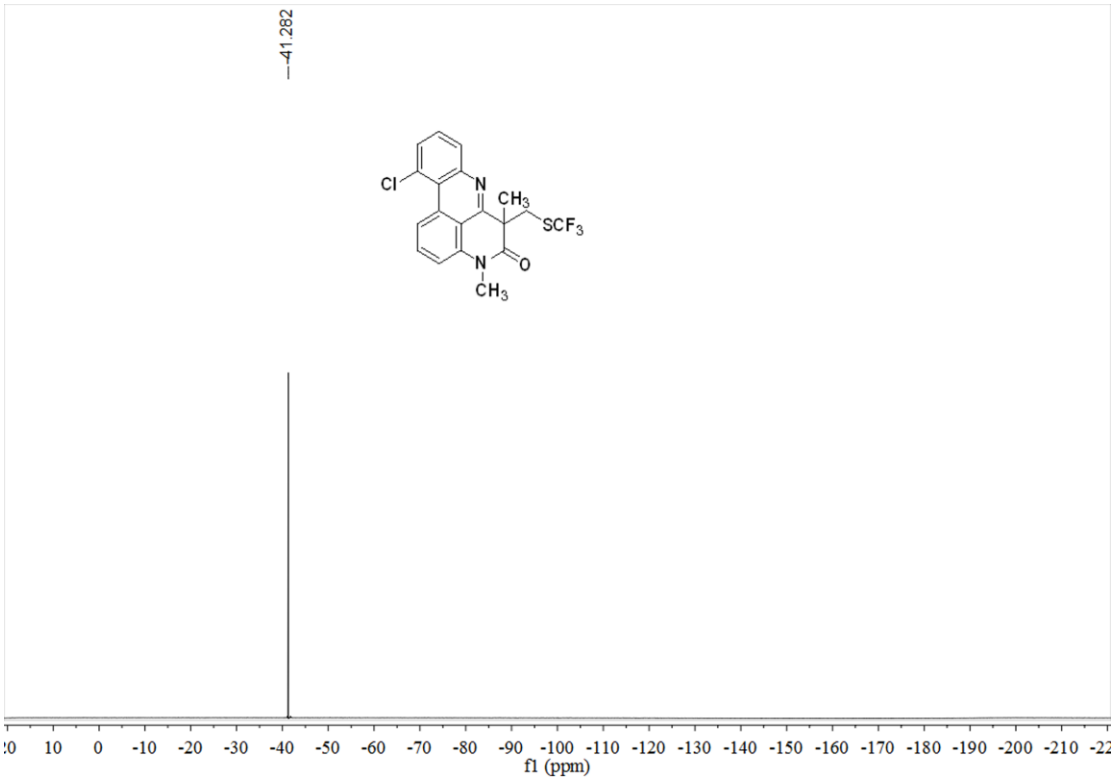
CH3
SCF3
N
O
CH3
190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -1
f1 (ppm)


41.350
H3C
N
CH3
SCF3
N
O
CH3
:0 10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110 -120 -130 -140 -150 -160 -170 -180 -190 -200 -210 -22
f1 (ppm)

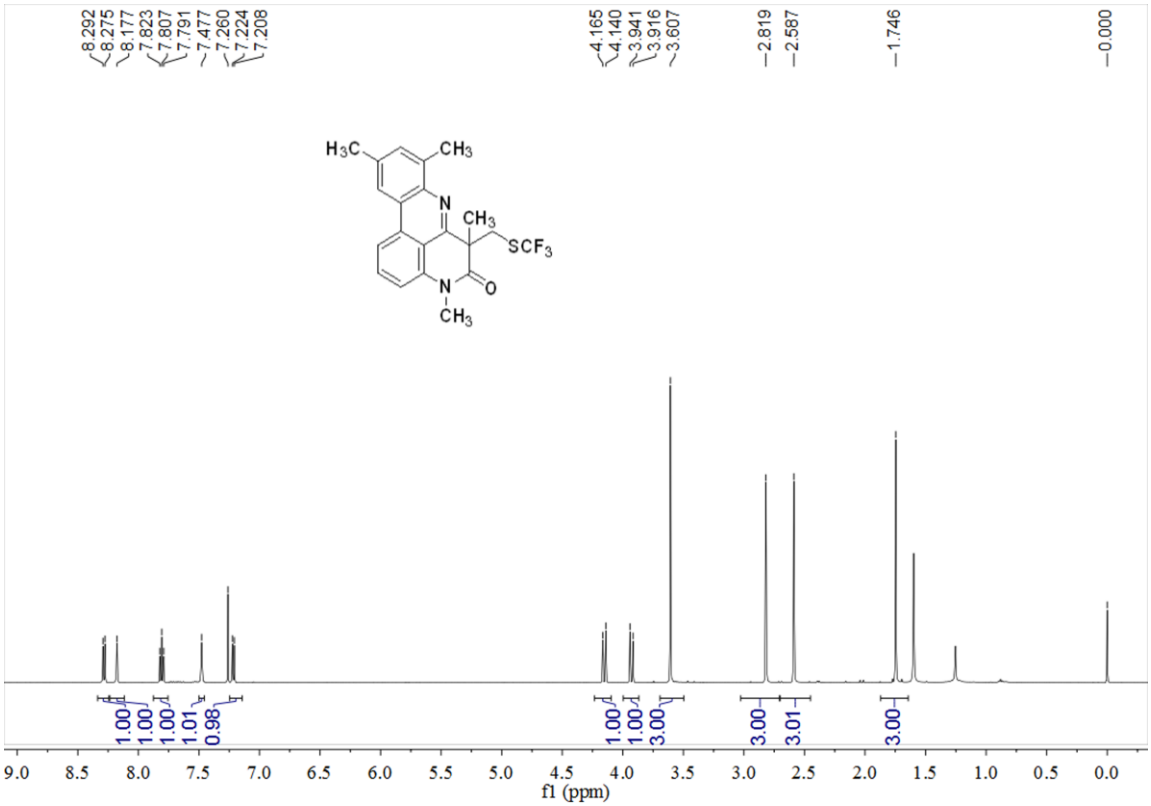
^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3m :**

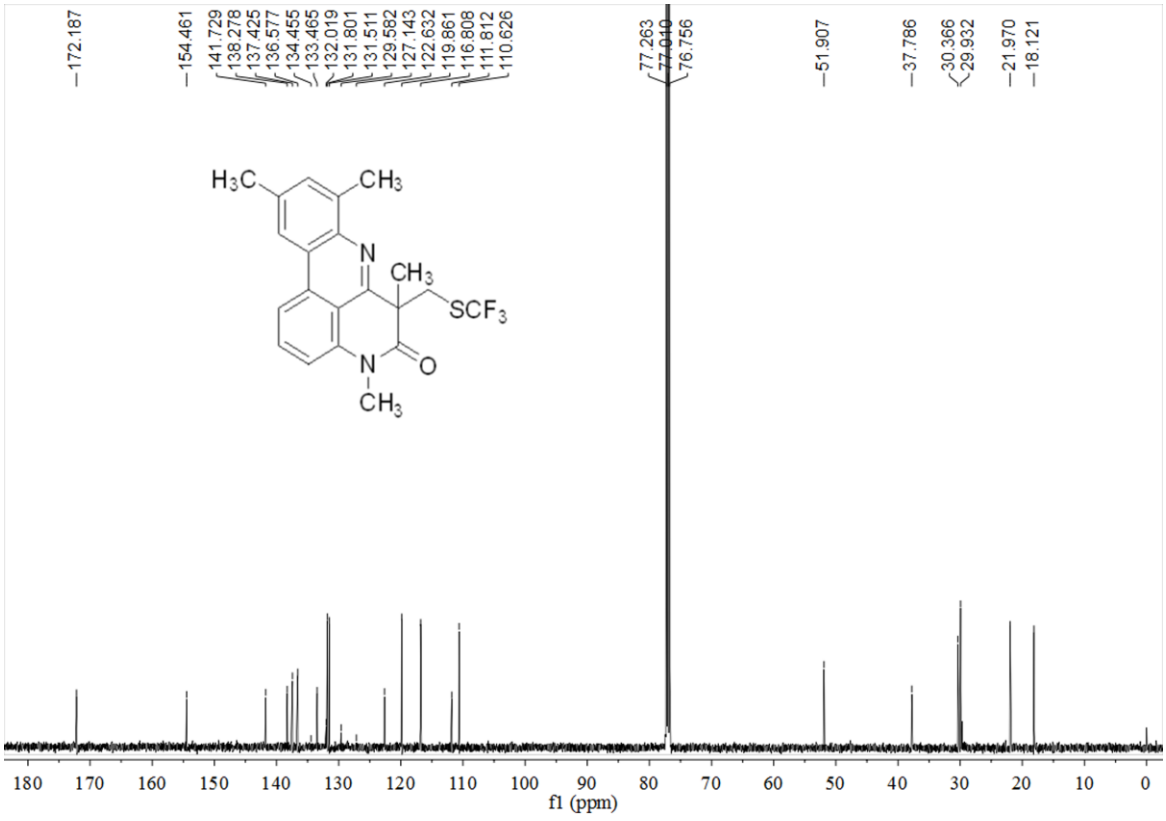


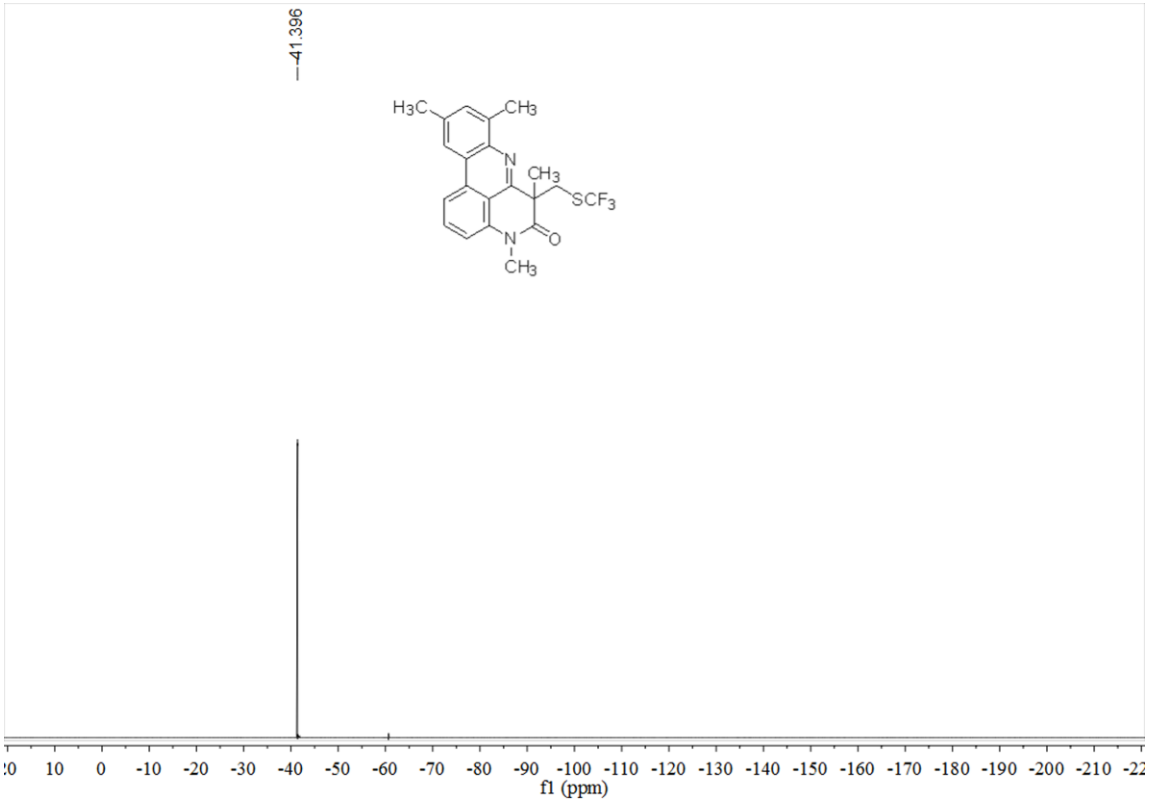




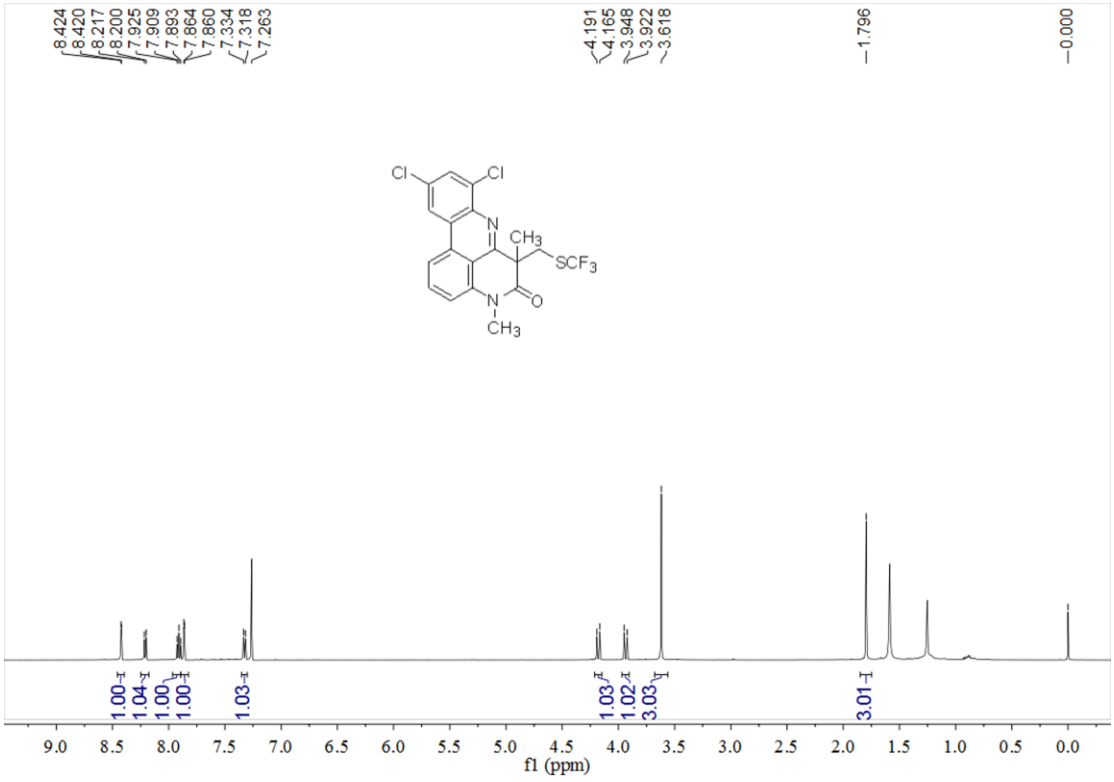
^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3n :**

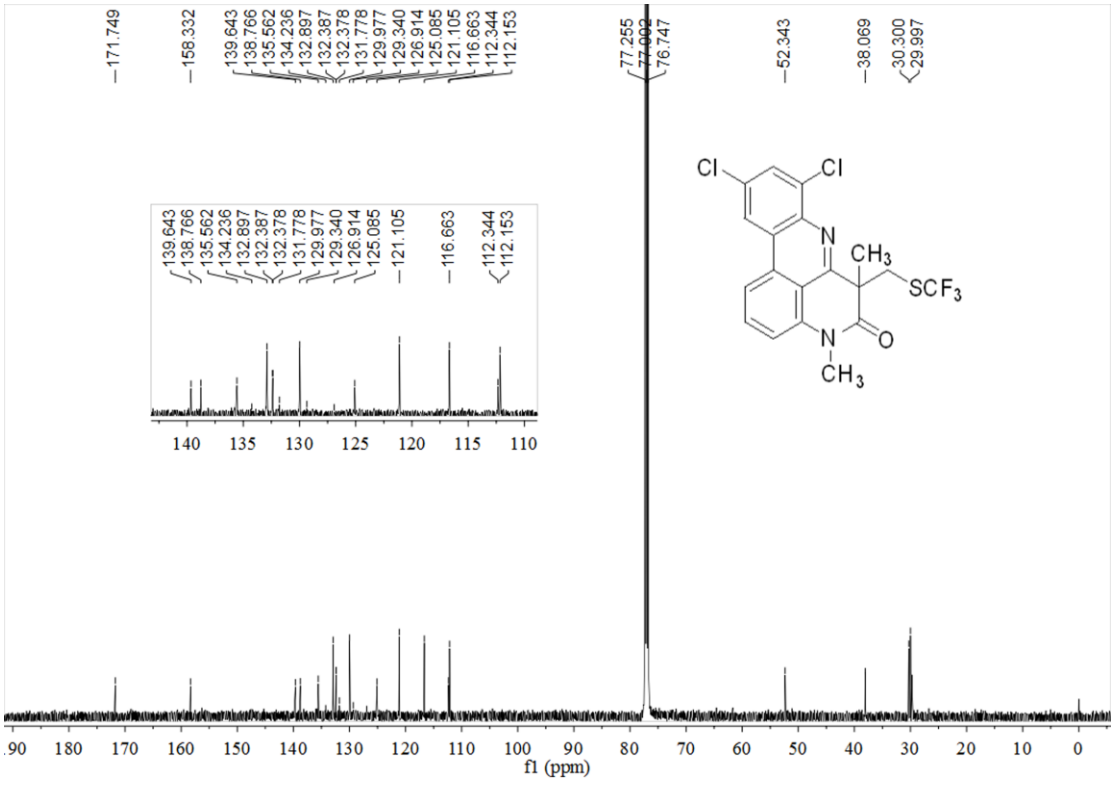


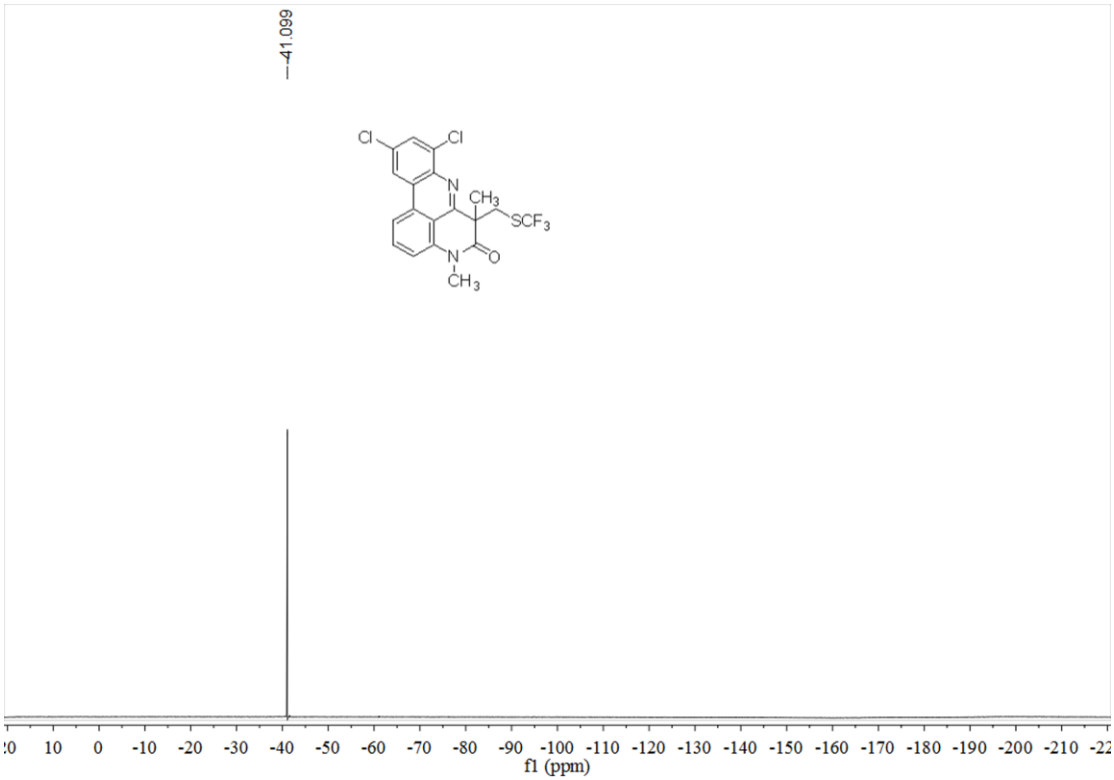

172.187
154.461
141.729
138.278
137.425
136.577
134.455
133.465
132.019
131.801
131.511
129.582
127.143
122.632
119.861
116.808
111.812
110.626
77.263
77.040
76.756
51.907
37.786
30.366
29.932
21.970
18.121
H3C
CH3
N
CH3
SCF3
N
O
CH3
180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0
f1 (ppm)


41.396
H3C
CH3
N
CH3
SCF3
N
O
CH3
10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110 -120 -130 -140 -150 -160 -170 -180 -190 -200 -210
f1 (ppm)

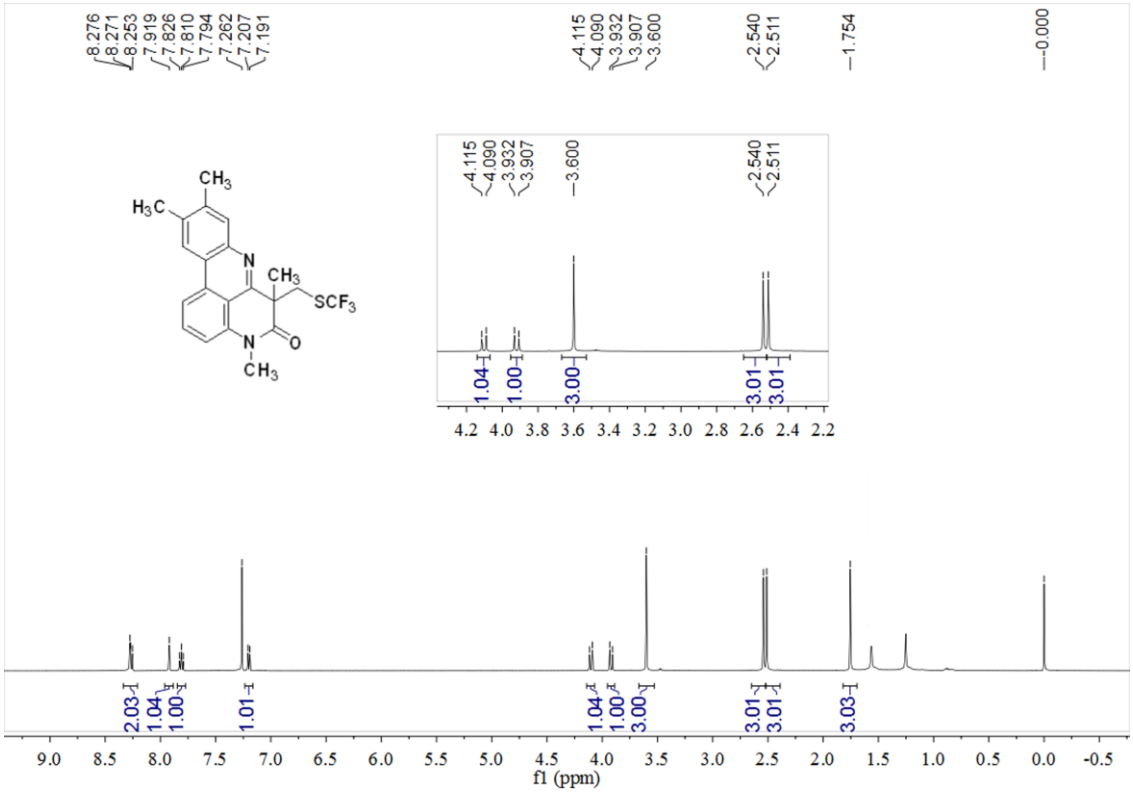
^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3o:**

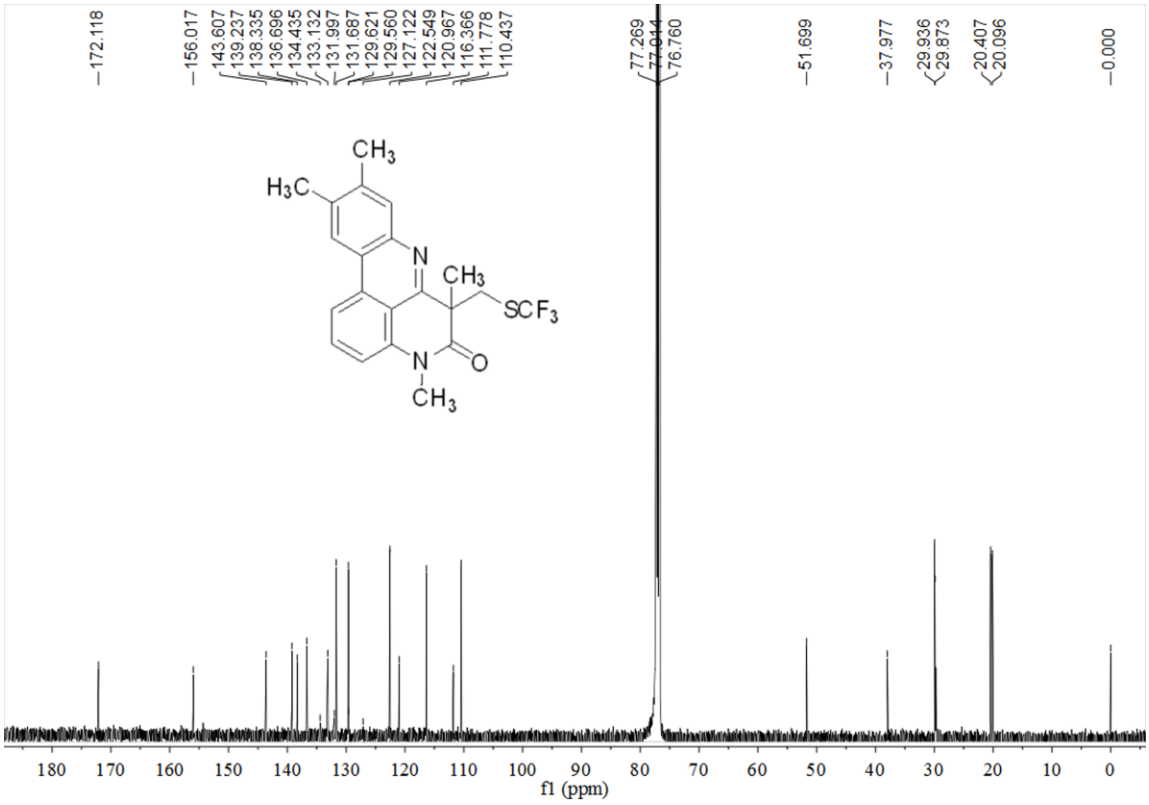


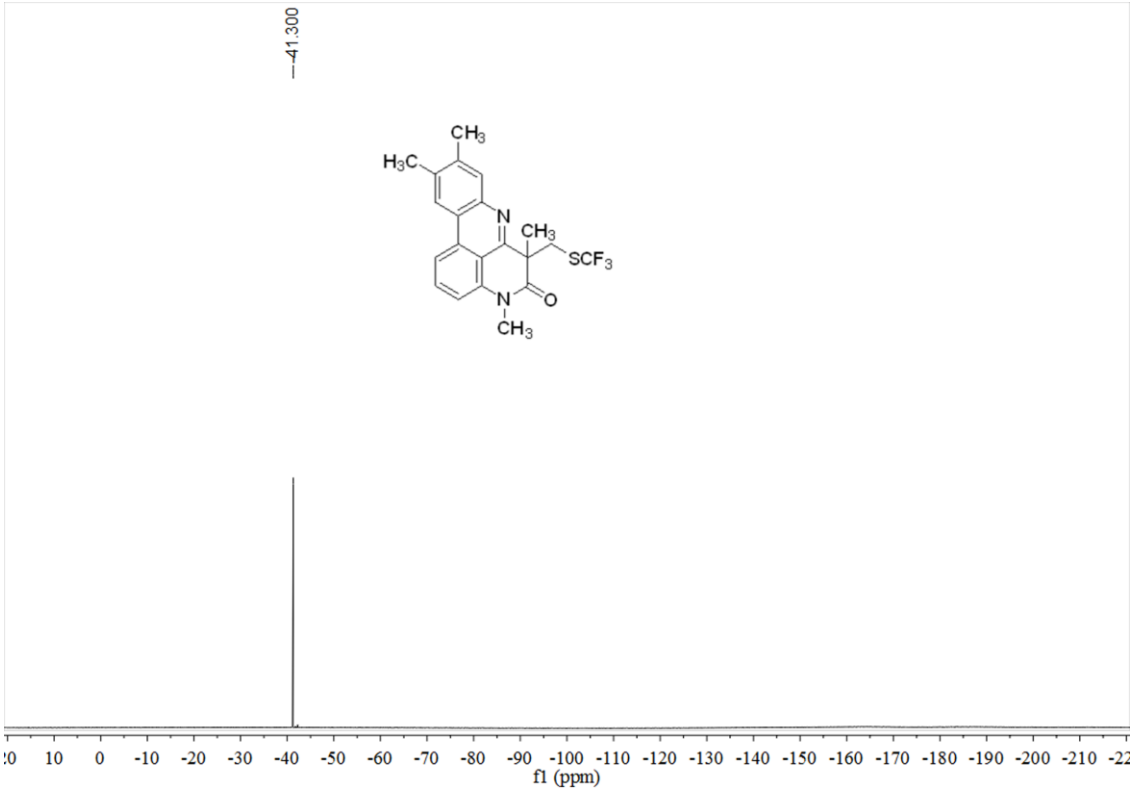




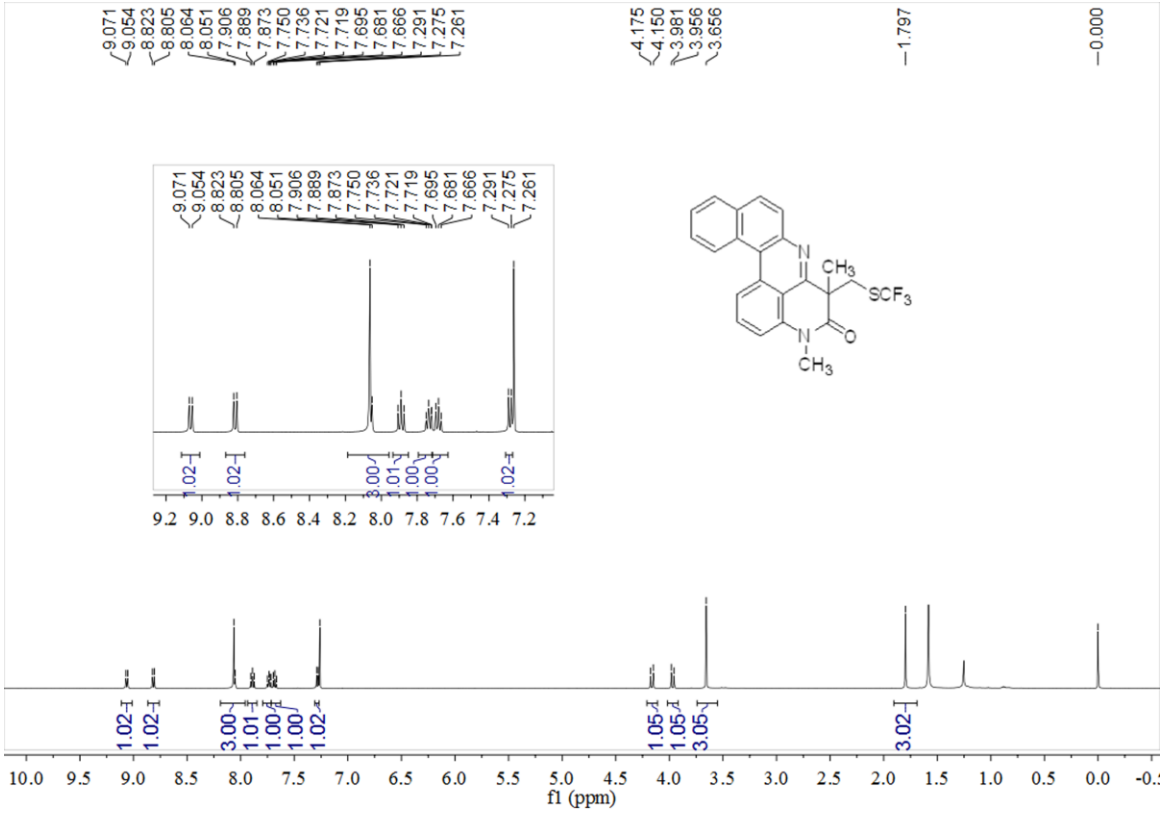
^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3p :**

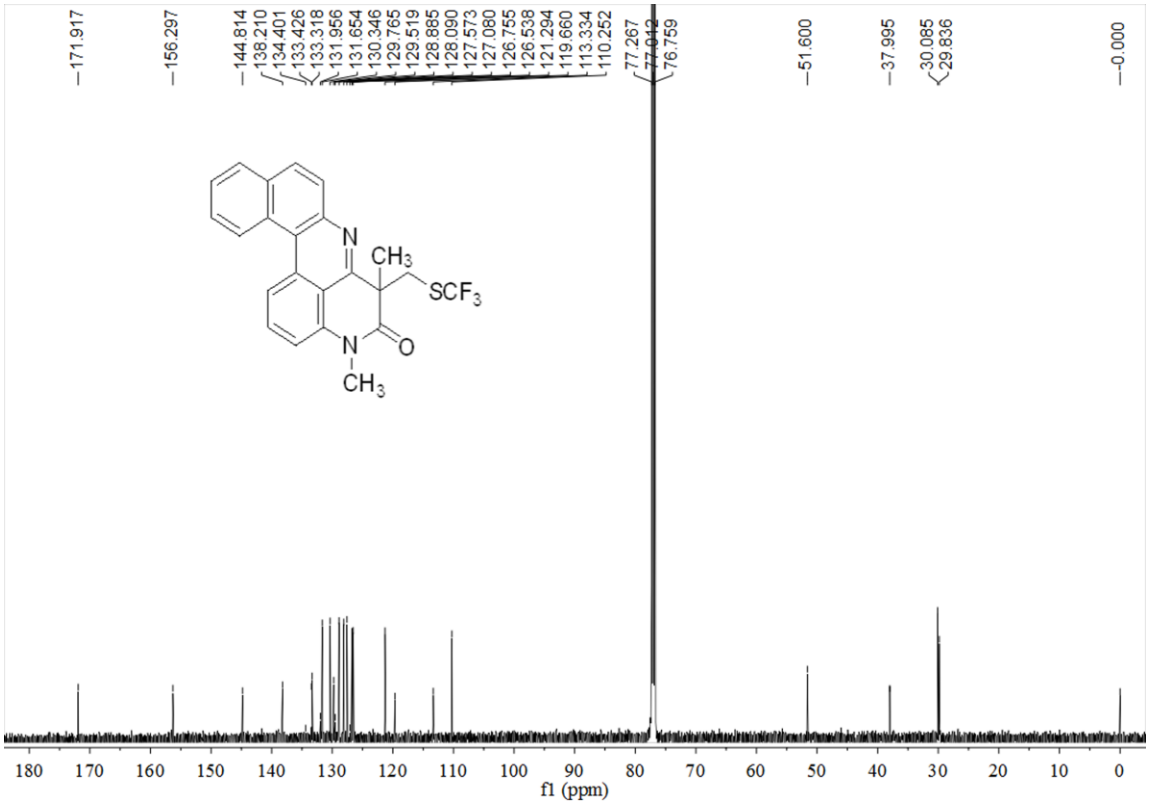


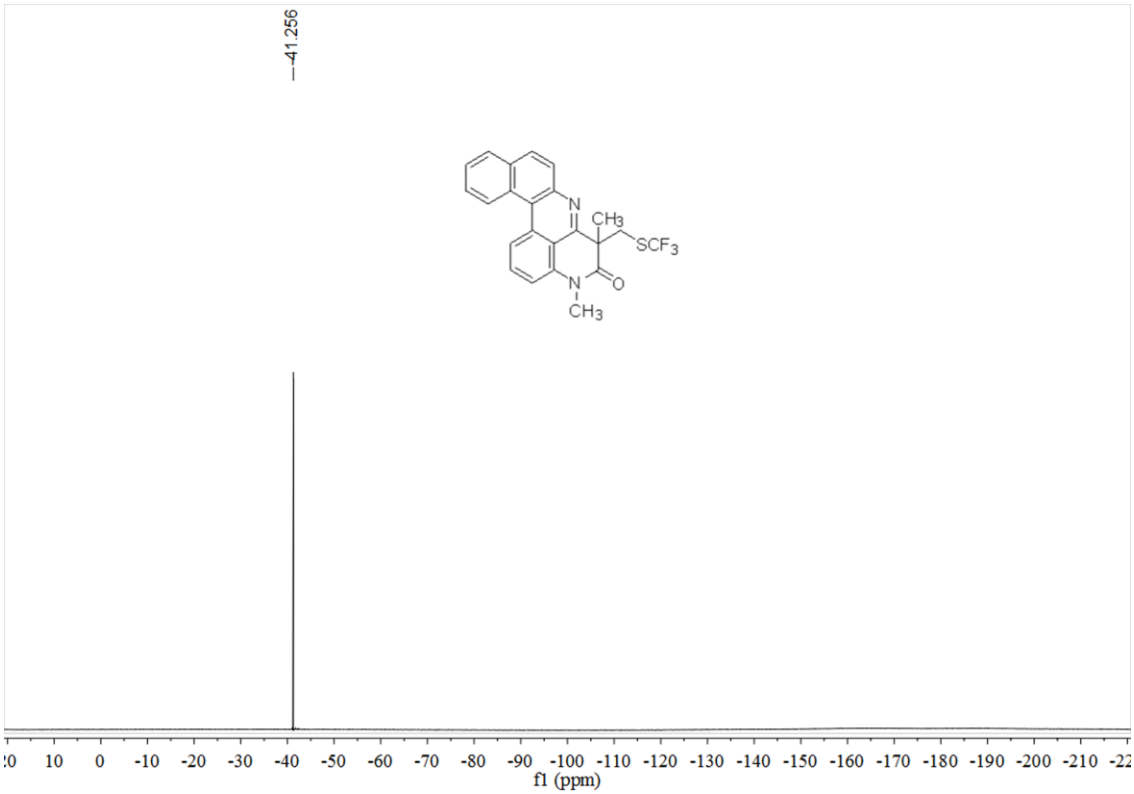

172.118
156.017
143.607
139.237
138.335
136.696
134.435
133.132
131.997
131.687
129.621
129.560
127.122
122.549
120.967
116.366
111.778
110.437
77.269
77.044
76.760
51.699
37.977
29.936
29.873
20.407
20.096
0.000
CH3
H3C
N
CH3
SCF3
N
O
CH3
180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0
f1 (ppm)


41.300
CH3
H3C
N
CH3
SCF3
N
O
CH3
10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110 -120 -130 -140 -150 -160 -170 -180 -190 -200 -210
f1 (ppm)

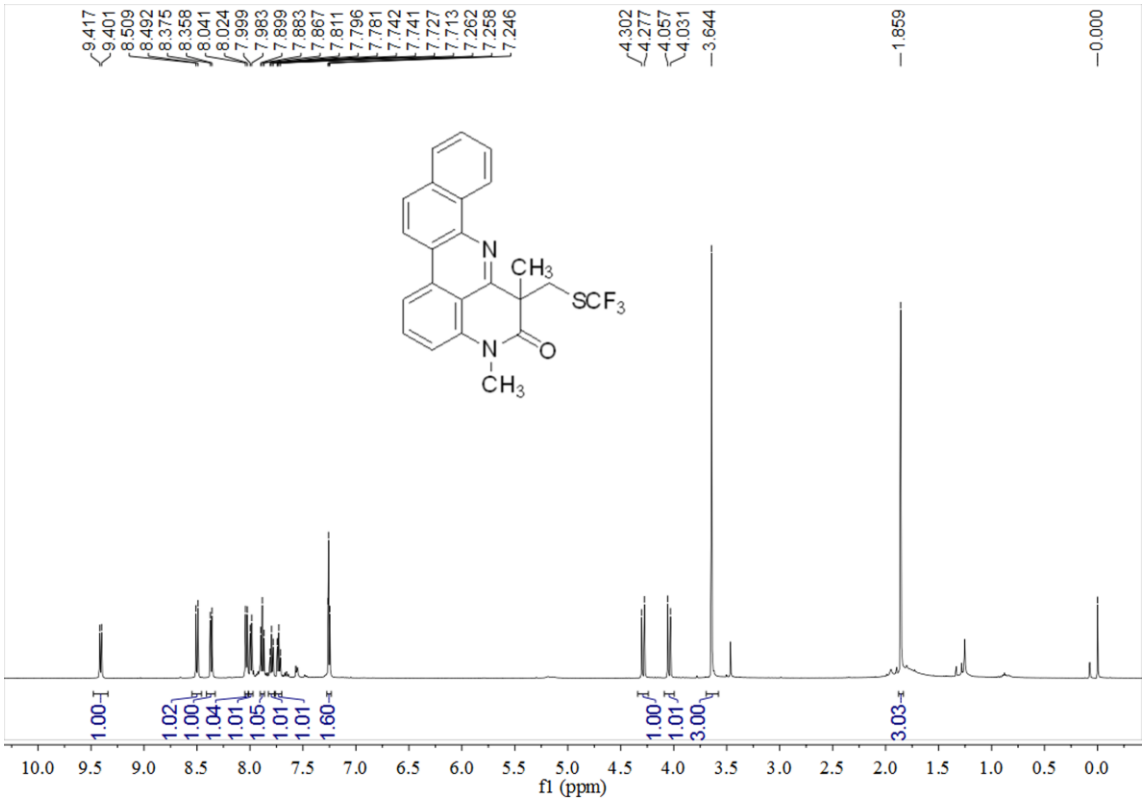
^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3q:**

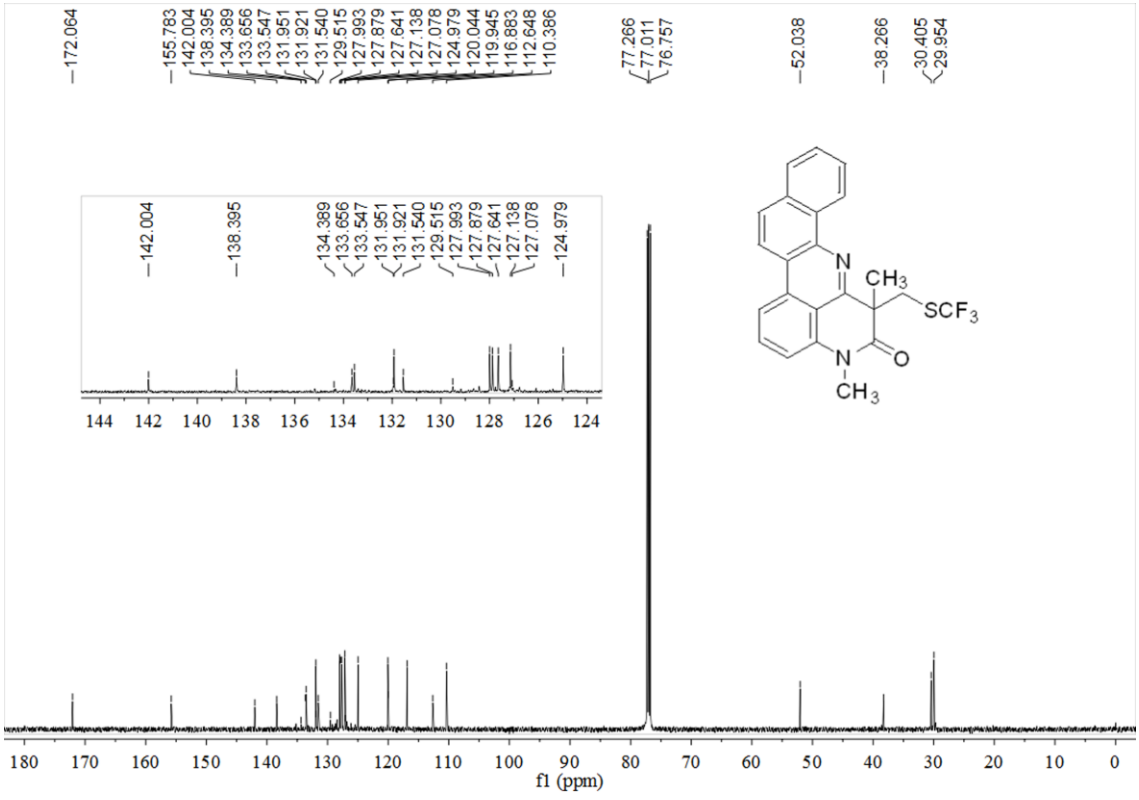


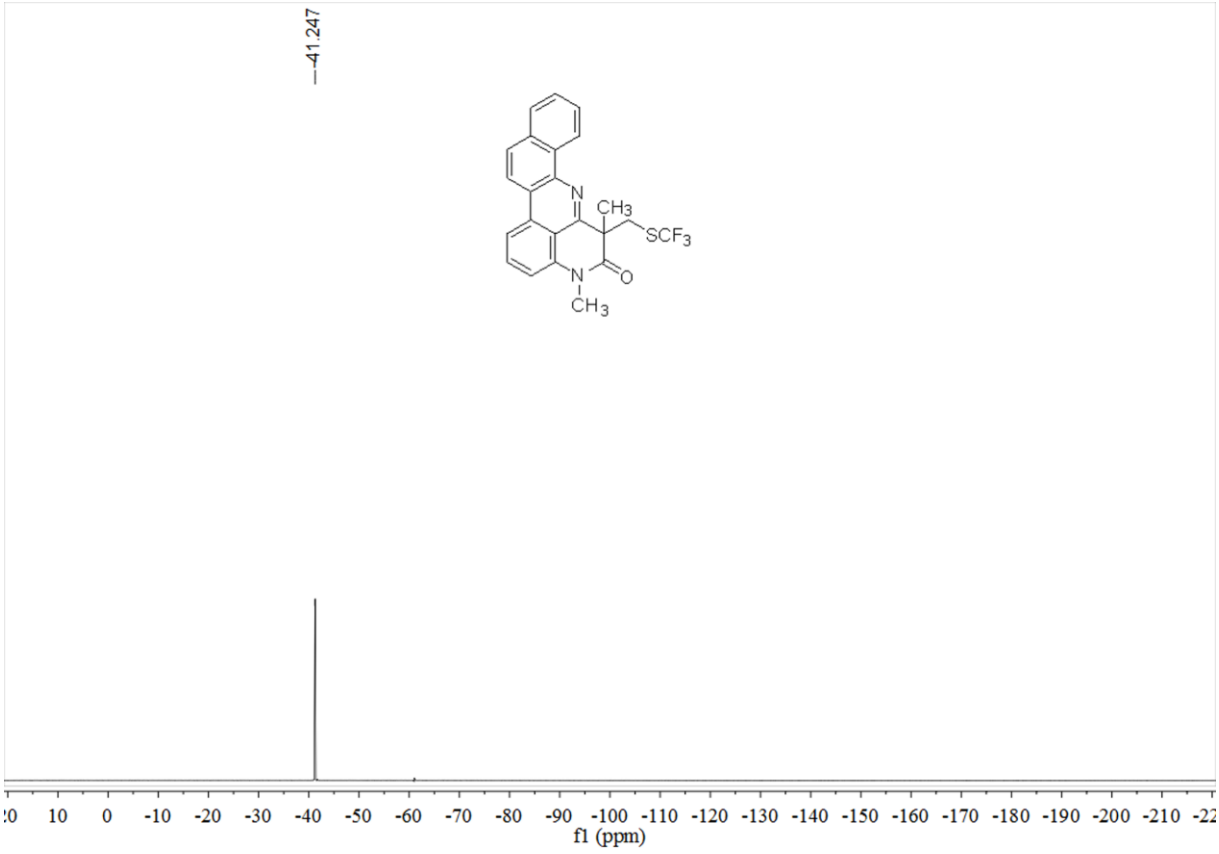




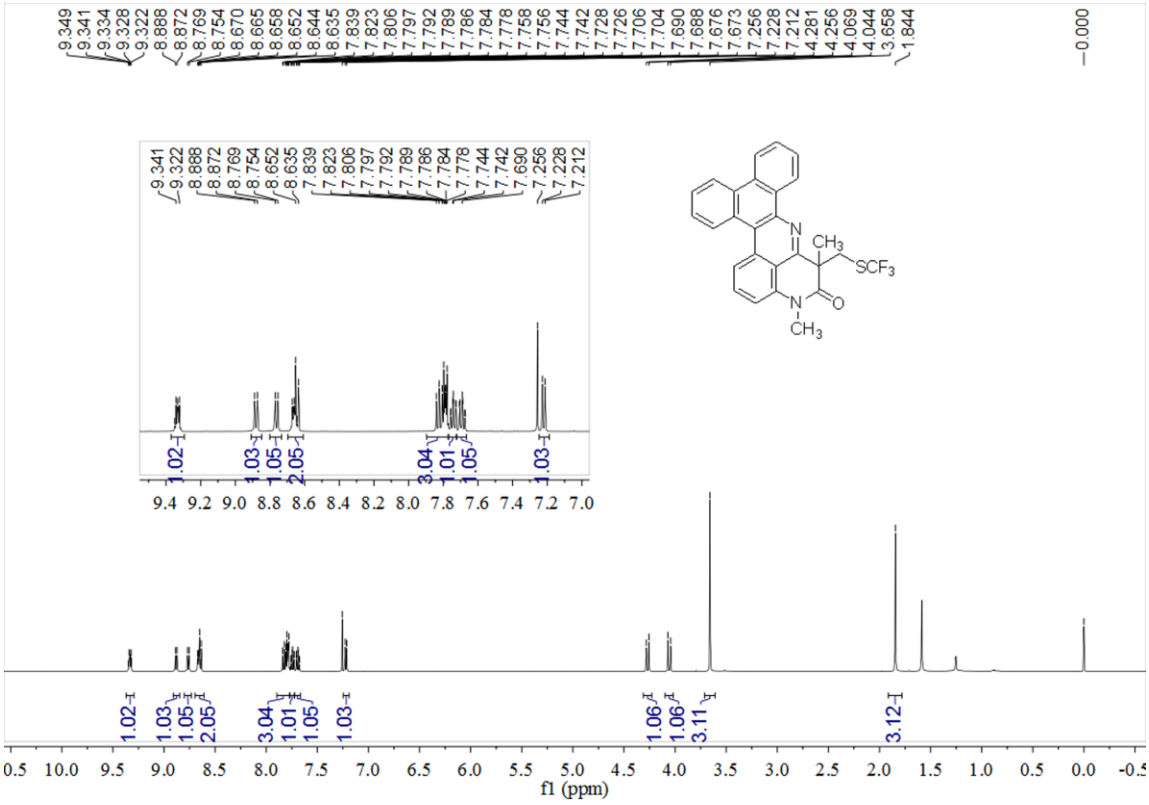
^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3r :**

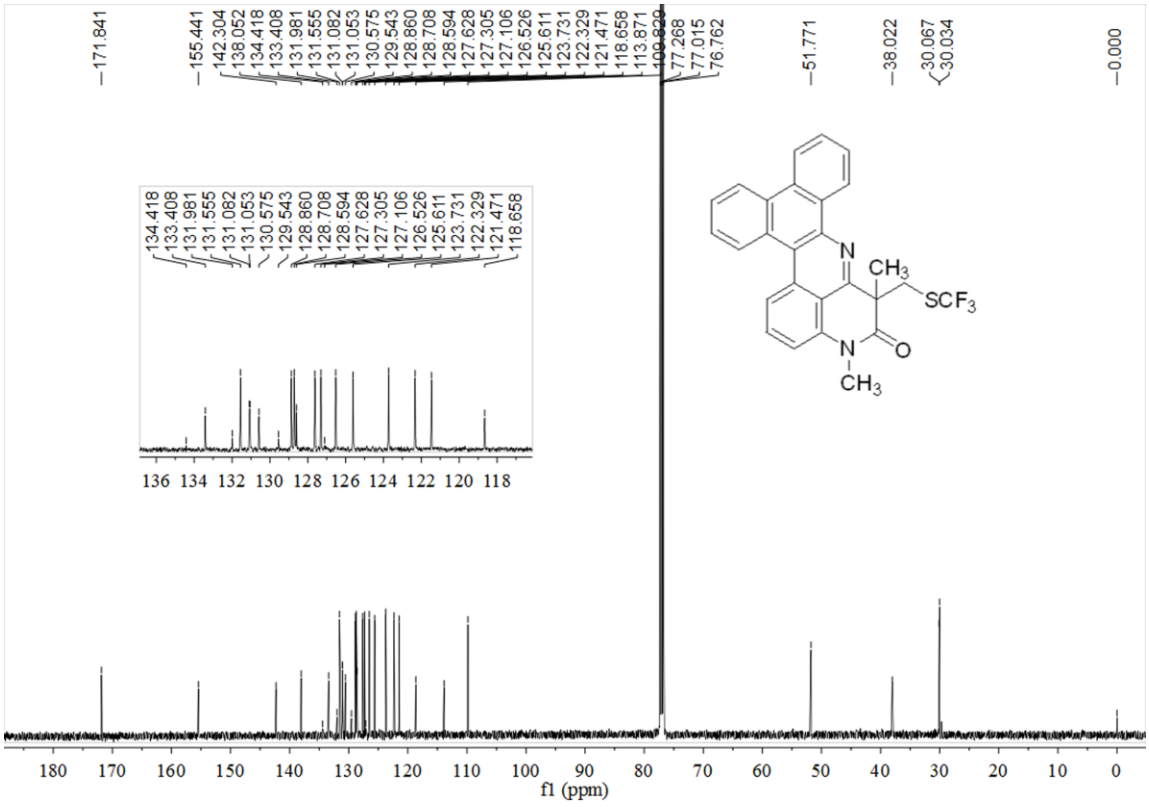


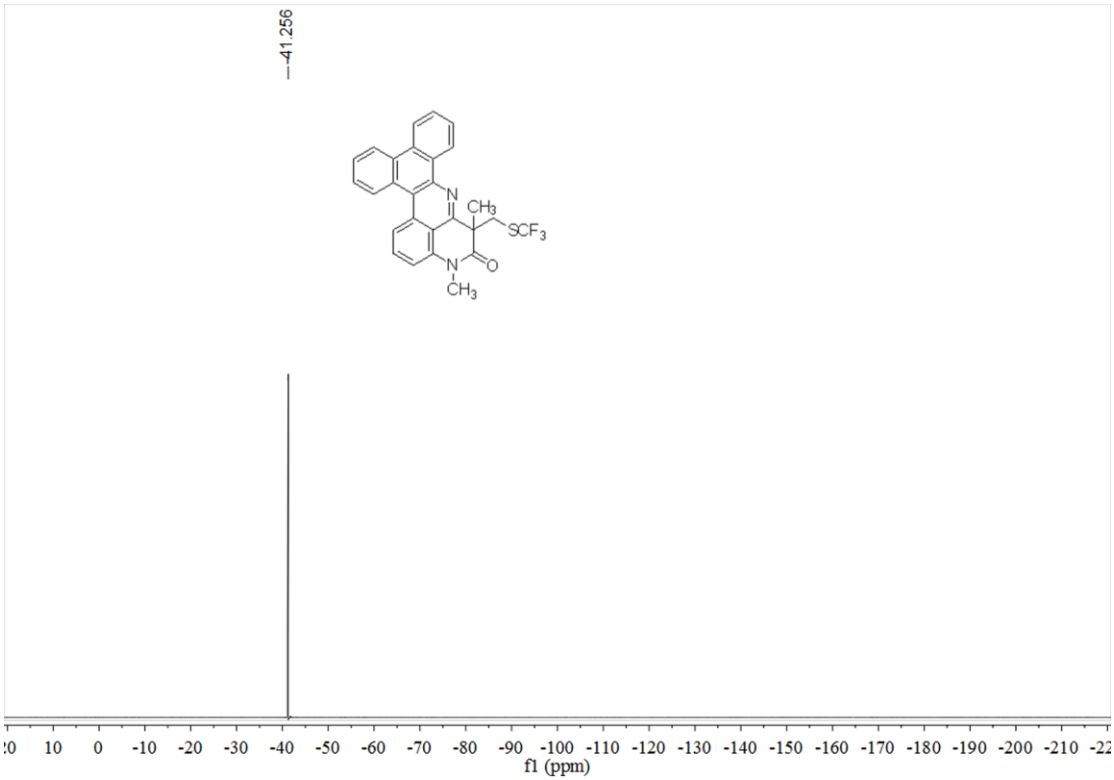

172.064
155.783
142.004
138.395
134.389
133.656
133.547
131.951
131.921
131.540
129.515
127.993
127.879
127.641
127.138
127.078
124.979
120.044
119.945
116.883
112.648
110.386
77.266
77.011
76.757
52.038
38.266
30.405
29.954
N
CH3
SCF3
N
O
CH3
180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0
f1 (ppm)


41.247
N
CH3
SCF3
N
O
CH3
10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110 -120 -130 -140 -150 -160 -170 -180 -190 -200 -210
f1 (ppm)

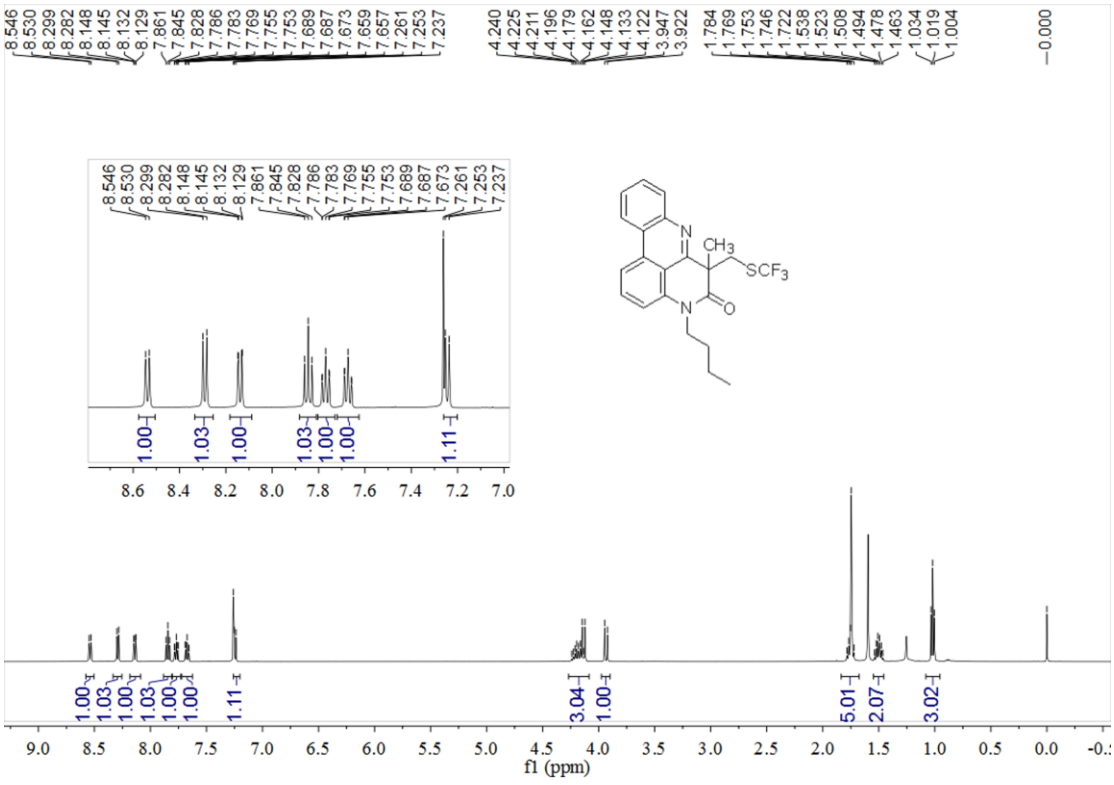
^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3s :**

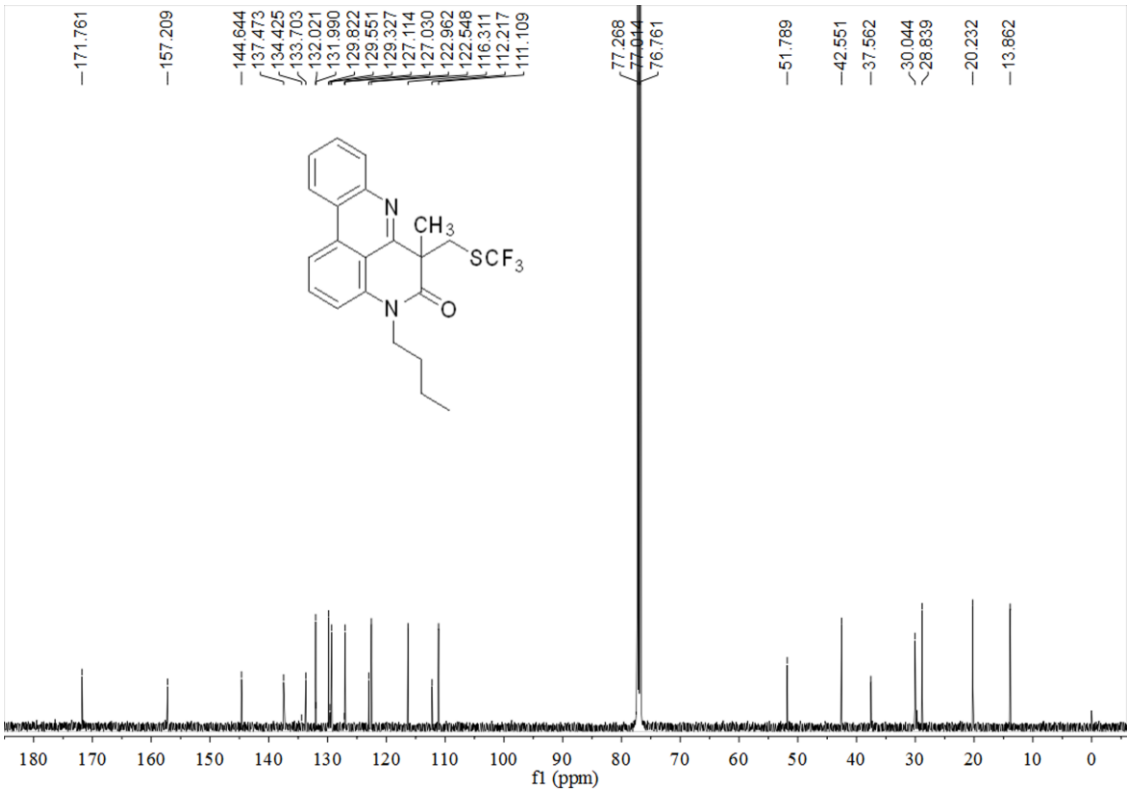


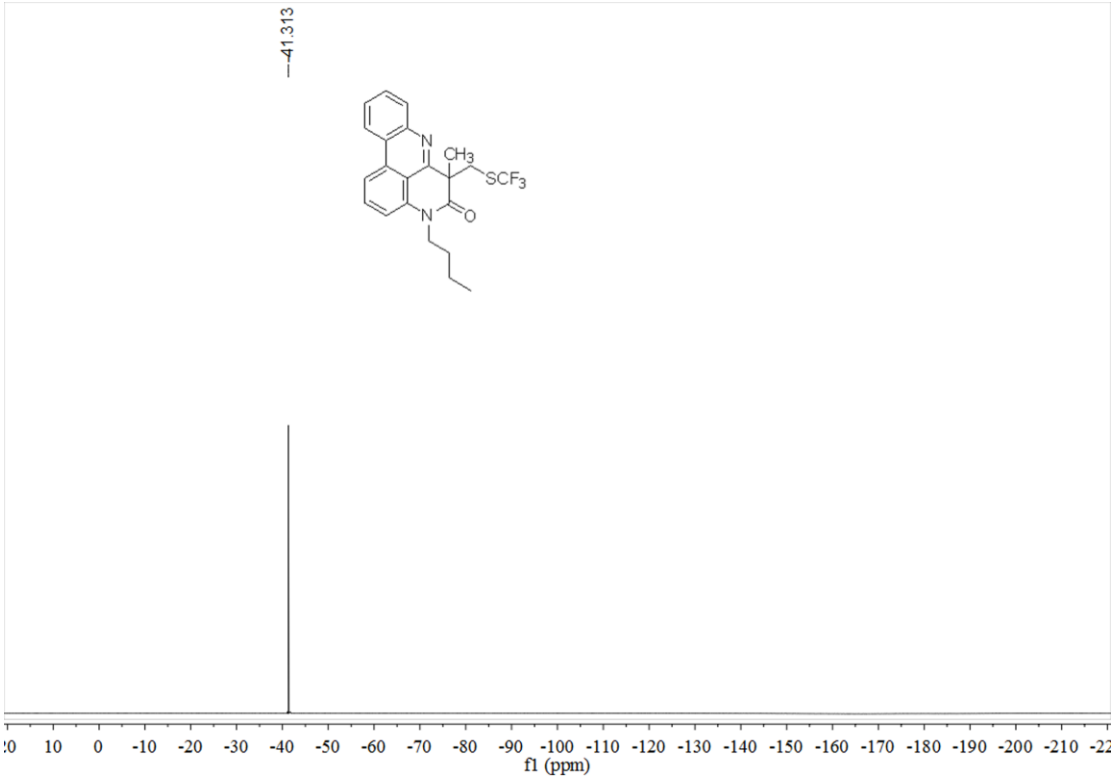




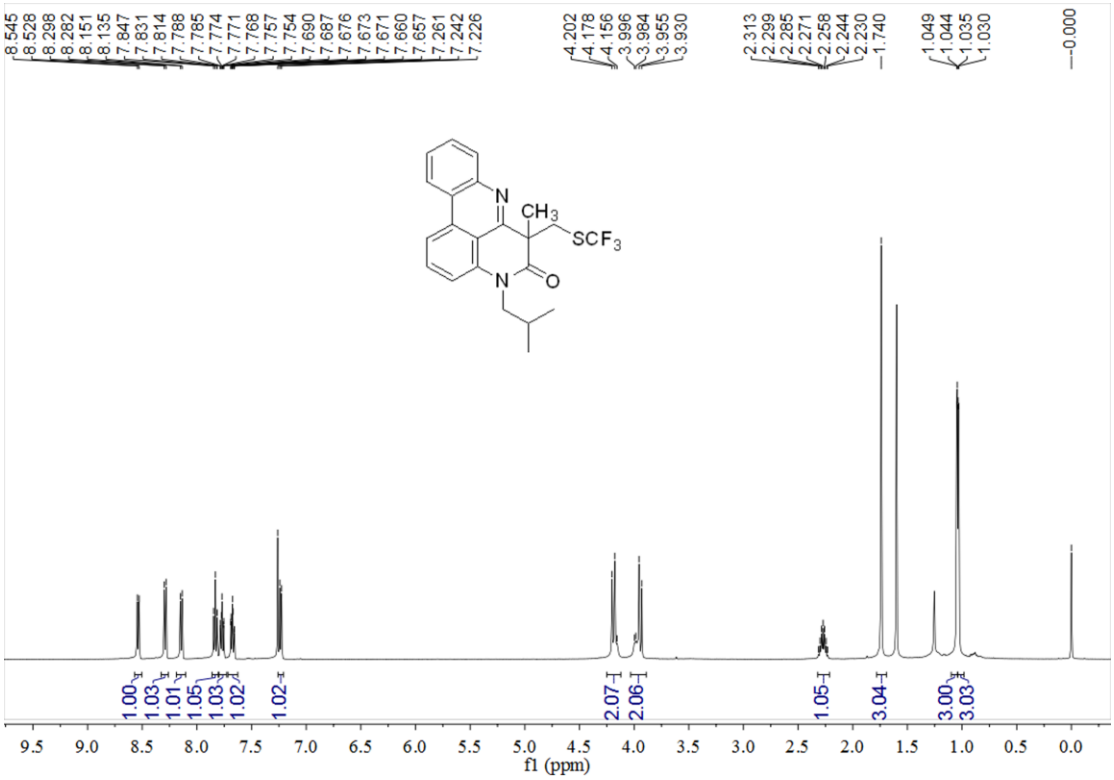
^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3t:**

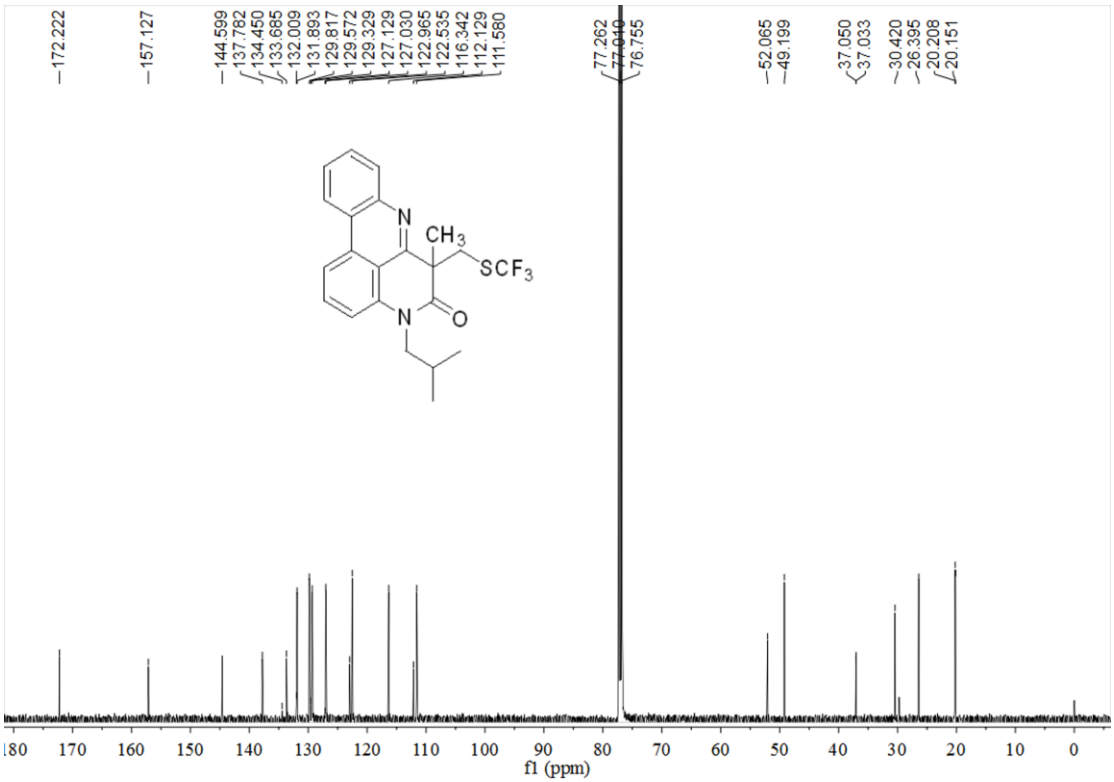


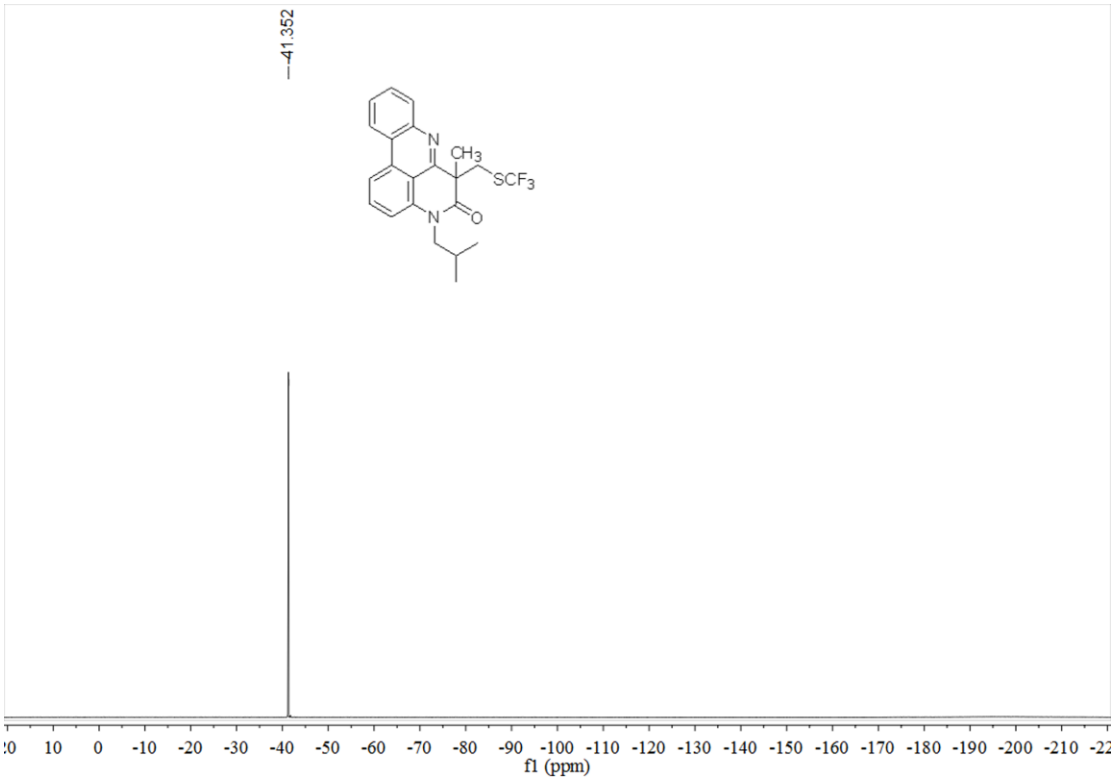

171.761
157.209
144.644
137.473
134.425
133.703
132.021
131.990
129.822
129.551
129.327
127.114
127.030
122.962
122.548
116.311
112.217
111.109
77.268
77.044
76.761
51.789
42.551
37.562
30.044
28.839
20.232
13.862
N
CH3
SCF3
N
O
180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0
f1 (ppm)


41.313
N
CH3
SCF3
N
O
10 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 -100 -110 -120 -130 -140 -150 -160 -170 -180 -190 -200 -210 -22
f1 (ppm)

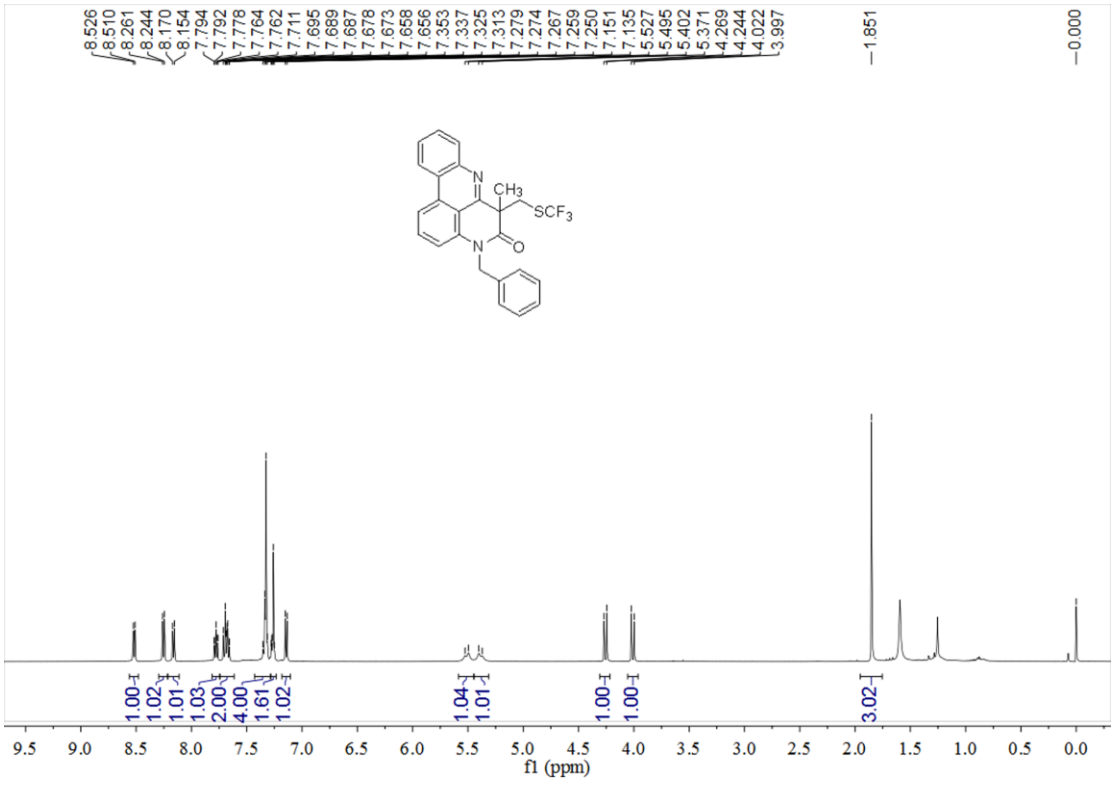
^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3u:**

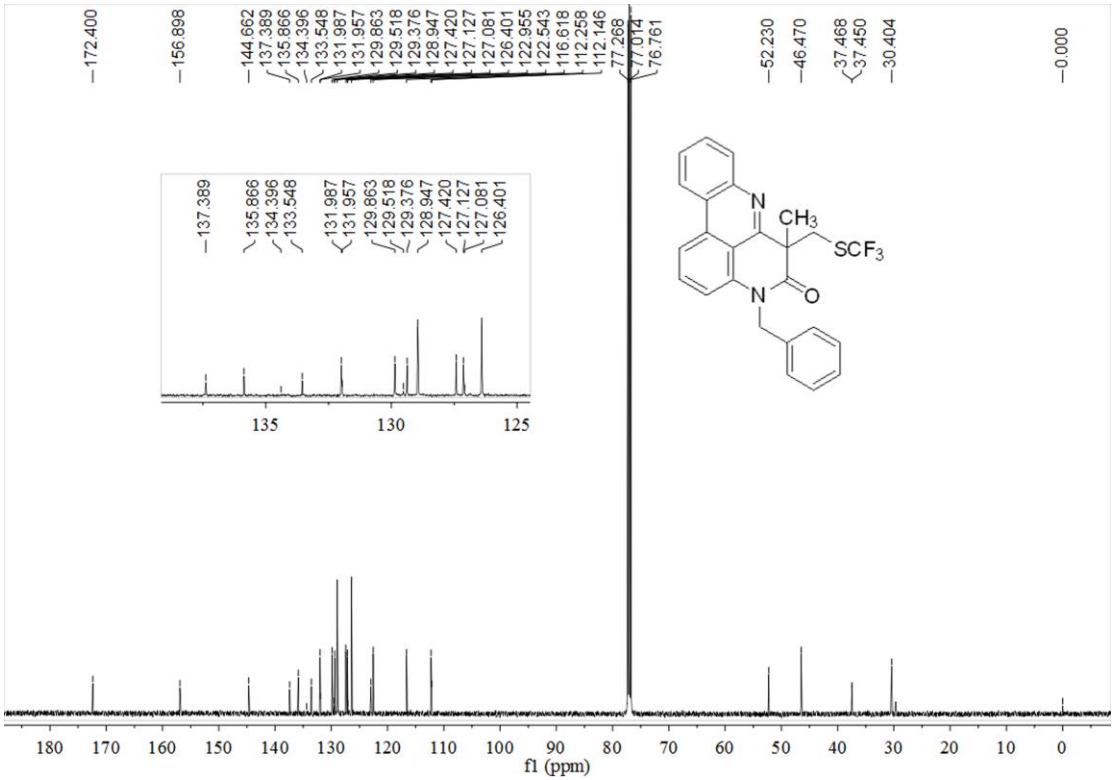


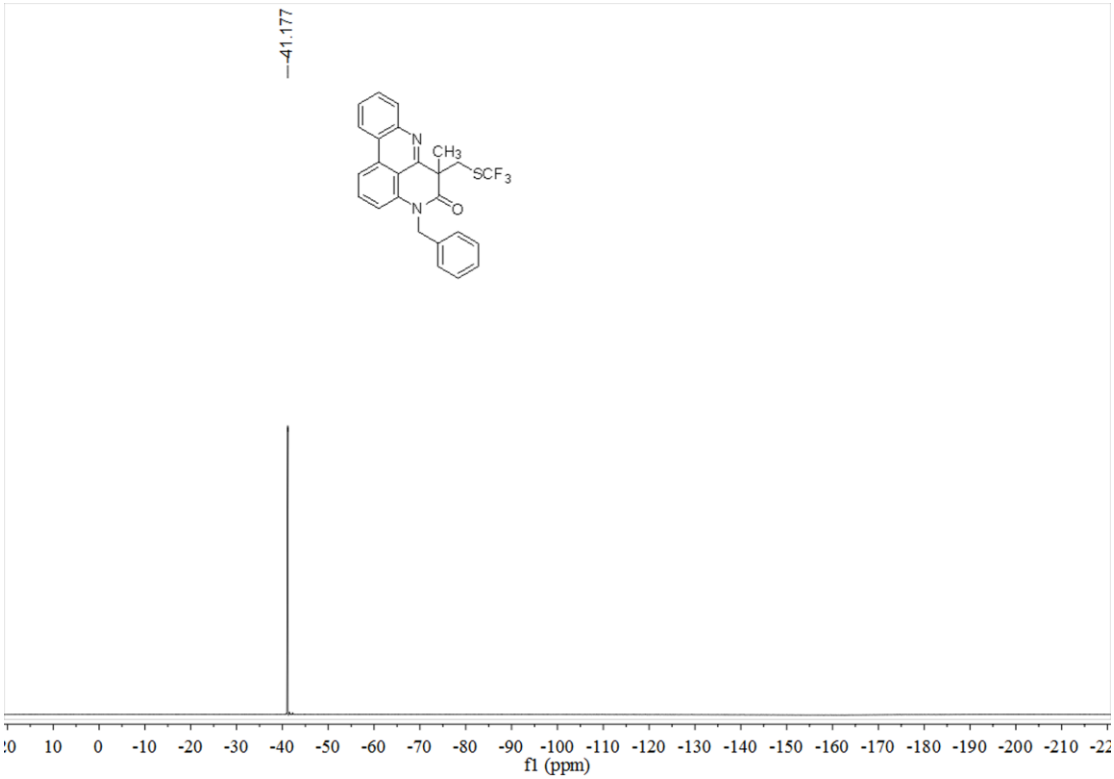




^{1}H NMR, ^{13}C NMR and ^{19}F NMR spectra of compound **3v:**




172.400
156.898
144.662
137.389
135.866
134.396
133.548
131.987
131.957
129.863
129.518
129.376
128.947
127.420
127.127
127.081
126.401
122.955
122.543
116.618
112.258
112.146
77.268
77.014
76.761
52.230
46.470
37.468
37.450
30.404
0.000
CH3
SCF3
N
O
135
130
125
f1 (ppm)


41.177
CH3
SCF3
N
O
f1 (ppm)