

Supporting Information

**Microwave-accelerated and efficient synthesis of structurally diverse
N-(2,2-diphenylvinyl)- β -oxoamides**

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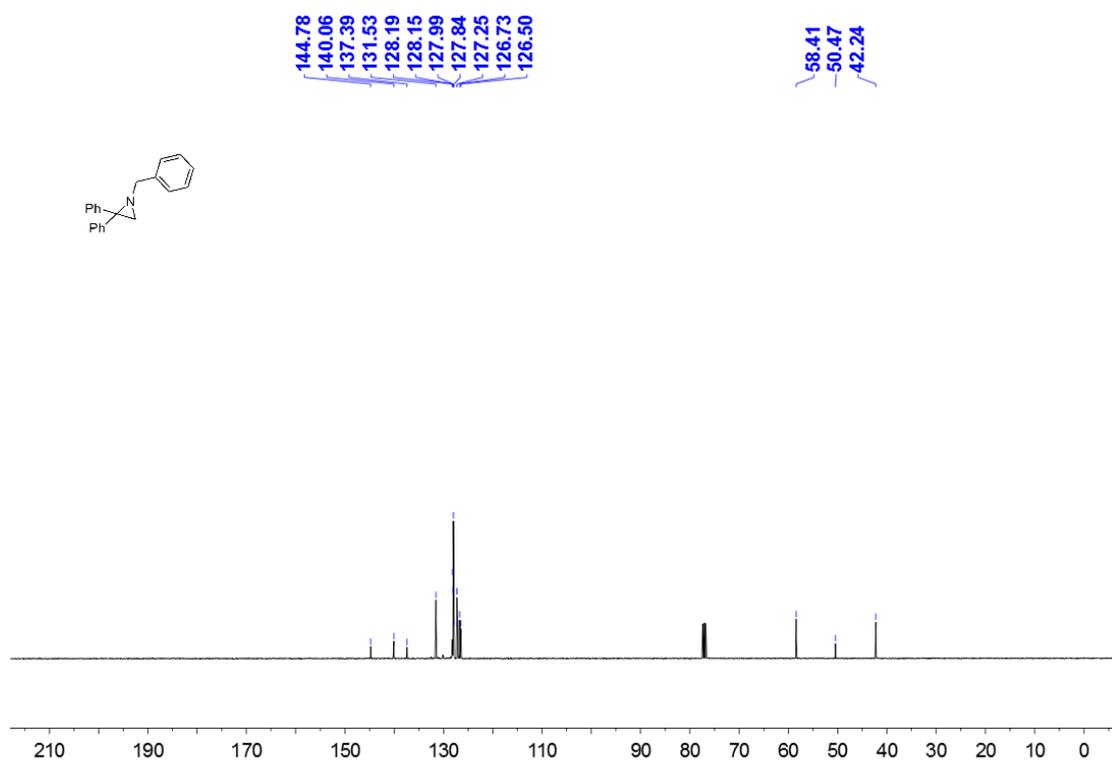
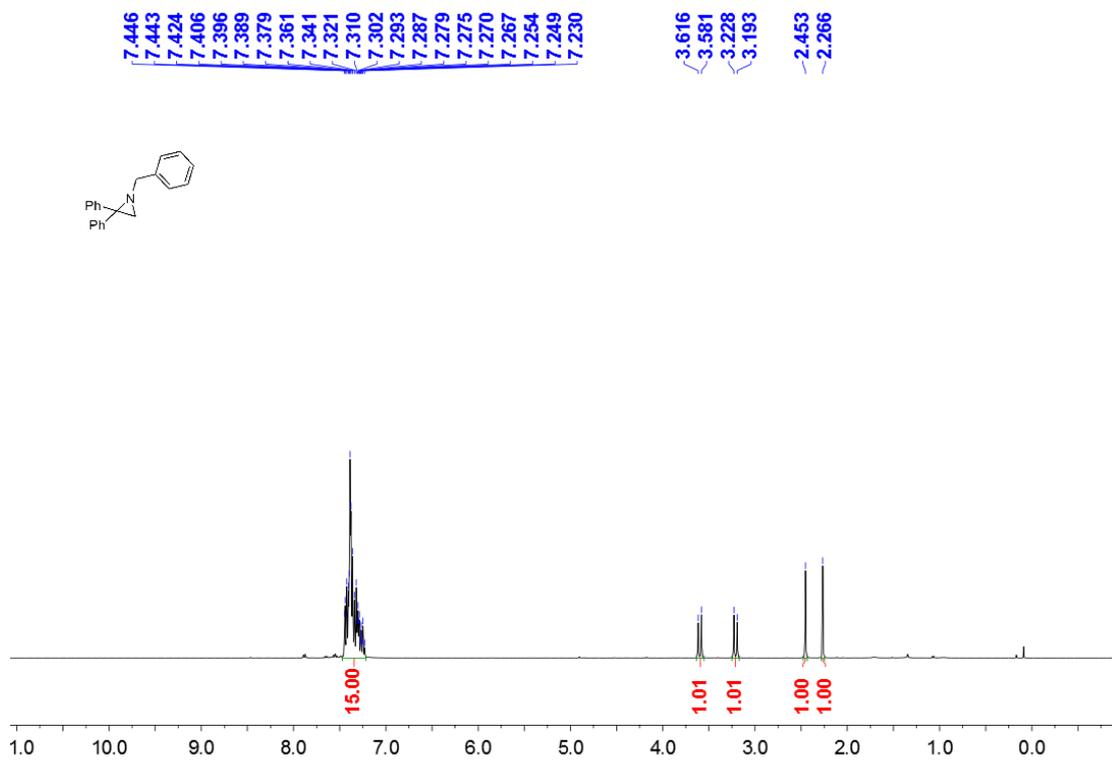
Content

Copies of NMR Spectra of products **2**, **3**, **5**, **6**, **7**, and **8**.....S2

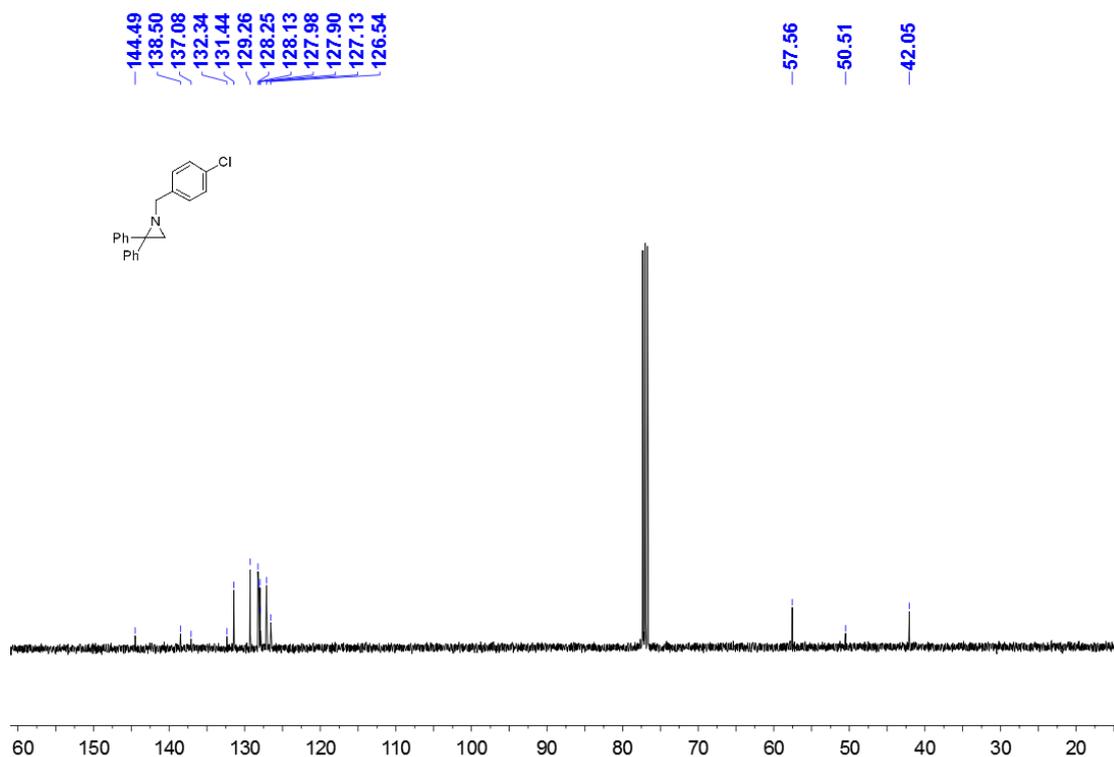
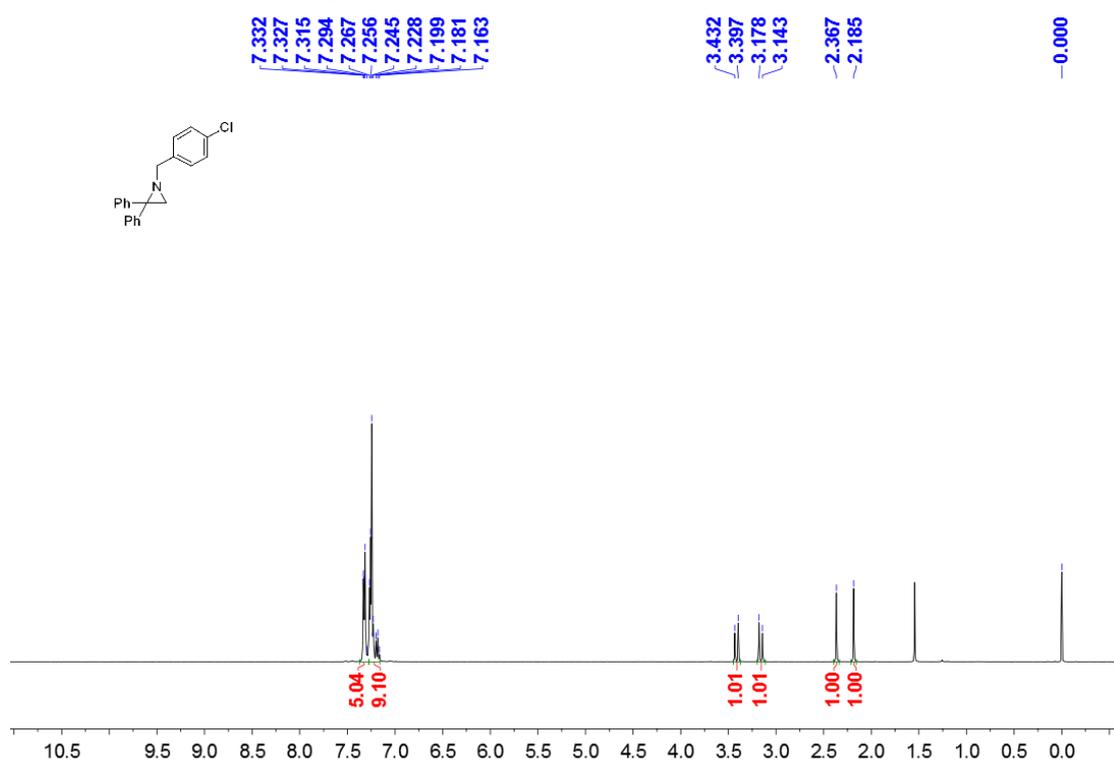
Copies of NMR Spectra of products 2, 3, 5, 6, 7, and 8

^1H NMR (400 MHz) and ^{13}C NMR (101 MHz) in CDCl_3

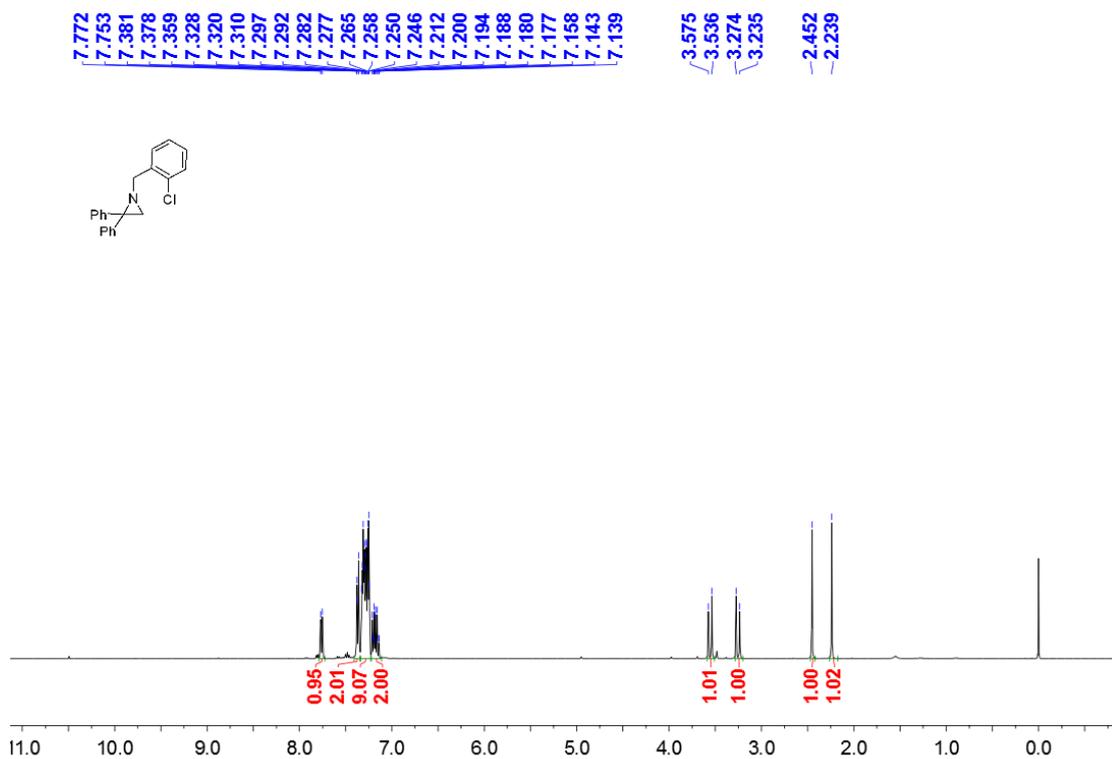
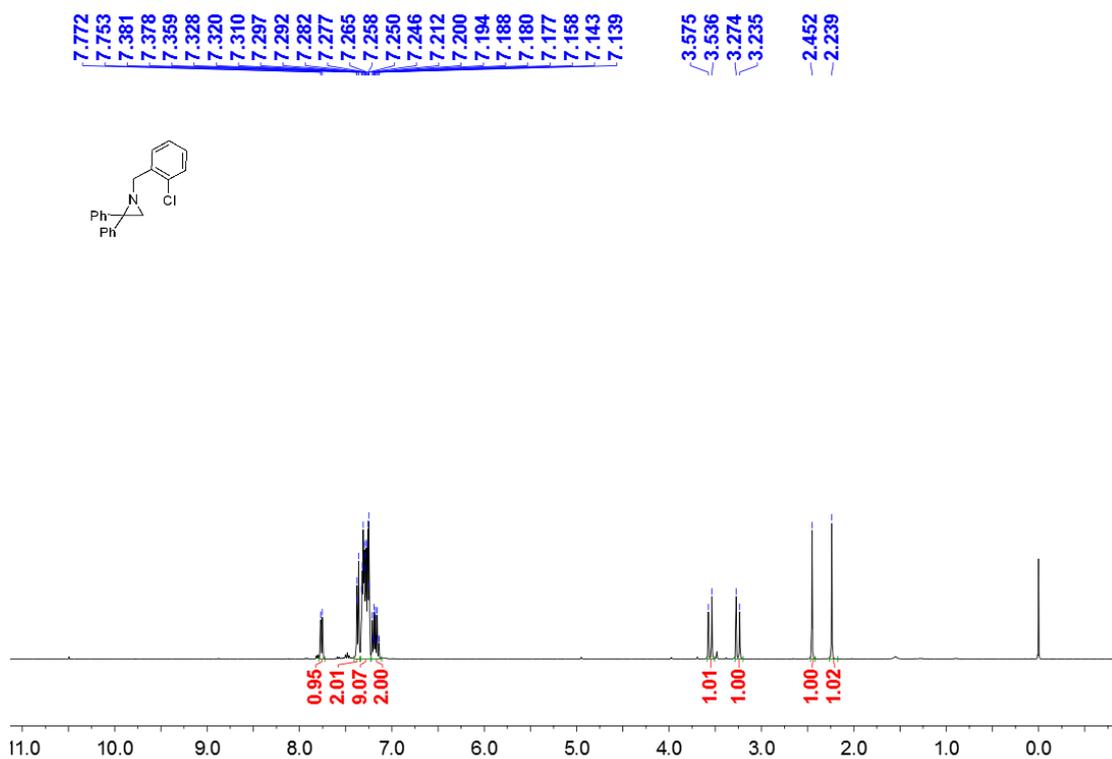
^1H and ^{13}C NMR of compound **2a**



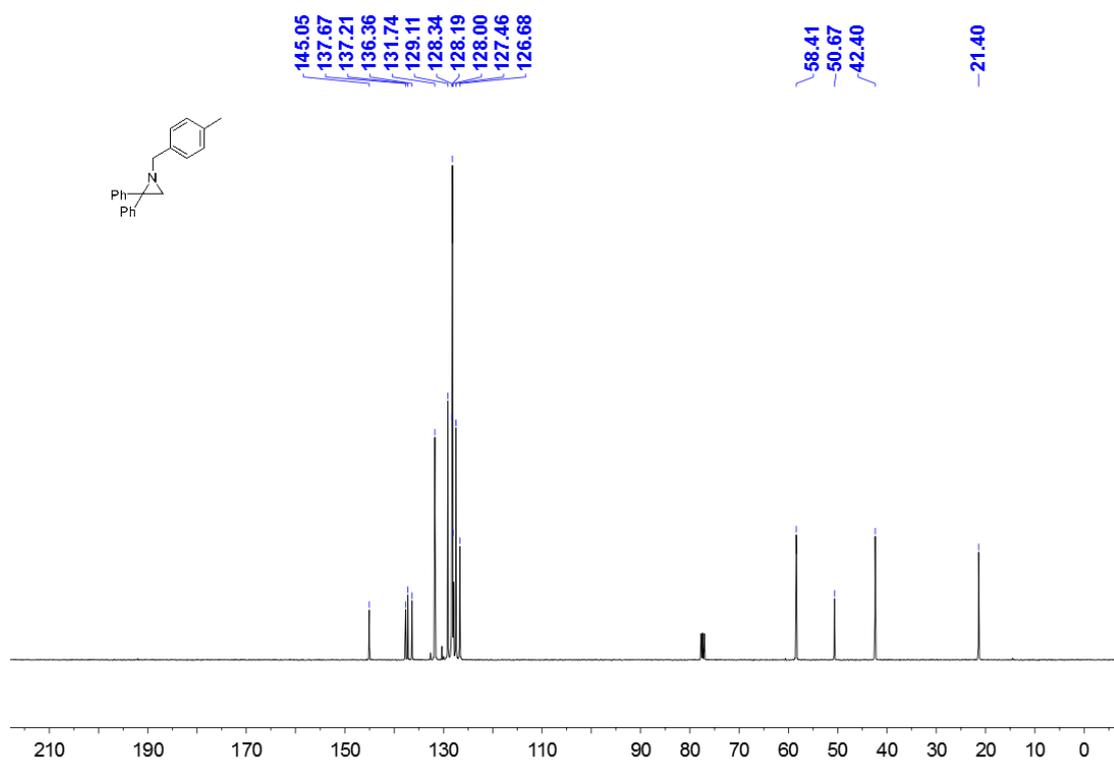
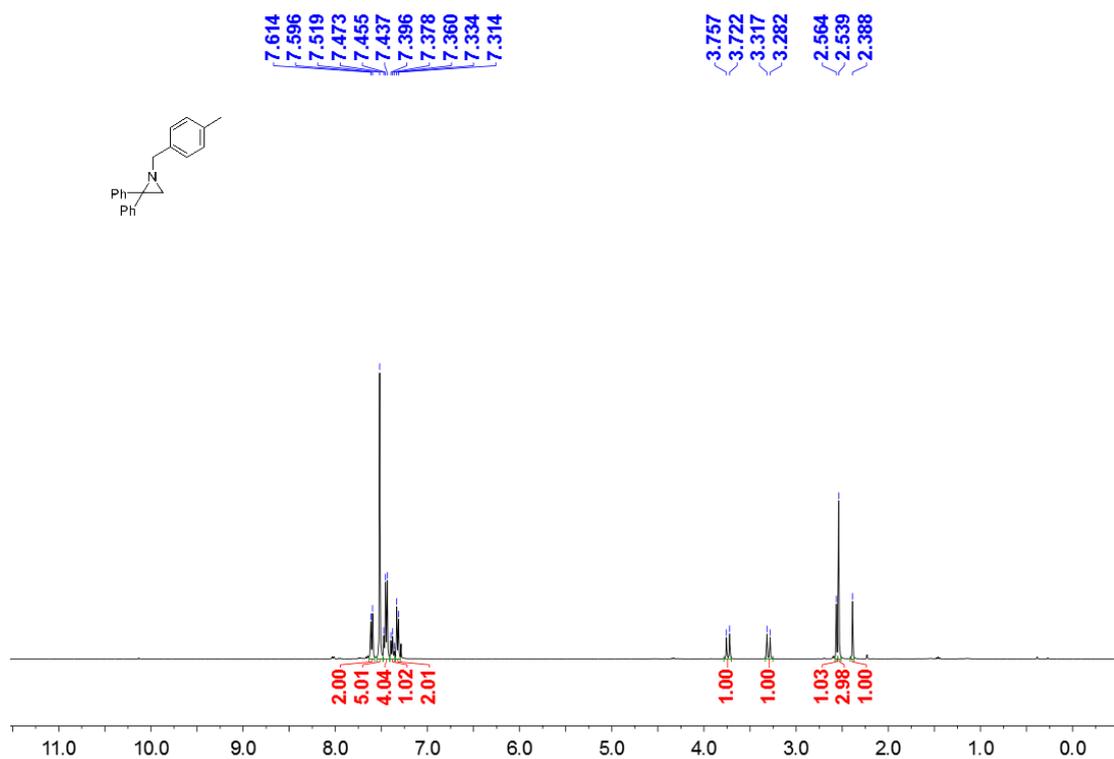
^1H and ^{13}C NMR of compound **2b**



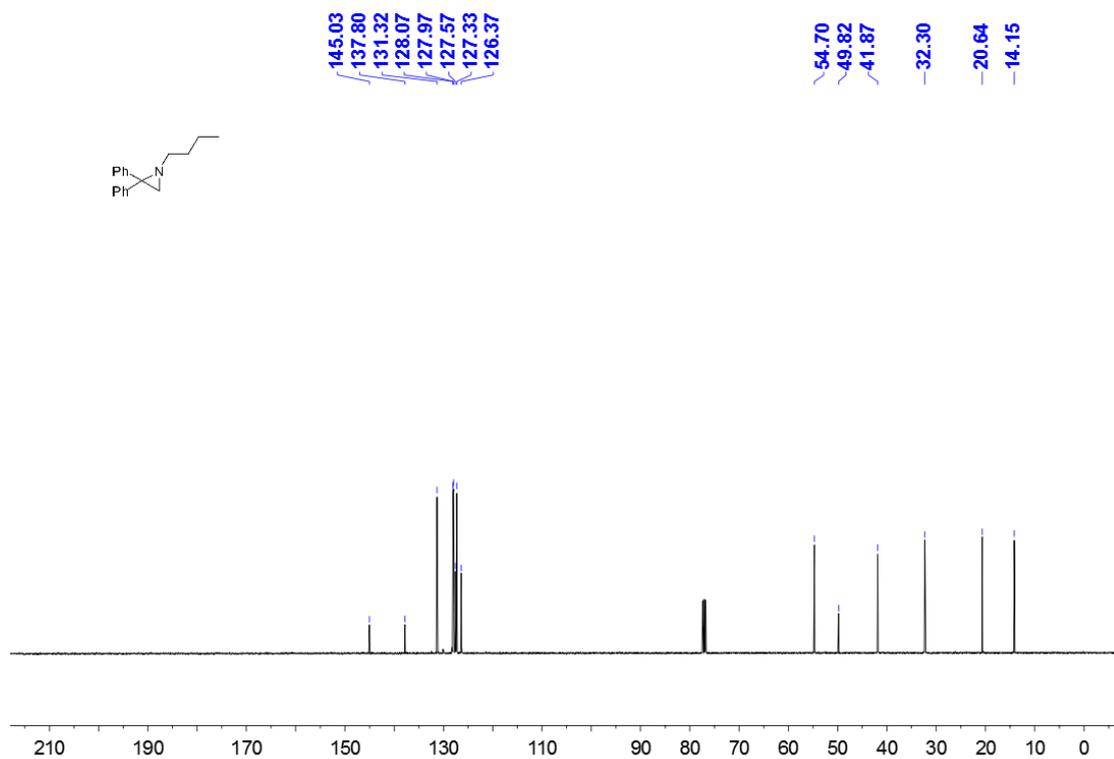
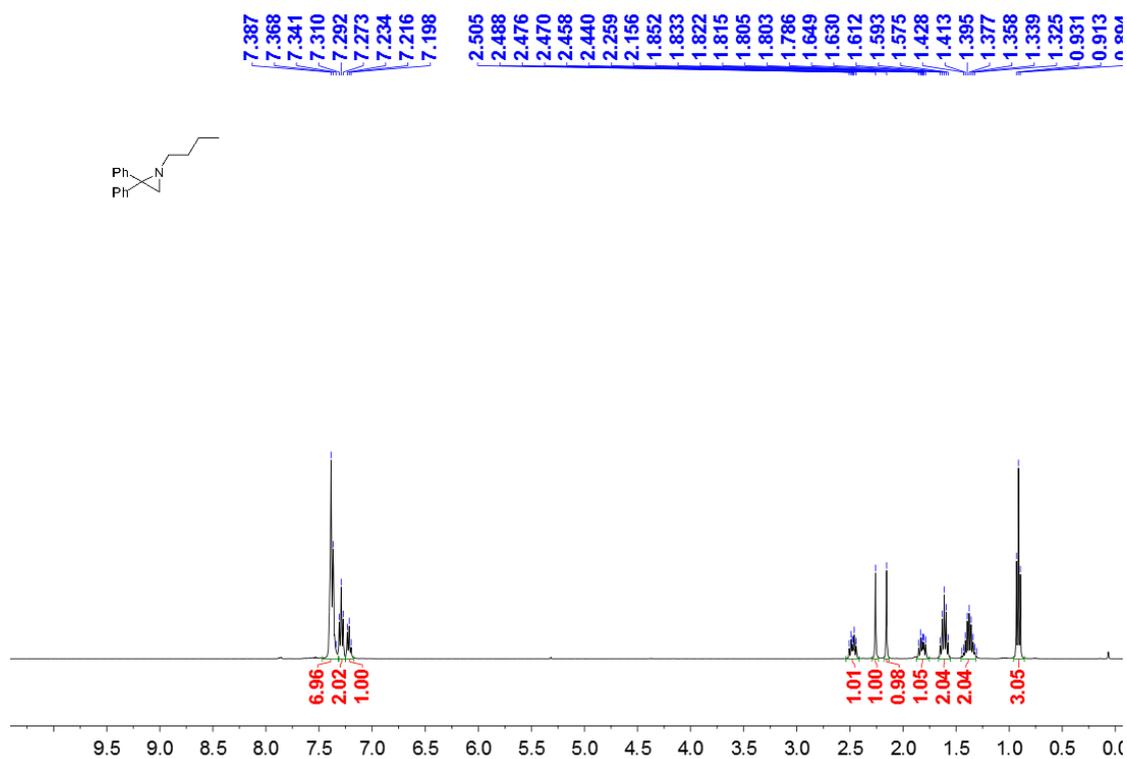
^1H and ^{13}C NMR of compound **2c**



^1H and ^{13}C NMR of compound **2d**

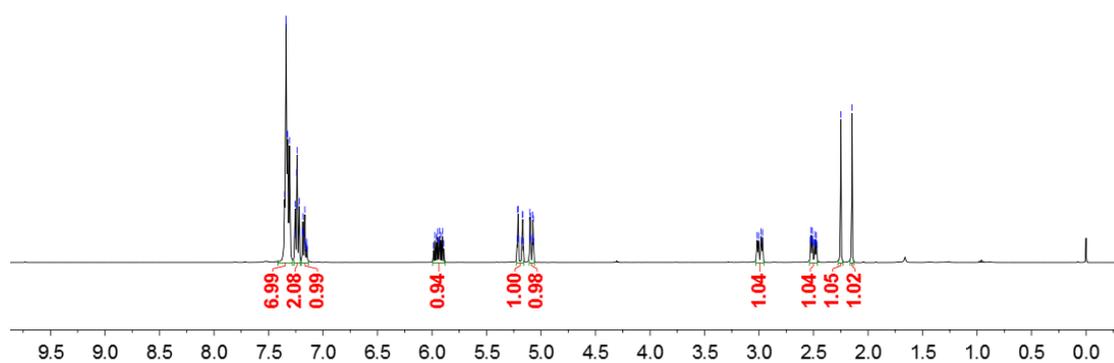


^1H and ^{13}C NMR of compound **2e**



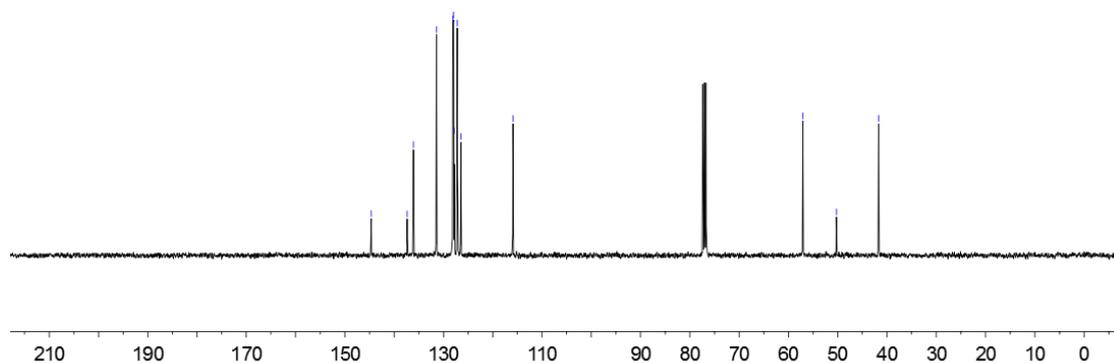
¹H and ¹³C NMR of compound 2f

7.353
7.339
7.337
7.329
7.325
7.307
7.255
7.250
7.241
7.237
7.234
7.218
7.187
7.184
7.181
7.172
7.166
5.974
5.961
5.948
5.931
5.918
5.905
5.219
5.214
5.210
5.205
5.171
5.167
5.105
5.101
5.097
5.093
5.079
5.075
5.071
3.017
3.004
2.981
2.977
2.968
2.528
2.525
2.521
2.514
2.510
2.488
2.474
2.250
2.146

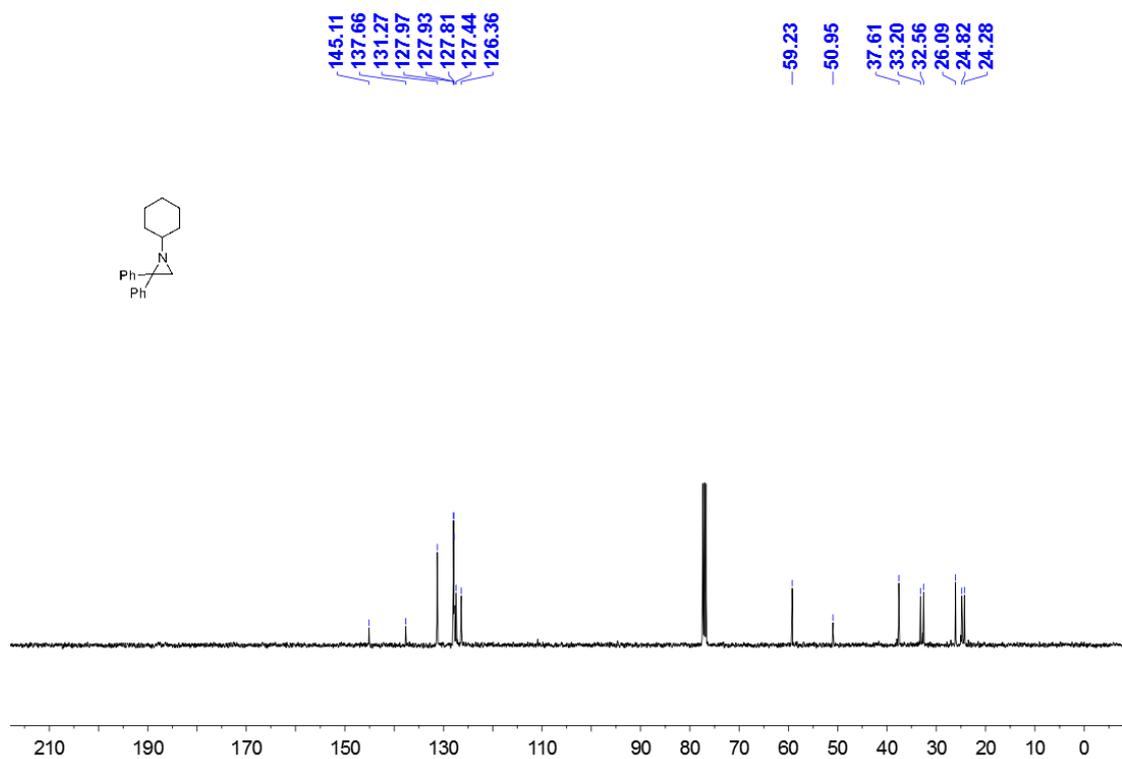
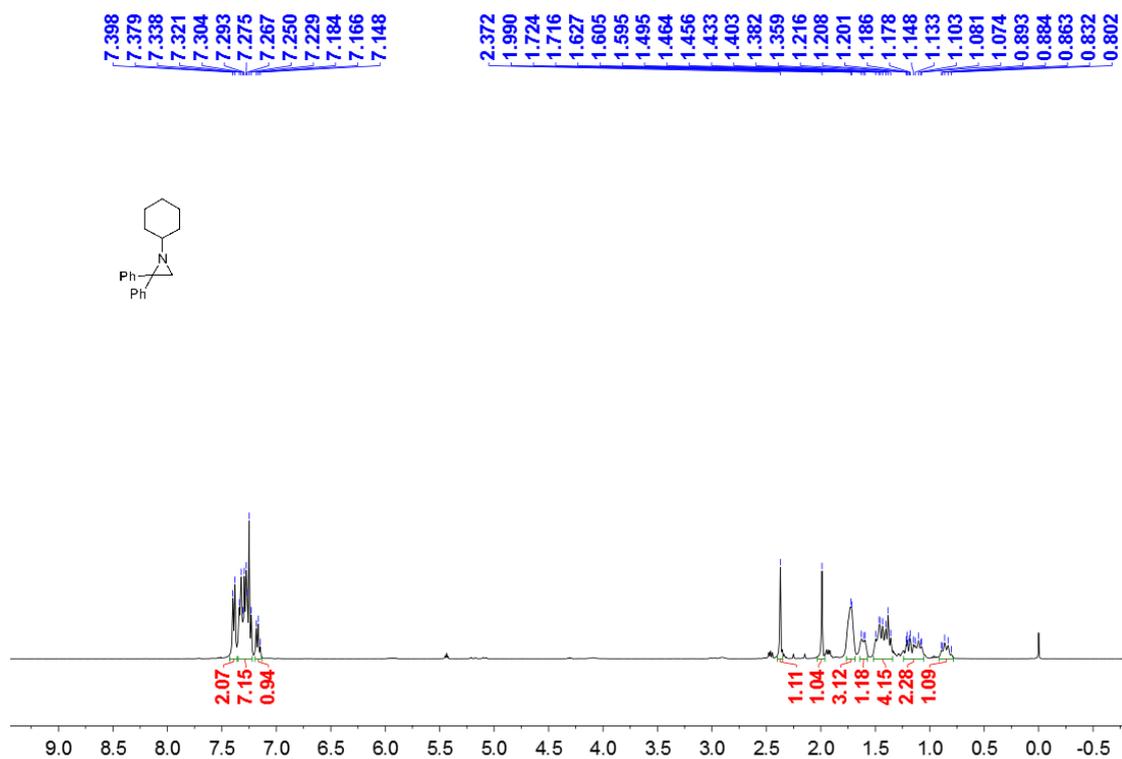


144.65
137.35
136.09
131.43
128.12
127.97
127.79
127.18
126.47
115.90

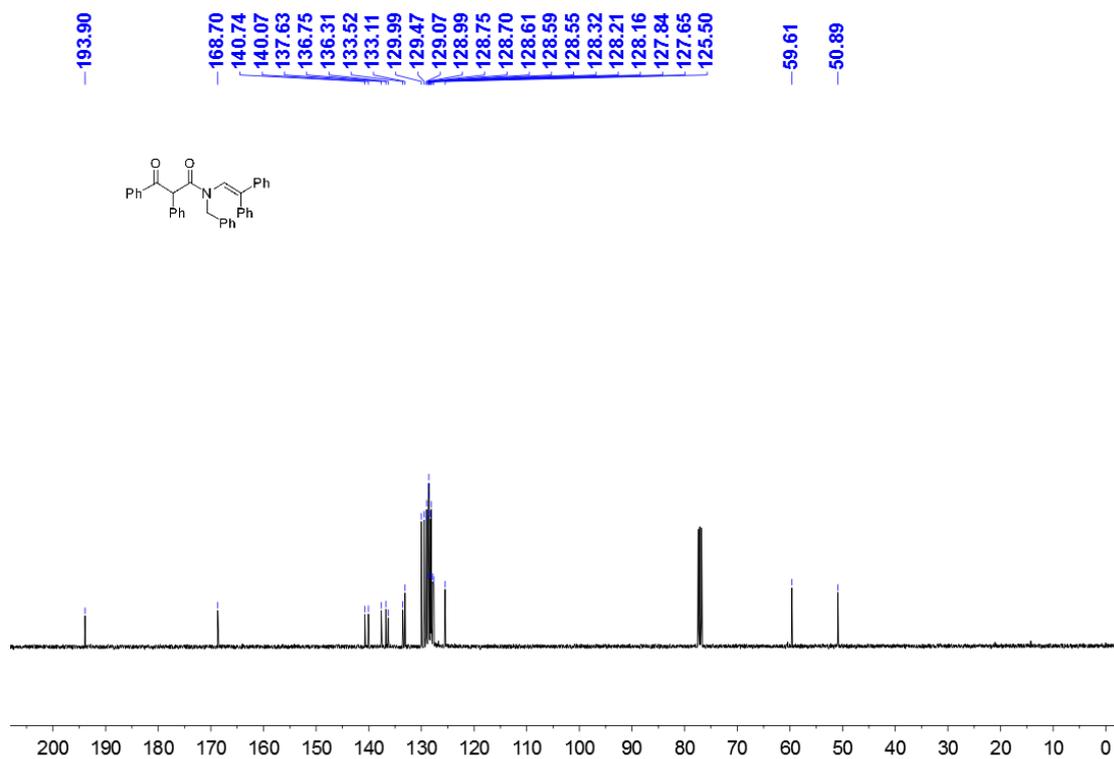
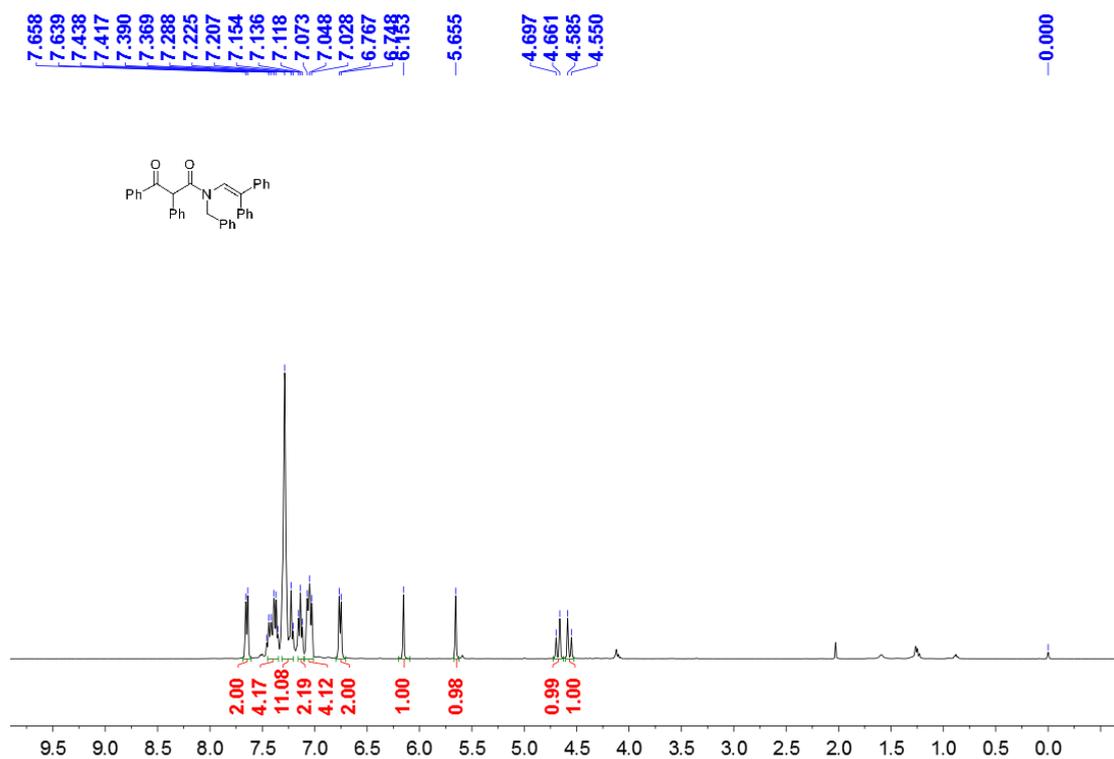
57.07
50.28
41.70



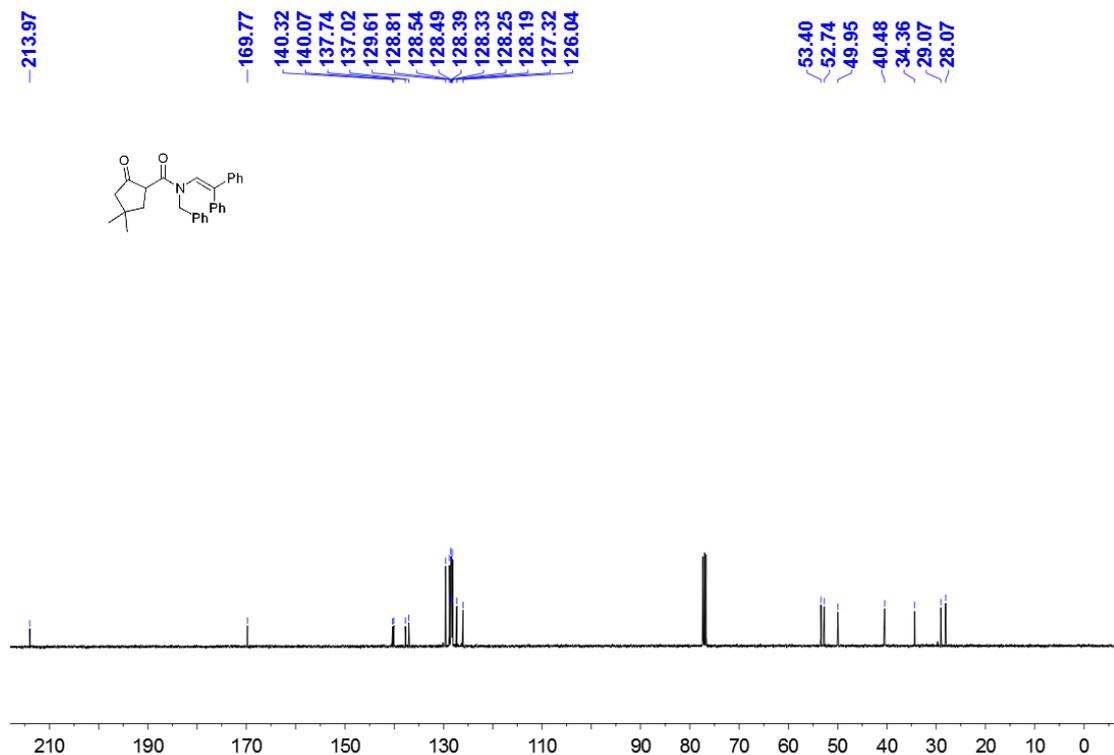
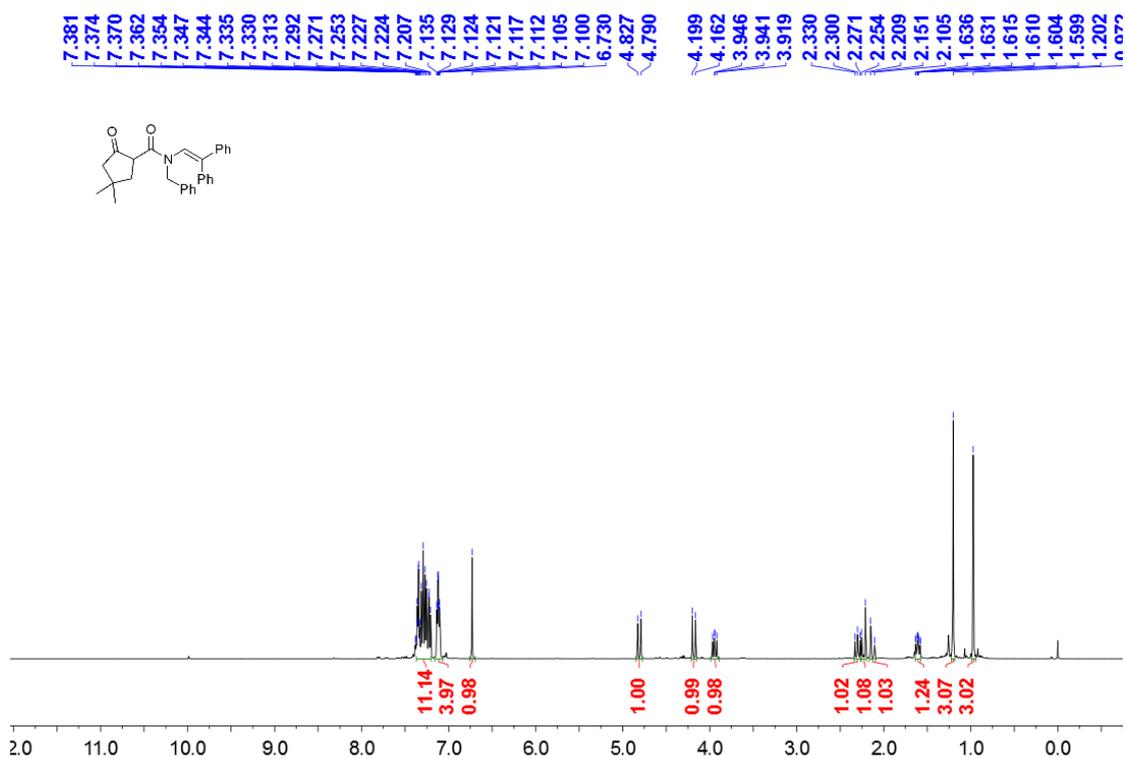
^1H and ^{13}C NMR of compound **2g**



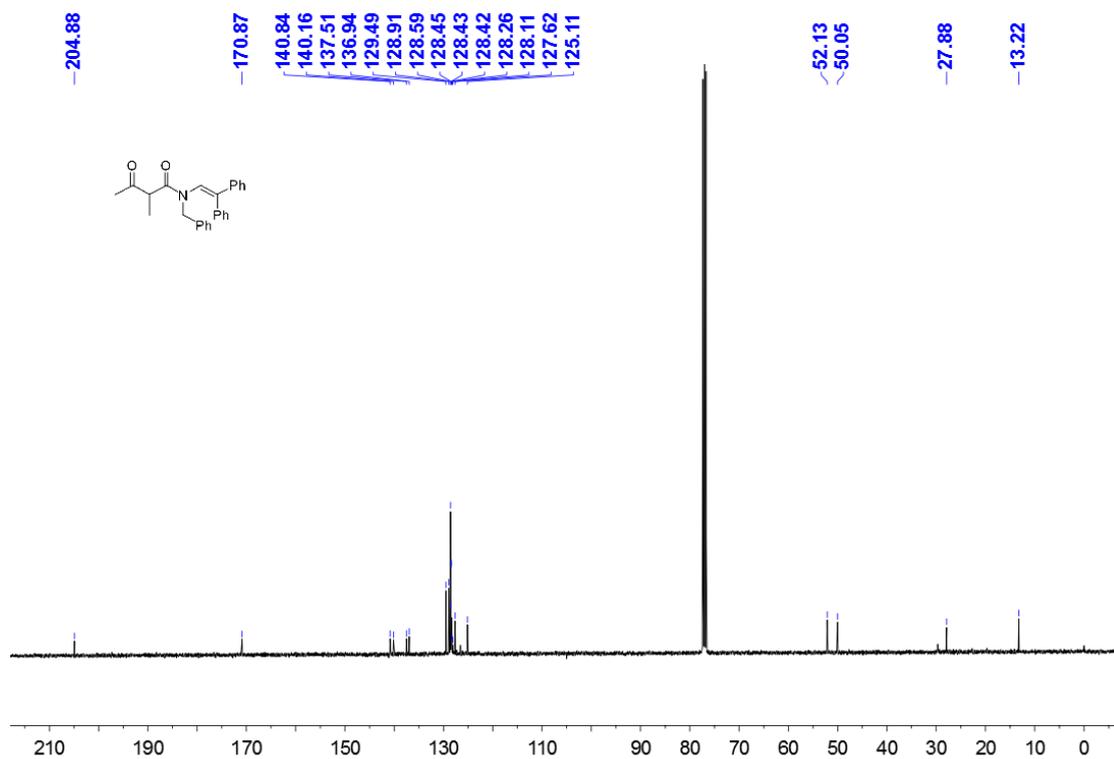
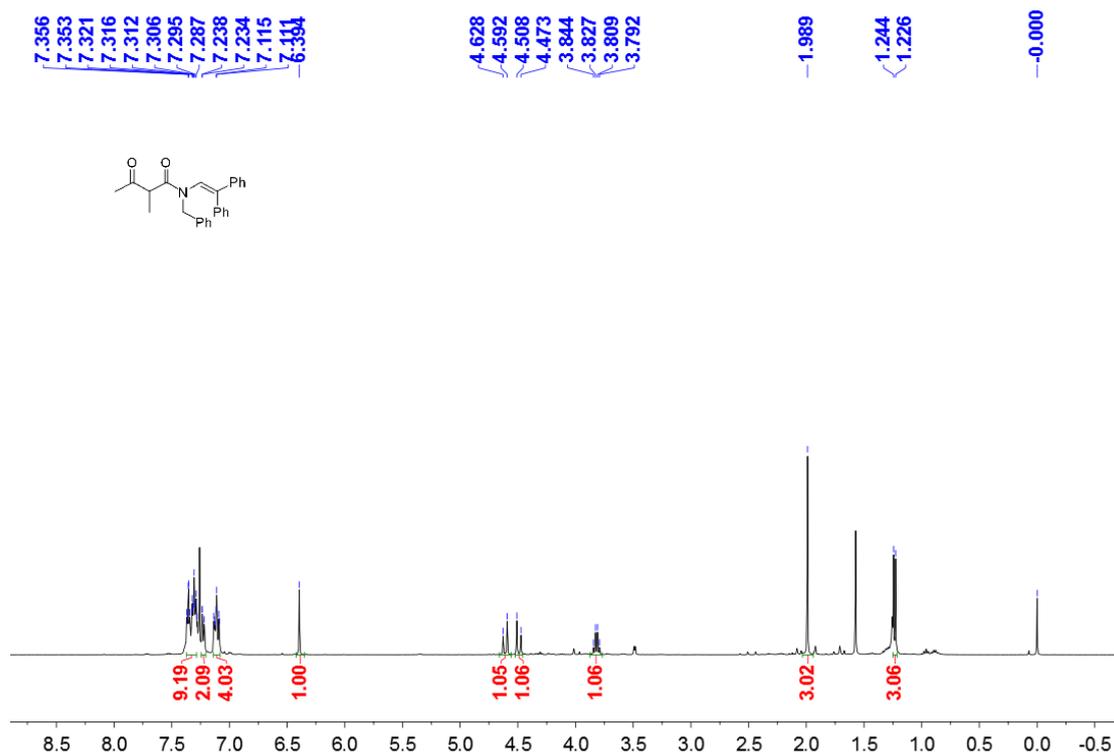
^1H and ^{13}C NMR of compound **3aa**



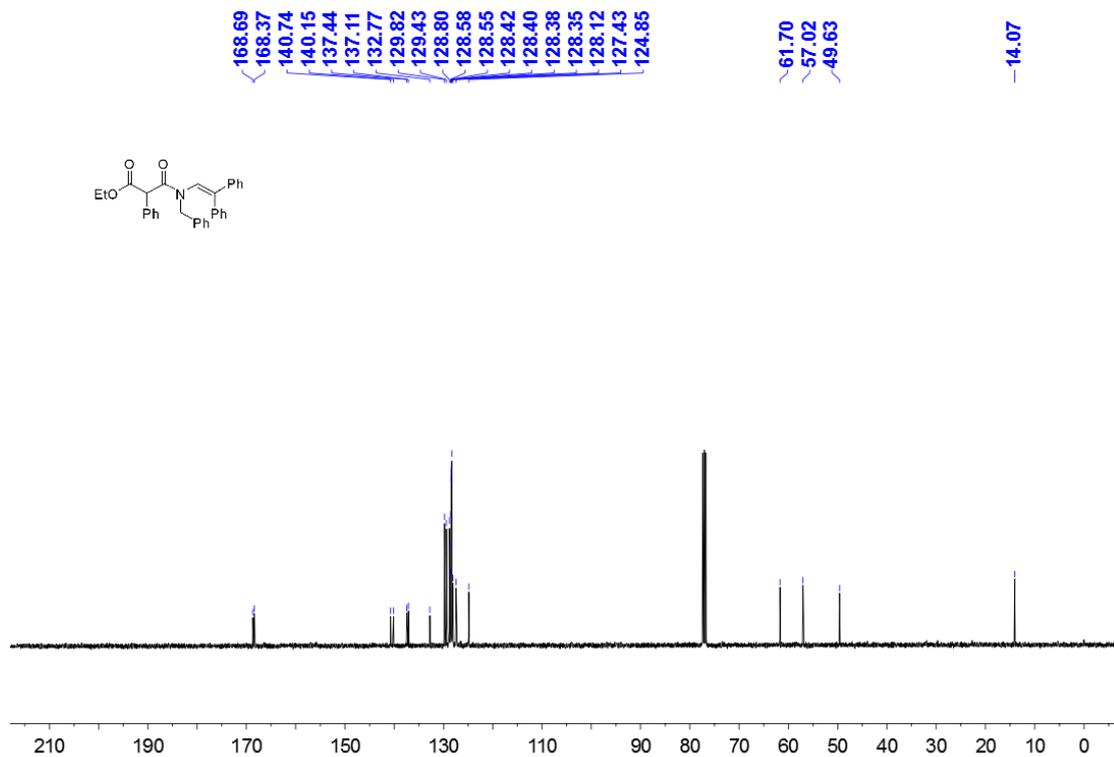
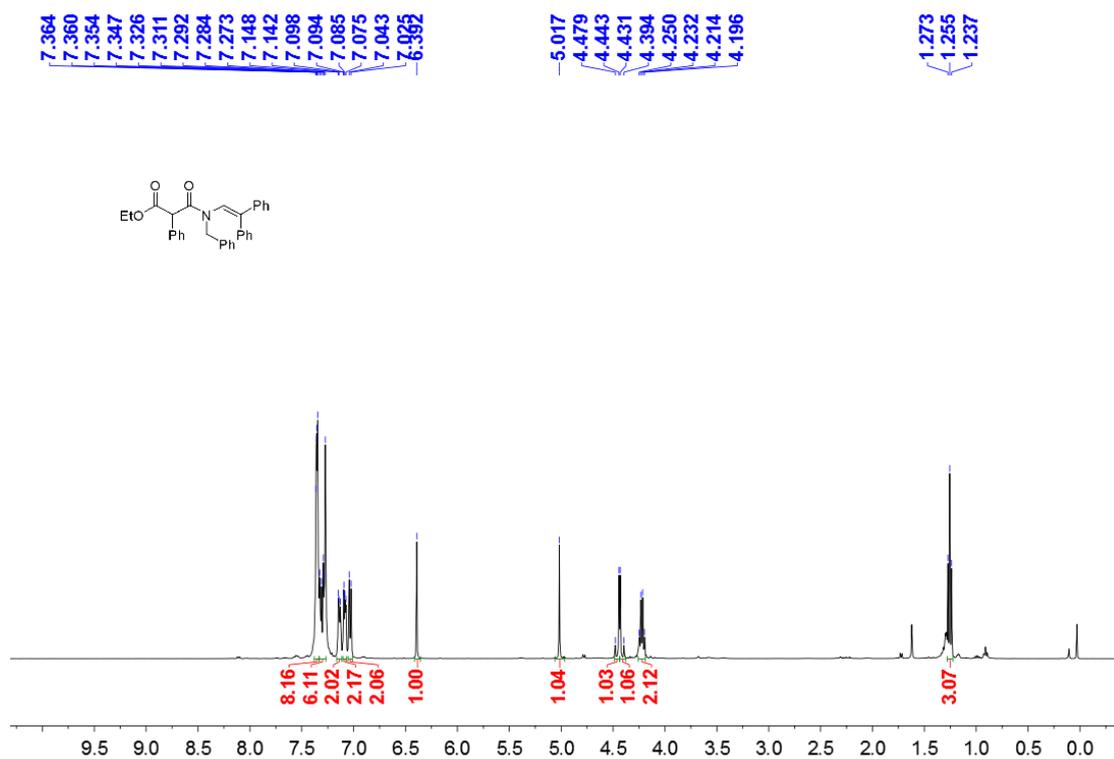
¹H and ¹³C NMR of compound **3ba**



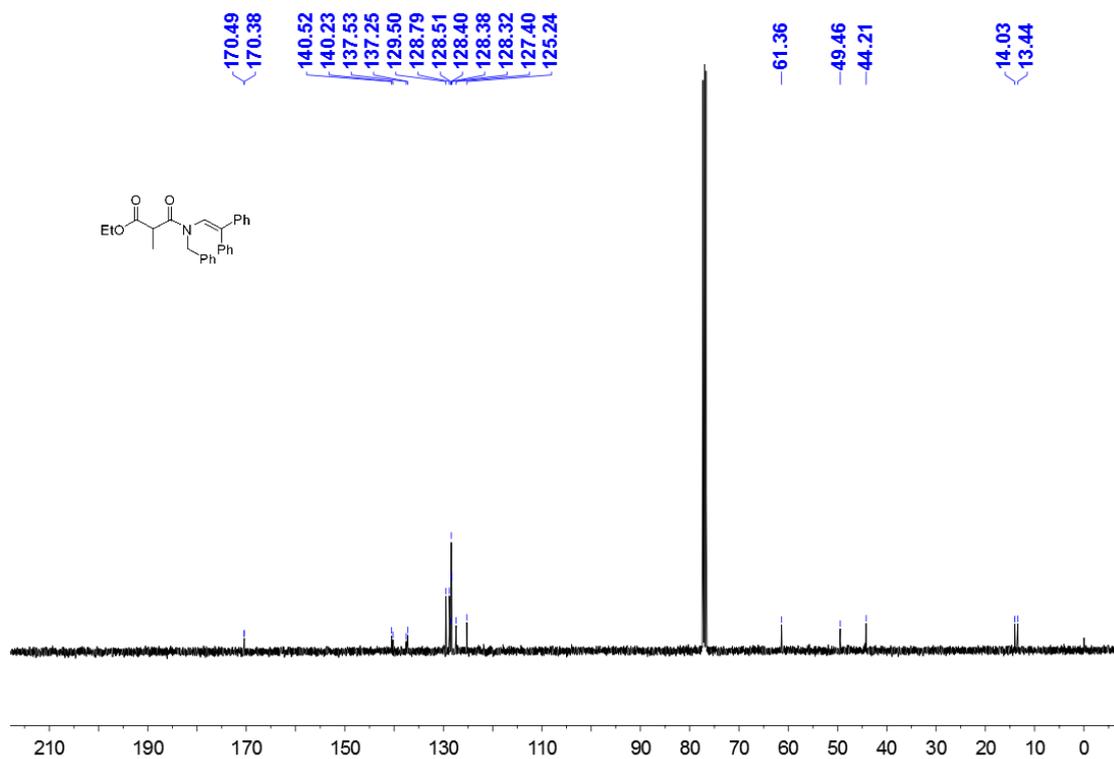
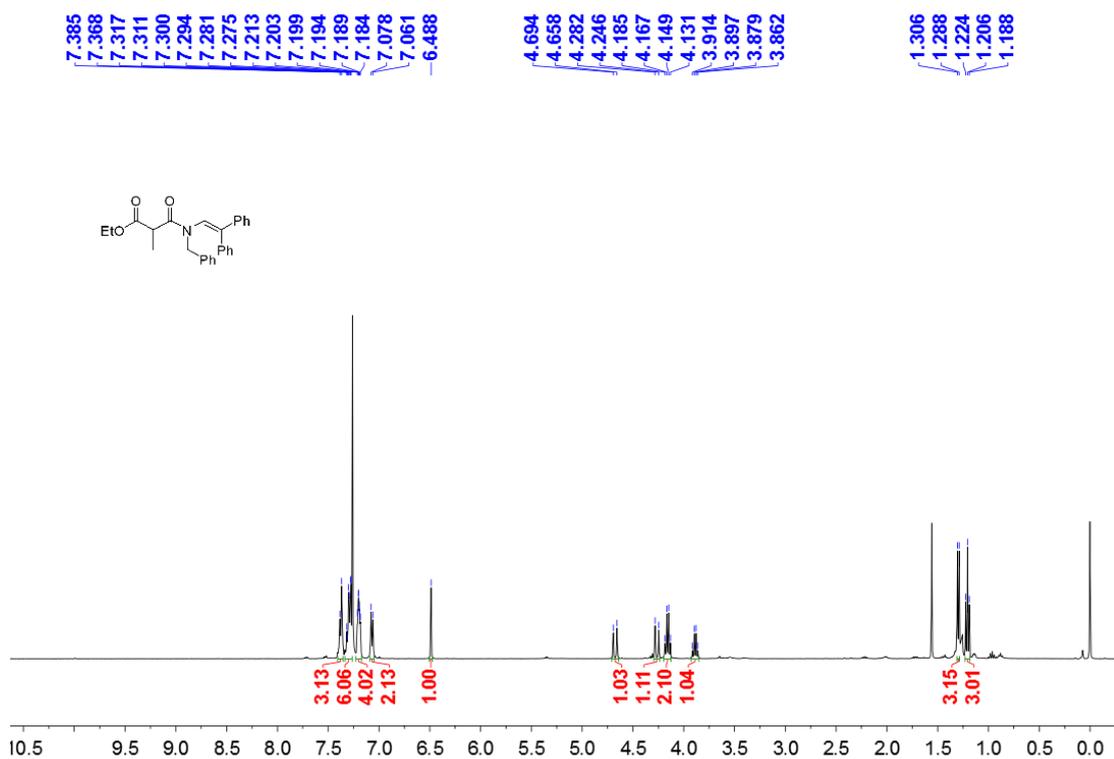
^1H and ^{13}C NMR of compound **3ca**



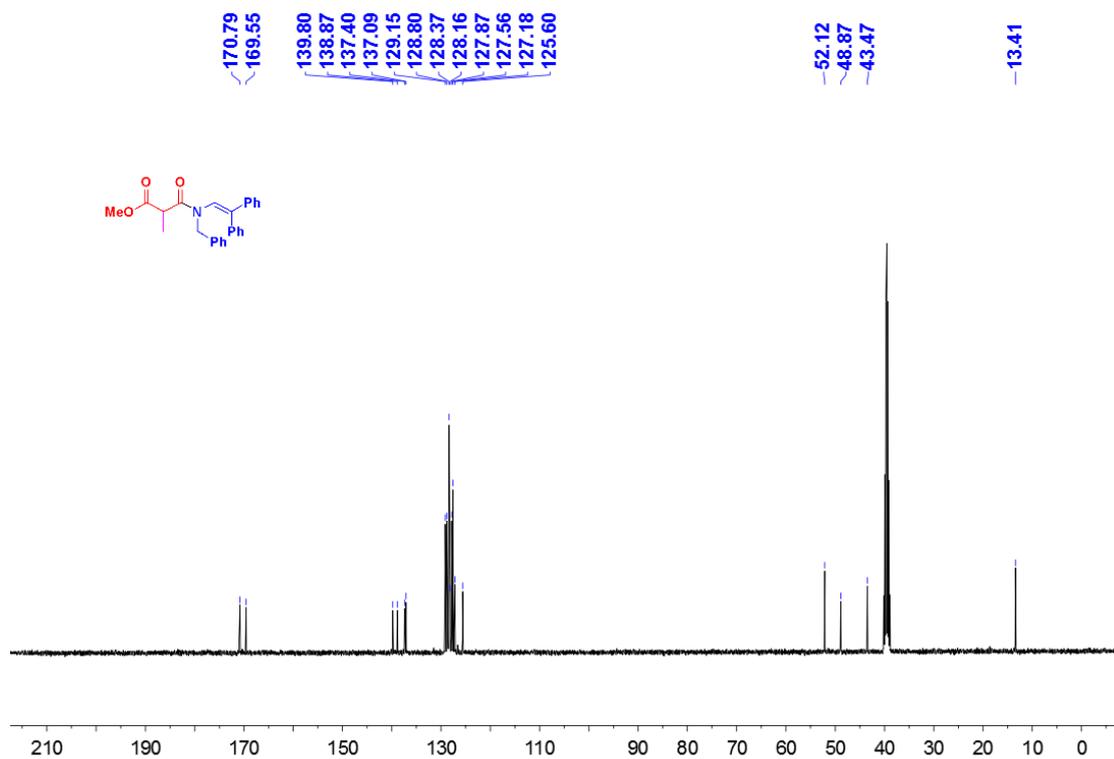
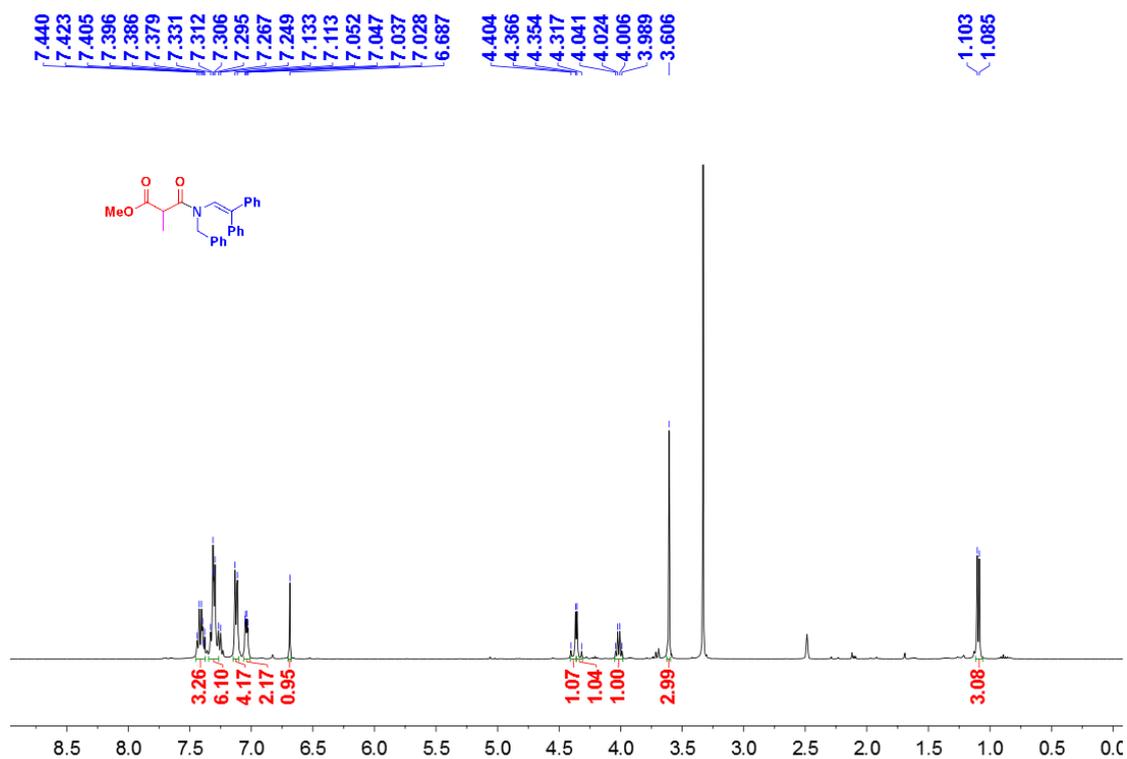
^1H and ^{13}C NMR of compound **3da**



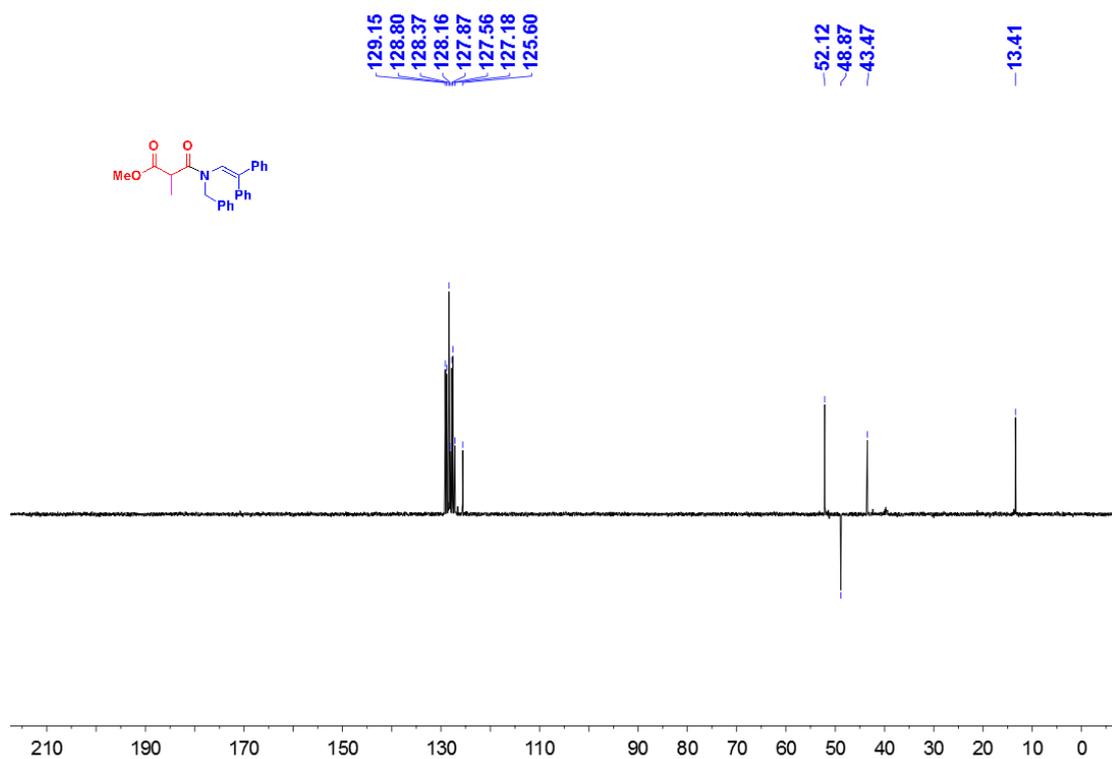
^1H and ^{13}C NMR of compound **3ea**



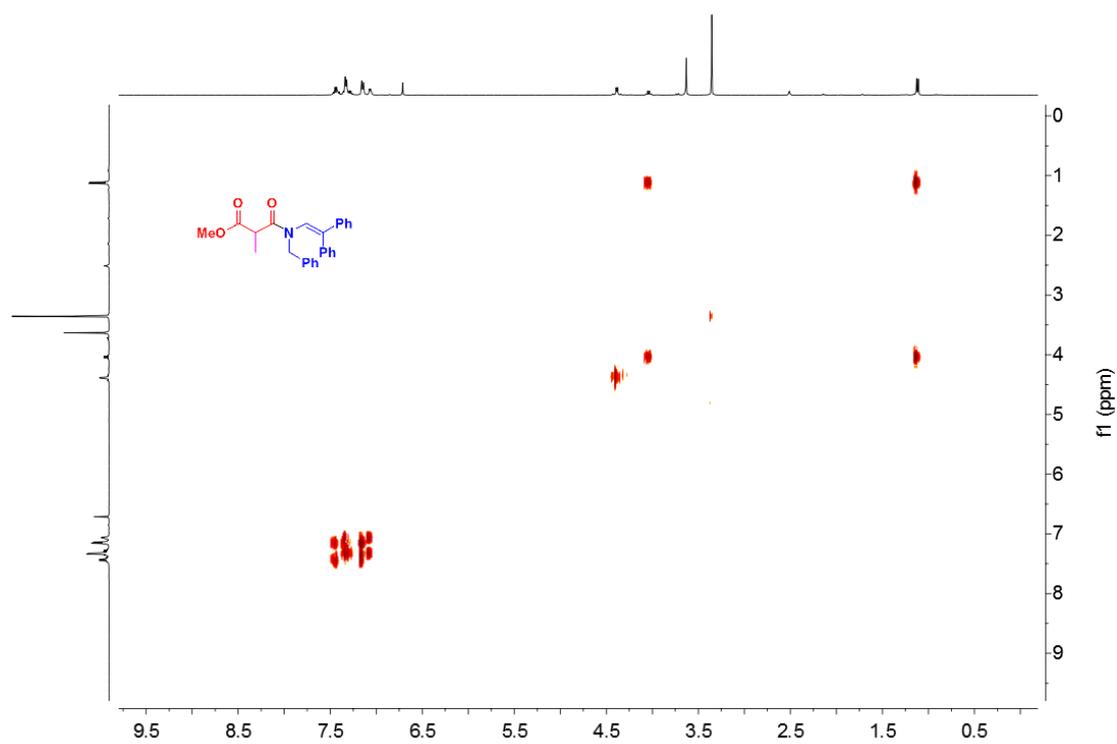
^1H and ^{13}C NMR of compound **3fa**



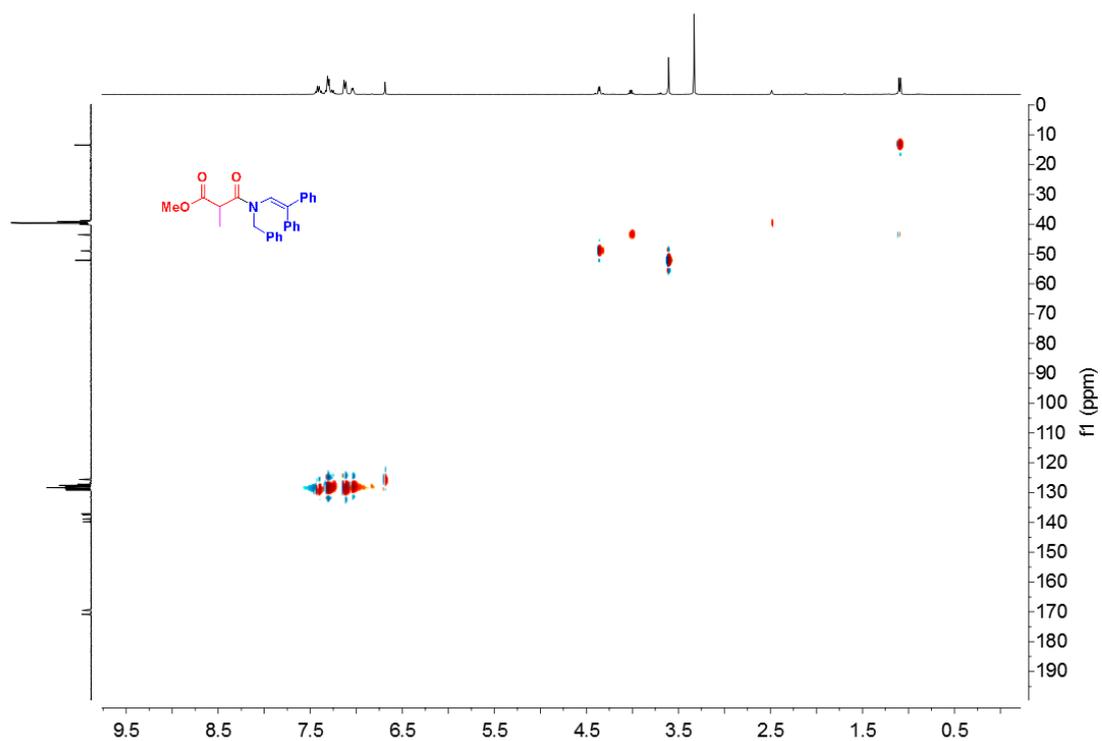
DEPT of compound **3fa**



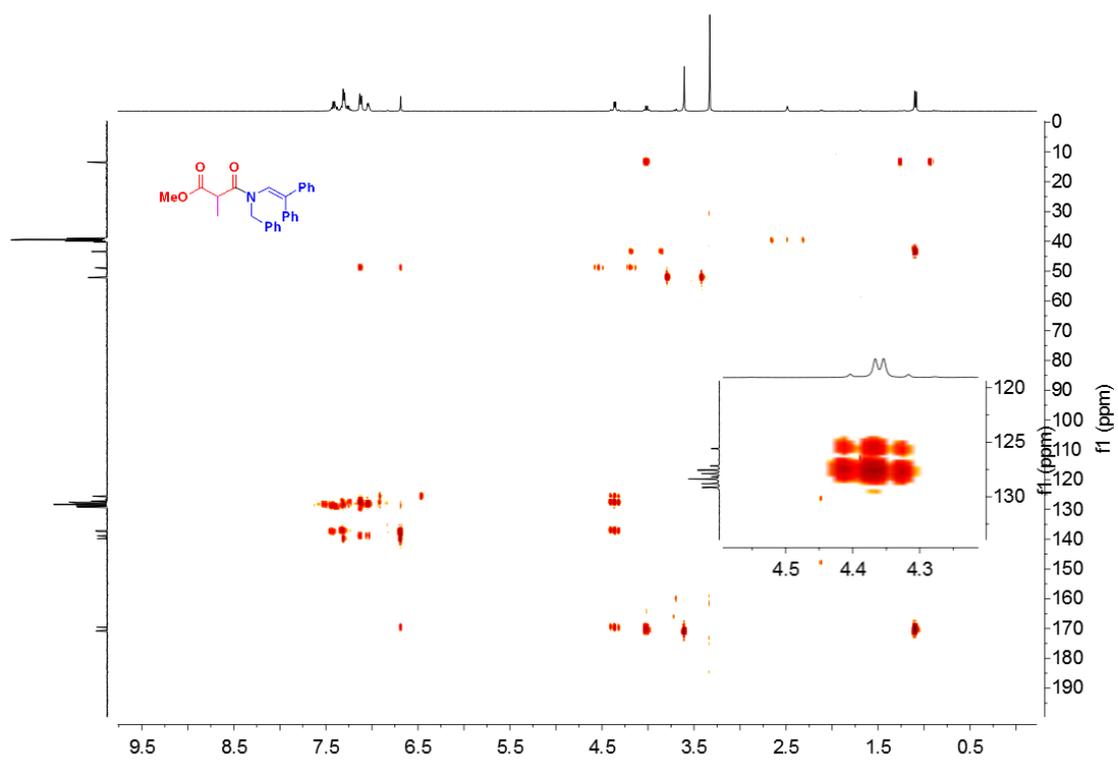
H-H COSY compound **3fa**



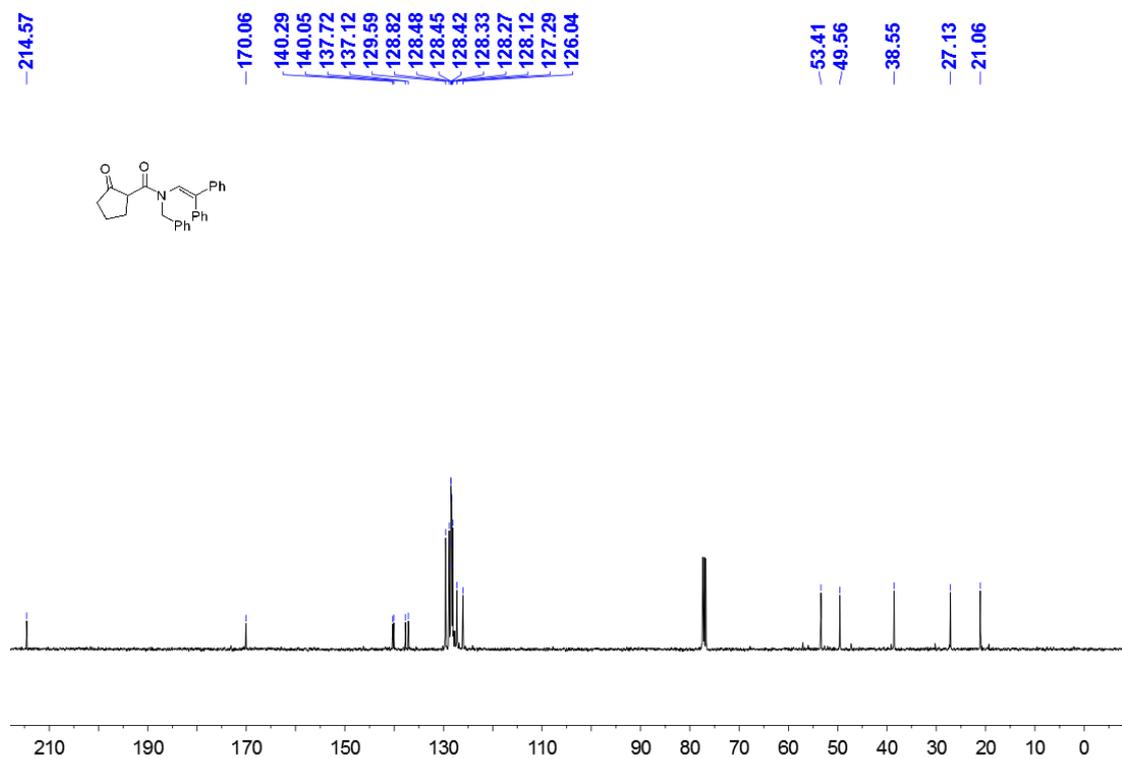
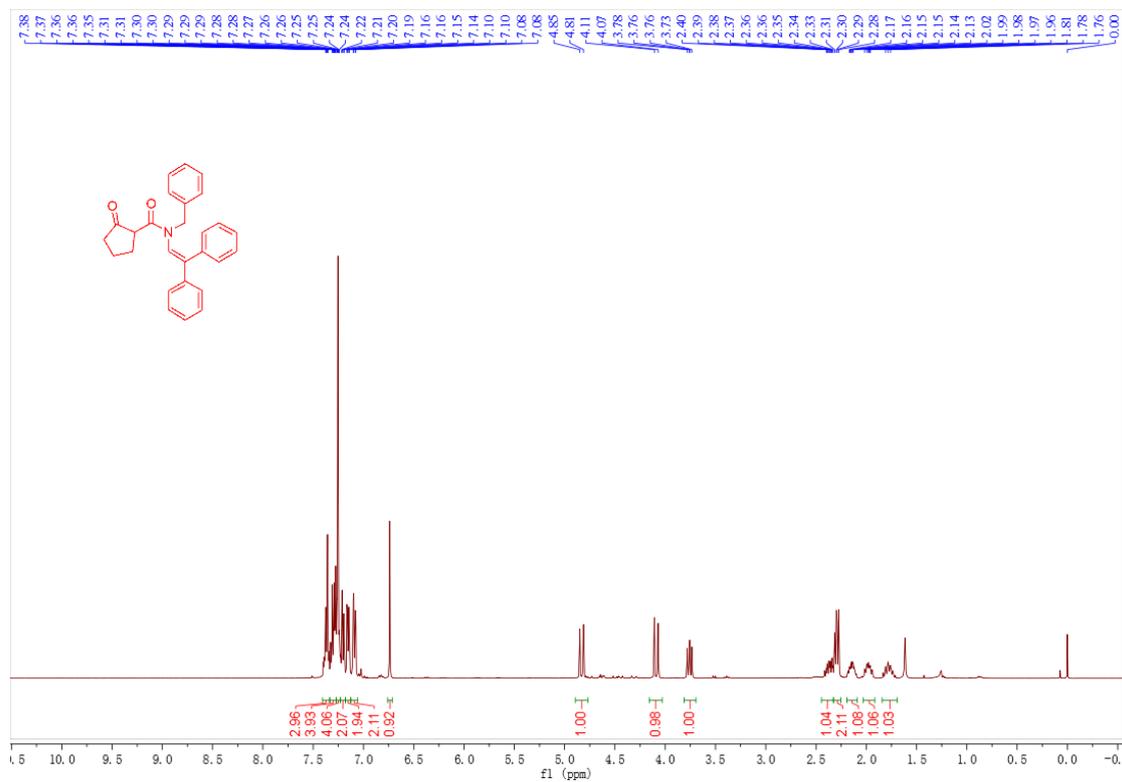
HSQC compound **3fa**



HMBC compound **3fa**

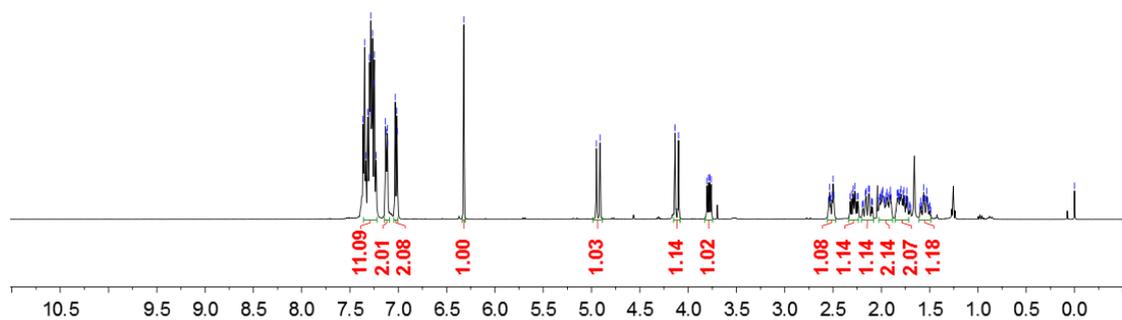
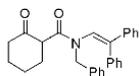


^1H and ^{13}C NMR of compound **3ga**



¹H and ¹³C NMR of compound 3ha

7.366
7.349
7.337
7.317
7.299
7.285
7.277
7.266
7.252
7.248
7.230
7.133
7.127
7.114
7.110
7.032
7.015
7.012
6.322
4.949
4.912
4.136
4.099
3.804
3.790
3.775
3.761
2.536
2.500
2.307
2.290
2.275
2.165
2.156
2.131
2.123
1.992
1.984
1.941
1.907
1.835
1.827
1.808
1.798
1.777
1.767
1.736
1.561
1.529
-0.000



207.22

170.36

140.27
140.05
137.75
137.14
129.52
128.81
128.45
128.43
128.37
128.33
128.26
127.28
125.47

55.57

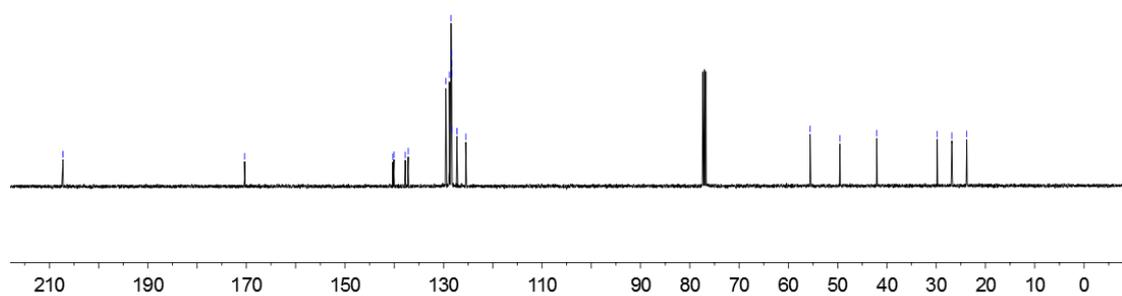
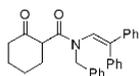
49.52

42.06

29.80

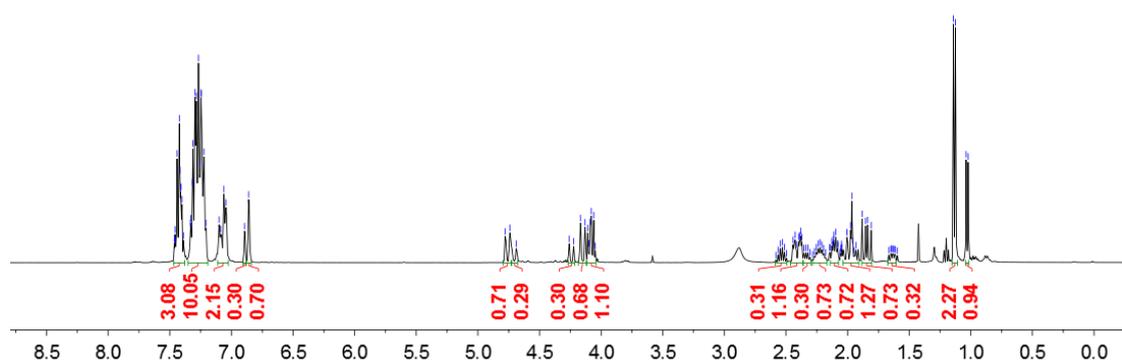
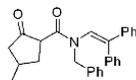
26.82

23.79

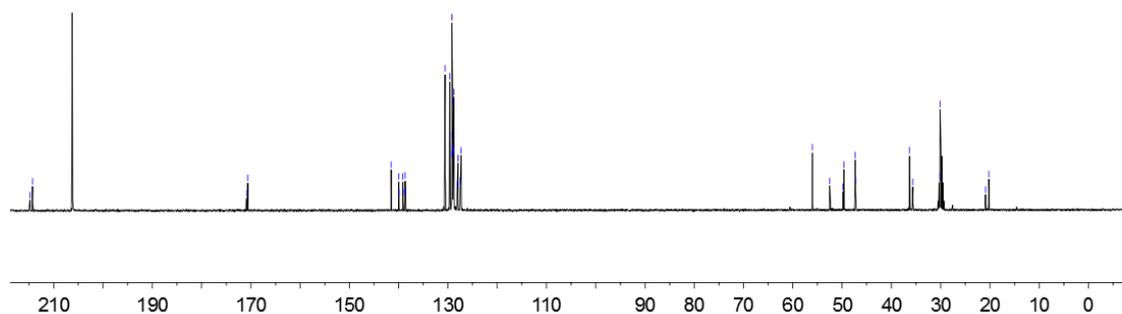
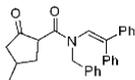


¹H and ¹³C NMR of compound **3ia**

7.457, 7.442, 7.423, 7.417, 7.413, 7.409, 7.401, 7.390, 7.333, 7.329, 7.316, 7.312, 7.294, 7.284, 7.267, 7.255, 7.247, 7.243, 7.224, 7.208, 7.100, 7.086, 7.061, 7.044, 6.893, 6.860, 4.778, 4.741, 4.168, 4.130, 4.109, 4.088, 4.079, 4.060, 2.425, 2.389, 2.380, 2.111, 2.096, 2.005, 1.976, 1.966, 1.882, 1.854, 1.837, 1.809, 1.141, 1.125, 1.039, 1.022

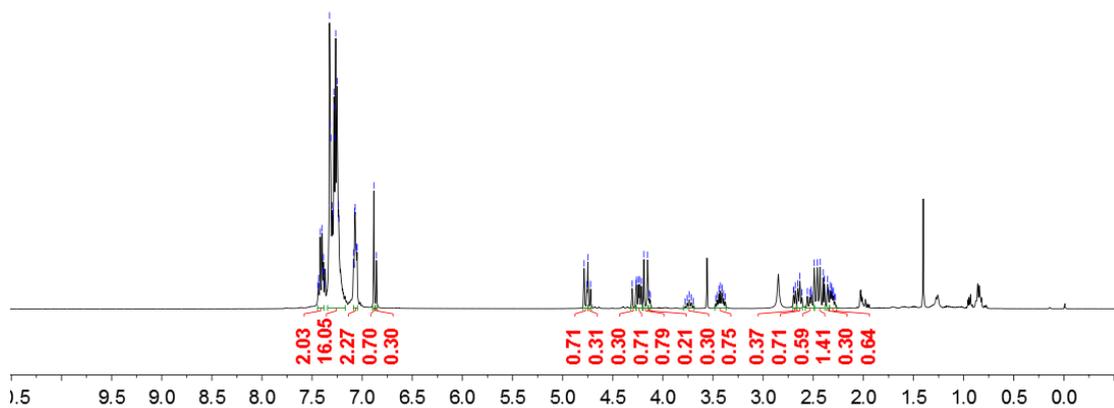
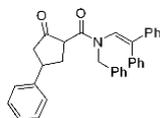


214.84, 214.29, 170.83, 170.63, 141.53, 139.96, 139.93, 139.13, 139.08, 138.67, 138.59, 130.57, 129.65, 129.24, 129.19, 129.15, 129.07, 129.04, 128.88, 128.80, 128.04, 127.96, 127.51, 127.30, 56.00, 52.52, 49.81, 49.59, 47.30, 47.27, 36.29, 30.11, 20.88, 20.22

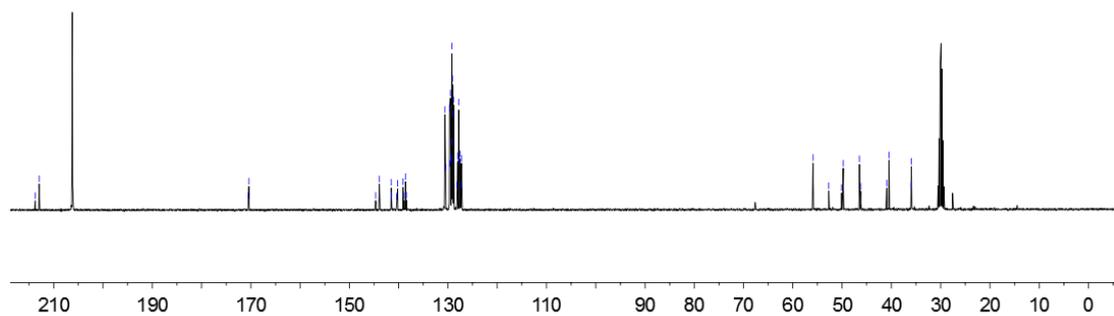
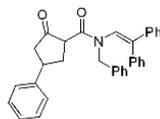


¹H and ¹³C NMR of compound **3ja**

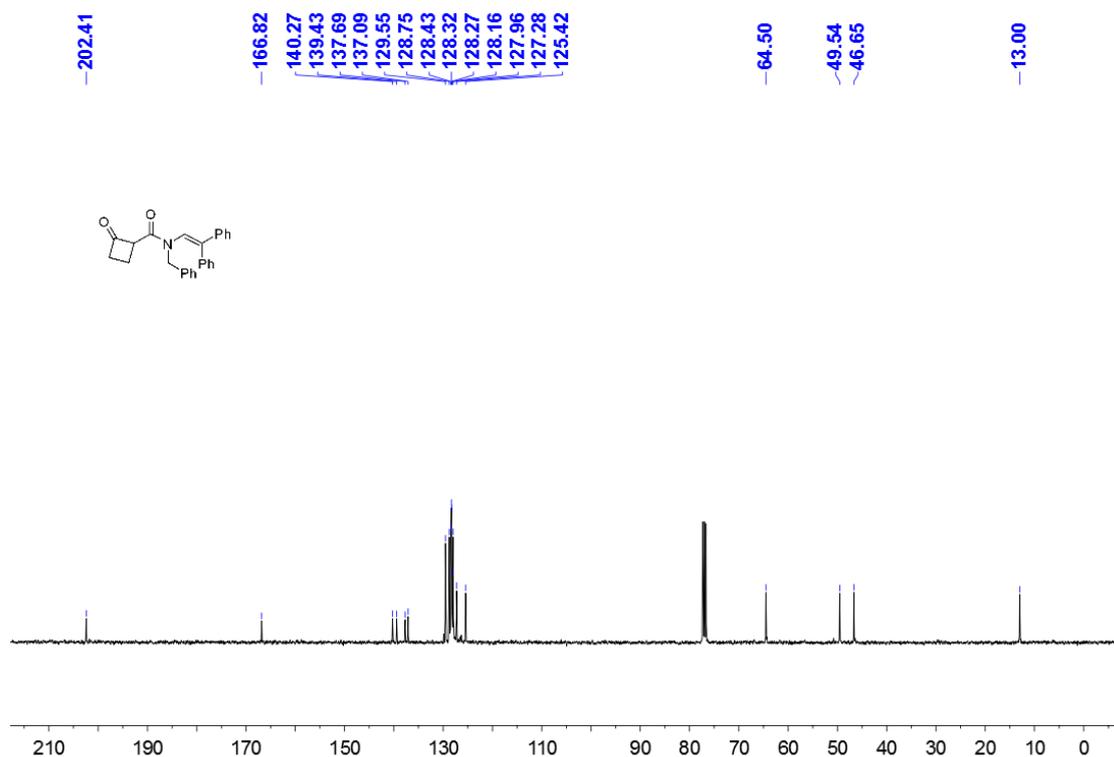
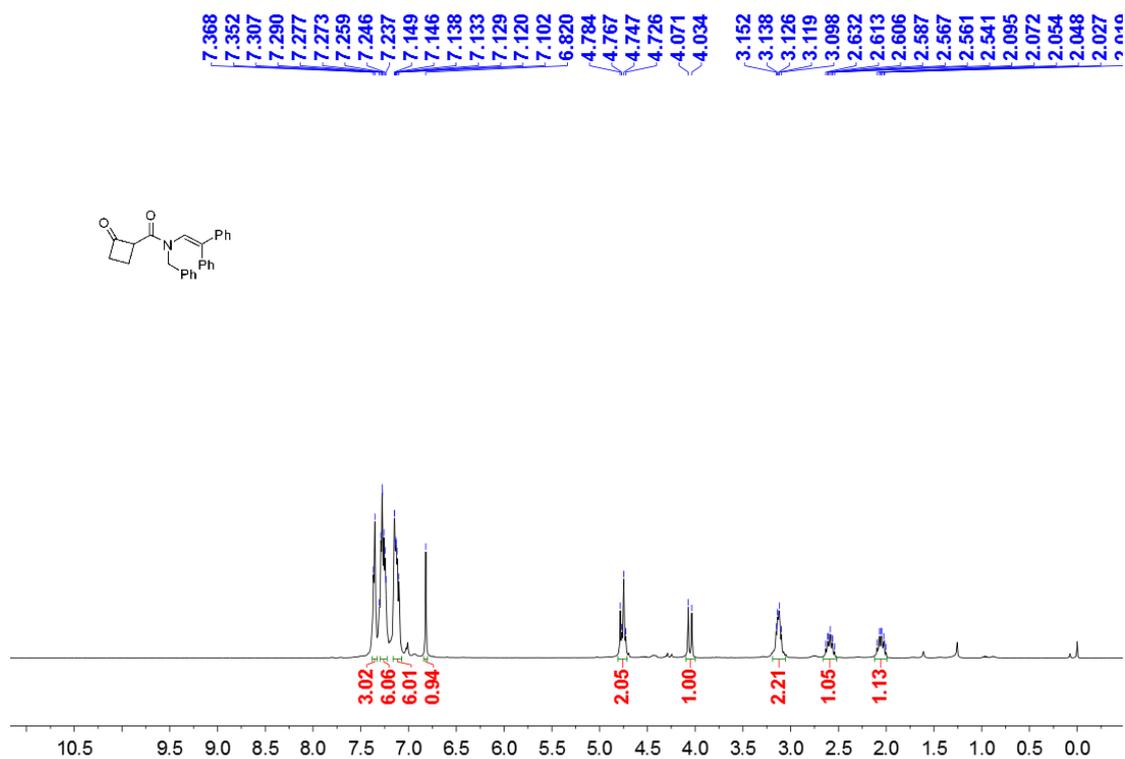
7.440
7.436
7.419
7.400
7.391
7.387
7.384
7.376
7.326
7.319
7.313
7.298
7.293
7.282
7.279
7.270
7.264
7.250
7.237
7.232
7.088
7.085
7.075
7.071
7.061
7.057
7.051
6.884
6.858
4.786
4.758
4.749
4.721
4.306
4.269
4.263
4.243
4.233
4.213
4.190
4.153
2.654
2.634
2.490
2.460
2.402
2.388
2.357
2.332



213.78
212.98
170.52
170.41
143.92
141.52
139.10
138.61
130.61
130.49
129.68
129.61
129.49
129.45
129.30
129.23
129.19
129.08
128.98
128.86
128.02
127.81
127.74
127.49
55.94
52.71
50.13
49.76
46.45
46.23
40.95
40.48
35.99
35.92

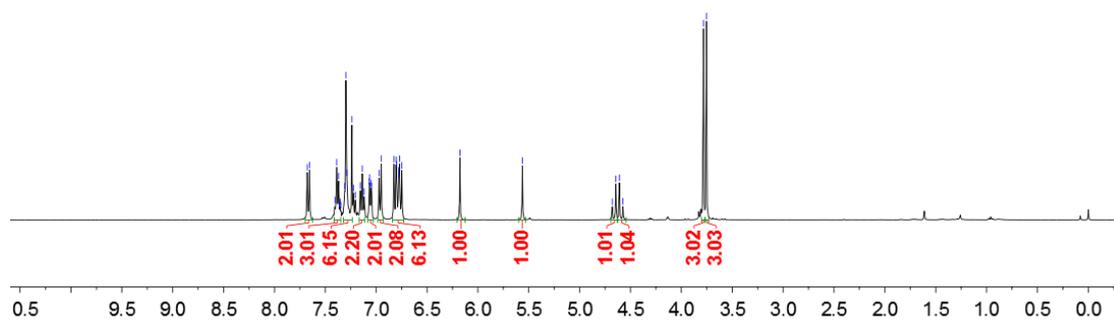
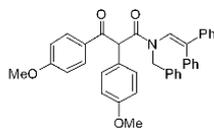


^1H and ^{13}C NMR of compound **3ka**

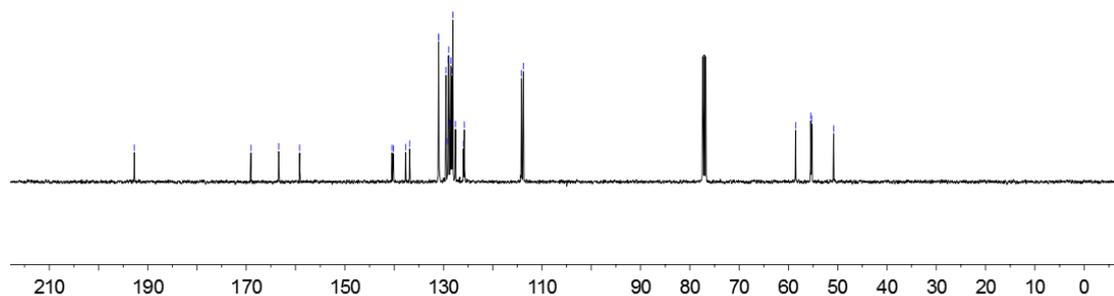
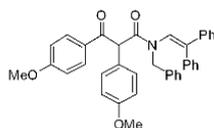


^1H and ^{13}C NMR of compound **3la**

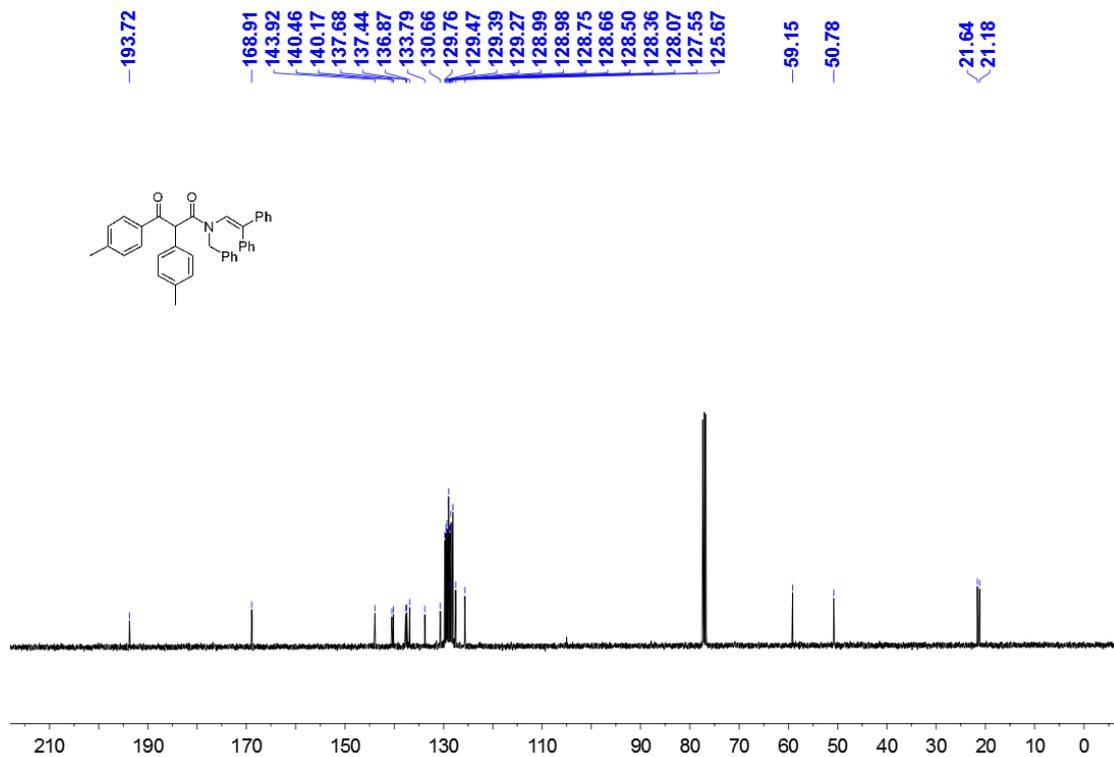
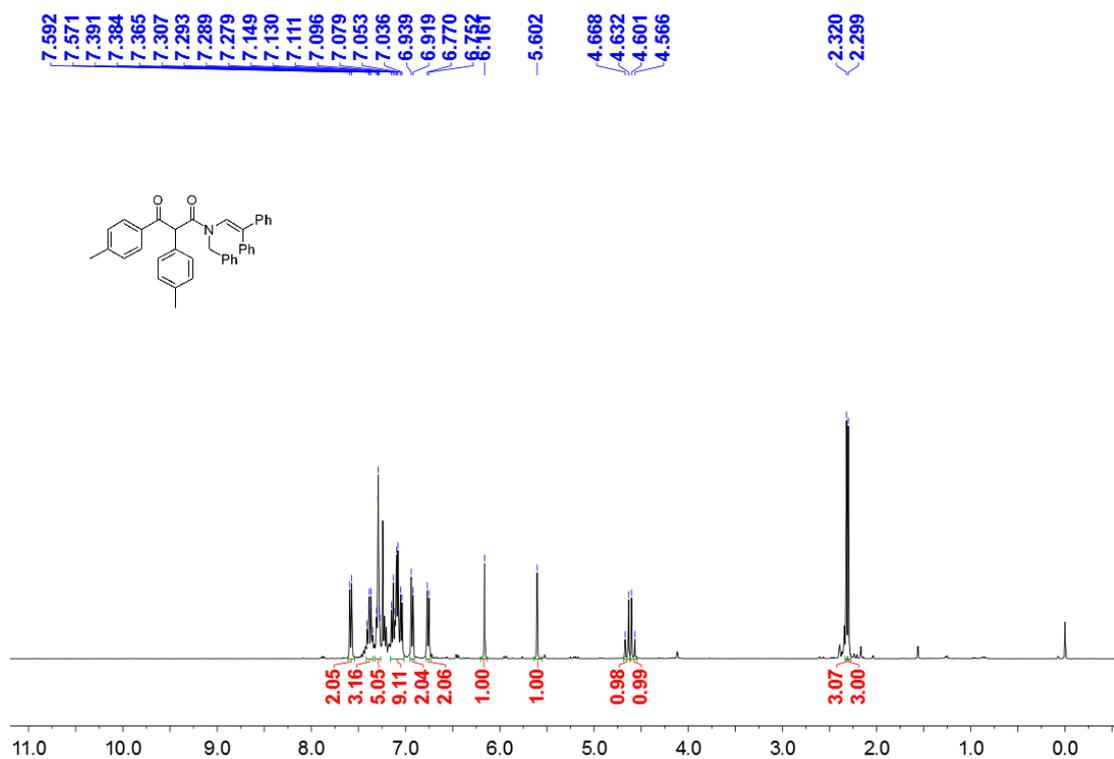
^1H NMR chemical shifts (ppm): 7.678, 7.656, 7.388, 7.369, 7.297, 7.289, 7.238, 7.136, 7.068, 7.065, 6.972, 6.950, 6.826, 6.804, 6.799, 6.780, 6.777, 6.770, 6.748, 5.562, 4.680, 4.644, 4.610, 4.574, 3.784, 3.754



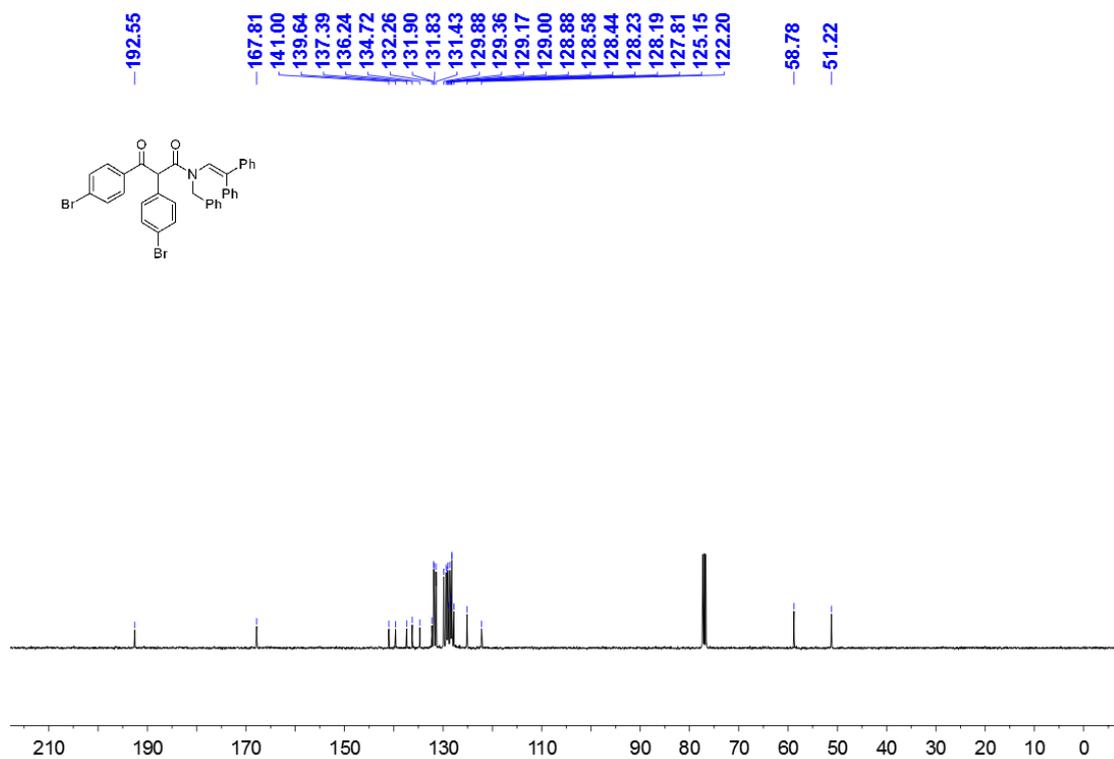
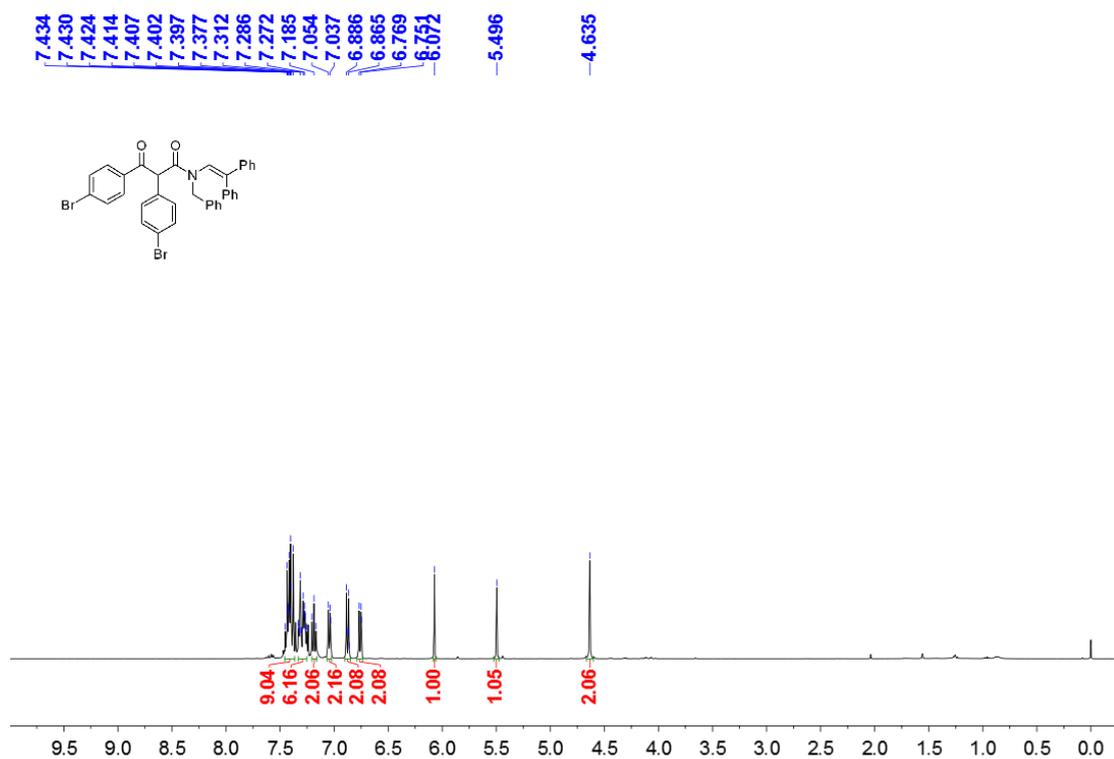
^{13}C NMR chemical shifts (ppm): 192.74, 169.06, 163.46, 159.16, 130.99, 130.97, 129.48, 129.02, 128.97, 128.52, 128.36, 128.15, 113.79, 58.55, 55.47, 55.29, 50.85



^1H and ^{13}C NMR of compound **3ma**

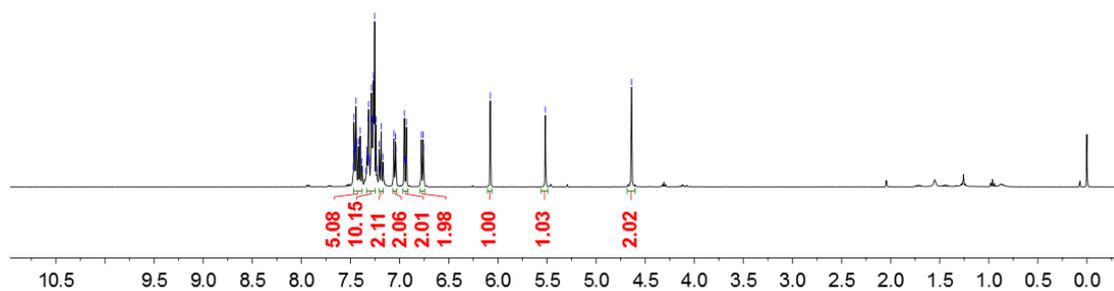
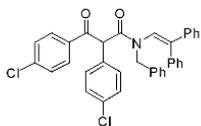


^1H and ^{13}C NMR of compound **3na**

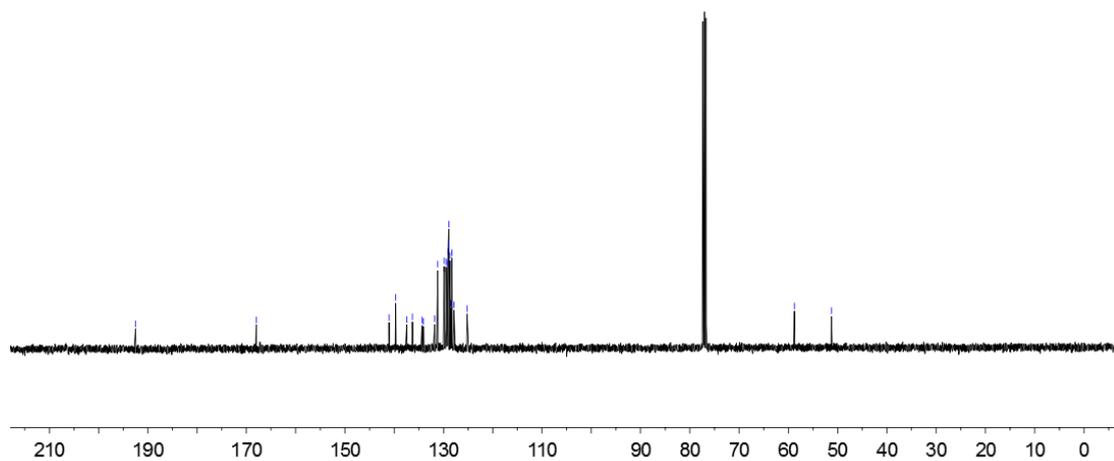
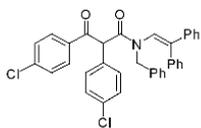


^1H and ^{13}C NMR of compound **30a**

7.466
7.445
7.420
7.401
7.320
7.317
7.287
7.282
7.276
7.271
7.266
7.261
7.255
7.240
7.188
7.188
7.058
7.041
6.952
6.931
6.777
6.759
5.516
4.638

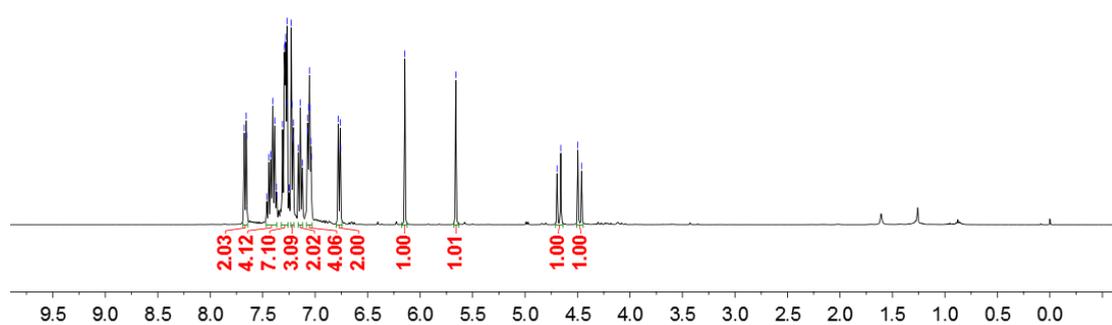
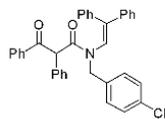


192.49
167.99
141.06
139.71
137.46
136.30
134.36
134.07
131.79
131.17
129.86
129.43
129.23
129.06
128.97
128.94
128.65
128.50
128.29
128.25
127.88
125.22
58.78
51.28

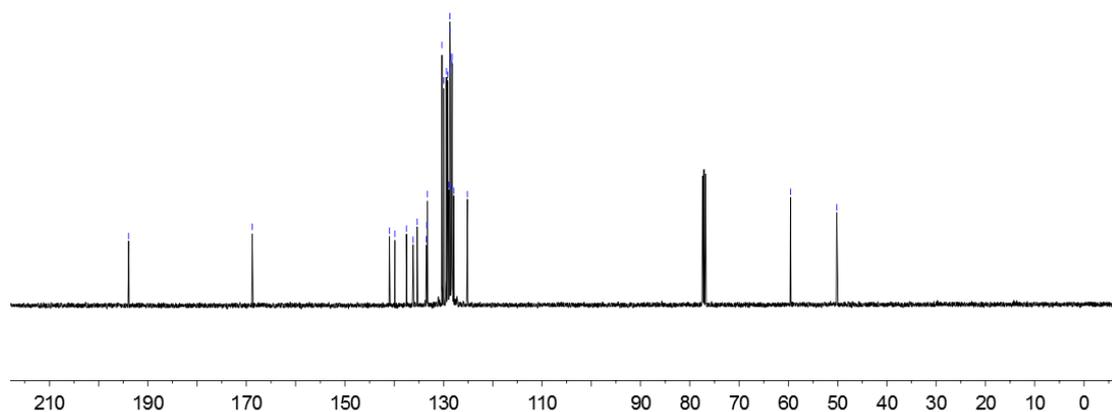
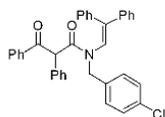


^1H and ^{13}C NMR of compound **3ab**

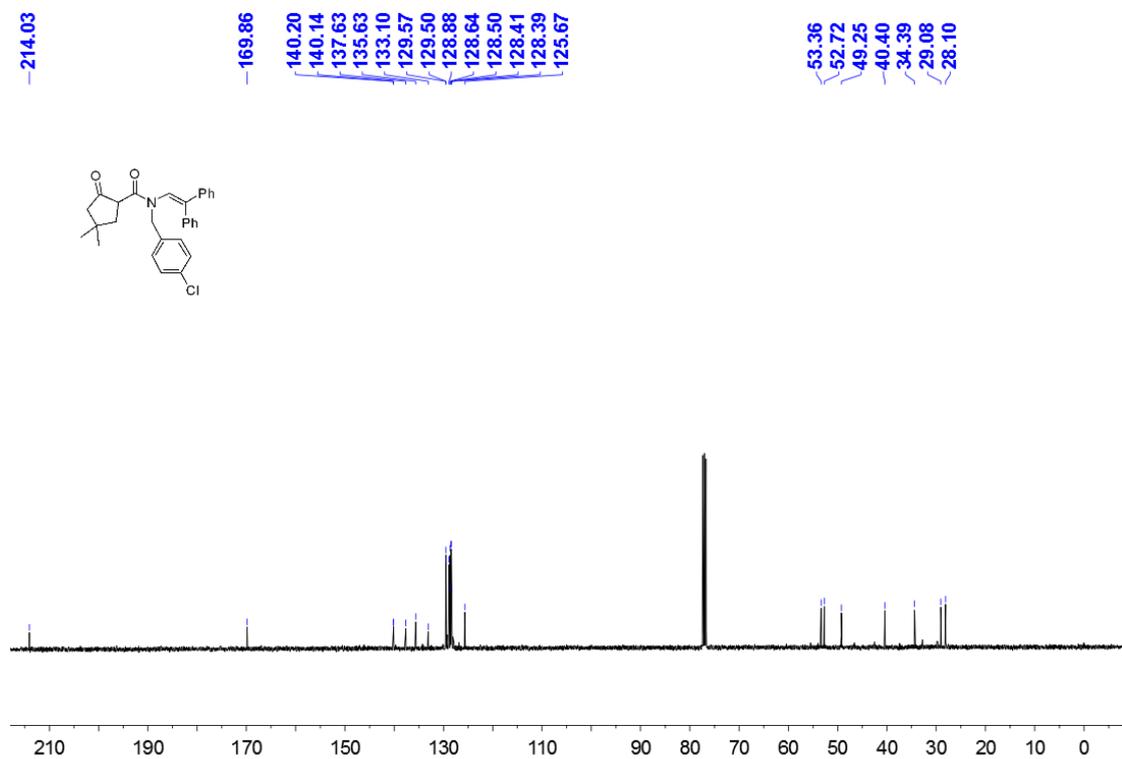
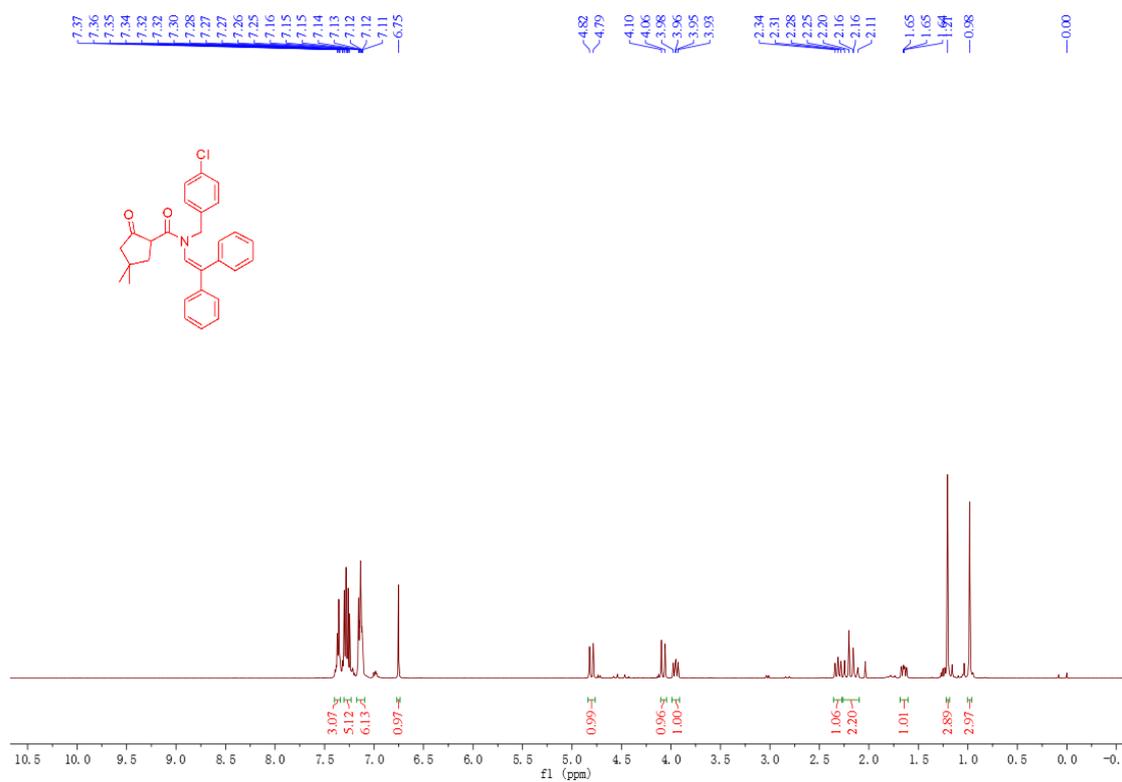
7.656
7.404
7.386
7.293
7.287
7.281
7.272
7.266
7.228
7.222
7.141
7.107
7.070
7.060
7.054
7.051
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6.765
6.763
5.660
4.696
4.660
4.497
4.461



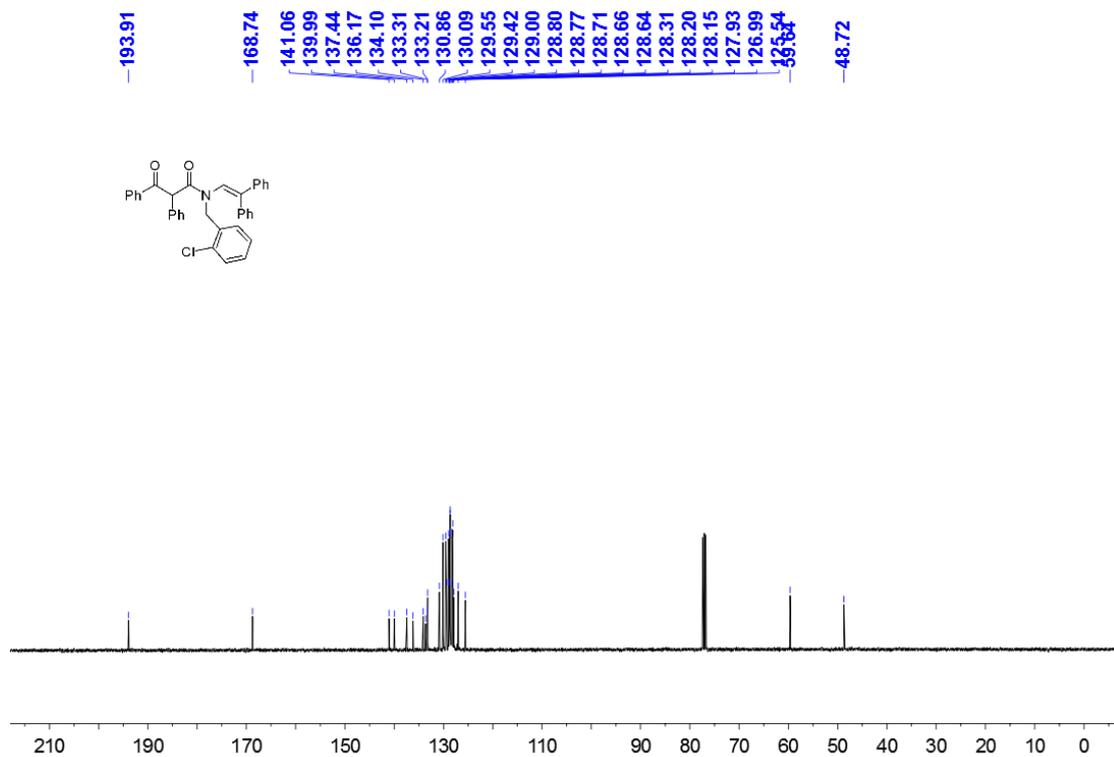
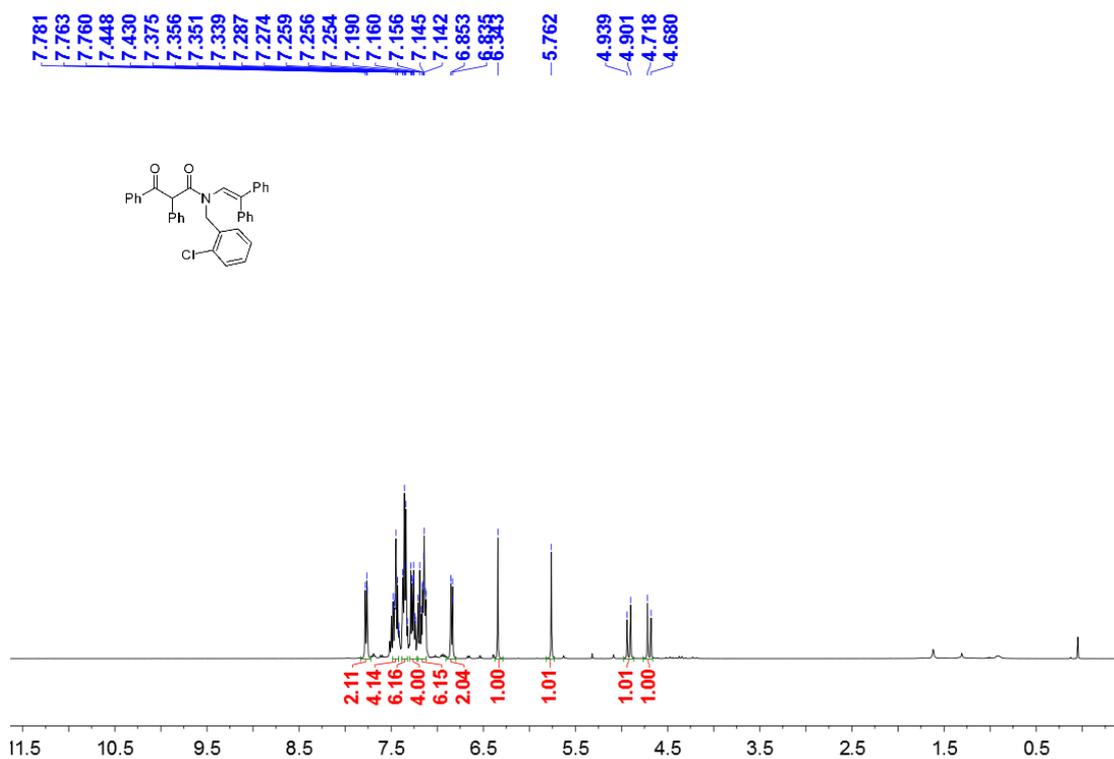
193.89
168.82
140.99
139.86
137.52
136.16
135.32
133.50
133.39
133.25
130.31
129.95
129.43
129.15
128.89
128.76
128.71
128.67
128.61
128.35
128.29
128.23
127.94
125.12
59.57
50.20



^1H and ^{13}C NMR of compound **3bb**

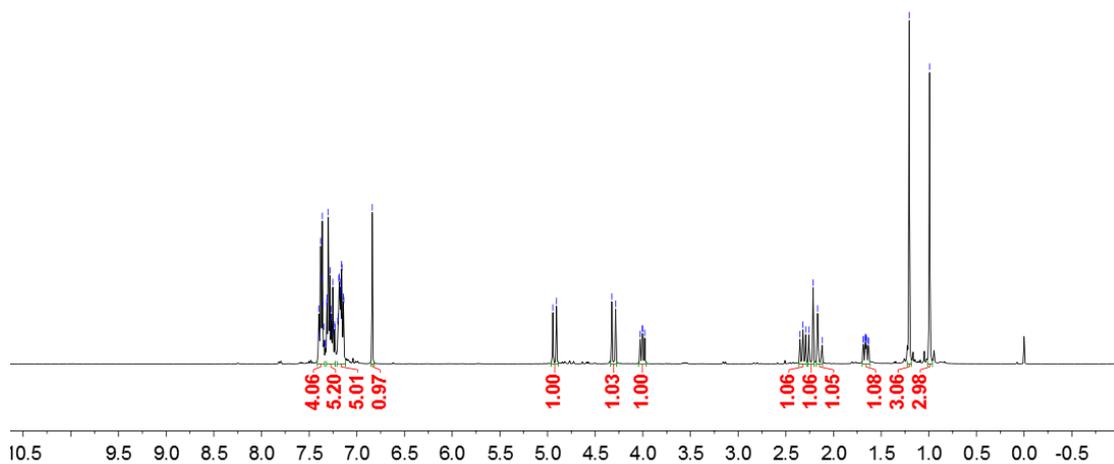
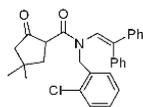


^1H and ^{13}C NMR of compound **3ac**



^1H and ^{13}C NMR of compound **3bc**

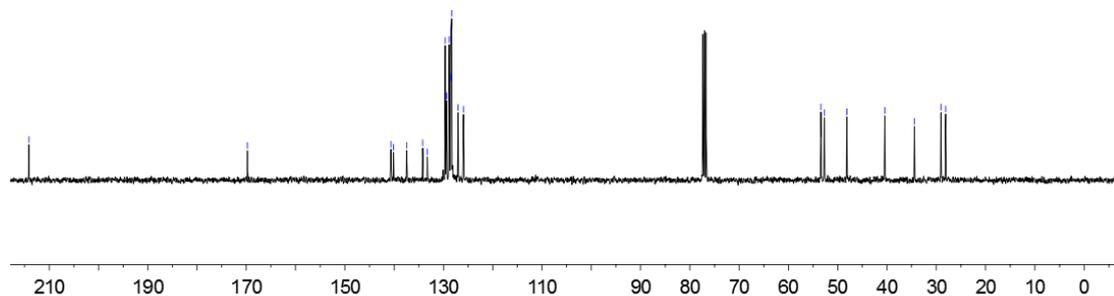
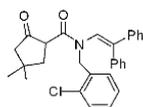
7.397
7.392
7.381
7.367
7.362
7.357
7.348
7.316
7.314
7.300
7.282
7.271
7.268
7.260
7.253
7.234
7.230
7.200
7.196
7.190
7.185
7.177
7.170
7.167
7.160
7.156
7.141
7.136
6.838
4.945
4.906
4.325
4.286
4.028
4.006
4.001
3.979
2.351
2.320
2.291
2.258
2.214
2.166
1.689
1.684
1.668
1.663
1.657
1.206
0.993



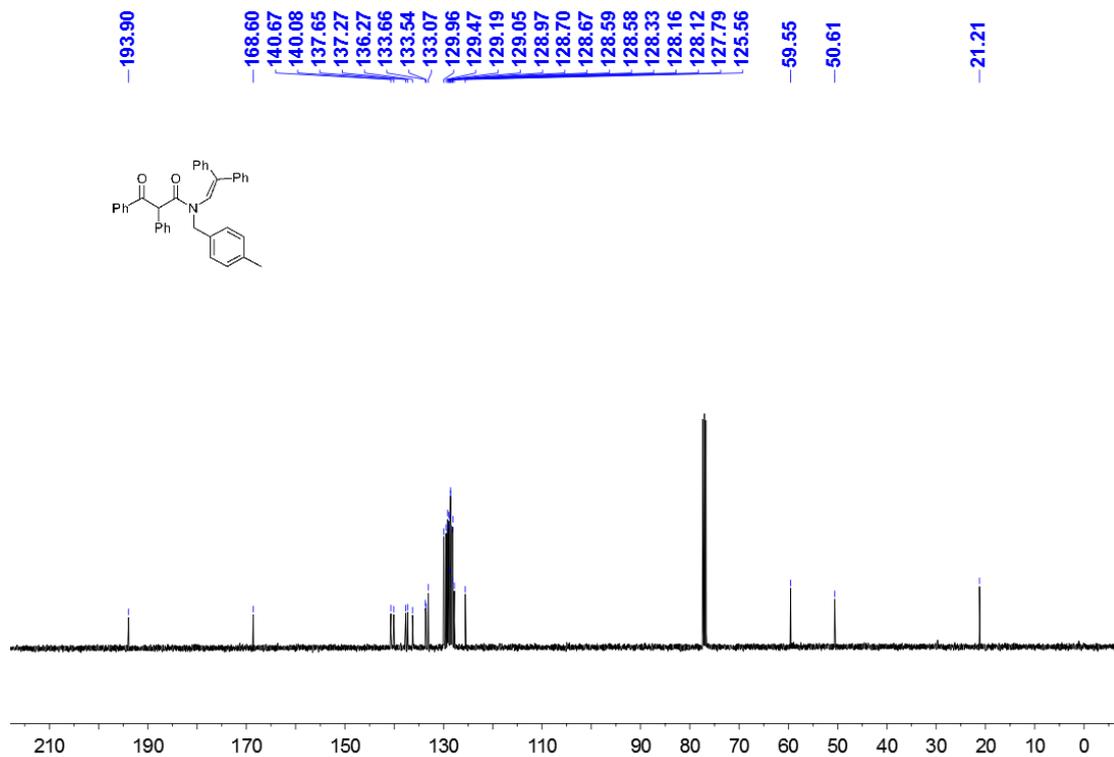
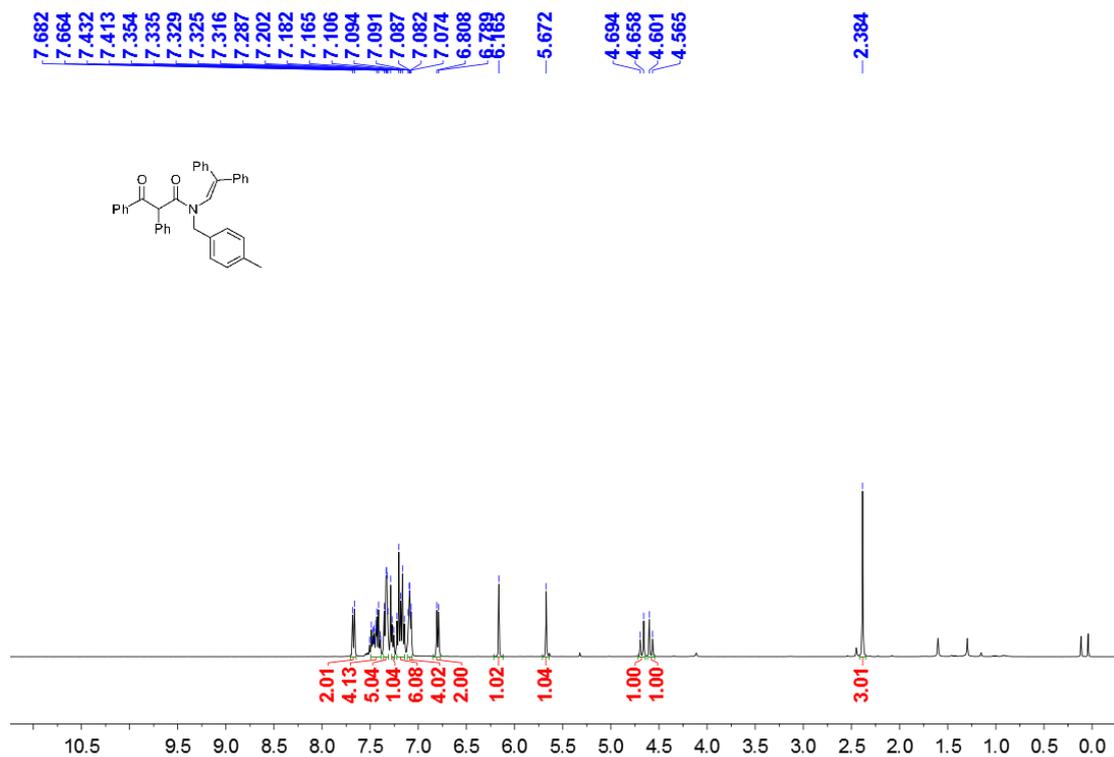
-214.13

169.76
140.66
140.12
137.48
134.21
133.28
129.66
129.43
129.39
128.82
128.53
128.47
128.44
128.35
127.01
125.92

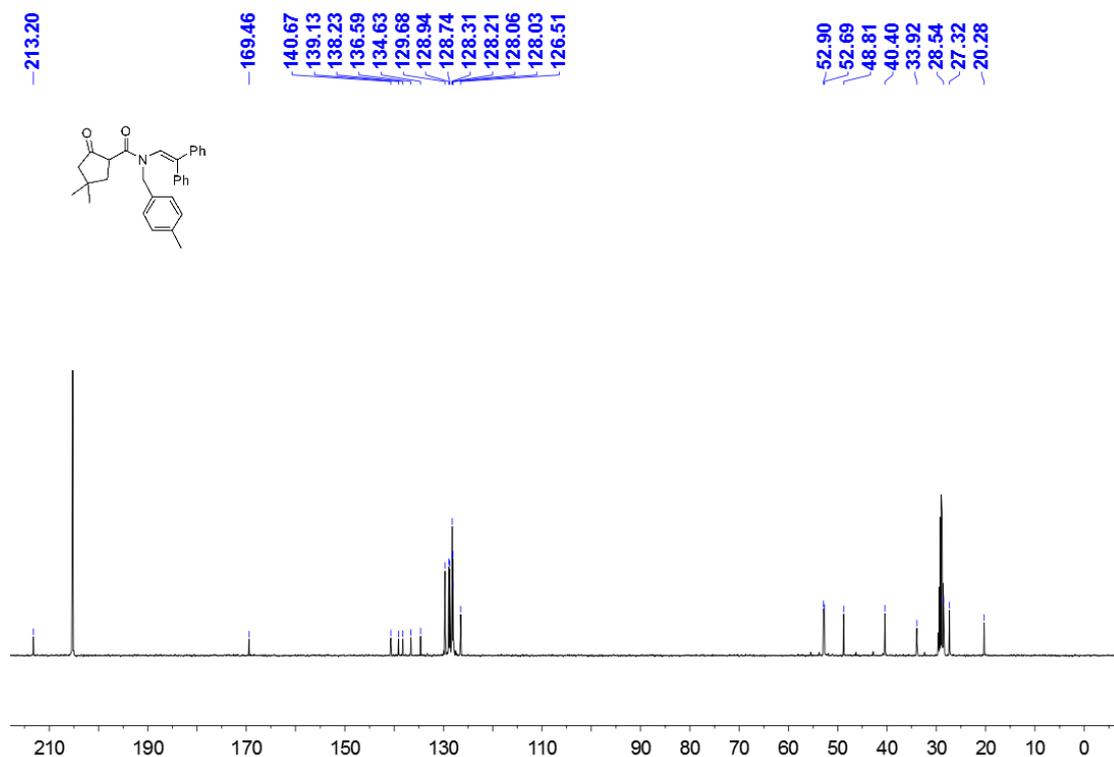
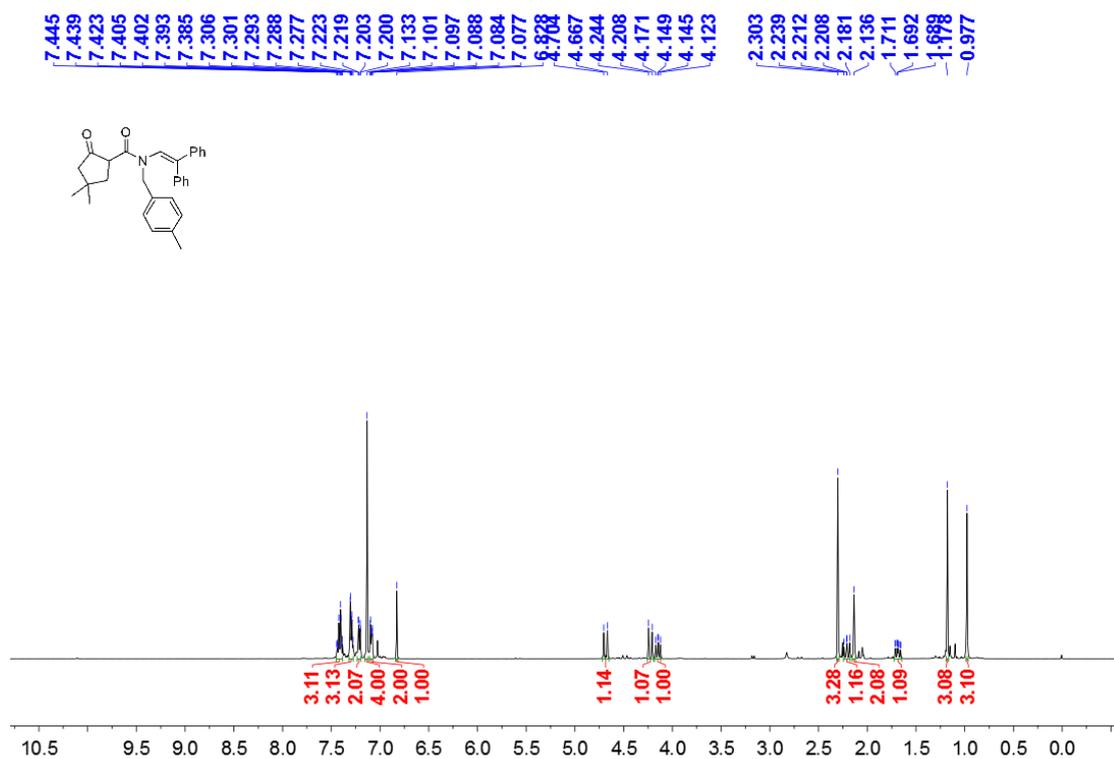
53.42
52.73
48.15
40.45
34.42
29.07
28.10



^1H and ^{13}C NMR of compound **3ad**

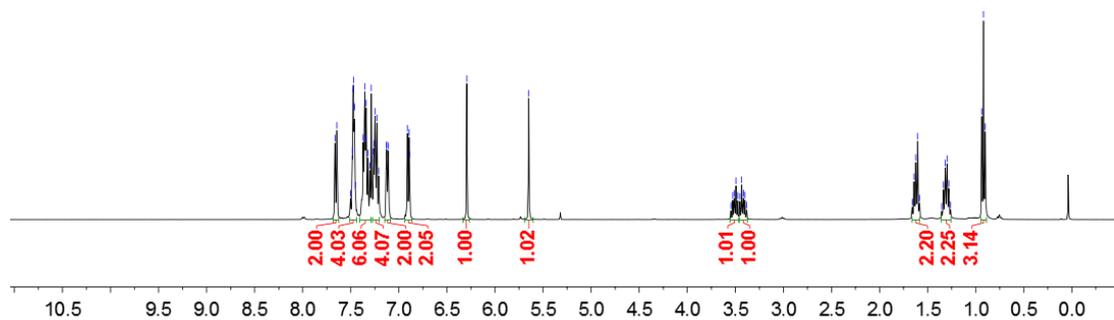
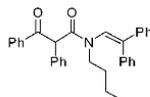


^1H and ^{13}C NMR of compound **3bd**

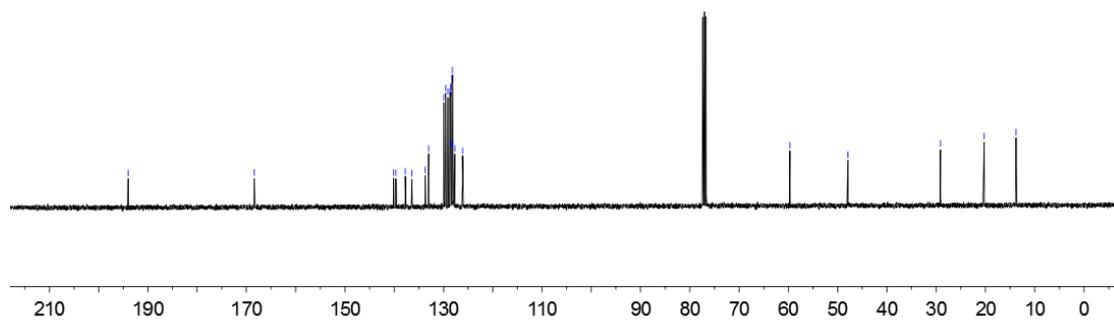
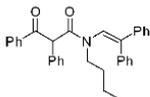


^1H and ^{13}C NMR of compound **3ae**

7.664
7.646
7.503
7.484
7.477
7.472
7.465
7.464
7.452
7.372
7.353
7.346
7.340
7.321
7.301
7.287
7.283
7.265
7.260
7.248
7.228
7.210
7.131
7.126
7.111
6.911
6.893
6.889
6.293
5.649
3.527
3.513
3.494
3.475
3.453
3.434
3.416
3.401
1.660
1.642
1.623
1.603
1.585
1.336
1.317
1.298
1.280
0.937
0.919
0.900

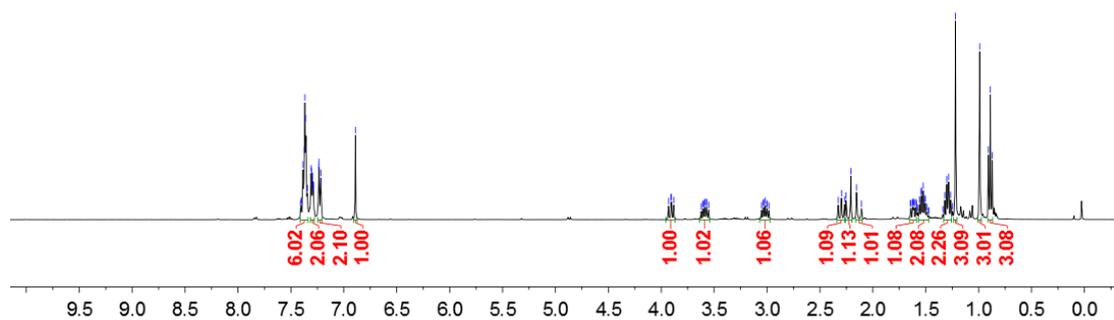
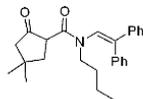


194.01
168.38
140.11
139.66
137.75
136.40
133.69
133.00
129.91
129.54
129.08
128.69
128.62
128.58
128.50
128.21
128.20
128.15
127.74
126.11
59.67
47.91
29.13
20.26
13.77



^1H and ^{13}C NMR of compound **3be**

7.402
7.385
7.374
7.367
7.359
7.343
7.309
7.303
7.297
7.294
7.290
7.286
7.238
7.234
7.218
7.215
6.890
3.931
3.909
3.905
3.883
3.588
3.572
3.569
3.032
3.017
2.327
2.296
2.268
2.252
2.208
2.153
1.620
1.614
1.593
1.560
1.544
1.541
1.525
1.508
1.505
1.321
1.302
1.284
1.265
1.219
0.990
0.908
0.890
0.871

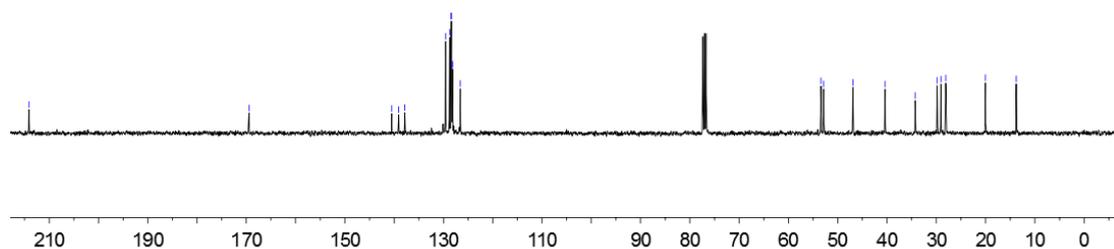
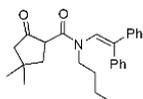


-214.12

-169.45

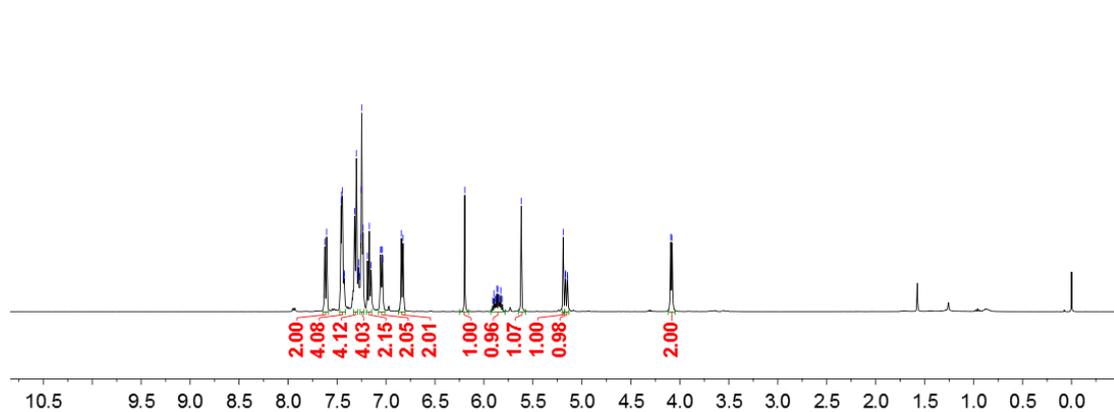
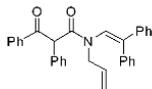
140.49
139.07
137.84
129.59
128.75
128.44
128.41
128.21
128.19
126.57

53.41
52.85
46.91
40.39
34.28
29.83
29.07
28.08
20.03
13.77

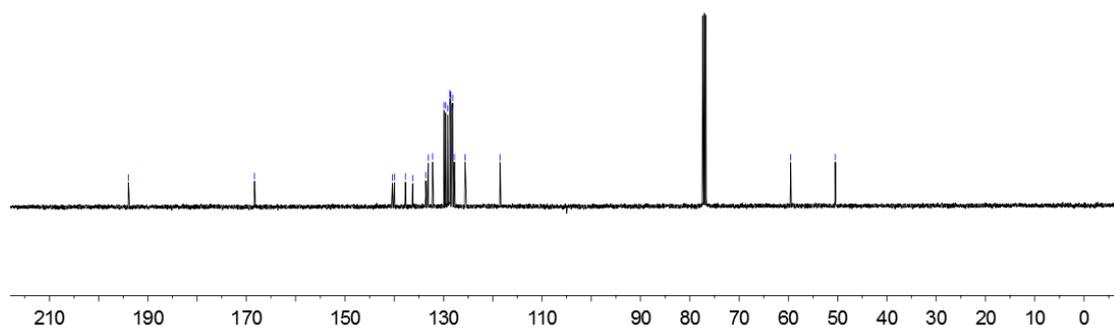
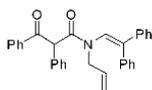


^1H and ^{13}C NMR of compound **3af**

7.625
7.607
7.458
7.452
7.444
7.320
7.303
7.258
7.252
7.248
7.234
7.190
7.170
7.056
7.051
7.036
7.033
6.844
6.826
6.196
5.870
5.855
5.619
5.191
5.167
5.165
5.148
5.055
4.079

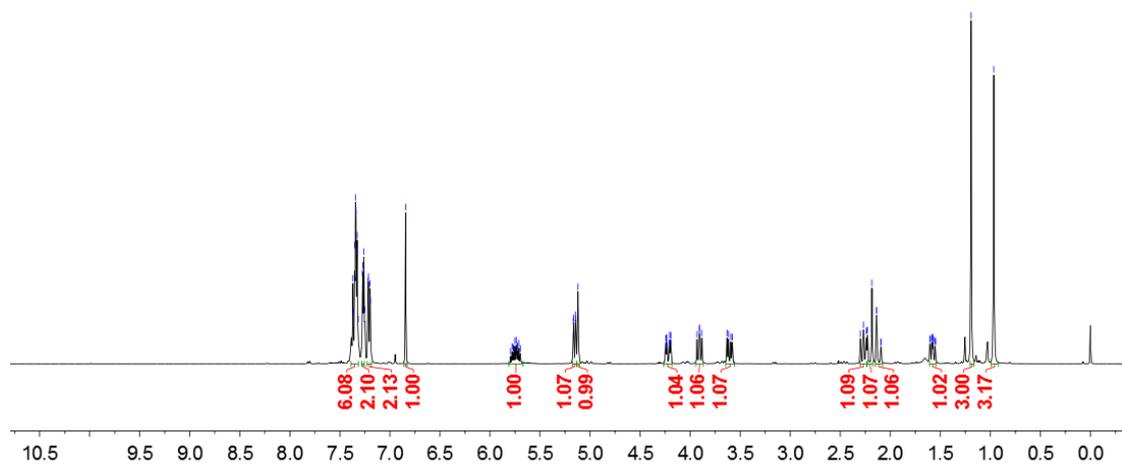
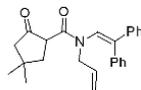


193.94
168.33
140.36
139.95
137.73
136.25
133.60
133.10
132.19
129.88
129.59
129.14
128.72
128.60
128.57
128.30
128.21
128.16
127.79
125.61
118.51
59.52
50.49



¹H and ¹³C NMR of compound **3bf**

7.370 7.366 7.351 7.344 7.339 7.330 7.327 7.317 7.275 7.271 7.260 7.251 7.218 7.214 7.198 7.195 6.843 5.738 5.168 5.164 5.146 5.143 5.121 4.245 4.232 4.207 4.193 3.932 3.909 3.904 3.883 3.632 3.617 3.594 3.579 2.297 2.266 2.238 2.228 2.183 2.139 2.136 1.605 1.600 1.584 1.579 1.573 1.568 1.192 0.966

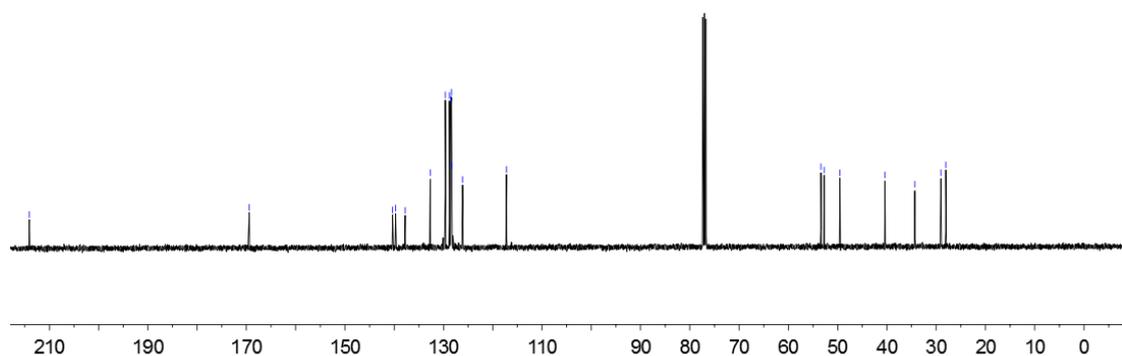
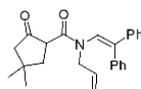


214.04

169.41

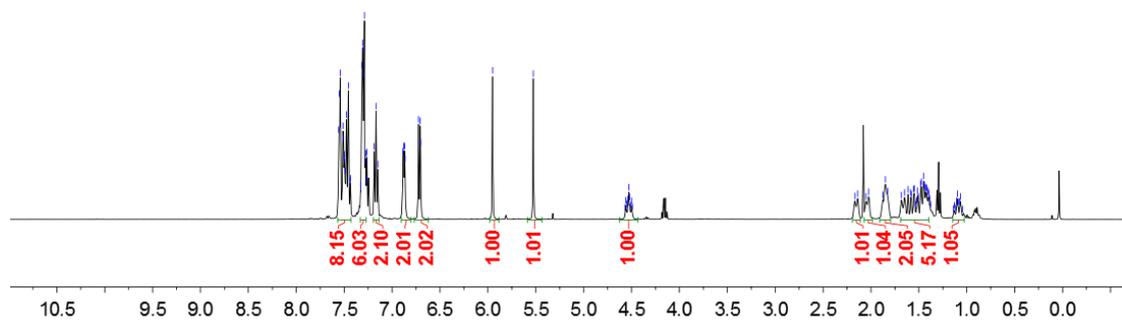
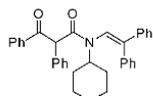
140.33 139.73 137.76 132.69 129.65 128.81 128.54 128.39 128.32 128.28 126.12 117.21

53.40 52.75 49.54 40.39 34.32 29.06 28.06

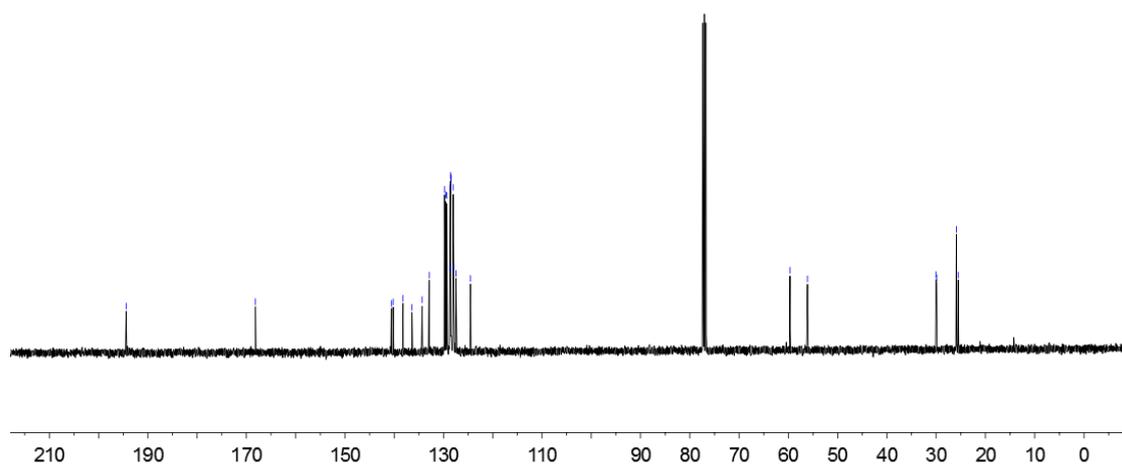
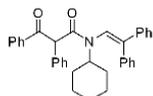


^1H and ^{13}C NMR of compound **3ag**

7.558
7.550
7.542
7.512
7.506
7.501
7.497
7.488
7.476
7.456
7.437
7.435
7.329
7.314
7.308
7.302
7.295
7.288
7.281
7.275
7.268
7.263
7.187
7.167
7.149
6.887
6.877
6.868
6.864
6.724
6.705
6.702
5.952
5.526
4.529
2.023
1.851
1.827
1.614
1.555
1.546
1.513
1.481
1.475
1.451
1.443
1.433
1.426
1.418
1.410

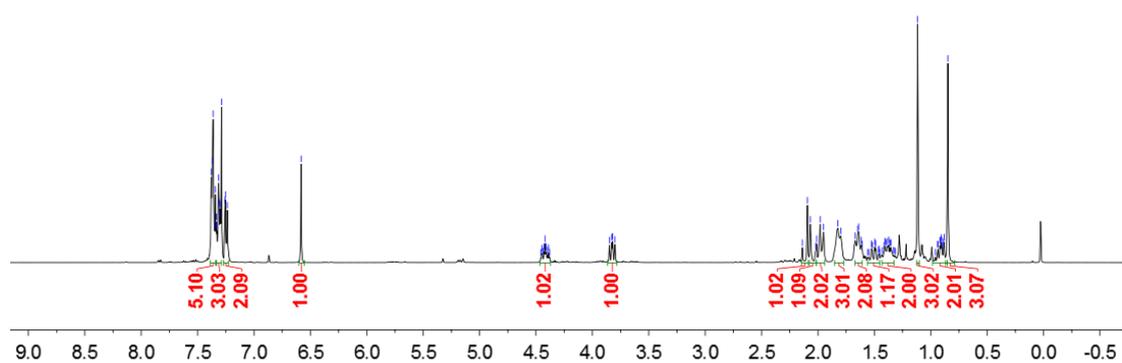
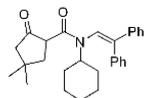


194.40
168.16
140.59
140.22
138.21
136.39
134.33
132.92
129.82
129.58
129.32
128.75
128.63
128.58
128.49
128.44
128.02
127.93
127.48
124.50
59.66
56.12
30.02
29.92
25.91
25.53

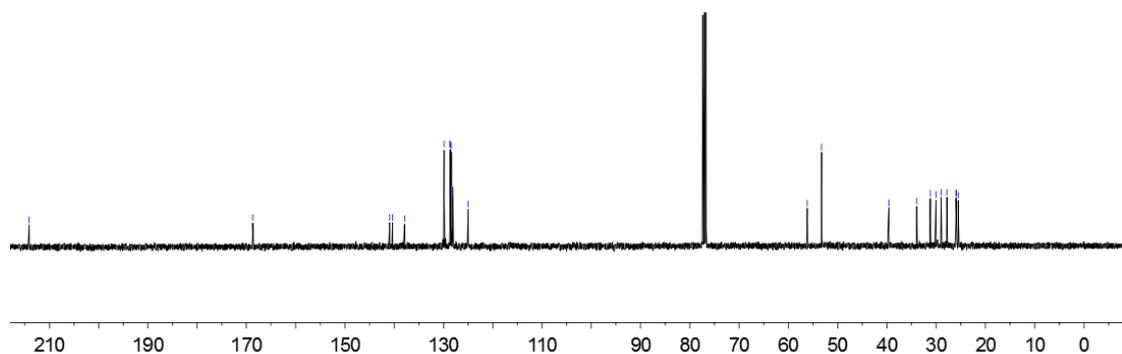
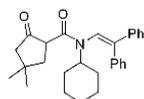


^1H and ^{13}C NMR of compound **3bg**

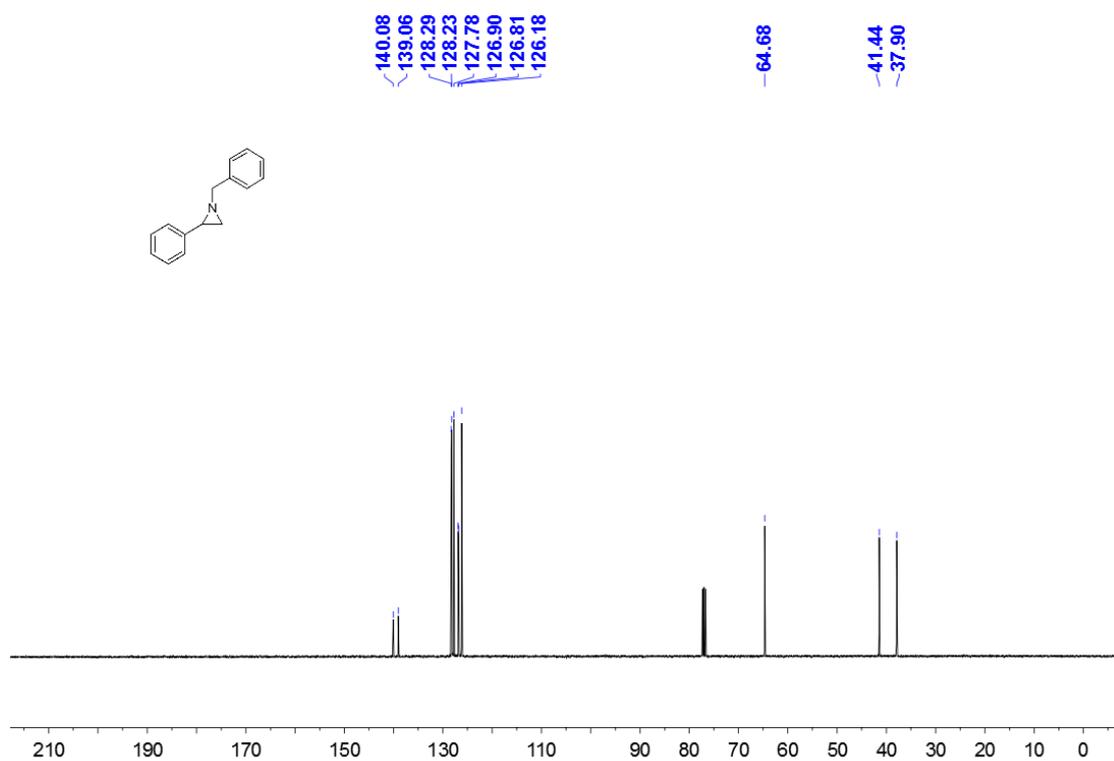
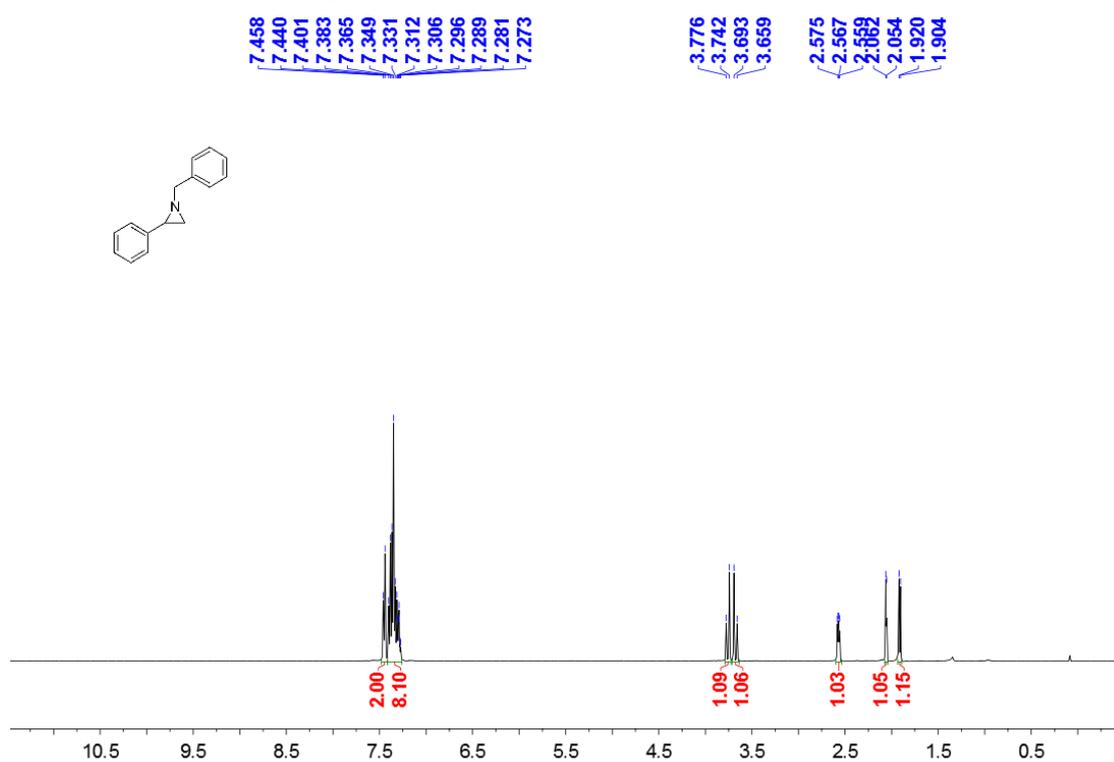
7.379
7.371
7.363
7.344
7.338
7.333
7.329
7.316
7.309
7.304
7.300
7.288
7.257
7.253
7.237
6.582
4.419
3.849
3.828
3.821
3.800
2.138
2.093
2.067
2.011
1.981
1.951
1.824
1.798
1.669
1.647
1.639
1.618
1.527
1.496
1.488
1.406
1.397
1.386
1.374
1.364
1.354
1.116
0.919
0.914
0.909
0.903
0.887
0.882
0.849



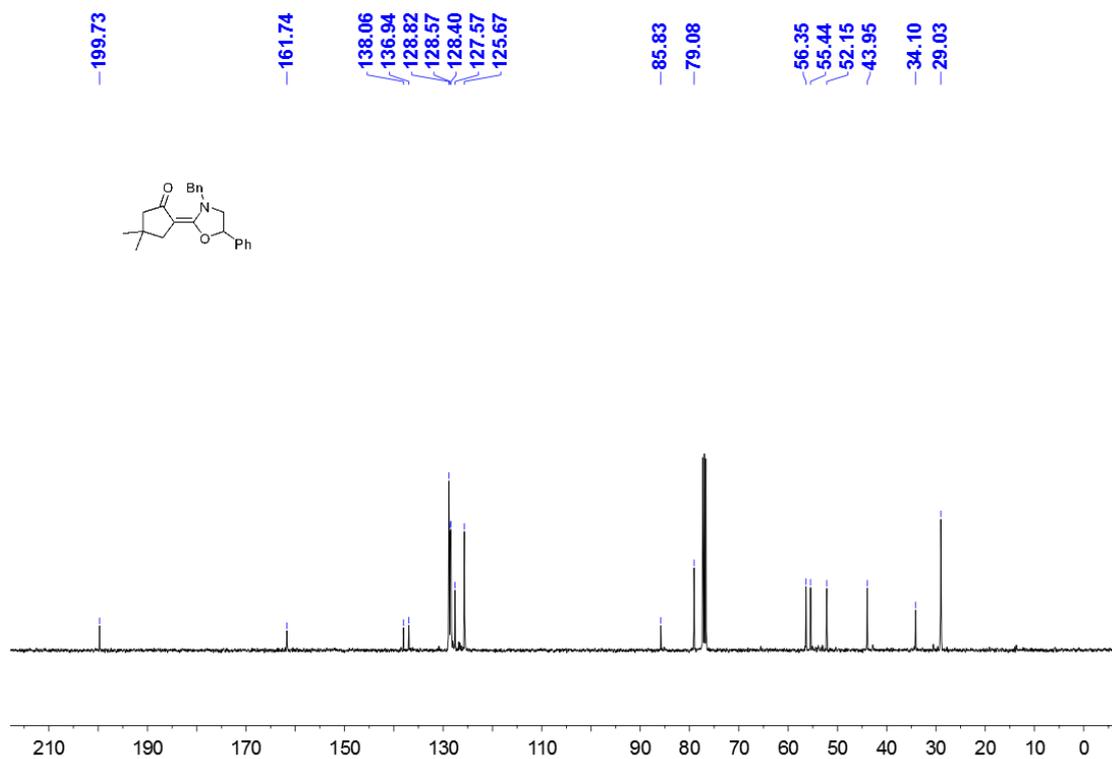
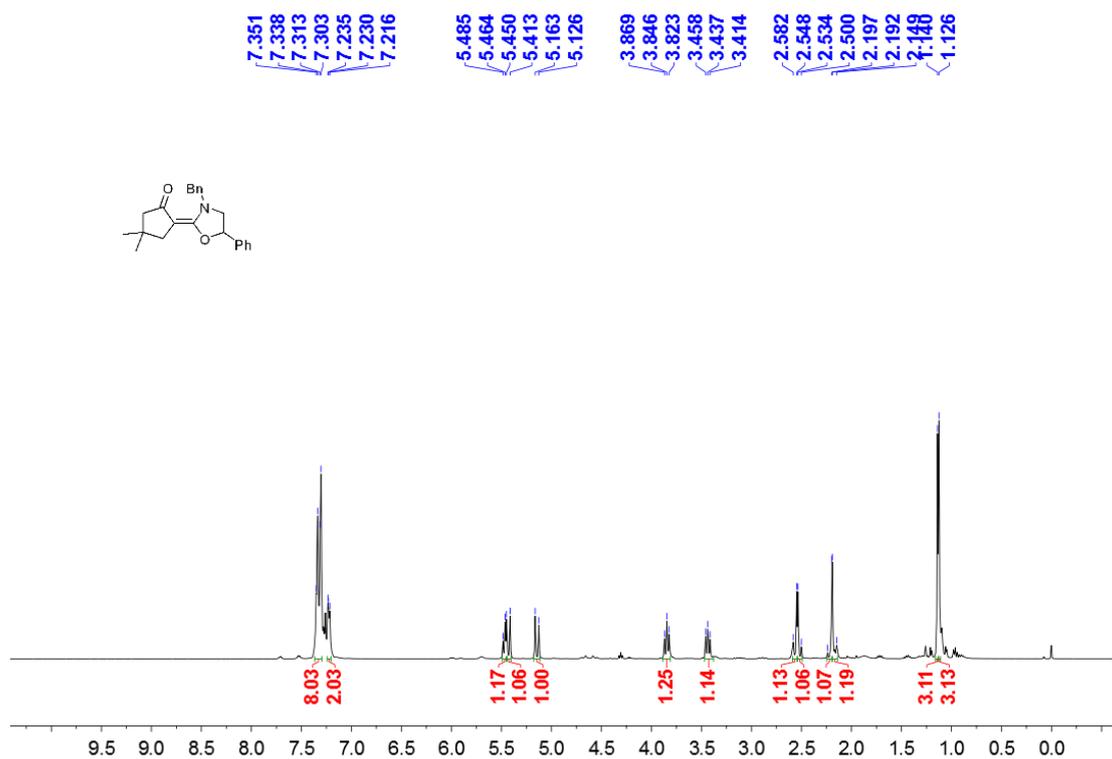
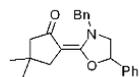
214.09
168.71
140.92
140.35
137.91
129.87
128.69
128.62
128.42
128.12
128.10
124.99
56.15
53.24
39.62
33.93
31.19
30.05
29.00
27.83
25.99
25.86
25.53



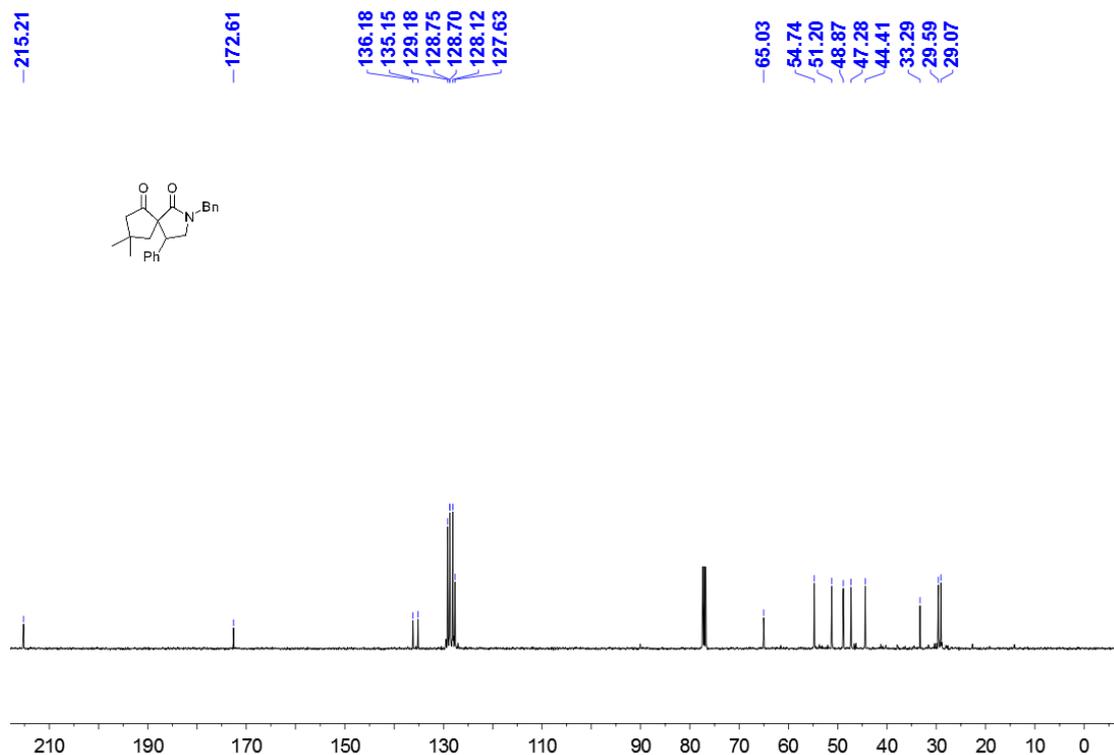
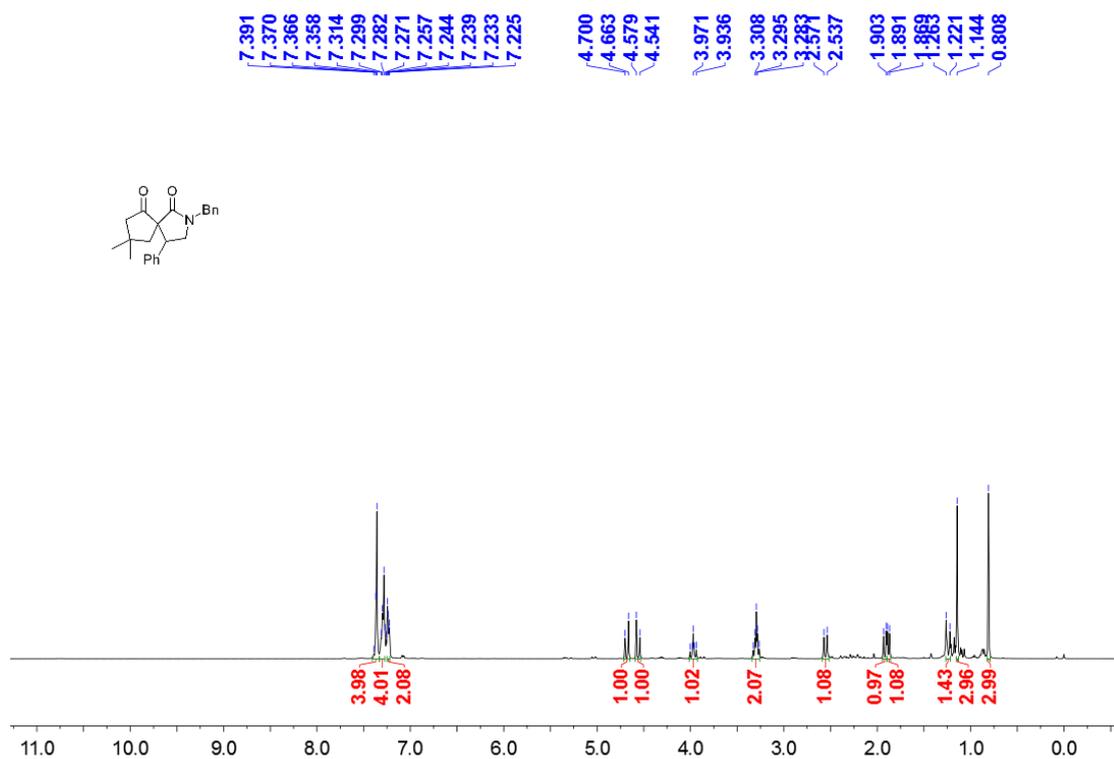
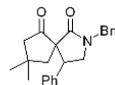
^1H and ^{13}C NMR of compound **5**



^1H and ^{13}C NMR of compound 6



^1H and ^{13}C NMR of compound 7



^1H and ^{13}C NMR of compound **8**

