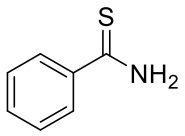
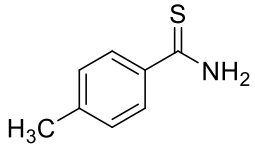
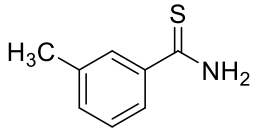


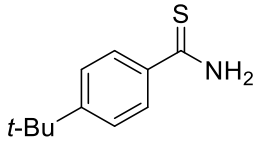
2a[1]: ^{1}H NMR (500 MHz, DMSO-d_6) δ 9.87 (s, 1H), 9.50 (s, 1H), 7.88-7.90 (m, 2H), 7.54-7.47 (m, 1H), 7.45-7.38 (m, 2H). ^{13}C NMR (126 MHz, DMSO-d_6) δ 200.53, 139.81, 131.43, 128.22, 127.58.



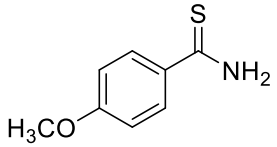
2b[1]: ^{1}H NMR (500 MHz, DMSO-d_6) δ 9.76 (s, 1H), 9.40 (s, 1H), 7.83 (d, J = 7.7 Hz, 2H), 7.22 (d, J = 7.7 Hz, 2H), 2.33 (s, 3H). ^{13}C NMR (126 MHz, DMSO-d_6) δ 200.16, 141.74, 137.00, 128.87, 127.87, 21.35.



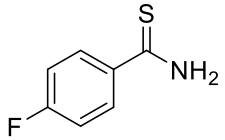
2c[2]: ^{1}H NMR (500 MHz, $CDCl_3$) δ 8.02 (s, 1H), 7.61 (s, 1H), 7.52 (d, J = 7.6 Hz, 1H), 7.31 (s, 1H), 7.23-7.16 (m, 2H), 2.29 (s, 3H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 201.92, 138.06, 137.36, 131.80, 127.32, 126.90, 122.73, 20.30.



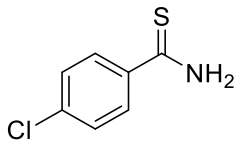
2d[3]: ^{1}H NMR (600 MHz, DMSO-d_6) δ 9.77 (s, 1H), 9.42 (s, 1H), 7.84 (d, J = 8.6 Hz, 2H), 7.43 (d, J = 8.6 Hz, 2H), 1.29 (s, 9H). ^{13}C NMR (151 MHz, DMSO-d_6) δ 200.32, 154.52, 137.21, 127.66, 125.13, 35.05, 31.36.



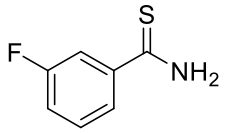
2e[1]: ^{1}H NMR (500 MHz, DMSO-d_6) δ 9.64 (s, 1H), 9.32 (s, 1H), 7.96 (d, J = 8.7 Hz, 2H), 6.95 (d, J = 8.7 Hz, 2H), 3.81 (s, 3H). ^{13}C NMR (126 MHz, DMSO-d_6) δ 199.04, 162.35, 131.79, 129.90, 113.48, 55.89.



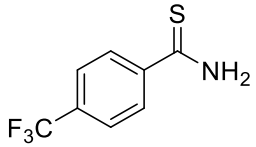
2f[1]: ^{1}H NMR (500 MHz, DMSO-d_6) δ 9.89 (s, 1H), 9.52 (s, 1H), 8.10 -7.96 (m, 2H), 7.28-7.23 (m, 2H). ^{13}C NMR (126 MHz, DMSO-d_6) δ 198.93 (s), 164.29 (d, J = 249.4 Hz), 136.20 (d, J = 2.9 Hz), 130.28 (d, J = 9.0 Hz), 115.09 (d, J = 21.8 Hz).



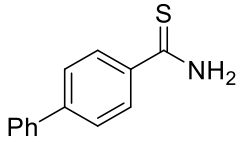
2g[1]: ^{1}H NMR (500 MHz, DMSO-d_6) δ 9.95 (s, 1H), 9.57 (s, 1H), 7.91 (d, J = 8.7 Hz, 2H), 7.65-7.42 (m, 2H). ^{13}C NMR (126 MHz, DMSO-d_6) δ 198.98, 138.45, 136.40, 129.47, 128.27.



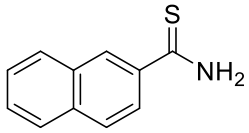
2h[4]: ^{1}H NMR (500 MHz, DMSO-d_6) δ 10.02 (s, 1H), 9.59 (s, 1H), 7.75-7.73 (m, 1H), 7.70-7.65 (m, 1H), 7.50-7.45 (m, 1H), 7.40-7.33 (m, 1H). ^{13}C NMR (126 MHz, DMSO-d_6) δ 198.84, 161.89 (d, J = 243.8 Hz), 142.07 (d, J = 7.1 Hz), 130.47 (d, J = 8.2 Hz), 123.88 (d, J = 2.6 Hz), 118.28 (d, J = 21.2 Hz), 114.53 (d, J = 23.4 Hz).



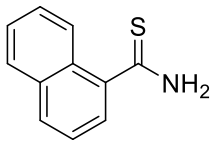
2i[5]: ^{1}H NMR (500 MHz, DMSO-d_6) δ 10.13 (s, 1H), 9.73 (s, 1H), 8.02 (d, J = 8.2 Hz, 2H), 7.79 (d, J = 8.2 Hz, 2H). ^{13}C NMR (126 MHz, DMSO-d_6) δ 199.43, 143.84, 131.13 (q, J = 31.9 Hz), 128.38, 125.42 (q, J = 3.7 Hz), 124.43. (q, J = 272.7 Hz).



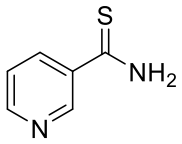
2j[6]: ^{1}H NMR (500 MHz, DMSO-d_6) δ 9.90 (s, 1H), 9.55 (s, 1H), 8.02 (d, J = 8.4 Hz, 2H), 7.73 (d, J = 8.3 Hz, 4H), 7.50 (t, J = 7.6 Hz, 2H), 7.41 (t, J = 7.3 Hz, 1H). ^{13}C NMR (126 MHz, DMSO-d_6) 199.72, 143.00, 139.37, 138.40, 129.37, 128.43, 128.36, 127.15, 126.41.



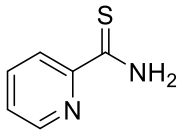
2k[7]: ^{1}H NMR (500 MHz, DMSO-d_6) δ 9.99 (s, 1H), 9.67 (s, 1H), 8.45 (d, J = 1.3 Hz, 1H), 8.06-8.01 (m, 2H), 7.97-7.93 (m, 2H), 7.65-7.54 (m, 2H). ^{13}C NMR (126 MHz, DMSO-d_6) δ 200.49, 137.19, 134.43, 132.25, 129.54, 128.13, 127.97, 127.77, 127.28, 127.08, 125.54.



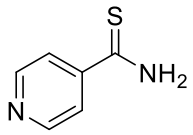
2l[8]: ^{1}H NMR (500 MHz, DMSO-d_6) δ 10.24 (s, 1H), 9.77 (s, 1H), 8.12 (d, J = 8.0 Hz, 1H), 7.96-7.91 (m, 2H), 7.57-7.43 (m, 3H), 7.44 (dd, J = 7.1, 1.2 Hz, 1H). ^{13}C NMR (126 MHz, DMSO-d_6) δ 202.81, 141.97, 133.34, 128.78, 128.59, 128.41, 126.83, 126.51, 125.46, 125.44, 123.59.



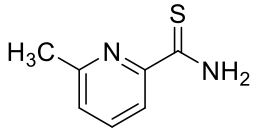
2m[4]: ^{1}H NMR (500 MHz, DMSO-d_6) δ 10.08 (s, 1H), 9.72 (s, 1H), 9.02 (s, 1H), 8.67 (d, J = 4.7 Hz, 1H), 8.20 (d, J = 8.0 Hz, 1H). 7.45-7.47 (m, 1H). ^{13}C NMR (126 MHz, DMSO-d_6) δ 198.34, 152.04, 148.08, 135.64, 135.31, 123.47.



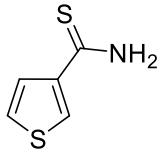
2n[4]: ^{1}H NMR (500 MHz, DMSO-d_6) δ 10.17 (s, 1H), 9.94 (s, 1H), 8.61-8.60 (m, 1H), 8.52 (d, J = 7.9 Hz, 1H)，7.98 (td, J = 7.8, 1.8 Hz, 1H), 7.62-7.59 (m, 1H). ^{13}C NMR (126 MHz, DMSO-d_6) δ 195.13, 152.19, 147.99, 137.79, 126.75, 124.99.



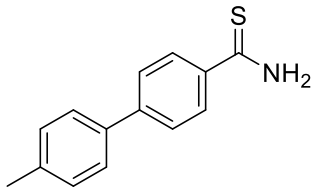
2o[4]: ^{1}H NMR (500 MHz, DMSO-d_6) δ 10.21 (s, 1H), 9.79 (s, 1H), 8.67-8.65 (m, 2H), 7.72-7.70 (m, 2H). ^{13}C NMR (126 MHz, DMSO-d_6) δ 198.76, 150.27, 146.73, 121.28.



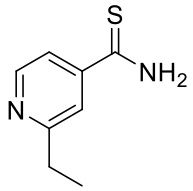
2p[10]: ^{1}H NMR (500 MHz, DMSO-d_6) δ 10.13 (s, 1H), 9.83 (s, 1H), 8.31 (d, J = 7.8 Hz, 1H), 7.85 (t, J = 7.8 Hz, 1H), 7.46 (d, J = 7.7 Hz, 1H), 2.55 (s, 3H). ^{13}C NMR (126 MHz, DMSO-d_6) δ 195.16, 156.64, 151.46, 137.91, 126.26, 122.05, 24.26.



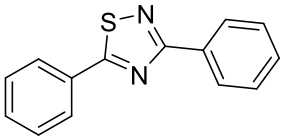
2q[4]: ^{1}H NMR (400 MHz, DMSO-d_6) δ 9.63 (s, 1H), 9.32 (s, 1H), 8.21-8.18 (m, 1H), 7.64 (dd, J = 5.1, 1.3 Hz, 1H), 7.55-7.53 (m, 1H). ^{13}C NMR (101 MHz, DMSO-d_6) δ 192.38, 142.08, 128.41, 127.85, 126.25.



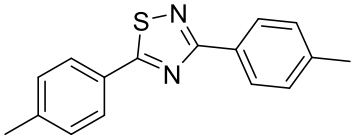
2r (CAS: 1176544-48-1): ^{1}H NMR (400 MHz, DMSO-d_6) δ 9.91 (s, 1H), 9.56 (s, 1H), 8.02 (d, J = 8.4 Hz, 2H), 7.71 (d, J = 8.4 Hz, 2H), 7.63 (d, J = 8.1 Hz, 2H), 7.29 (d, J = 8.0 Hz, 2H), 2.35 (s, 3H). ^{13}C NMR (101 MHz, DMSO-d_6) δ 199.35, 142.58, 137.71, 137.53, 136.08, 129.61, 128.02, 126.60, 125.72, 20.69.



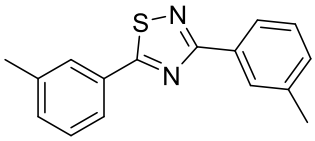
ethionamide[11]: ^{1}H NMR (400 MHz, DMSO-d_6) δ 10.17 (s, 1H), 9.74 (s, 1H), 8.54 (d, J = 5.1 Hz, 1H), 7.58 (s, 1H), 7.52 (dd, J = 5.1, 1.4 Hz, 1H), 2.80 (q, J = 7.6 Hz, 2H), 1.25 (t, J = 7.6 Hz, 3H). ^{13}C NMR (101 MHz, DMSO-d_6) δ 198.68, 163.07, 149.07, 146.78, 118.95, 118.32, 30.58, 13.57.



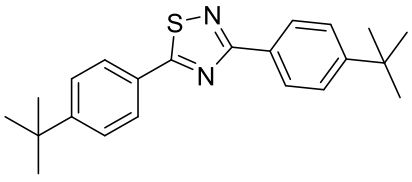
3a[12]: ^{1}H NMR (500 MHz, $CDCl_3$) δ 8.33-8.30 (m, 2H), 8.01-7.92 (m, 2H), 7.48-7.37 (m, 6H). ^{13}C NMR (126 MHz, $CDCl_3$) δ 187.09, 172.77, 131.85, 130.88, 129.68, 129.33, 128.23, 127.66, 127.32, 126.45, 30.40, 28.67.



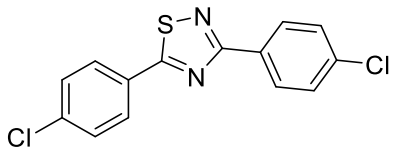
3b[12]: ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.27 (d, J = 8.1 Hz, 2H), 7.92 (d, J = 8.1 Hz, 2H), 7.30-7.28 (m, 4H), 2.42 (s, 6H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 187.97, 173.82, 142.43, 140.45, 130.41, 129.90, 129.38, 128.30, 128.20, 127.42, 21.63, 21.51.



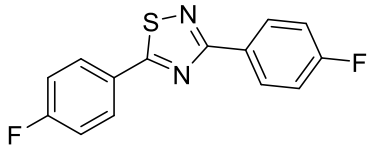
3c[16]: ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.23-8.16 (m, 2H), 7.89-7.80 (m, 2H), 7.42-7.26 (m, 4H), 2.45 (s, 3H), 2.46 (s, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 188.28, 173.95, 139.17, 138.38, 132.86, 132.70, 131.13, 130.68, 129.16, 128.93, 128.62, 127.96, 125.55, 124.73, 21.44, 21.33.



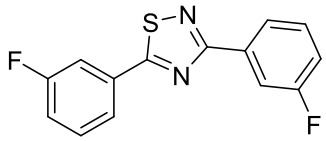
3d[12]: ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.31 (d, J = 8.6 Hz, 2H), 7.97 (d, J = 8.5 Hz, 2H), 7.55-7.50 (m, 4H), 1.37 (18H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 187.85, 173.81, 155.53, 153.57, 131.98, 130.38, 128.18, 128.14, 128.03, 127.32, 126.19, 126.16, 125.61, 35.11, 34.89, 31.26, 31.15.



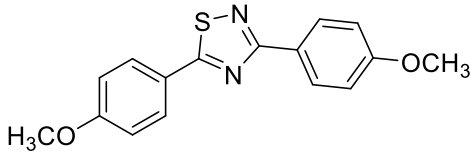
3e[13]: ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.36 – 8.27 (m, 2H), 8.01-7.88 (m, 2H), 7.55-7.40 (m, 4H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 187.02, 172.82, 138.18, 136.60, 131.18, 129.66, 129.61, 129.02, 128.97, 128.68.



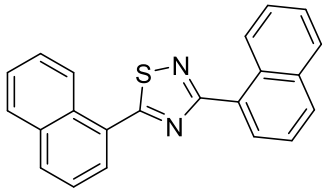
3f[12]: ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.39-8.35 (m, 2H), 8.06-8.02 (m, 2H), 7.30-7.12 (m, 4H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 186.97, 172.80, 165.83 (d, *J* = 72.3 Hz), 163.33 (d, *J* = 69.2 Hz), 130.42 (d, *J* = 8.6 Hz), 129.63 (d, *J* = 8.9 Hz), 129.11, 127.03, 116.53 (d, *J* = 22.3 Hz), 115.73 (d, *J* = 21.8 Hz).



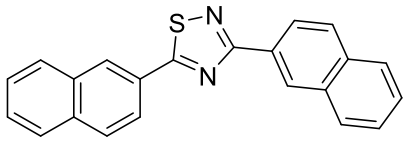
3g[15]: ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.17 (d, *J* = 7.8 Hz, 1H), 8.10-8.04 (m, 1H), 7.82-7.75 (m, 2H),7.52- 7.44 (m, 2H), 7.29-7.15 (m, 2H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 187.00 (d, *J* = 3.1 Hz), 172.67 (d, *J* = 3.2 Hz), 164.28 (d, *J* = 7.4 Hz), 161.82 (d, *J* = 4.9 Hz), 134.68 (d, *J* = 8.3 Hz), 132.41 (d, *J* = 8.1 Hz), 131.03 (d, *J* = 8.2 Hz), 130.32 (d, *J* = 8.1 Hz), 124.03 (d, *J* = 3.0 Hz), 123.37 (d, *J* = 3.1 Hz), 118.96 (d, *J* = 21.4 Hz), 117.43 (d, *J* = 21.3 Hz), 115.32 (d, *J* = 23.5 Hz), 114.26 (d, *J* = 23.5 Hz).



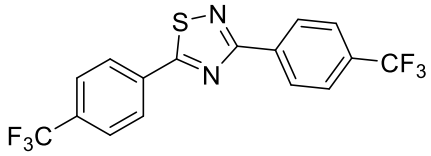
3h[12]:^{1}H NMR (400 MHz, $CDCl_3$) δ 8.31 (d, *J* = 8.9 Hz, 2H), 7.97 (d, *J* = 8.8 Hz, 2H), 7.00 (d, *J* = 8.7 Hz, 4H), 3.88 (s, 3H), 3.87 (s, 3H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 187.39, 173.37, 162.50, 161.30, 130.03, 129.91, 129.16, 126.07, 123.73, 114.55, 113.98, 55.50, 55.37.



3i[13]: ^{1}H NMR (400 MHz, $CDCl_3$) δ 9.22 (d, *J* = 8.6 Hz, 1H), 8.94 (d, *J* = 8.5 Hz, 1H), 8.49 (d, *J* = 7.2 Hz, 1H), 8.06-7.96 (m, 3H), 7.93 (d, *J* = 8.1 Hz, 2H), 7.69-7.50 (m, 6H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 186.97, 173.97, 134.18, 134.12, 132.23, 131.19, 131.08, 130.25, 130.08, 130.00, 129.30, 128.70, 128.62, 128.06, 127.78, 127.27, 126.80, 126.45, 126.12, 125.46, 125.22, 125.17.



3j[12]: ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.97 (s, 1H), 8.60 (s, 1H), 8.50 (dd, *J* = 8.6, 1.6 Hz, 1H), 8.13 (dd, *J* = 8.5, 1.7 Hz, 1H), 8.03-7.96 (m, 4H), 7.93 – 7.87 (m, 2H), 7.63 – 7.51 (m, 4H).^{13}C NMR (101 MHz, $CDCl_3$) δ 186.97, 173.97, 134.18, 134.12, 132.23, 131.19, 131.08, 130.25, 130.08, 130.00, 129.30, 128.70, 128.62, 128.06, 127.78, 127.27, 126.80, 126.45, 126.12, 125.46, 125.22, 125.17.



3k[14]: ^{1}H NMR (400 MHz, $CDCl_3$) δ 8.42 (d, *J* = 8.1 Hz, 2H), 8.09 (d, *J* = 8.0 Hz, 2H), 7.73-7.68 (m, 4H). ^{13}C NMR (101 MHz, $CDCl_3$) δ 186.98, 172.68, 135.56, 133.84, 133.49 (d, *J* = 6.7 Hz), 132.23 (d, *J* = 32.5 Hz), 128.68 (s), 127.85 (s), 126.41 (q, *J* = 3.7 Hz), 125.76 (q, *J* = 3.8 Hz), 125.12 (d, *J* = 40.6 Hz), 122.41 (d, *J* = 41.1 Hz).

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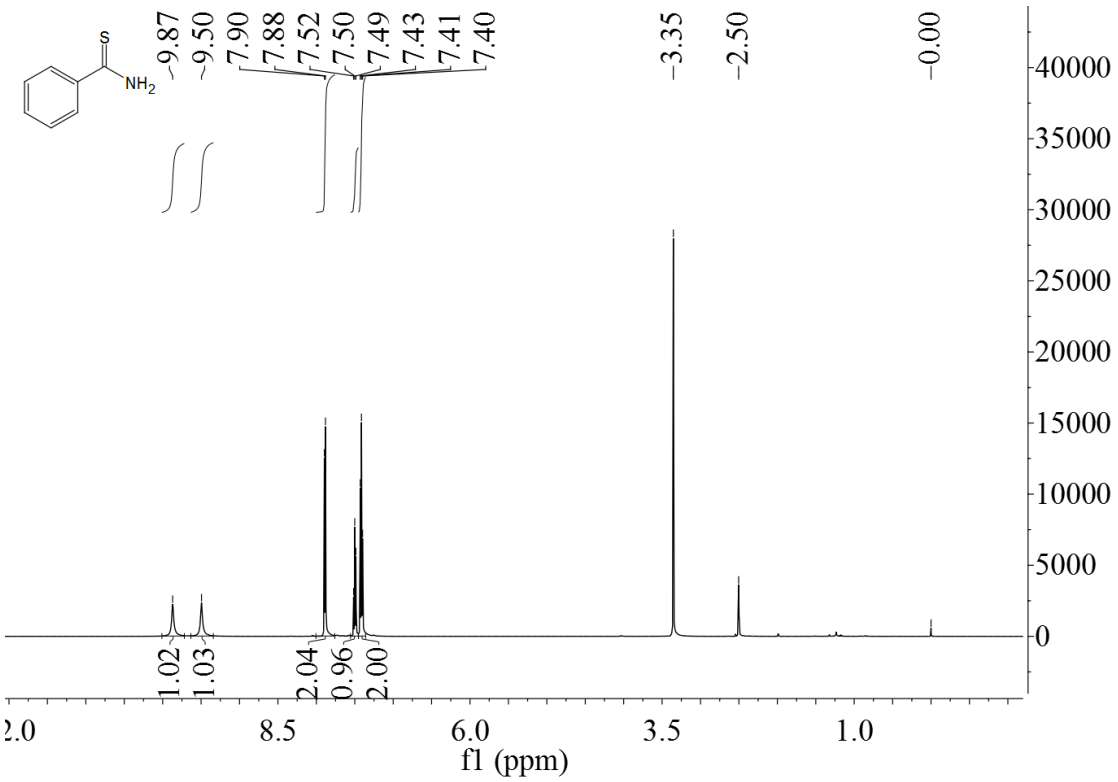
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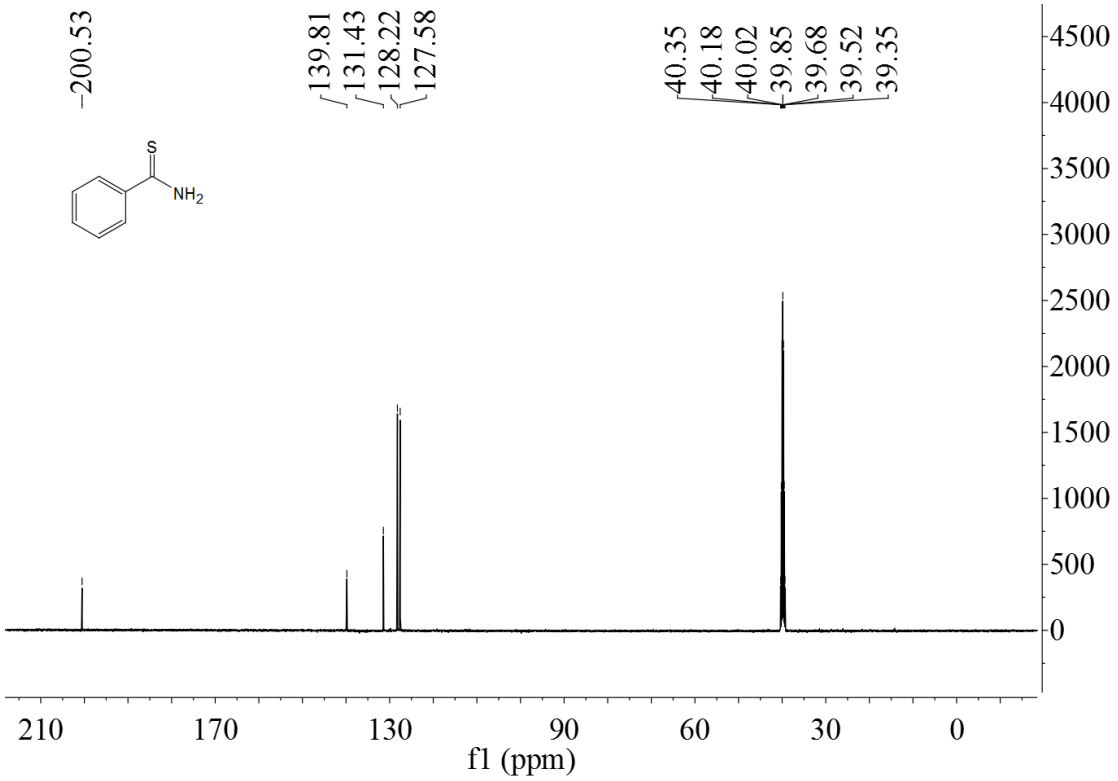
9.50
7.90
7.88
7.52
7.50
7.49
7.43
7.41
7.40
3.35
2.50
0.00
1.02
1.03
2.04
0.96
2.00
f1 (ppm)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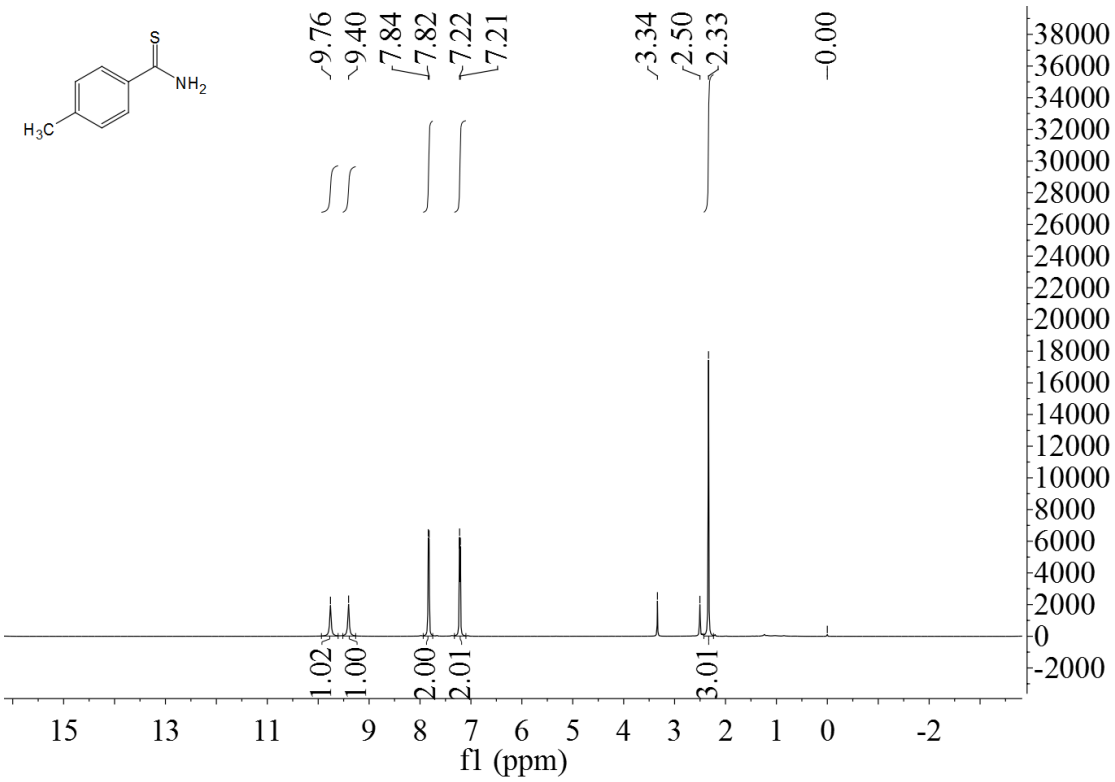
131.43
128.22
127.58
40.35
40.18
40.02
39.85
39.68
39.52
39.35
f1 (ppm)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9.40
7.84
7.82
7.22
7.21
3.34
2.50
2.33
0.00
1.02
1.00
2.00
2.01
3.01
38000
36000
34000
32000
30000
28000
26000
24000
22000
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
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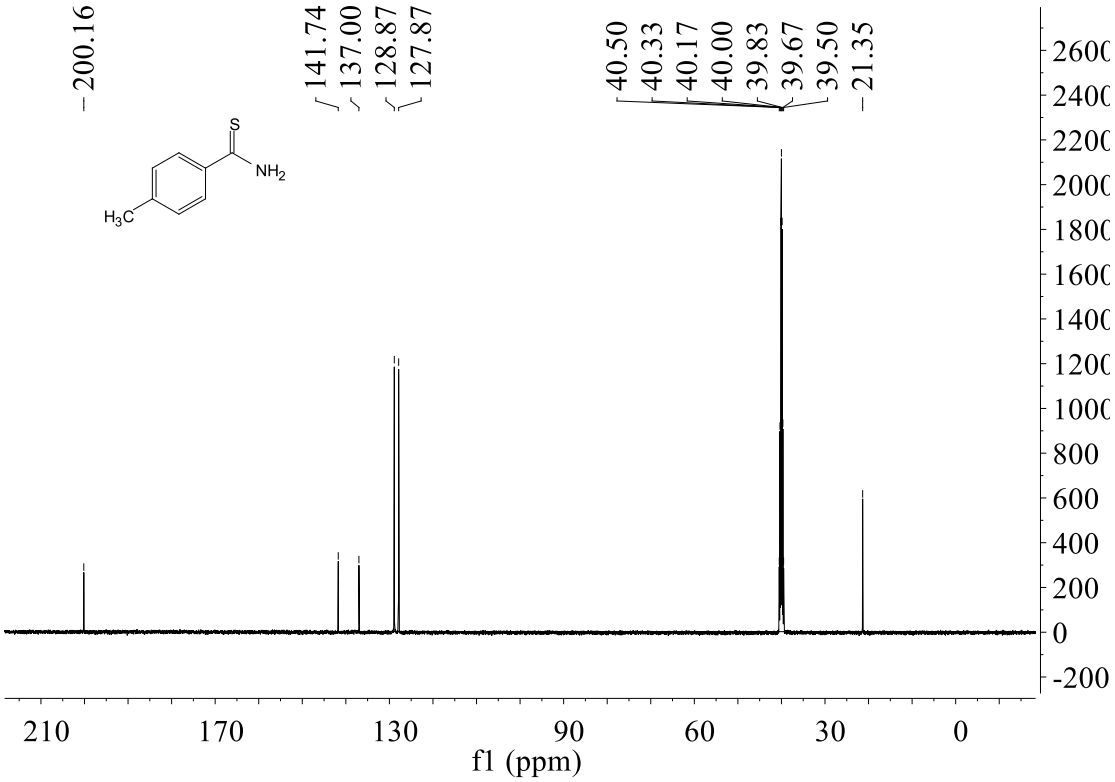
15
13
11
9
8
7
6
5
4
3
2
1
0
-2
f1 (ppm)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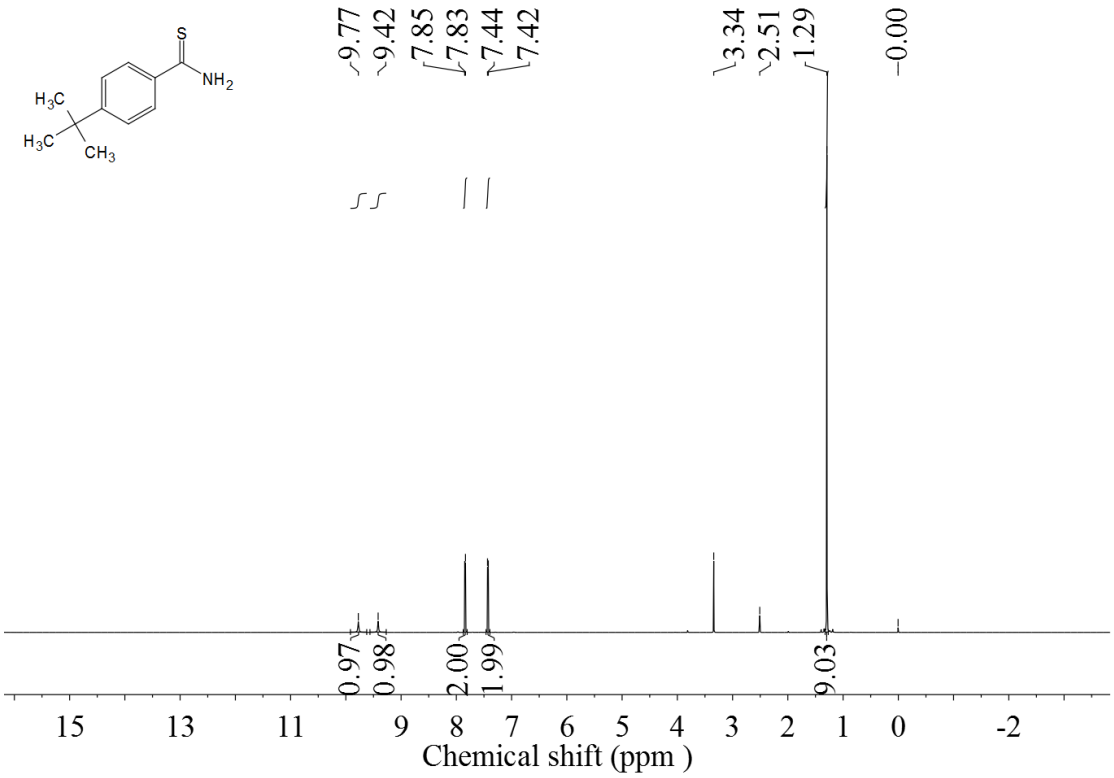
39.67
39.50
21.35
S
NH2
H3C
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
-200
210
170
130
90
60
30
0
f1 (ppm)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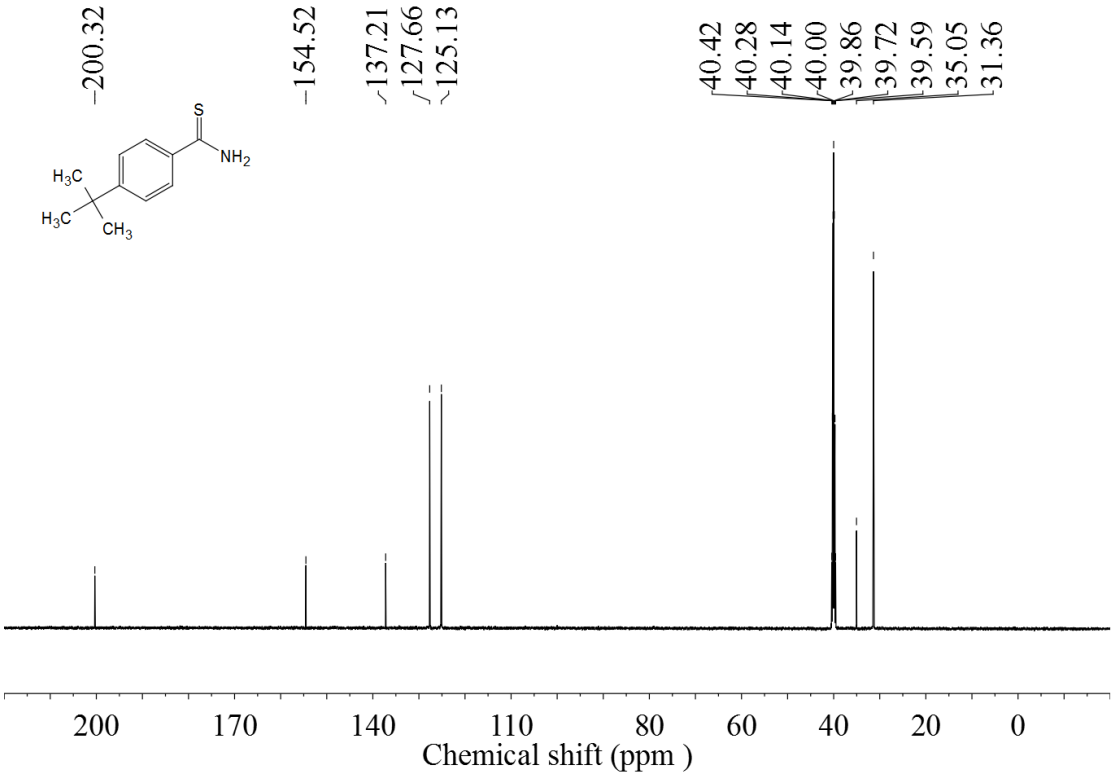
7.42
3.34
2.51
1.29
-0.00
0.97
0.98
2.00
1.99
9.03
15
13
11
9
8
7
6
5
4
3
2
1
0
-2
Chemical shift (ppm)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40.14
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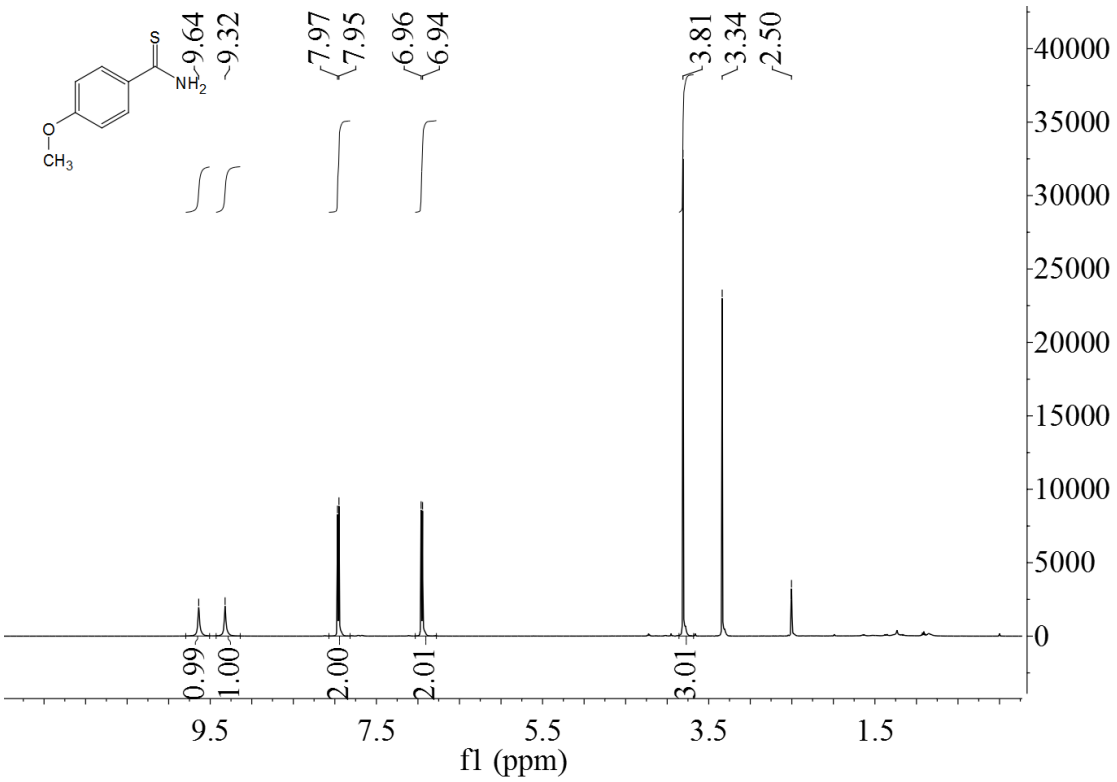
35.05
31.36
200
170
140
110
80
60
40
20
0
Chemical shift (ppm)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6.94
3.81
3.34
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2.00
2.01
3.01
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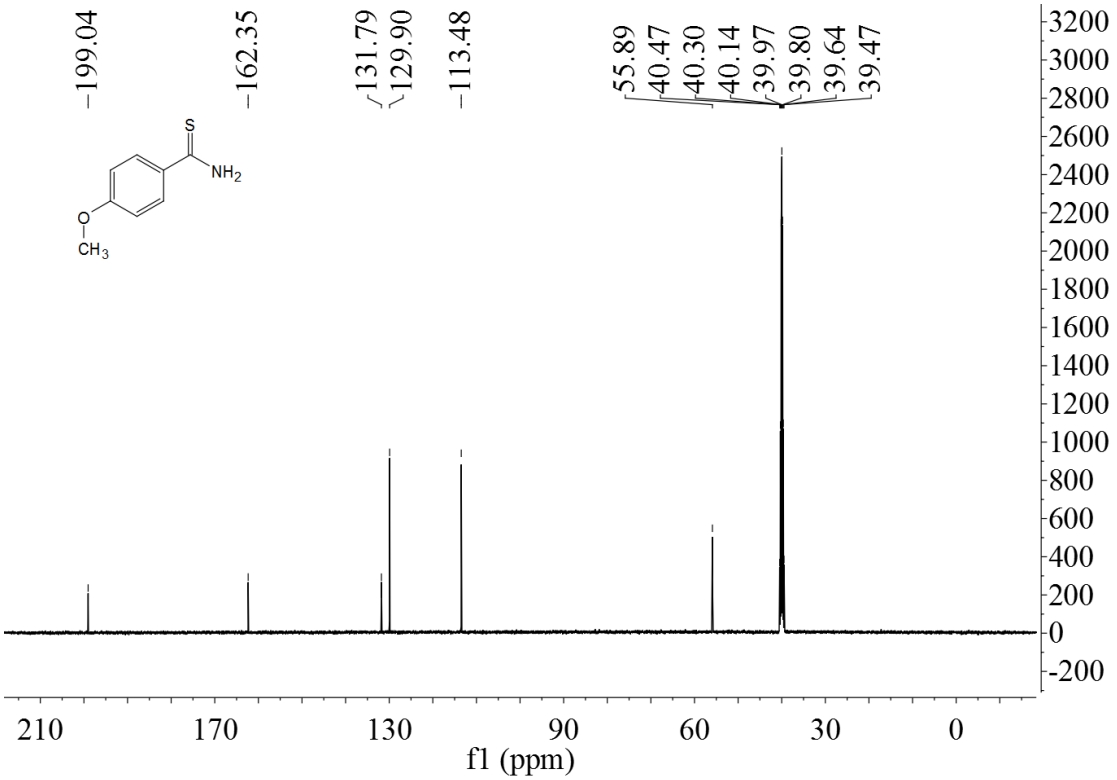
7.5
5.5
3.5
1.5
f1 (ppm)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55.89
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40.30
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39.47
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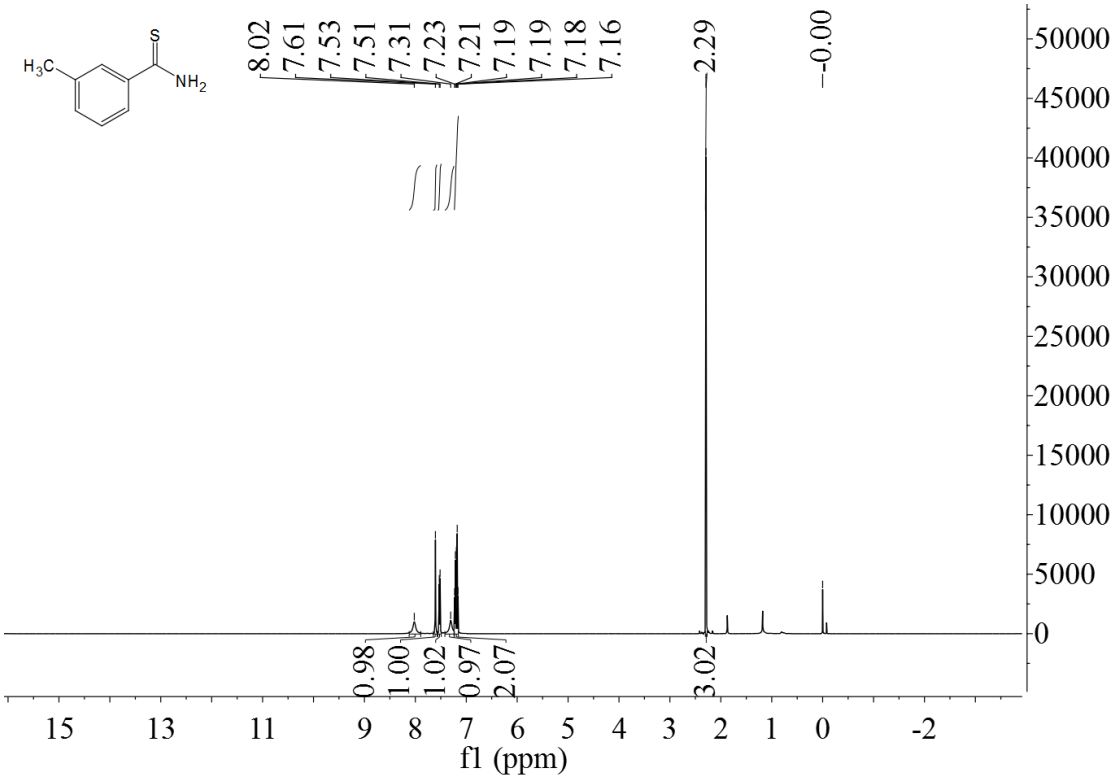
170
130
90
60
30
0
f1 (ppm)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7.19
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0.98
1.00
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0.97
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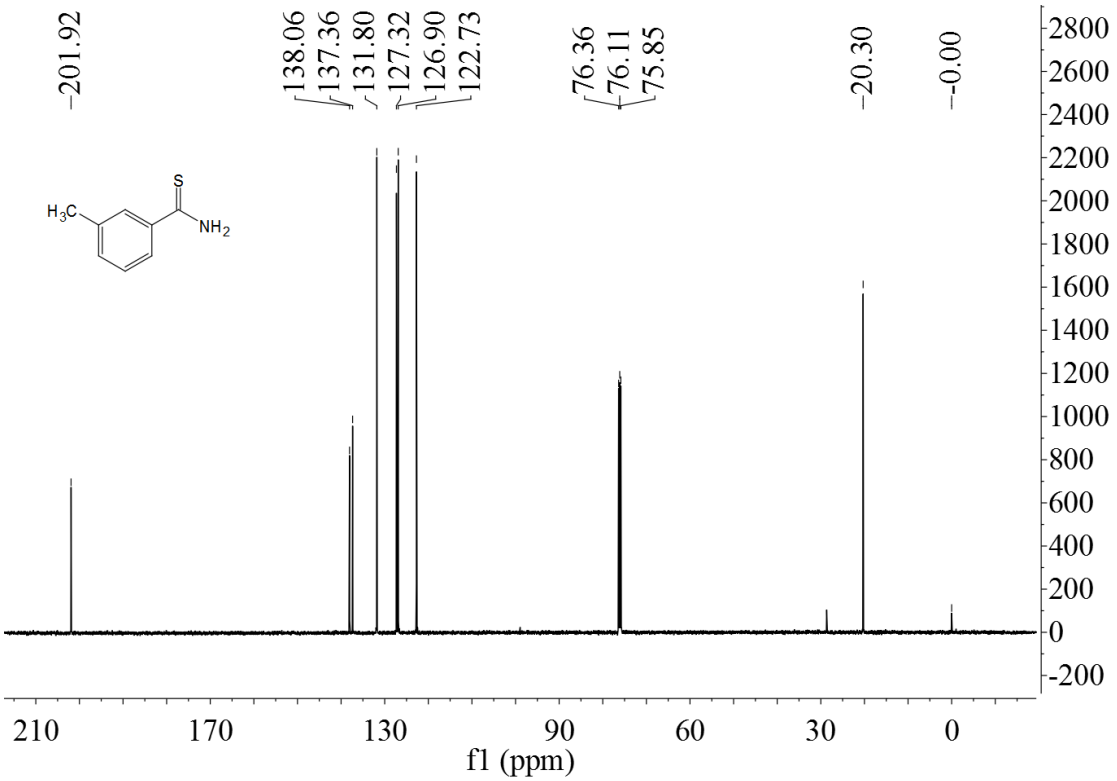
3.02
f1 (ppm)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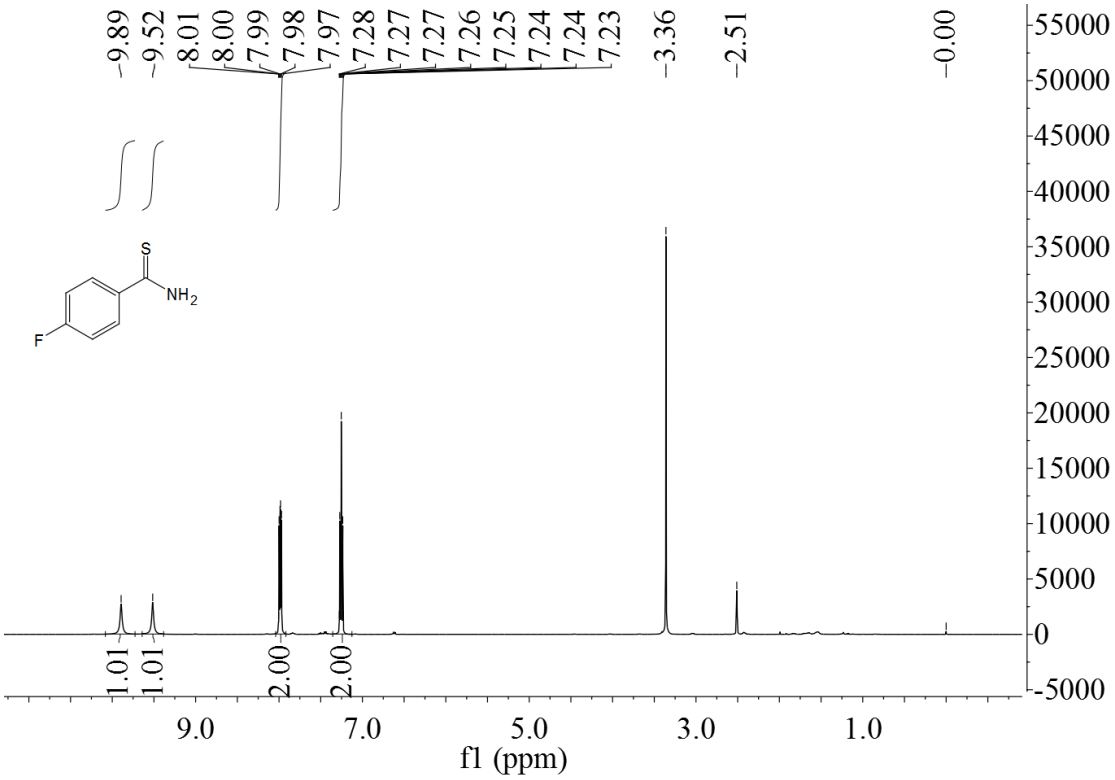
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7.24
7.24
7.23
3.36
2.51
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NH2
F
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1.01
2.00
2.00
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50000
45000
40000
35000
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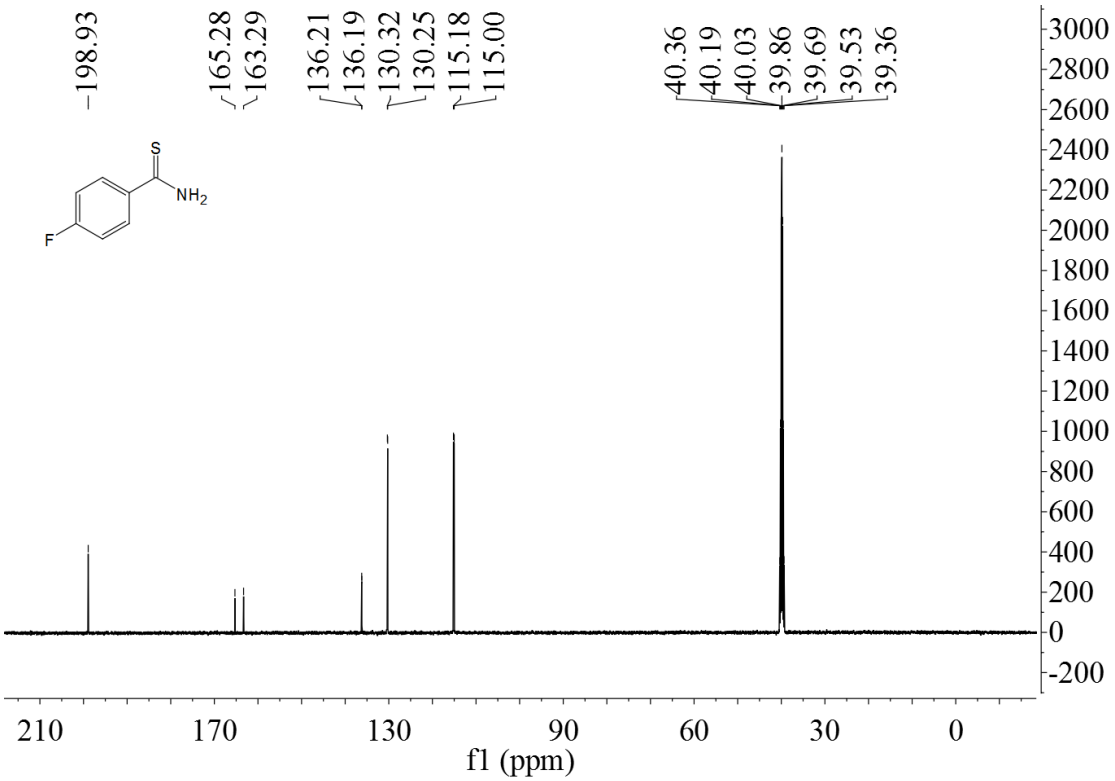
f1 (ppm)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40.19
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39.53
39.36
S
NH2
F
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2400
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130
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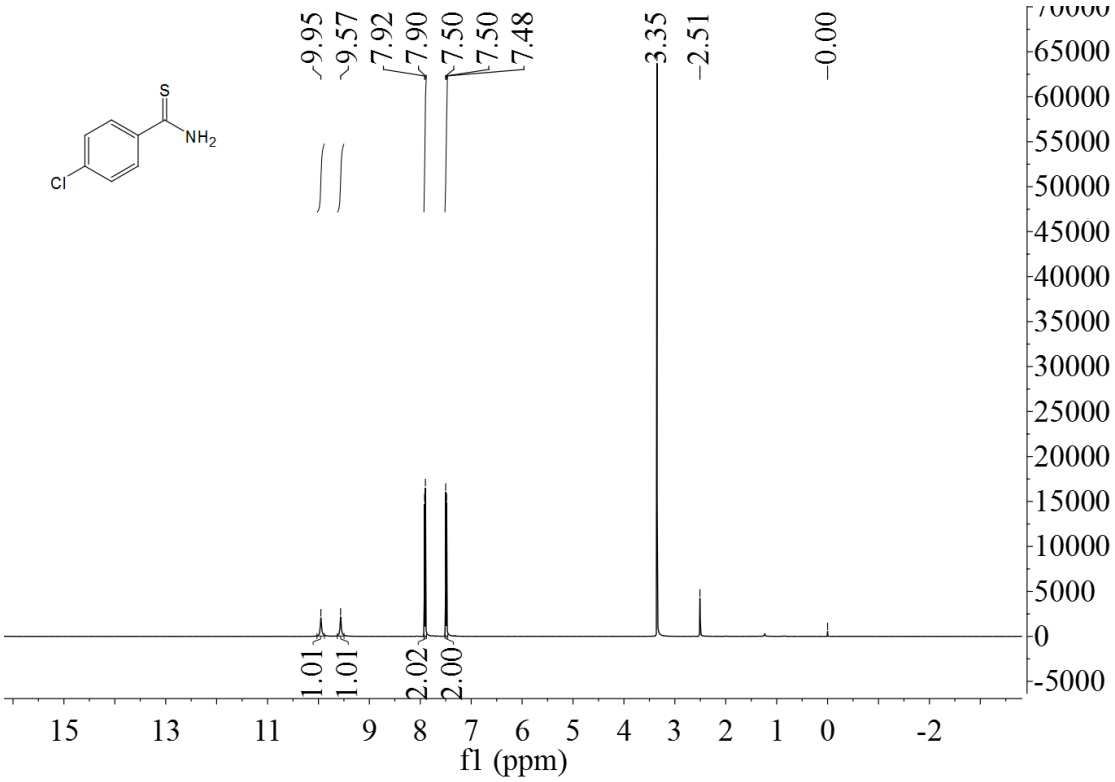
60
30
0
f1 (ppm)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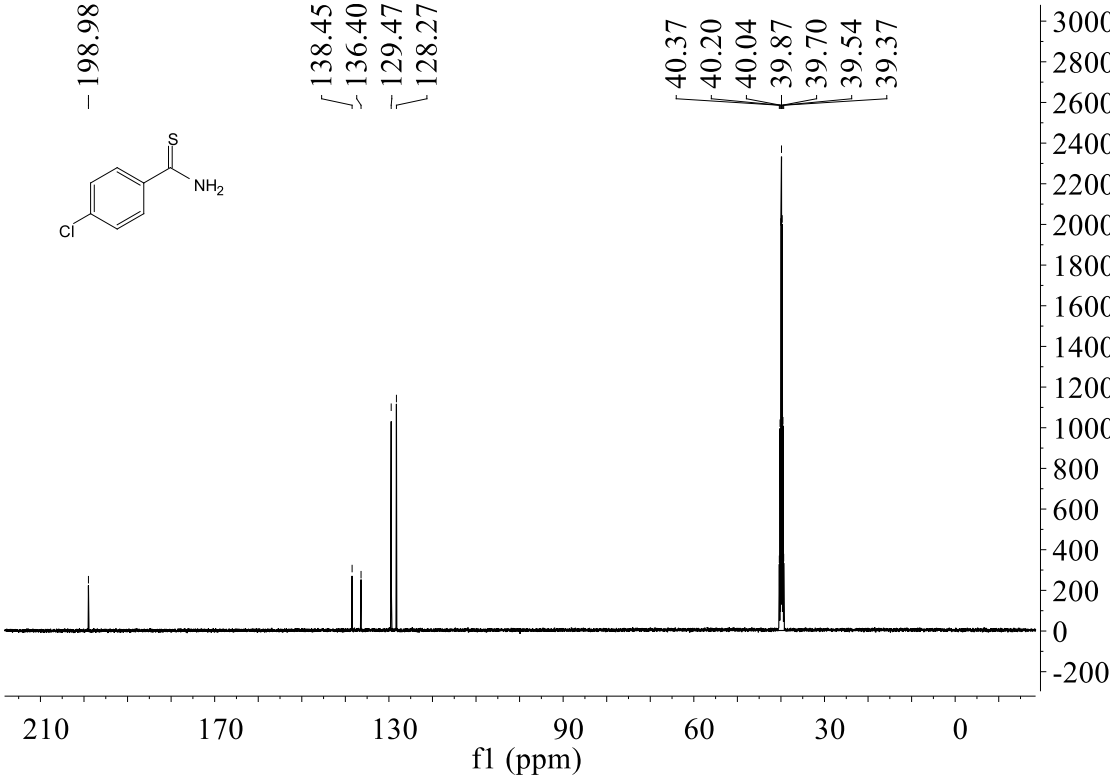
NH2
Cl
f1 (ppm)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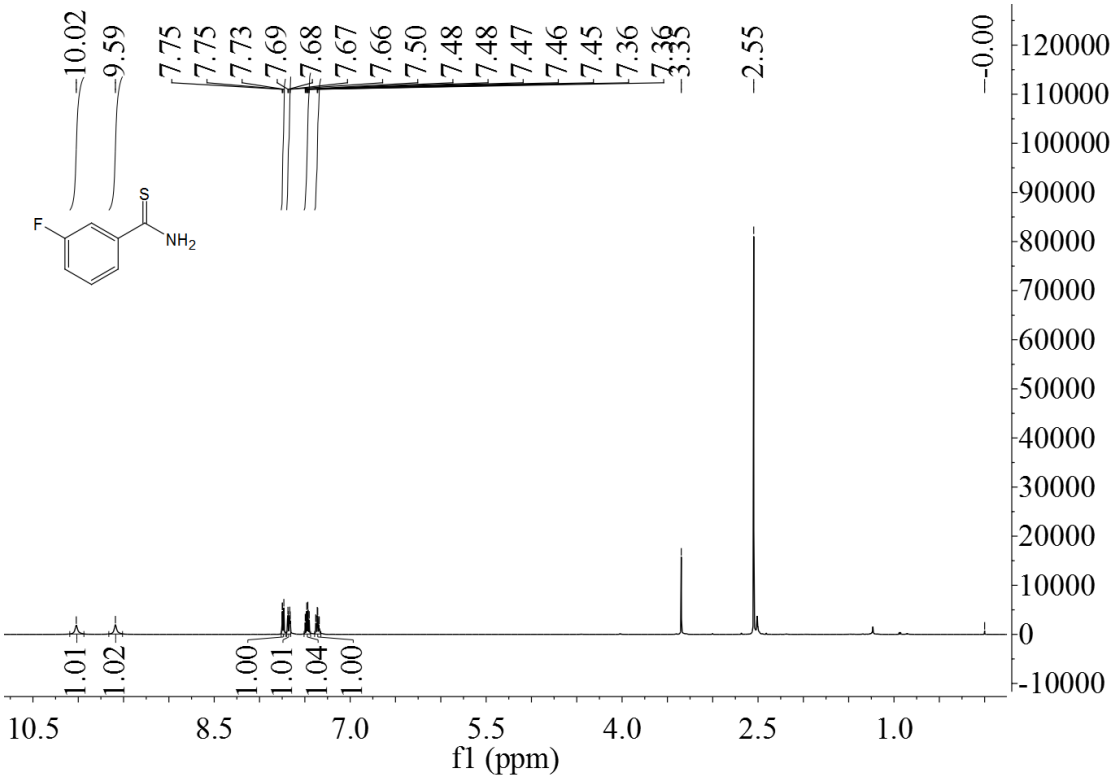
NH2
Cl
f1 (ppm)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F
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1.02
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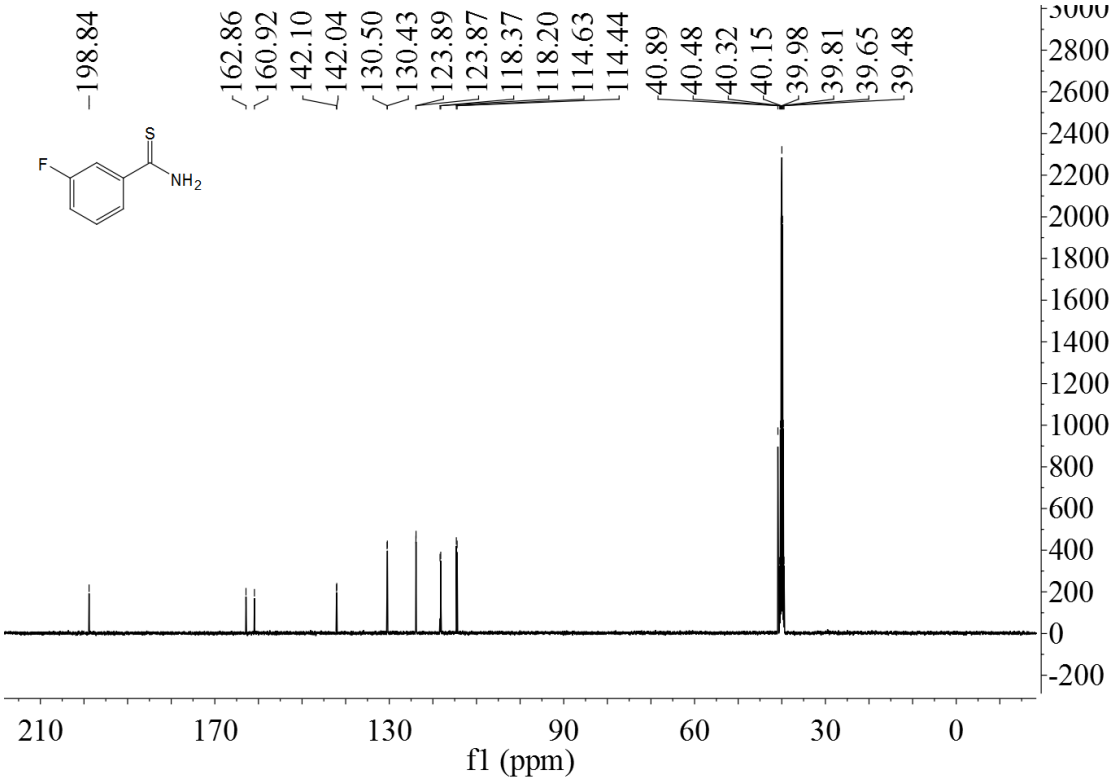
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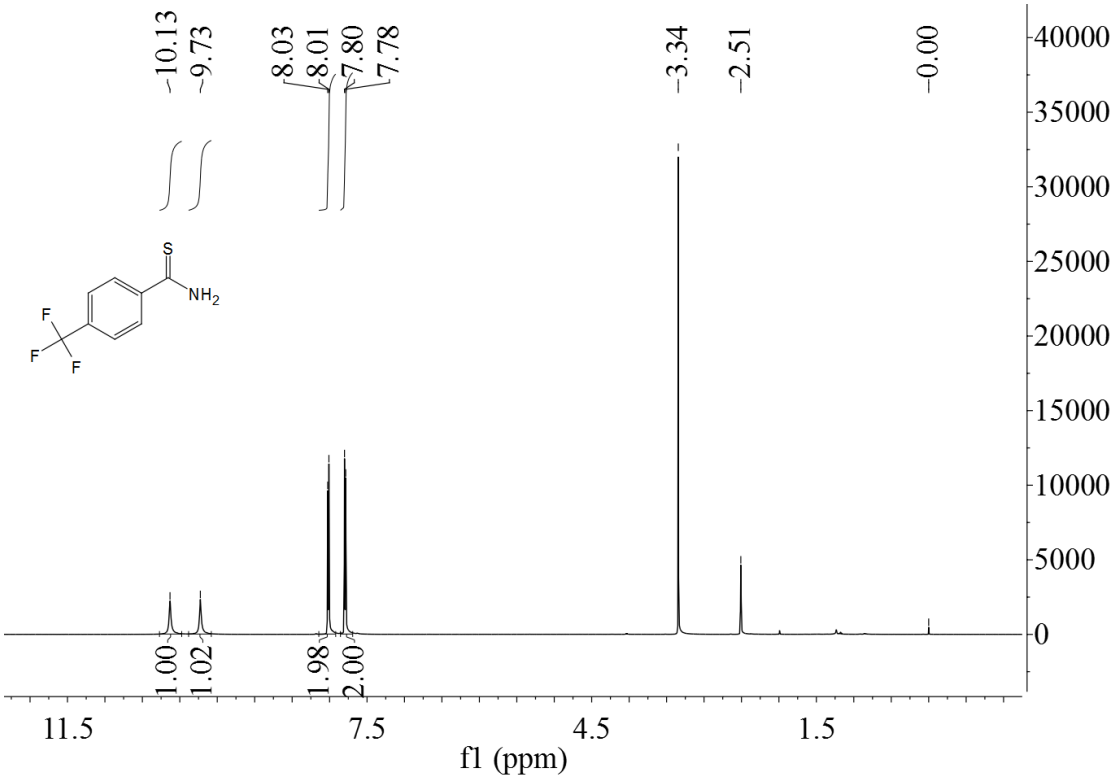
f1 (ppm)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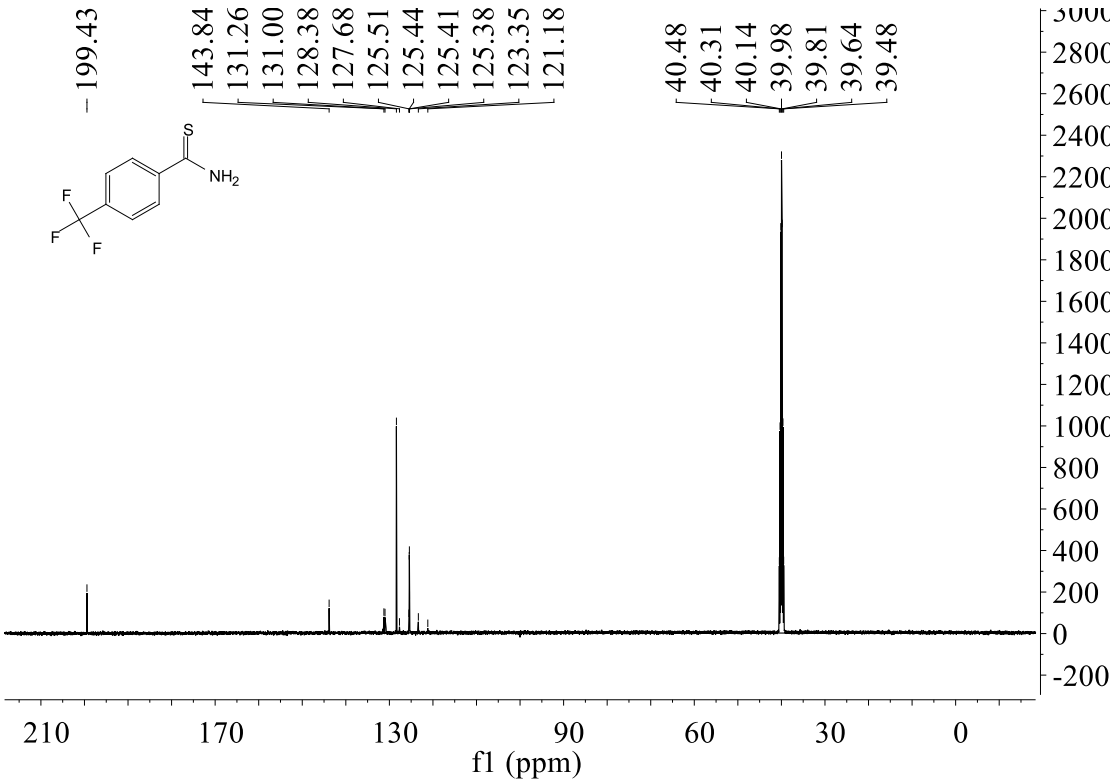
f1 (ppm)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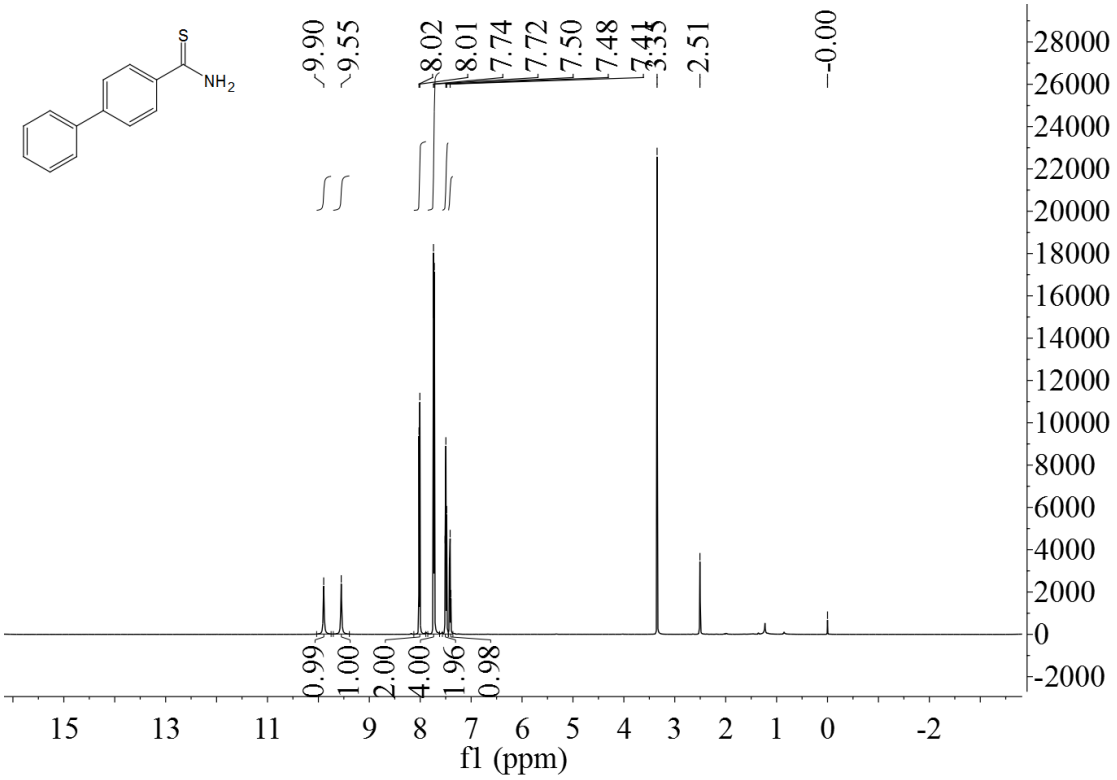
f1 (ppm)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2.00
4.00
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6000
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4
3
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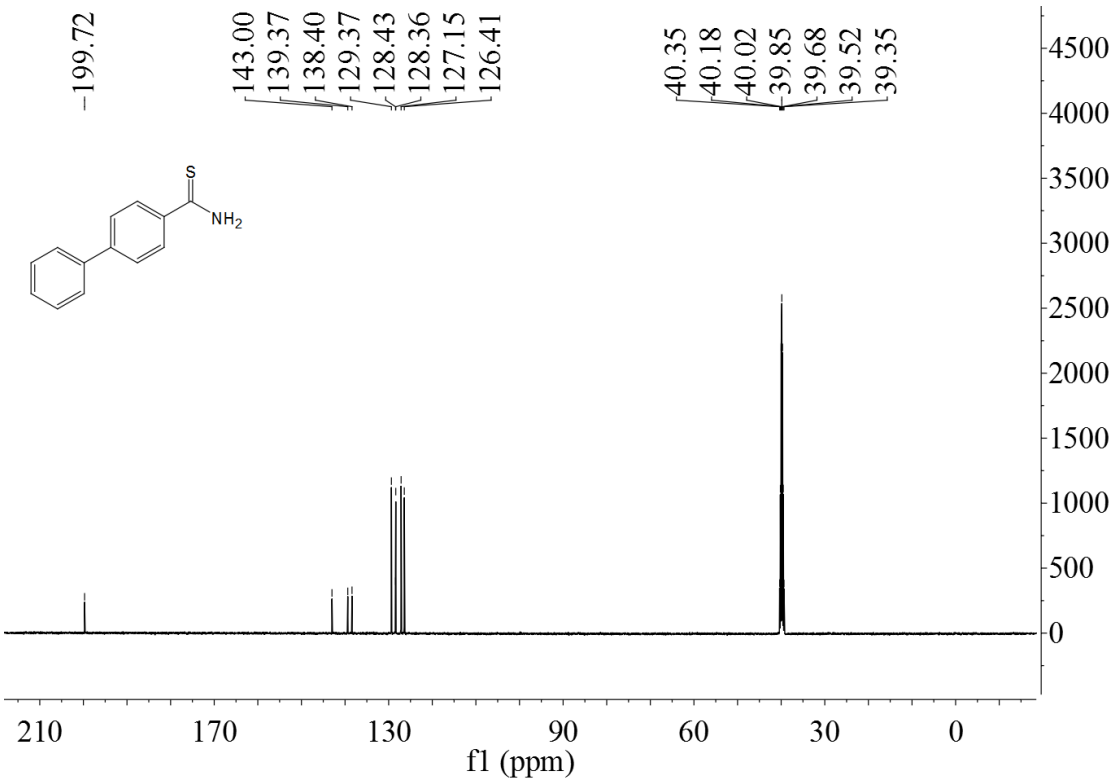
f1 (ppm)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39.68
39.52
39.35
S
NH2
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2500
2000
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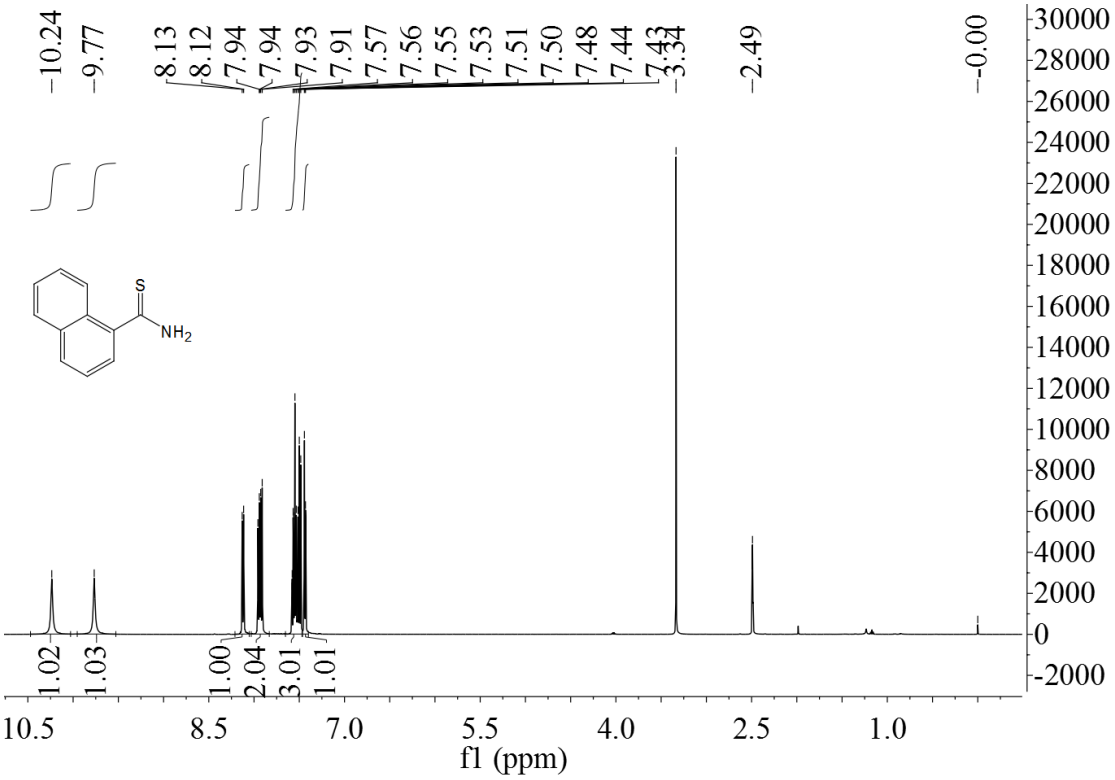
60
30
0
f1 (ppm)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7.50
7.48
7.44
7.43
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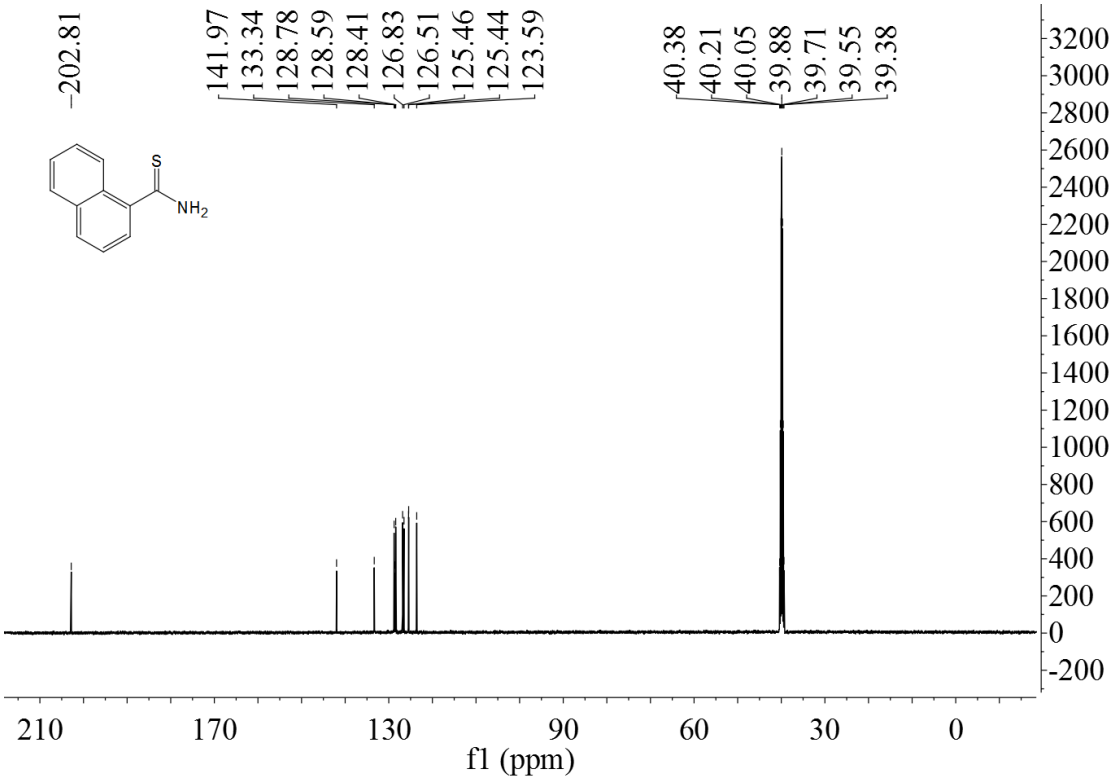
1.03
1.00
2.04
3.01
1.01
f1 (ppm)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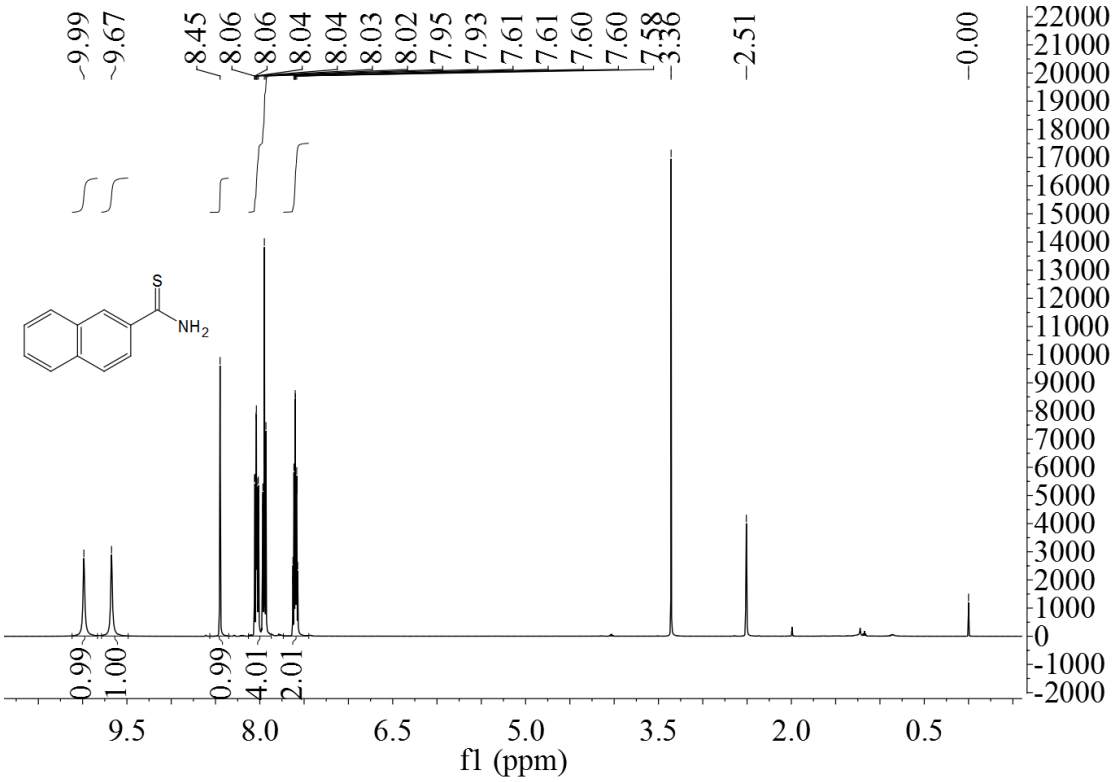
S
NH2
f1 (ppm)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7.93
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7.61
7.60
7.60
7.58
3.36
2.51
0.00
S
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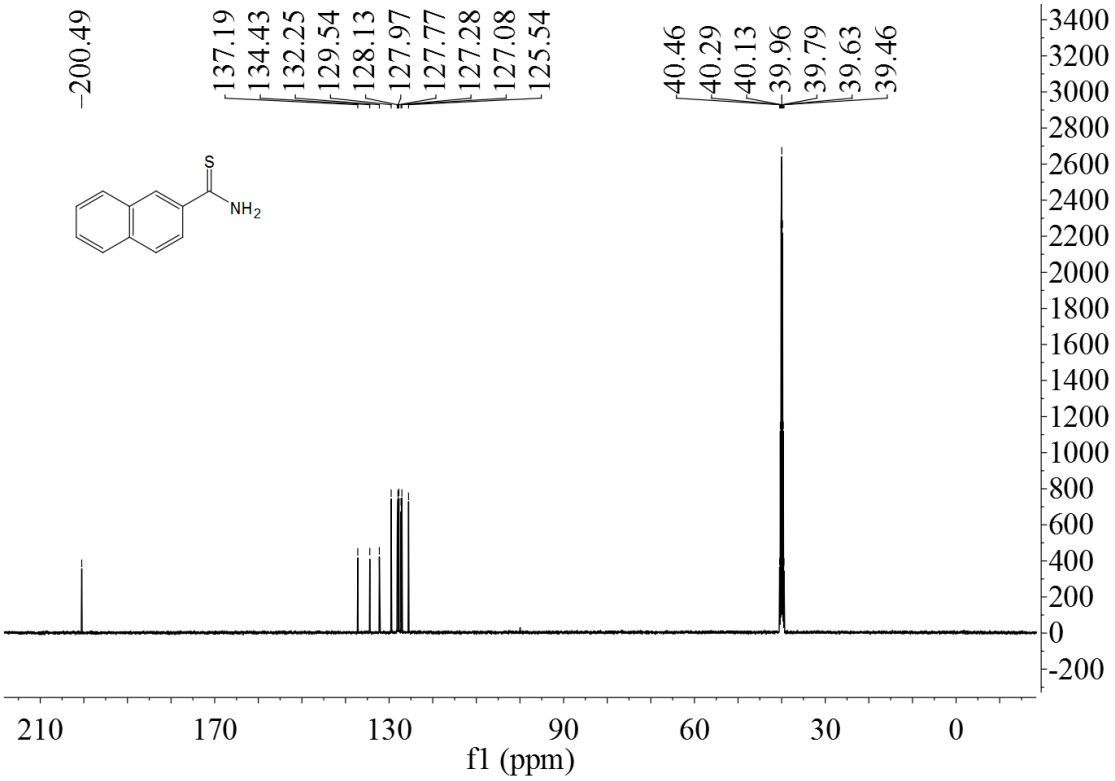
f1 (ppm)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40.29
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39.46
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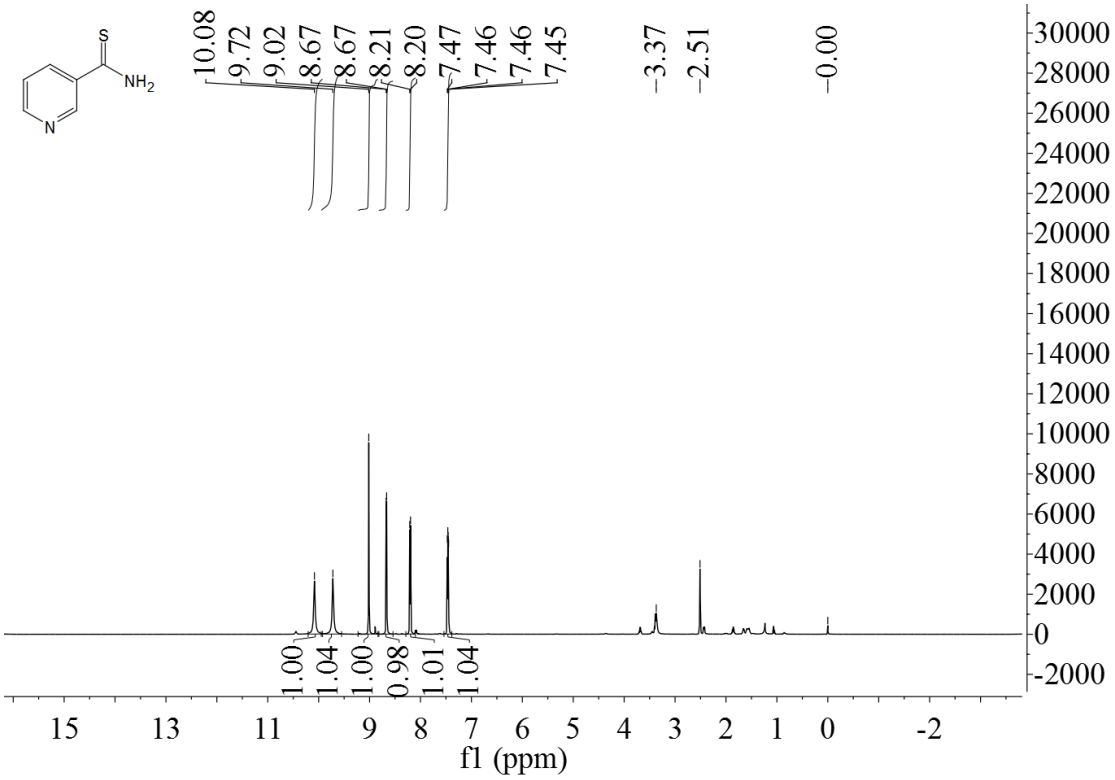
130
90
60
30
0
f1 (ppm)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7.45
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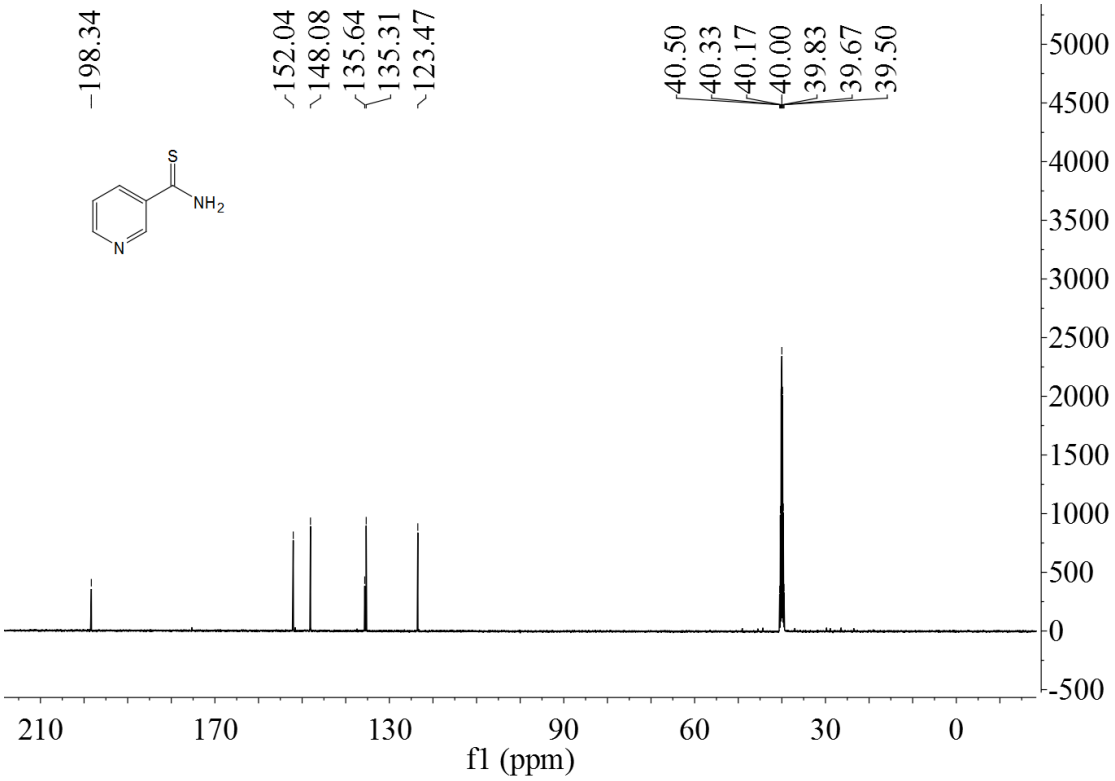
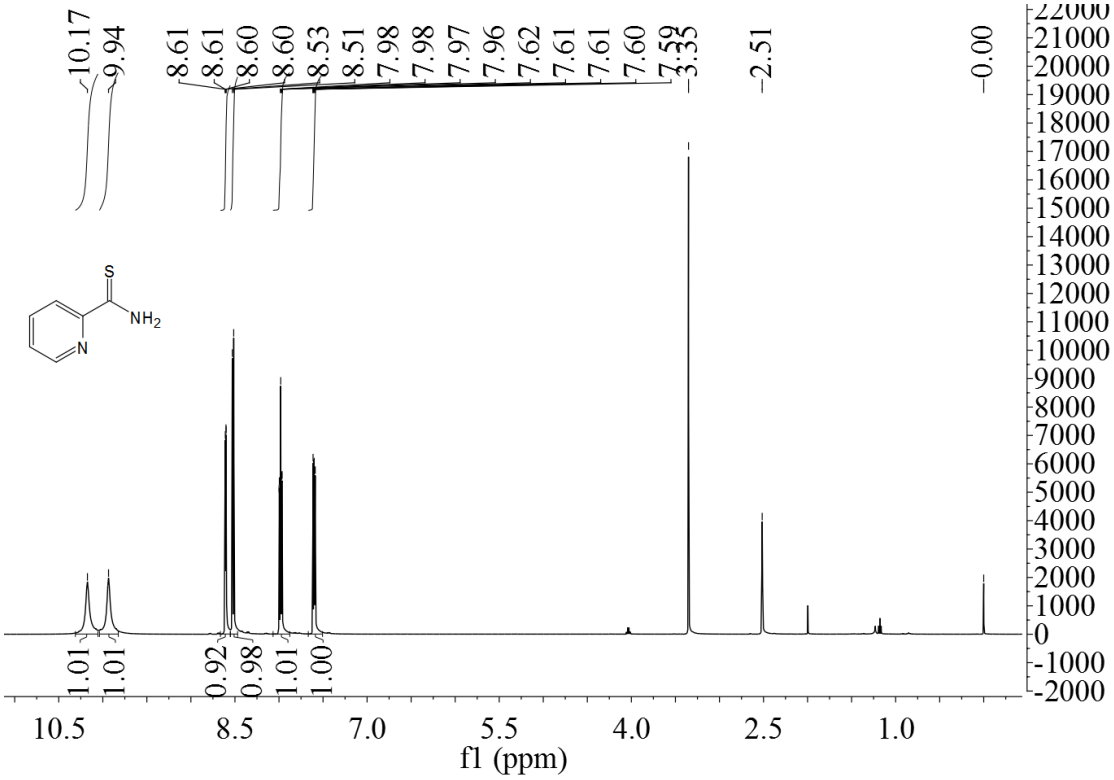
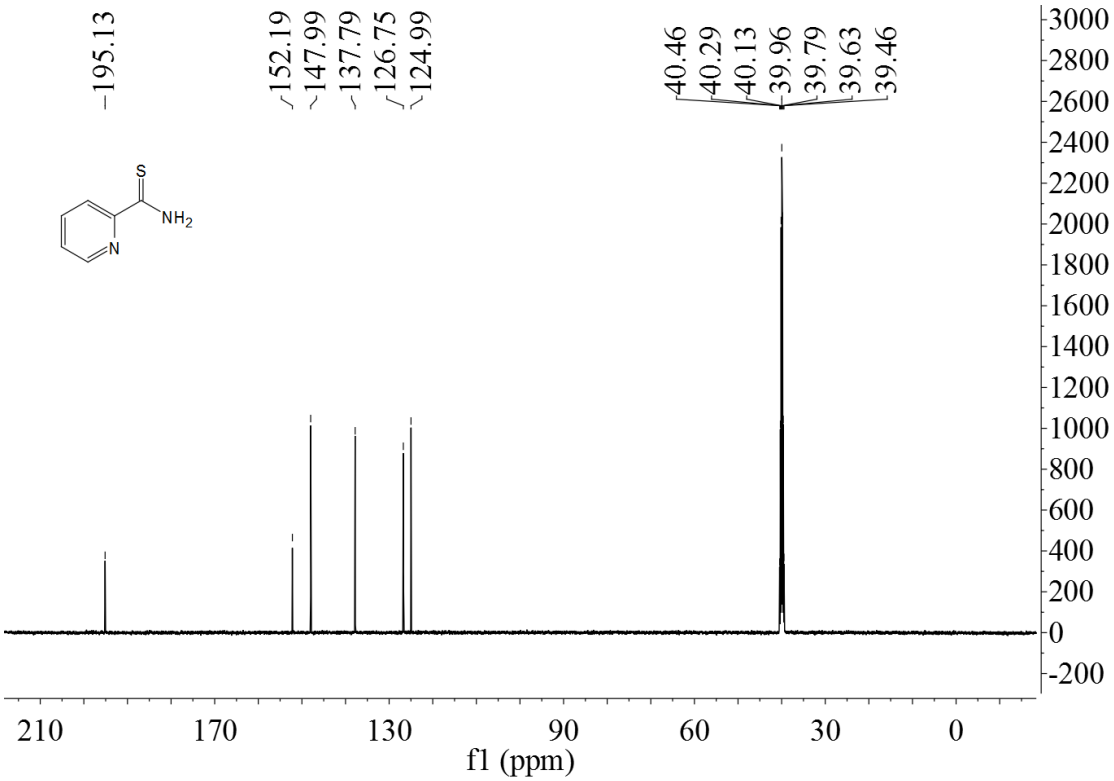
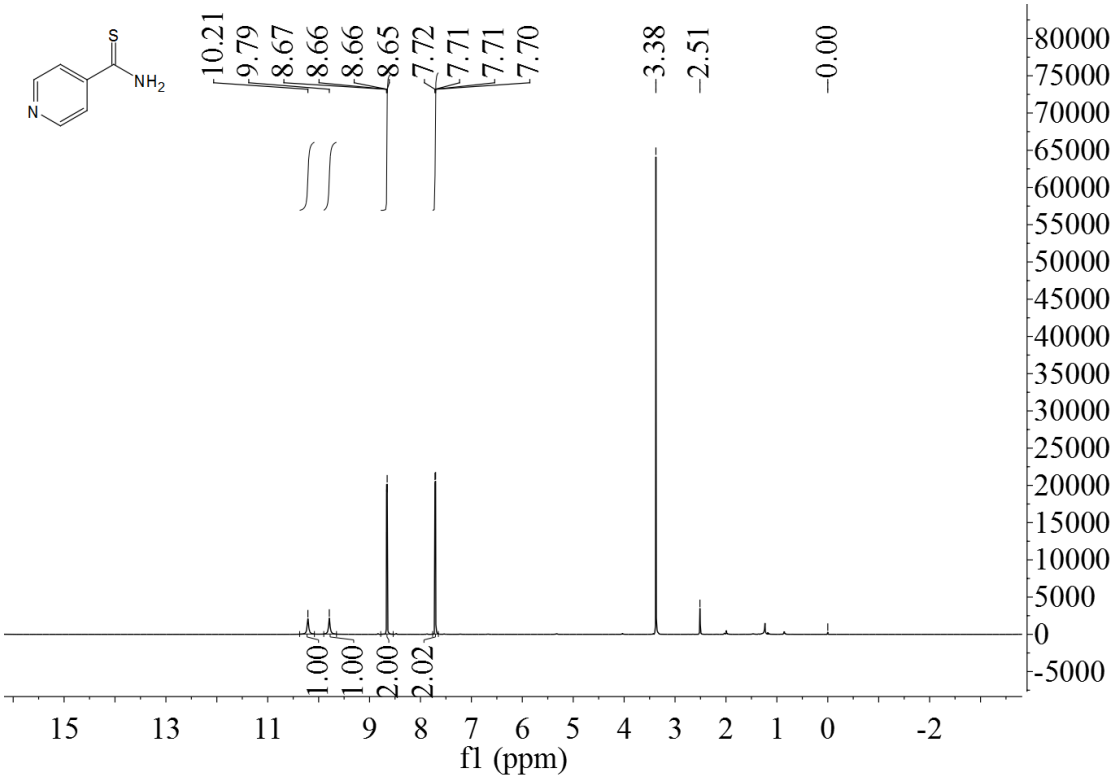
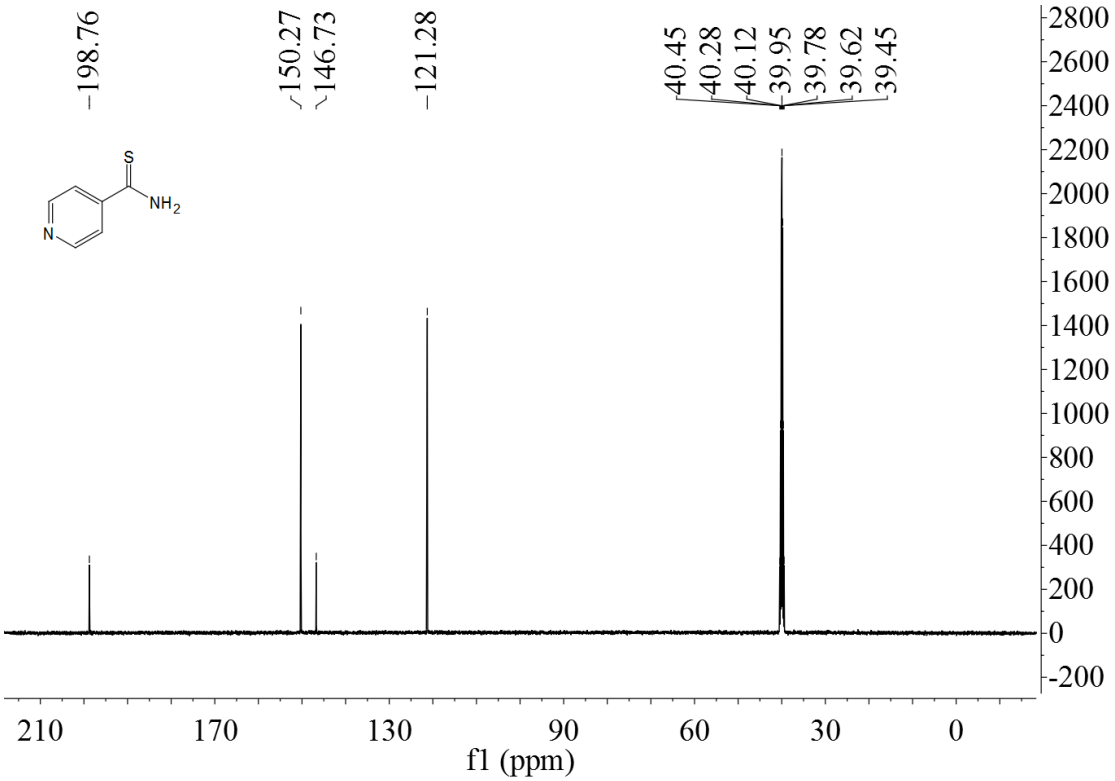
0.00
1.00
1.04
1.00
0.98
1.01
1.04
f1 (ppm)

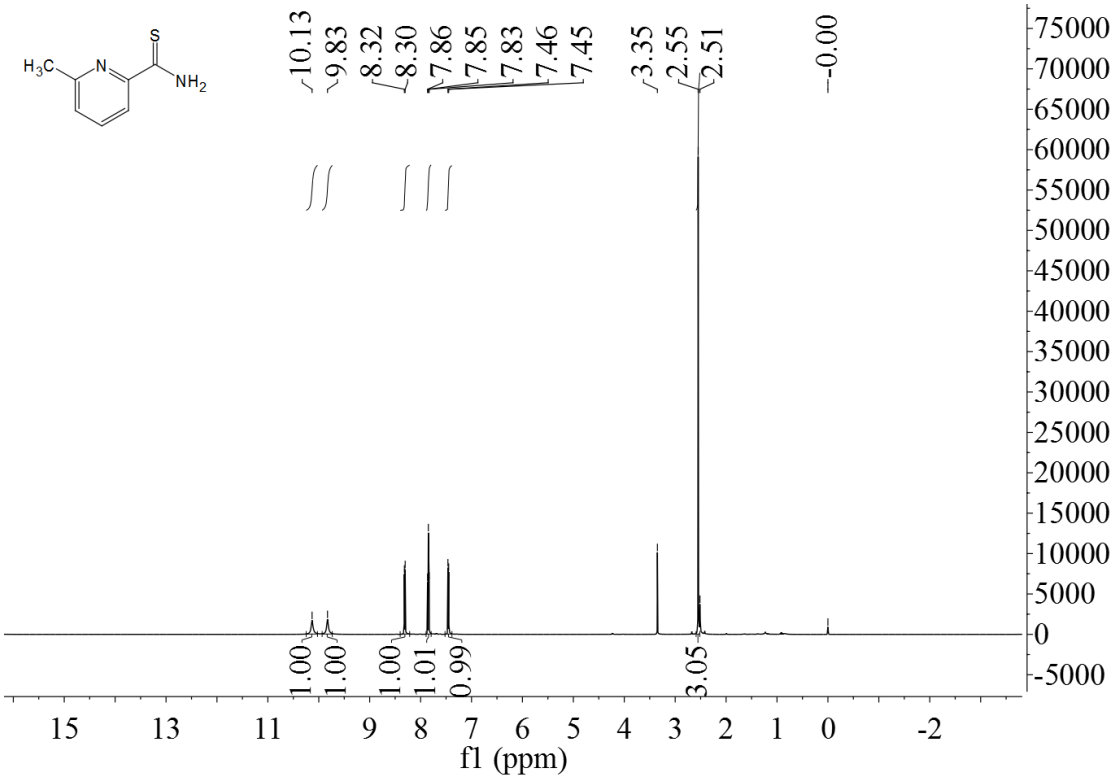

198.34
152.04
148.08
135.64
135.31
123.47
40.50
40.33
40.17
40.00
39.83
39.67
39.50
f1 (ppm)

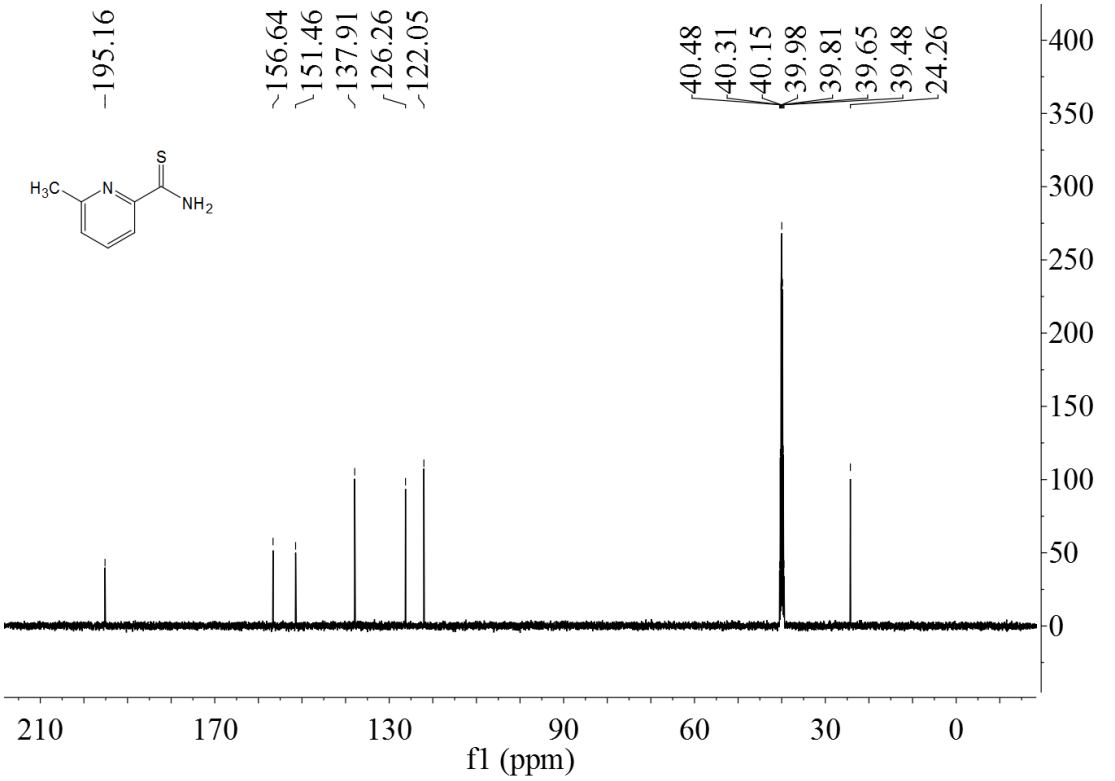

10.17
9.94
8.61
8.61
8.60
8.60
8.53
8.51
7.98
7.98
7.97
7.96
7.62
7.61
7.61
7.60
7.59
7.55
3.35
2.51
0.00
S
NH2
N
1.01
1.01
0.92
0.98
1.01
1.00
10.5
8.5
7.0
5.5
4.0
2.5
1.0
f1 (ppm)

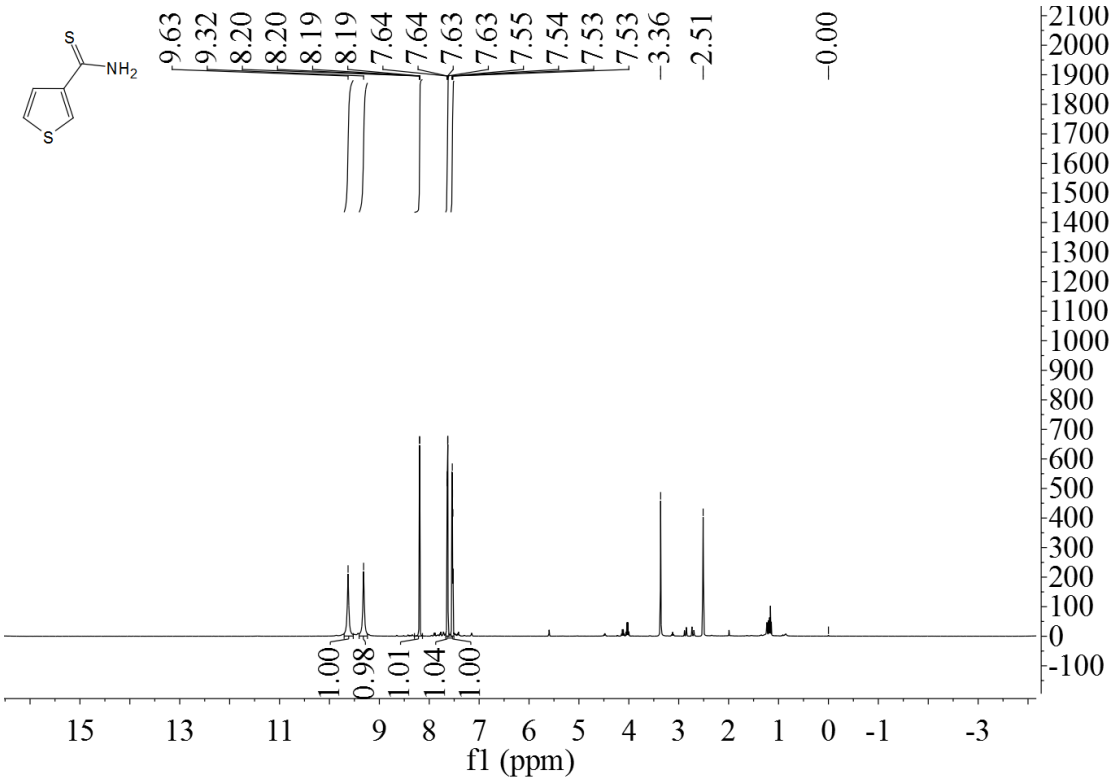

195.13
152.19
147.99
137.79
126.75
124.99
40.46
40.29
40.13
39.96
39.79
39.63
39.46
S
NH2
N
210
170
130
90
60
30
0
f1 (ppm)

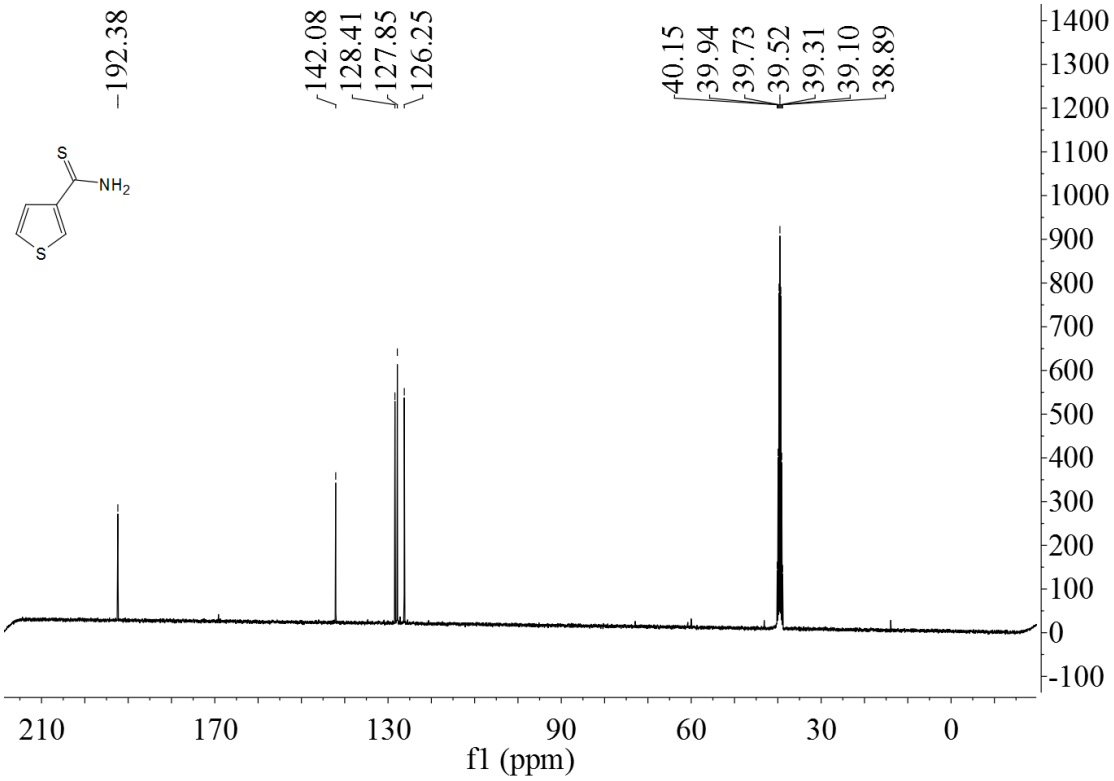

10.21
9.79
8.67
8.66
8.66
8.65
7.72
7.71
7.71
7.70
3.38
2.51
0.00
1.00
1.00
2.00
2.02
f1 (ppm)

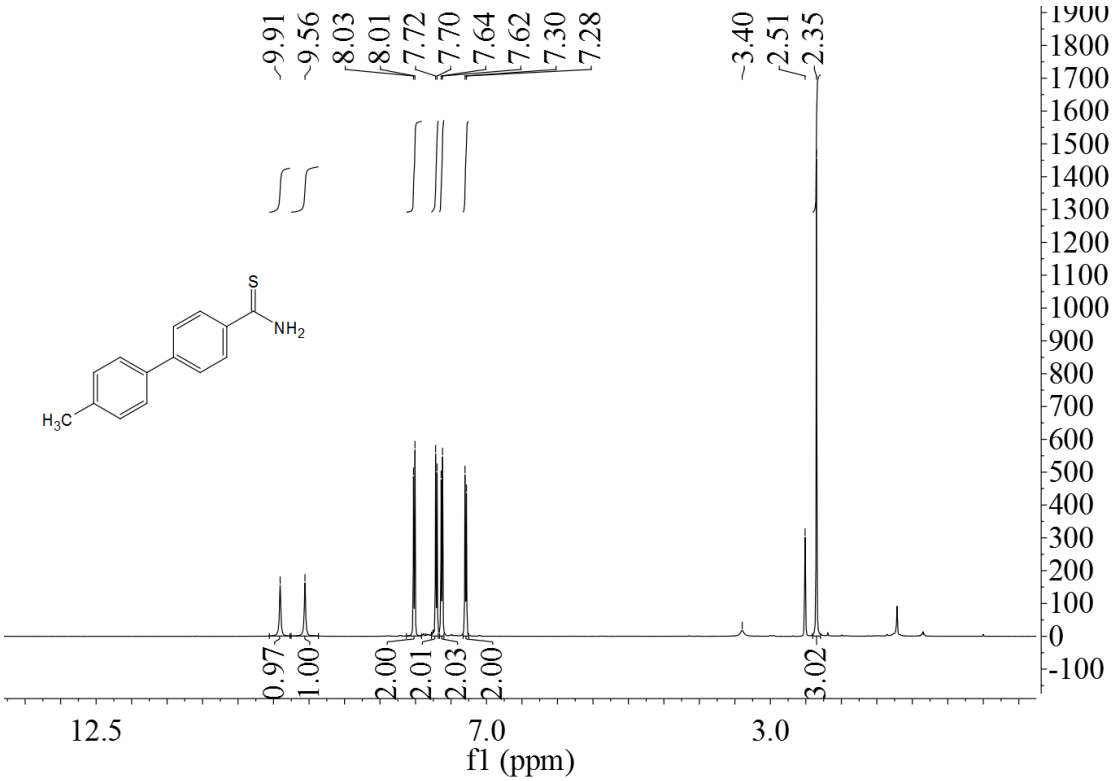

198.76
150.27
146.73
121.28
40.45
40.28
40.12
39.95
39.78
39.62
39.45
f1 (ppm)

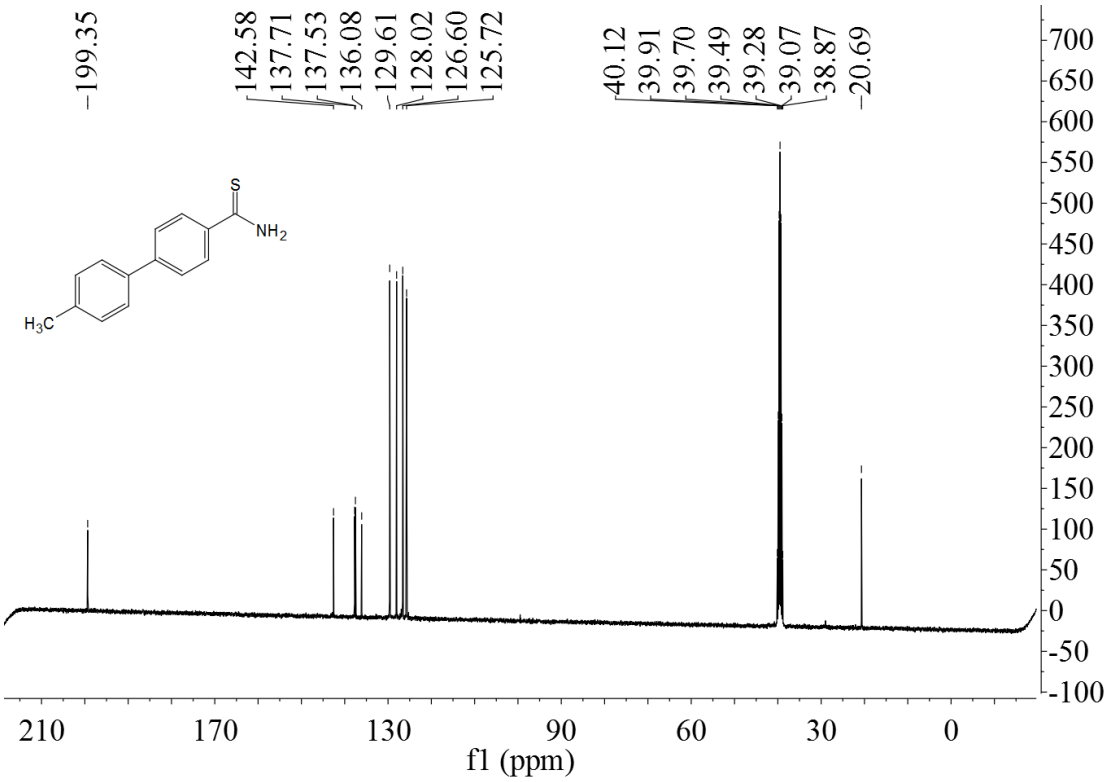

10.13
9.83
8.32
8.30
7.86
7.85
7.83
7.46
7.45
3.35
2.55
2.51
-0.00
1.00
1.00
1.00
1.01
0.99
3.05
f1 (ppm)

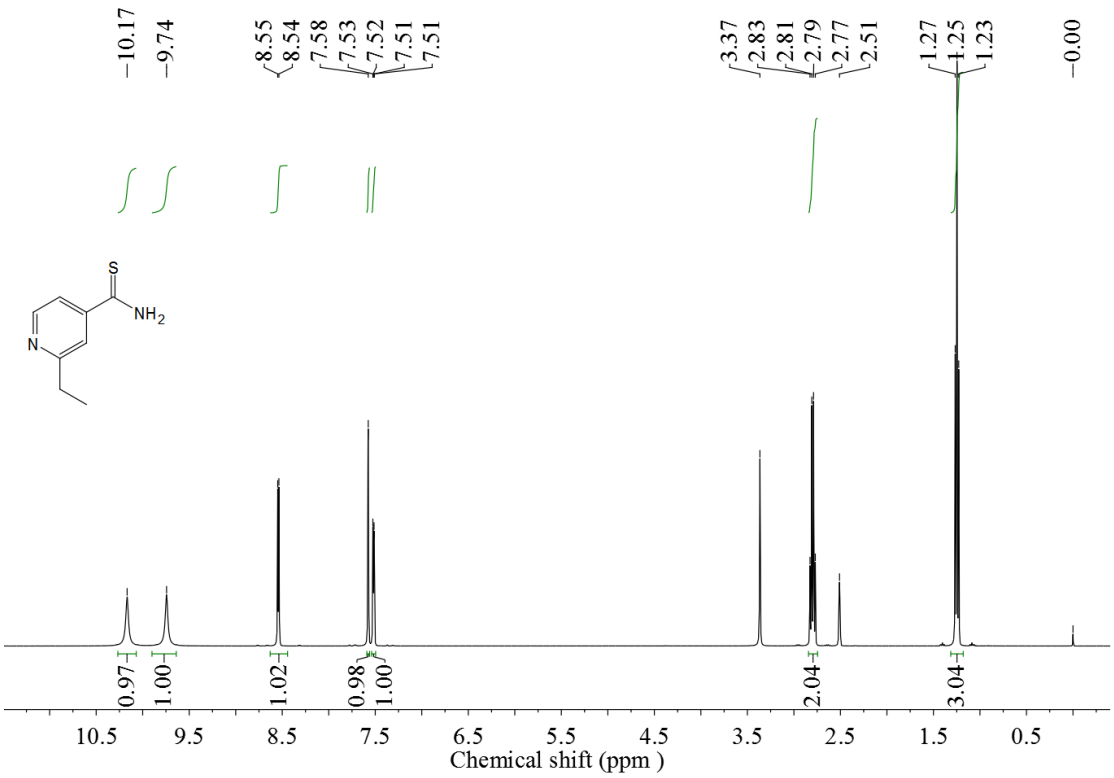

195.16
156.64
151.46
137.91
126.26
122.05
40.48
40.31
40.15
39.98
39.81
39.65
39.48
24.26
f1 (ppm)

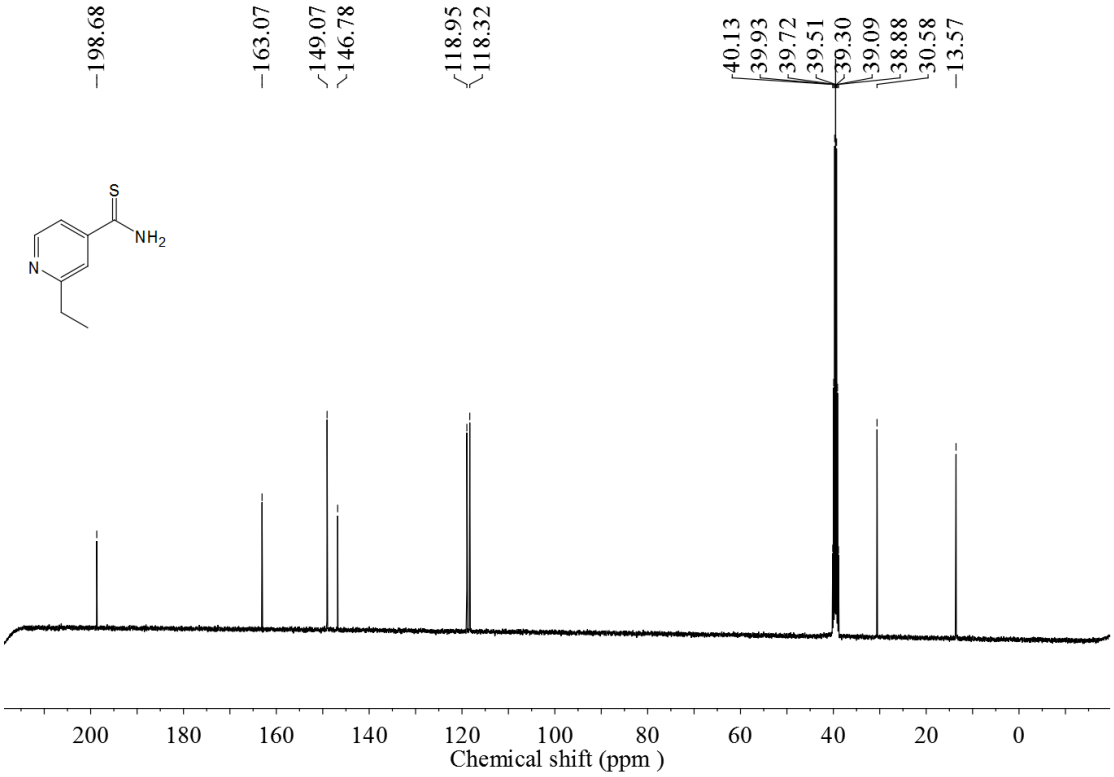

9.63
9.32
8.20
8.20
8.19
8.19
7.64
7.64
7.63
7.63
7.55
7.54
7.53
7.53
3.36
2.51
0.00
1.00
0.98
1.01
1.04
1.00
f1 (ppm)

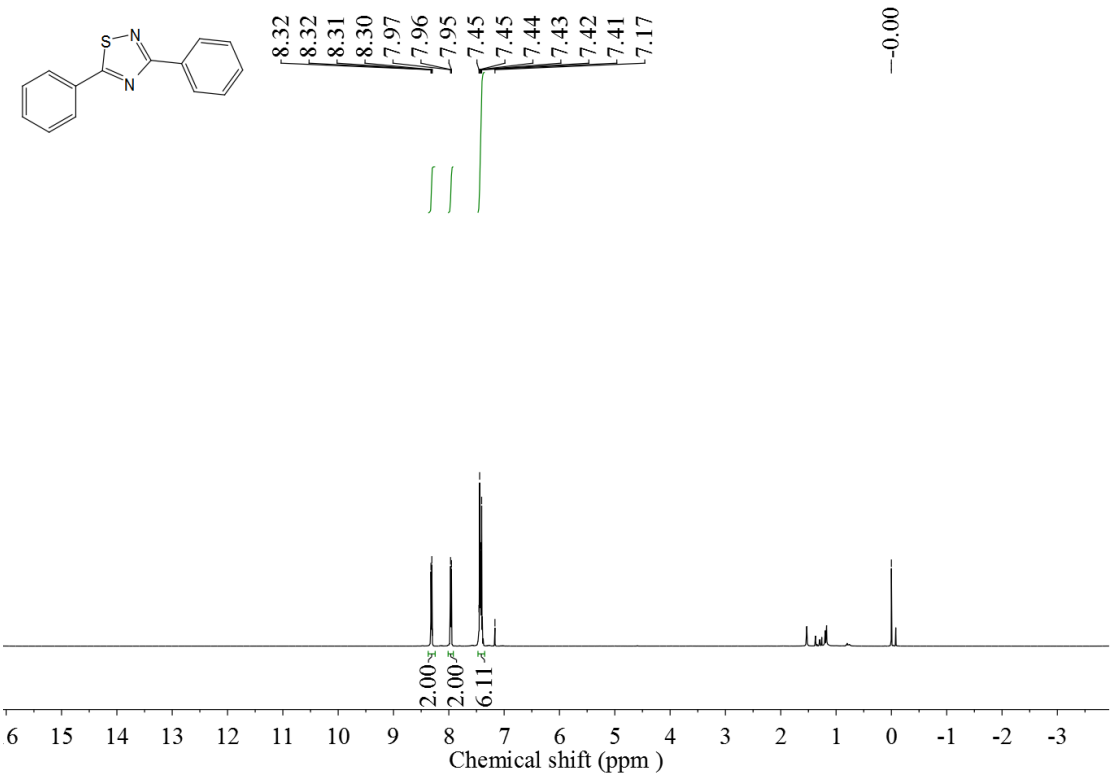

192.38
142.08
128.41
127.85
126.25
40.15
39.94
39.73
39.52
39.31
39.10
38.89
f1 (ppm)

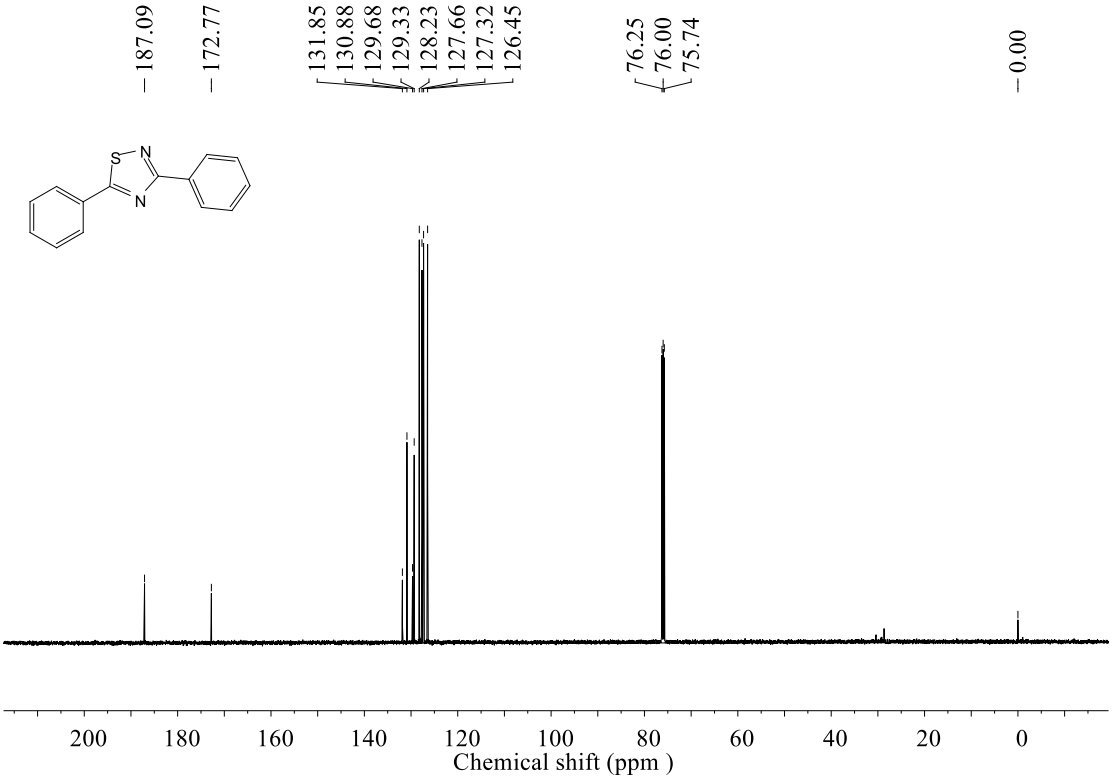

9.91
9.56
8.03
8.01
7.72
7.70
7.64
7.62
7.30
7.28
3.40
2.51
2.35
S
NH2
H3C
0.97
1.00
2.00
2.01
2.03
2.00
3.02
12.5
7.0
3.0
f1 (ppm)

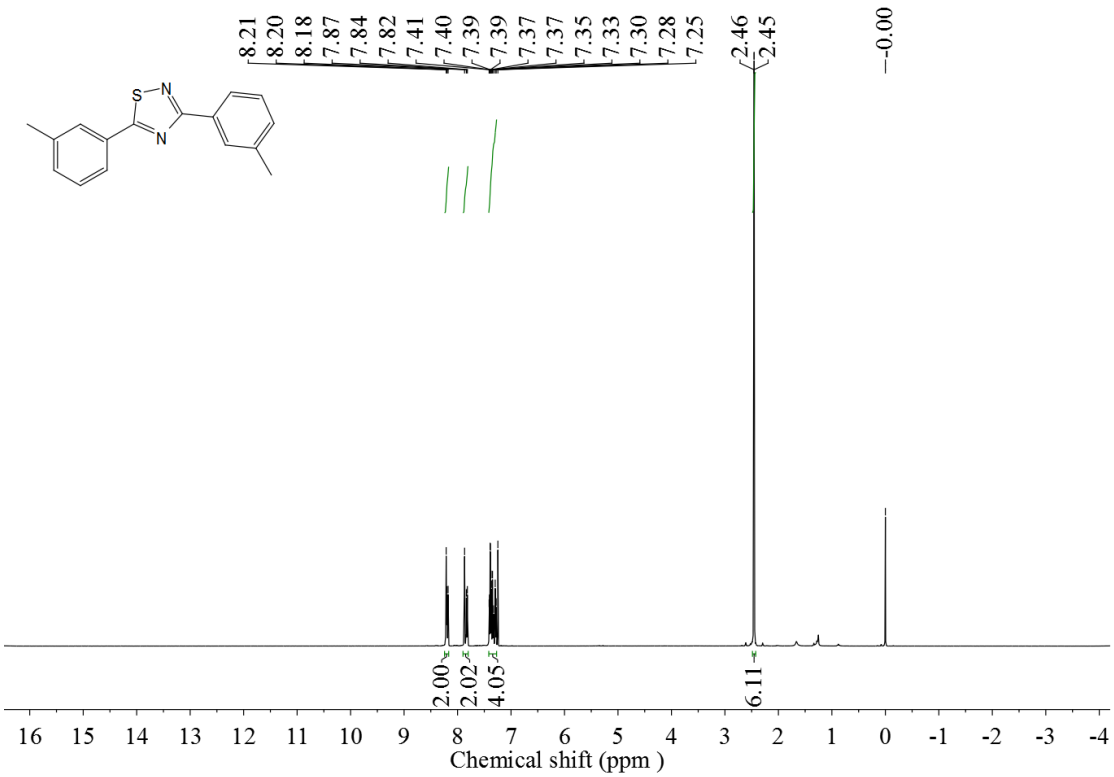

199.35
142.58
137.71
137.53
136.08
129.61
128.02
126.60
125.72
40.12
39.91
39.70
39.49
39.28
39.07
38.87
20.69
S
NH2
H3C
210
170
130
90
60
30
0
f1 (ppm)

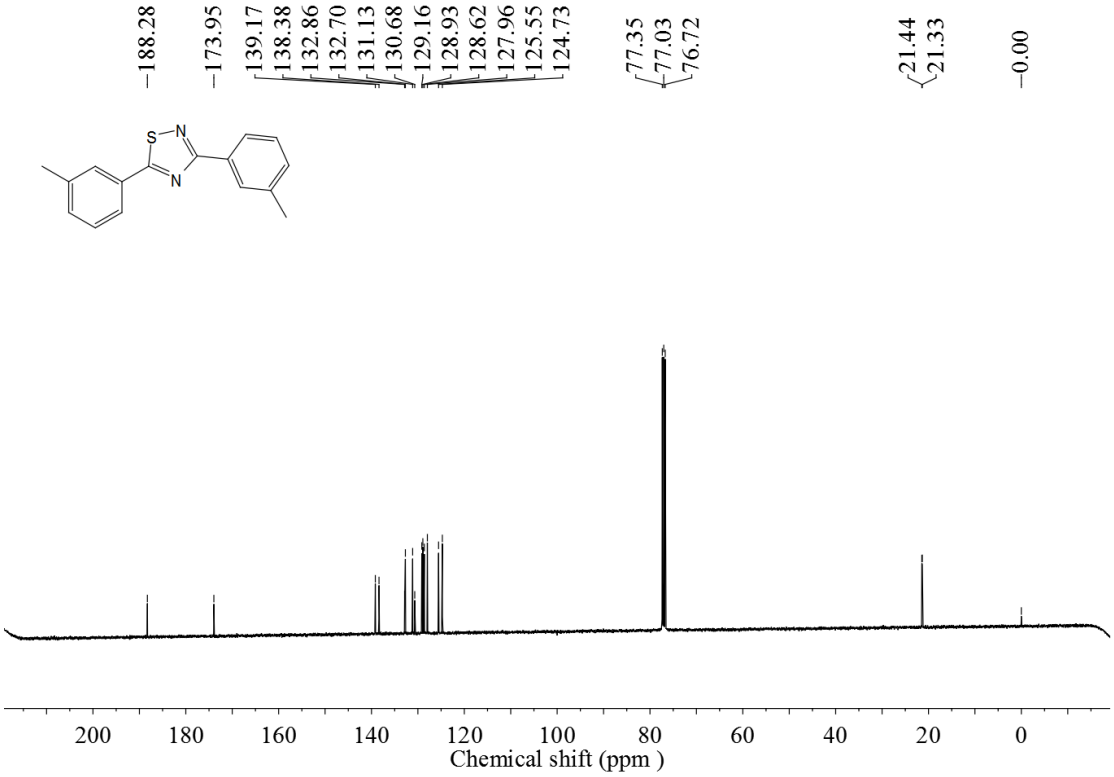

10.17
9.74
8.55
8.54
7.58
7.53
7.52
7.51
7.51
3.37
2.83
2.81
2.79
2.77
2.51
1.27
1.25
1.23
0.00
S
NH2
N
0.97
1.00
1.02
0.98
1.00
2.04
3.04
10.5
9.5
8.5
7.5
6.5
5.5
4.5
3.5
2.5
1.5
0.5
Chemical shift (ppm)

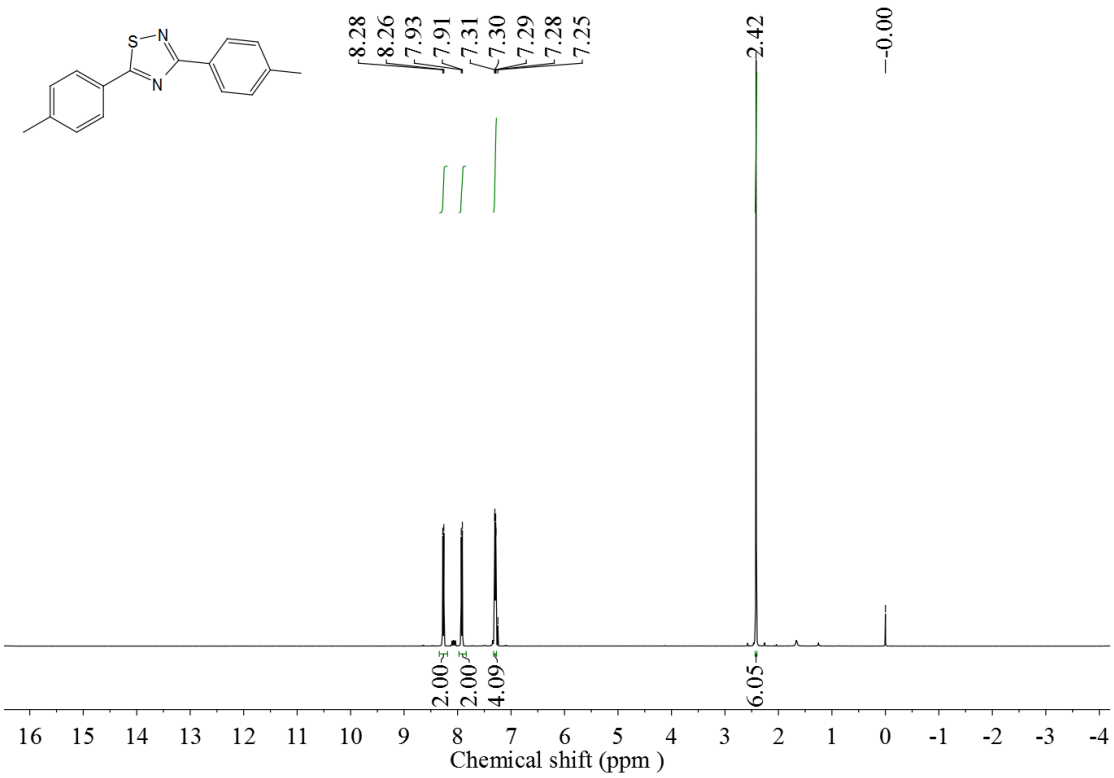

198.68
163.07
149.07
146.78
118.95
118.32
40.13
39.93
39.72
39.51
39.30
39.09
38.88
30.58
13.57
S
NH2
N
200
180
160
140
120
100
80
60
40
20
0
Chemical shift (ppm)

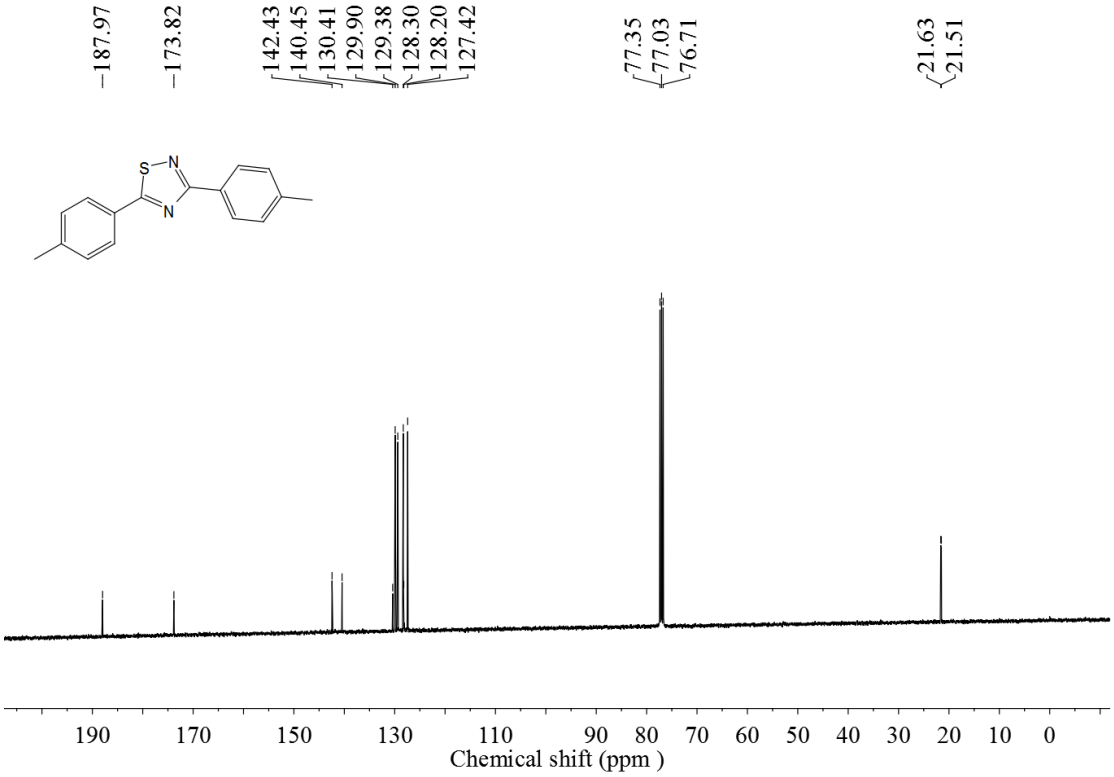

8.32
8.32
8.31
8.30
7.97
7.96
7.95
7.45
7.45
7.44
7.43
7.42
7.41
7.17
0.00
2.00
2.00
6.11
6 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0 -1 -2 -3
Chemical shift (ppm)

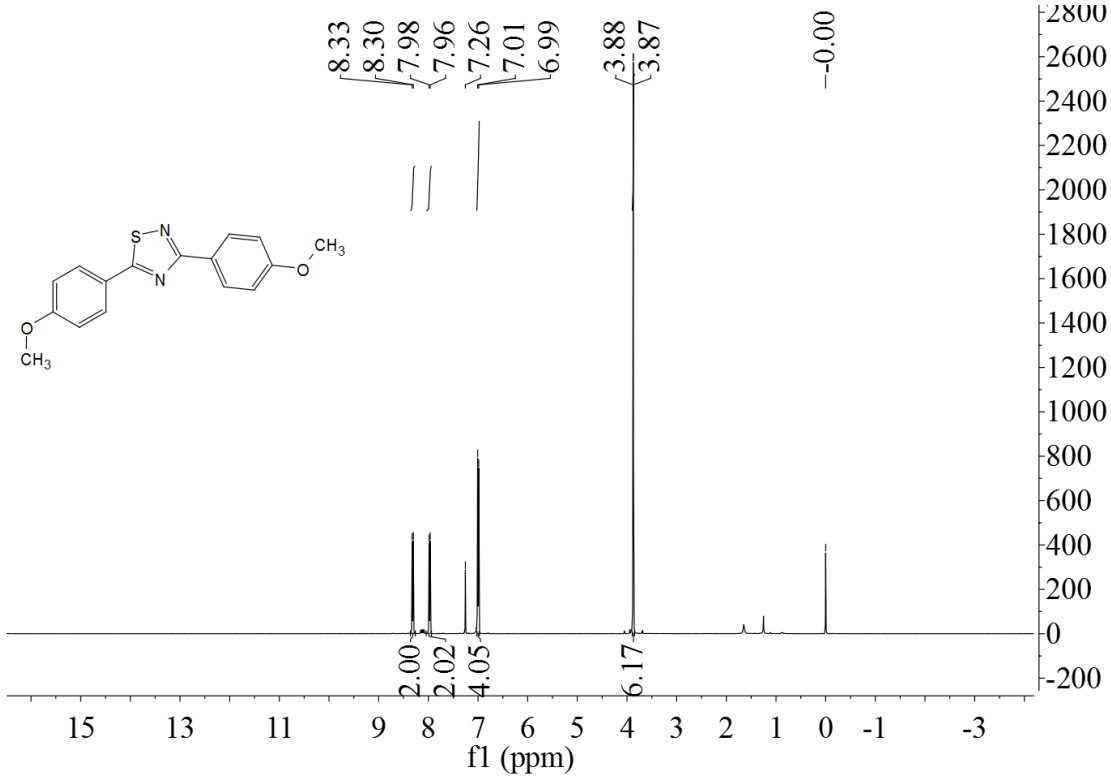

187.09
172.77
131.85
130.88
129.68
129.33
128.23
127.66
127.32
126.45
76.25
76.00
75.74
0.00
200 180 160 140 120 100 80 60 40 20 0
Chemical shift (ppm)

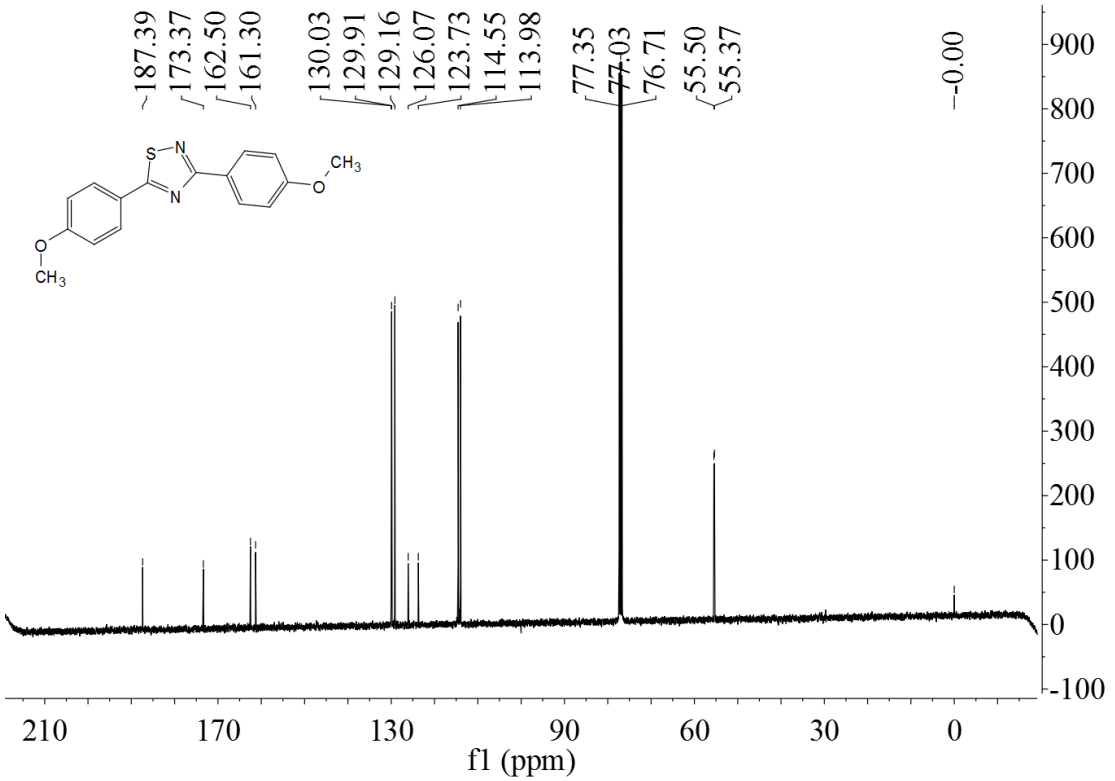

8.21
8.20
8.18
7.87
7.84
7.82
7.41
7.40
7.39
7.39
7.37
7.37
7.35
7.33
7.30
7.28
7.25
2.46
2.45
0.00
2.00
2.02
4.05
6.11
16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0 -1 -2 -3 -4
Chemical shift (ppm)

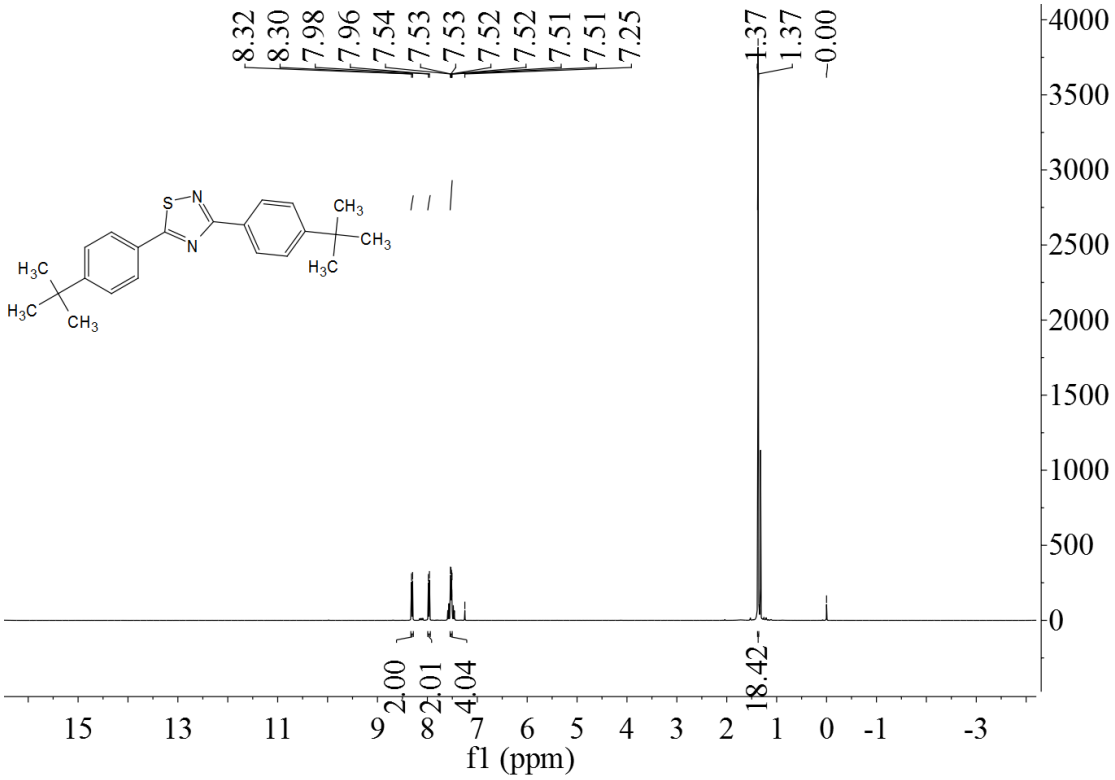

188.28
173.95
139.17
138.38
132.86
132.70
131.13
130.68
129.16
128.93
128.62
127.96
125.55
124.73
77.35
77.03
76.72
21.44
21.33
0.00
200 180 160 140 120 100 80 60 40 20 0
Chemical shift (ppm)

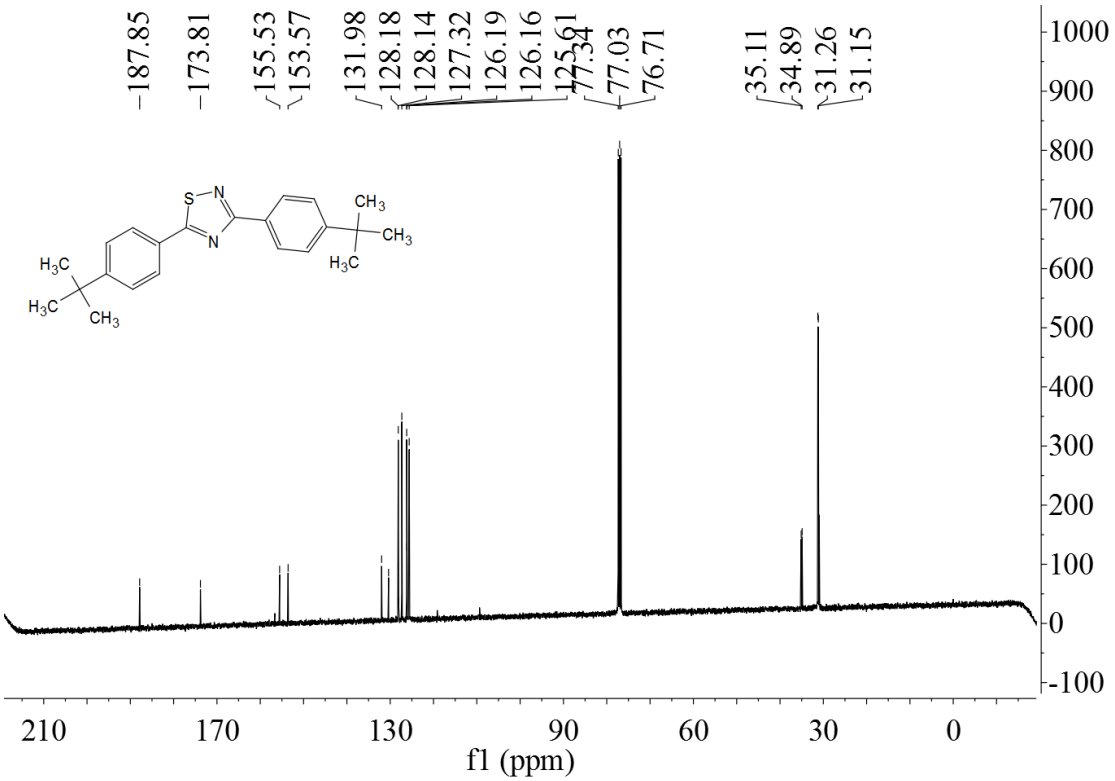

8.28
8.26
7.93
7.91
7.31
7.30
7.29
7.28
7.25
2.42
0.00
2.00
2.00
4.09
6.05
16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0 -1 -2 -3 -4
Chemical shift (ppm)


187.97
173.82
142.43
140.45
130.41
129.90
129.38
128.30
128.20
127.42
77.35
77.03
76.71
21.63
21.51
190 170 150 130 110 90 80 70 60 50 40 30 20 10 0
Chemical shift (ppm)


8.33
8.30
7.98
7.96
7.26
7.01
6.99
3.88
3.87
-0.00
2.00
2.02
4.05
6.17
f1 (ppm)


187.39
173.37
162.50
161.30
130.03
129.91
129.16
126.07
123.73
114.55
113.98
77.35
77.03
76.71
55.50
55.37
-0.00
f1 (ppm)


8.32
8.30
7.98
7.96
7.54
7.53
7.53
7.52
7.52
7.51
7.51
7.25
1.37
1.37
0.00
2.00
2.01
4.04
18.42
f1 (ppm)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173.81
155.53
153.57
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128.18
128.14
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126.19
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125.61
77.34
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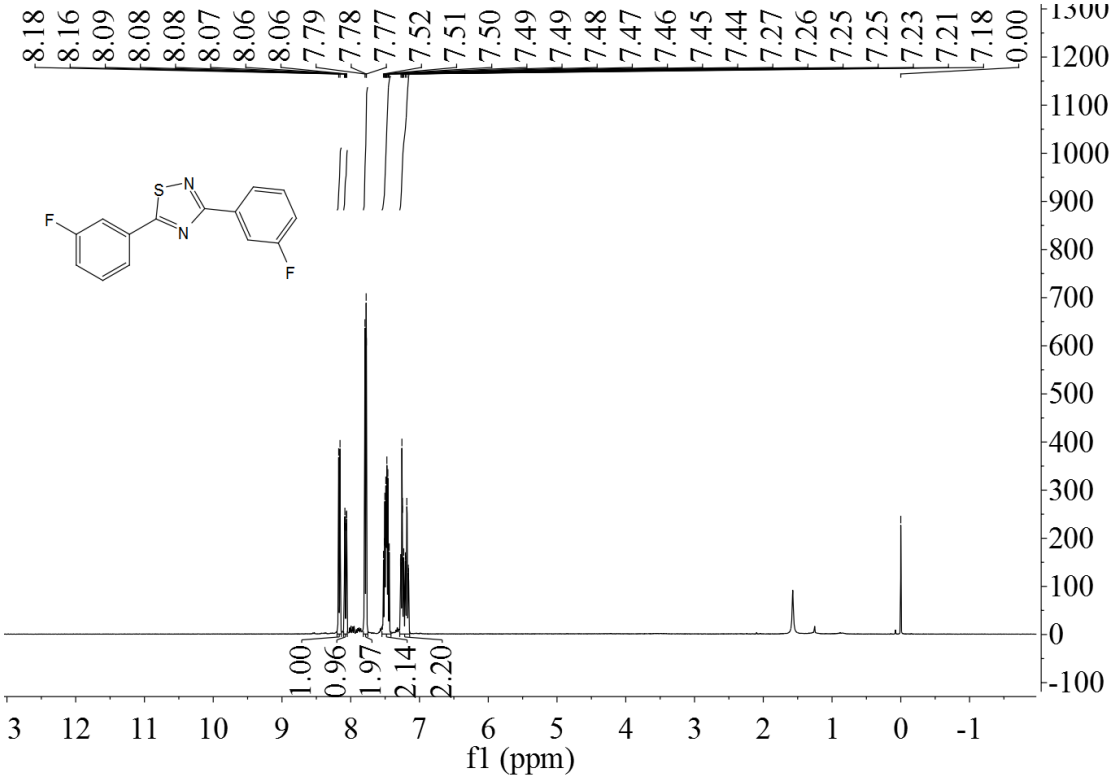
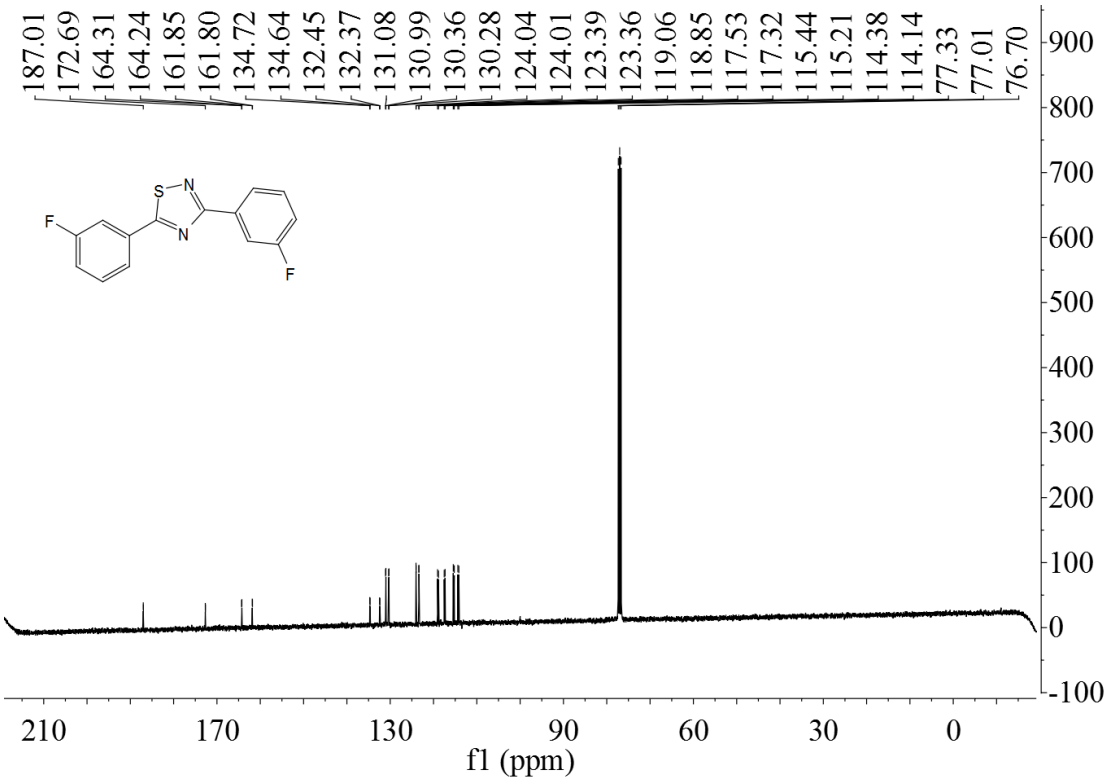
35.11
34.89
31.26
31.15
f1 (ppm)


8.18
8.16
8.09
8.08
8.08
8.07
8.06
8.06
7.79
7.78
7.77
7.52
7.51
7.50
7.49
7.49
7.48
7.47
7.46
7.45
7.44
7.27
7.26
7.25
7.25
7.23
7.21
7.18
0.00
1.00
0.96
1.97
2.14
2.20
f1 (ppm)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164.24
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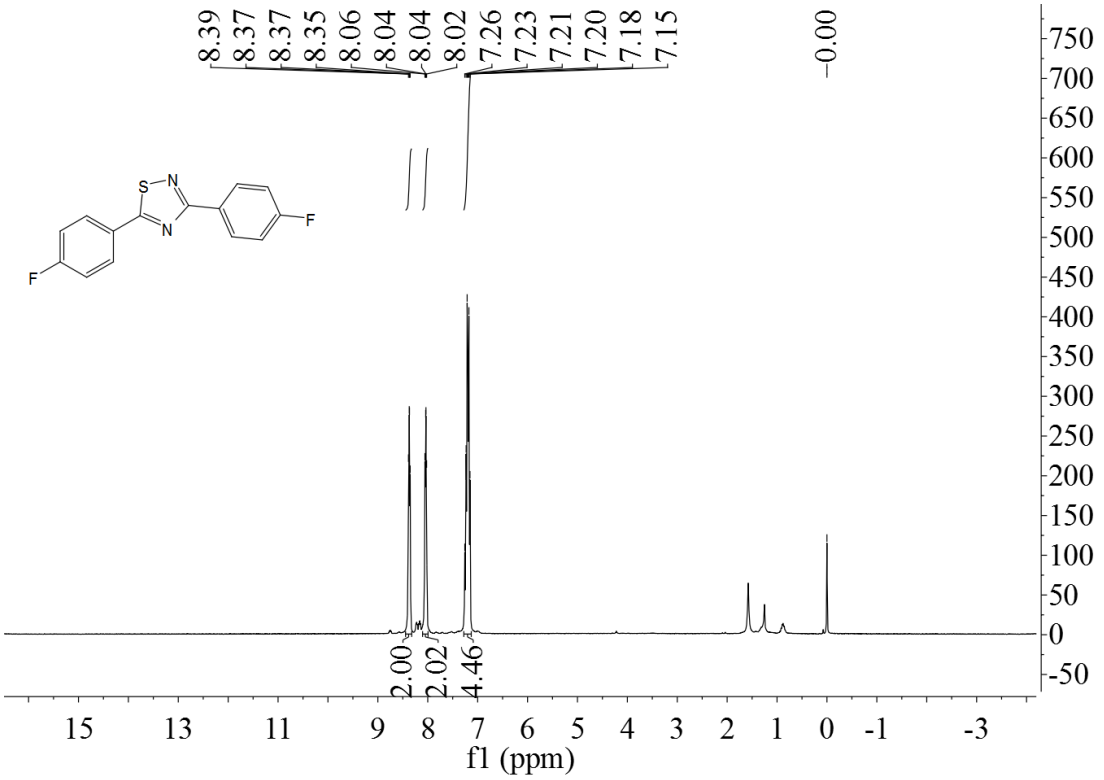
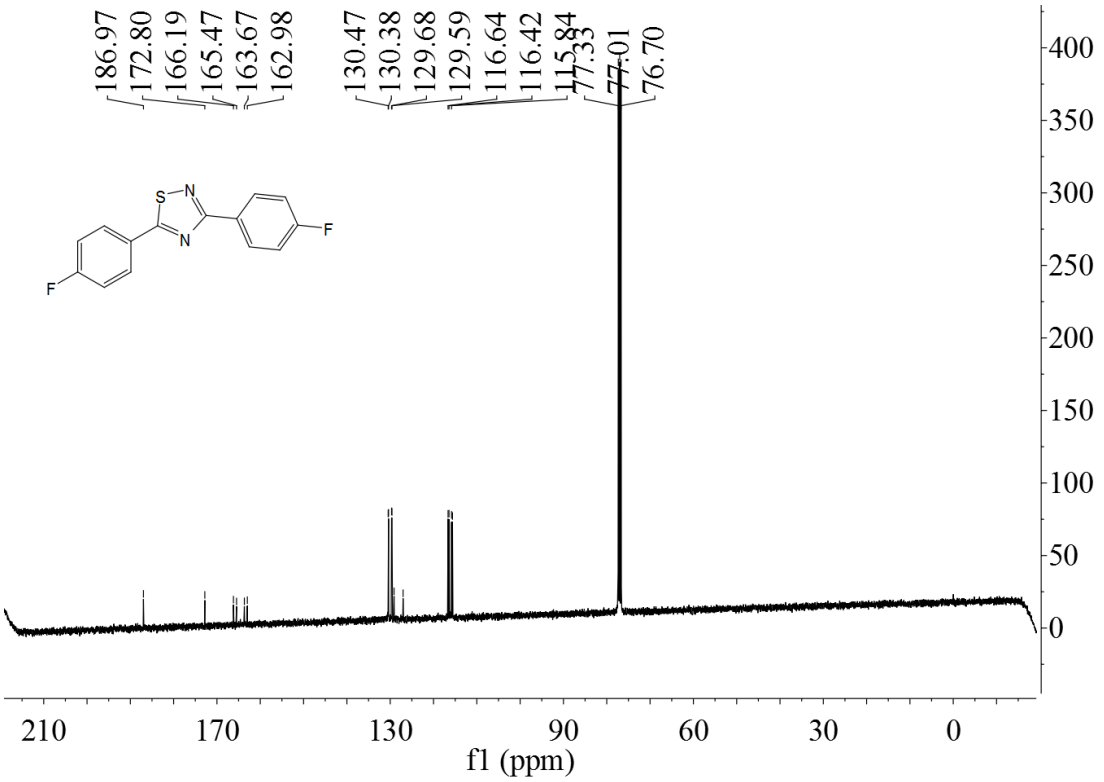
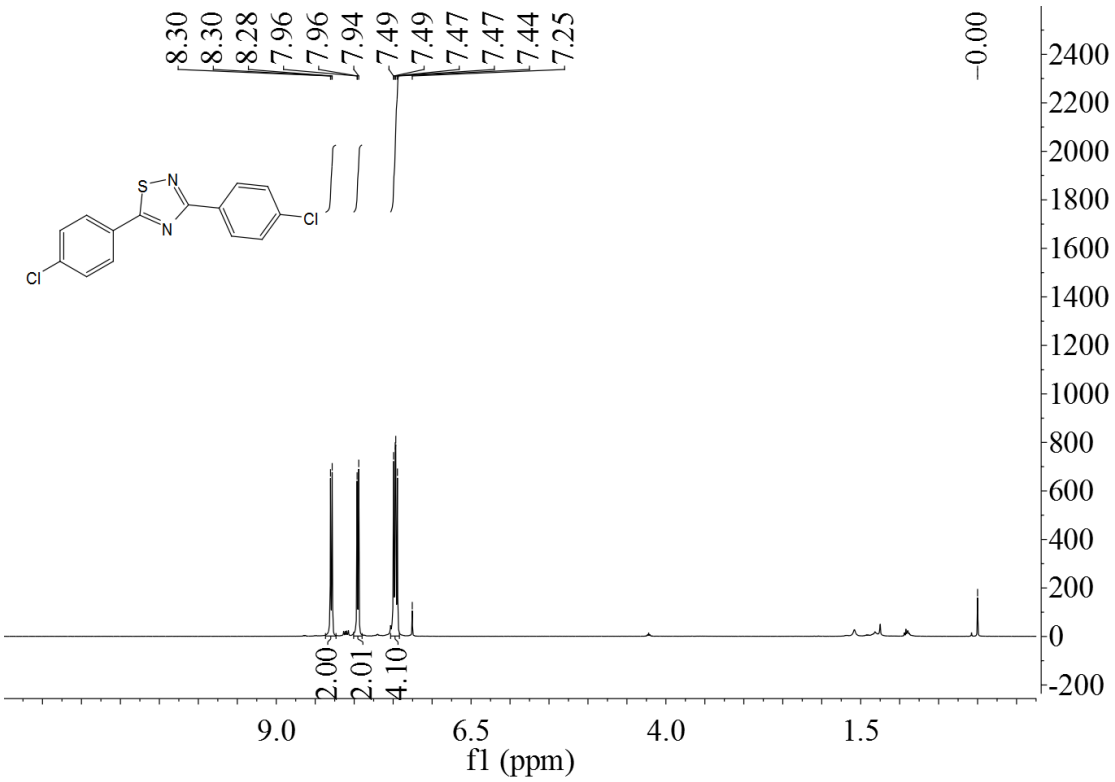
161.80
134.72
134.64
132.45
132.37
131.08
130.99
130.36
130.28
124.04
124.01
123.39
123.36
119.06
118.85
117.53
117.32
115.44
115.21
114.38
114.14
77.33
77.01
76.70
f1 (ppm)


8.39
8.37
8.37
8.35
8.06
8.04
8.04
8.02
7.26
7.23
7.21
7.20
7.18
7.15
-0.00
2.00
2.02
4.46
f1 (ppm)


186.97
172.80
166.19
165.47
163.67
162.98
130.47
130.38
129.68
129.59
116.64
116.42
115.84
77.33
77.01
76.70
f1 (ppm)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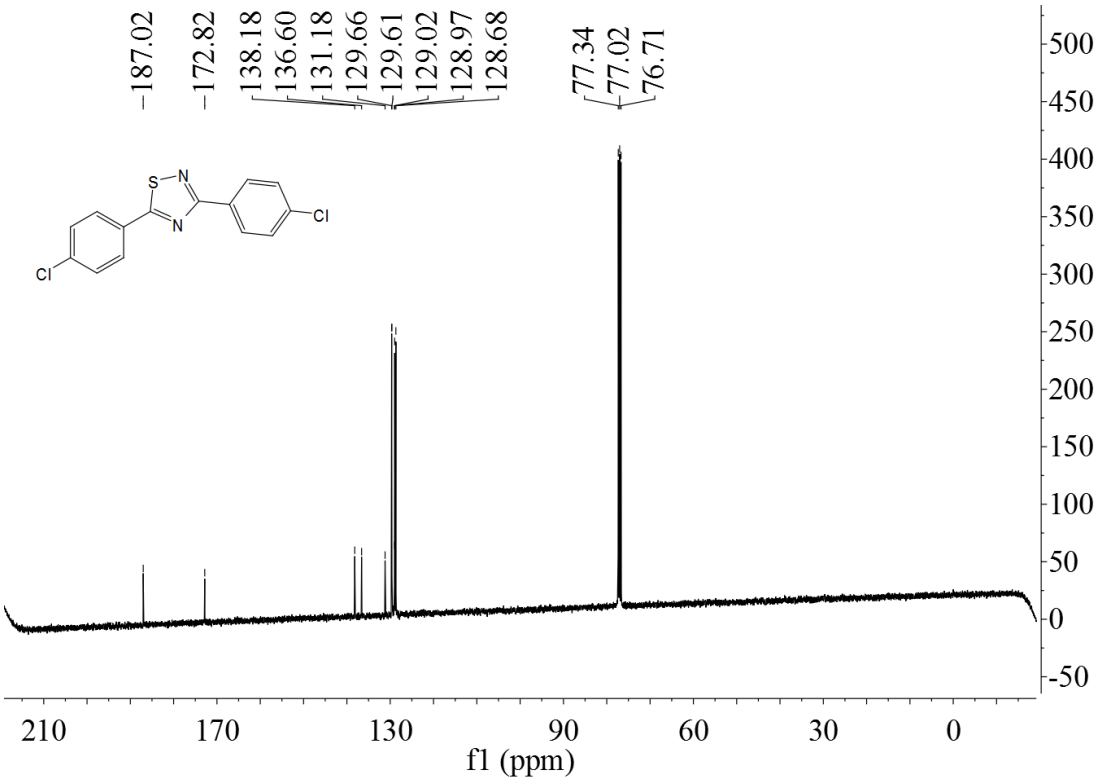
8.30
8.28
7.96
7.96
7.94
7.49
7.49
7.47
7.47
7.44
7.25
-0.00
S
N
N
Cl
Cl
2.00
2.01
4.10
9.0
6.5
4.0
1.5
f1 (ppm)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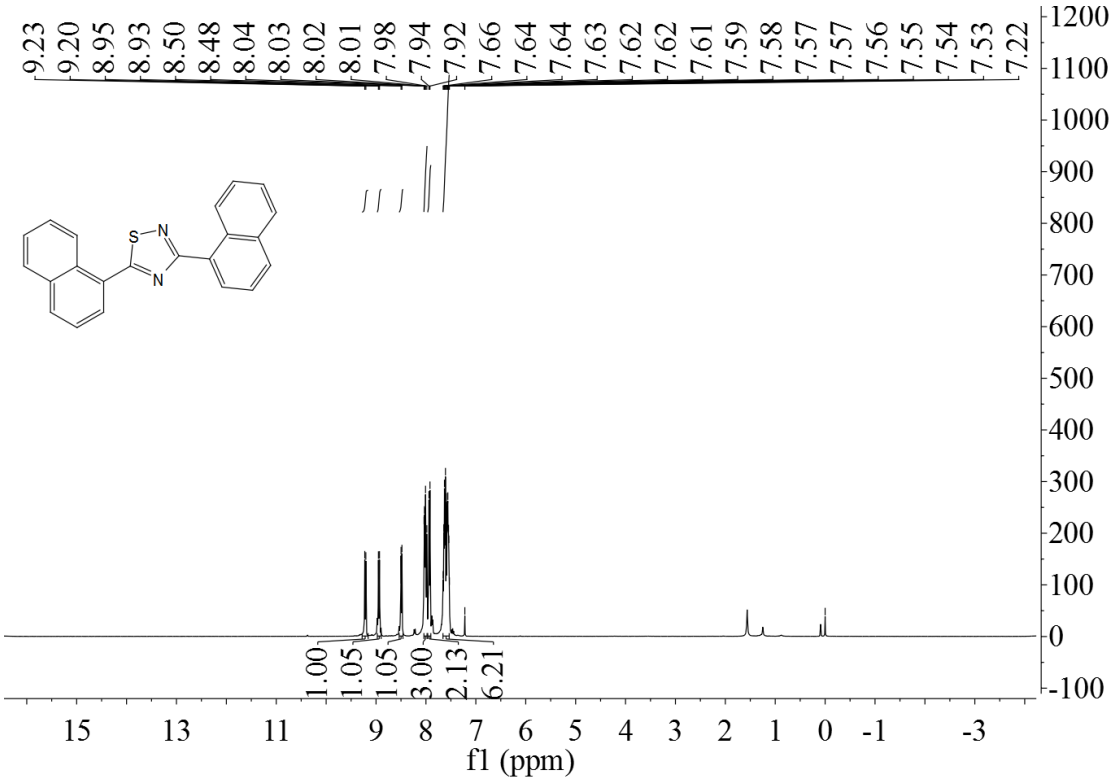
138.18
136.60
131.18
129.66
129.61
129.02
128.97
128.68
77.34
77.02
76.71
S
N
N
Cl
Cl
210
170
130
90
60
30
0
f1 (ppm)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8.93
8.50
8.48
8.04
8.03
8.02
8.01
7.98
7.94
7.92
7.66
7.64
7.64
7.63
7.62
7.62
7.61
7.59
7.58
7.57
7.57
7.56
7.55
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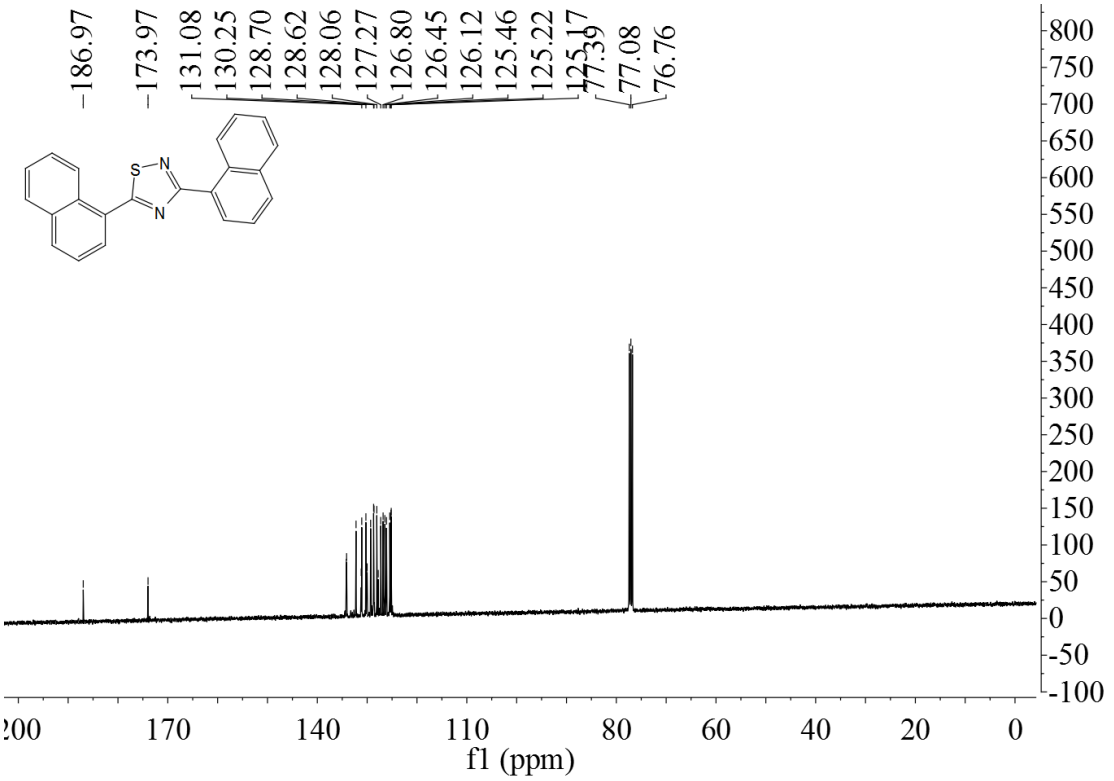
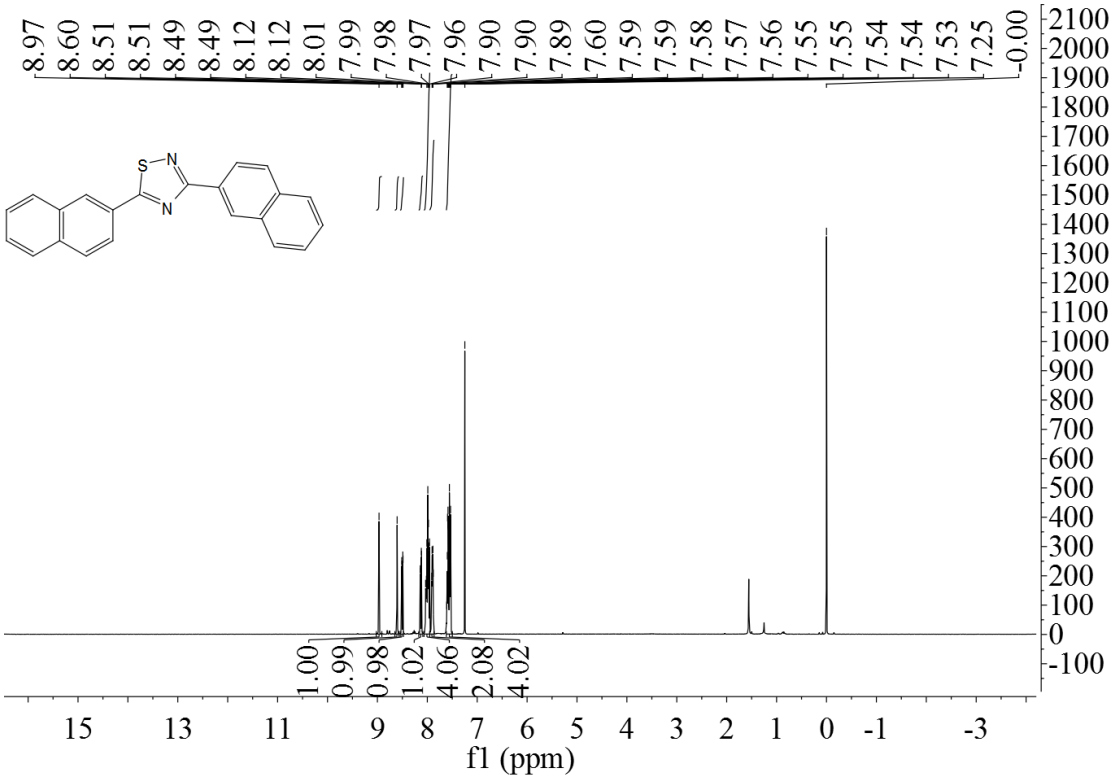
7.53
7.22
1.00
1.05
1.05
3.00
2.13
6.21
f1 (ppm)


186.97
173.97
131.08
130.25
128.70
128.62
128.06
127.27
126.80
126.45
126.12
125.46
125.22
125.17
77.39
77.08
76.76
f1 (ppm)


8.97
8.60
8.51
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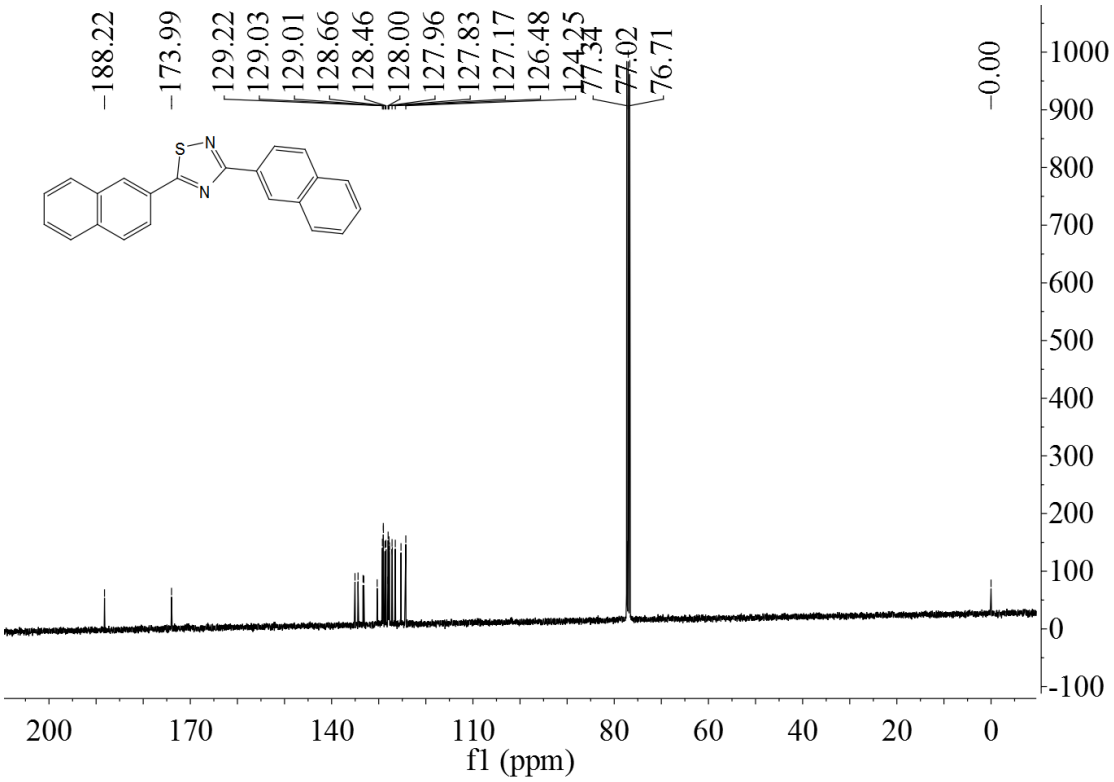
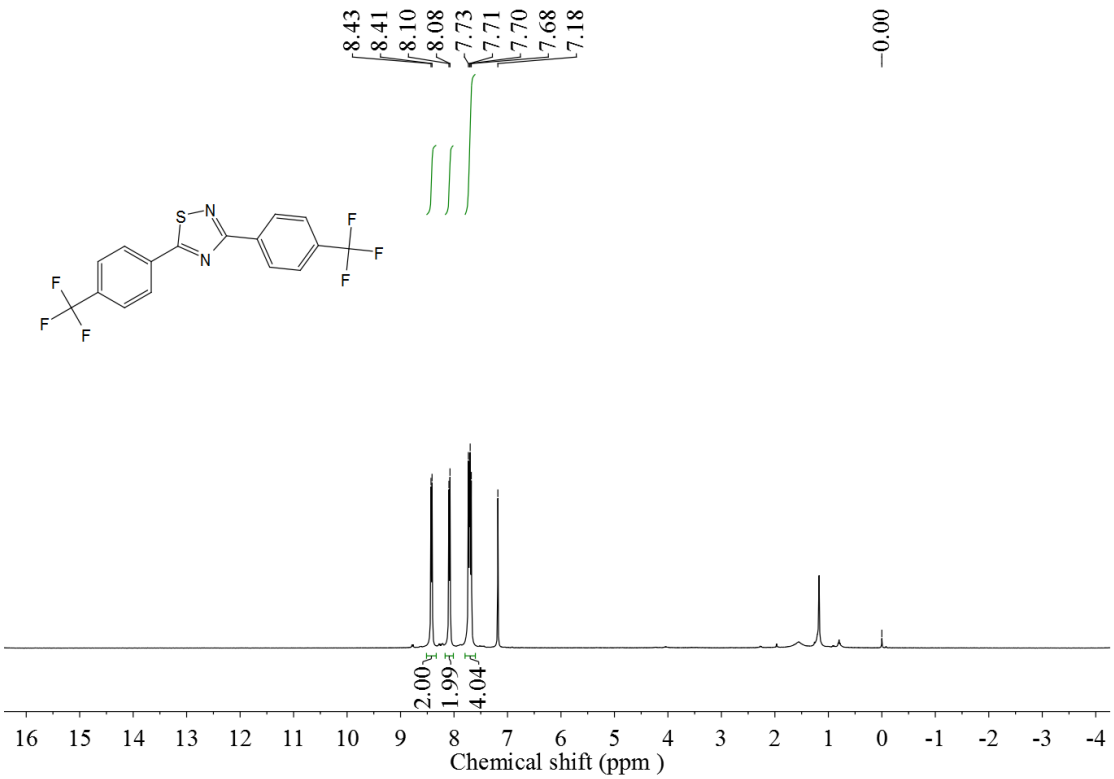
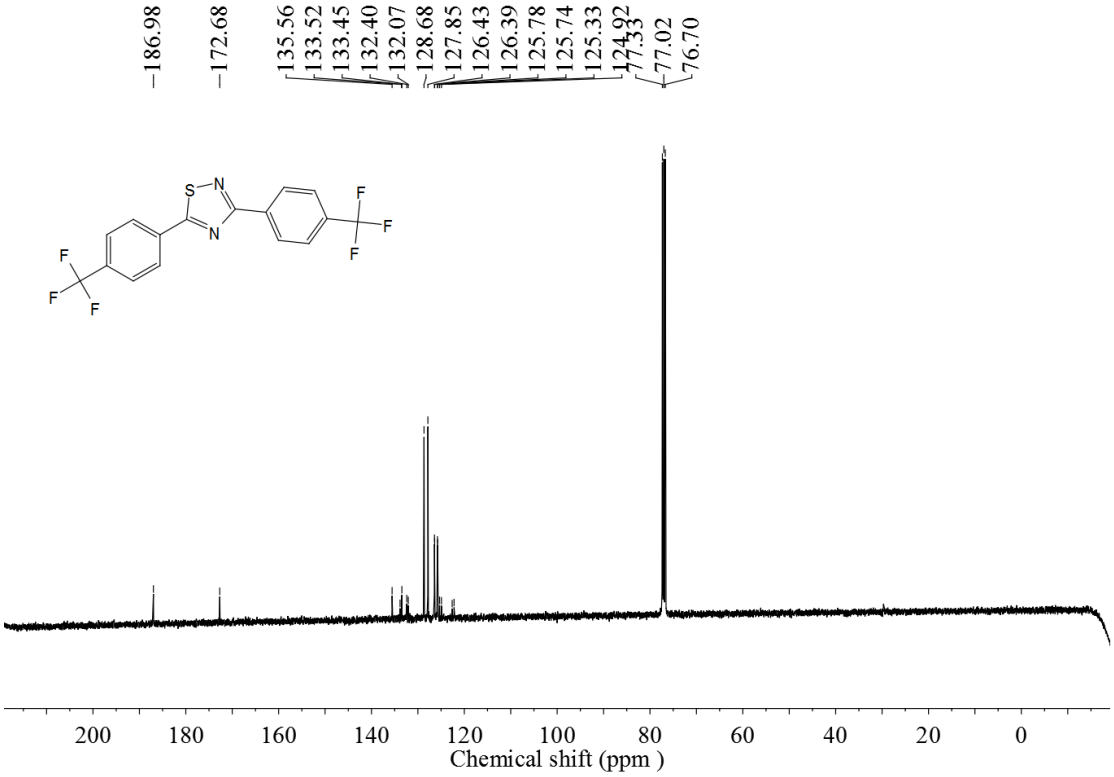
8.49
8.12
8.12
8.01
7.99
7.98
7.97
7.96
7.90
7.90
7.89
7.60
7.59
7.59
7.58
7.57
7.56
7.55
7.55
7.54
7.54
7.53
7.25
0.00
1.00
0.99
0.98
1.02
4.06
2.08
4.02
f1 (ppm)


188.22
173.99
129.22
129.03
129.01
128.66
128.46
128.00
127.96
127.83
127.17
126.48
124.25
77.34
77.02
76.71
0.00
f1 (ppm)


8.43
8.41
8.10
8.08
7.73
7.71
7.70
7.68
7.18
0.00
2.00
1.99
4.04
Chemical shift (ppm)


186.98
172.68
135.56
133.52
133.45
132.40
132.07
128.68
127.85
126.43
126.39
125.78
125.74
125.33
124.92
77.33
77.02
76.70
Chemical shift (ppm)