Electronic Supplementary Material (ESI) for RSC Advances.

Easy access for the synthesis of 2-Aryl-2, 3-Dihydroquinazolin-4(1H)-ones using gem-dibromomethylarenes as synthetic aldehyde equivalent.

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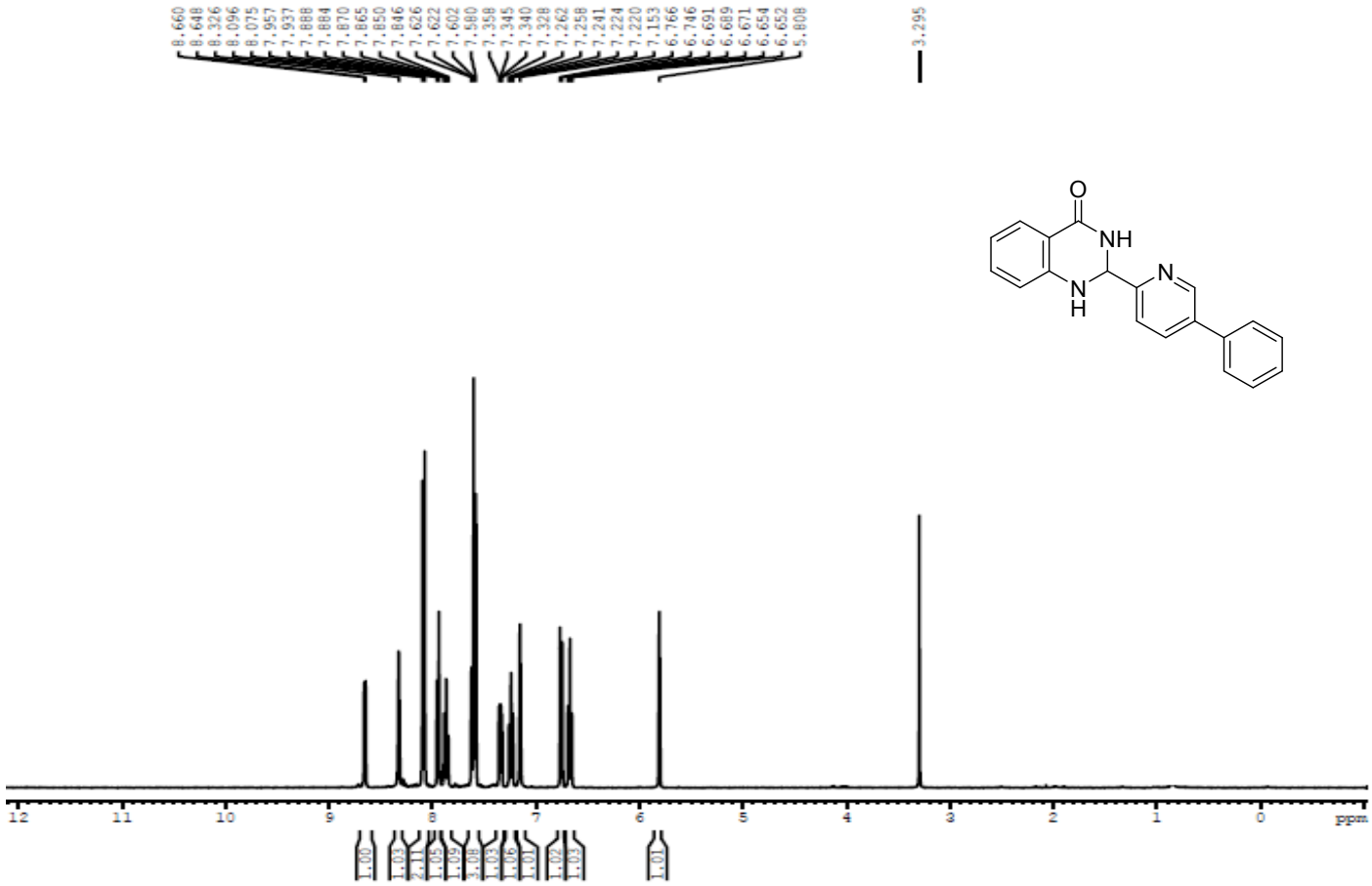
rangappaks@chemistry.uni-mysore.ac.in

Supporting information

Entry	Compounds	Spectra
1	3e	^{1}H-NMR, ^{13}C-NMR
2	3f	^{1}H-NMR, ^{13}C-NMR
3	3g	^{1}H-NMR, ^{13}C-NMR
4	3h	^{1}H-NMR, ^{13}C-NMR
5	3i	^{1}H-NMR, ^{13}C-NMR
6	3j	^{1}H-NMR, ^{13}C-NMR
7	3k	^{1}H-NMR, ^{13}C-NMR
8	3l	^{1}H-NMR, ^{13}C-NMR
9	3m	^{1}H-NMR, ^{13}C-NMR
10	3n	^{1}H-NMR, ^{13}C-NMR
11	3o	^{1}H-NMR, ^{13}C-NMR
12	3p	^{1}H-NMR, ^{13}C-NMR
13	3q	^{1}H-NMR, ^{13}C-NMR

3e ^{1}H NMR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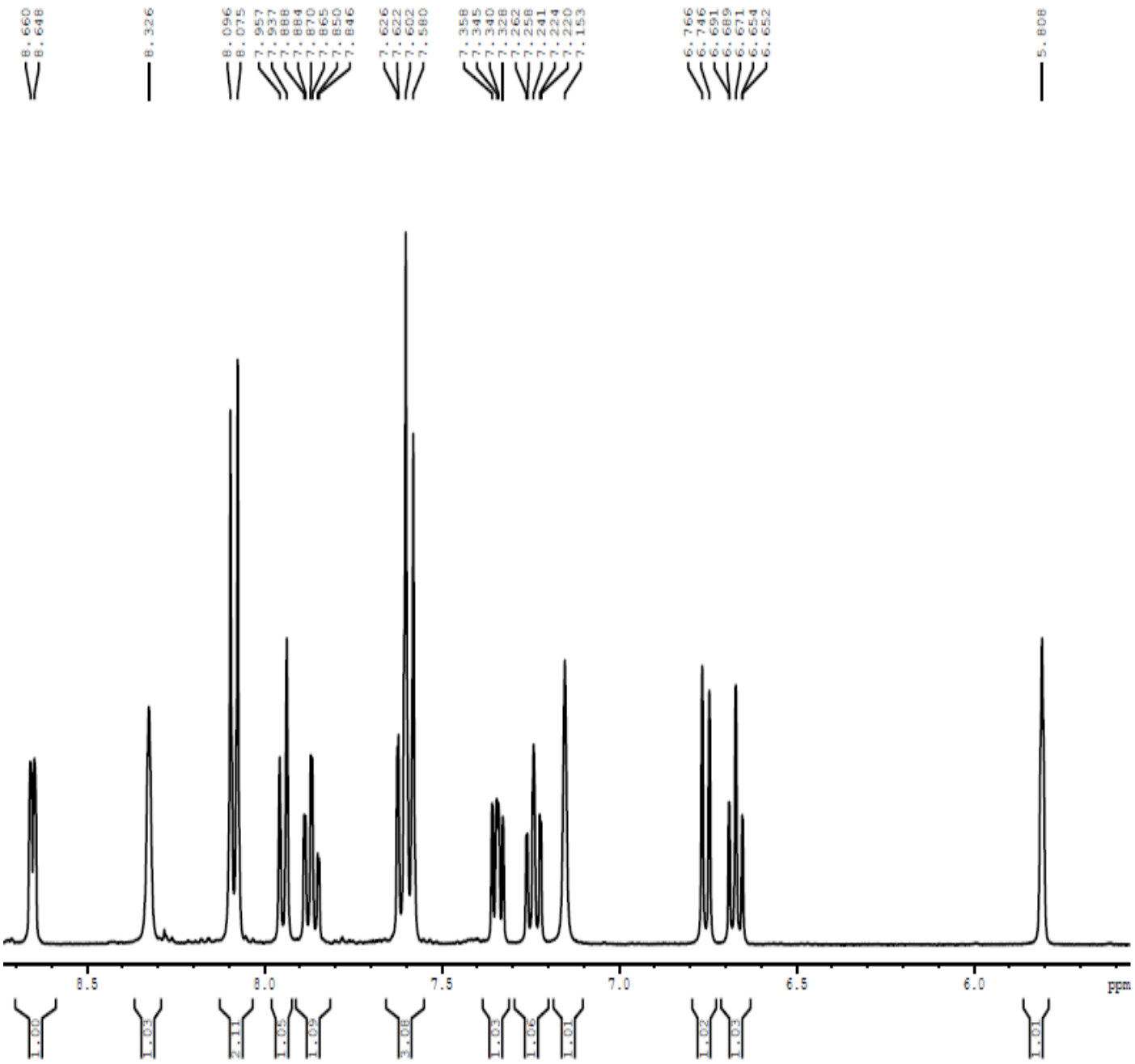
8.648
8.326
8.096
8.075
7.957
7.937
7.888
7.884
7.870
7.865
7.850
7.846
7.626
7.622
7.602
7.580
7.358
7.345
7.340
7.328
7.262
7.258
7.241
7.224
7.220
7.153
6.766
6.746
6.691
6.689
6.671
6.654
6.652
5.808
3.295
O
NH
N
N
H
12
11
10
9
8
7
6
5
4
3
2
1
0
ppm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8.648
8.326
8.096
8.075
7.957
7.937
7.888
7.884
7.870
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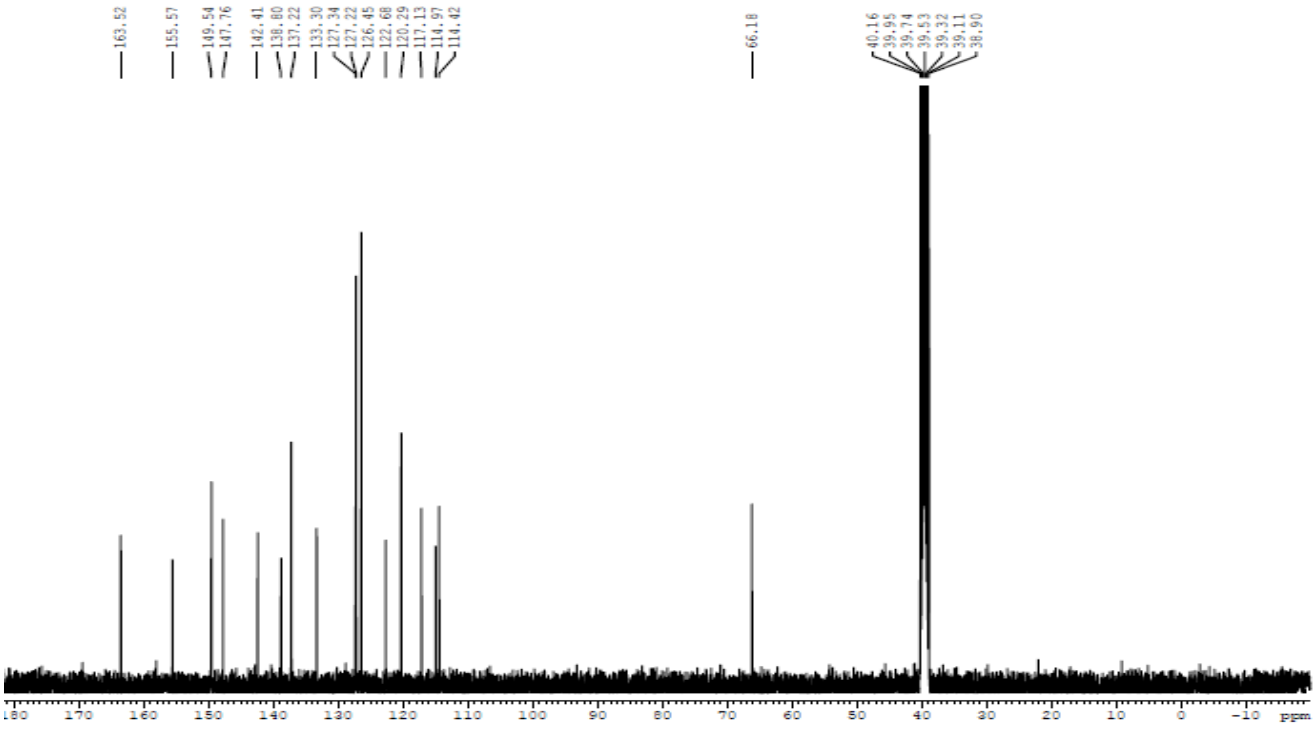
7.850
7.846
7.626
7.622
7.602
7.580
7.358
7.345
7.340
7.328
7.262
7.258
7.241
7.224
7.220
7.153
6.766
6.746
6.691
6.689
6.671
6.654
6.652
5.808
8.5
8.0
7.5
7.0
6.5
6.0
ppm
1.00
1.03
2.11
1.05
1.08
3.08
1.03
1.06
1.01
1.02
1.03
1.01

3e ^{13}C NMR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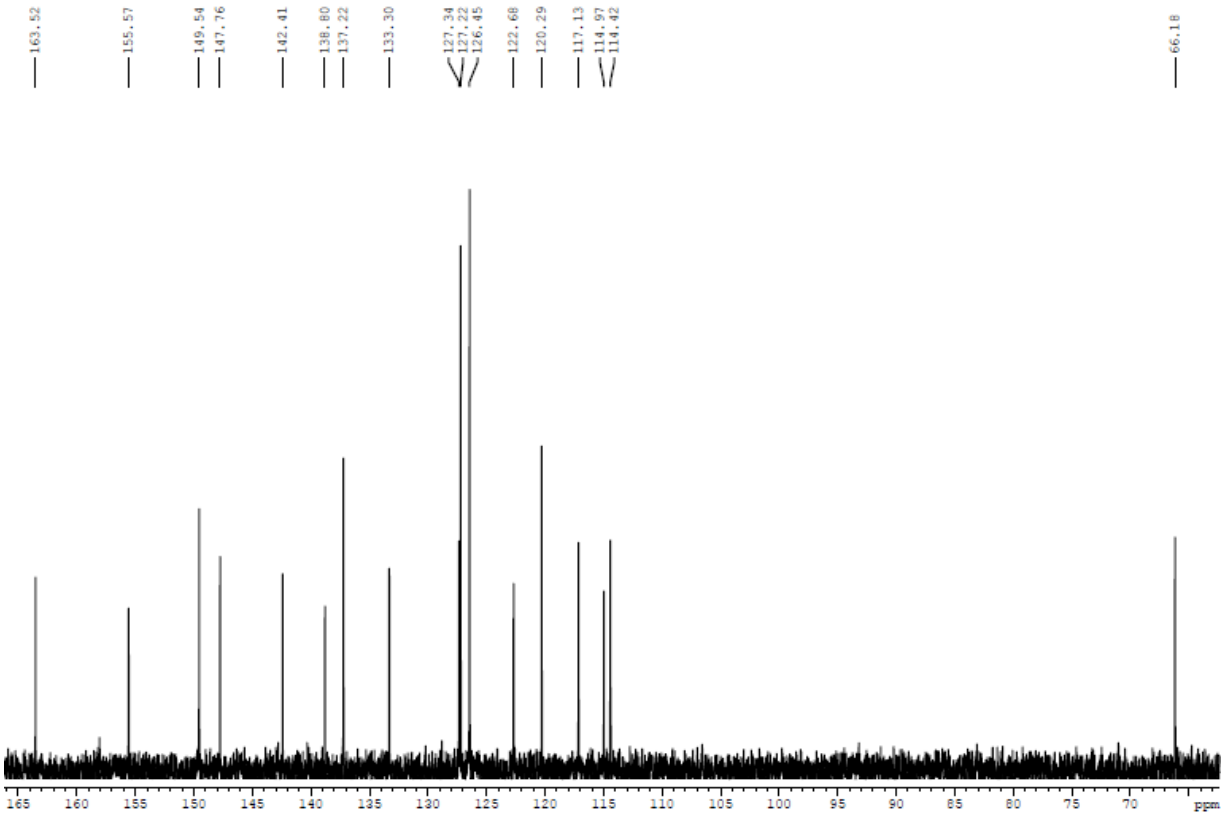
155.57
149.54
147.76
142.41
138.80
137.22
133.30
127.34
127.22
126.45
122.68
120.29
117.13
114.97
114.42
66.18
40.16
39.95
39.74
39.53
39.32
39.11
38.90
ppm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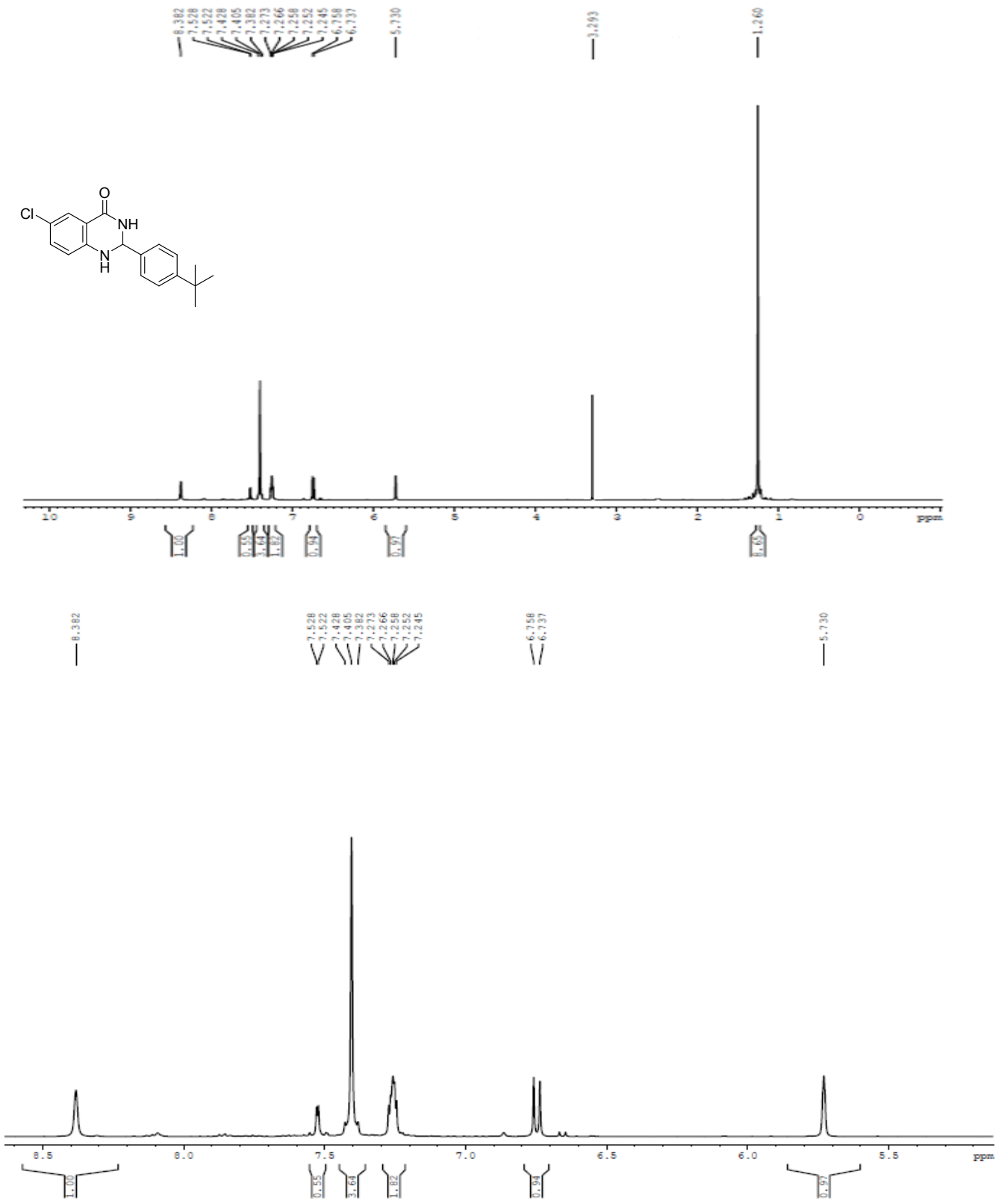
155.57
149.54
147.76
142.41
138.80
137.22
133.30
127.34
127.22
126.45
122.68
120.29
117.13
114.97
114.42
66.18
ppm

3f ^{1}H NMR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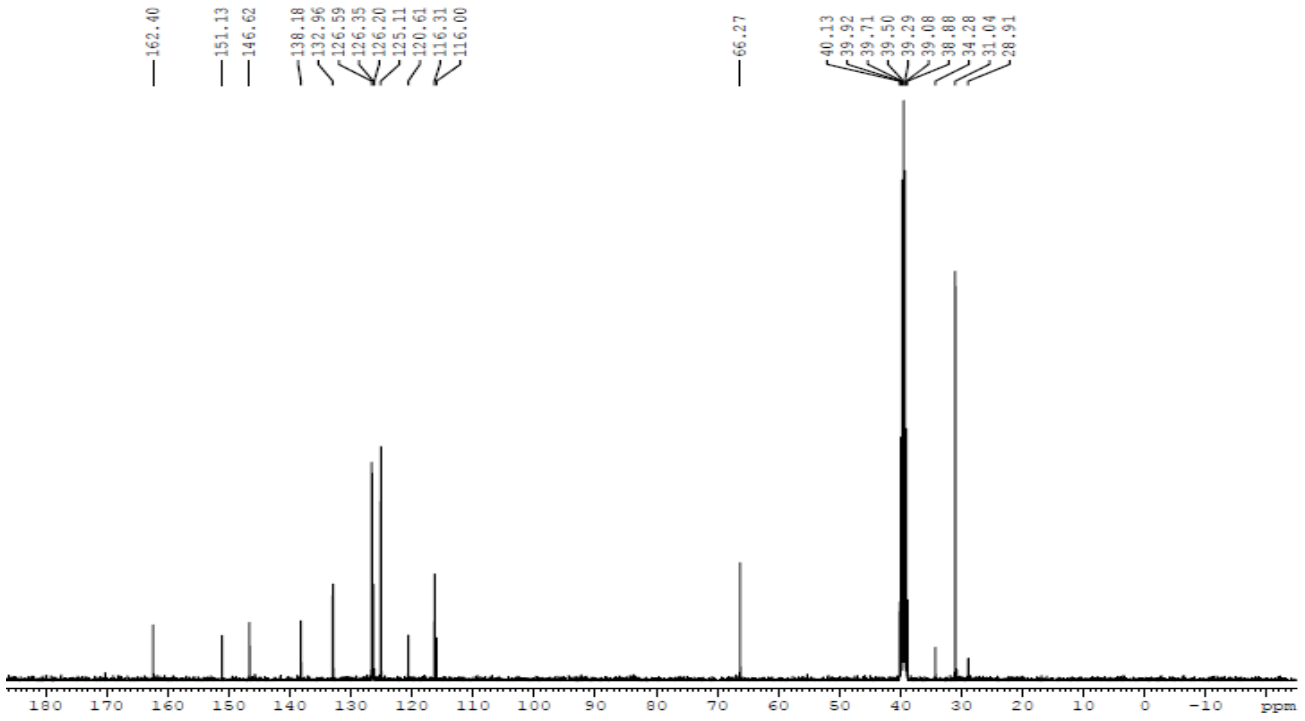
7.528
7.522
7.428
7.405
7.382
7.273
7.266
7.258
7.252
7.245
6.758
6.737
5.730
3.293
1.260
Cl
O
NH
N
H
ppm

3f ^{13}C NMR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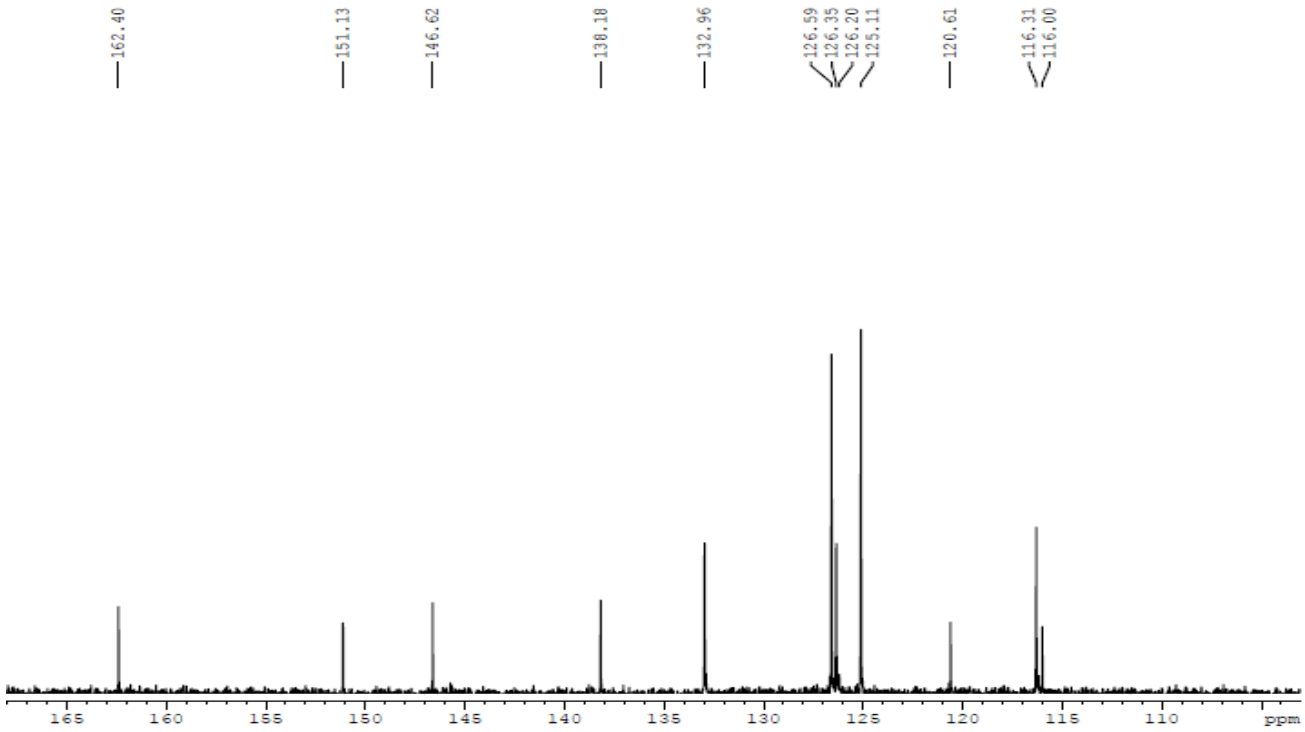
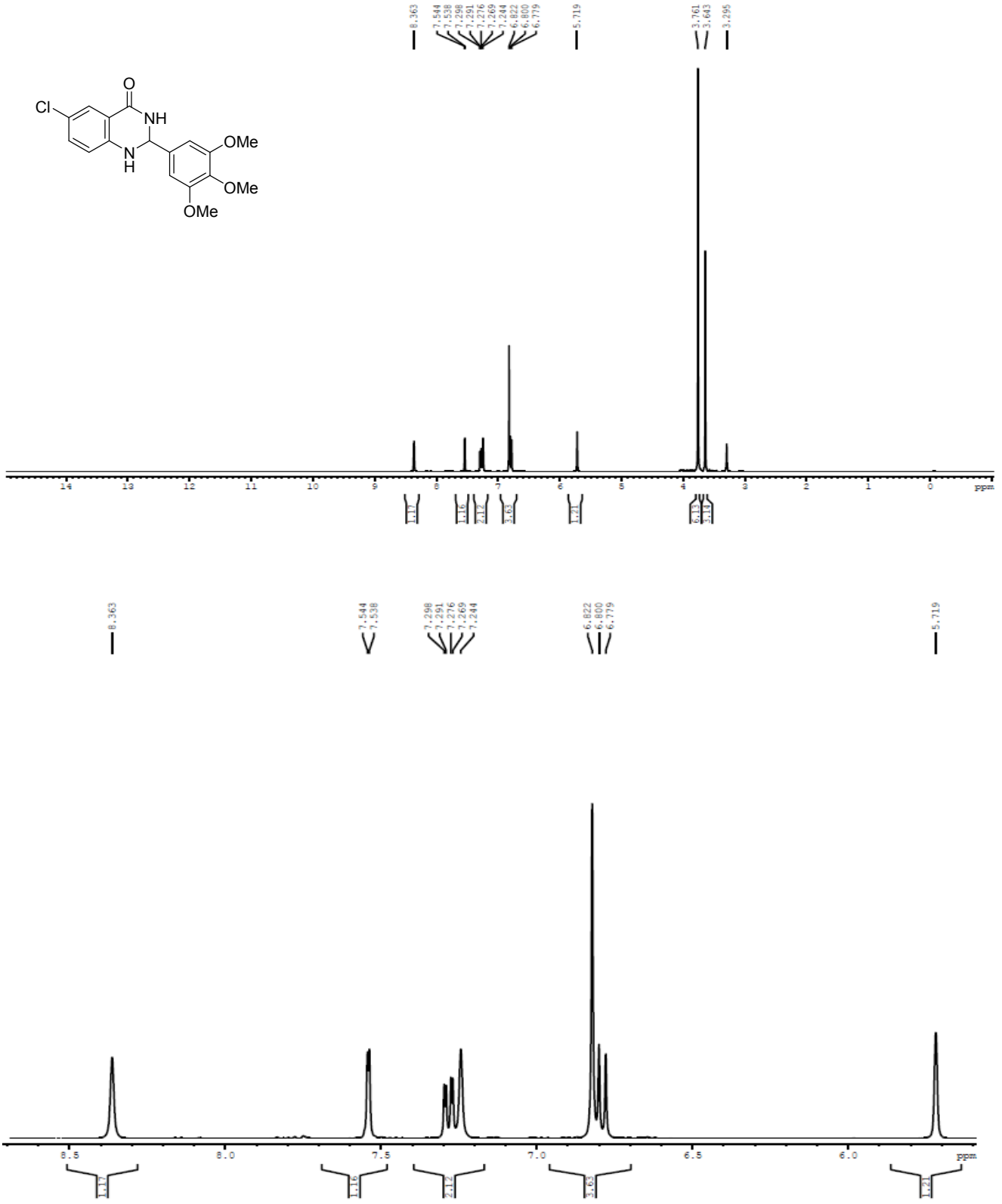
151.13
146.62
138.18
132.96
126.59
126.35
126.20
125.11
120.61
116.31
116.00
66.27
40.13
39.92
39.71
39.50
39.29
39.08
38.88
34.28
31.04
28.91
180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10 ppm


162.40
151.13
146.62
138.18
132.96
126.59
126.35
126.20
125.11
120.61
116.31
116.00
165 160 155 150 145 140 135 130 125 120 115 110 ppm

3g ^{1}H NMR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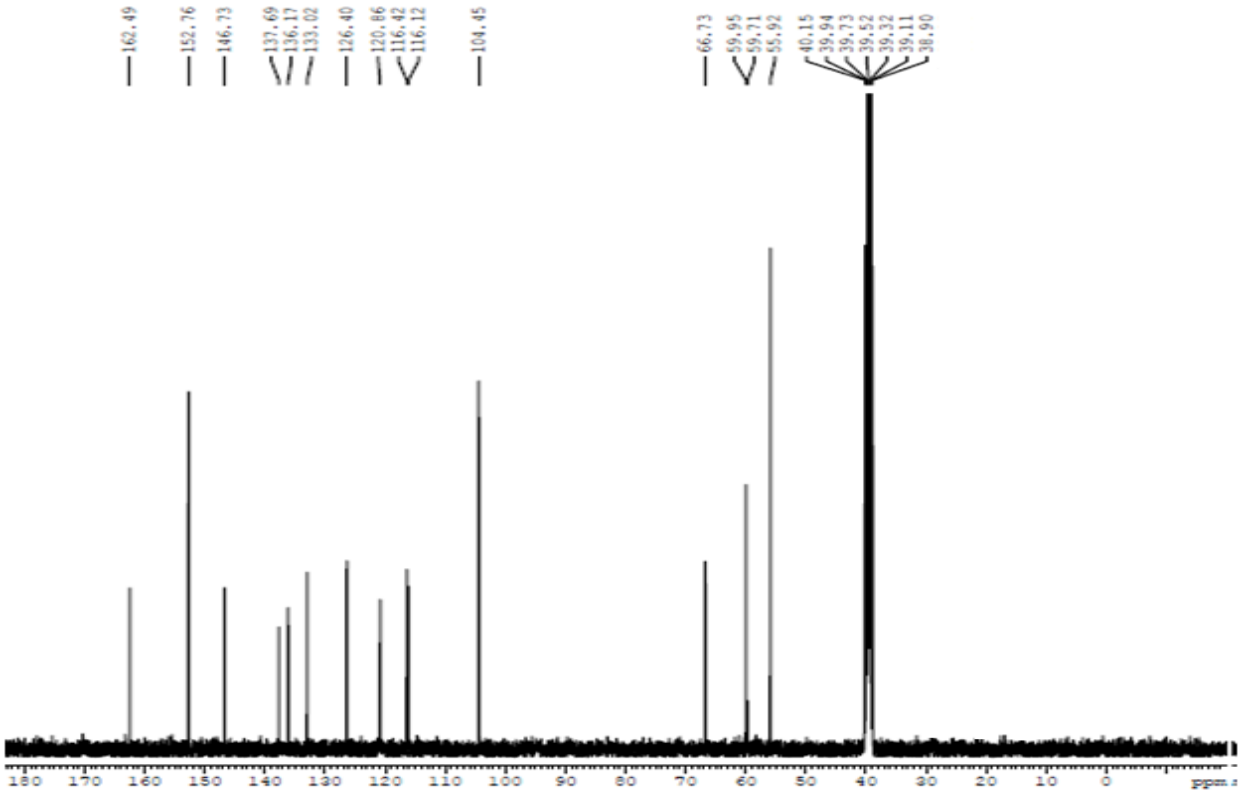
7.538
7.298
7.291
7.276
7.269
7.244
6.822
6.800
6.779
5.719
3.761
3.643
3.295
Cl
O
NH
N
H
OMe
OMe
OMe
ppm

3g ^{13}C NMR


162.49
152.76
146.73
137.69
136.17
133.02
126.40
120.86
116.42
116.12
104.45
66.73
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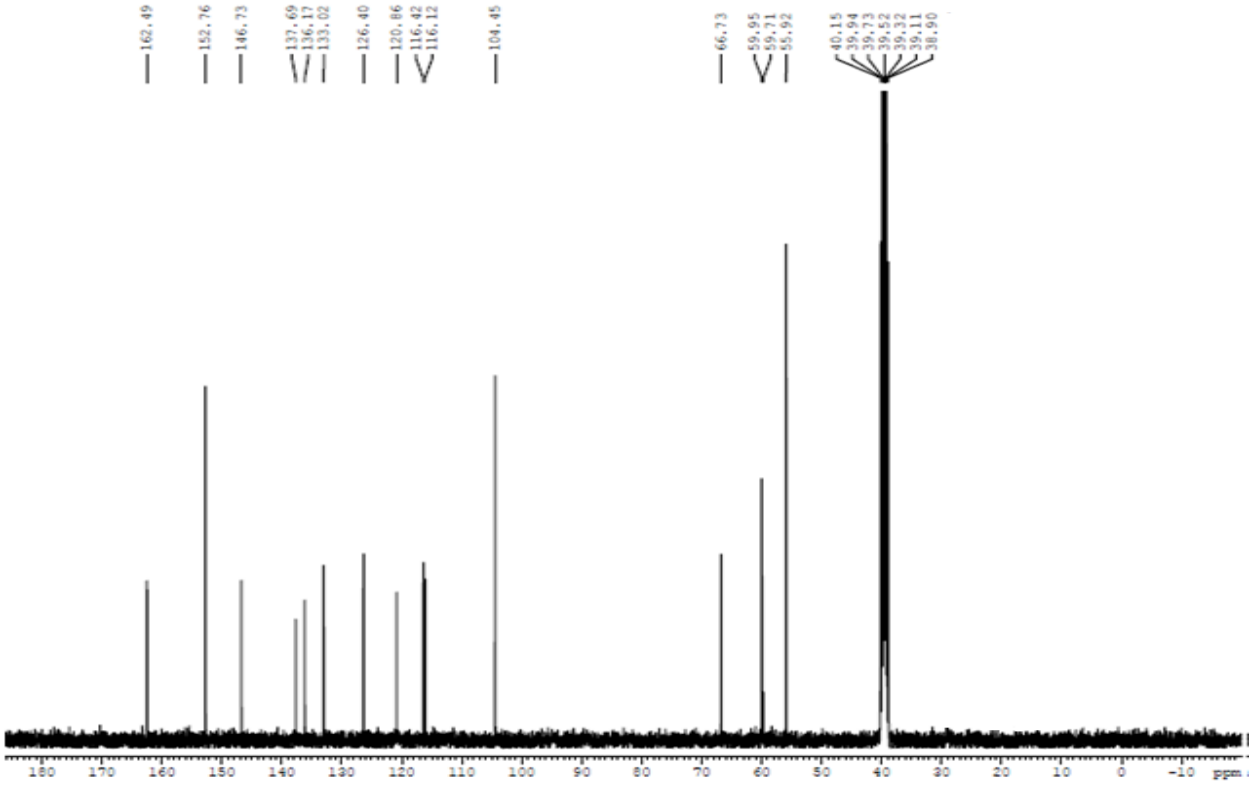
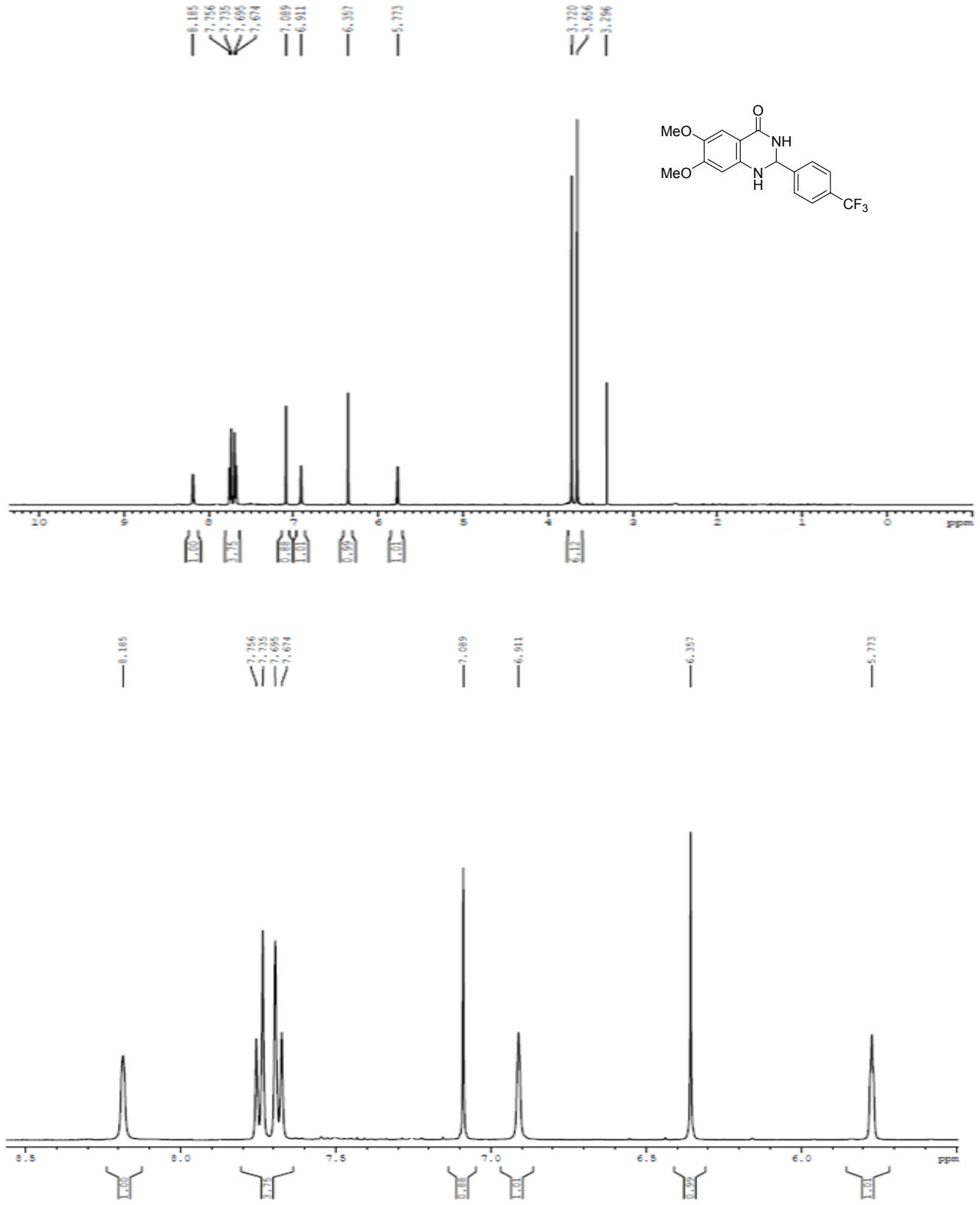
59.71
55.92
40.15
39.94
39.73
39.52
39.32
39.11
38.90
ppm


162.49
152.76
146.73
137.69
136.17
133.02
126.40
120.86
116.42
116.12
104.45
66.73
59.95
59.71
55.92
40.15
39.94
39.73
39.52
39.32
39.11
38.90
ppm

3h ^{1}H NMR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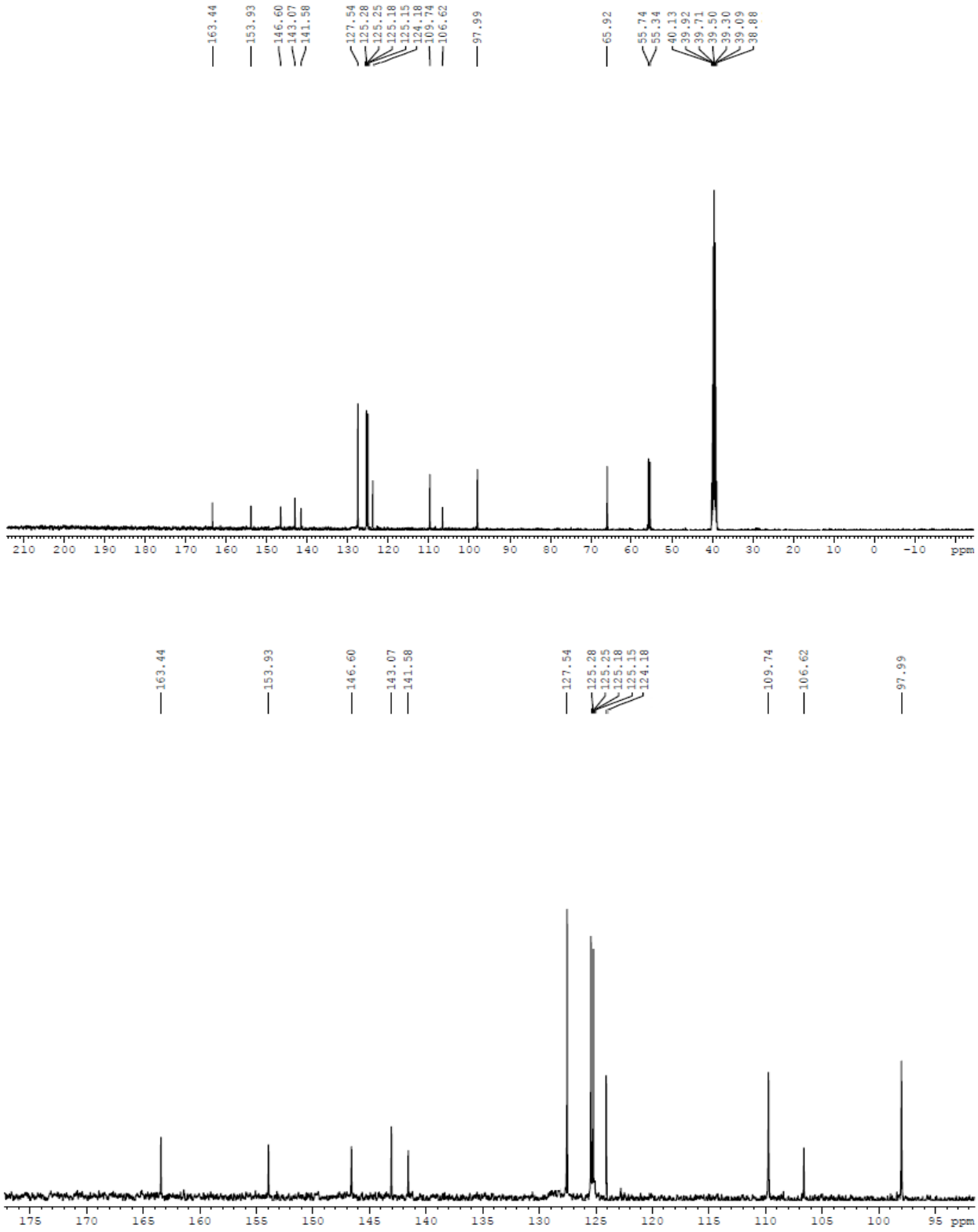
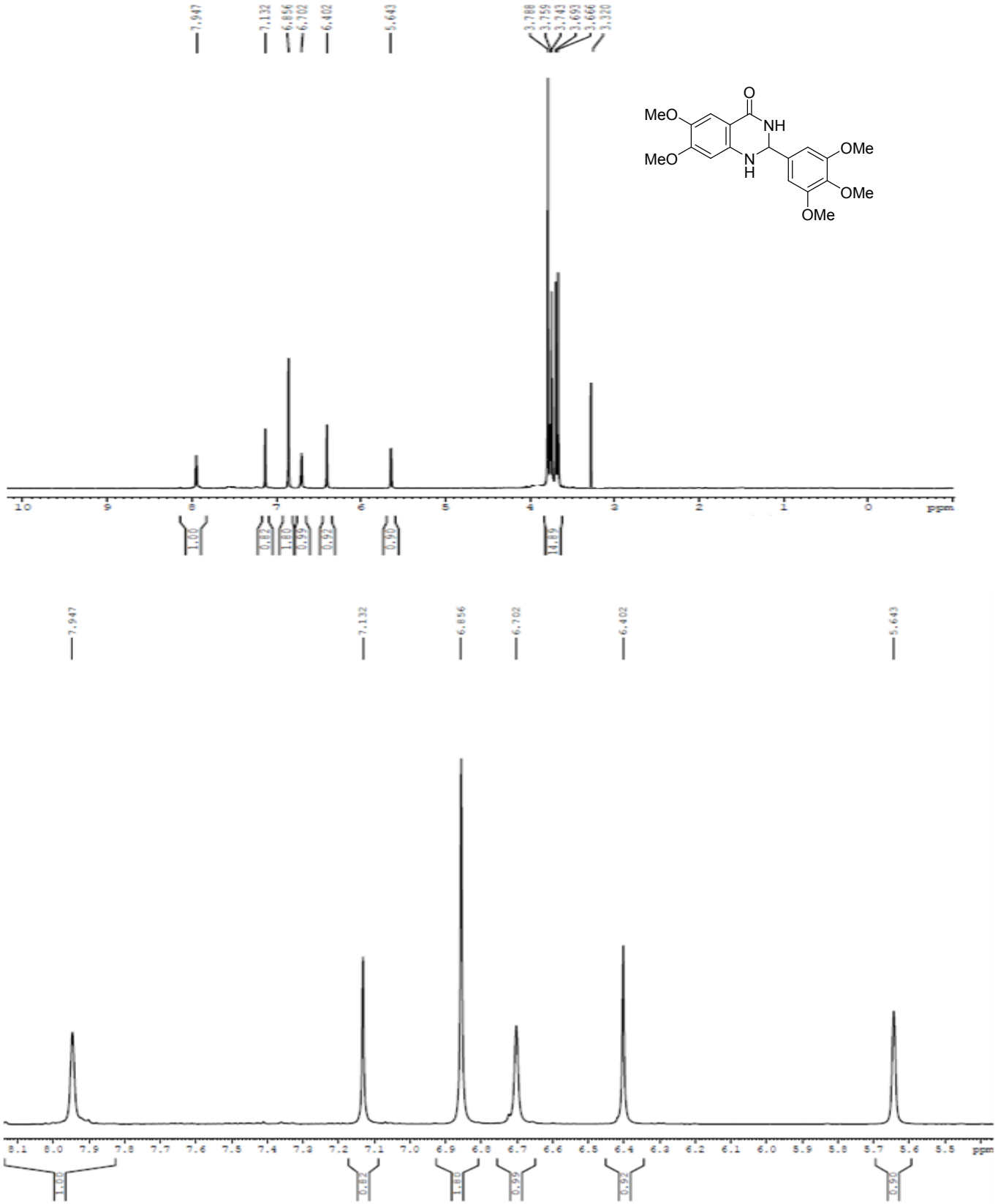
7.756
7.735
7.695
7.674
7.089
6.911
6.357
5.773
3.720
3.656
3.296
MeO
MeO
O
NH
N
H
CF3
ppm

3h ^{13}C NMR


163.44
153.93
146.60
143.07
141.58
127.54
125.28
125.25
125.18
125.15
124.18
109.74
106.62
97.99
65.92
55.74
55.34
40.13
39.92
39.71
39.50
39.30
39.09
38.88
ppm
95 ppm

3i ^{1}H NMR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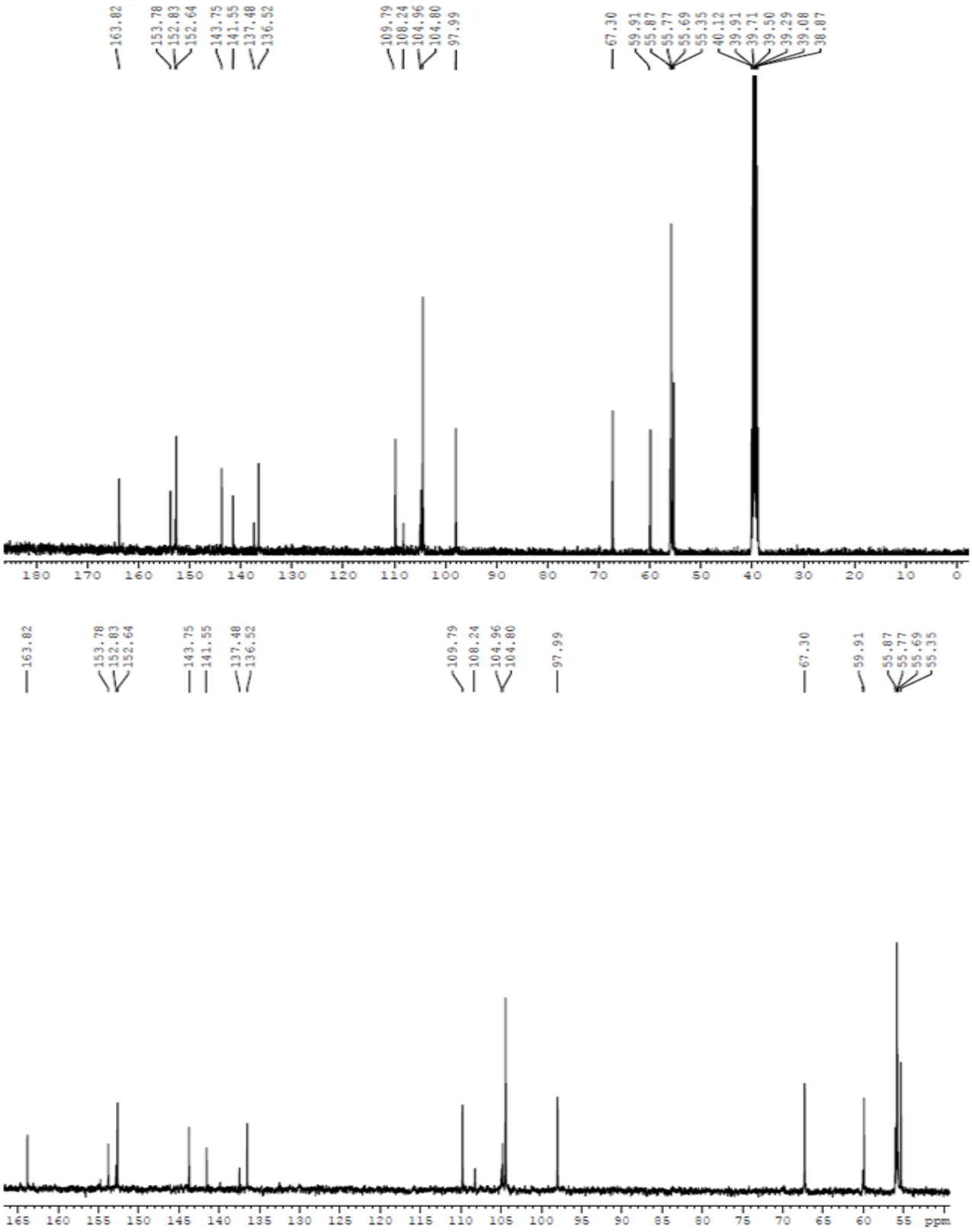
7.132
6.856
6.702
6.402
5.643
3.788
3.759
3.743
3.693
3.666
3.320
MeO
MeO
NH
N
H
OMe
OMe
OMe
ppm

3i ^{13}C NMR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152.83
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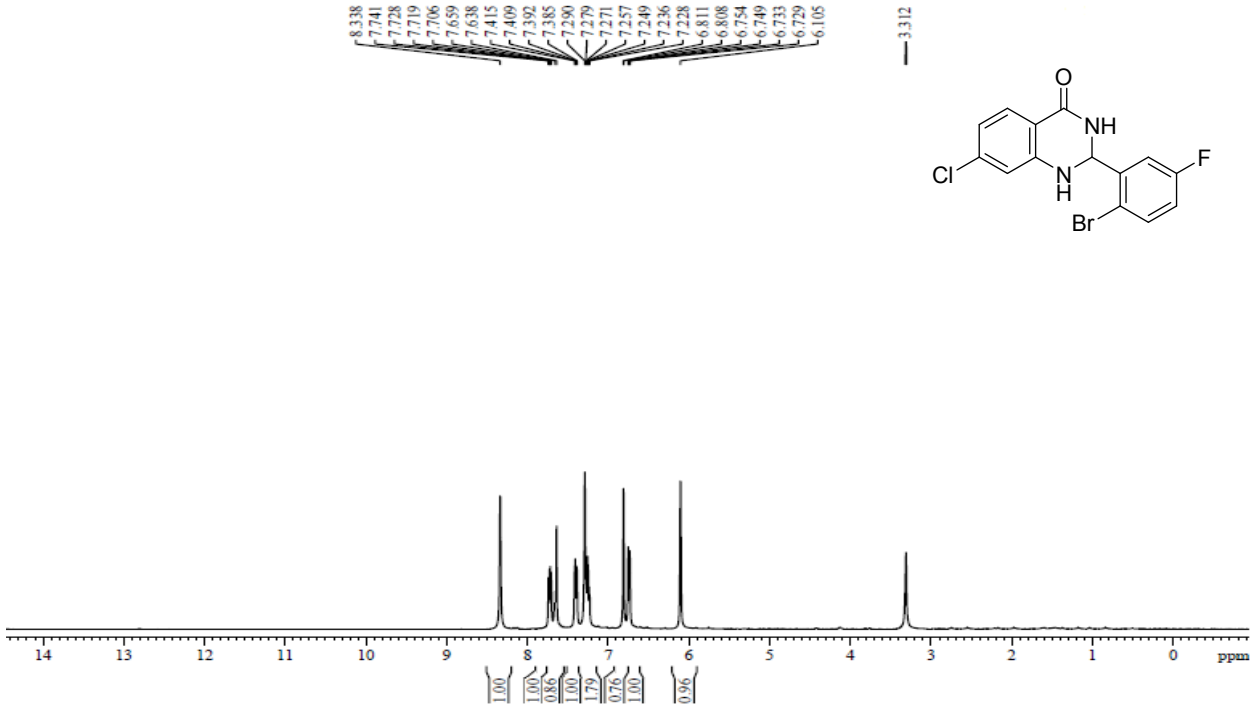
143.75
141.55
137.48
136.52
109.79
108.24
104.96
104.80
97.99
67.30
59.91
55.87
55.77
55.69
55.35
40.12
39.91
39.71
39.50
39.29
39.08
38.87
ppm

3j ^{1}H NMR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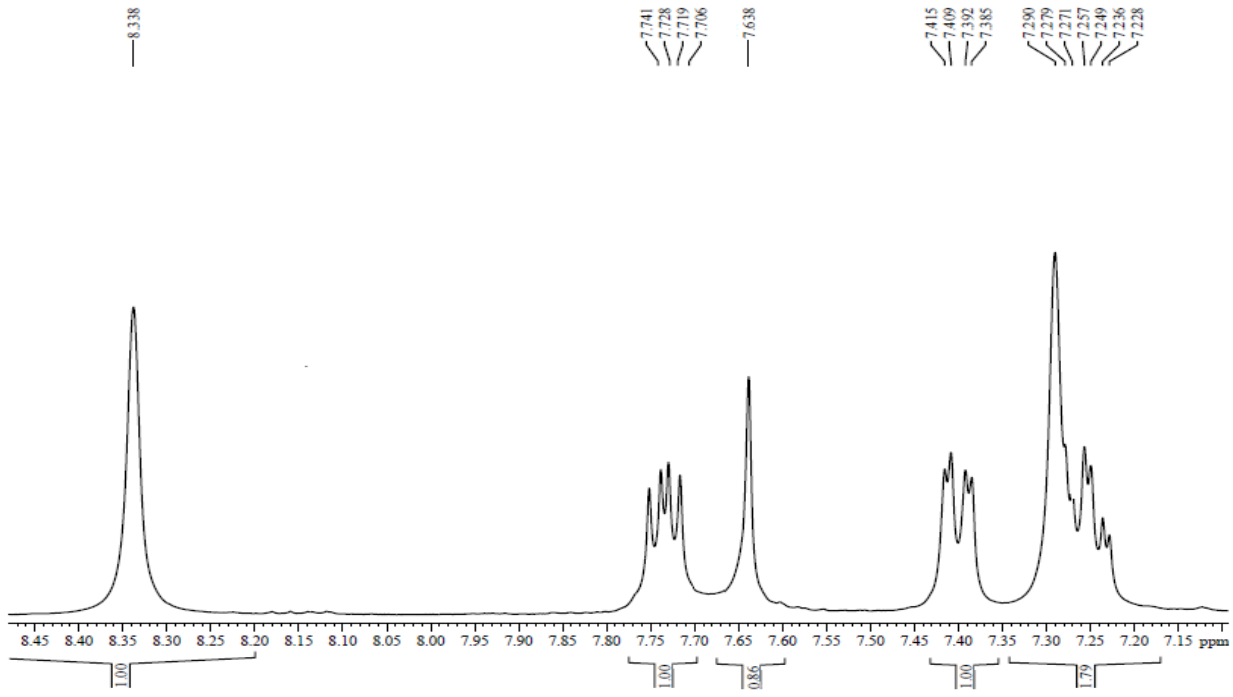
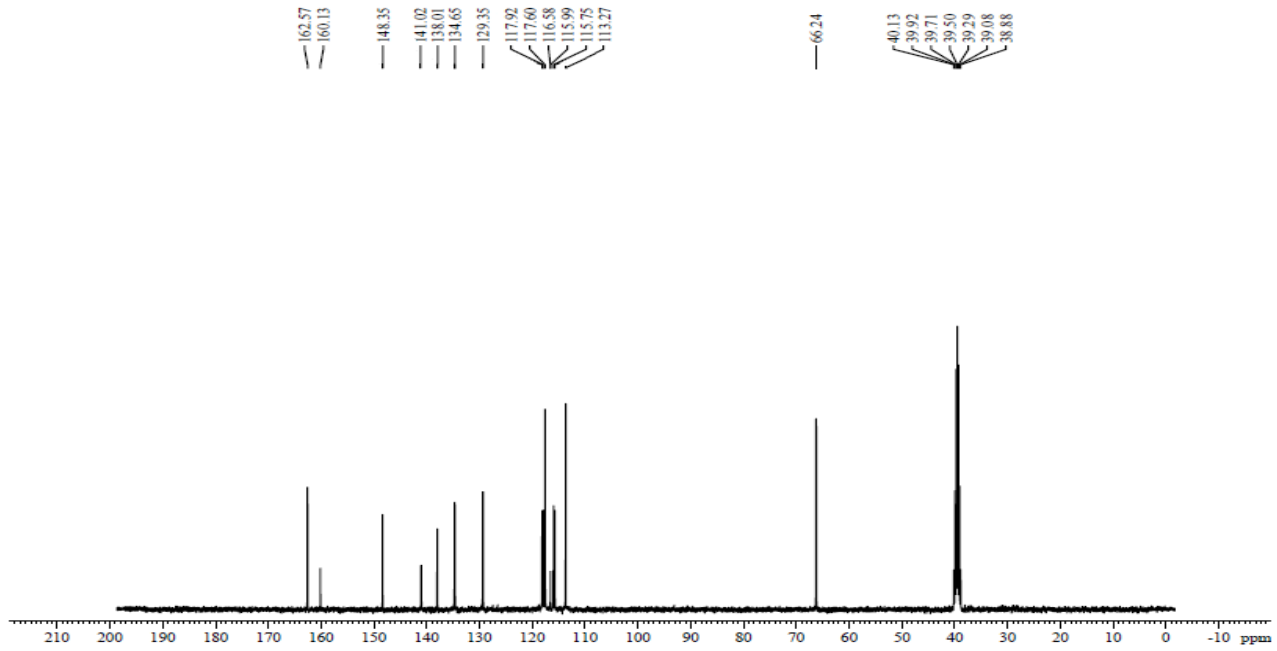
7.741
7.728
7.719
7.706
7.659
7.638
7.415
7.409
7.392
7.385
7.290
7.279
7.271
7.257
7.249
7.236
7.228
6.811
6.808
6.754
6.749
6.733
6.729
6.105
3.312
O
NH
N
H
Cl
F
Br
ppm


8.338
7.741
7.728
7.719
7.706
7.638
7.415
7.409
7.392
7.385
7.290
7.279
7.271
7.257
7.249
7.236
7.228
ppm

3j ^{13}C NMR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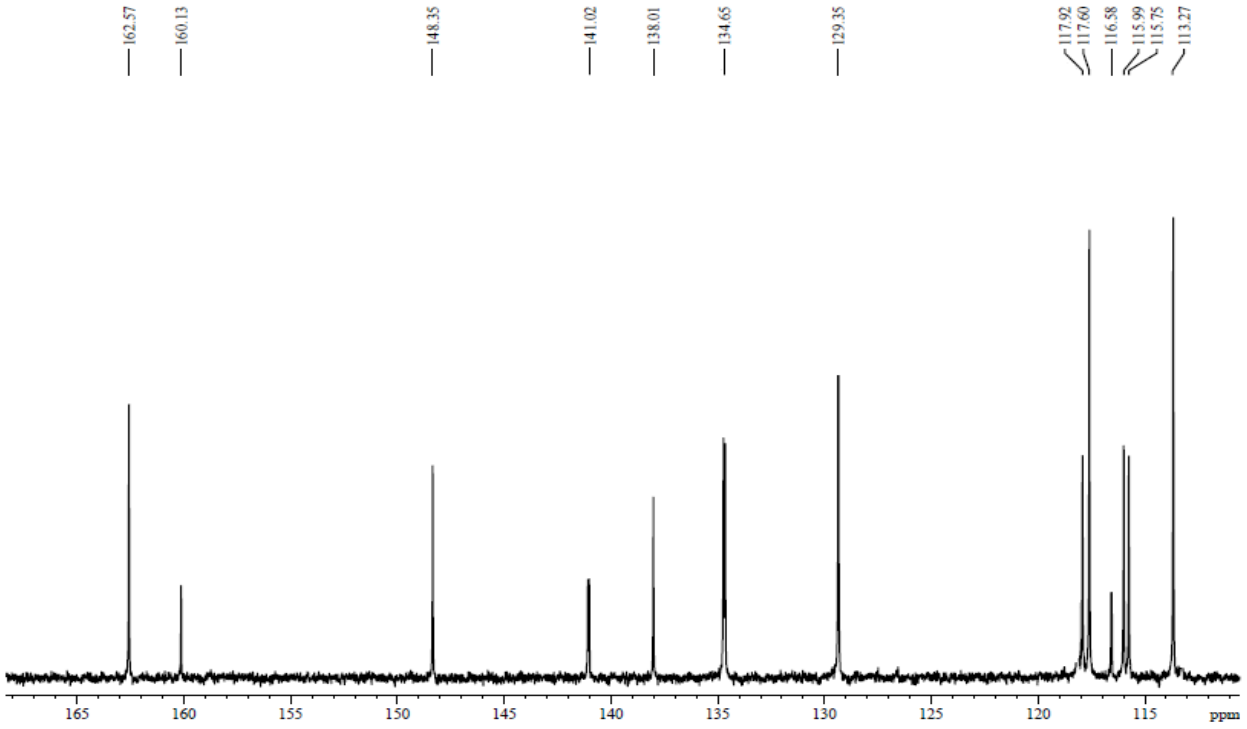
160.13
148.35
141.02
138.01
134.65
129.35
117.92
117.60
116.58
115.99
115.75
113.27
66.24
40.13
39.92
39.71
39.50
39.29
39.08
38.88
210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10 ppm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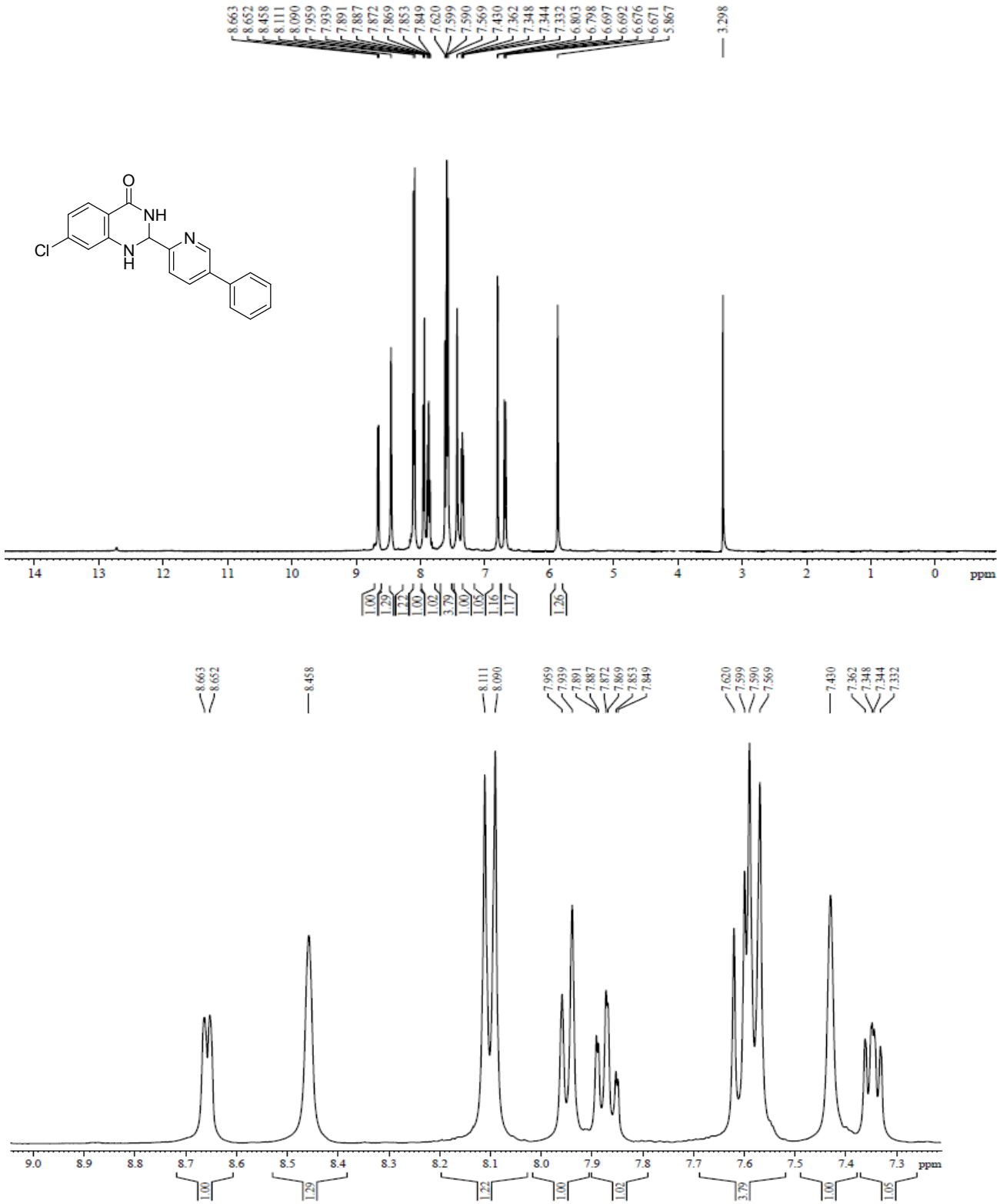
160.13
148.35
141.02
138.01
134.65
129.35
117.92
117.60
116.58
115.99
115.75
113.27
165 160 155 150 145 140 135 130 125 120 115 ppm

3k ^{1}H NMR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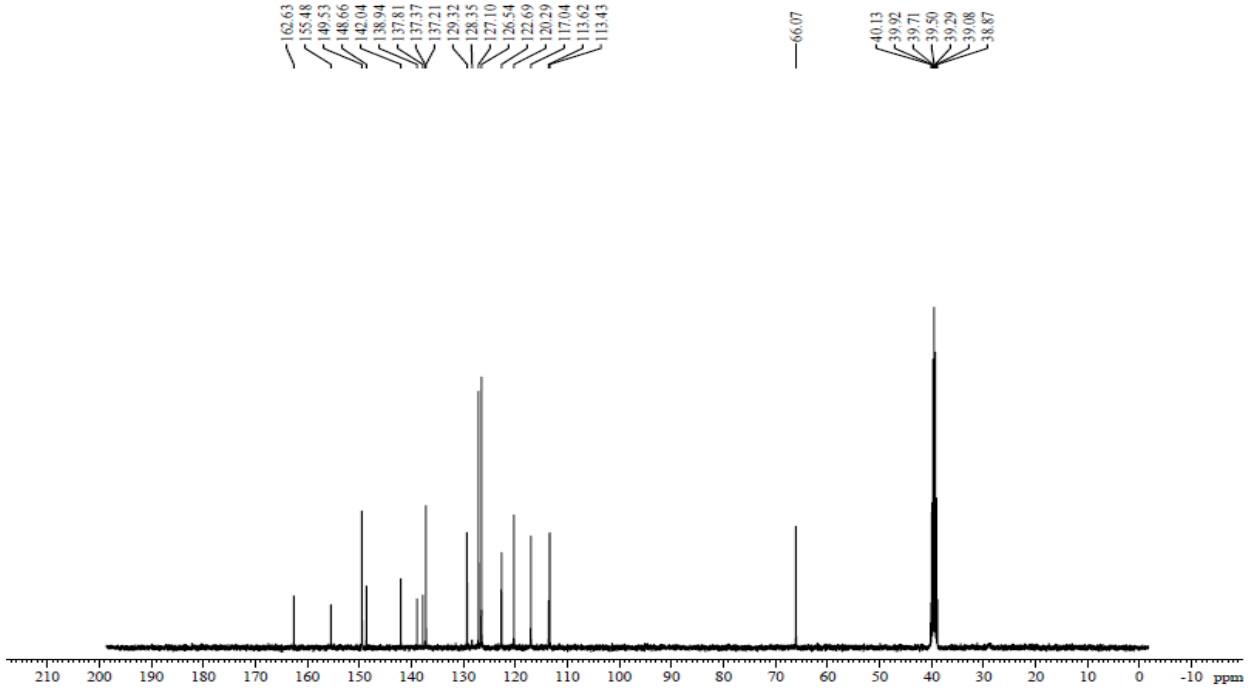
8.652
8.458
8.111
8.090
7.959
7.939
7.891
7.887
7.872
7.869
7.853
7.849
7.620
7.599
7.590
7.569
7.430
7.362
7.348
7.344
7.332
6.803
6.798
6.697
6.692
6.676
6.671
5.867
3.298
O
NH
N
N
H
Cl
ppm
1.00
1.29
1.22
1.00
1.02
3.79
1.00
1.05
1.16
1.17
1.26

3k ^{13}C NMR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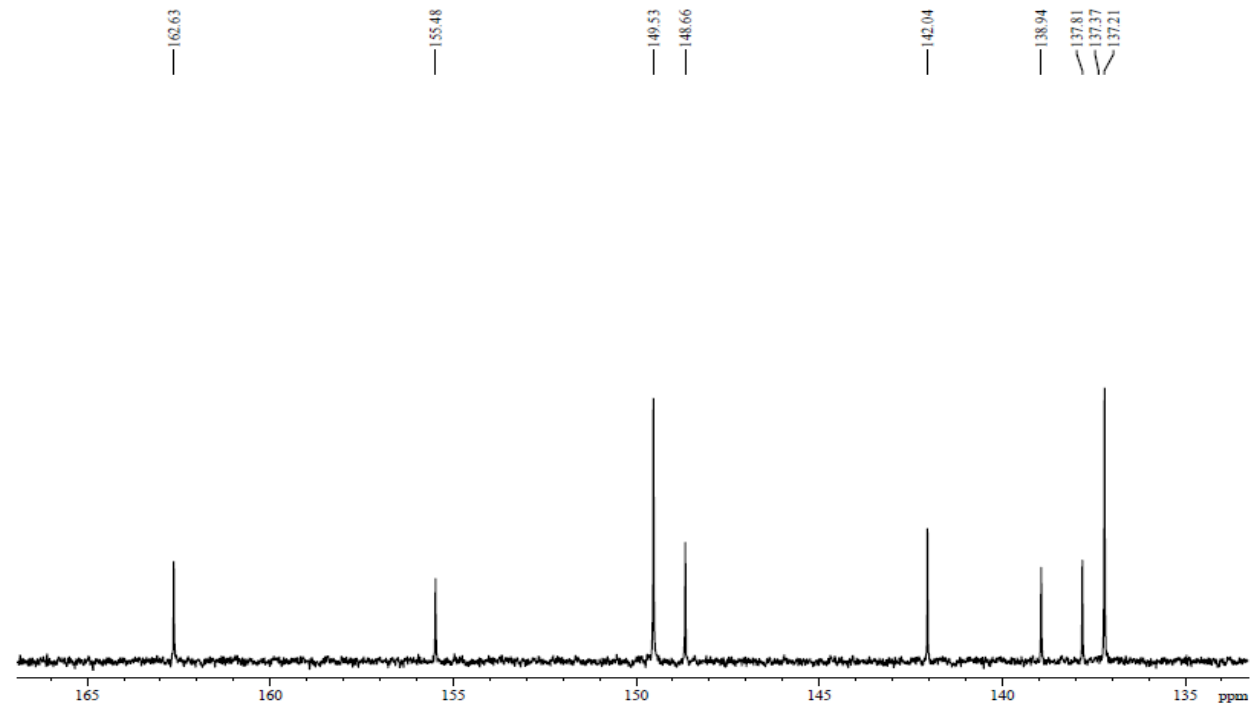
149.53
148.66
142.04
138.94
137.81
137.37
137.21
129.32
128.35
127.10
126.54
122.69
120.29
117.04
113.62
113.43
66.07
40.13
39.92
39.71
39.50
39.29
39.08
38.87
210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10 ppm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148.66
142.04
138.94
137.81
137.37
137.21
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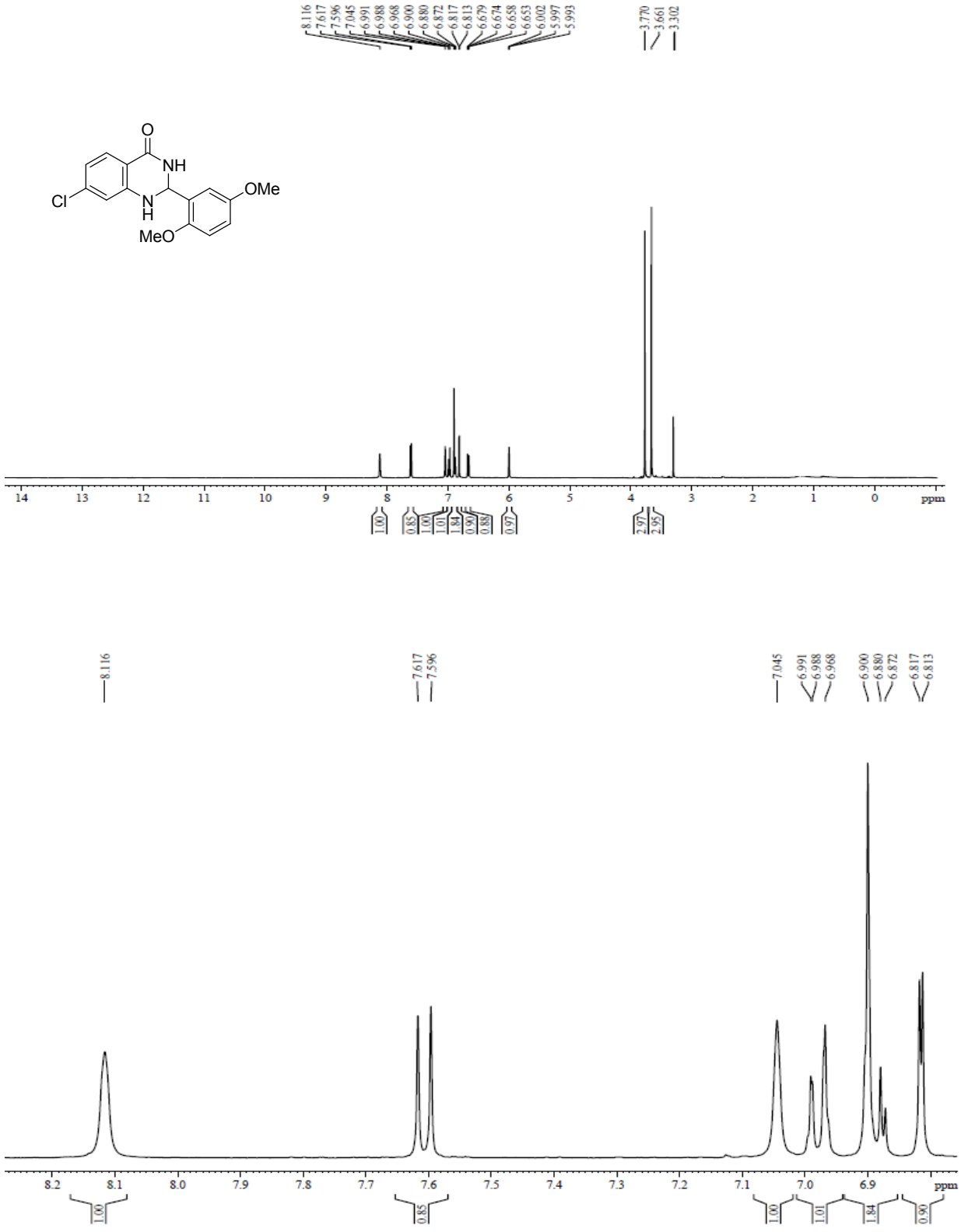
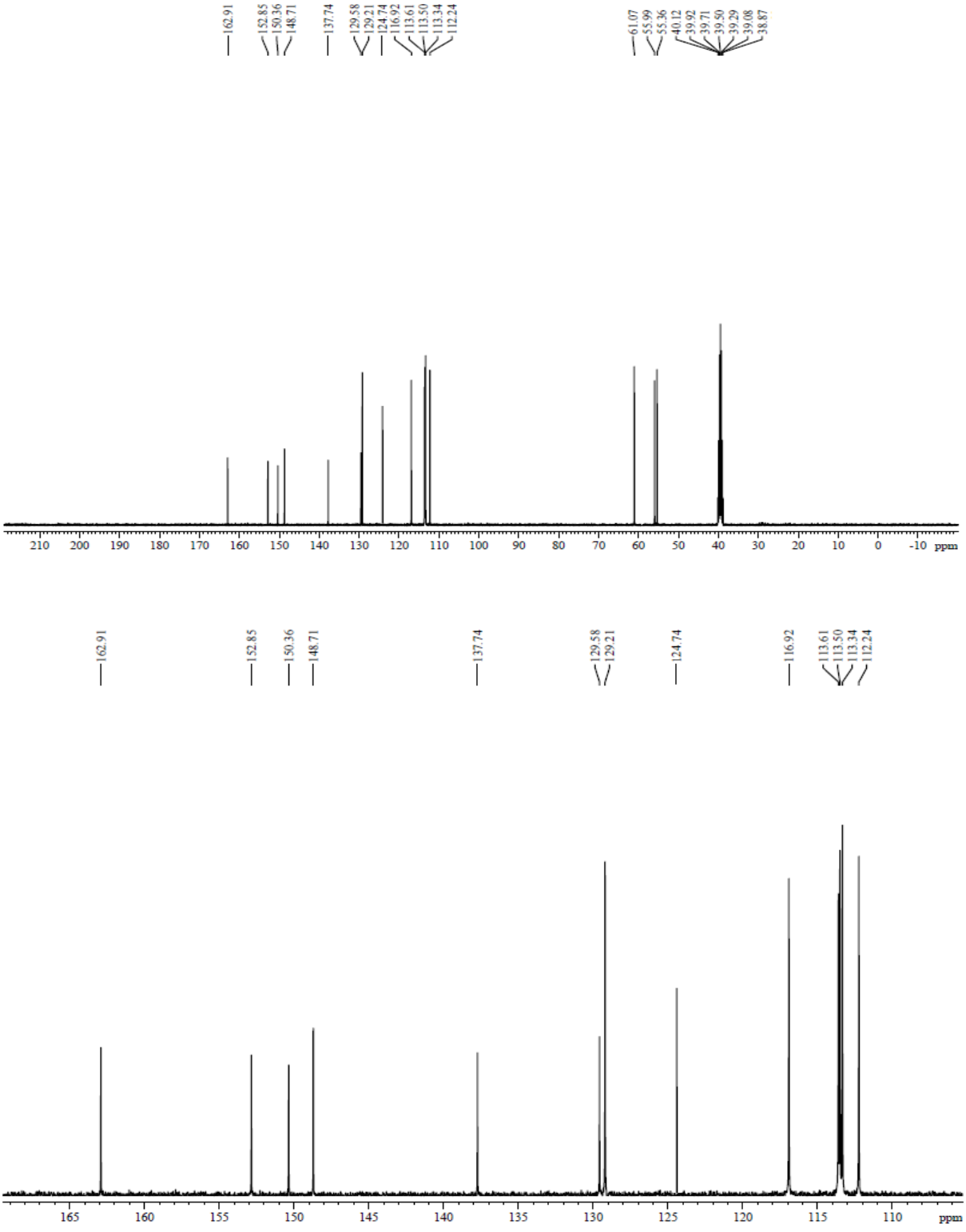
3l ^{1}H NMR


8.116
7.617
7.596
7.045
6.991
6.988
6.968
6.900
6.880
6.872
6.817
6.813
6.679
6.674
6.658
6.653
6.602
5.997
5.993
3.770
3.661
3.302
O
NH
N
H
Cl
OMe
MeO
ppm

3l ^{13}C NMR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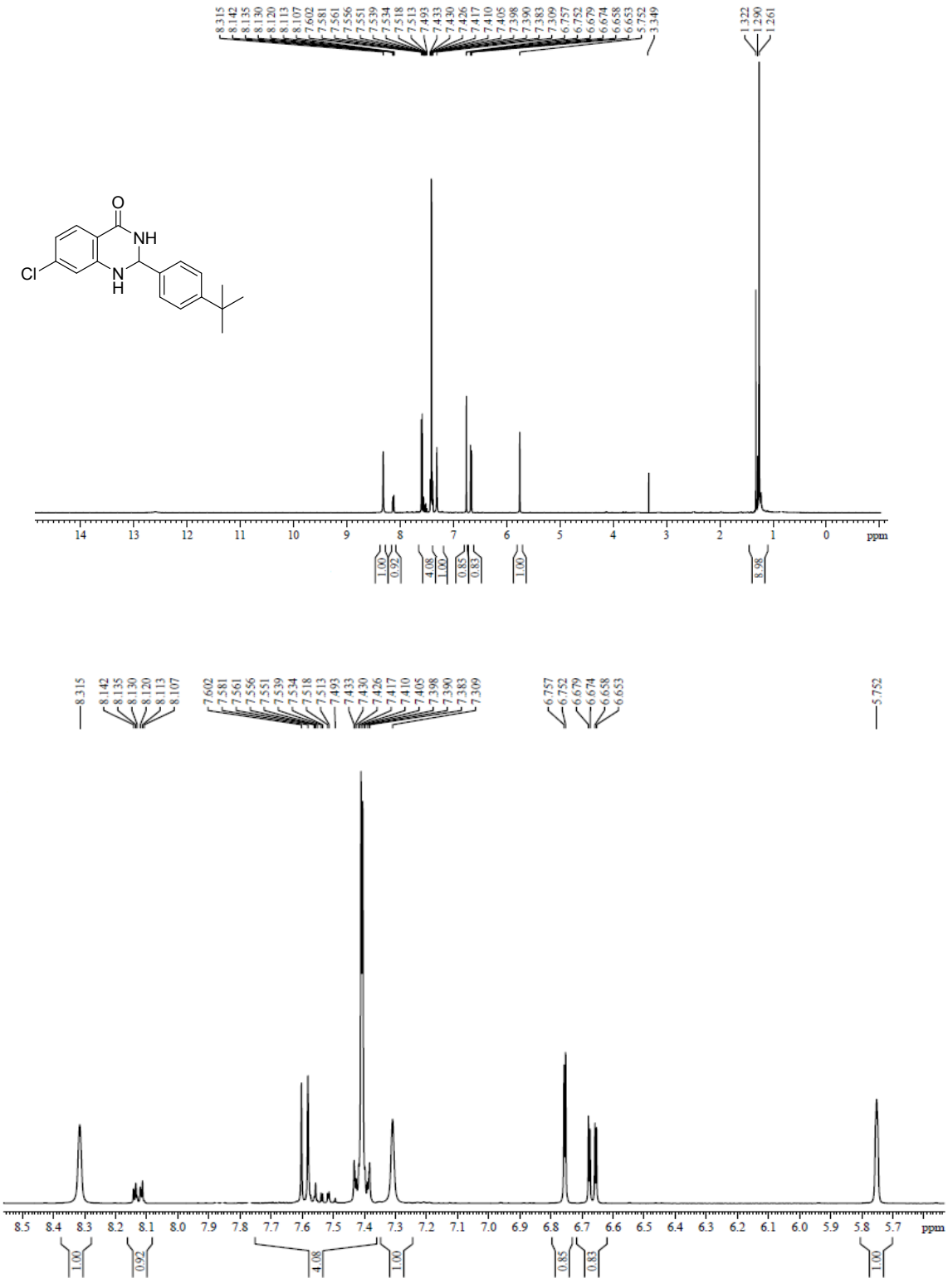
148.71
137.74
129.58
129.21
124.74
116.92
113.61
113.50
113.34
112.24
61.07
55.99
55.36
40.12
39.92
39.71
39.50
39.29
39.08
38.87
ppm

3m ^{1}H NMR


8.315
8.142
8.135
8.130
8.120
8.113
8.107
7.602
7.581
7.561
7.556
7.551
7.539
7.534
7.518
7.513
7.493
7.433
7.430
7.426
7.417
7.410
7.405
7.398
7.390
7.383
7.309
6.757
6.752
6.679
6.674
6.658
6.653
5.752
3.349
1.322
1.290
1.261
O
NH
N
H
Cl
ppm
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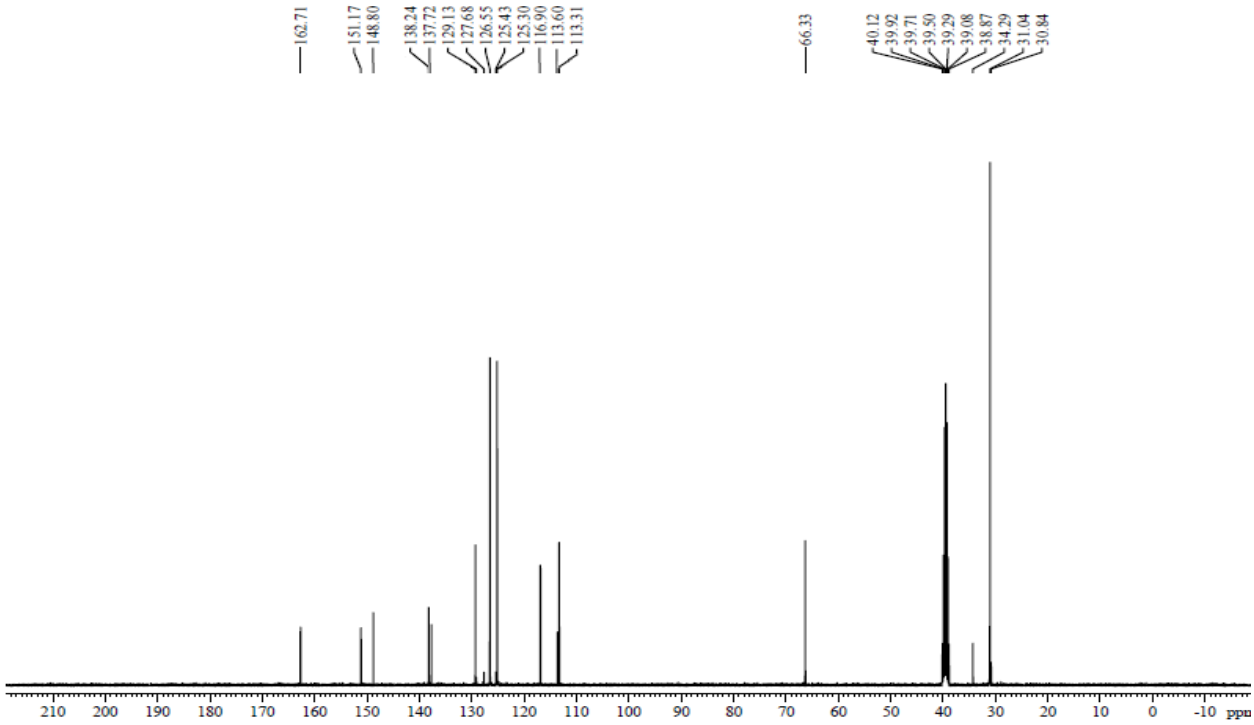
4.08
1.00
0.85
0.83
1.00
8.98

3m ^{13}C NMR


162.71
151.17
148.80
138.24
137.72
129.13
127.68
126.55
125.43
125.30
116.90
113.60
113.31
66.33
40.12
39.92
39.71
39.50
39.29
39.08
38.87
34.29
31.04
30.84
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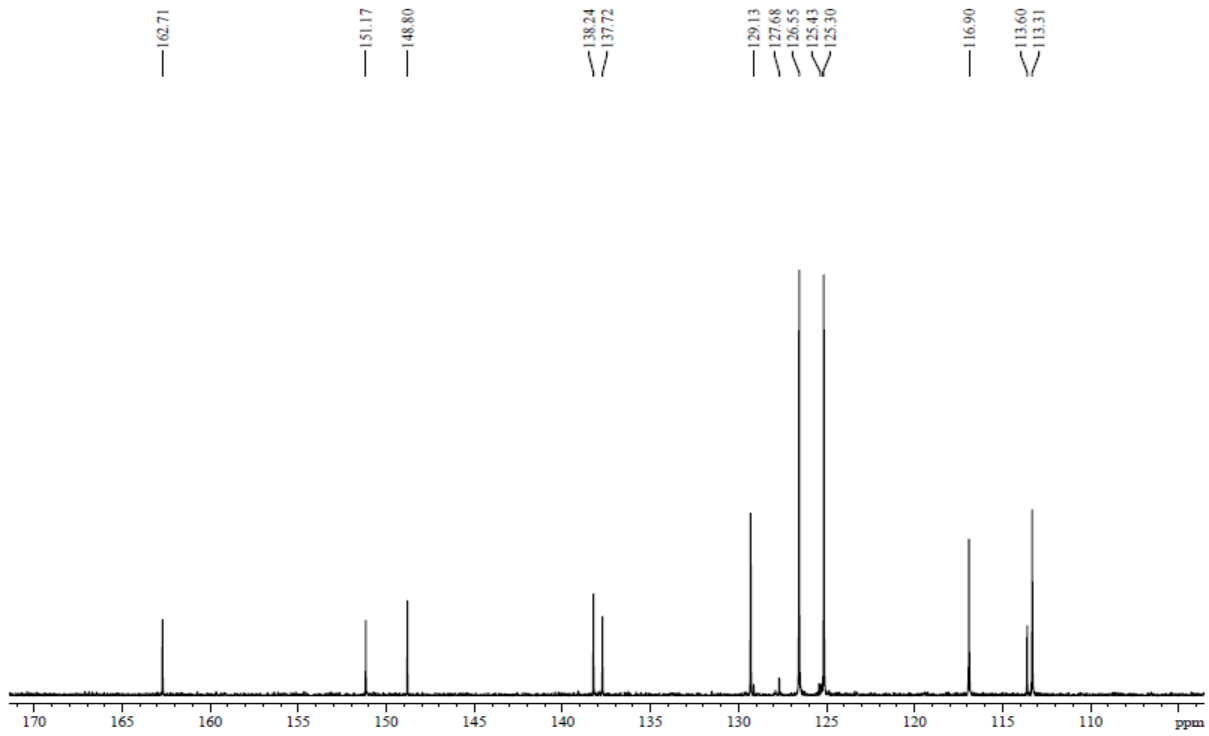
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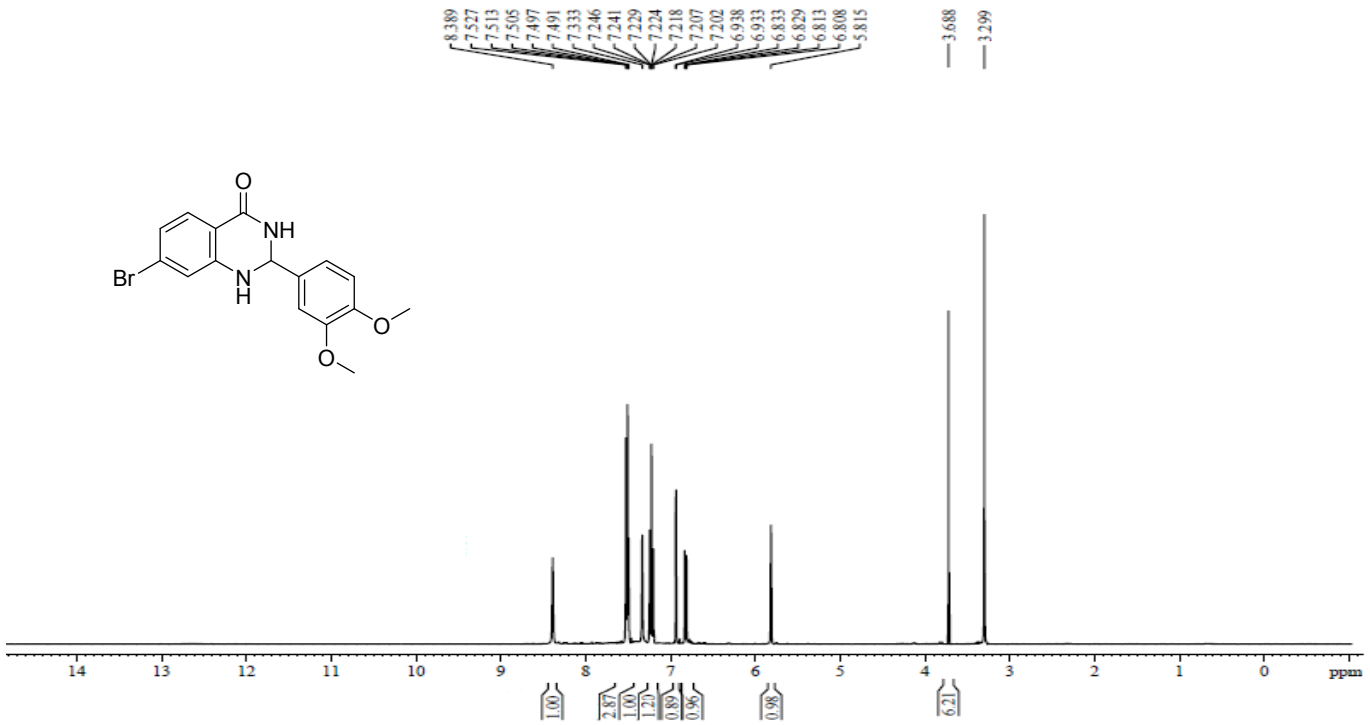
151.17
148.80
138.24
137.72
129.13
127.68
126.55
125.43
125.30
116.90
113.60
113.31
170 165 160 155 150 145 140 135 130 125 120 115 110 ppm

3n ^{1}H NMR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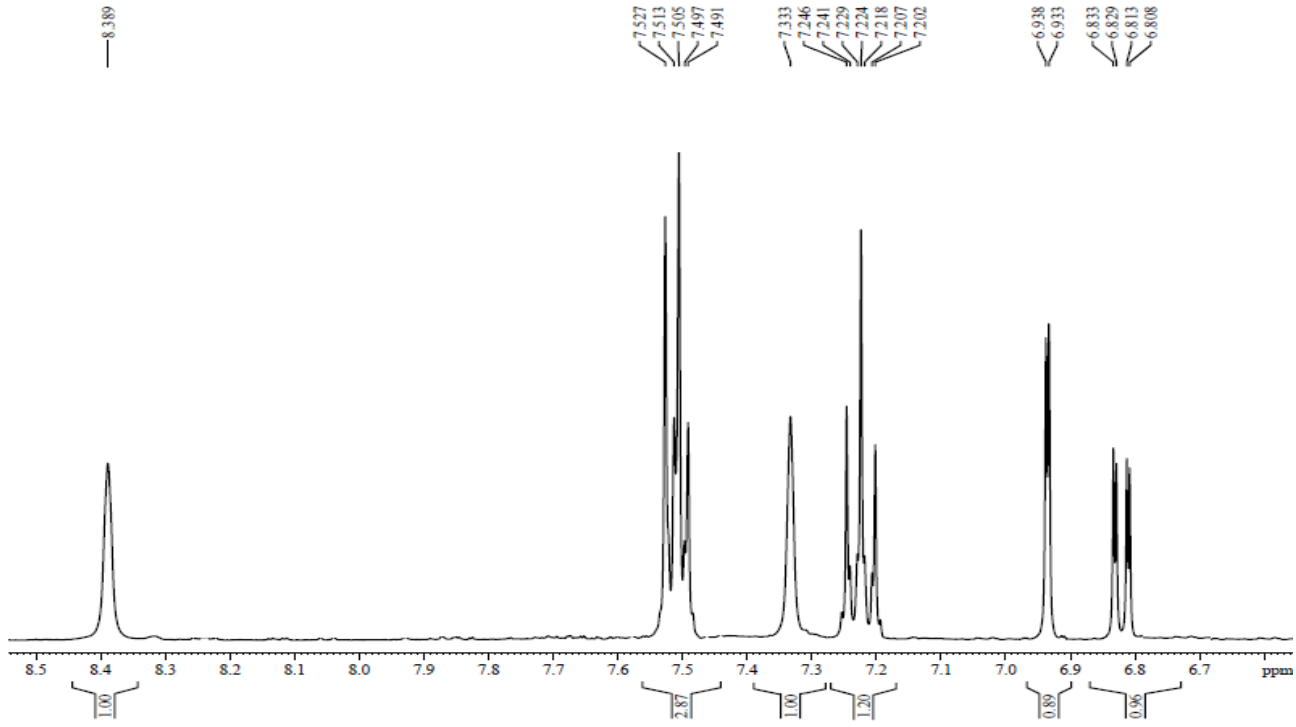
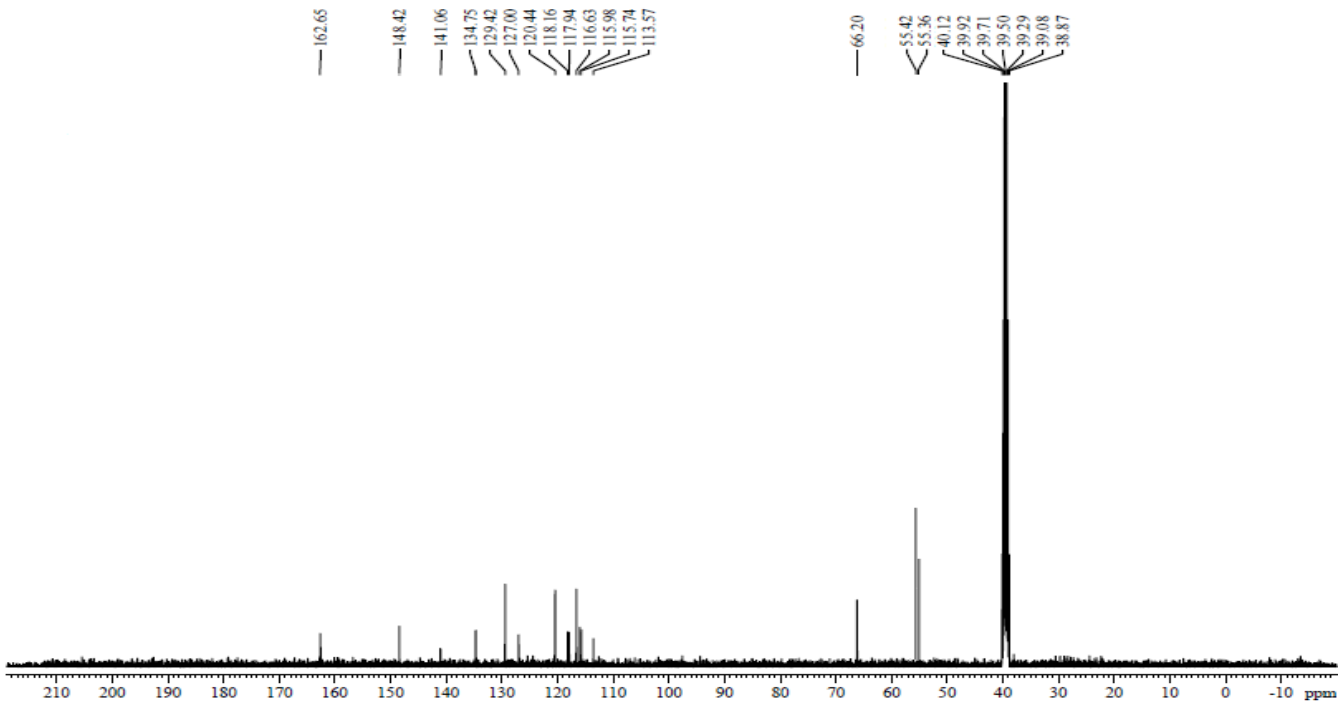
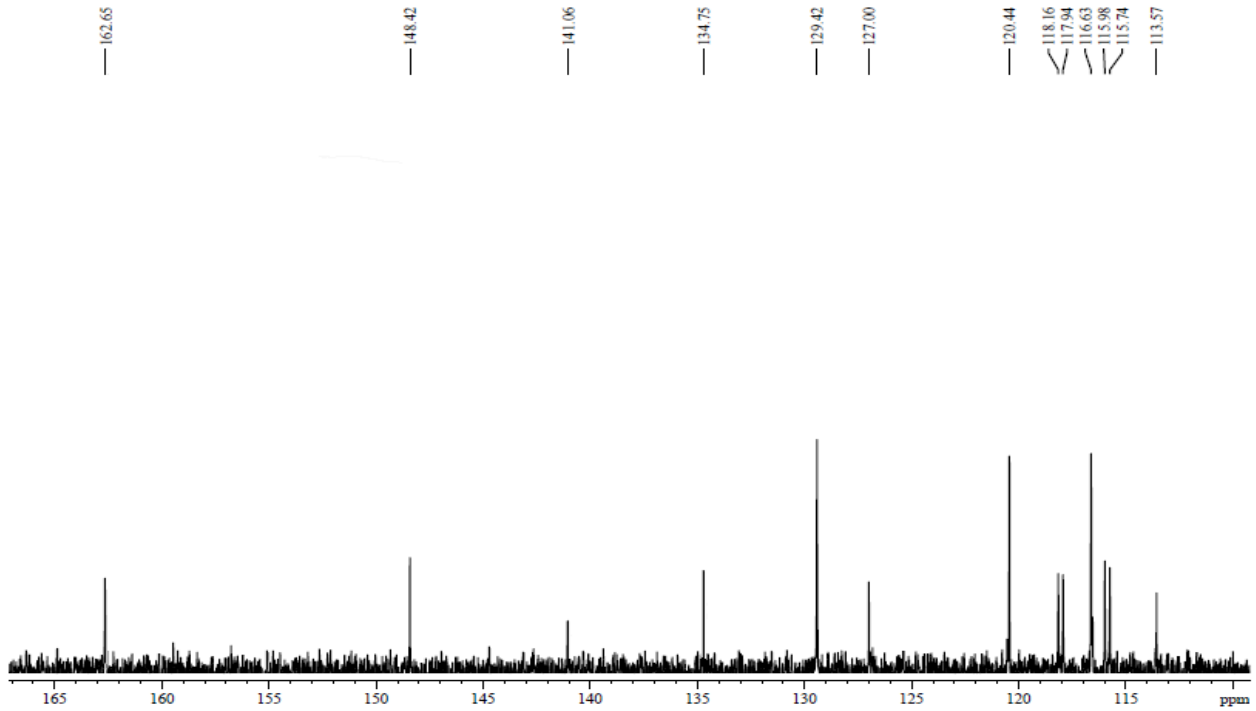
7.505
7.497
7.491
7.333
7.246
7.241
7.229
7.224
7.218
7.207
7.202
6.938
6.933
6.833
6.829
6.813
6.808
5.815
3.688
3.299
O
NH
Br
N
H
O
O
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
ppm
1.00
2.87
1.00
1.20
0.89
0.96
0.98
6.21

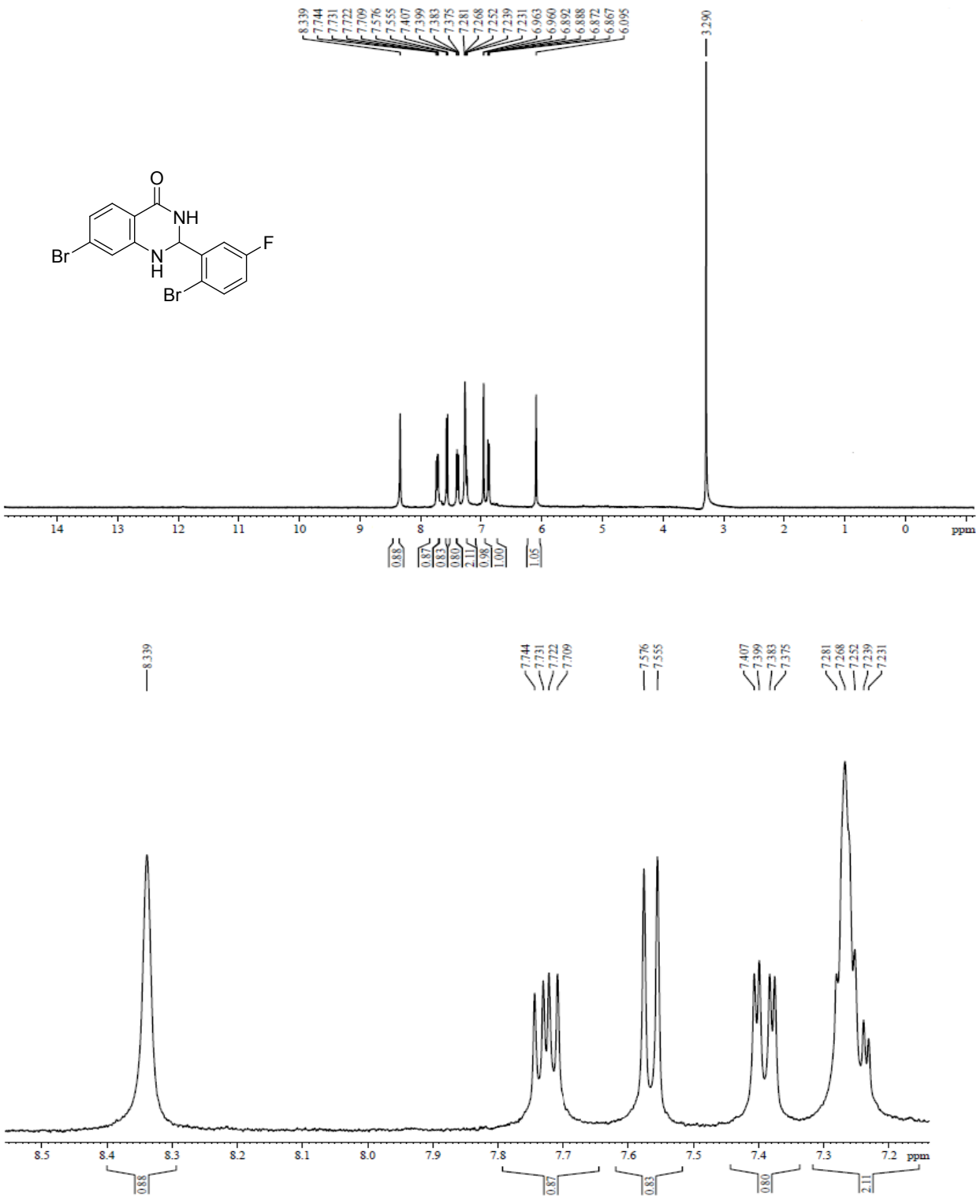

8.389
7.527
7.513
7.505
7.497
7.491
7.333
7.246
7.241
7.229
7.224
7.218
7.207
7.202
6.938
6.933
6.833
6.829
6.813
6.808
8.5
8.4
8.3
8.2
8.1
8.0
7.9
7.8
7.7
7.6
7.5
7.4
7.3
7.2
7.1
7.0
6.9
6.8
6.7
ppm
1.00
2.87
1.06
1.20
0.89
0.96

3n ^{13}C NMR

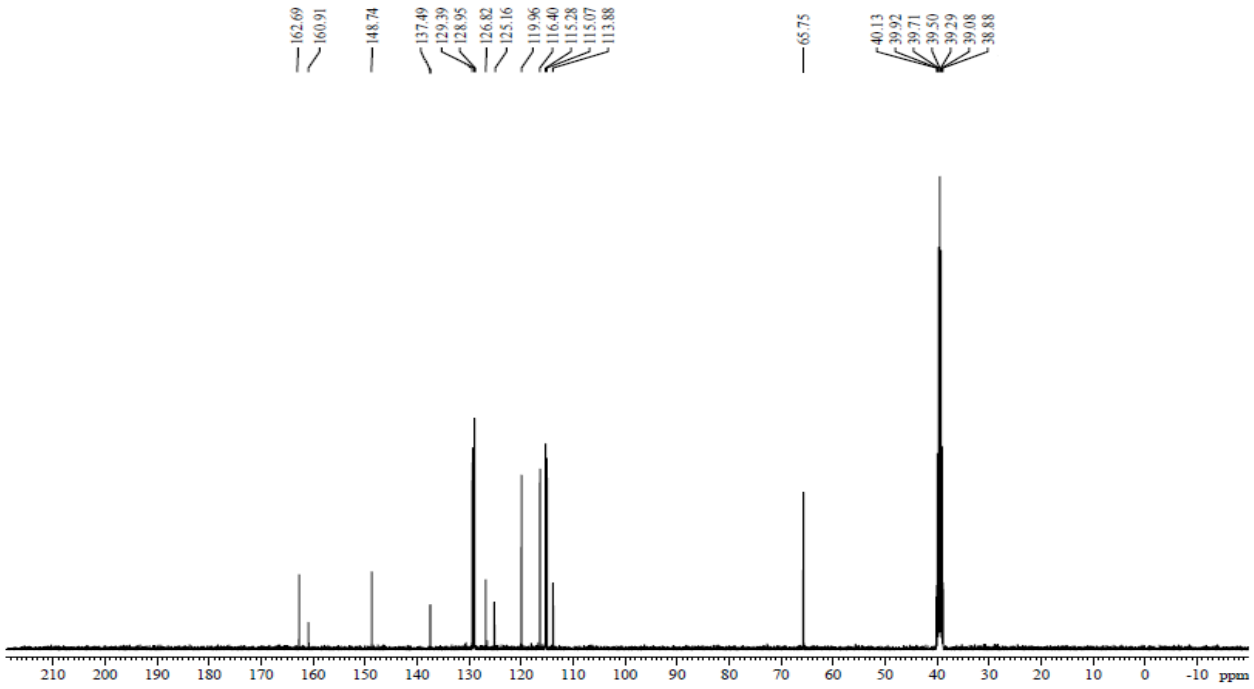

162.65
148.42
141.06
134.75
129.42
127.00
120.44
118.16
117.94
116.63
115.98
115.74
113.57
66.20
55.42
55.36
40.12
39.92
39.71
39.50
39.29
39.08
38.87
210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10 ppm

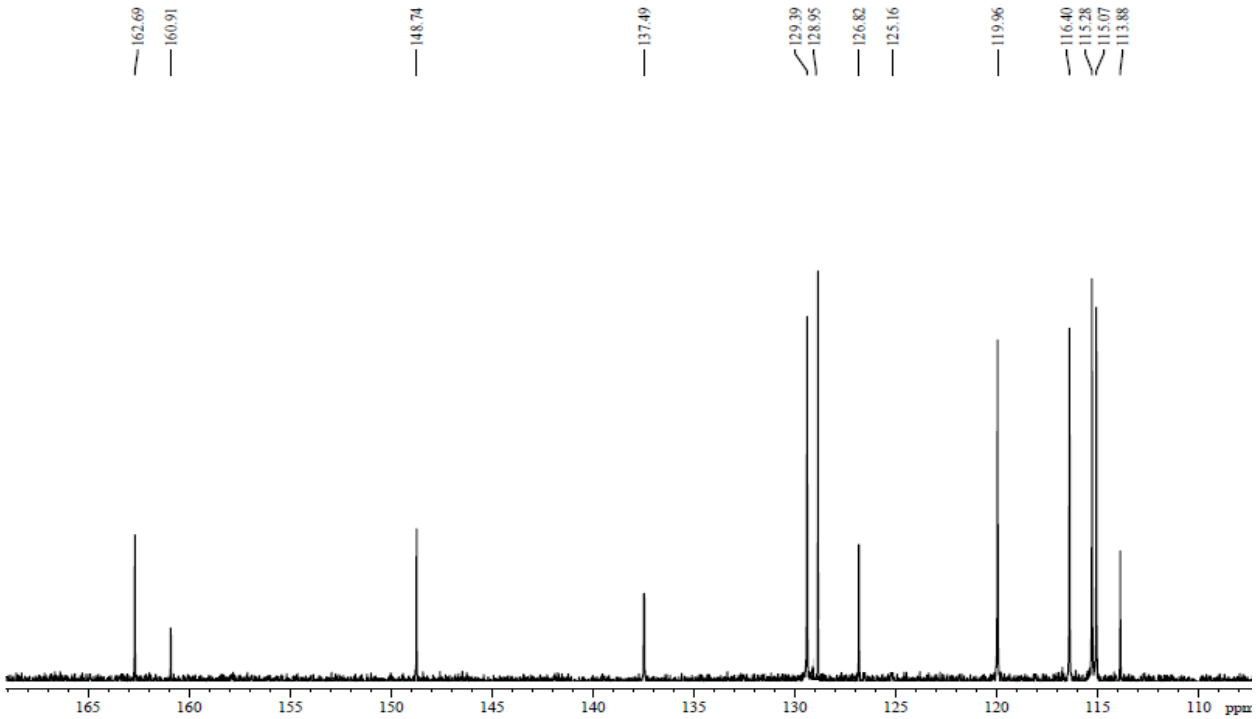

162.65
148.42
141.06
134.75
129.42
127.00
120.44
118.16
117.94
116.63
115.98
115.74
113.57
165 160 155 150 145 140 135 130 125 120 115 ppm

3o ^{1}H NMR

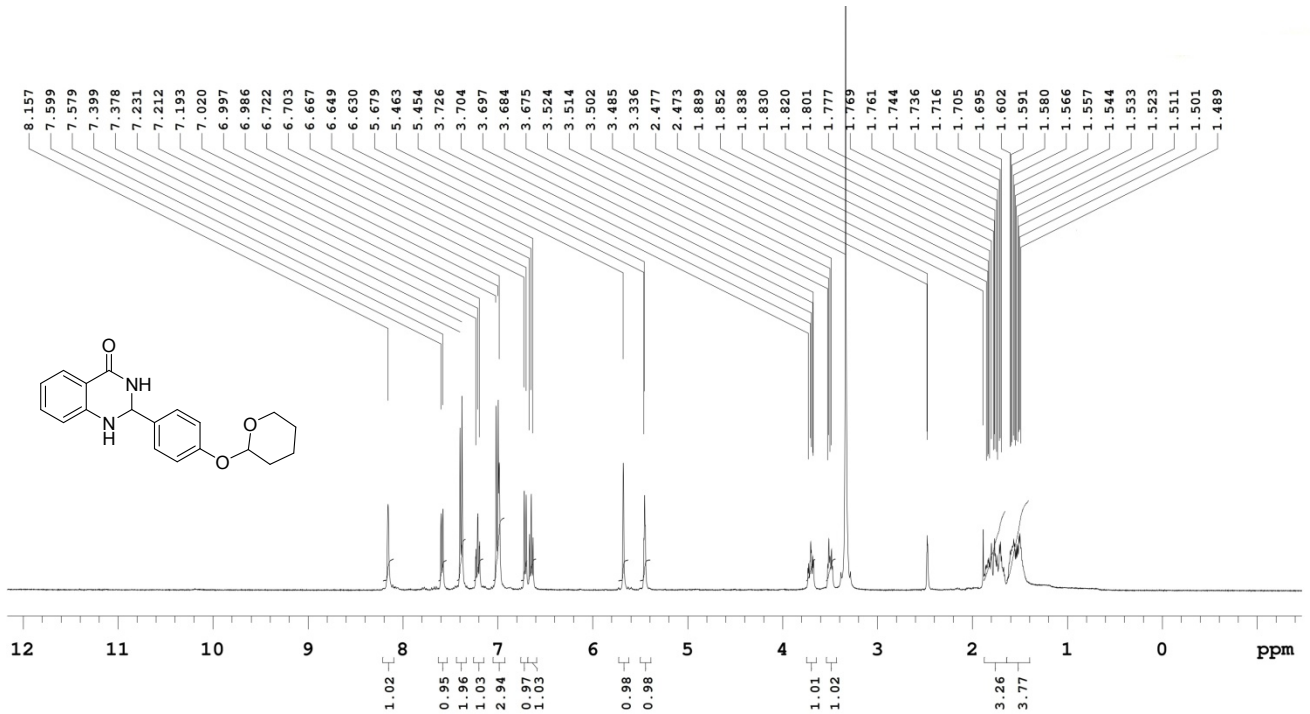

8.339
7.744
7.731
7.722
7.709
7.576
7.555
7.407
7.399
7.383
7.375
7.281
7.268
7.252
7.239
7.231
6.963
6.960
6.892
6.888
6.872
6.867
6.095
3.290
O
NH
N
H
Br
F
Br
ppm
0.88
0.87
0.83
0.80
2.11
0.98
1.00
1.05

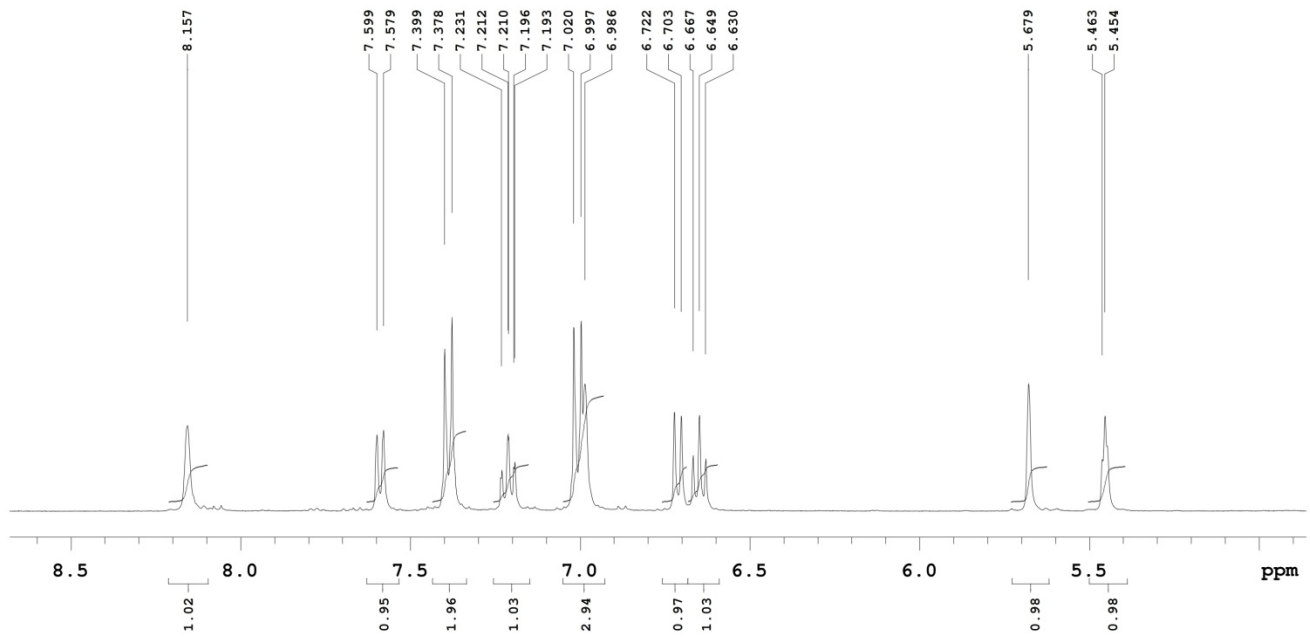
3o ^{13}C NMR


162.69
160.91
148.74
137.49
129.39
128.95
126.82
125.16
119.96
116.40
115.28
115.07
113.88
65.75
40.13
39.92
39.71
39.50
39.29
39.08
38.88
210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10 ppm

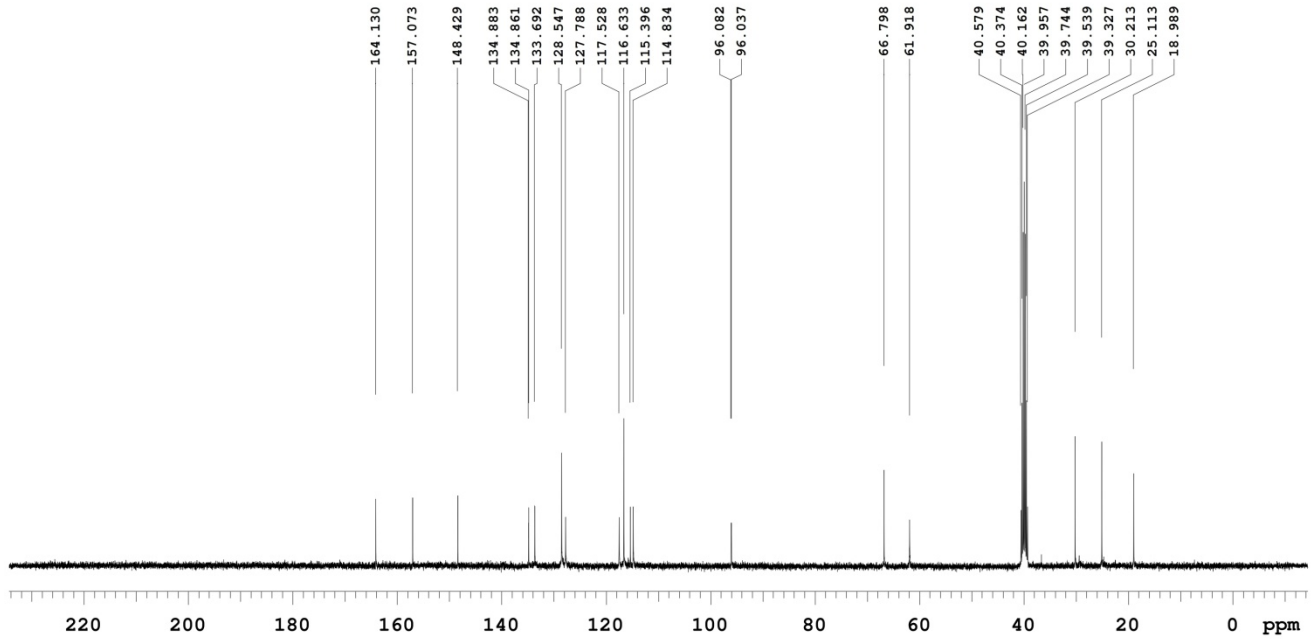

162.69
160.91
148.74
137.49
129.39
128.95
126.82
125.16
119.96
116.40
115.28
115.07
113.88
165 160 155 150 145 140 135 130 125 120 115 110 ppm

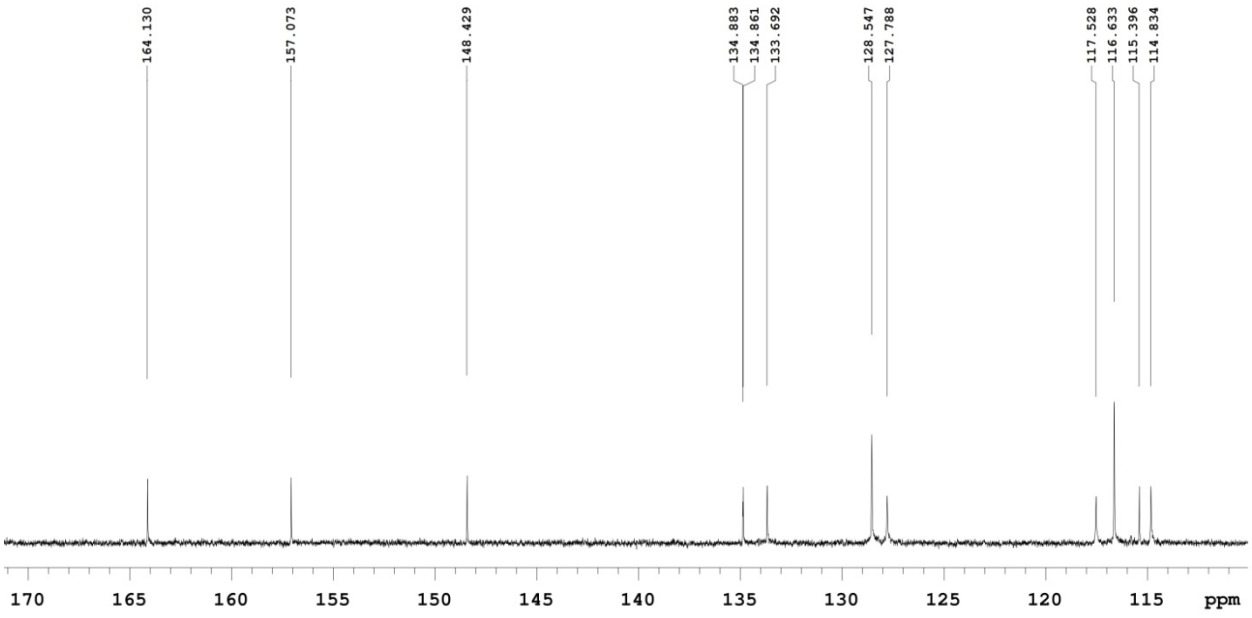
3p ^{1}H NMR


8.157
7.599
7.579
7.399
7.378
7.231
7.212
7.193
7.020
6.997
6.986
6.722
6.703
6.667
6.649
6.630
5.679
5.463
5.454
3.726
3.704
3.697
3.684
3.675
3.524
3.514
3.502
3.485
3.336
2.477
2.473
1.889
1.852
1.838
1.830
1.820
1.801
1.777
1.769
1.761
1.744
1.736
1.716
1.705
1.695
1.602
1.591
1.580
1.566
1.557
1.544
1.533
1.523
1.511
1.501
1.489
O
NH
N
H
O
O
12
11
10
9
8
7
6
5
4
3
2
1
0
ppm
1.02
0.95
1.96
1.03
2.94
0.97
1.03
0.98
0.98
1.01
1.02
3.26
3.77

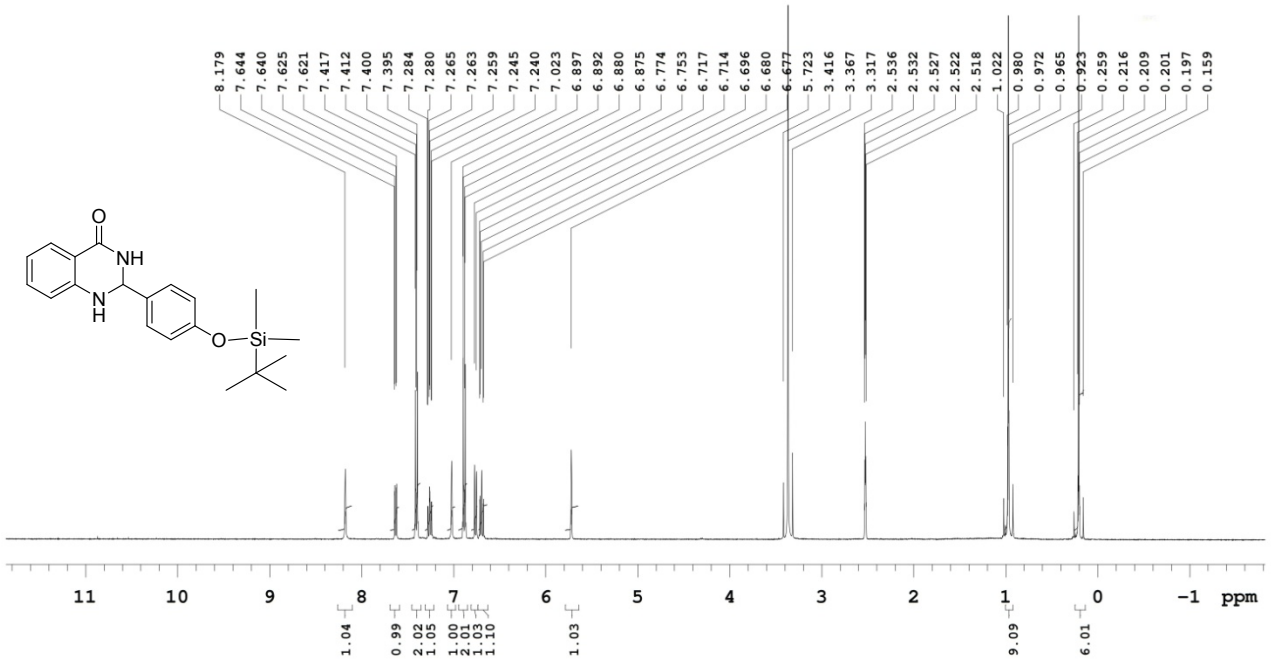

8.157
7.599
7.579
7.399
7.378
7.231
7.212
7.210
7.196
7.193
7.020
6.997
6.986
6.722
6.703
6.667
6.649
6.630
5.679
5.463
5.454
8.5
8.0
7.5
7.0
6.5
6.0
5.5
ppm
1.02
0.95
1.96
1.03
2.94
0.97
1.03
0.98
0.98

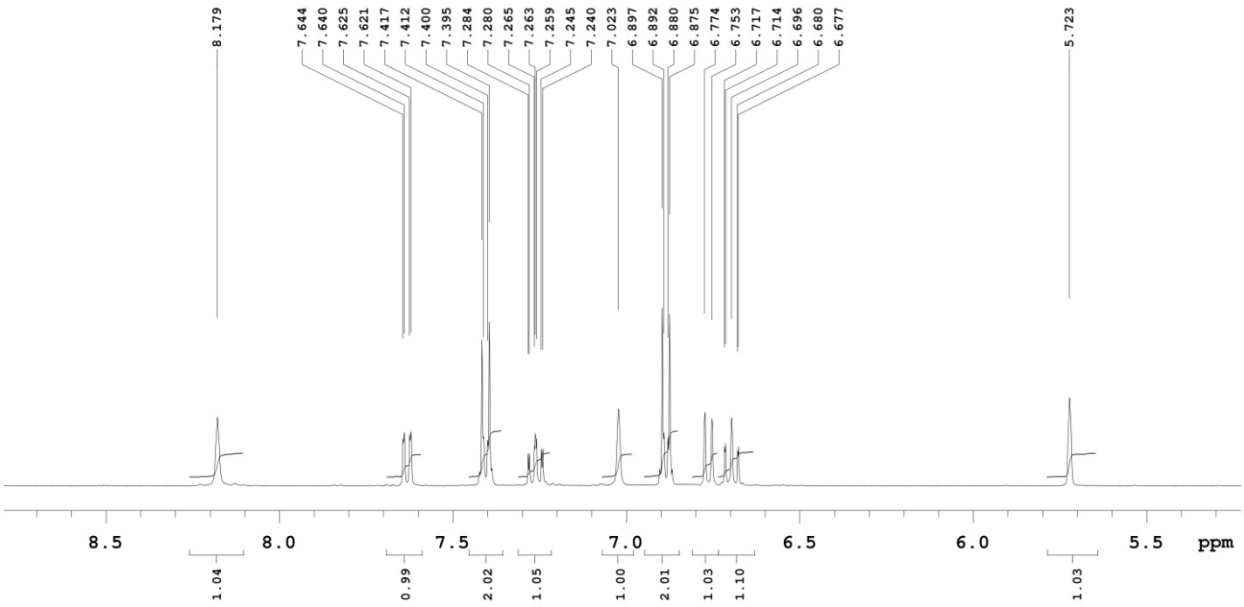
3p ^{13}C NMR


164.130
157.073
148.429
134.883
134.861
133.692
128.547
127.788
117.528
116.633
115.396
114.834
96.082
96.037
66.798
61.918
40.579
40.374
40.162
39.957
39.744
39.539
39.327
30.213
25.113
18.989
220
200
180
160
140
120
100
80
60
40
20
0
ppm

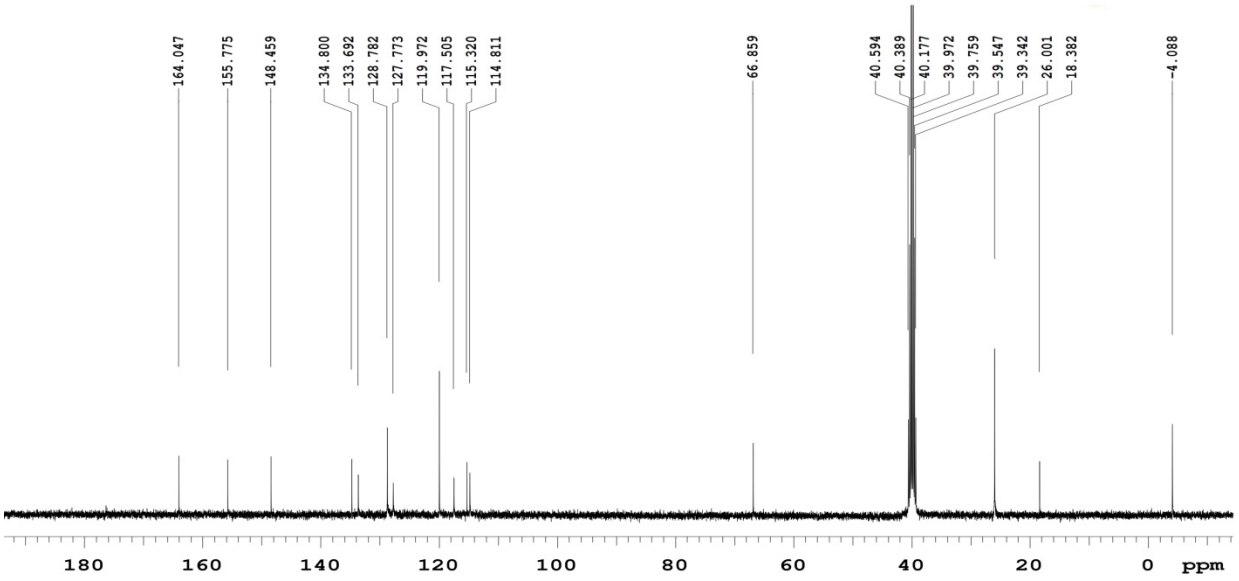

164.130
157.073
148.429
134.883
134.861
133.692
128.547
127.788
117.528
116.633
115.396
114.834
170
165
160
155
150
145
140
135
130
125
120
115
ppm

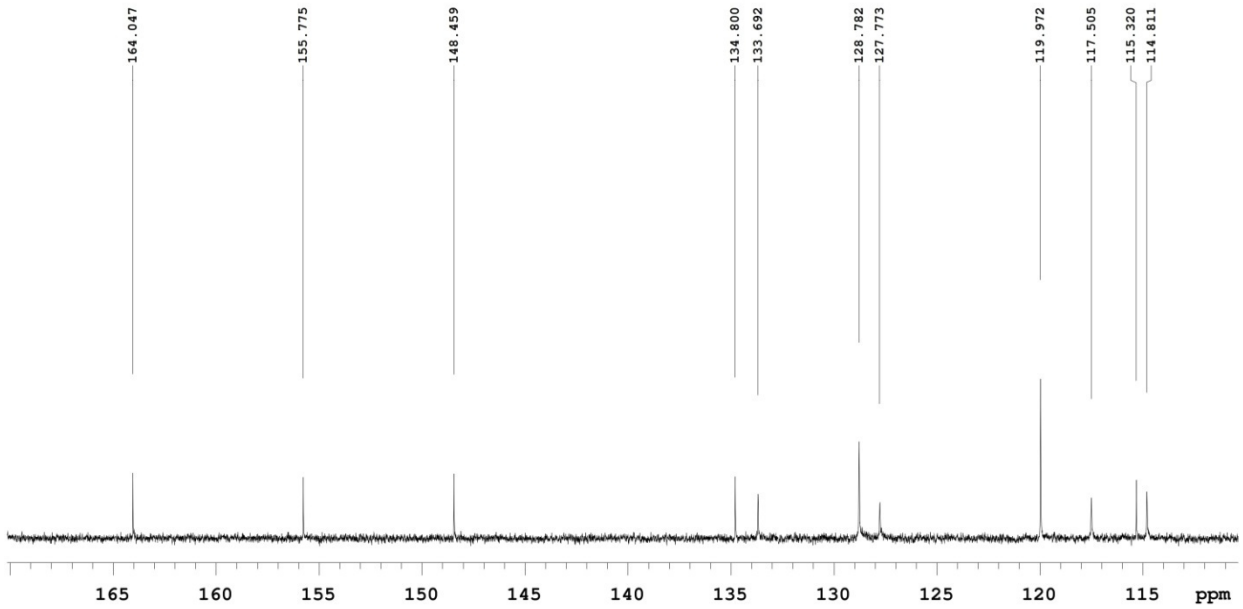
3q ^{1}H NMR


8.179
7.644
7.640
7.625
7.621
7.417
7.412
7.400
7.395
7.284
7.280
7.265
7.263
7.259
7.245
7.240
7.023
6.897
6.892
6.880
6.875
6.774
6.753
6.717
6.714
6.696
6.680
6.677
5.723
3.416
3.367
3.317
2.536
2.532
2.527
2.522
2.518
1.022
0.980
0.972
0.965
0.923
0.259
0.216
0.209
0.201
0.197
0.159
O
NH
N
H
O
Si
11
10
9
8
7
6
5
4
3
2
1
0
−1
ppm
1.04
0.99
2.02
1.05
1.00
2.01
1.03
1.10
1.03
9.09
6.01


8.179
7.644
7.640
7.625
7.621
7.417
7.412
7.400
7.395
7.284
7.280
7.265
7.263
7.259
7.245
7.240
7.023
6.897
6.892
6.880
6.875
6.774
6.753
6.717
6.714
6.696
6.680
6.677
5.723
8.5
8.0
7.5
7.0
6.5
6.0
5.5
ppm
1.04
0.99
2.02
1.05
1.00
2.01
1.03
1.10
1.03

3q ^{13}C NMR


164.047
155.775
148.459
134.800
133.692
128.782
127.773
119.972
117.505
115.320
114.811
66.859
40.594
40.389
40.177
39.972
39.759
39.547
39.342
26.001
18.382
-4.088
180
160
140
120
100
80
60
40
20
0
ppm


164.047
155.775
148.459
134.800
133.692
128.782
127.773
119.972
117.505
115.320
114.811
165
160
155
150
145
140
135
130
125
120
115
ppm