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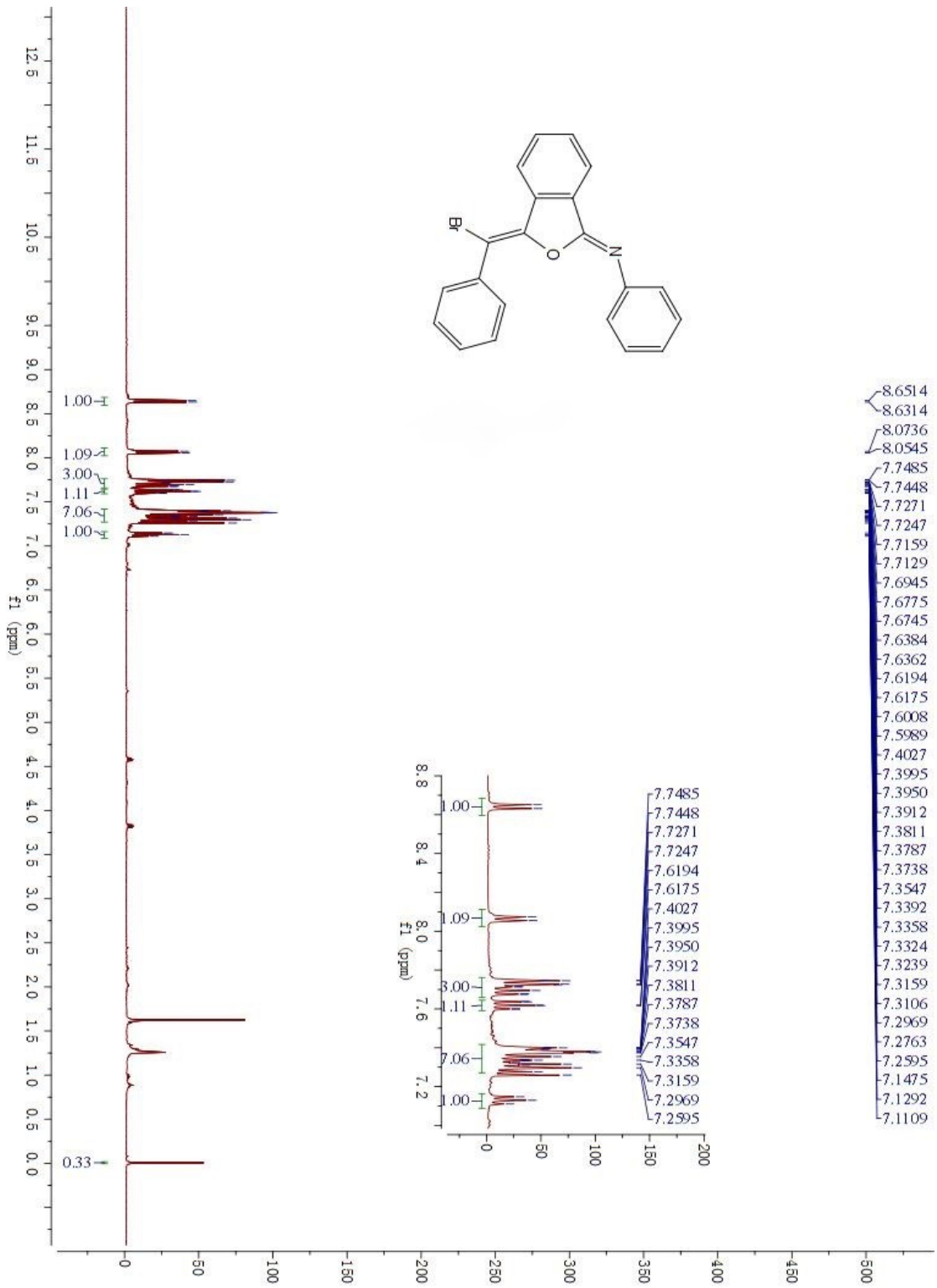

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125.0883
124.3846
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104.1578
f1 (ppm)
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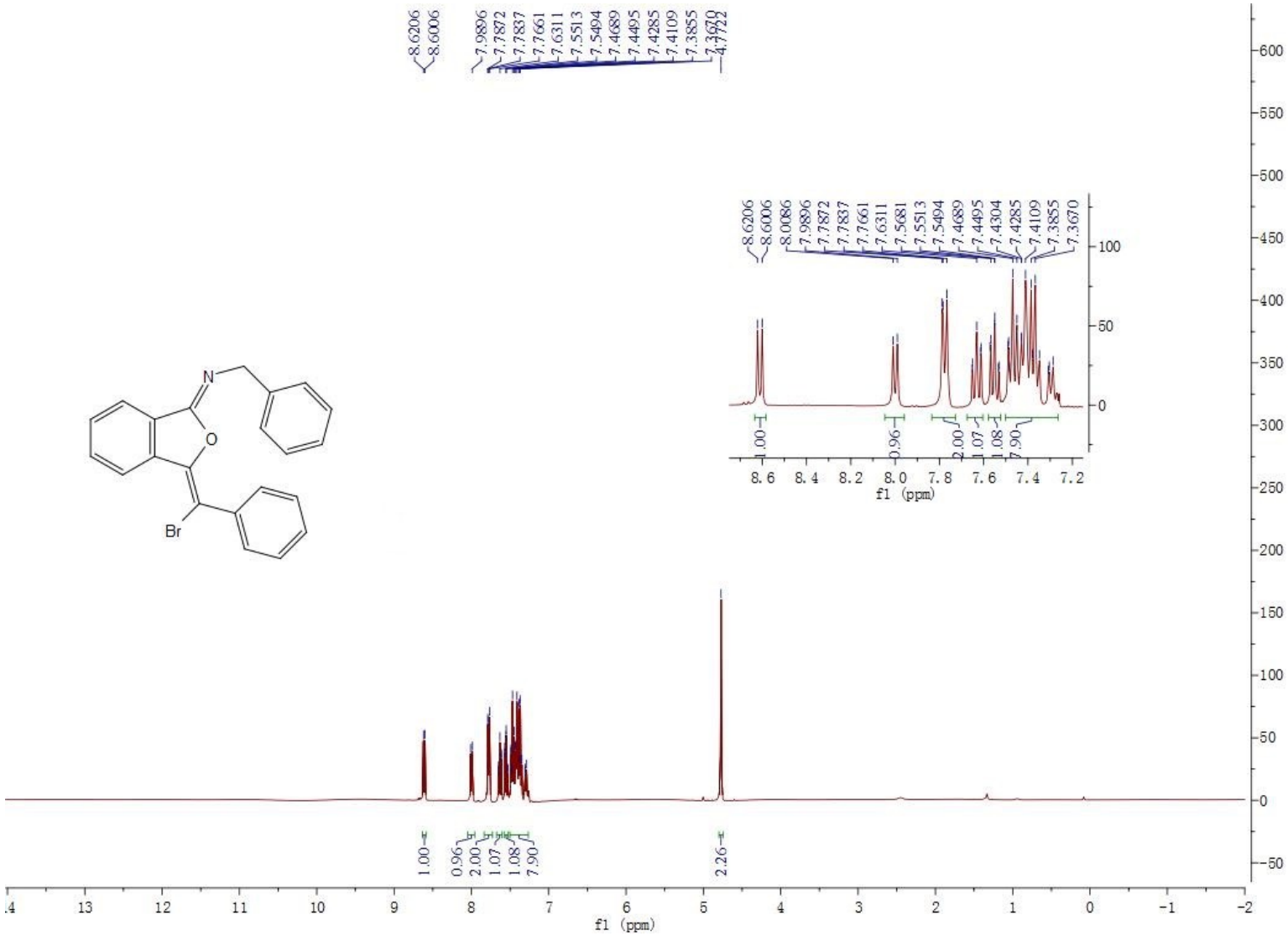
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7.4285
7.4109
7.3855
7.3670
4.7722
8.0086
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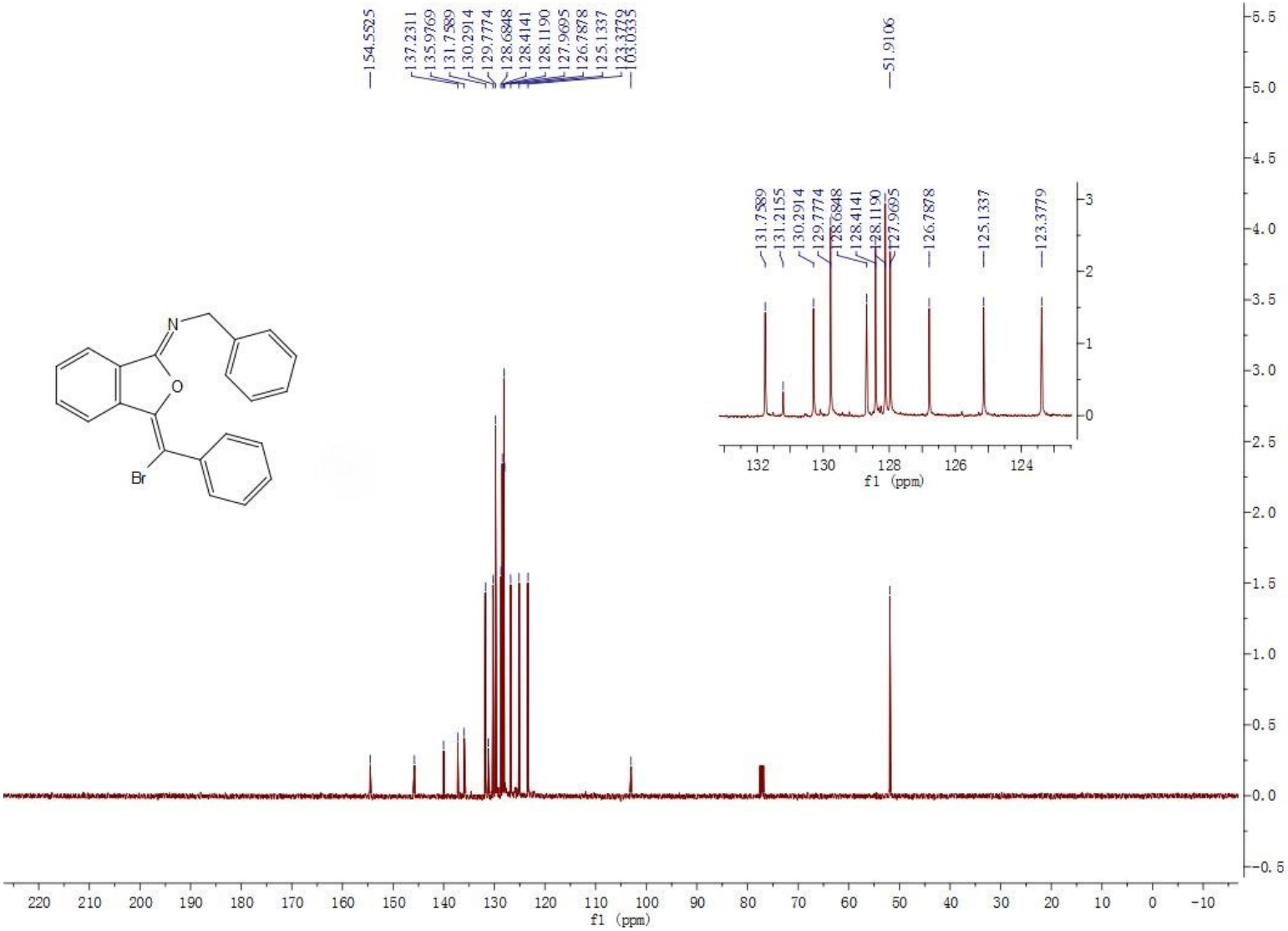
2.00
1.07
1.08
7.90
2.26
f1 (ppm)
N
O
Br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128.4141
128.1190
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126.7878
125.1337
123.3779
103.0335
51.9106
131.7589
131.2155
130.2914
129.7774
128.6848
128.4141
128.1190
127.9695
126.7878
125.1337
123.3779
f1 (ppm)
N
O
Br
f1 (ppm)

Br
O
N
CH3
1.00
1.06
2.03
1.05
1.10
2.08
1.01
3.01
8.5972
8.5775
7.8677
7.8488
7.7841
7.7653
7.6284
7.6096
7.5901
7.5480
7.5293
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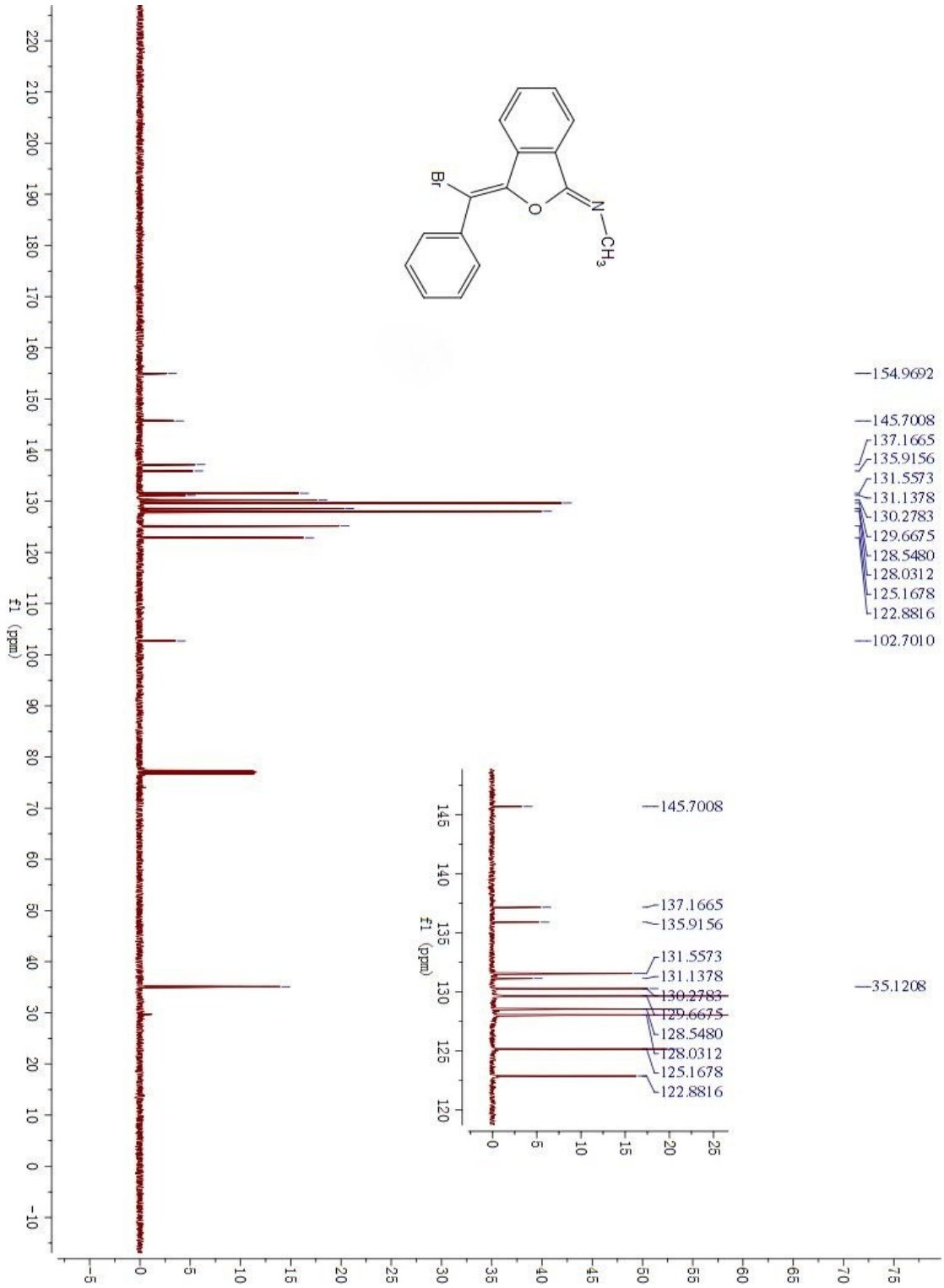
7.4093
7.3524
7.3339
7.3155
7.2599
3.2426
f1 (ppm)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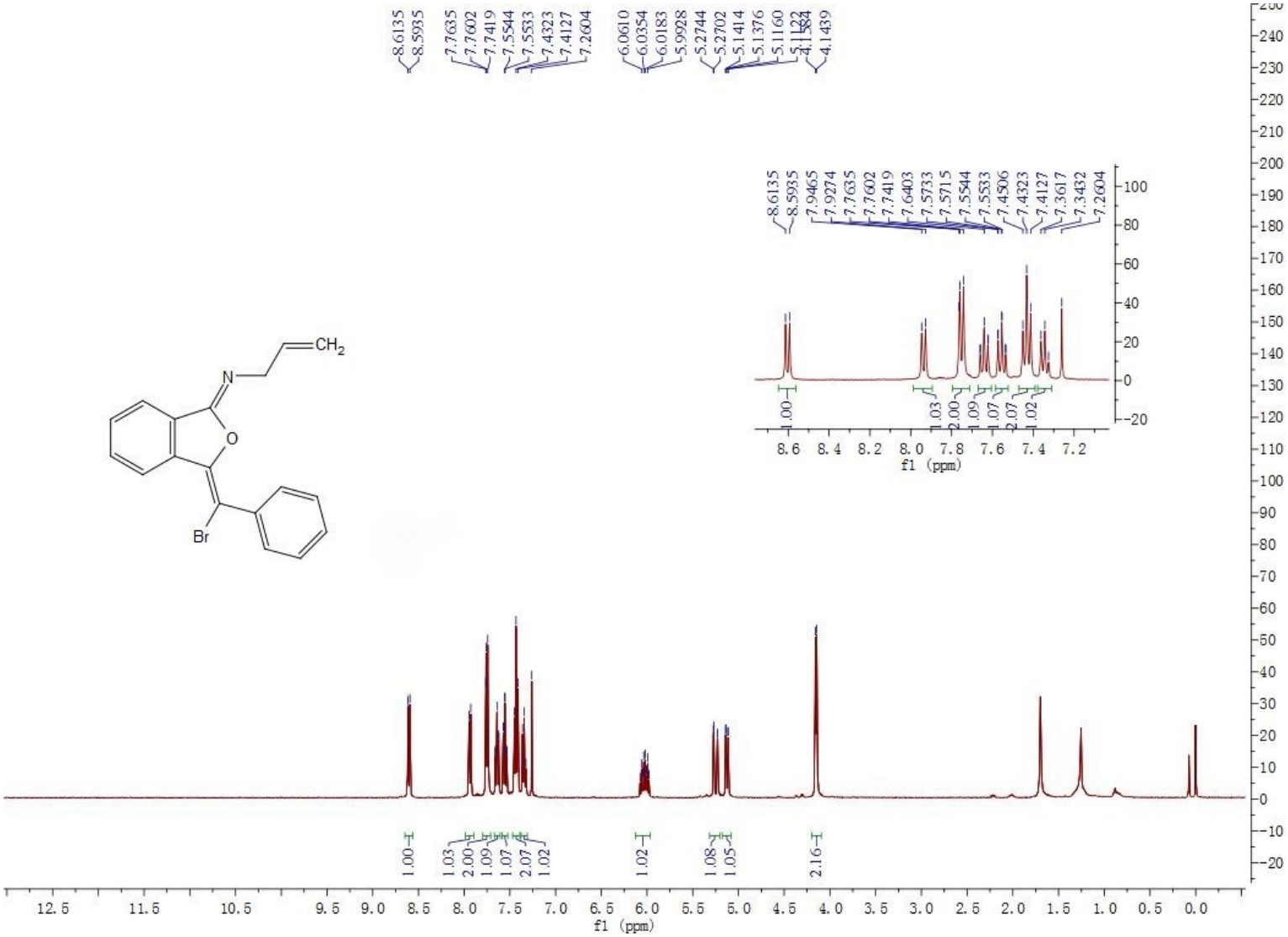
f1 (ppm)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7.5533
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7.4127
7.2604
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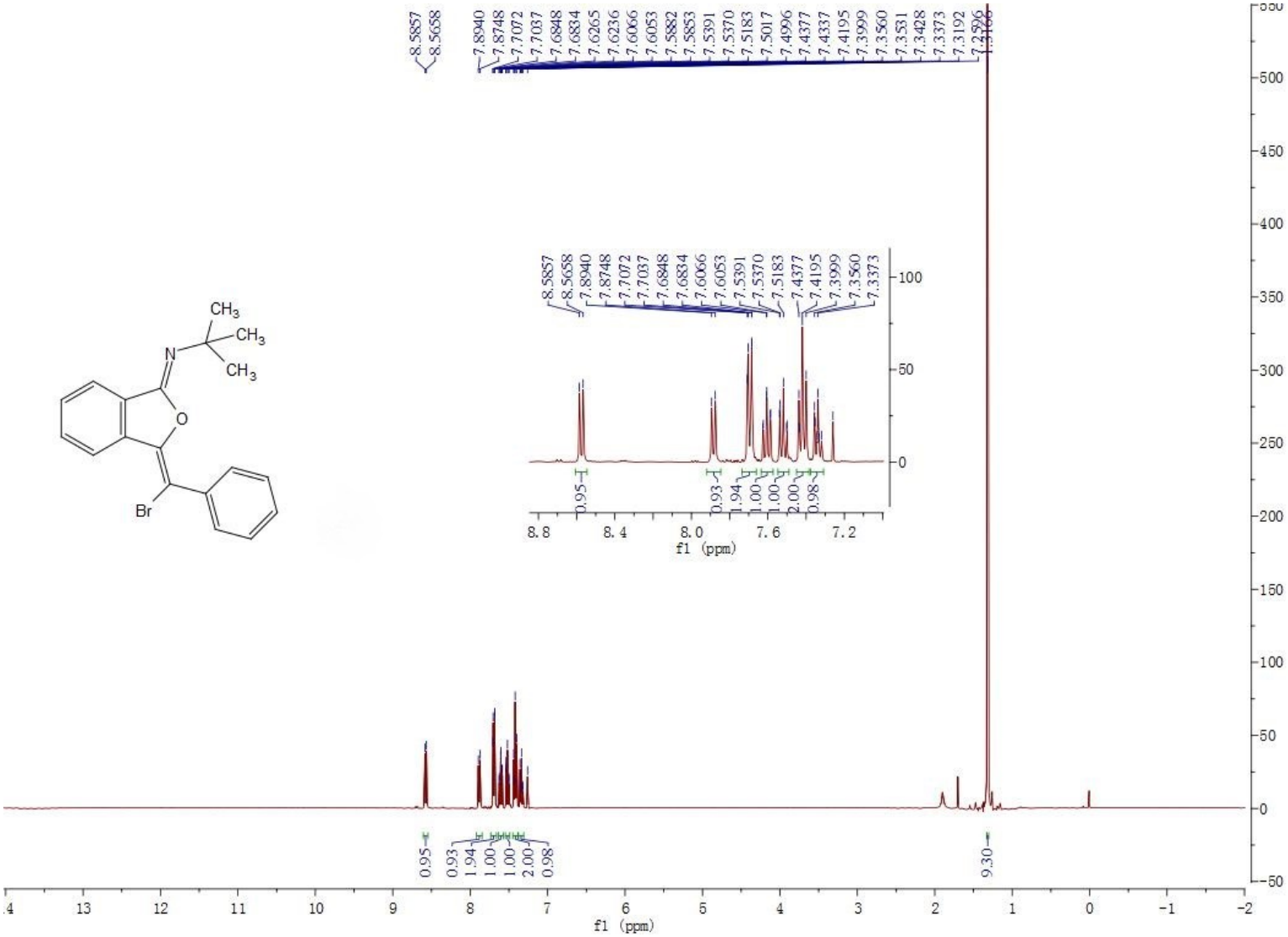
6.0354
6.0183
5.9928
5.2744
5.2702
5.1414
5.1376
5.1160
4.1439
CH2
N
O
Br
1.00
1.03
2.00
1.09
1.07
2.07
1.02
1.02
1.08
1.05
2.16
f1 (ppm)

Br
O
N
CH2
154.5131
145.6981
131.7369
130.2822
129.7040
128.6033
128.0124
125.1248
115.6471
50.6693
137.1357
135.9362
135.6660
131.7369
131.1009
130.2822
129.7040
128.6033
128.0124
125.1248
123.2342
f1 (ppm)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7.6848
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7.6236
7.6066
7.6053
7.5882
7.5853
7.5391
7.5370
7.5183
7.5017
7.4996
7.4377
7.4337
7.4195
7.3999
7.3560
7.3531
7.3428
7.3373
7.3192
7.2526
7.2186
CH3
CH3
CH3
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1.94
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1.00
2.00
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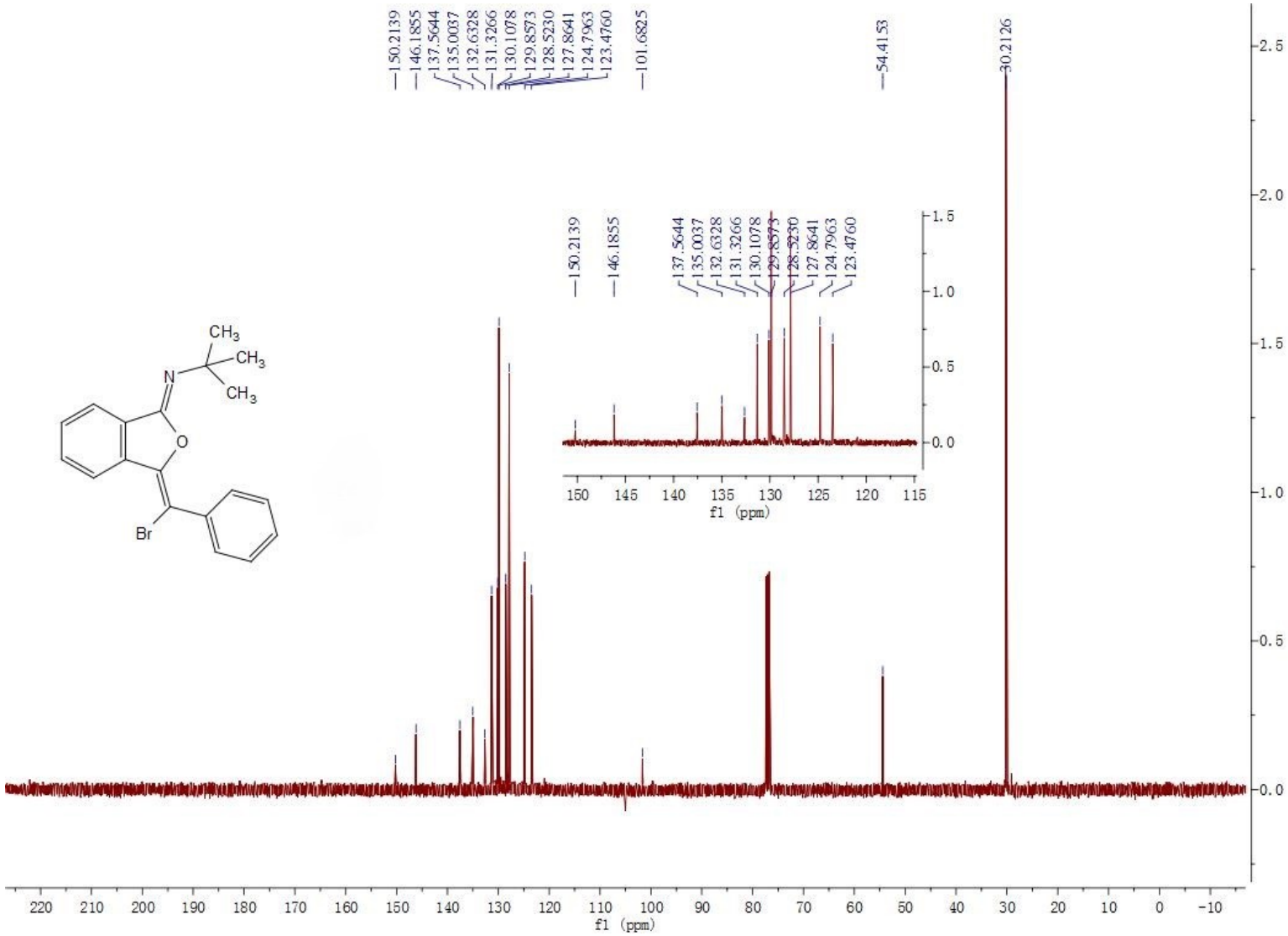
f1 (ppm)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137.5644
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132.6328
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129.8573
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127.8641
124.7963
123.4760
101.6825
54.4153
30.2126
CH3
CH3
CH3
N
O
Br
f1 (ppm)

Br
O
N
0.87
1.00
1.95
1.12
1.37
2.02
1.02
2.15
2.21
2.21
3.03
8.5968
8.5771
7.9096
7.8909
7.7735
7.7545
7.6009
7.5818
7.5404
7.5218
7.5028
7.4368
7.4182
7.3995
7.3442
7.3266
3.5440
3.5266
3.5089
1.6842
1.6671
1.6492
1.6310
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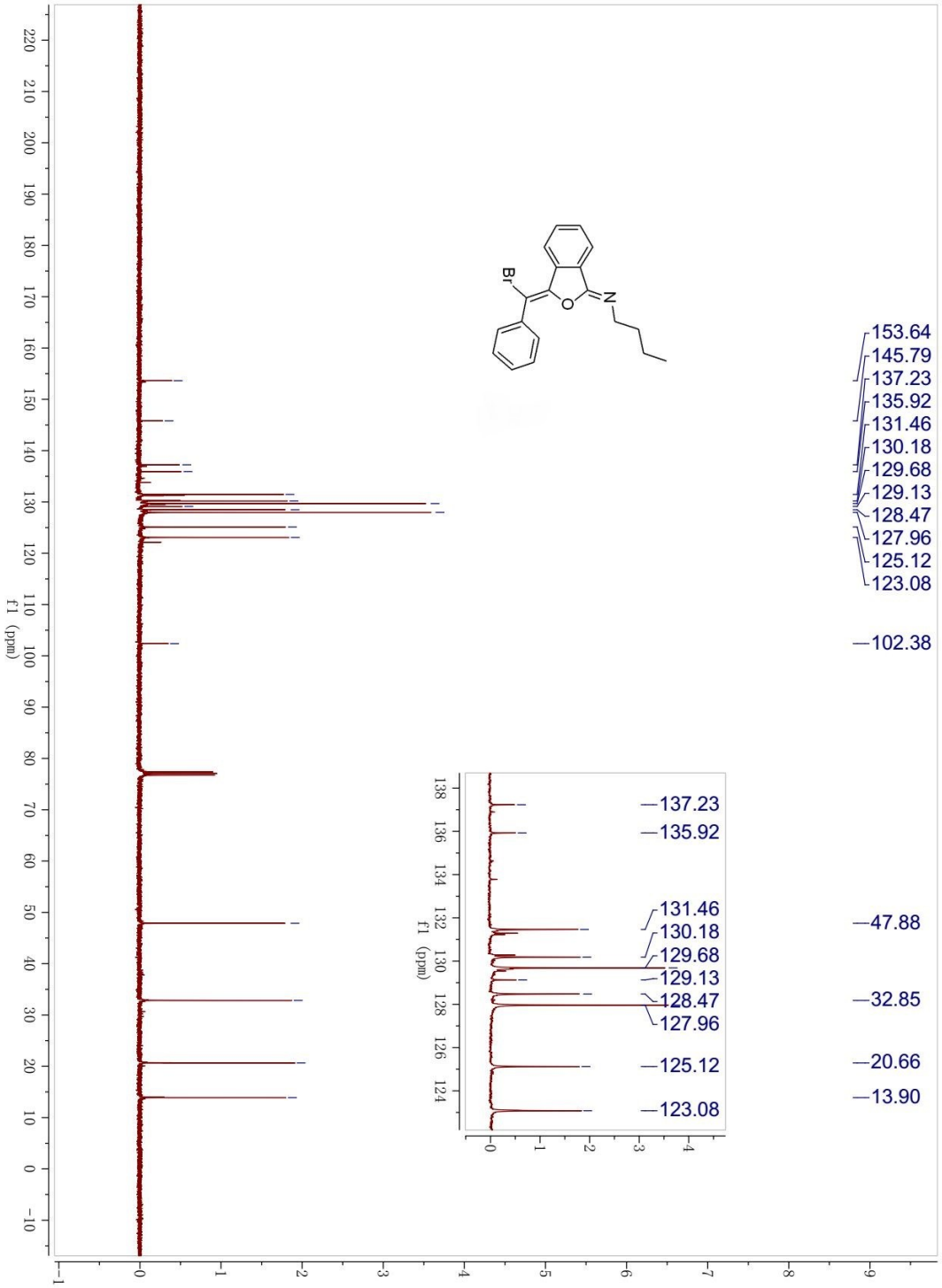
1.4253
1.4071
1.3887
1.3705
0.9440
0.9259
0.9077
f1 (ppm)


Br
O
N
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137.23
135.92
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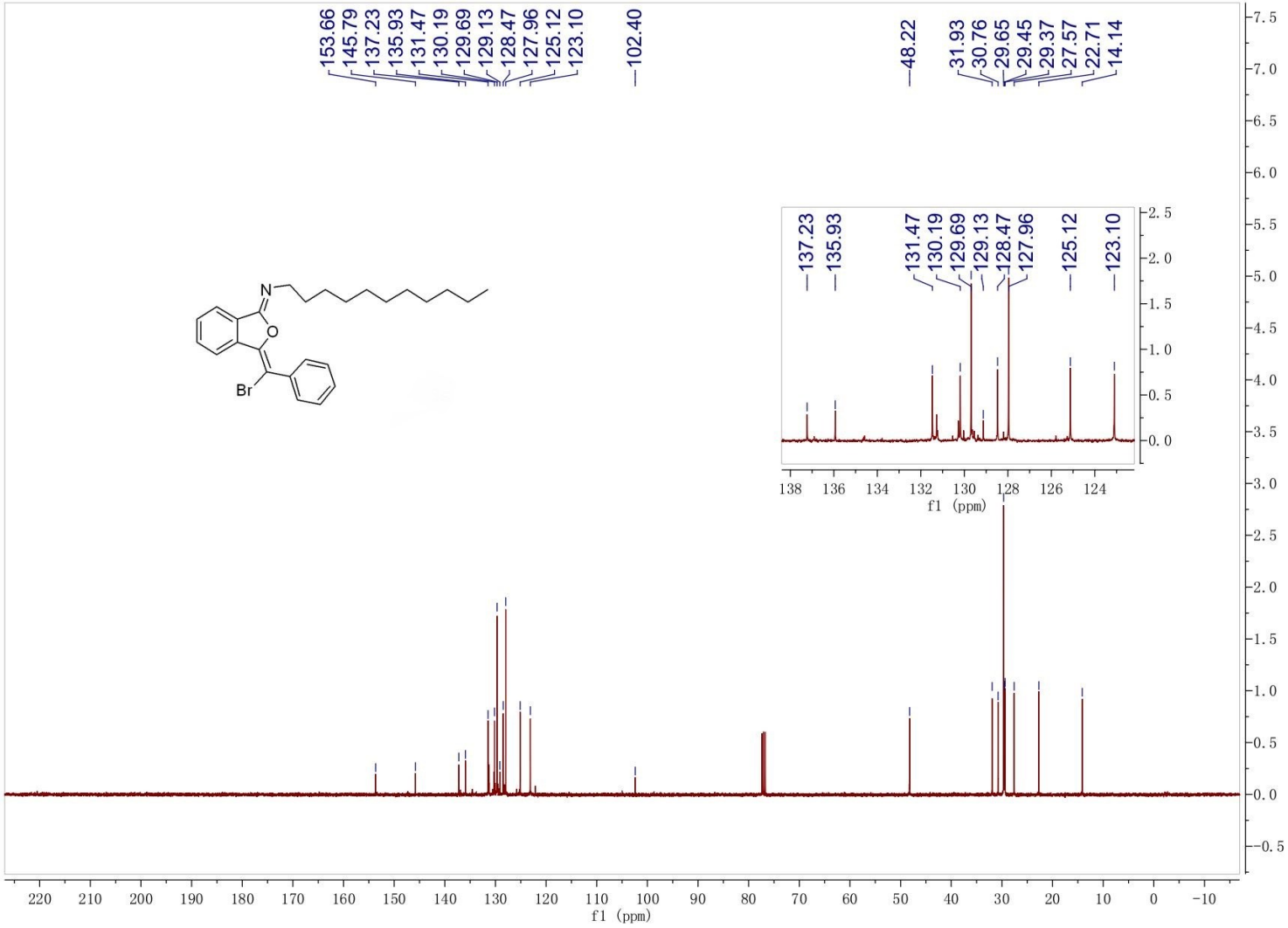
130.18
129.68
129.13
128.47
127.96
125.12
123.08
102.38
47.88
32.85
20.66
13.90
f1 (ppm)

Br
O
N
1.05
0.98
1.93
1.00
1.01
2.01
0.97
2.09
1.46
17.15
3.07
8.6026
8.5827
7.9165
7.8975
7.7745
7.7560
7.6064
7.5886
7.5863
7.5449
7.5262
7.4390
7.4205
7.4008
7.3471
7.3286
3.5338
3.5158
3.4979
1.6748
1.6570
1.6391
1.2576
0.9001
0.8837
0.8661
f1 (ppm)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137.23
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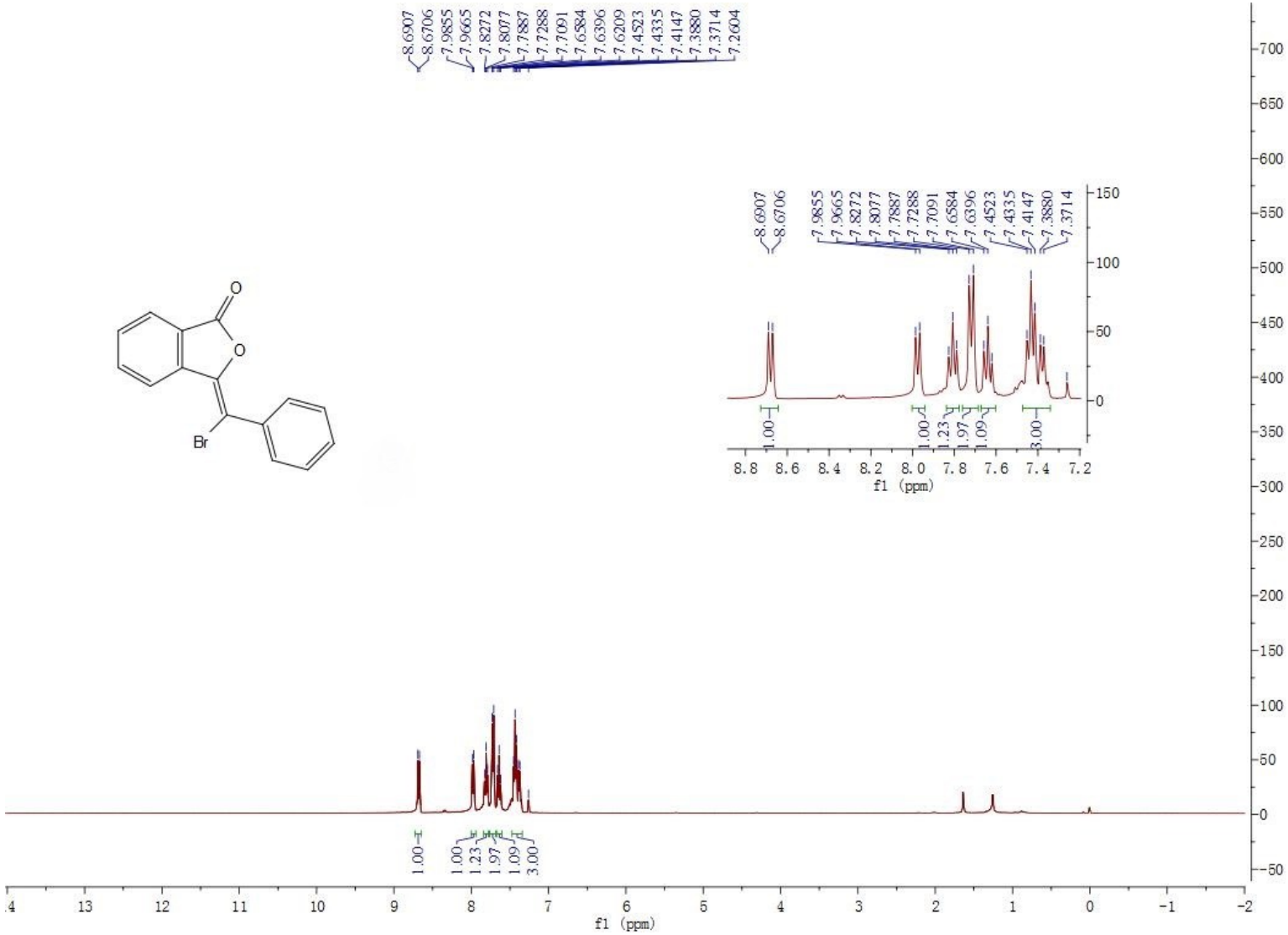
131.47
130.19
129.69
129.13
128.47
127.96
125.12
123.10
102.40
48.22
31.93
30.76
29.65
29.45
29.37
27.57
22.71
14.14
N
O
Br
f1 (ppm)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7.7887
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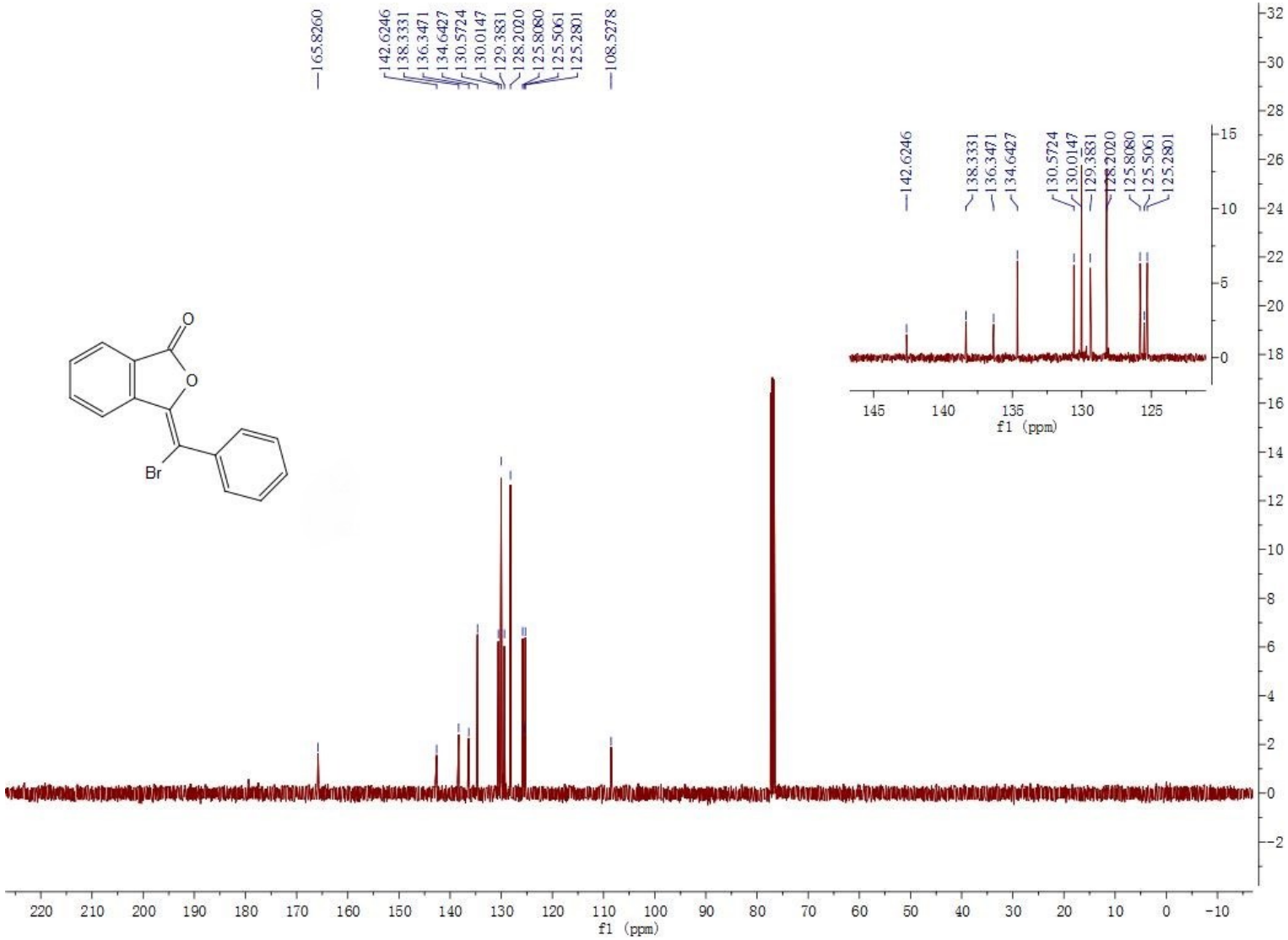
7.7091
7.6584
7.6396
7.6209
7.4523
7.4335
7.4147
7.3880
7.3714
7.2604
O
O
Br
1.00
1.23
1.97
1.09
3.00
f1 (ppm)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138.3331
136.3471
134.6427
130.5724
130.0147
129.3831
128.2020
125.8080
125.5061
125.2801
108.5278
O
O
Br
f1 (ppm)

H3C
Br
O
O
1.00
2.99
1.08
3.13
3.34
8.5437
8.5232
7.7566
7.7261
7.7228
7.7044
7.6116
7.5923
7.4420
7.4242
7.4048
7.3756
7.3575
7.3390
7.2600
2.5120
f1 (ppm)

H3C
Br
O
O
165.9689
142.7341
141.4379
136.3923
135.9512
135.7797
130.0181
129.2312
128.1679
125.7750
125.0576
107.4849
21.5416
f1 (ppm)

Br
Br
O
O
8.5683
8.5676
8.5470
8.5460
8.1013
8.1005
8.0985
8.0970
7.9201
7.9156
7.8988
7.8943
7.7171
7.7131
7.7084
7.6956
7.6932
7.4566
7.4525
7.4481
7.4352
7.4157
7.4030
7.3995
7.3962
7.3881
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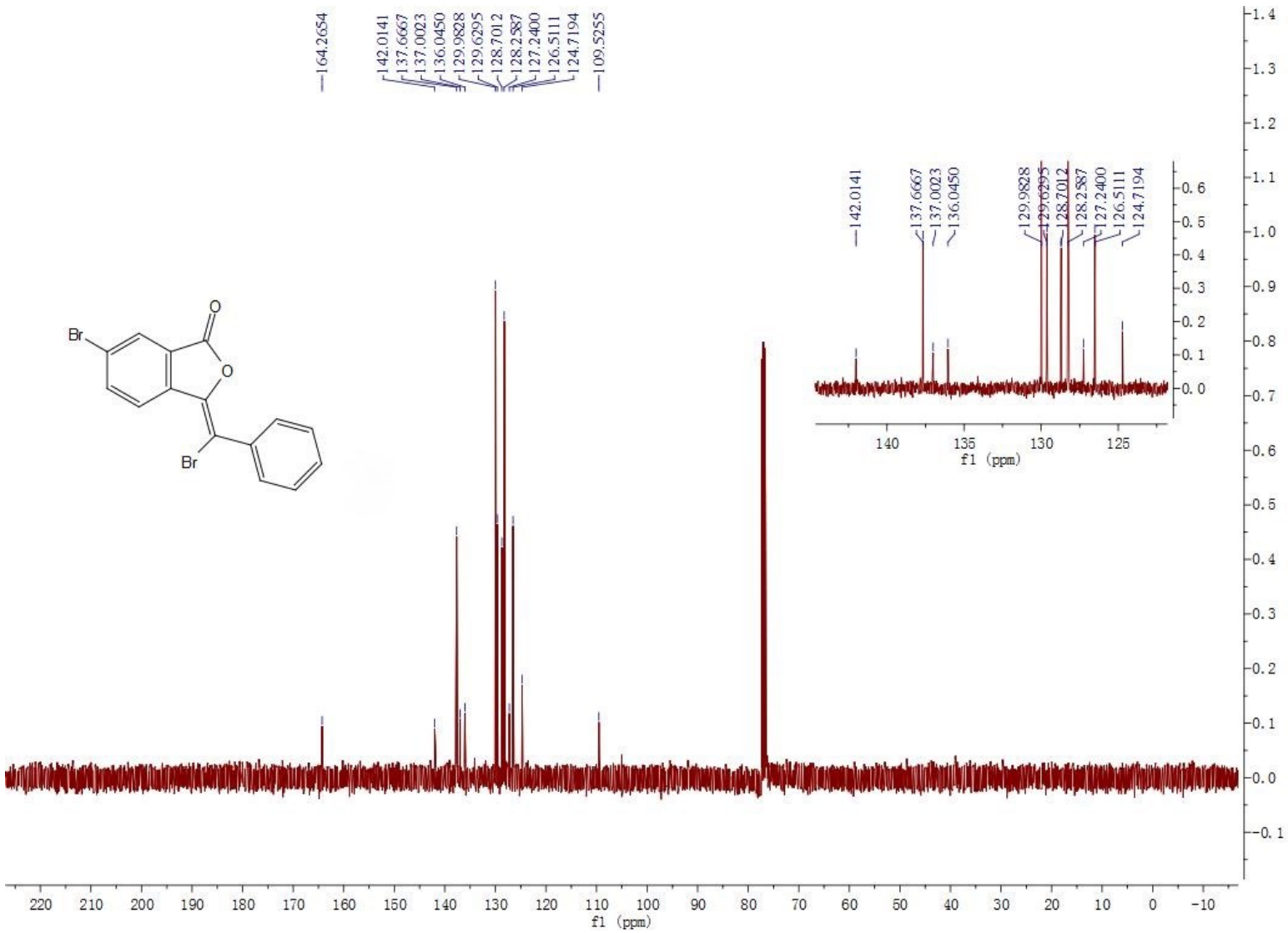
7.3740
7.3634
7.2595
1.00
0.90
1.00
2.00
3.04
f1 (ppm)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136.0450
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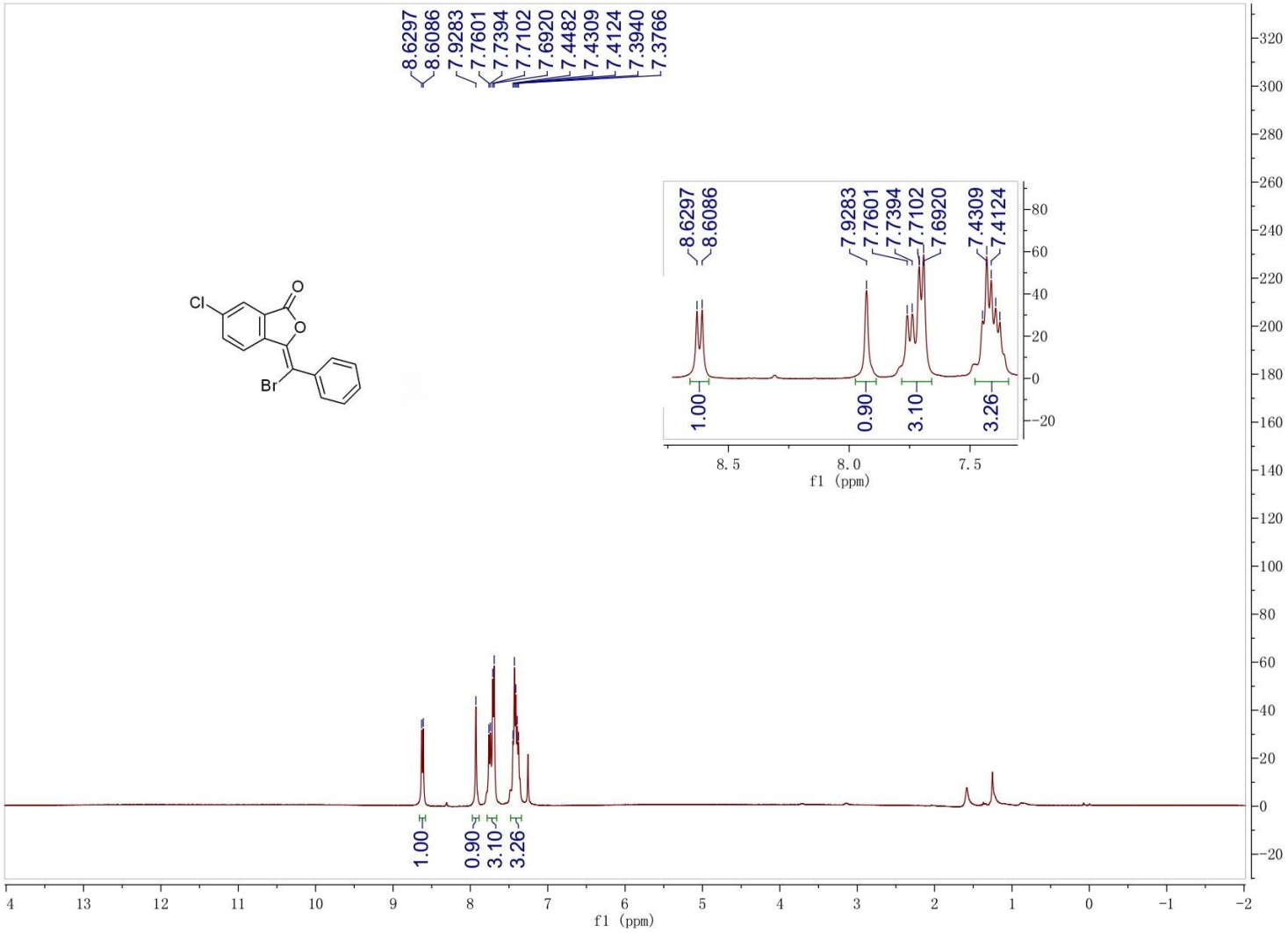
109.5255
Br
O
O
Br
f1 (ppm)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7.7601
7.7394
7.7102
7.6920
7.4482
7.4309
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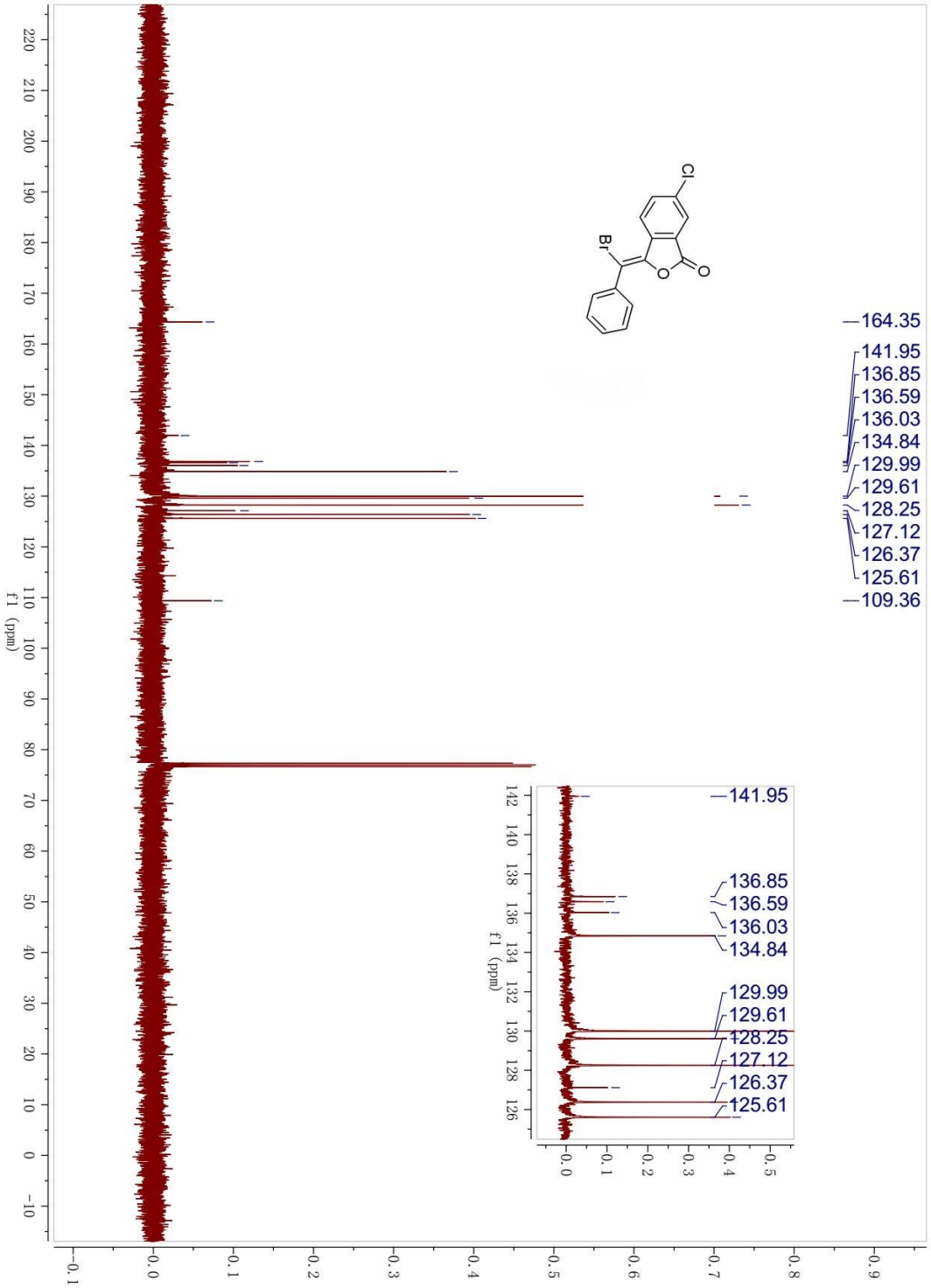
7.3940
7.3766
Cl
O
O
Br
1.00
0.90
3.10
3.26
f1 (ppm)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Br
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O
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136.85
136.59
136.03
134.84
129.99
129.61
128.25
127.12
126.37
125.61
109.36
f1 (ppm)
141.95
136.85
136.59
136.03
134.84
129.99
129.61
128.25
127.12
126.37
125.61
f1 (ppm)

F
Br
O
O
1.00
1.97
0.84
1.22
2.01
0.96
8.6984
8.6876
8.6766
8.6658
7.7045
7.6858
7.6289
7.6238
7.6120
7.6069
7.5305
7.5249
7.5088
7.5033
7.4871
7.4816
7.4466
7.4289
7.4097
7.3891
7.3713
7.3532
f1 (ppm)

F
Br
O
O
164.84
164.47
162.31
136.08
129.97
129.51
128.24
127.39
127.31
122.68
122.44
112.25
112.01
108.48
141.93
136.08
134.46
129.97
129.51
128.24
127.79
127.70
127.39
127.31
122.68
122.44
f1 (ppm)

Br
O
O
1.00
2.17
1.98
2.09
1.02
3.00
7.7996
7.7823
7.6252
7.6216
7.6040
7.5864
7.5698
7.5592
7.5412
7.5229
7.4313
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7.3365
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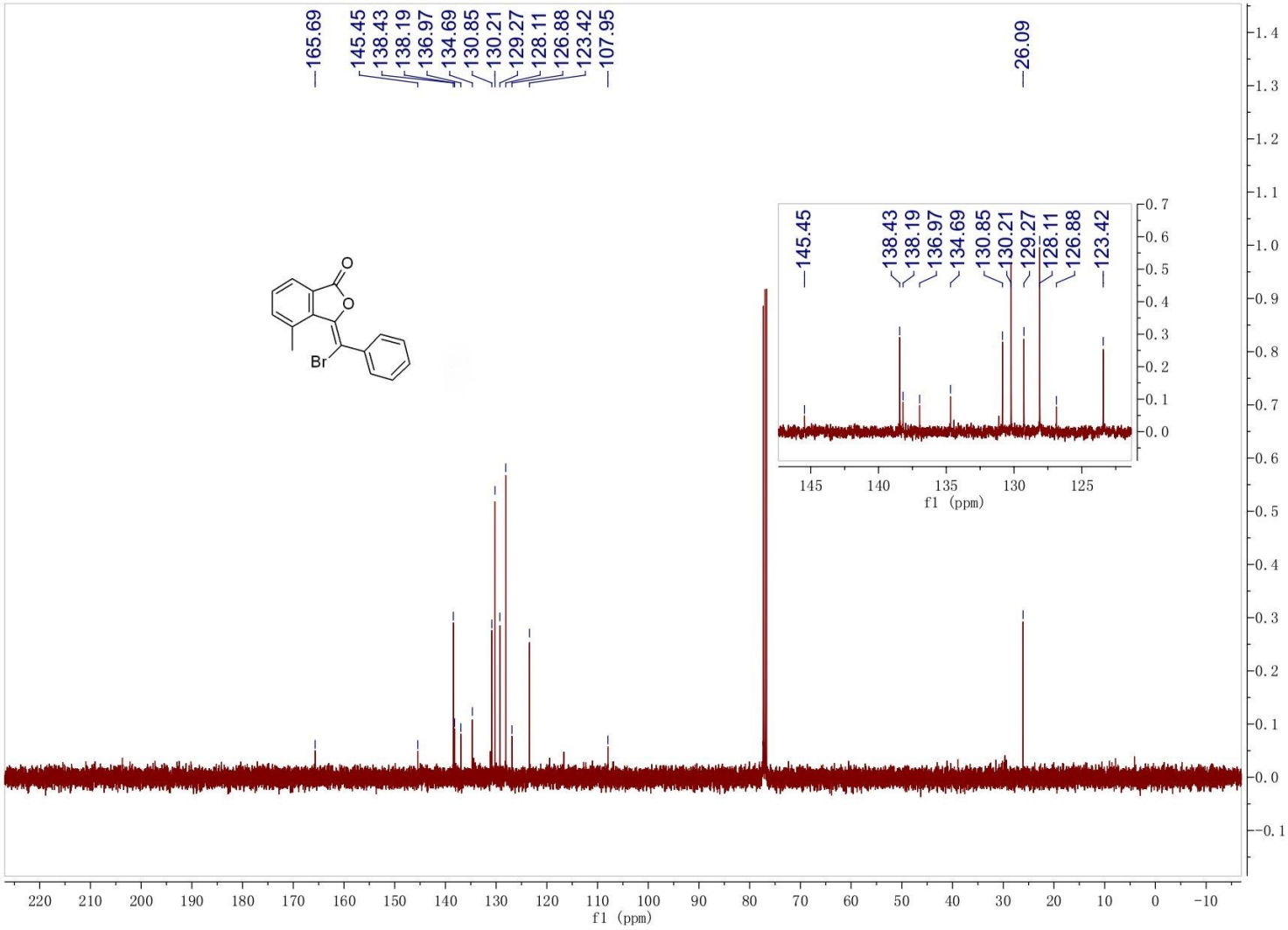
f1 (ppm)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126.88
123.42
107.95
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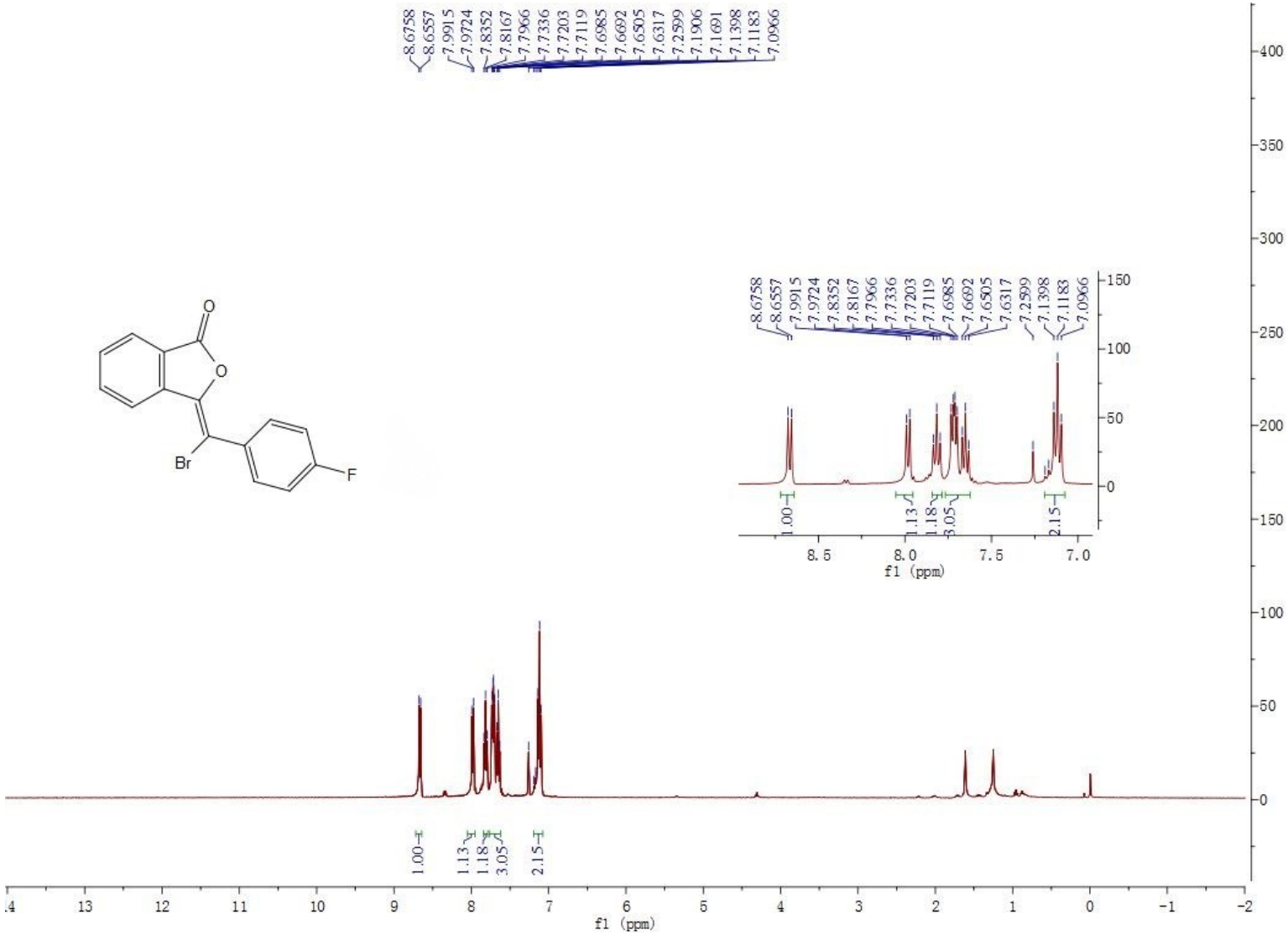
O
Br
f1 (ppm)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7.7119
7.6985
7.6692
7.6505
7.6317
7.2599
7.1906
7.1691
7.1398
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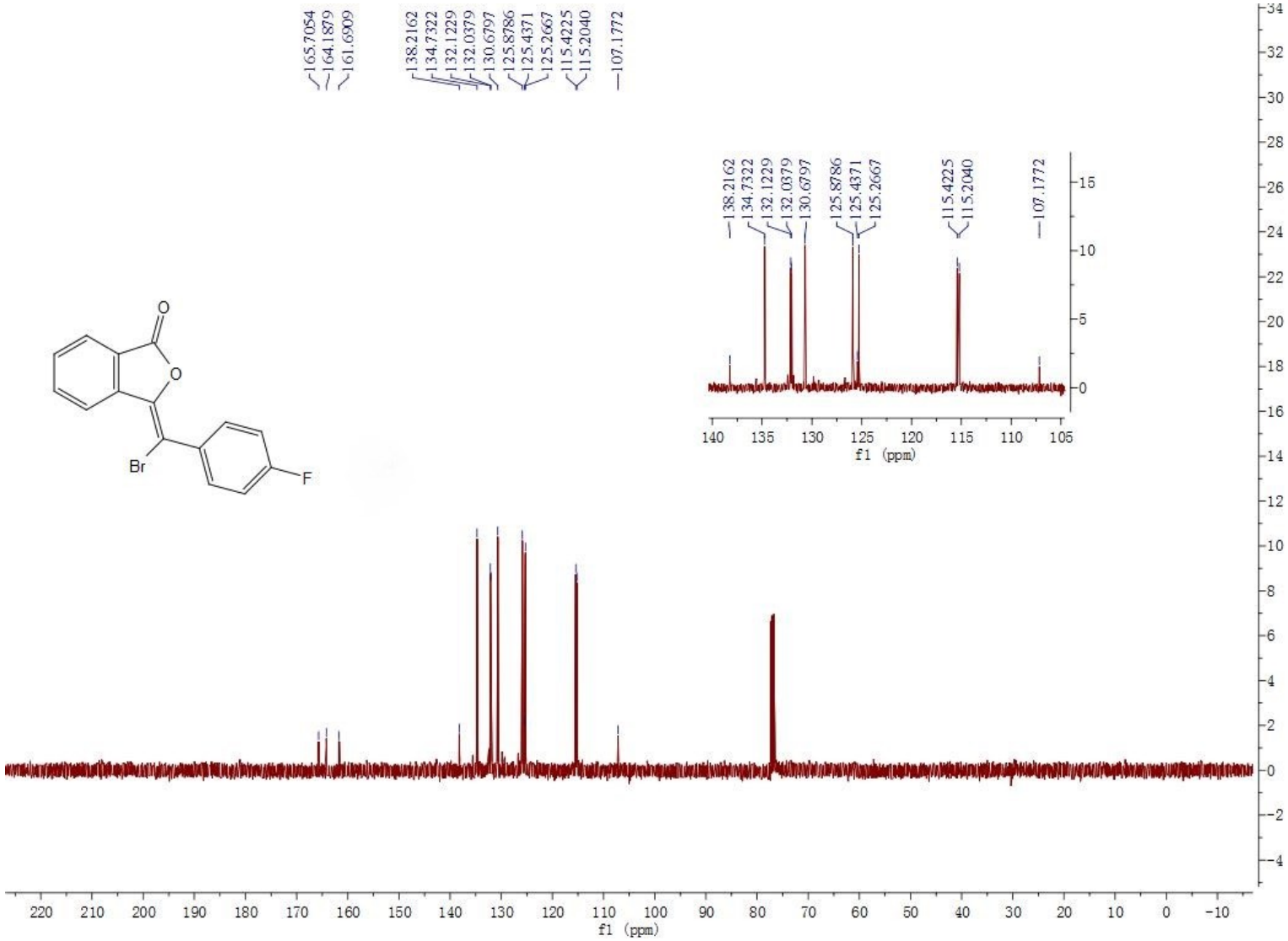
O
O
Br
F
1.00
1.13
1.18
3.05
2.15
f1 (ppm)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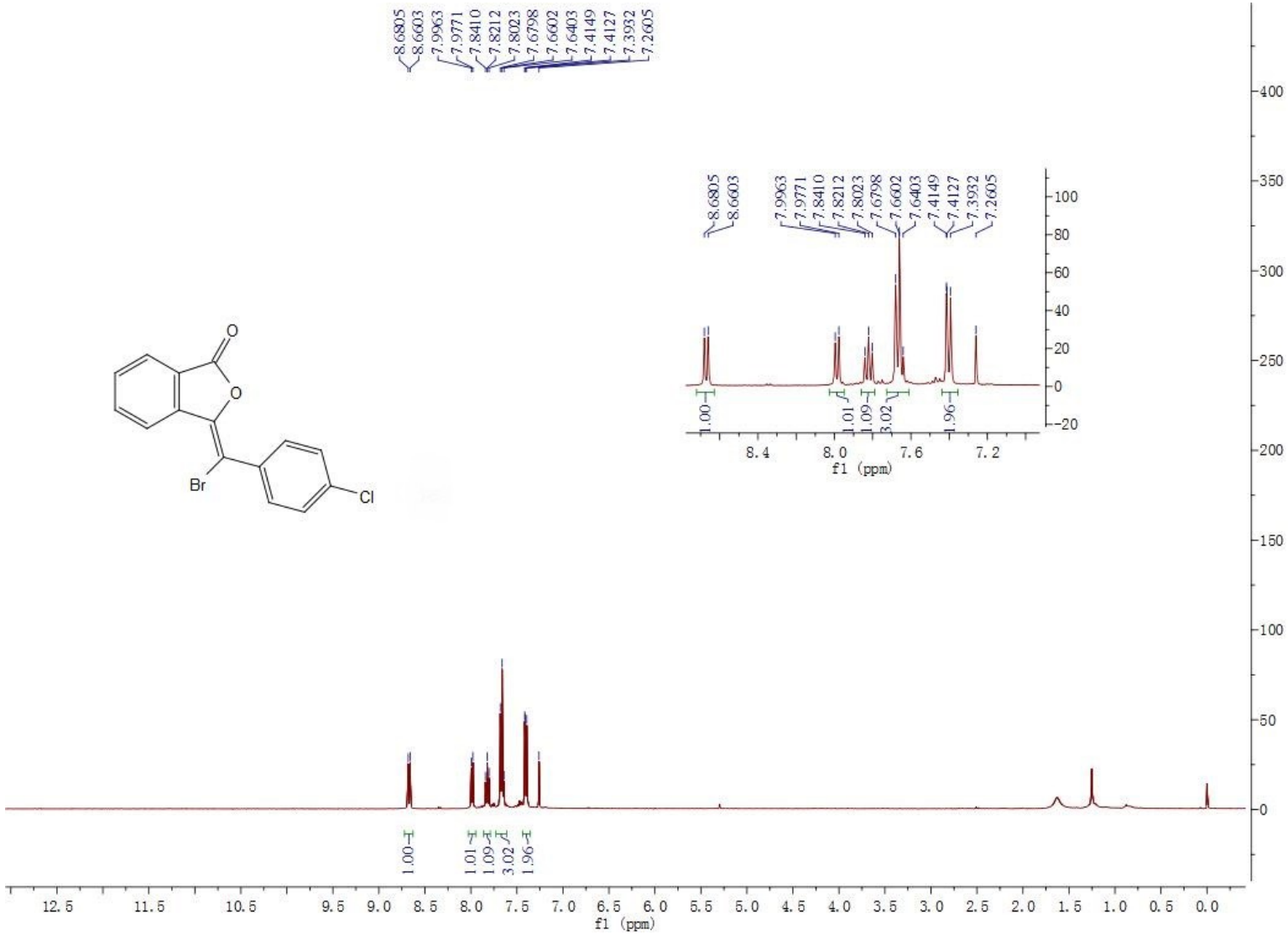
O
O
Br
F
f1 (ppm)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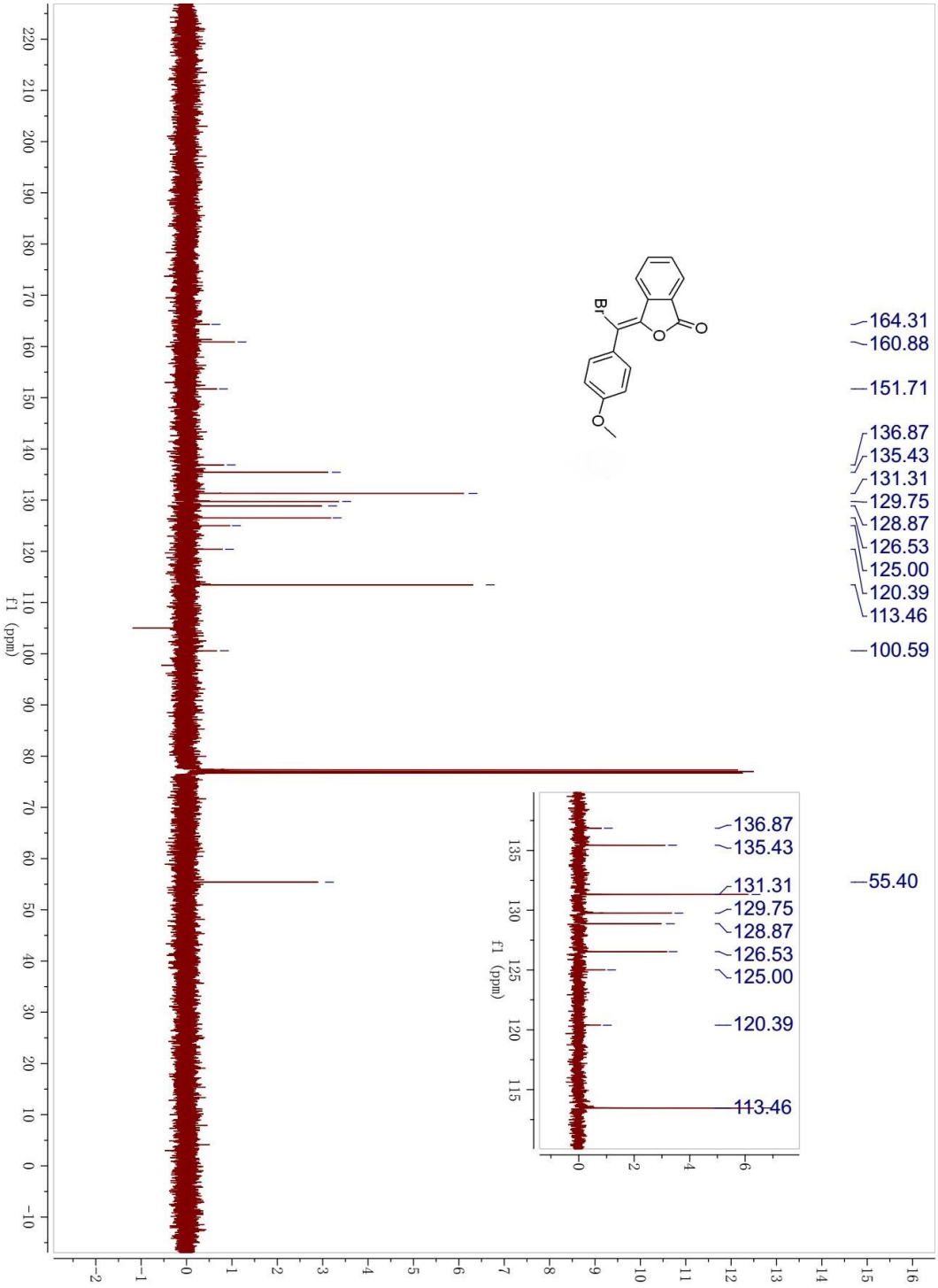
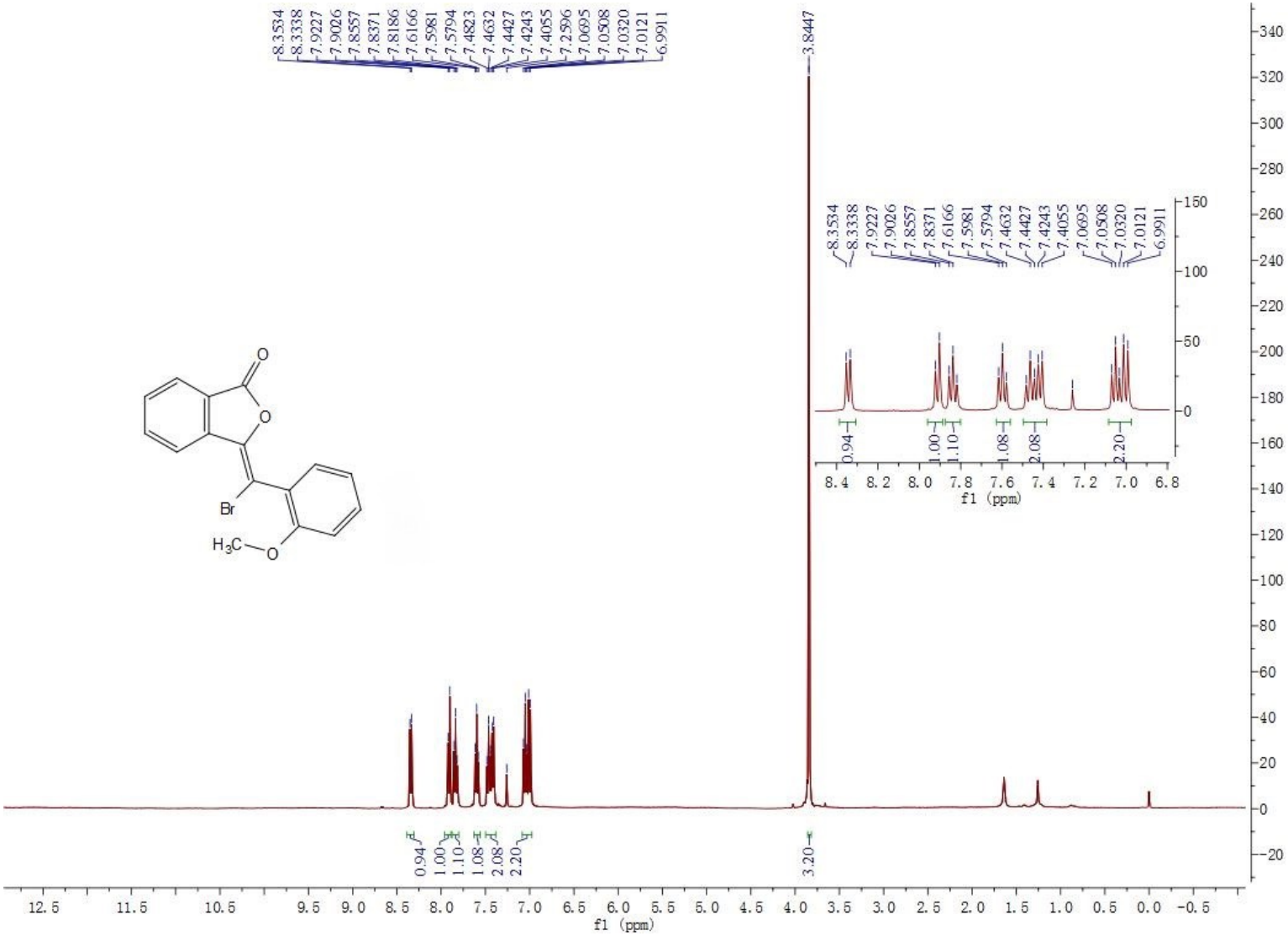
7.6798
7.6602
7.6403
7.4149
7.4127
7.3932
7.2605
O
O
Br
Cl
1.00
1.01
1.09
3.02
1.96
f1 (ppm)

Br
Cl
O
O
165.5759
142.9586
138.1643
135.3689
134.7492
131.3531
130.7757
128.4460
125.9146
125.4791
125.3207
106.8880
f1 (ppm)

Br
O
O
O
CH3
8.3406
8.3209
7.9650
7.9451
7.8615
7.8431
7.8227
7.7965
7.7746
7.6011
7.5826
7.5639
7.2599
6.9999
6.9780
3.8789
1.00
1.07
3.00
1.06
2.10
3.10
f1 (ppm)


164.31
160.88
151.71
136.87
135.43
131.31
129.75
128.87
126.53
125.00
120.39
113.46
100.59
55.40
Br
O
O
O
f1 (ppm)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7.9227
7.9026
7.8557
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7.8186
7.6166
7.5981
7.5794
7.4823
7.4632
7.4427
7.4243
7.4055
7.2596
7.0695
7.0508
7.0320
7.0121
6.9911
3.8447
0.94
1.00
1.10
1.08
2.08
2.20
3.20
f1 (ppm)
O
O
Br
H3C
O

Br
H3C
O
O
O
161.5866
157.3023
150.5829
136.4467
135.2865
131.8073
131.1629
129.7962
129.0438
126.3096
120.8268
120.2695
111.3180
103.7792
77.3417
77.0236
76.7057
55.6742
122.2874
f1 (ppm)

Br
O
O
S
8.0050
7.9854
7.9086
7.8894
7.8416
7.8225
7.8040
7.6305
7.6116
7.5930
7.2181
7.2082
7.2014
7.1623
7.1525
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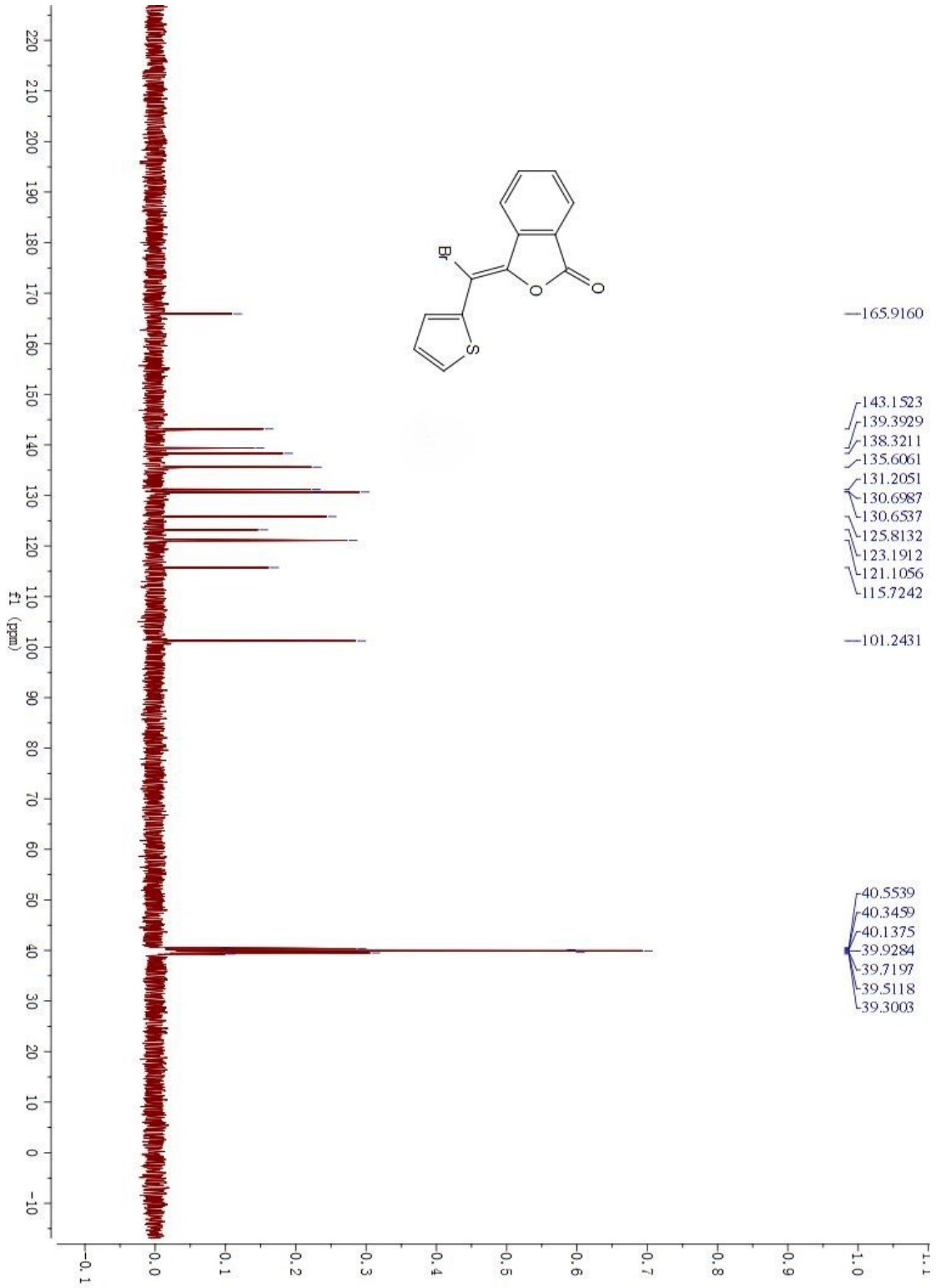
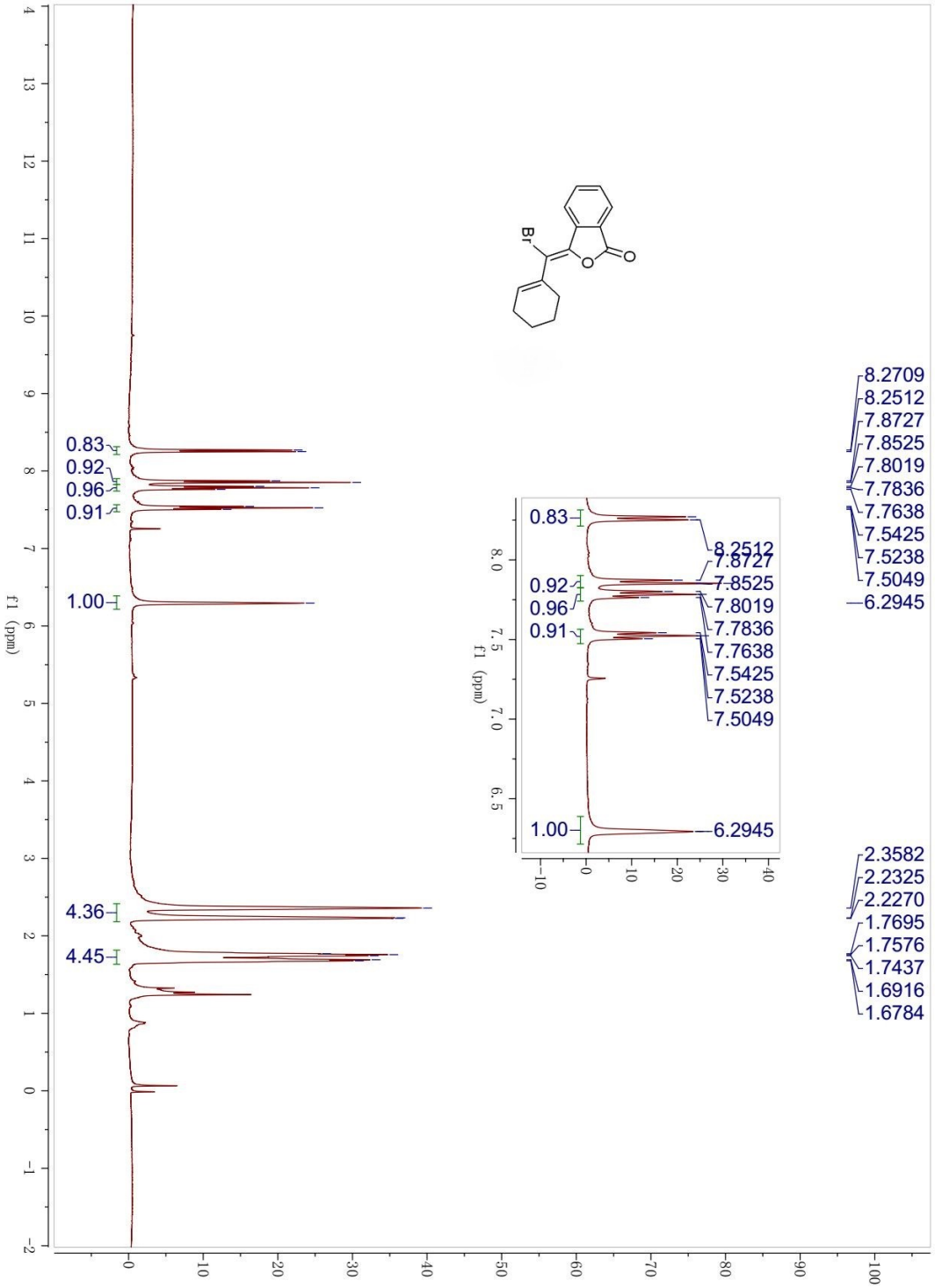
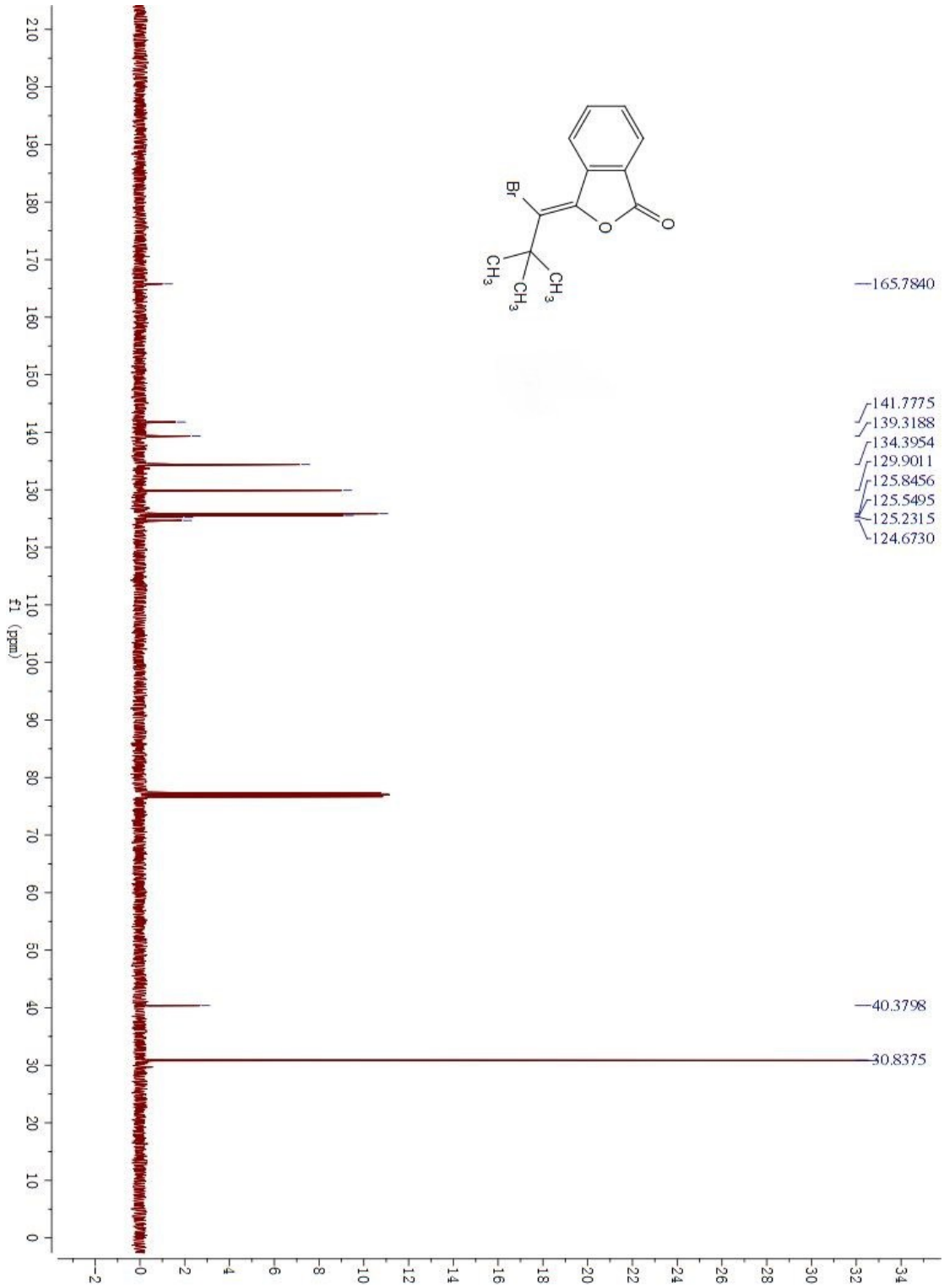
1.00
1.01
1.85
0.99
0.10
f1 (ppm)

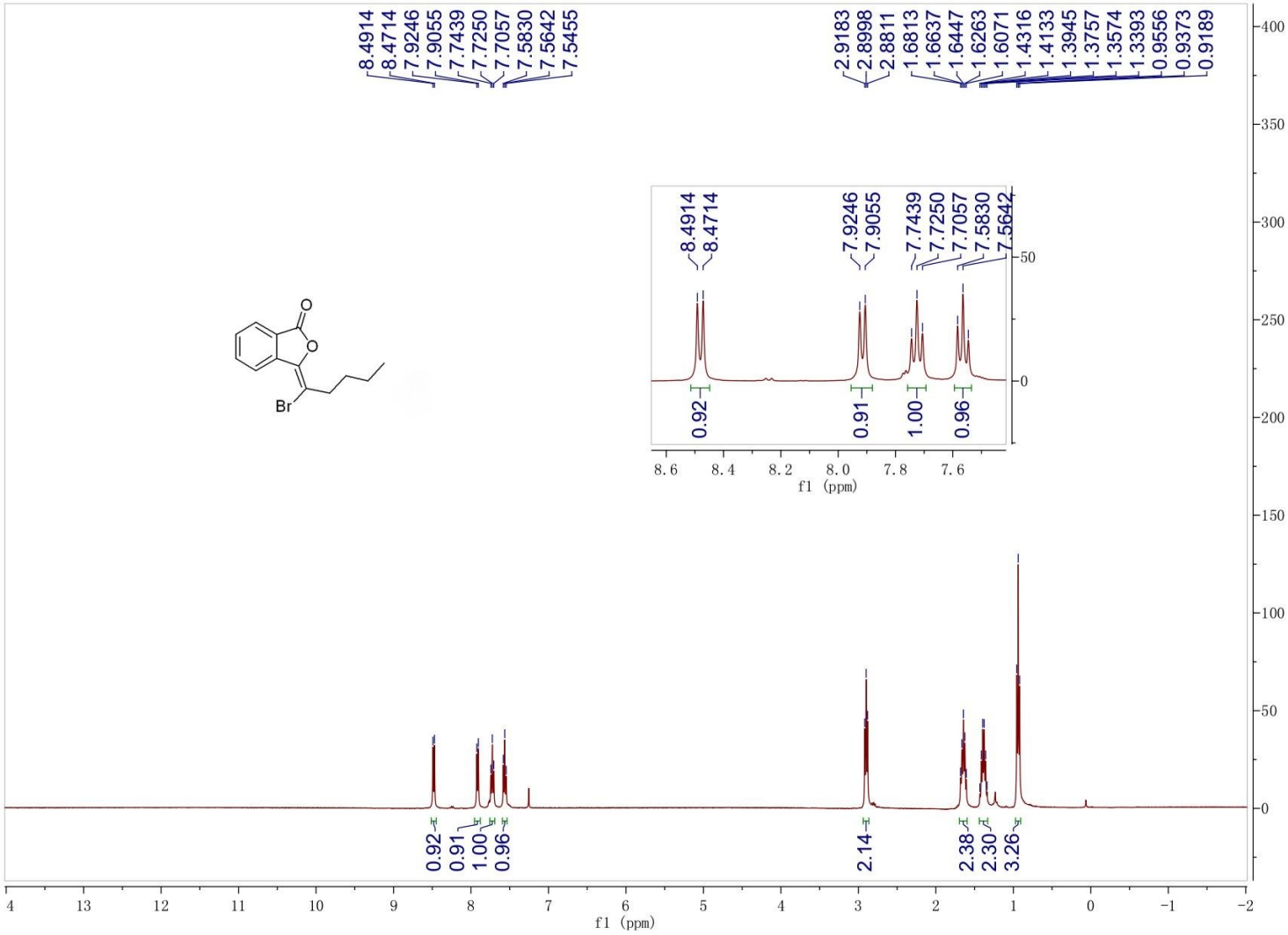

Br
O
O
S
165.9160
143.1523
139.3929
138.3211
135.6061
131.2051
130.6987
130.6537
125.8132
123.1912
121.1056
115.7242
101.2431
40.5539
40.3459
40.1375
39.9284
39.7197
39.5118
39.3003
f1 (ppm)

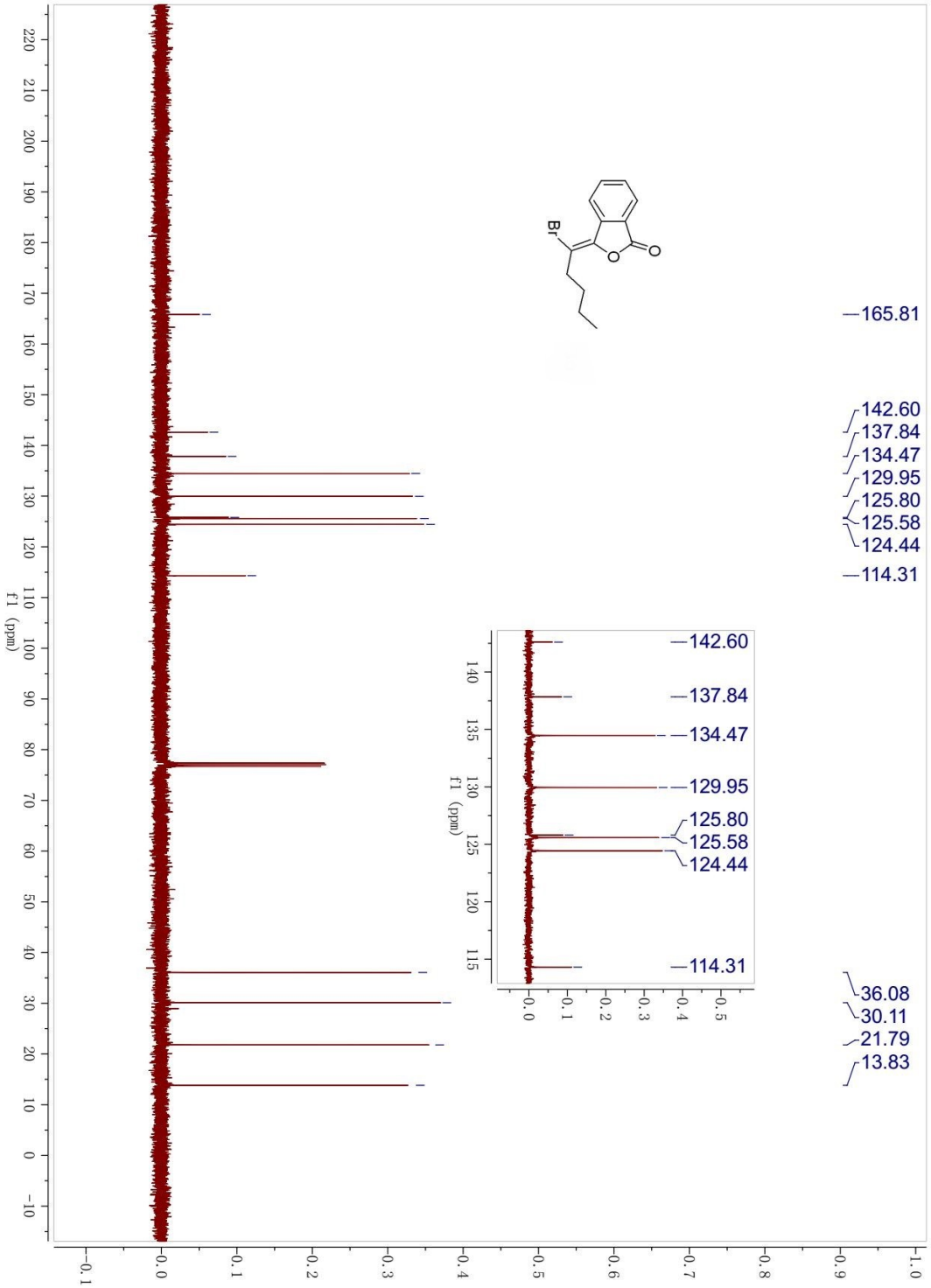

Br
O
O
8.2709
8.2512
7.8727
7.8525
7.8019
7.7836
7.7638
7.5425
7.5238
7.5049
6.2945
2.3582
2.2325
2.2270
1.7695
1.7576
1.7437
1.6916
1.6784
0.83
0.92
0.96
0.91
1.00
4.36
4.45
f1 (ppm)

Br
O
O
161.42
154.29
136.78
135.23
135.14
131.11
129.64
128.59
126.50
120.46
99.86
26.31
25.29
22.26
21.50
f1 (ppm)

Br
O
O
CH3
CH3
CH3
1.00
1.00
1.08
1.05
9.35
1.4824
8.6636
8.6433
7.9480
7.9291
7.7534
7.7505
7.7347
7.7323
7.7146
7.7117
7.5964
7.5946
7.5776
7.5760
7.5590
7.5572
7.2600
f1 (ppm)


Br
O
O
CH3
CH3
CH3
165.7840
141.7775
139.3188
134.3954
129.9011
125.8456
125.5495
125.2315
124.6730
40.3798
30.8375
f1 (ppm)

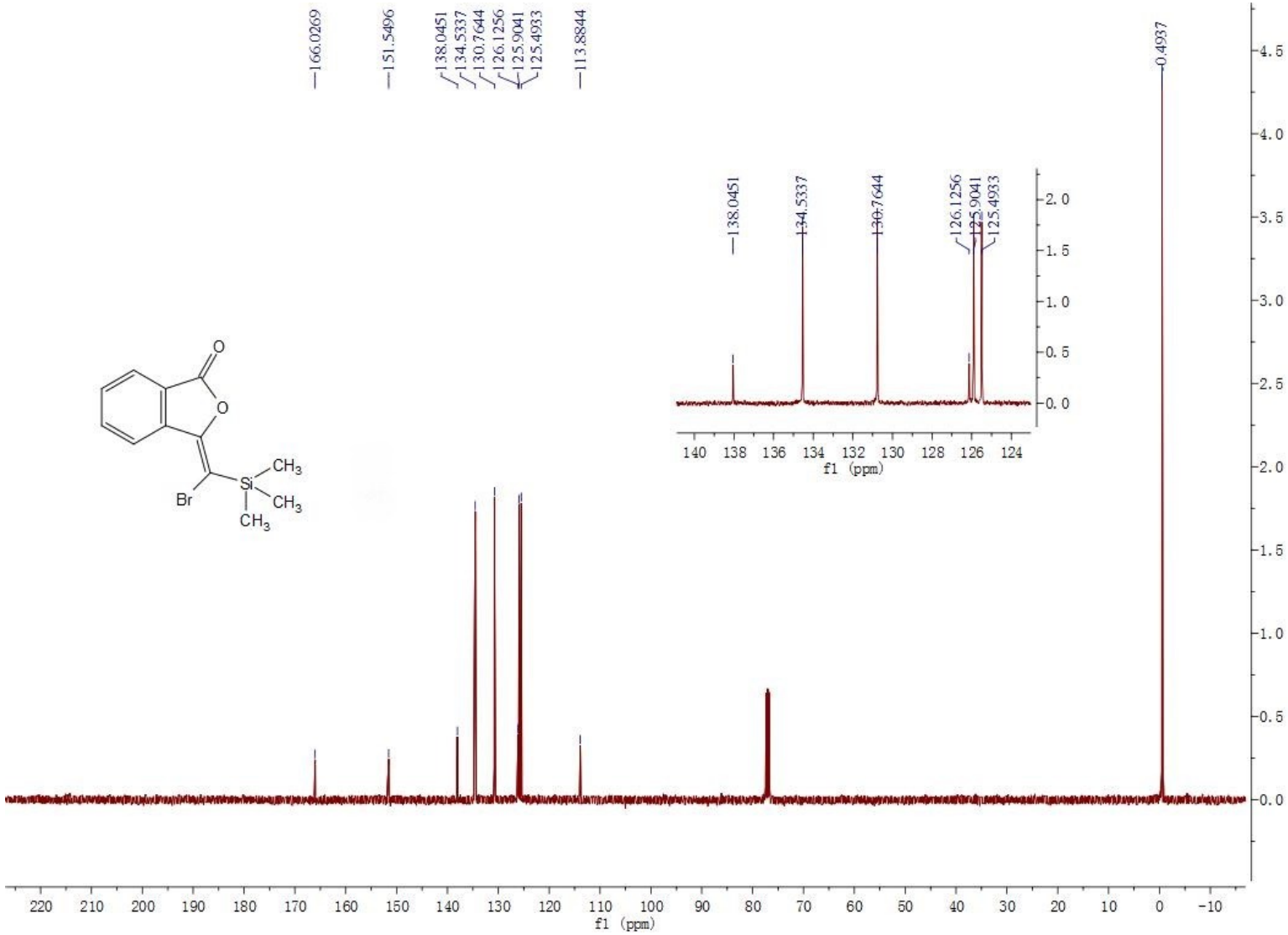

8.4914
8.4714
7.9246
7.9055
7.7439
7.7250
7.7057
7.5830
7.5642
7.5455
2.9183
2.8998
2.8811
1.6813
1.6637
1.6447
1.6263
1.6071
1.4316
1.4133
1.3945
1.3757
1.3574
1.3393
0.9556
0.9373
0.9189
O
O
Br
0.92
0.91
1.00
0.96
2.14
2.38
2.30
3.26
f1 (ppm)


Br
O
O
165.81
142.60
137.84
134.47
129.95
125.80
125.58
124.44
114.31
36.08
30.11
21.79
13.83
f1 (ppm)

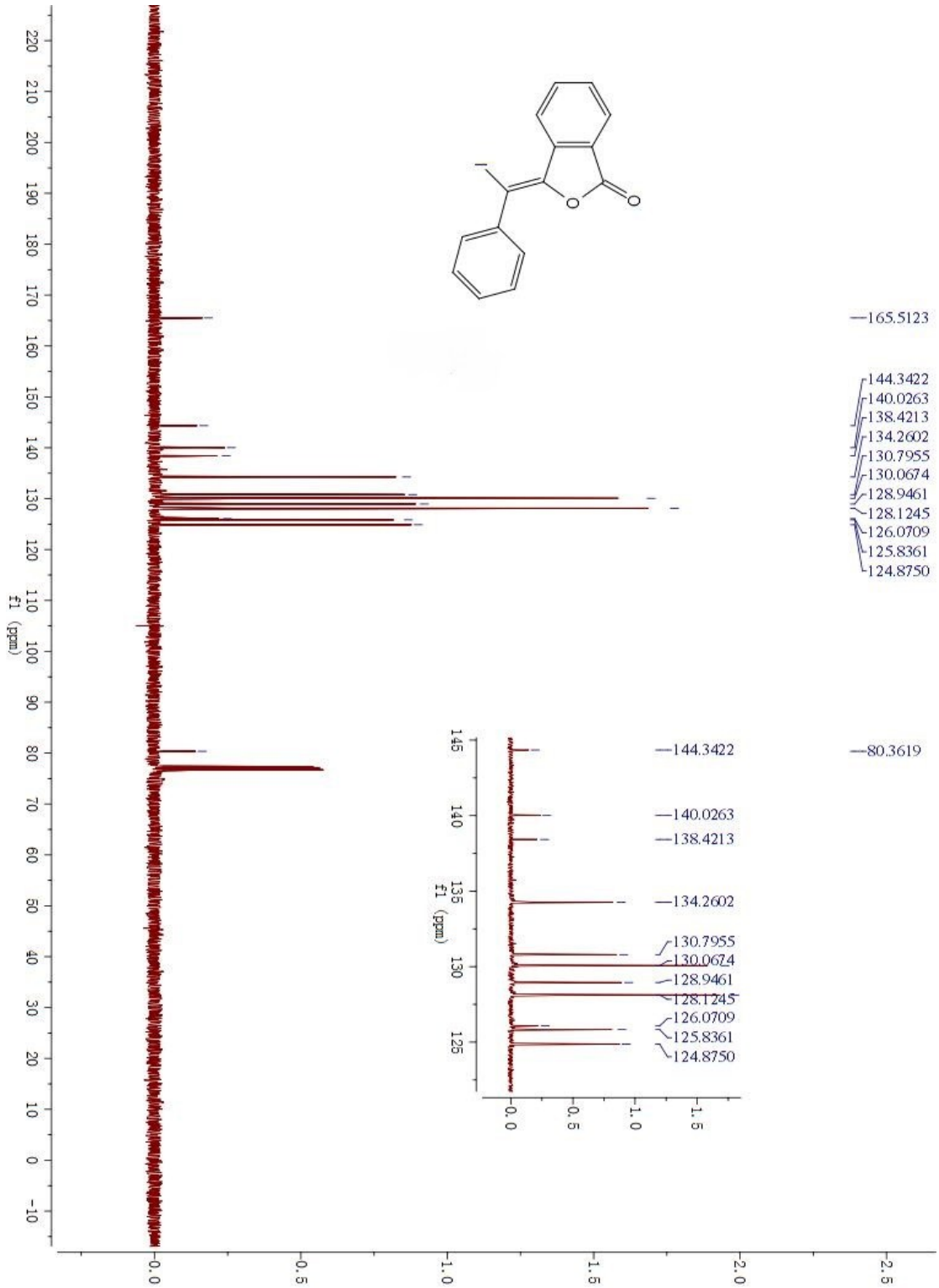
Br
O
O
OH
1.00
1.03
1.15
1.17
2.12
2.15
8.5089
8.4889
7.9353
7.9162
7.7690
7.7494
7.7305
7.6118
7.5930
7.5742
3.9655
3.9499
3.9344
3.1849
3.1694
3.1538
f1 (ppm)

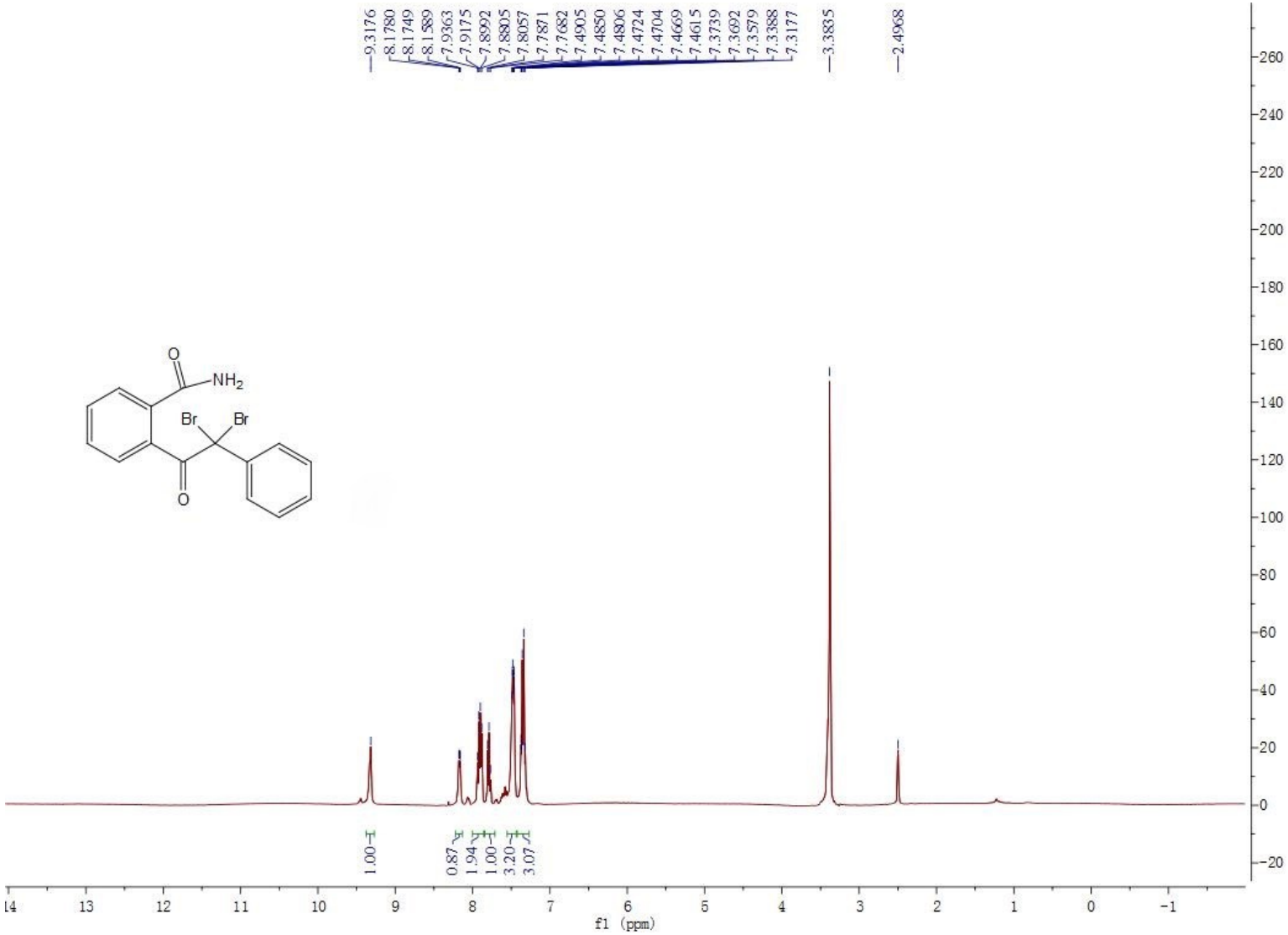
Br
O
O
OH
165.63
144.25
137.65
134.61
130.30
128.69
125.70
124.57
109.26
60.48
39.61
f1 (ppm)

Br
Si
CH3
CH3
CH3
O
O
0.87
0.85
0.94
0.94
9.30
8.6997
8.6796
7.9315
7.9124
7.7642
7.7454
7.7257
7.6298
7.6110
7.5923
7.2603
0.3937
f1 (ppm)

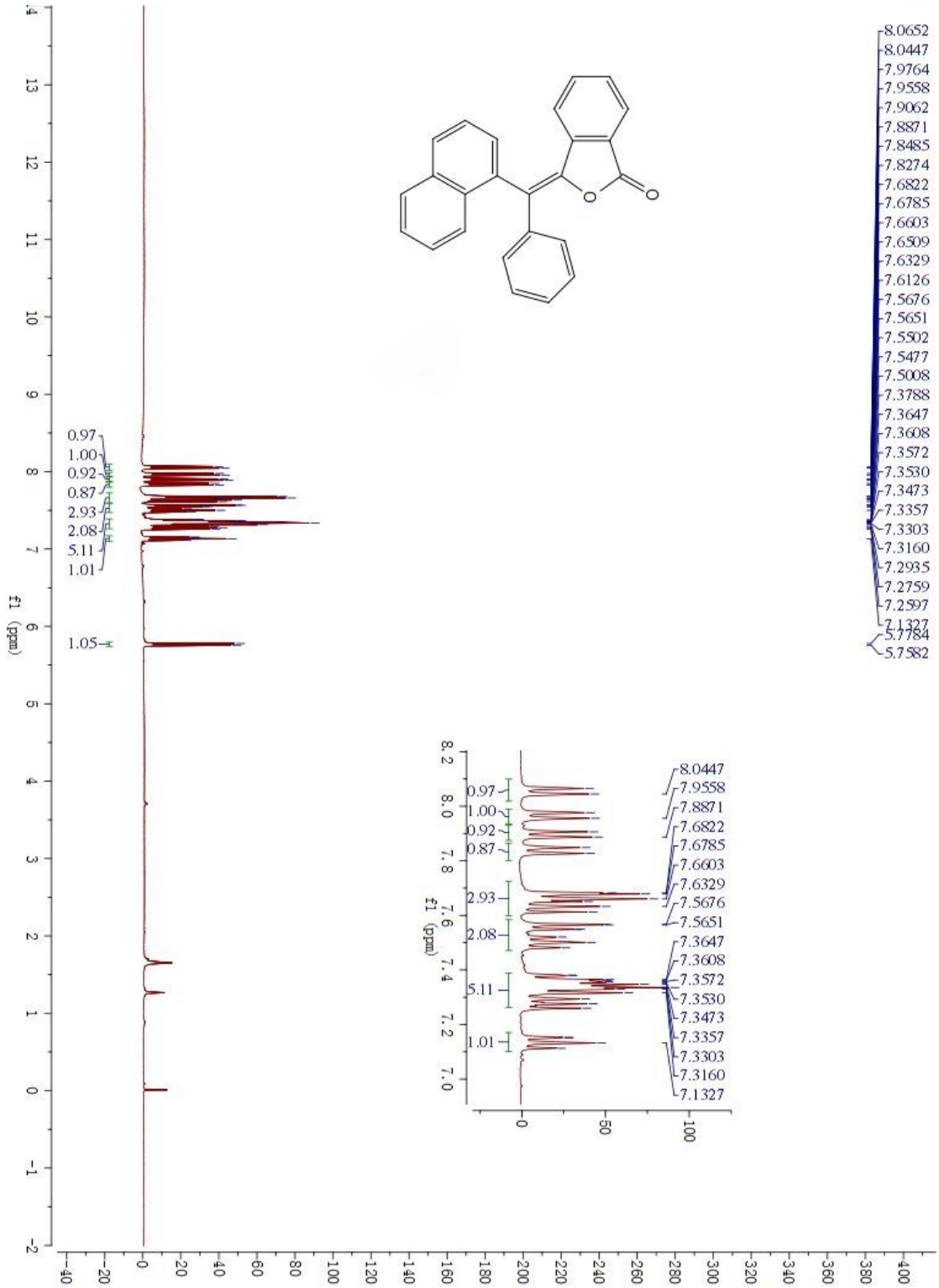

166.0269
151.5496
138.0451
134.5337
130.7644
126.1256
125.9041
125.4933
113.8844
0.4937
O
O
Br
Si
CH3
CH3
CH3
f1 (ppm)

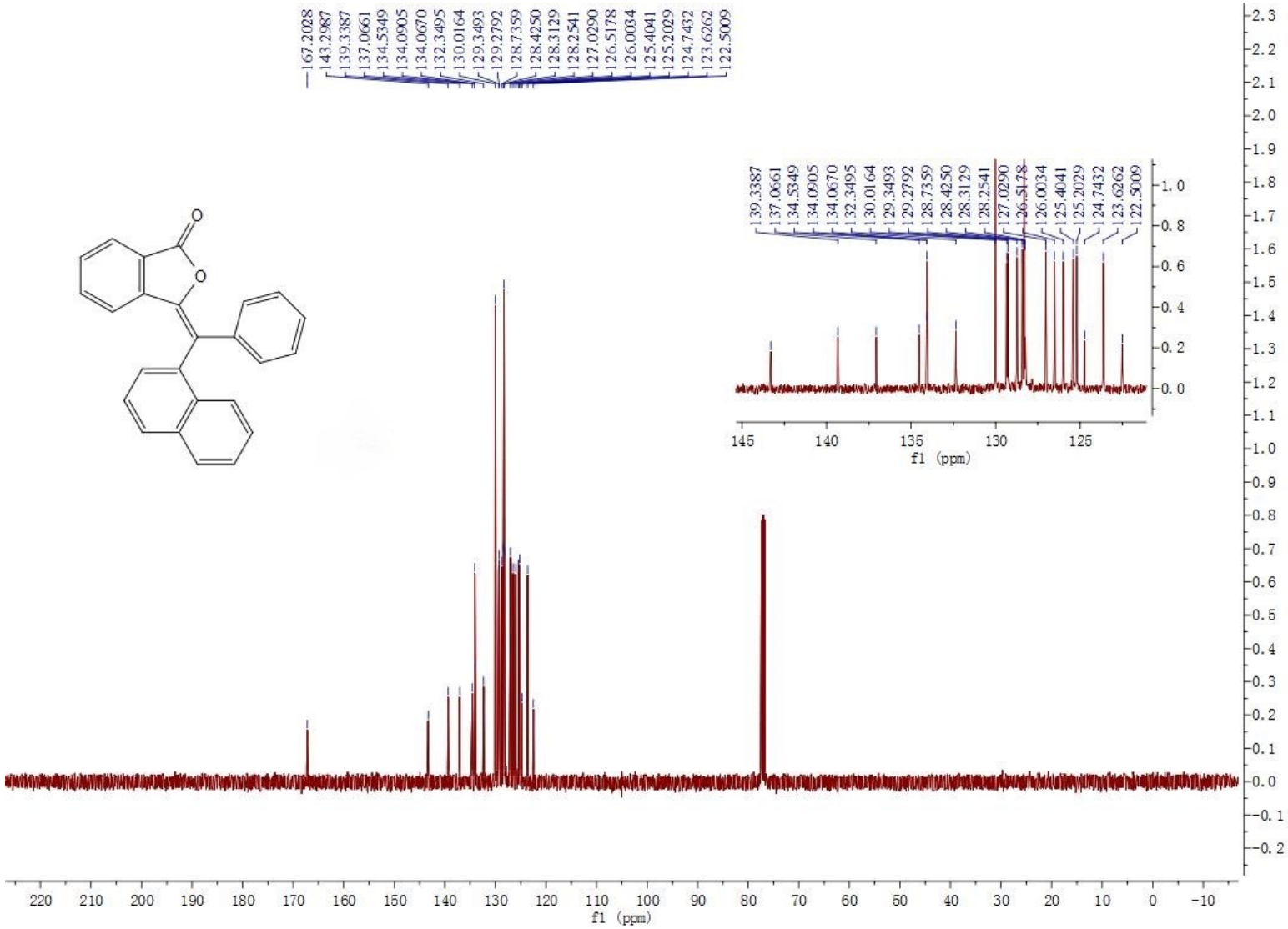
f1 (ppm)
1.00
1.02
1.17
1.13
2.00
2.08
1.00
8.9462
8.9260
7.9745
7.9553
7.8425
7.8233
7.8038
7.6690
7.6500
7.6314
7.5687
7.5492
7.4116
7.3932
7.3728
7.3296
7.3276
7.3105
7.2927
7.2908
7.2598


165.5123
144.3422
140.0263
138.4213
134.2602
130.7955
130.0674
128.9461
128.1245
126.0709
125.8361
124.8750
80.3619
f1 (ppm)


9.3176
8.1780
8.1749
8.1589
7.9363
7.9175
7.8992
7.8805
7.8057
7.7871
7.7682
7.4905
7.4850
7.4806
7.4724
7.4704
7.4669
7.4615
7.3739
7.3692
7.3579
7.3388
7.3177
3.3835
2.4968
O
NH2
Br
Br
O
1.00
0.87
1.94
1.00
3.20
3.07
f1 (ppm)

O
Br
Br
O
NH2
192.6343
161.8096
140.5434
135.6911
133.6302
132.0661
130.1654
128.8517
128.5336
128.1912
126.8694
126.8168
85.8744
40.3236
40.1147
39.9057
39.6985
39.4904
39.2824
f1 (ppm)


8.0652
8.0447
7.9764
7.9558
7.9062
7.8871
7.8485
7.8274
7.6822
7.6785
7.6603
7.6509
7.6329
7.6126
7.5676
7.5651
7.5502
7.5477
7.5008
7.3788
7.3647
7.3608
7.3572
7.3530
7.3473
7.3357
7.3303
7.3160
7.2935
7.2759
7.2597
7.1327
5.7784
5.7582
0.97
1.00
0.92
0.87
2.93
2.08
5.11
1.01
1.05
f1 (ppm)


167.2028
143.2987
139.3387
137.0661
134.5349
134.0905
134.0670
132.3495
130.0164
129.3493
129.2792
128.7359
128.4250
128.3129
128.2541
127.0290
126.5178
126.0034
125.4041
125.2029
124.7432
123.6262
122.5009
f1 (ppm)

H3C
H3C
Si
CH3
O
O
1.00
3.01
1.11
1.04
2.15
1.00
9.28
8.7166
8.6965
7.9848
7.9657
7.9426
7.9391
7.9210
7.9190
7.7967
7.7942
7.7759
7.7583
7.7557
7.6249
7.6063
7.5888
7.5874
7.4604
7.4563
7.4422
7.4391
7.4262
7.4227
7.3797
7.3767
7.3737
7.3634
7.3581
7.3531
7.3430
7.3400
7.2569
0.3703
f1 (ppm)

H3C
Si
H3C
CH3
O
O
165.7807
149.2307
138.8070
134.5820
134.1706
130.4339
129.6132
128.5834
128.3119
125.5922
124.5757
124.3174
105.5981
104.8371
102.2275
-0.1759
f1 (ppm)