

Inhibitors of the detoxifying enzyme of the phytoalexin brassinin based on quinoline and isoquinoline scaffolds

M. Soledade C. Pedras*, Abbas Abdoli and Vijay K. Sarma-Mamillapalle

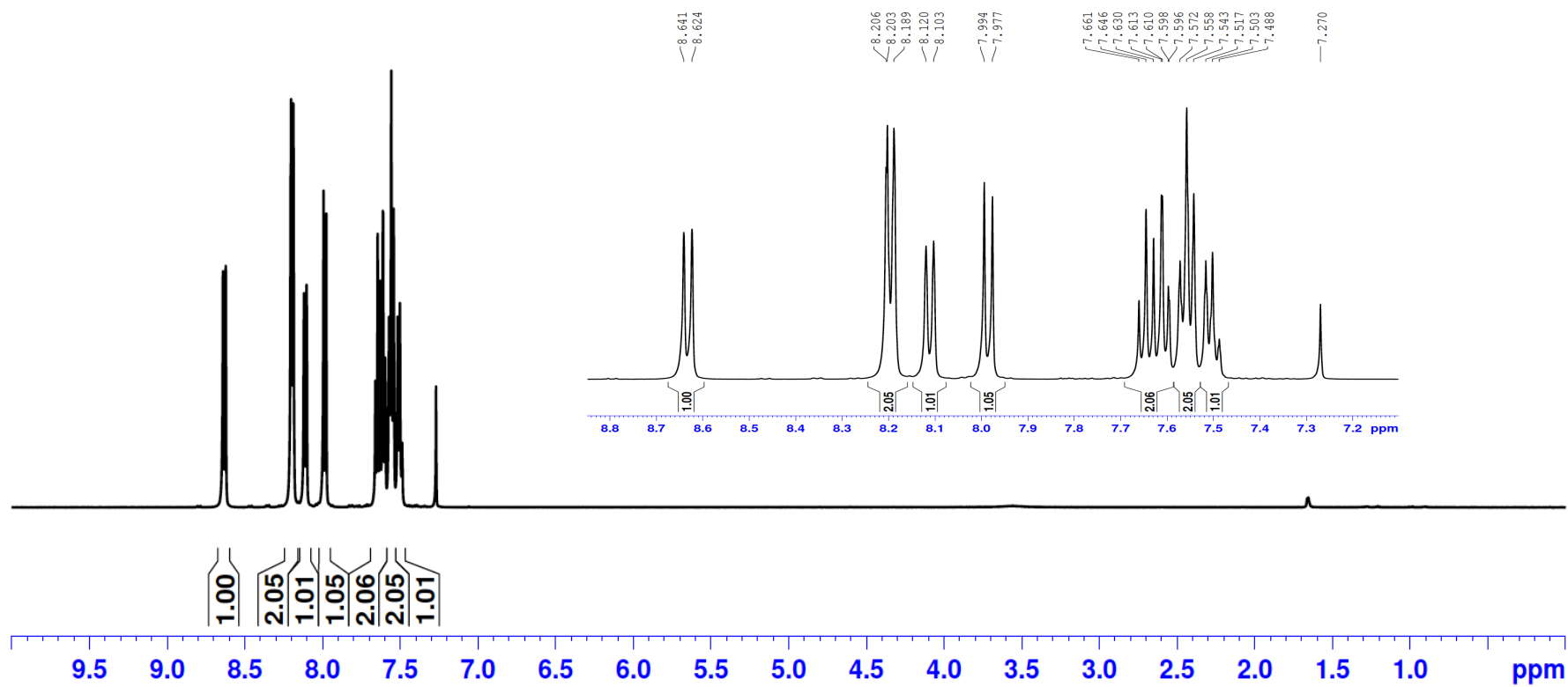
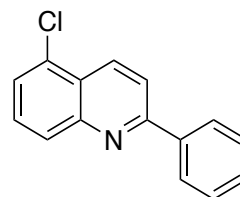
Department of chemistry, University of Saskatchewan, 110 Science place, Saskatoon, SK, S7N5C9
Canada

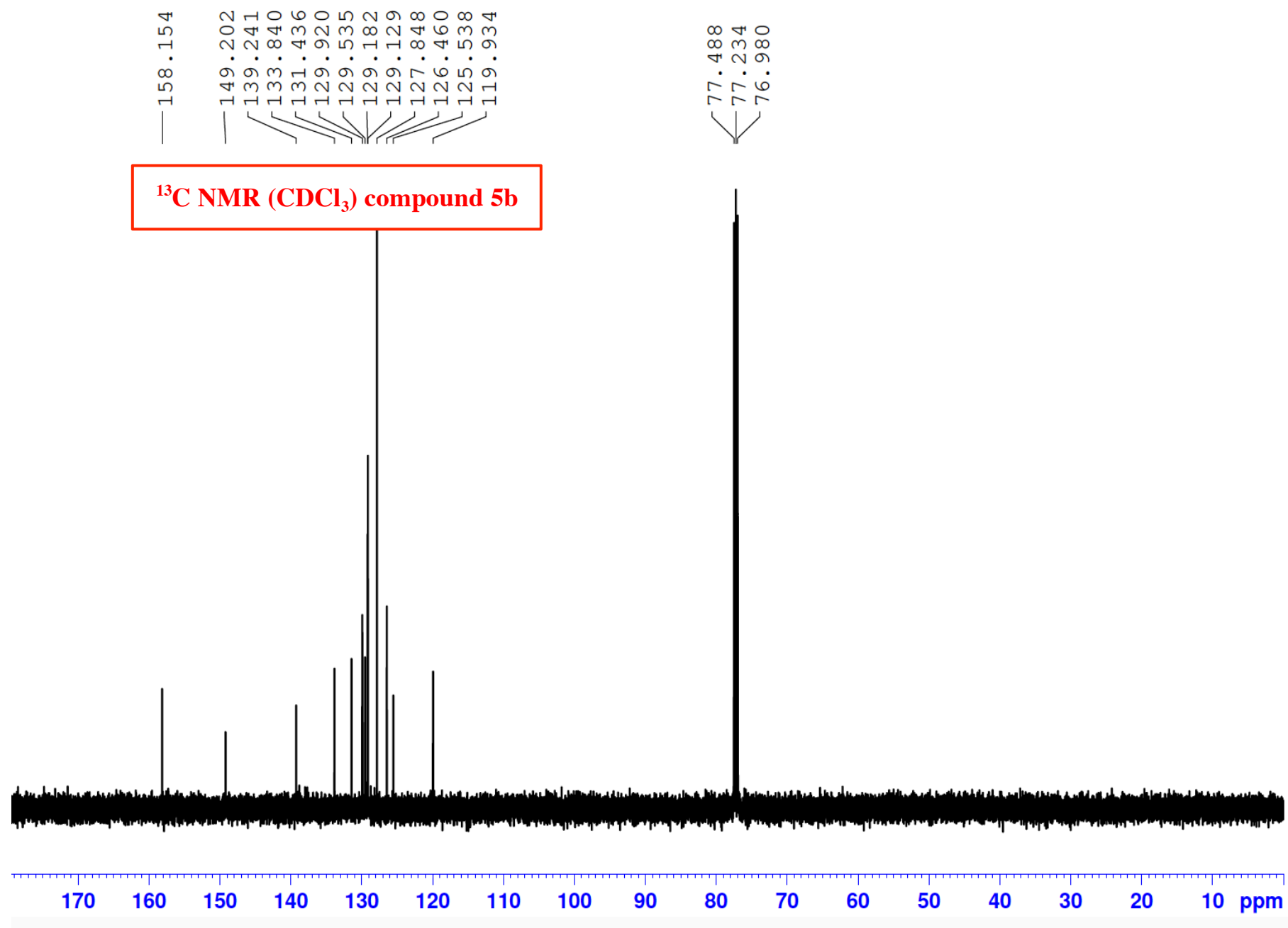
s.pedras@usask.ca

**^1H and ^{13}C NMR of new compounds 5b, 6b, 6e, 7c, 7d, 7e, 7g, 9b,
9c and 10b.**

8.641
8.624
8.206
8.203
8.189
8.120
8.103
7.994
7.977
7.661
7.646
7.630
7.613
7.610
7.598
7.596
7.572
7.558
7.543
7.517
7.503
7.488
7.270

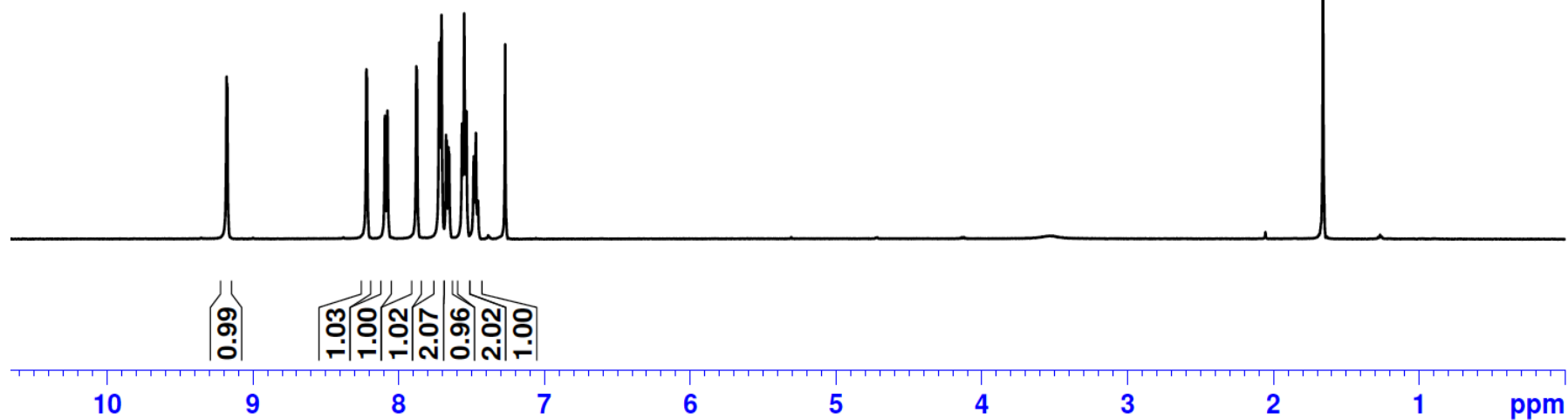
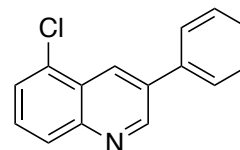
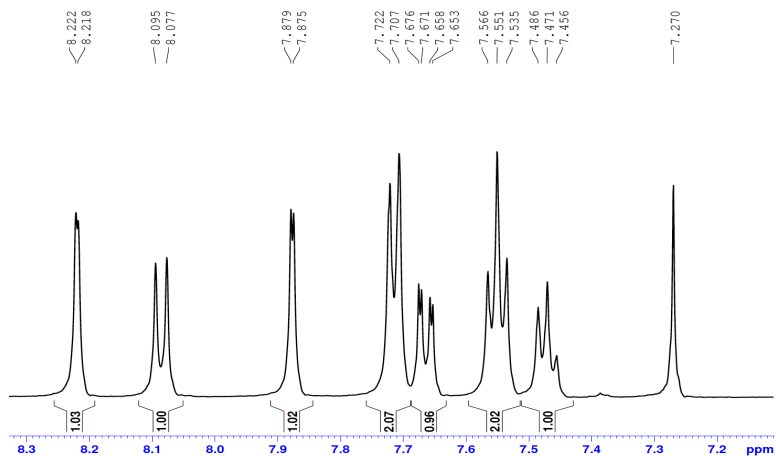
^1H NMR (CDCl_3) compound 5b





9.181
9.177
8.222
8.218
8.095
8.077
7.879
7.875
7.722
7.707
7.676
7.671
7.658
7.653
7.566
7.551
7.535
7.486
7.471
7.456

^1H NMR (CDCl_3) compound 6b

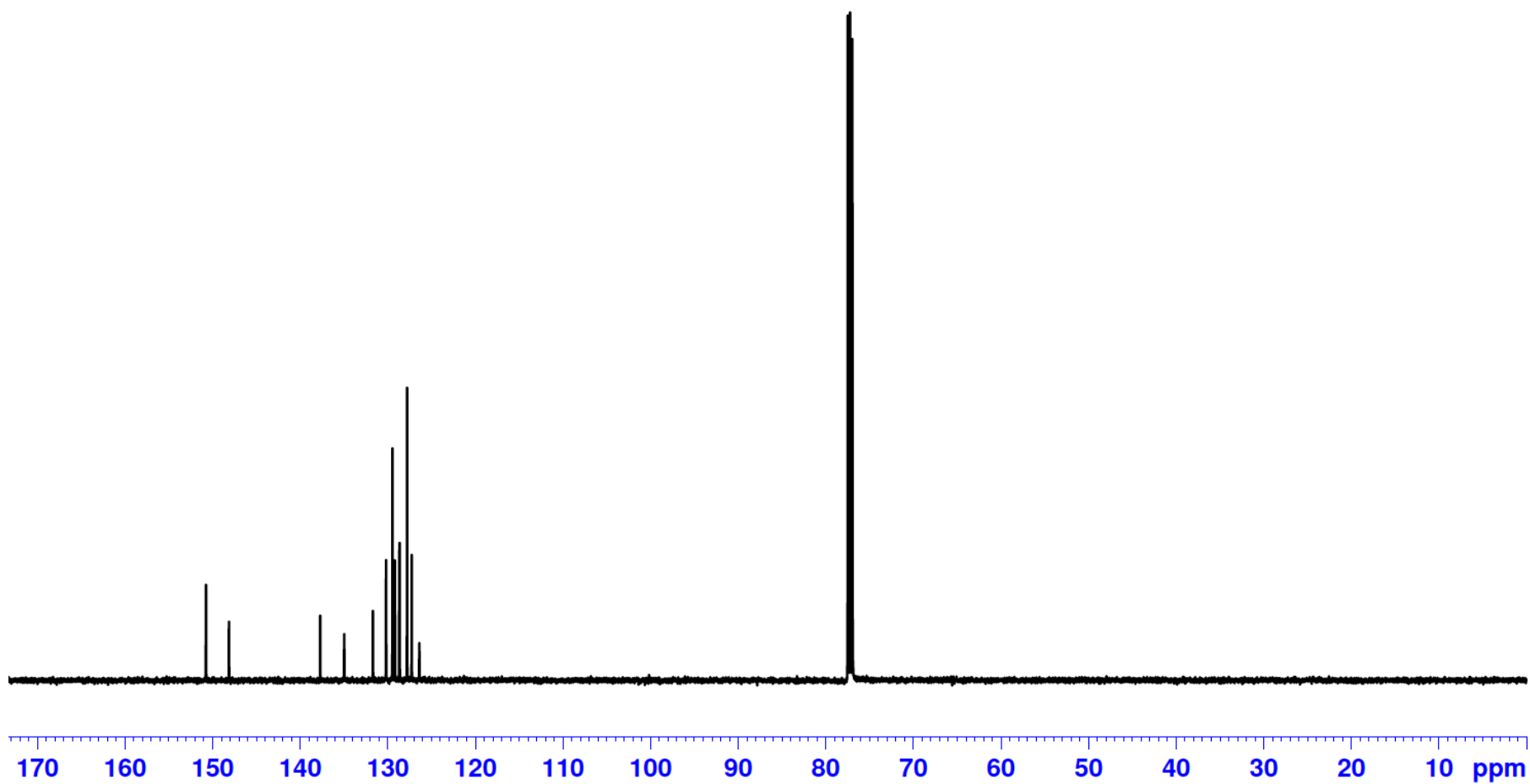


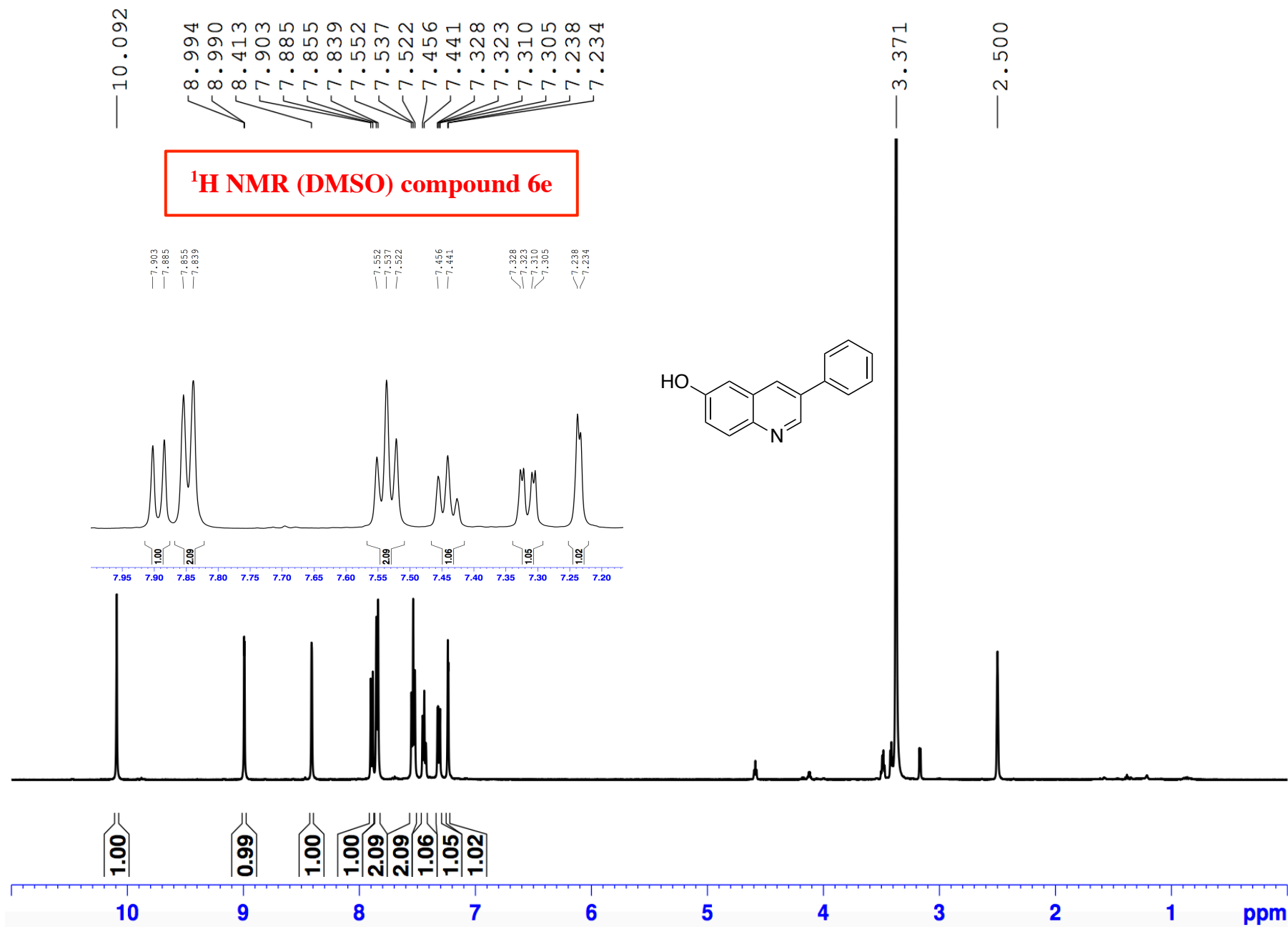
—1.661

150.757
148.126
137.709
134.969
131.697
130.190
129.472
129.190
128.689
128.645
127.800
127.270
126.400

77.481
77.227
76.973

^{13}C NMR (CDCl₃) compound 6b

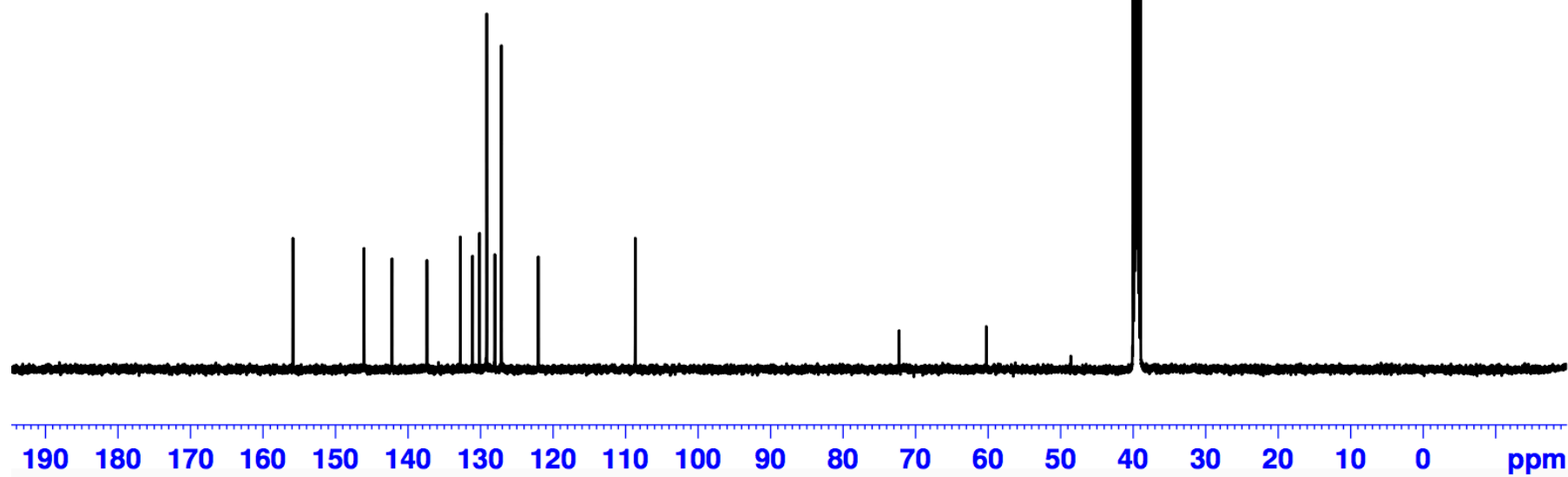




155.882
146.071
142.211
137.392
132.797
131.110
130.145
129.154
128.040
127.122
122.036
108.667

40.102
40.008
39.933
39.842
39.766
39.675
39.508
39.341
39.174
39.007

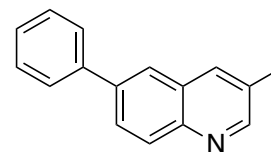
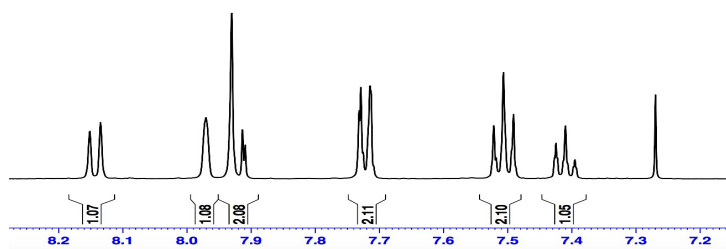
^{13}C NMR (DMSO) compound 6e



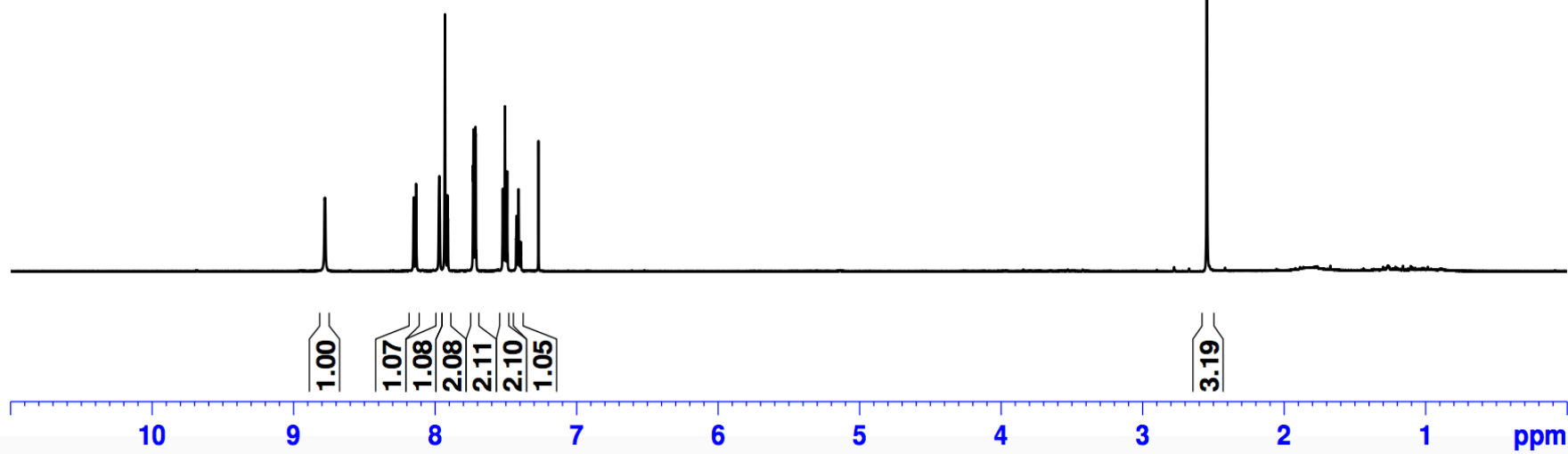
8.780
8.777
8.152
8.135
7.971
7.930
7.914
7.909
7.732
7.729
7.726
7.715
7.714
7.522
7.518
7.507
7.491
7.427
7.427
7.425
7.423
7.410
7.395
7.270

^1H NMR (CDCl_3) compound 7c

8.152
8.135
7.971
7.930
7.914
7.909
7.732
7.729
7.726
7.715
7.714
7.522
7.518
7.507
7.491
7.427
7.425
7.423
7.410
7.395
7.270



— 2.547

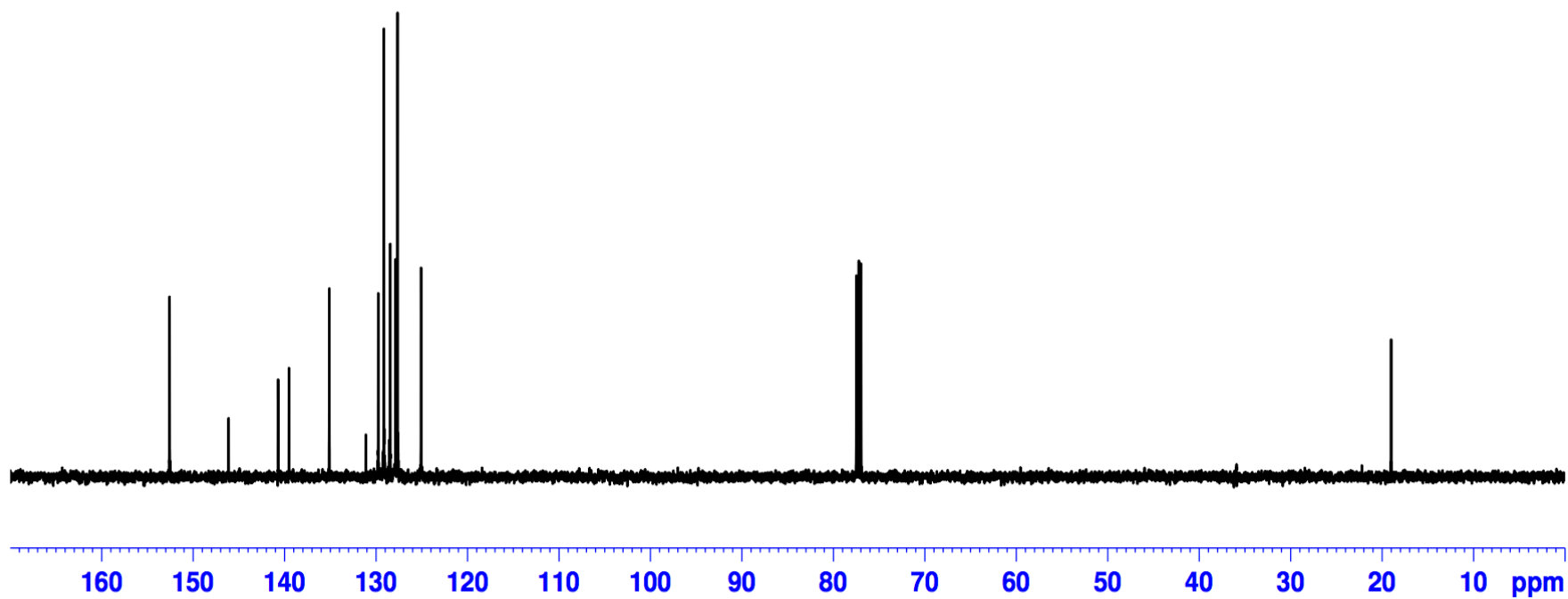


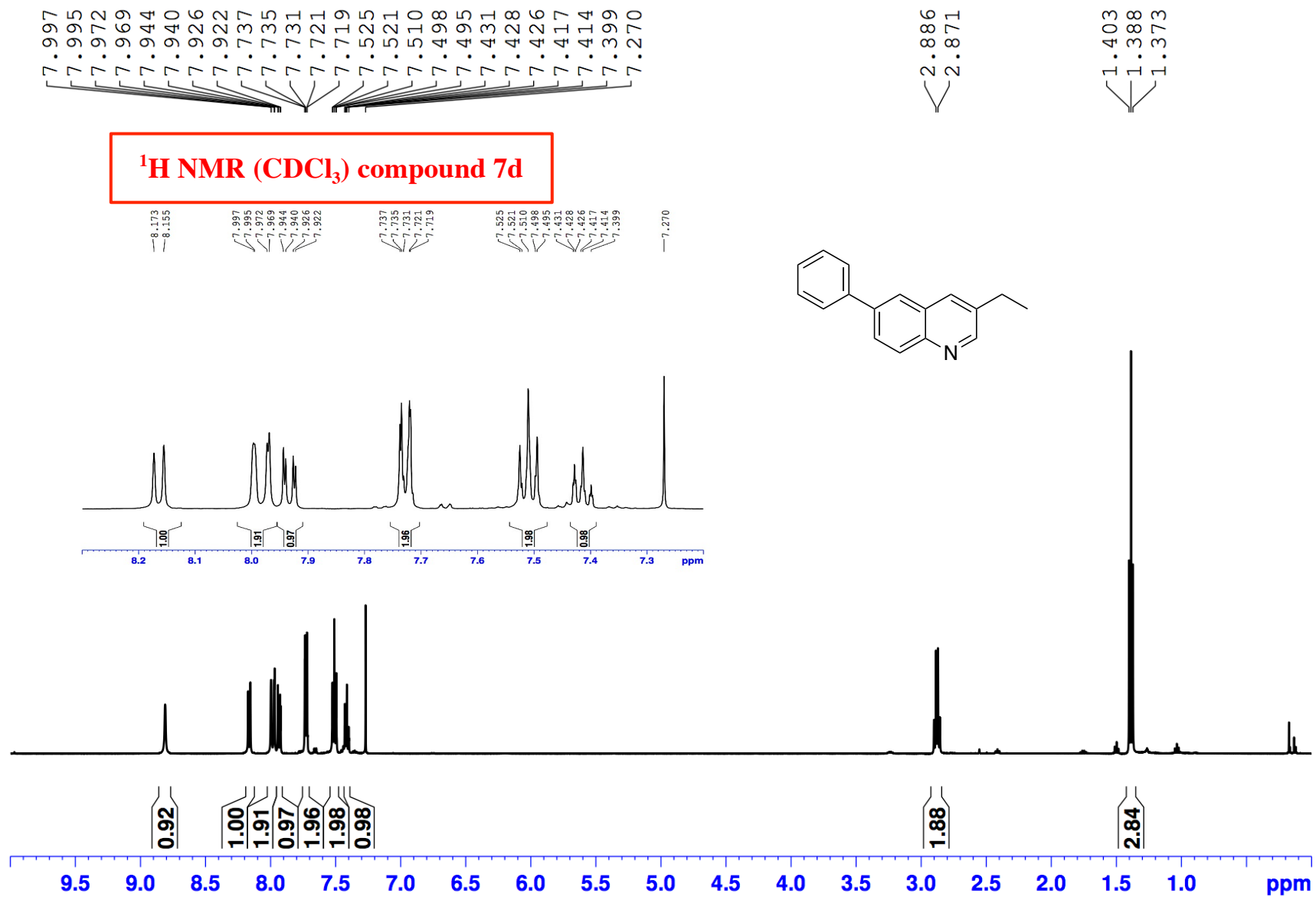
152.582
146.129
140.716
139.529
135.115
131.118
129.761
129.141
128.534
128.447
127.864
127.649
125.082

77.481
77.227
76.973

19.020

^{13}C NMR (CDCl₃) compound 7c





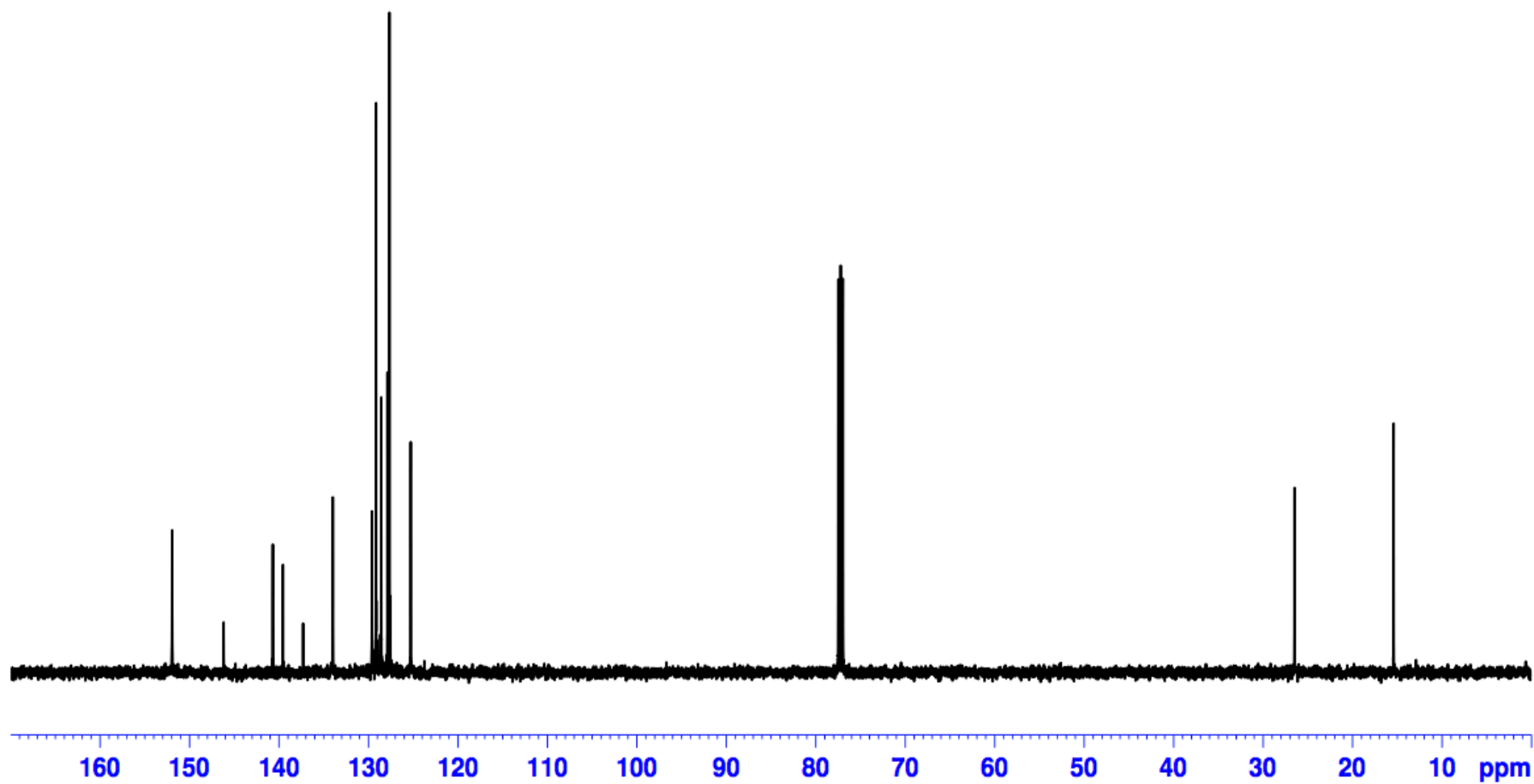
151.949
146.196
140.696
139.566
137.310
133.978
129.608
129.151
128.579
127.880
127.654
125.281

77.482
77.228
76.974

26.496

15.422

¹³C NMR (CDCl₃) compound 7d



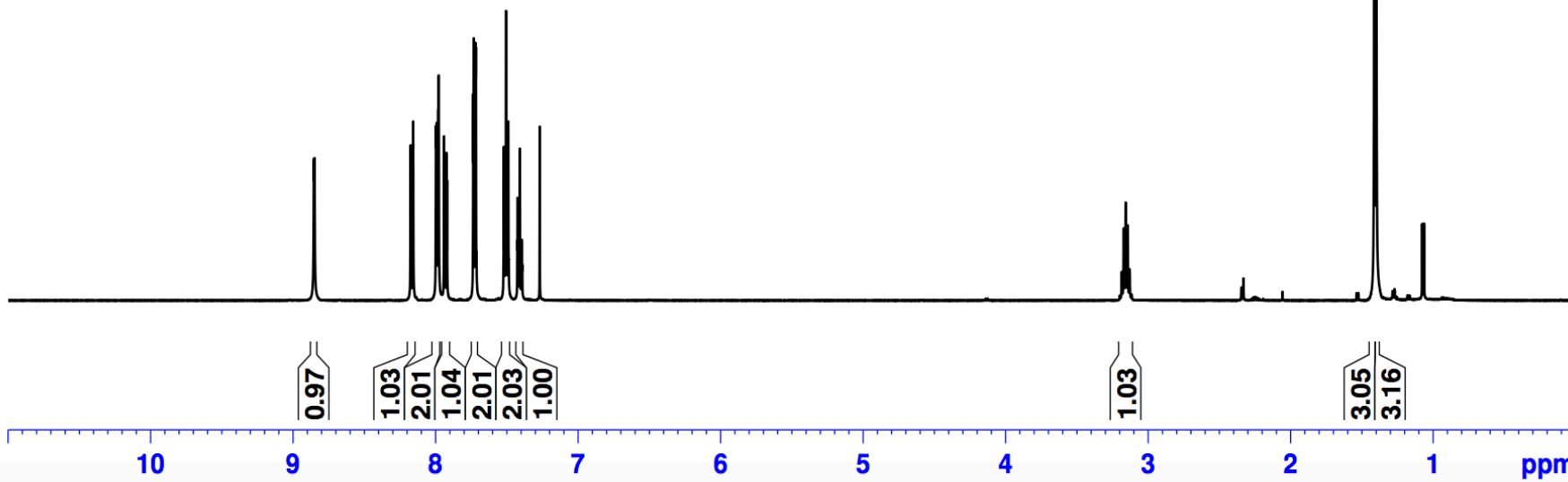
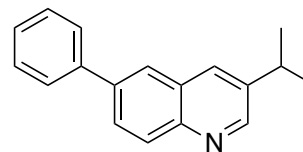
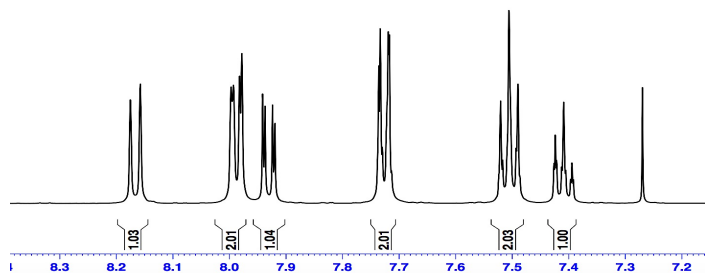
^1H NMR (CDCl_3) compound 7e

8.854
8.850
8.175
8.158
7.997
7.993
7.982
7.978
7.941
7.937
7.924
7.920
7.736
7.733
7.730
7.719
7.717
7.521
7.517
7.506
7.493
7.490
7.426
7.424
7.422
7.413
7.409
7.405
7.394
7.270

3.185
3.171
3.157
3.144
3.130

1.413
1.399

8.175
8.158
7.997
7.993
7.982
7.978
7.941
7.937
7.924
7.920
7.736
7.733
7.730
7.719
7.717
7.521
7.517
7.506
7.493
7.490
7.426
7.424
7.422
7.413
7.409
7.405
7.394
7.270



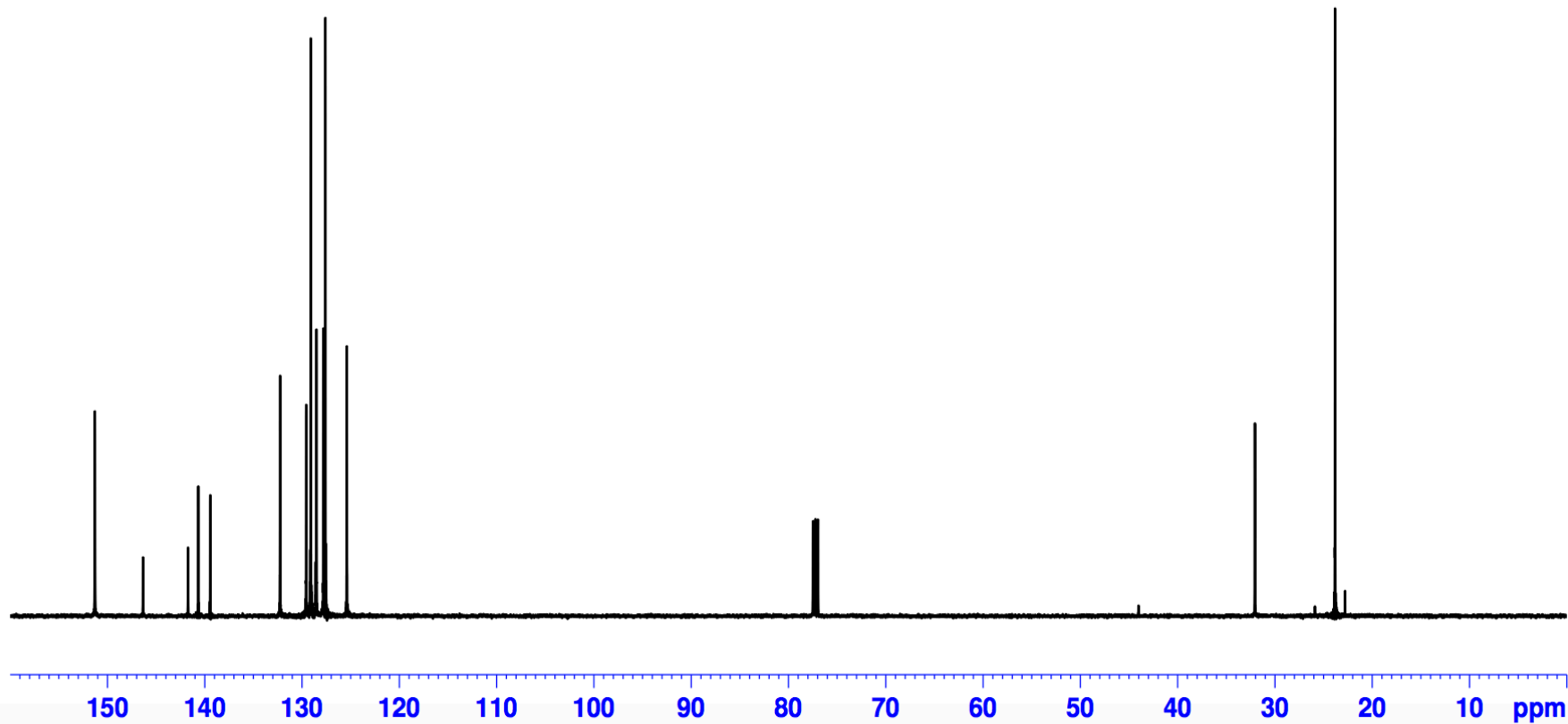
151.293
146.346
141.721
140.664
139.437
132.252
129.573
129.104
128.589
128.511
127.815
127.601
125.396

77.481
77.226
76.972

32.054

23.821

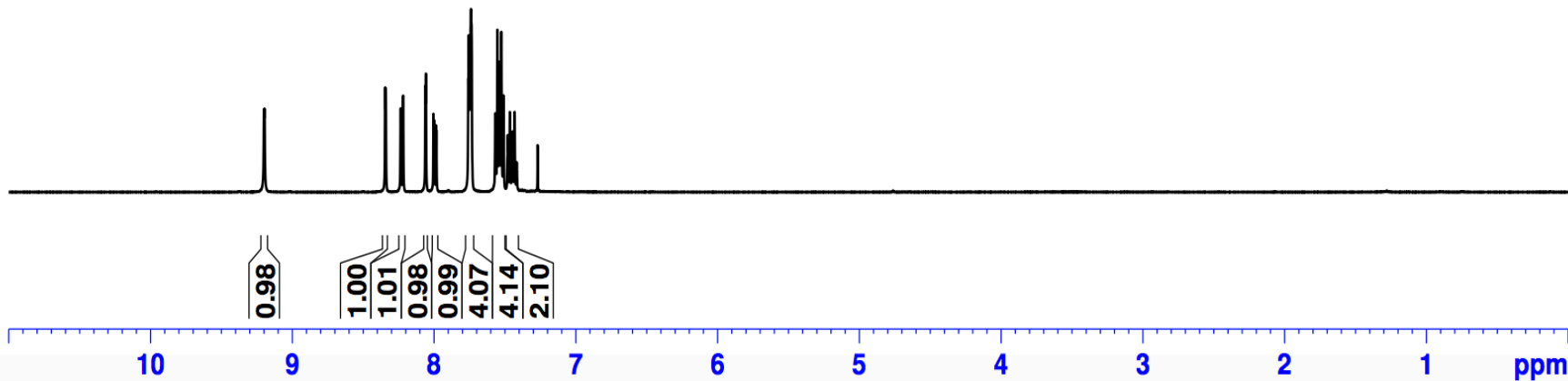
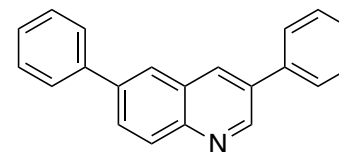
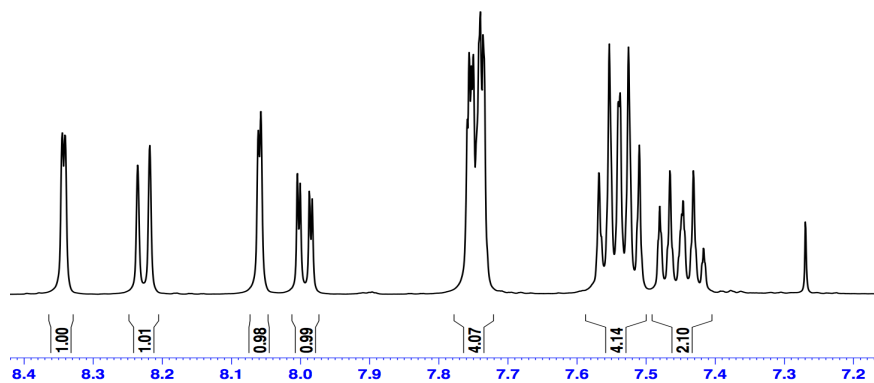
^{13}C NMR (CDCl_3) compound 7e



9.196
8.345
8.341
8.236
8.218
8.061
8.058
8.005
8.001
7.987
7.983
7.759
7.756
7.753
7.750
7.740
7.736
7.568
7.553
7.540
7.538
7.526
7.510
7.480
7.480
7.466
7.449
7.447
7.432
7.417
7.270

¹H NMR (CDCl₃) compound 7g

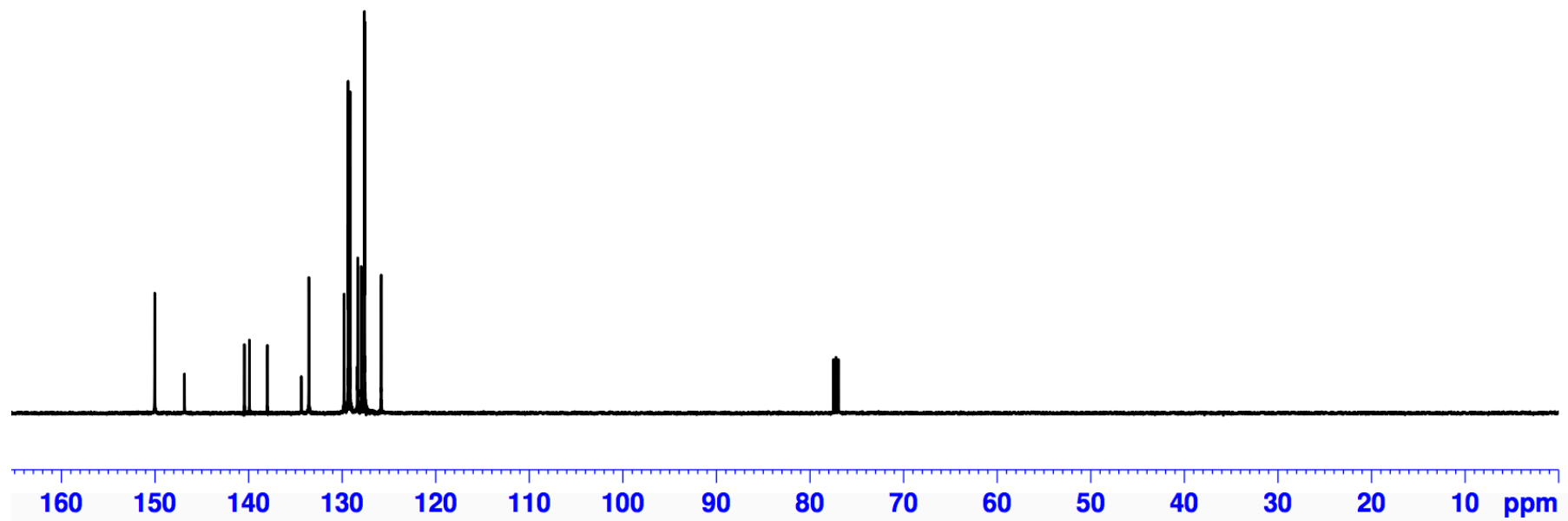
8.345
8.341
8.236
8.218
8.061
8.058
8.005
8.001
7.987
7.983
7.759
7.756
7.753
7.750
7.740
7.736
7.568
7.553
7.540
7.538
7.526
7.510
7.480
7.466
7.449
7.447
7.432
7.417
7.270

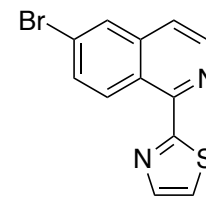
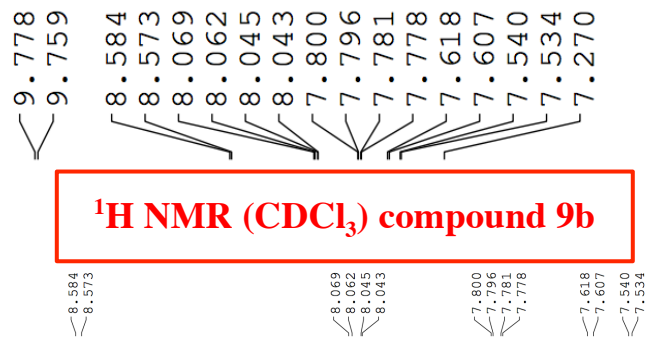


150.026
146.850
140.445
139.914
137.995
134.362
133.562
129.793
129.370
129.343
129.158
128.383
128.335
127.972
127.619
127.591
125.829

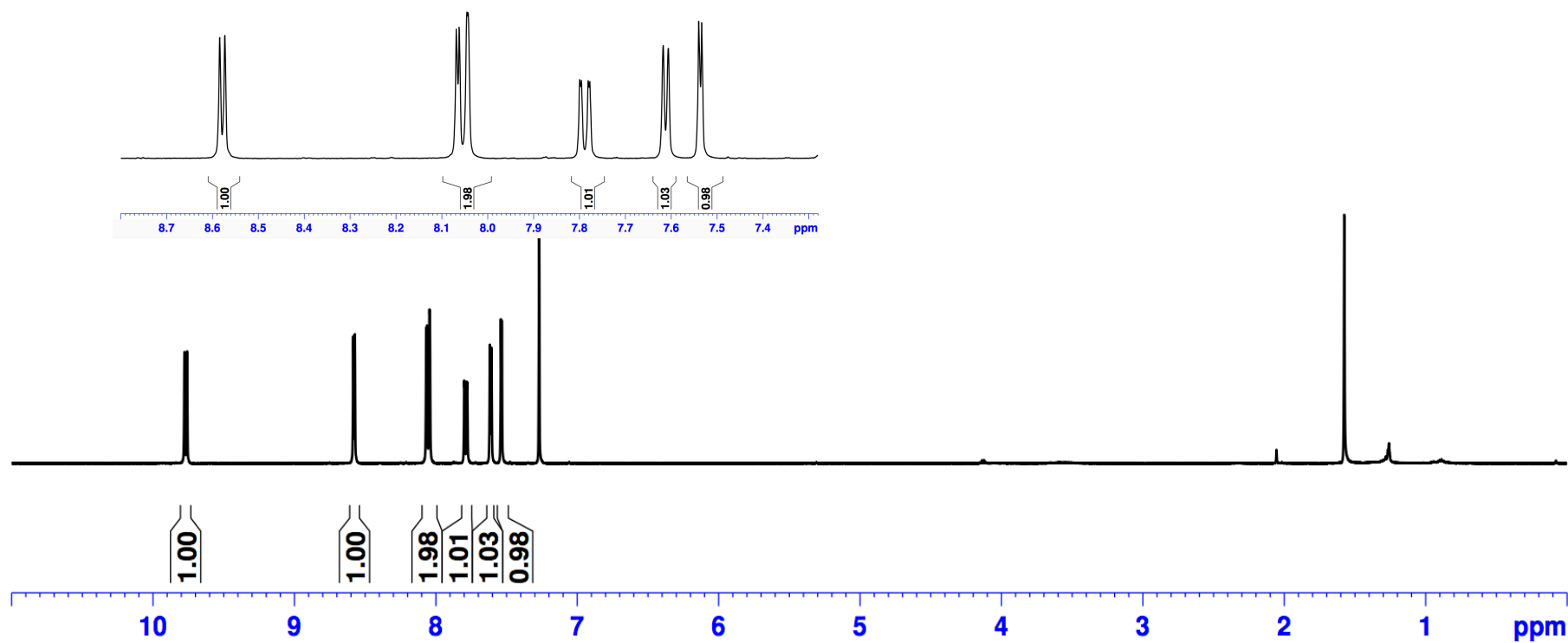
77.484
77.230
76.976

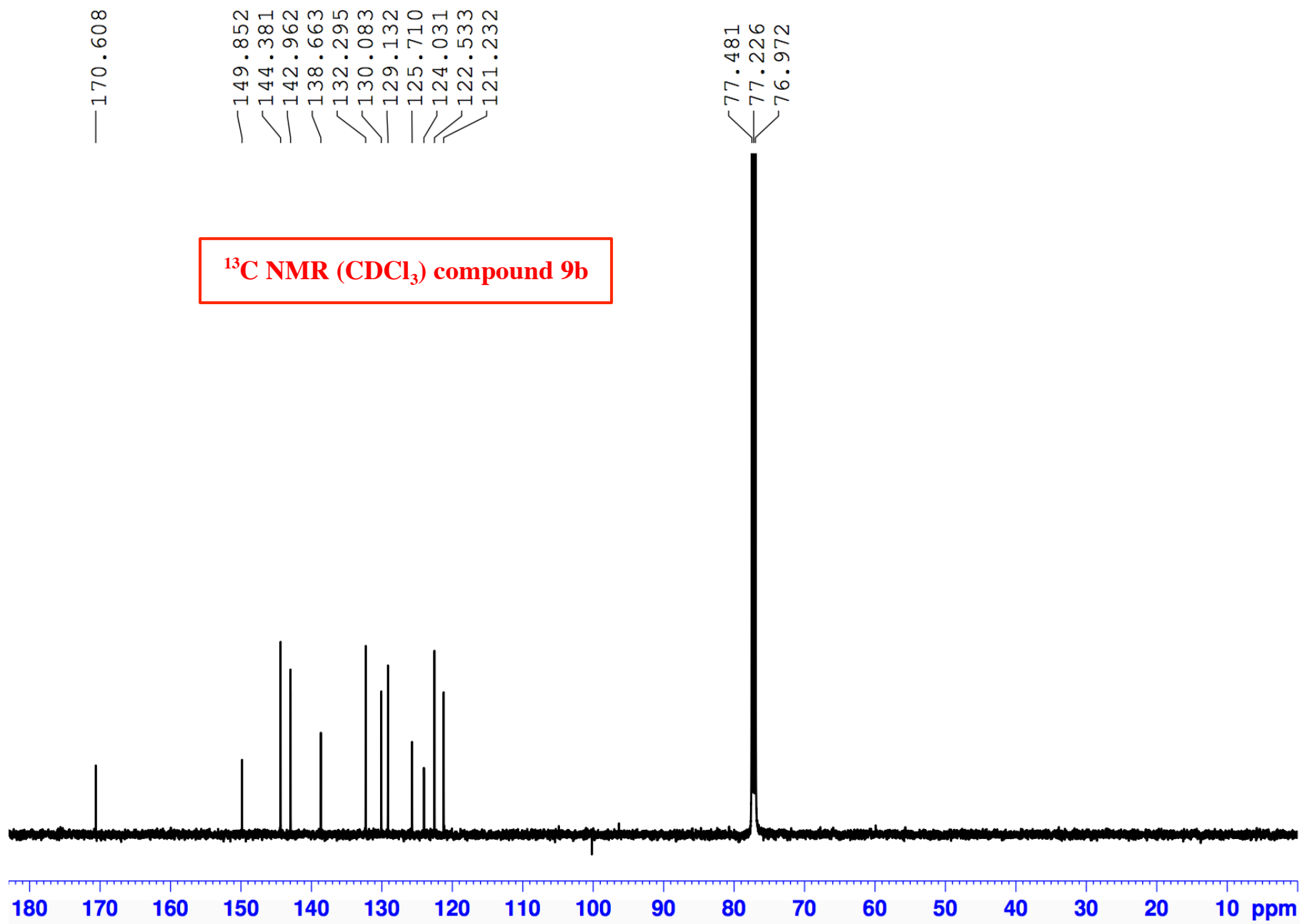
^{13}C NMR (CDCl_3) compound 7g





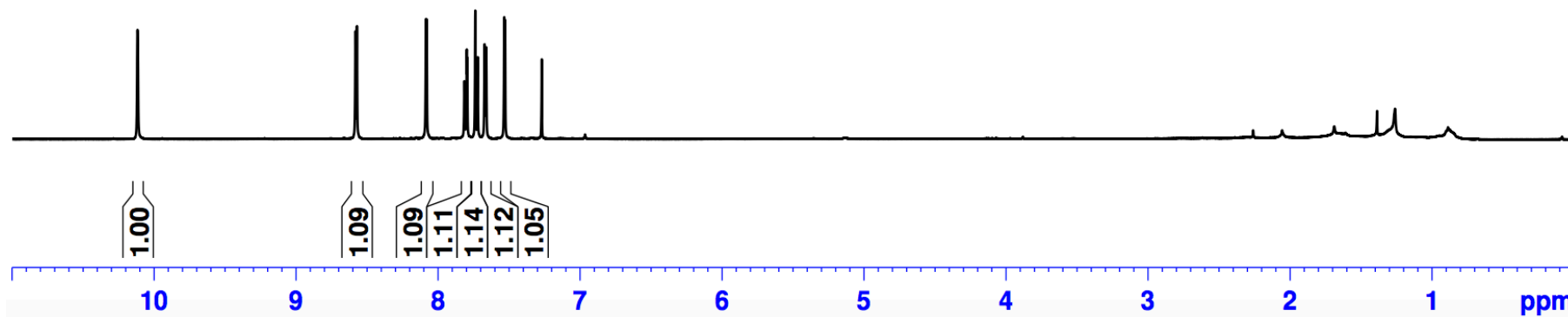
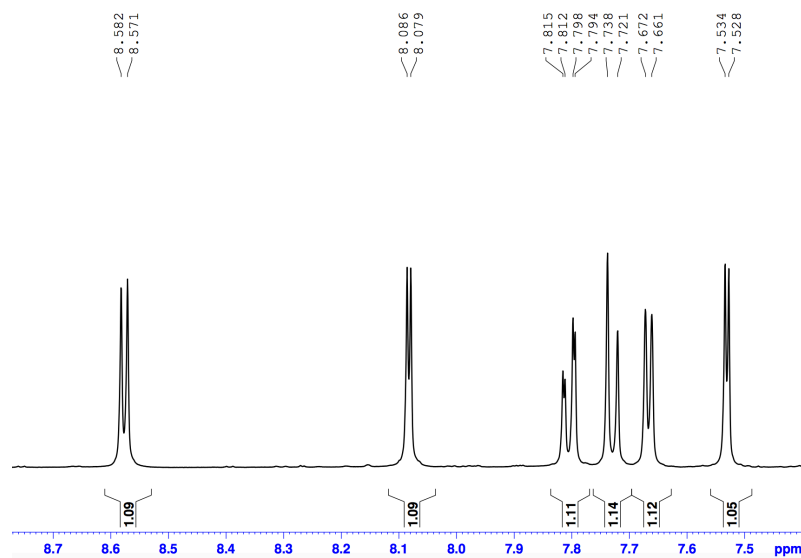
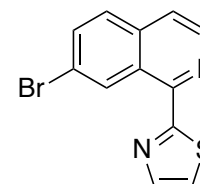
— 1.576

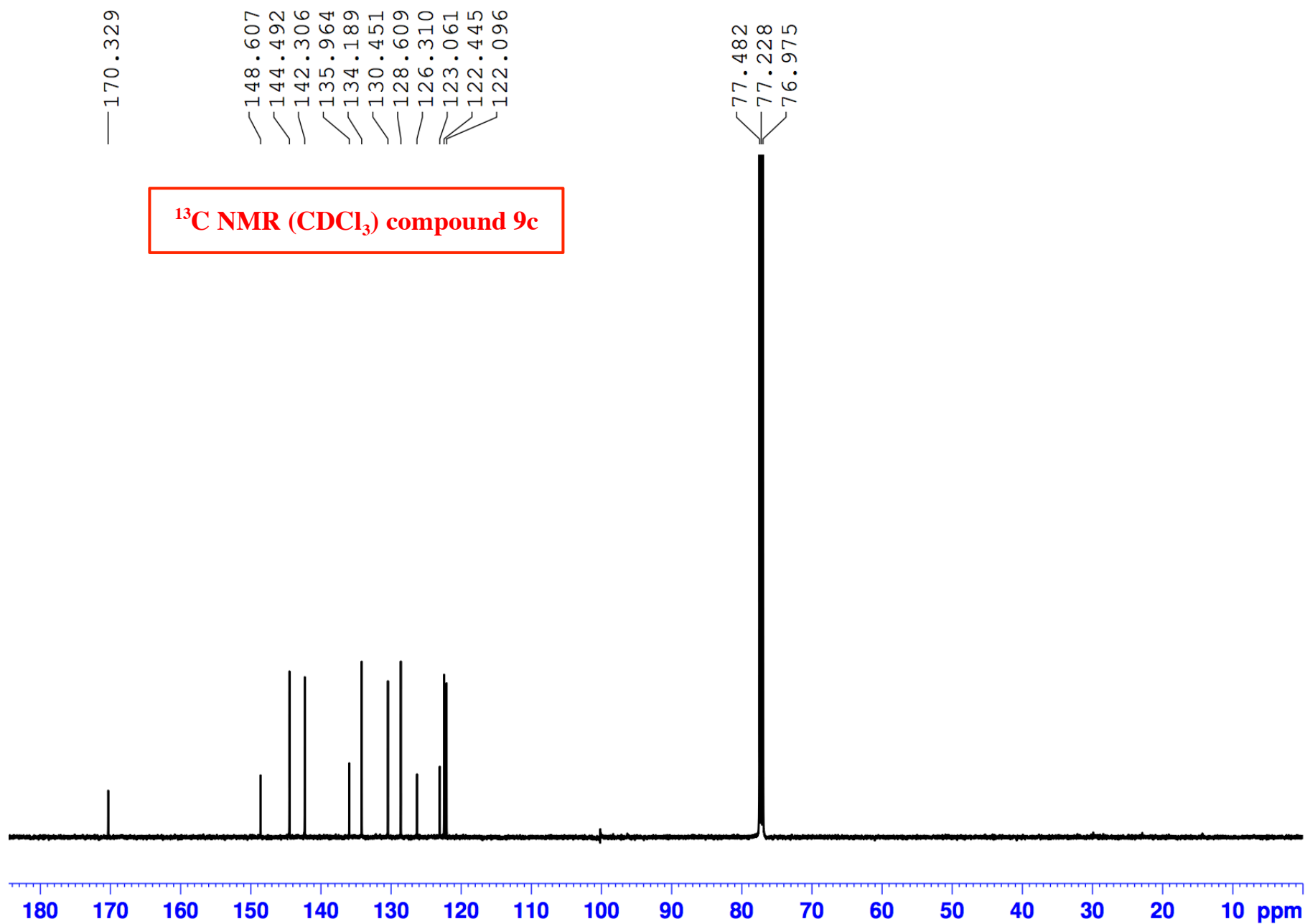




— 10.117
8.582
8.571
8.086
8.079
7.815
7.812
7.798
7.794
7.738
7.721
7.672
7.661
7.534
7.528
7.270

¹H NMR (CDCl₃) compound 9c





8.649
8.637
8.074
8.070
7.995
7.977
7.690
7.687
7.674
7.672
7.628
7.625
7.610
7.607
7.577
7.571
7.566
7.554
7.539
7.533
7.525
7.520
7.270

$^1\text{H NMR}$ (CDCl_3) compound 10b

