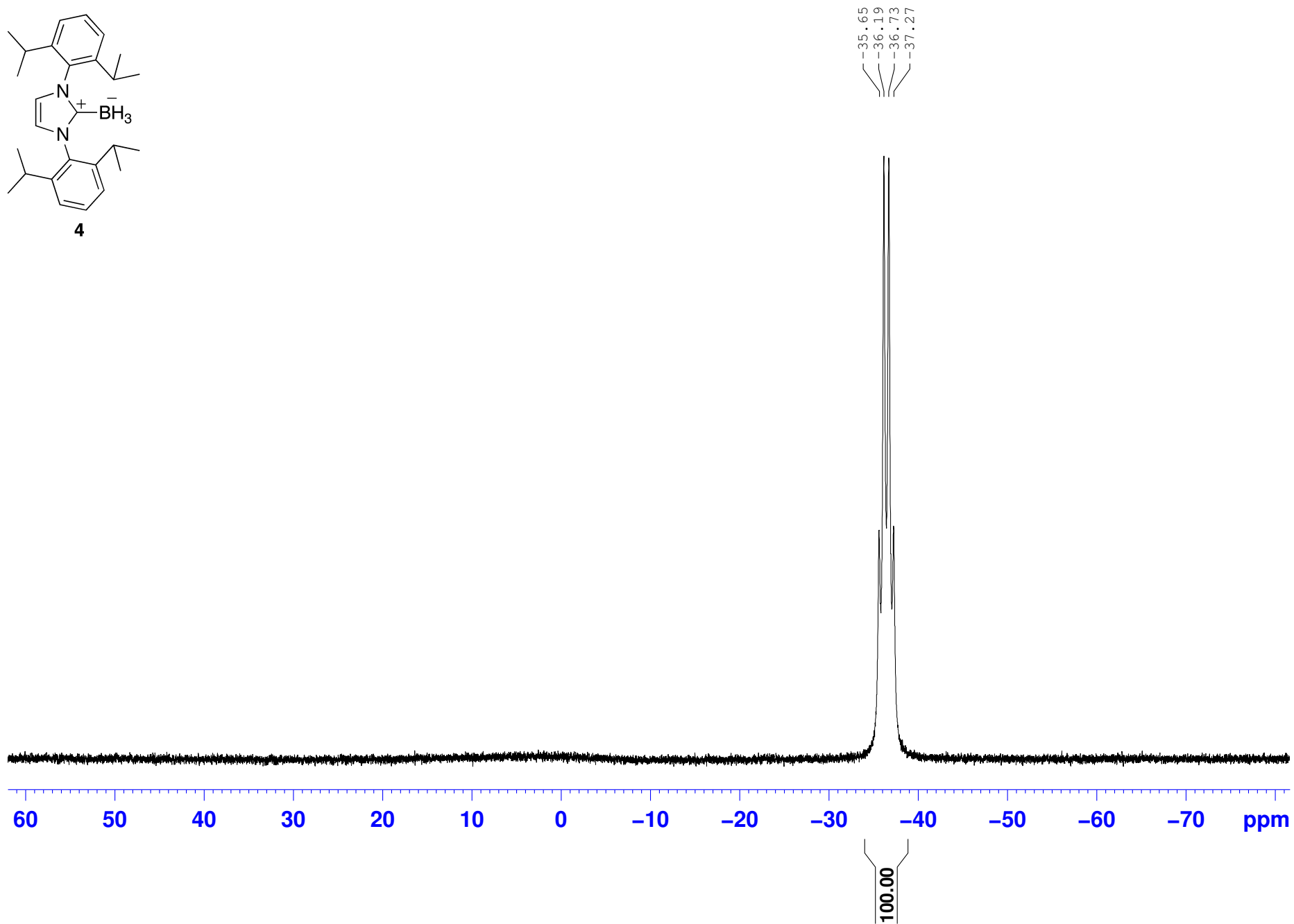
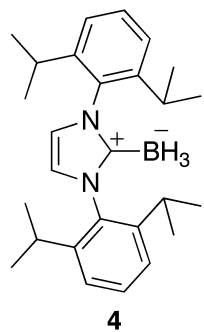
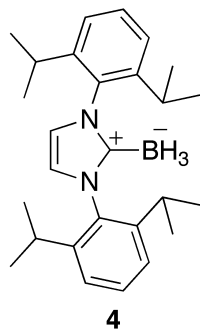


EM125.dipp 11B 500 CDC13 6.29.13

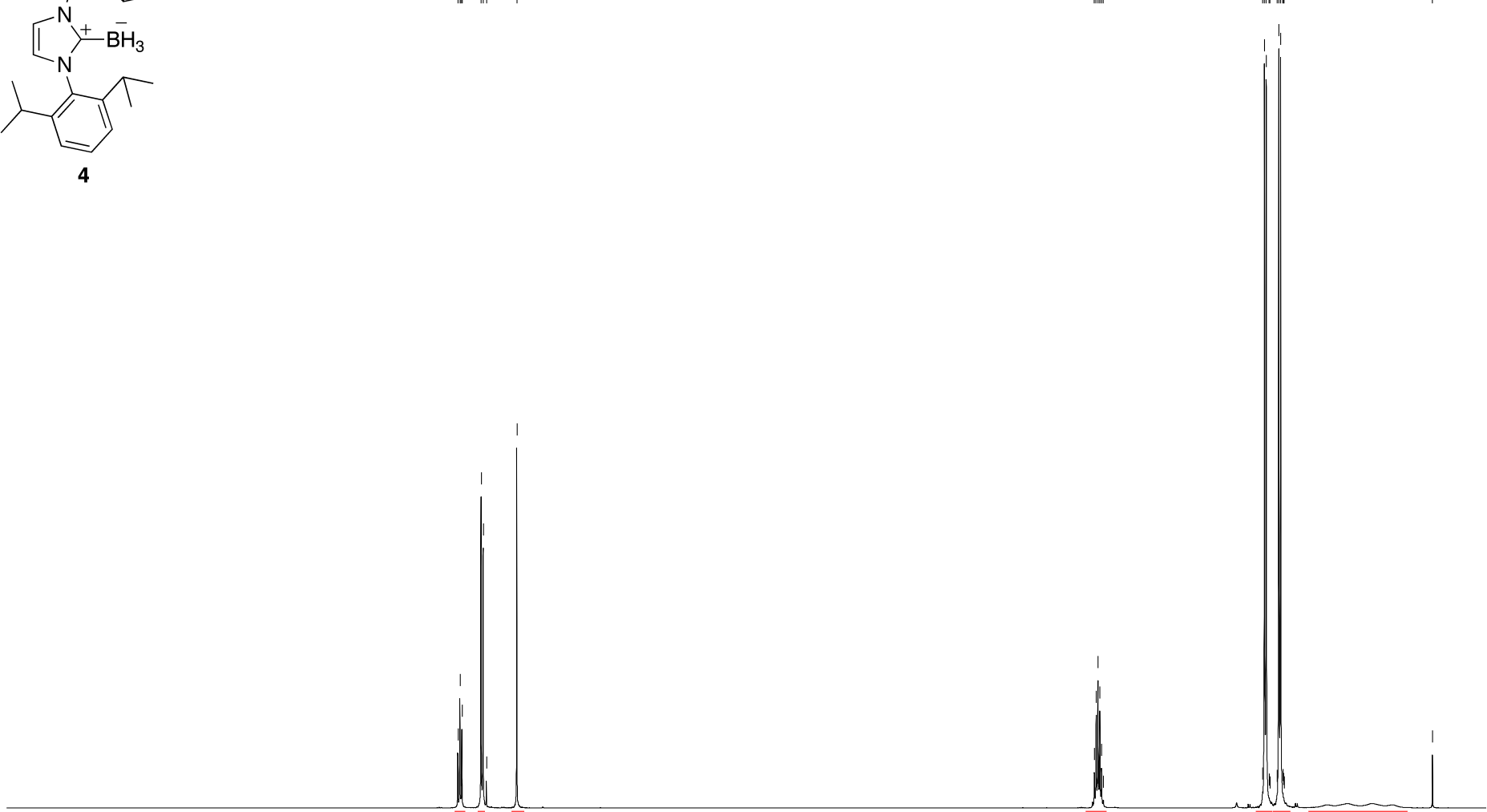


EM125.dipp 1H 500 CDC13 6.29.13



7.458
7.442
7.435
7.427
7.280
7.264
7.240
7.007

2.588
2.574
2.560
2.547
2.533
2.519
1.300
1.286
1.272
1.249
1.243
1.189
1.176
1.162
1.144
1.140
1.134
-0.000



10

9

8

6

5

4

3

2

1

ppm

2.03

3.97

2.00

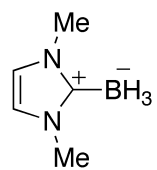
4.07

12.40

12.52

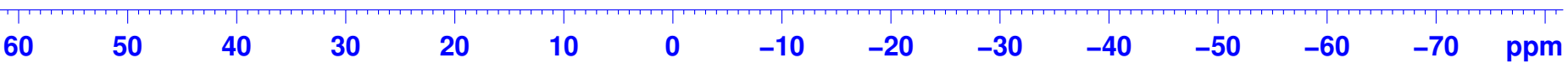
3.20

EM110.15 500 DCM 11B BH3 check column 6.6.12



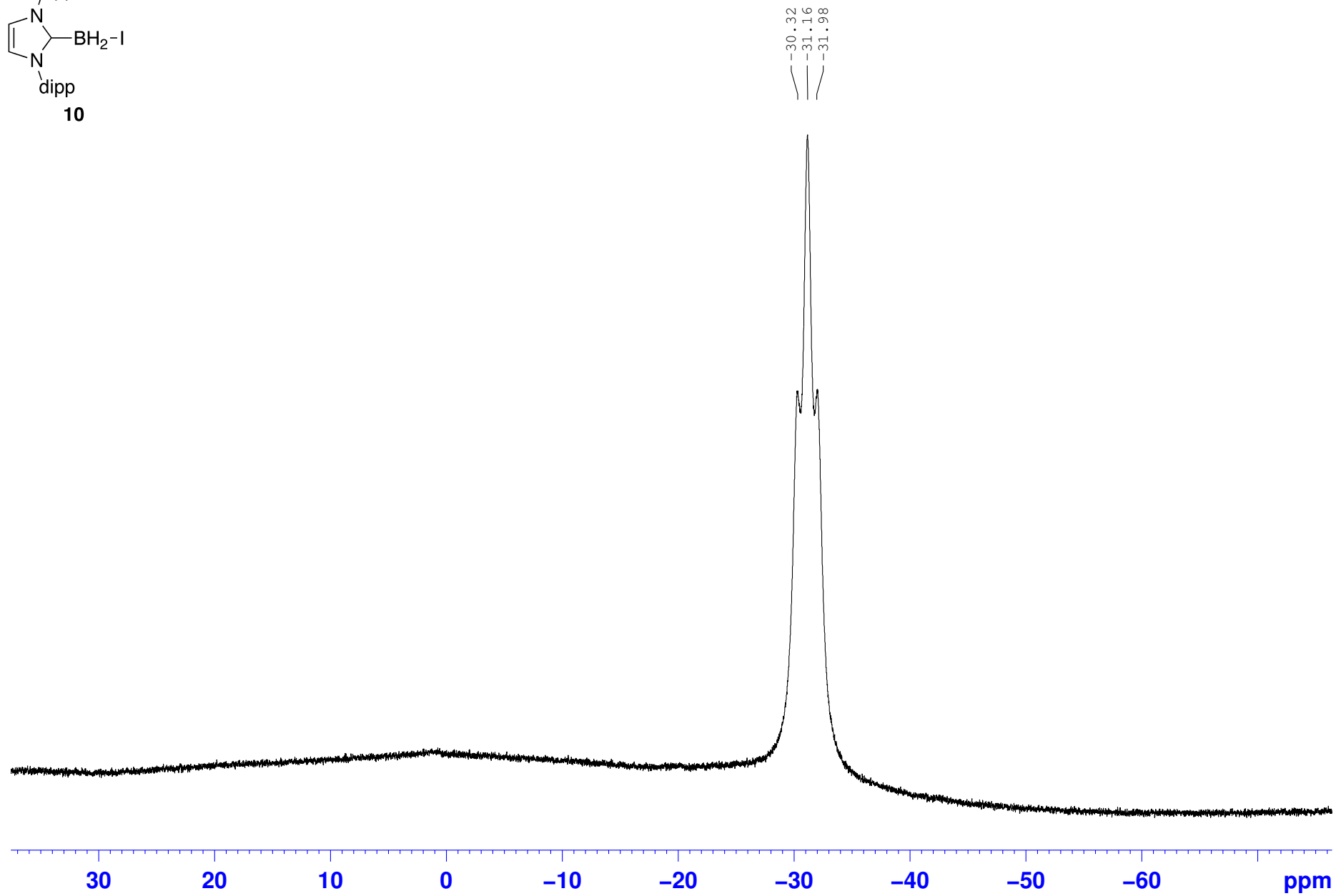
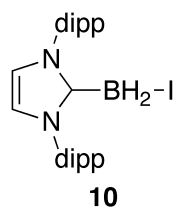
5

-36.67
-37.21
-37.75
-38.28

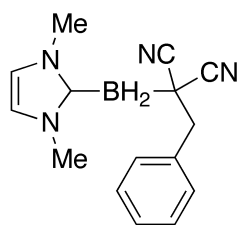


10.00

EM110.94C 11B 400a CDCl3 iodination 1.25.13



EM74.32mystery 400b 11B 10.3.11



26

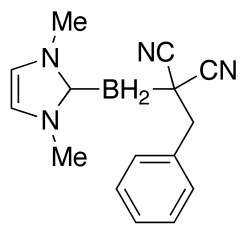
-21.88
-22.67
-23.44



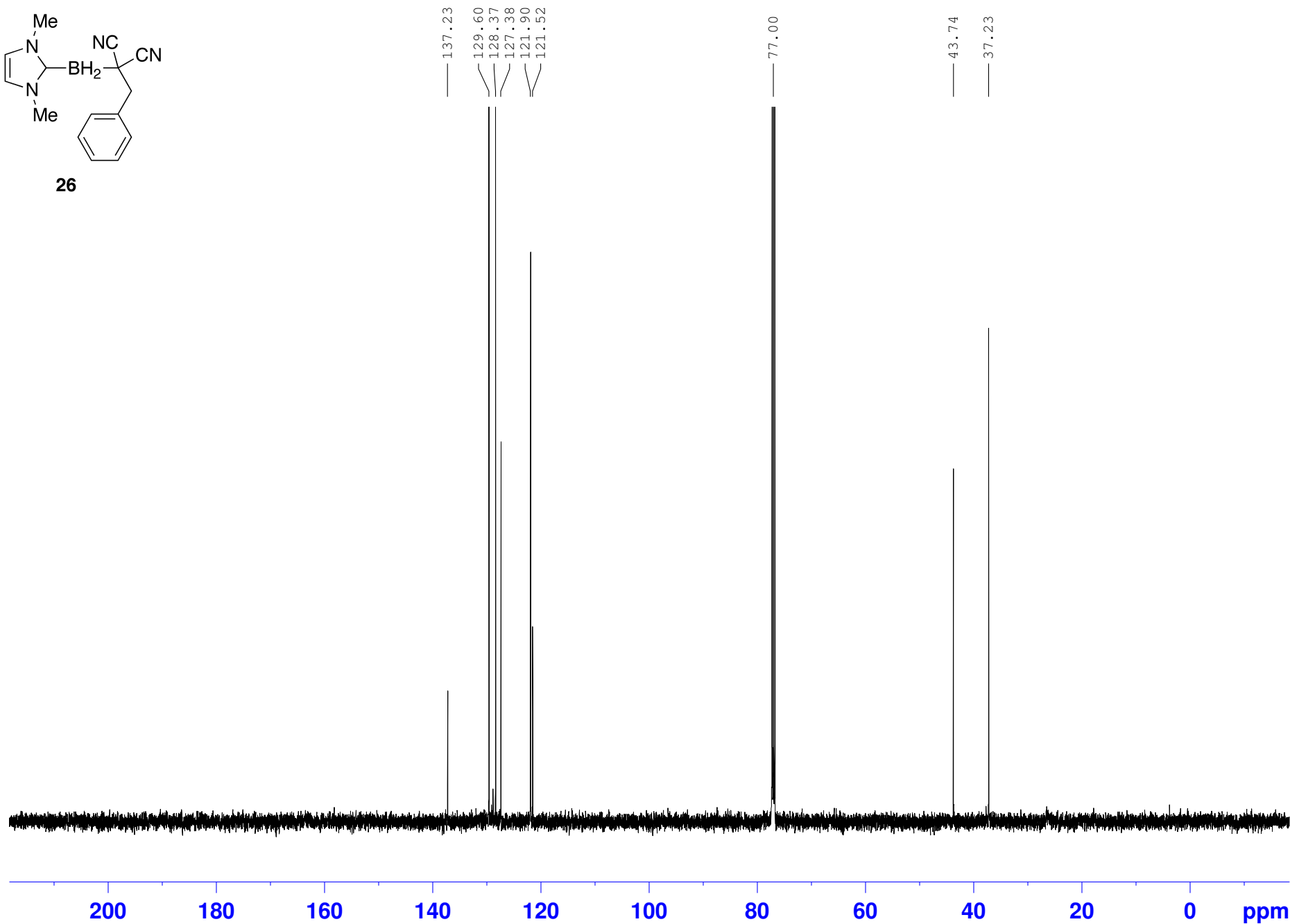
80 70 60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 ppm

100.00

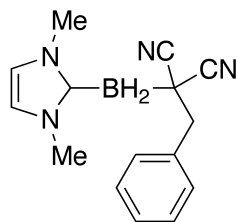
EM74.32.phenylboranemalonitrile 500 13C CDC13 9.21.11



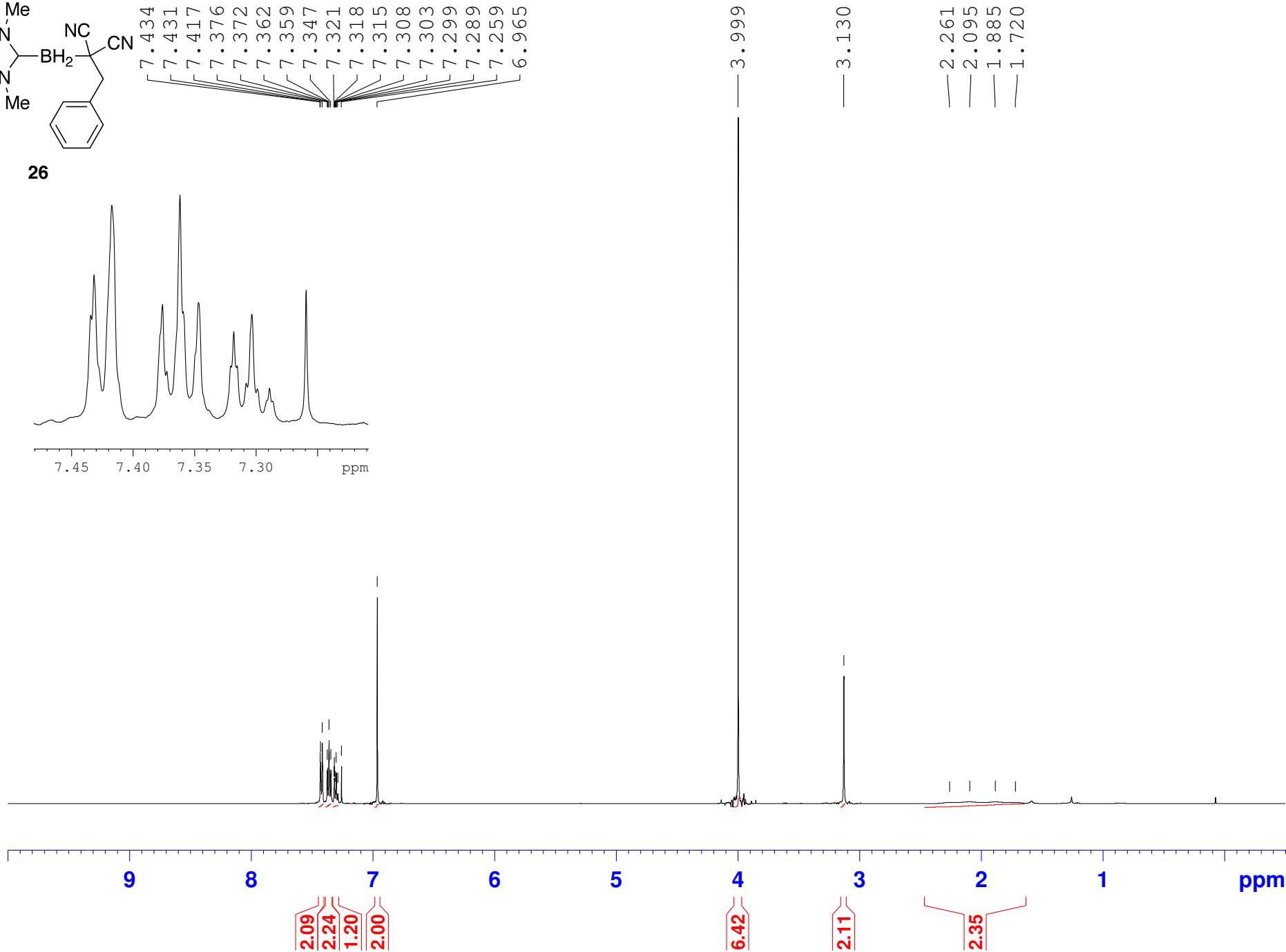
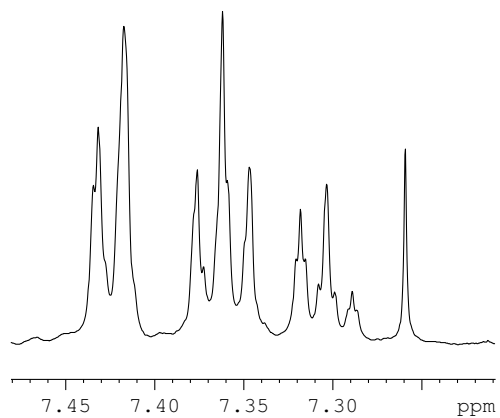
26



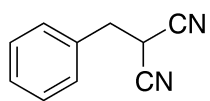
EM74.32.phenylboranemalonitrile 500 1H CDC13 9.21.11



26



EM74.18.19-23 300b CDC13TMS 1H 4.7.11



27

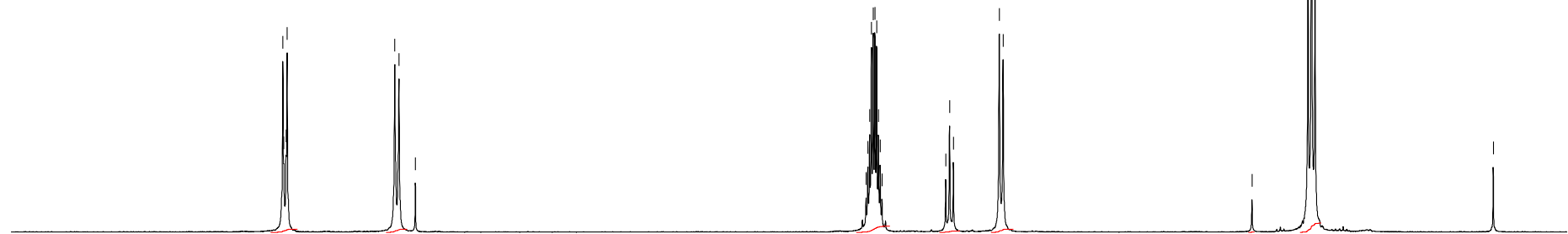
8.167
8.161
8.144
8.138

7.412
7.383
7.273

4.232
4.220
4.208
4.196
4.184
4.173
4.161
4.149
4.137
4.125
3.695
3.668
3.643
3.333
3.307

1.628
1.250
1.226
1.202

0.000



9

8

7

6

5

4

3

2

1

ppm

2.00

2.02

4.13

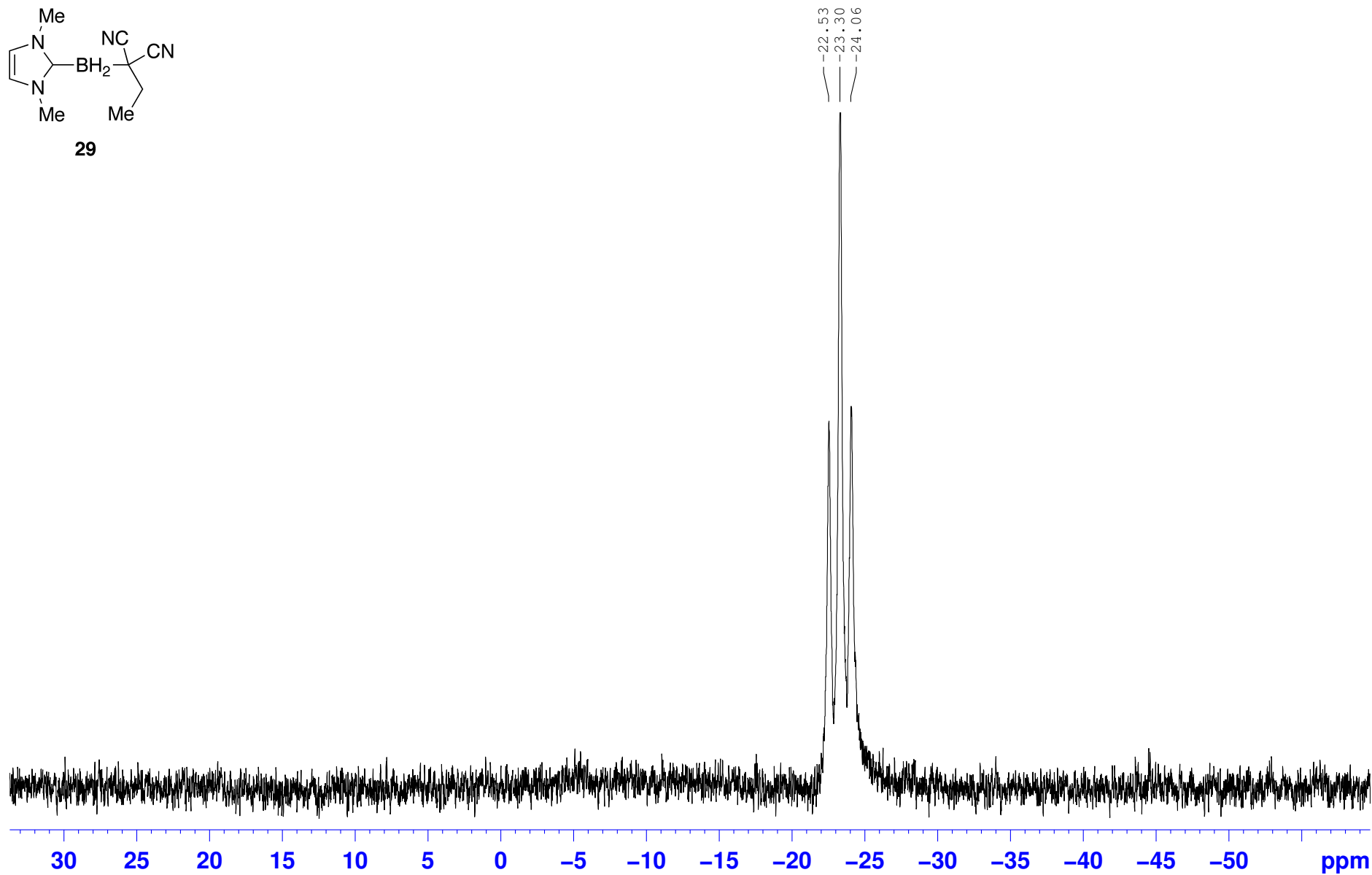
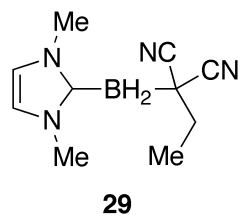
0.98

2.07

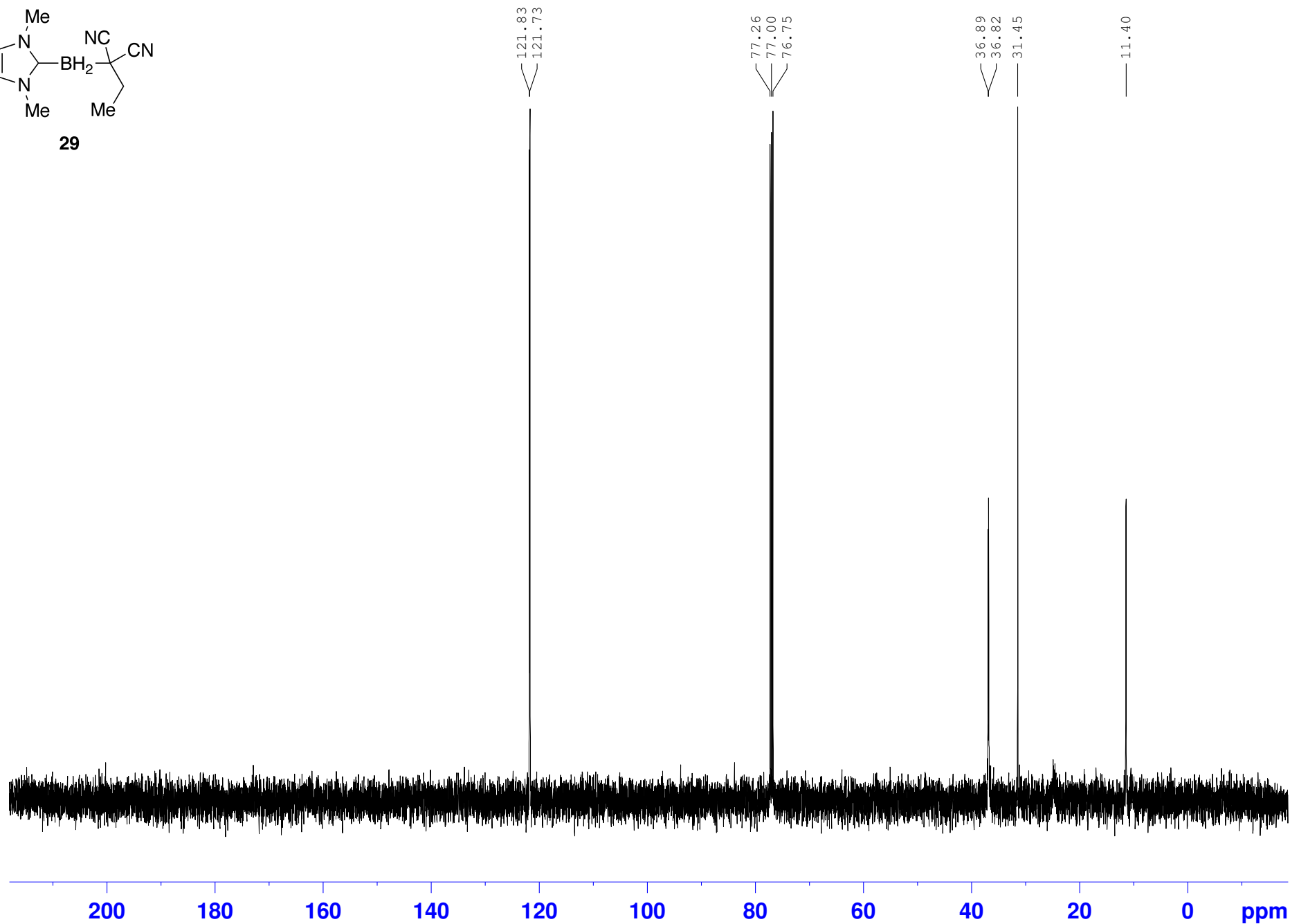
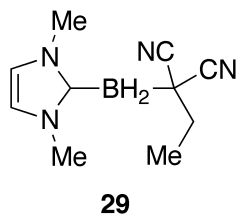
0.13

6.23

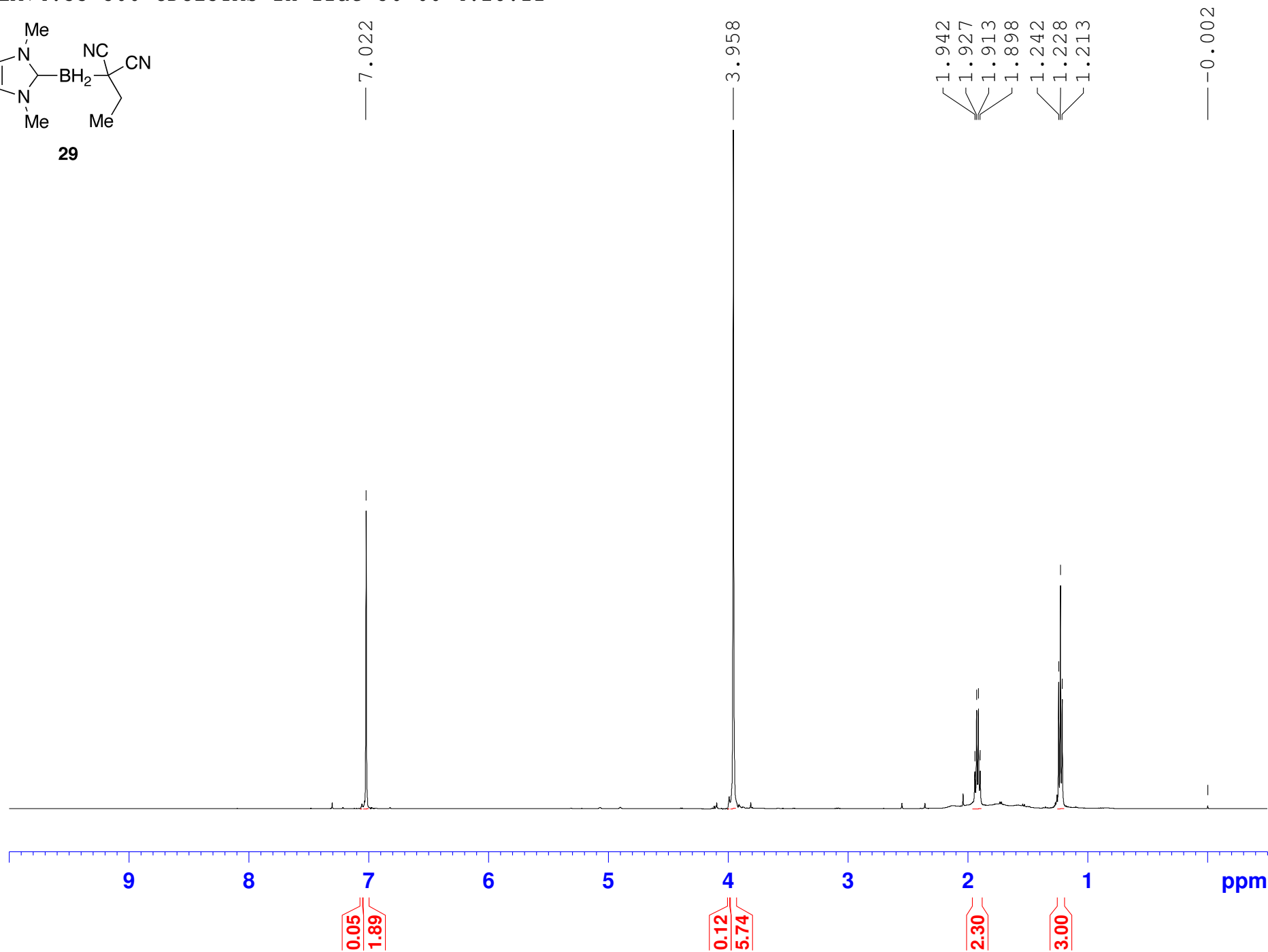
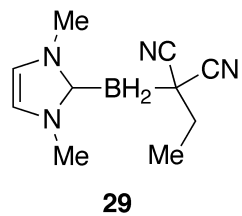
EM74.purity 400b CDCl3TMS 11B methyl dicyano borane 5.9.11



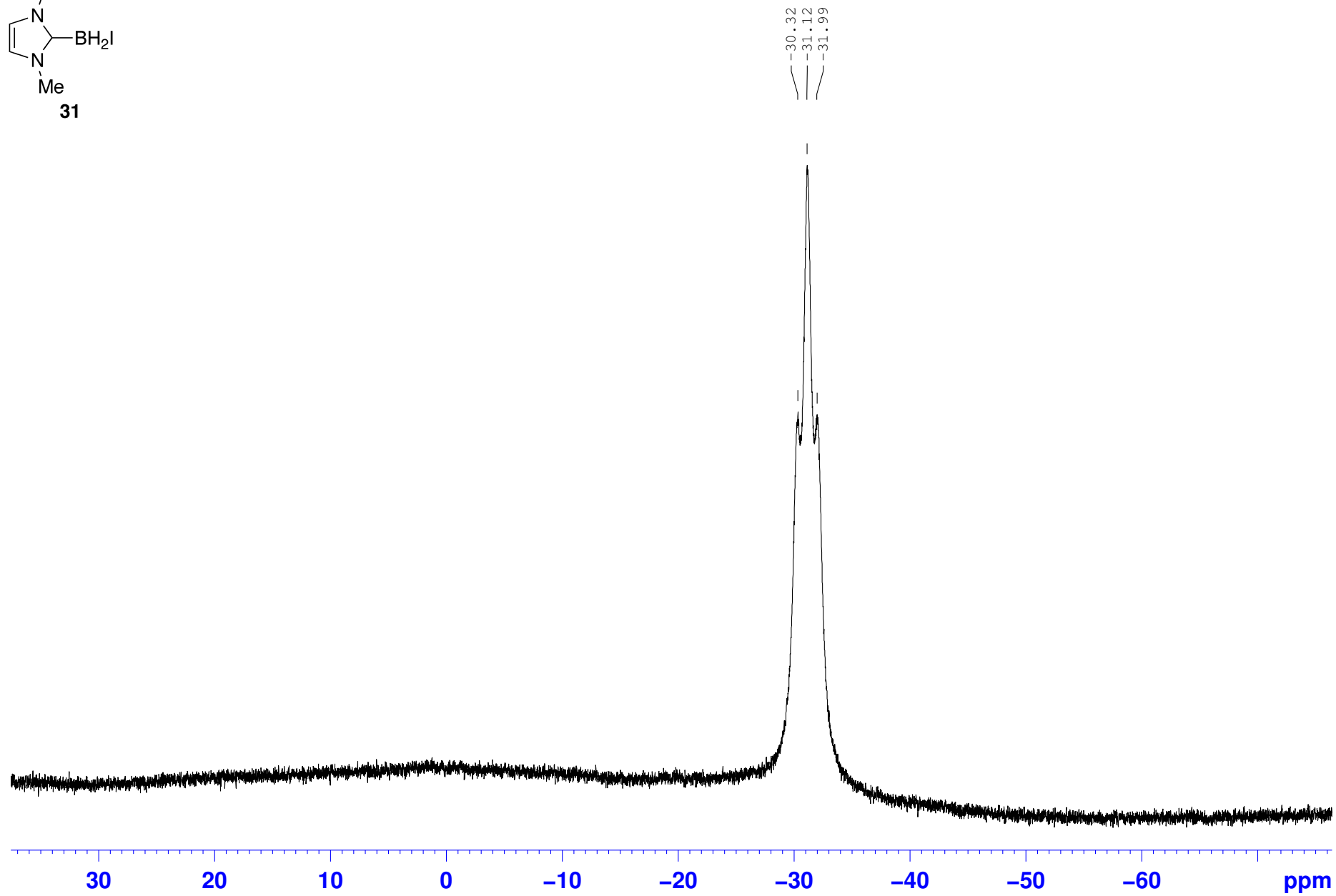
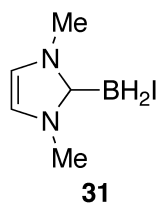
EM74.33 500 CDCl3TMS 13C frac 56-66 4.28.11



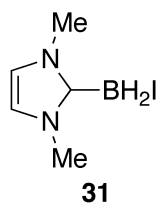
EM74.33 500 CDC13TMS 1H frac 56-66 4.28.11



EM110.94C 11B 400a CDCl3 1.28.13

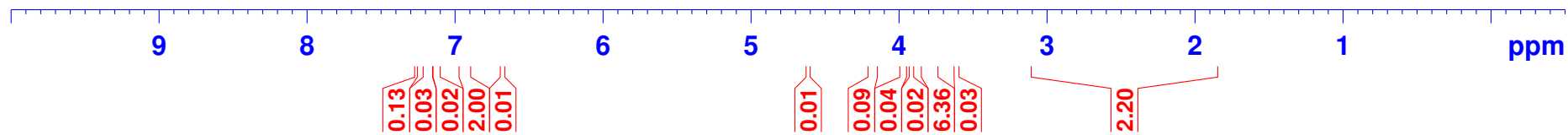


EM110.94C 1H 400a CDCl3 iodination 1.25.13

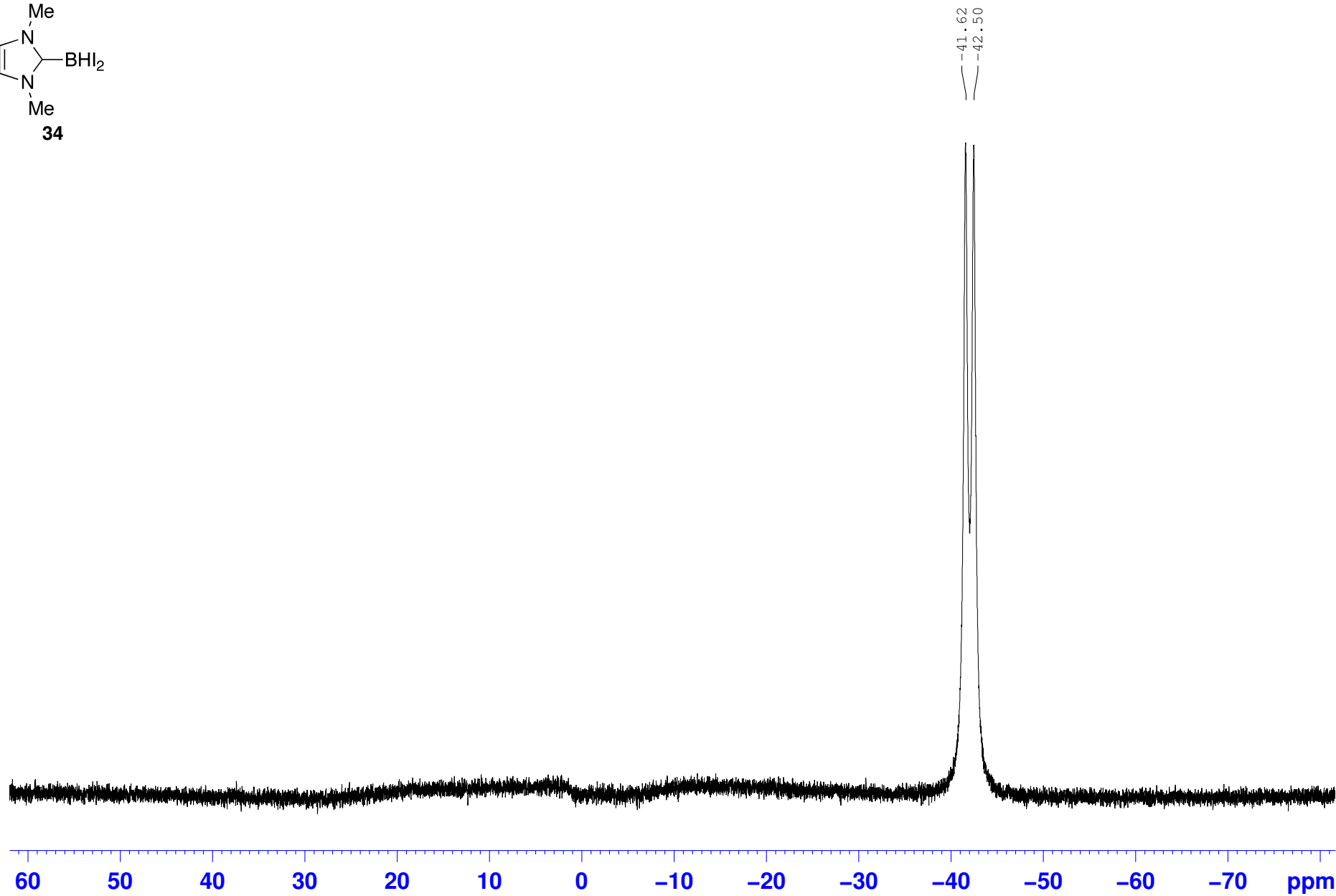
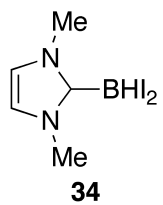


— 7.260
— 6.924

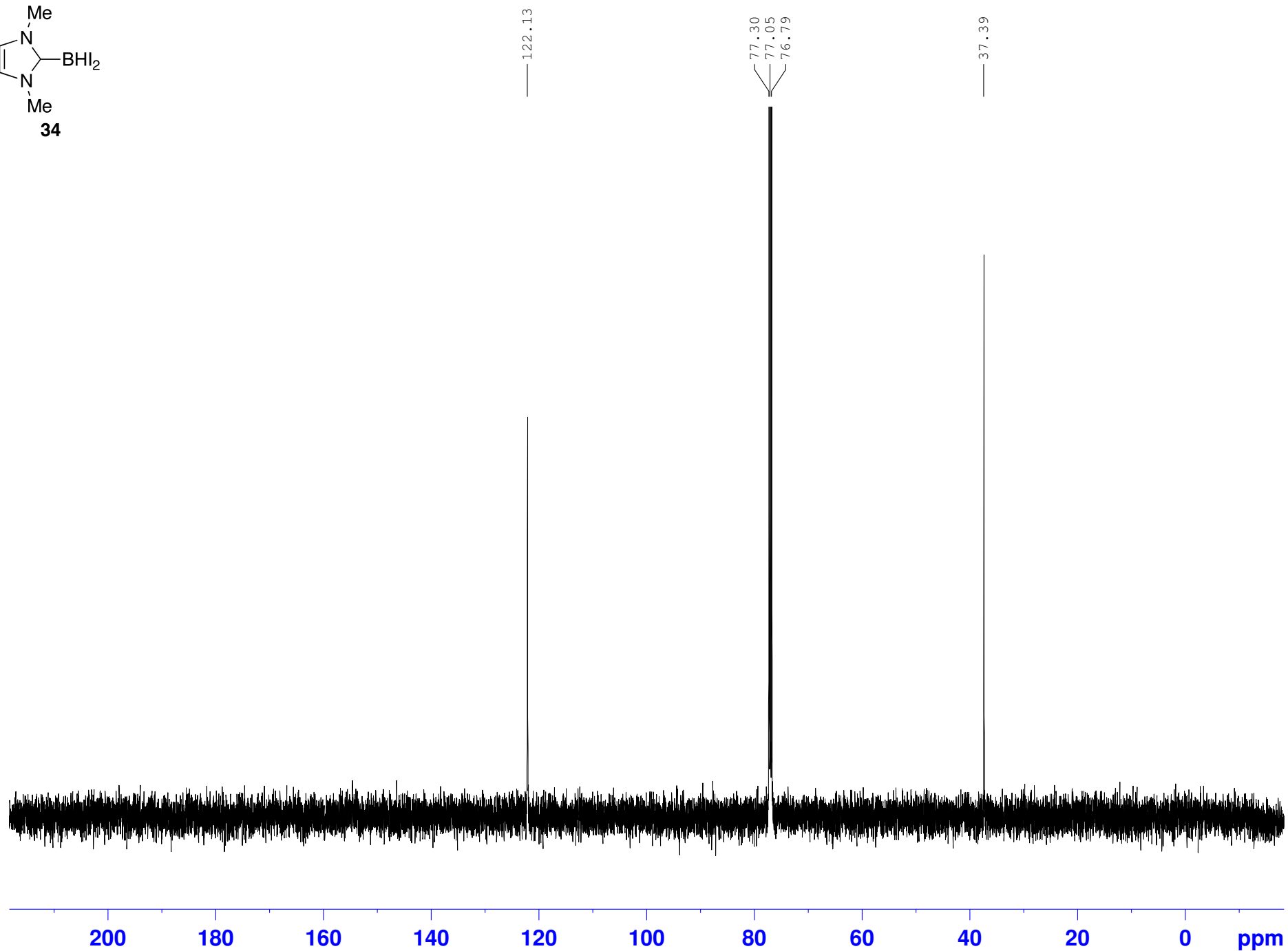
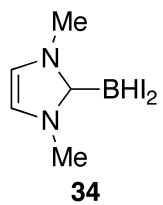
— 3.790



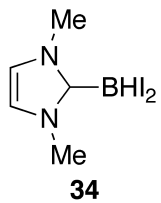
EM125.18 11B 500 CDCl3 diiodide 3.5.13



EM125.18 13C 500 CDC13 diiodide 3.5.13

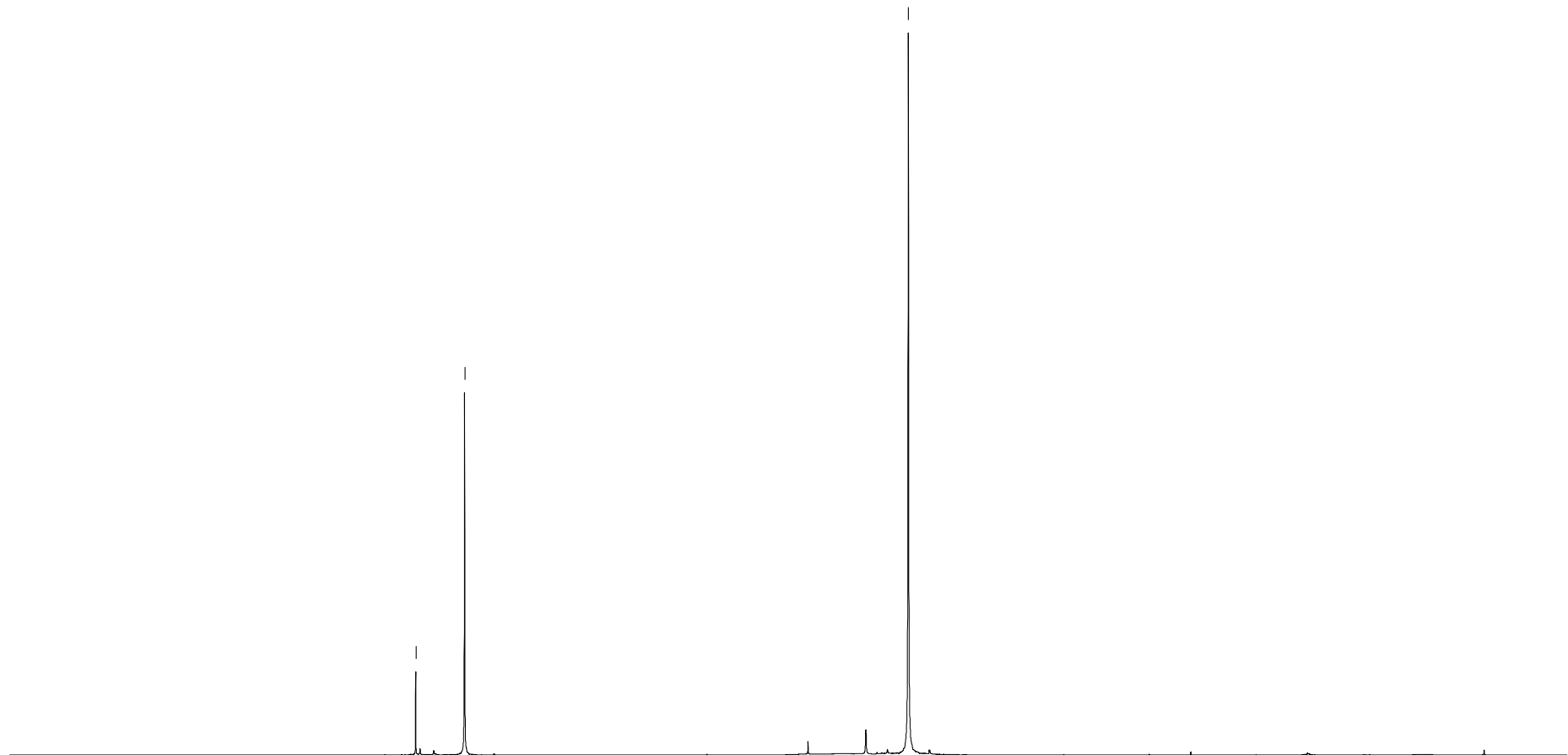


EM125.18 1H 500 CDCl3 diiodide 3.5.13



— 7.260
— 6.931

— 3.943



9

8

7

6

5

4

3

2

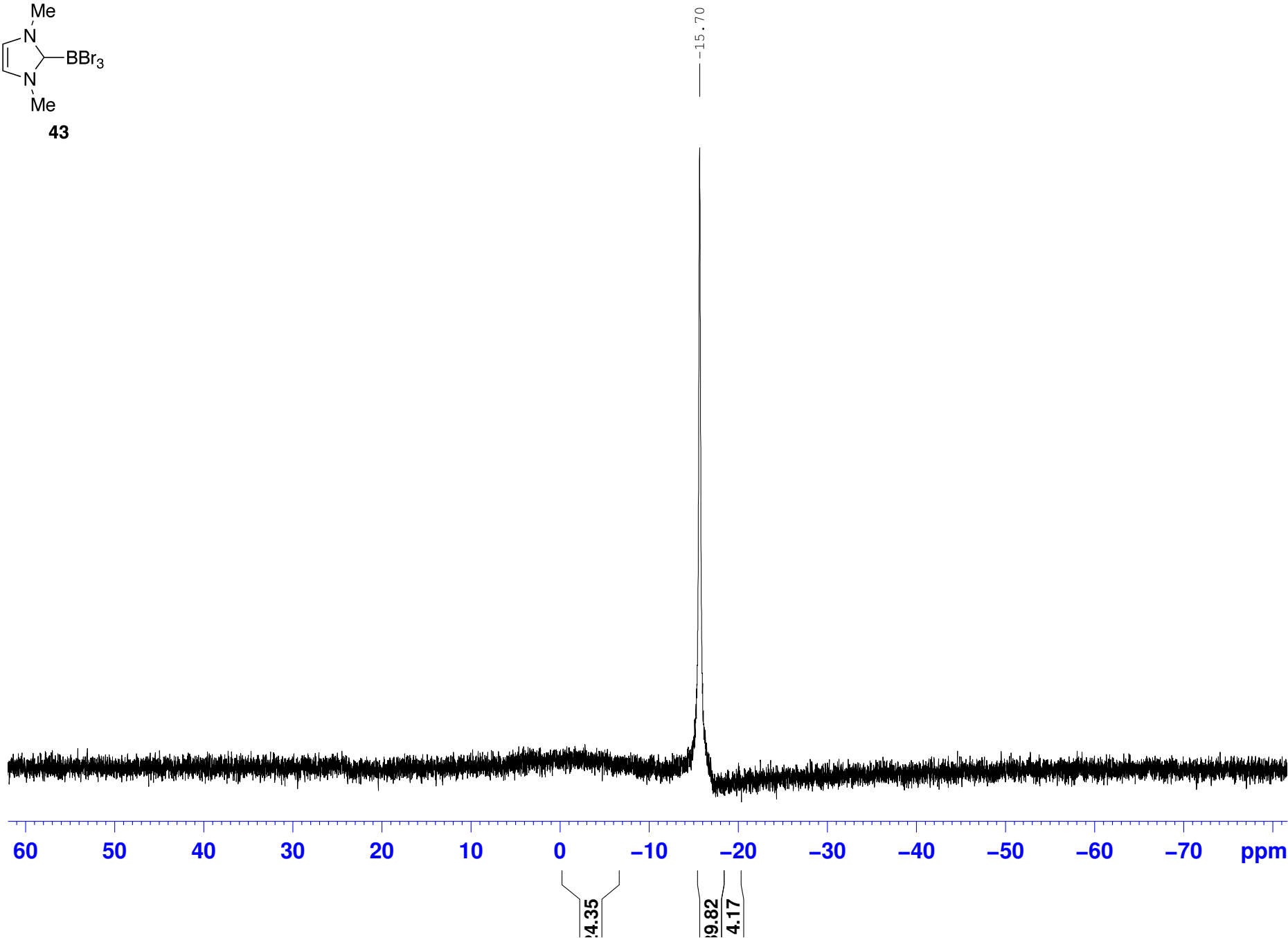
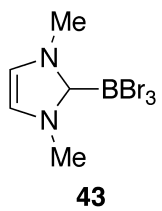
1

ppm

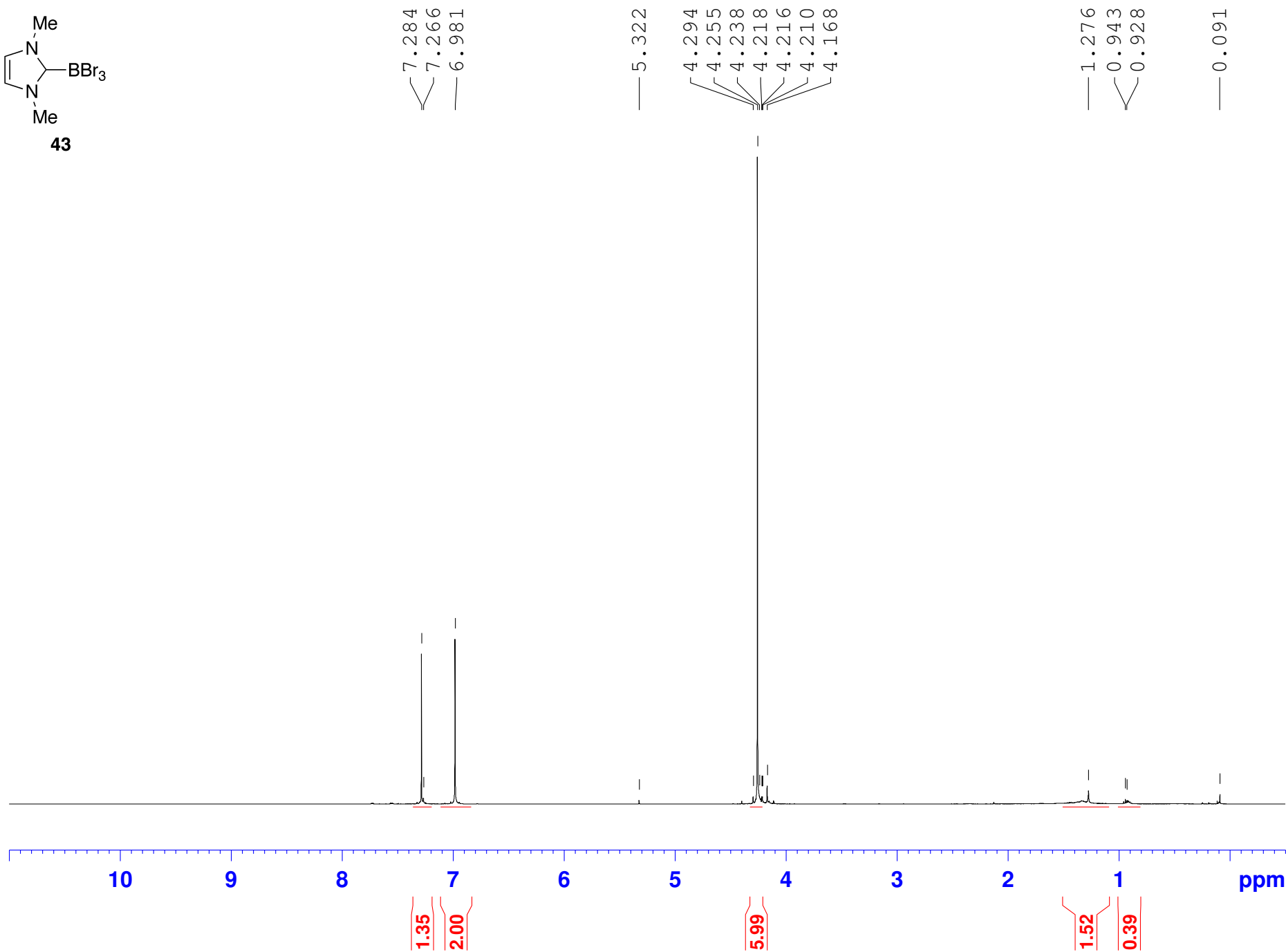
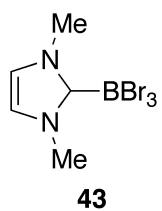
2.00

6.28

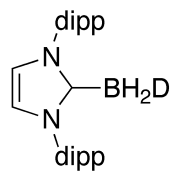
EM125.38SM 11B 500 CDC13 just NHC.BBr3 4.10.13



EM125.38SM 1H 500 CDC13 just NHC.BBr3 4.10.13

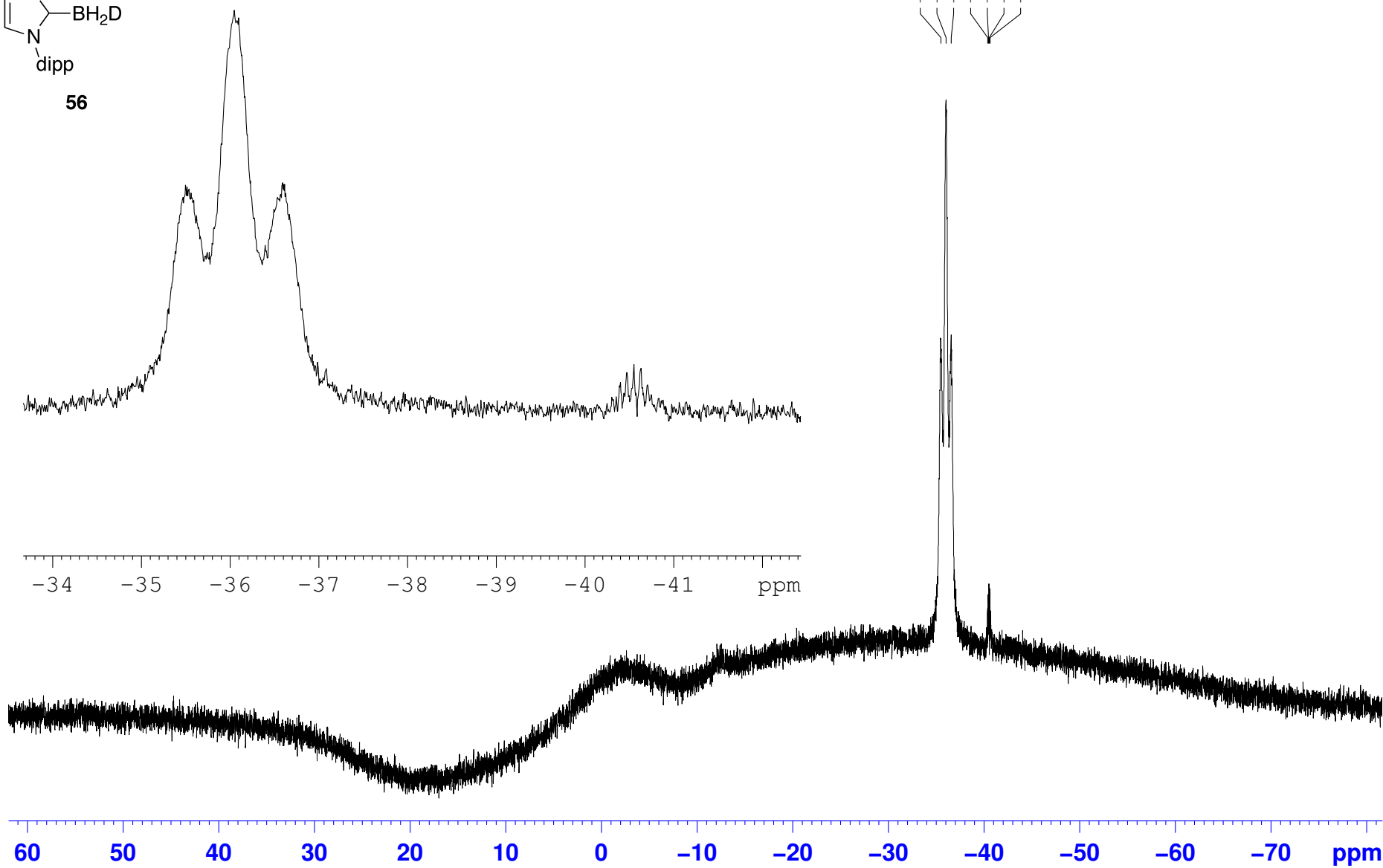


EM125.13 11B 500 CDC13.toluene.ether monodeuteride dipp 2.26.13

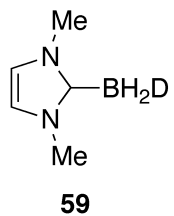


56

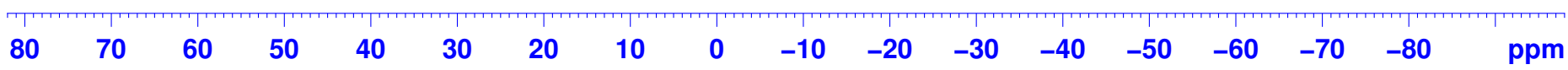
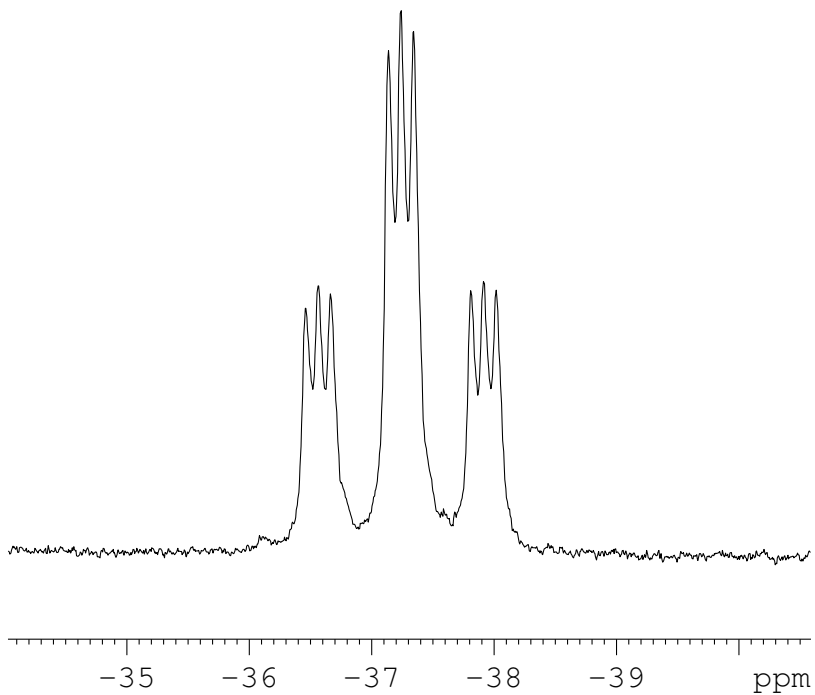
35.50
36.05
36.59
40.40
40.47
40.55
40.63



EM125.03 11B 400a CDCl3.ether LAD overnight 2.15.13

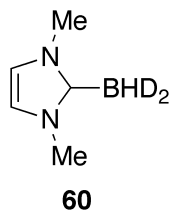


-36.46
-36.57
-36.67
-37.14
-37.24
-37.34
-37.81
-37.92
-38.02

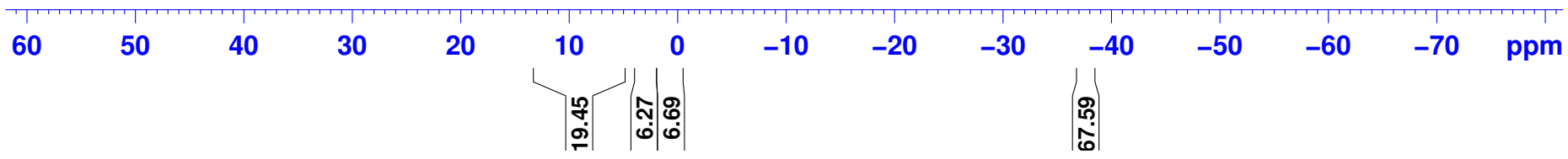
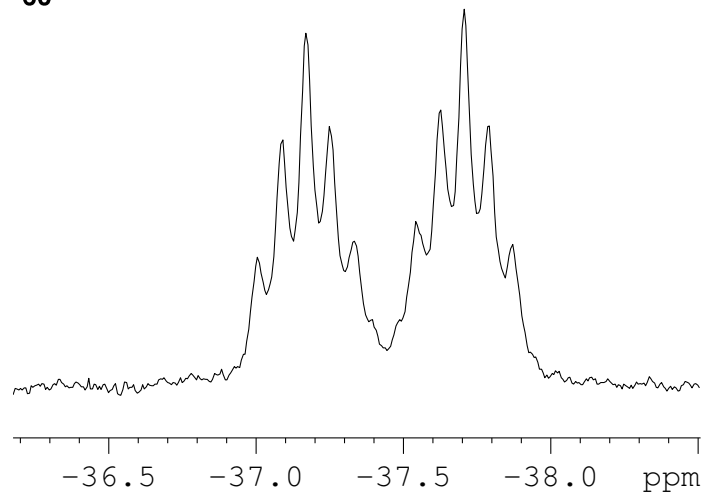


32.53
37.47

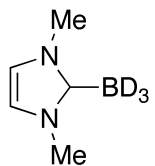
EM125.10 11B 500 CDCl3.toluene.ether dideuteride 2.26.13



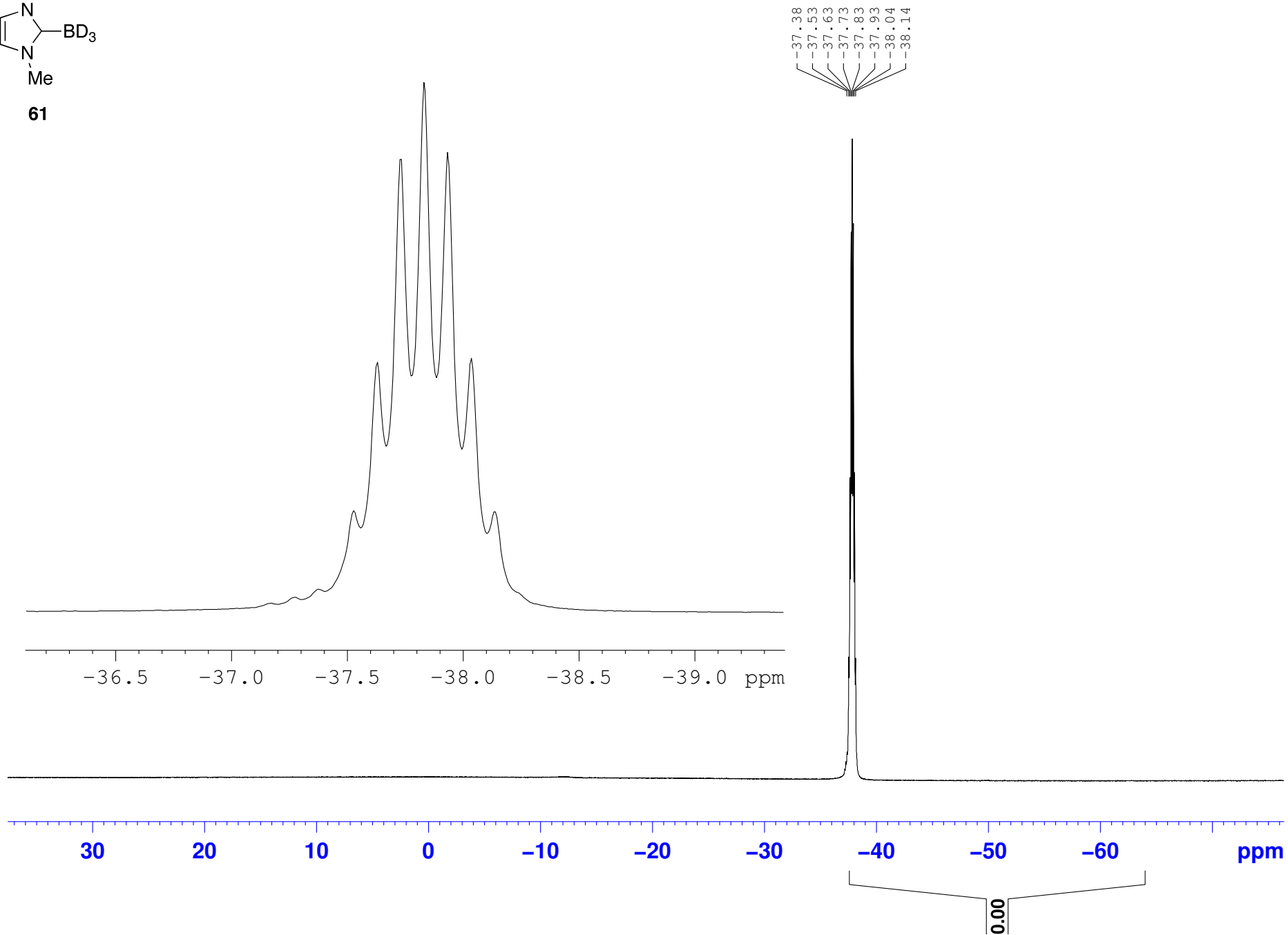
-37.01
-37.09
-37.17
-37.25
-37.33
-37.54
-37.63
-37.71
-37.79
-37.87



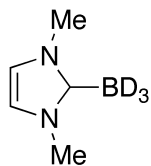
EM125.35 11B 400a CDCl3 vacume BD3 4.4.13



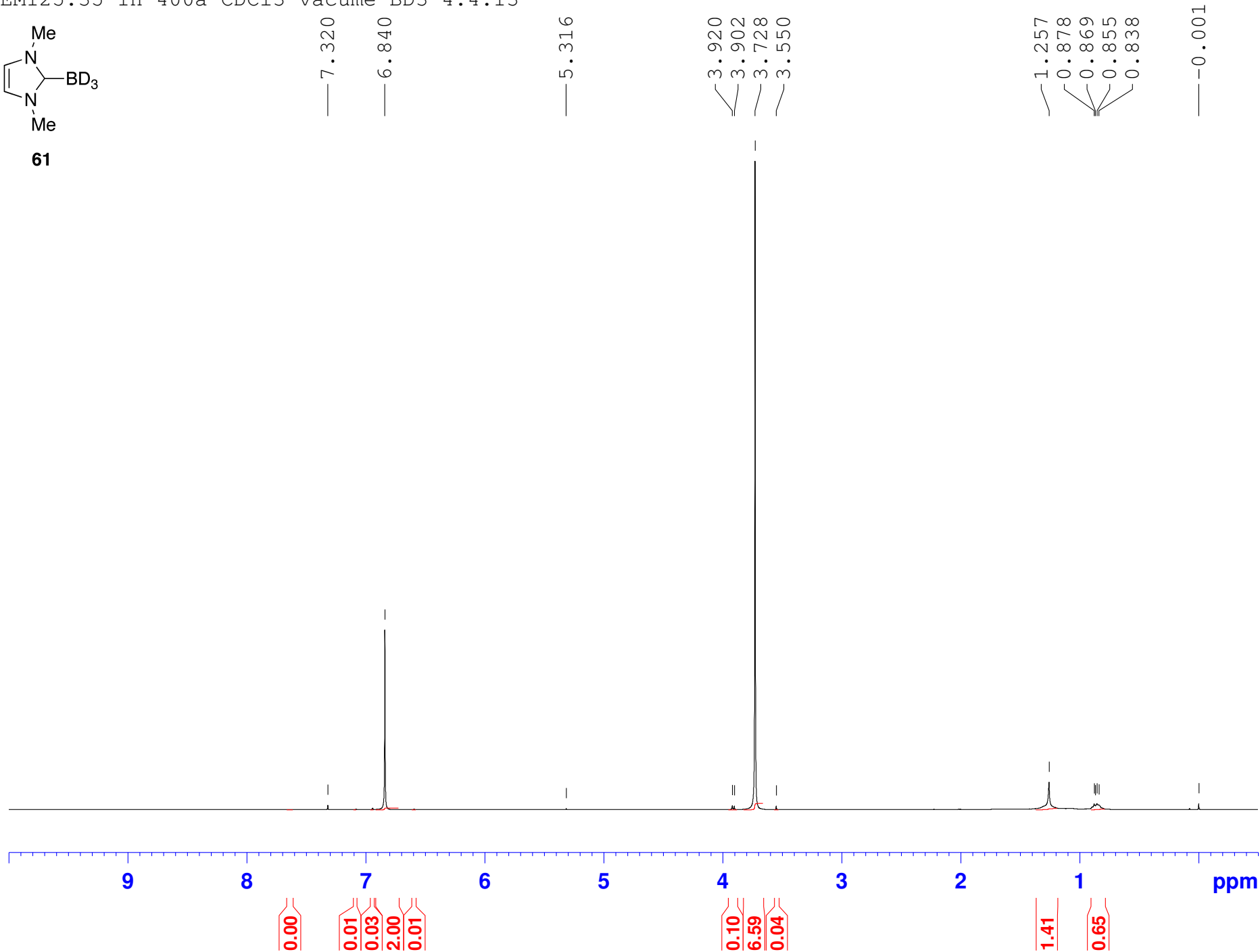
61



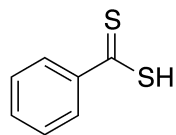
EM125.35 1H 400a CDC13 vacume BD3 4.4.13



61



EM125.83 500 13C CDC13 dithiobenzoic acid check 8.12.13

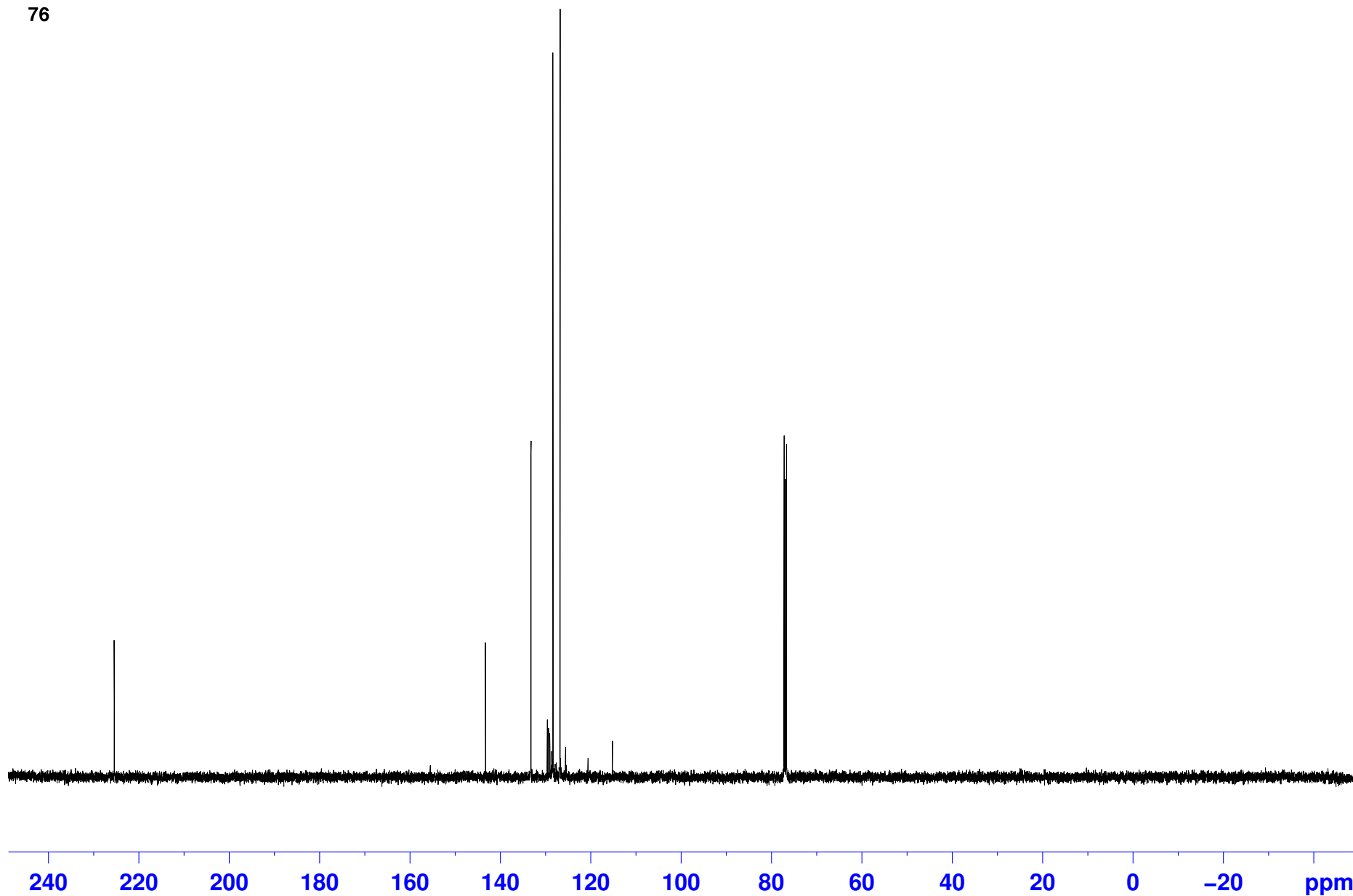


76

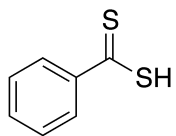
225.38

143.23
133.19
129.56
129.32
129.00
128.59
128.31
126.72
125.53
115.22

77.25
76.99
76.74



EM125.85 400a 1H CDC13 dithiobenzoic acid check 1 d freezer 8.16.13



76

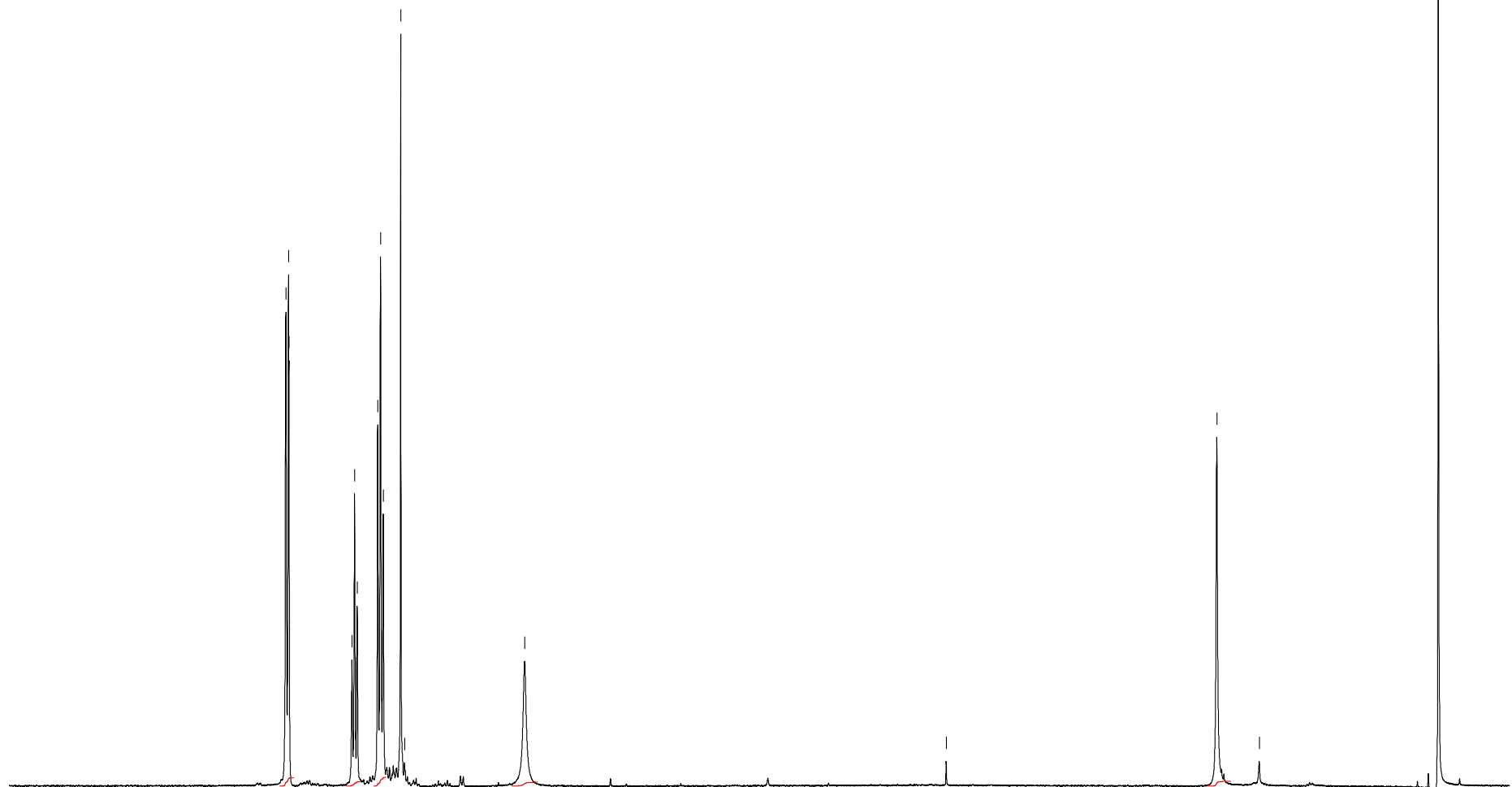
8.065
8.063
8.045
8.042
7.601
7.583
7.564
7.421
7.401
7.382
7.260
7.232
6.393

3.443

1.550

1.253

-0.000



9

2.00

1.09

2.15

0.92

6

5

4

3

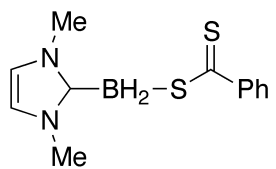
2

1.17

1

ppm

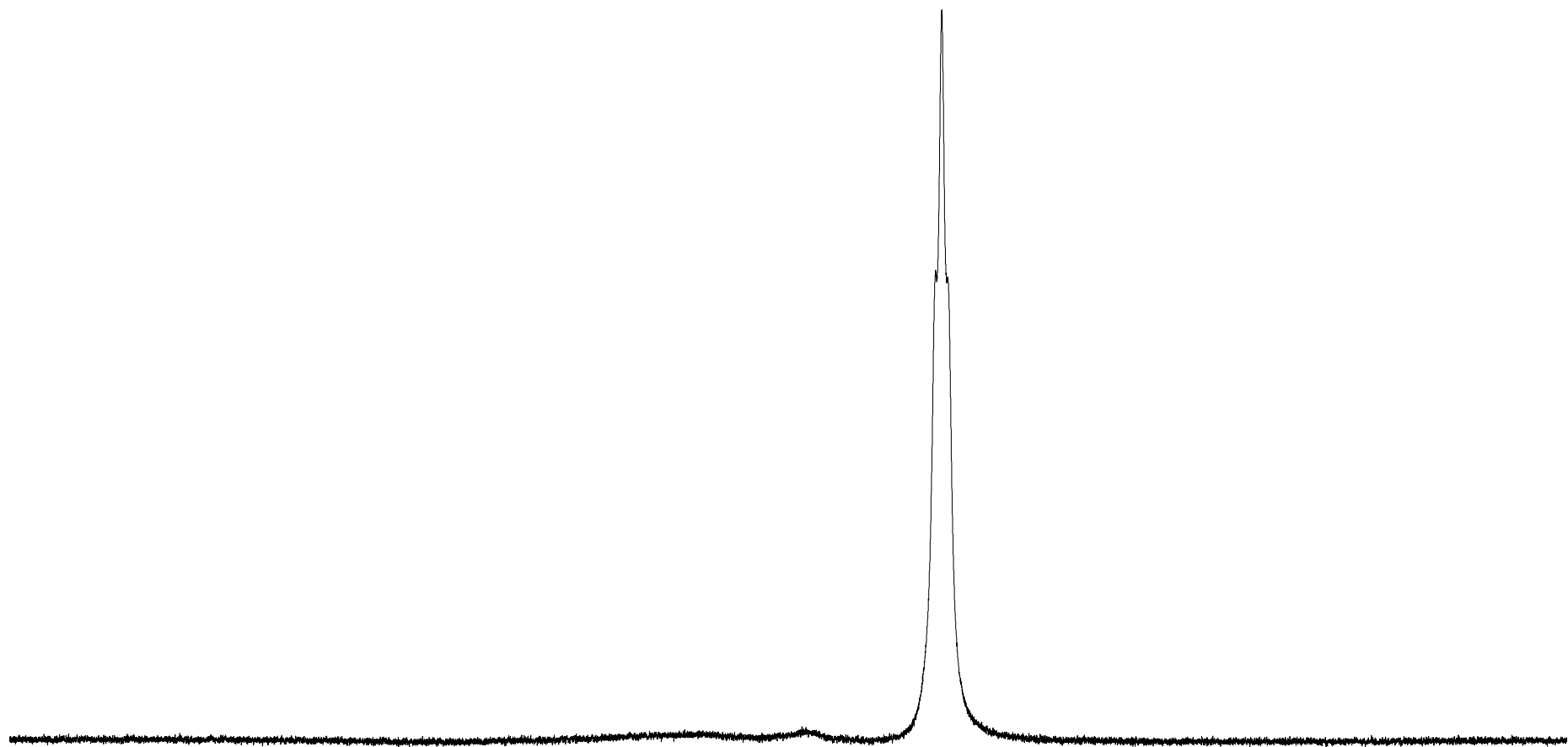
EM125.87.27-29 500 11B CDCl3 red solid 8.26.13



80

-11.10

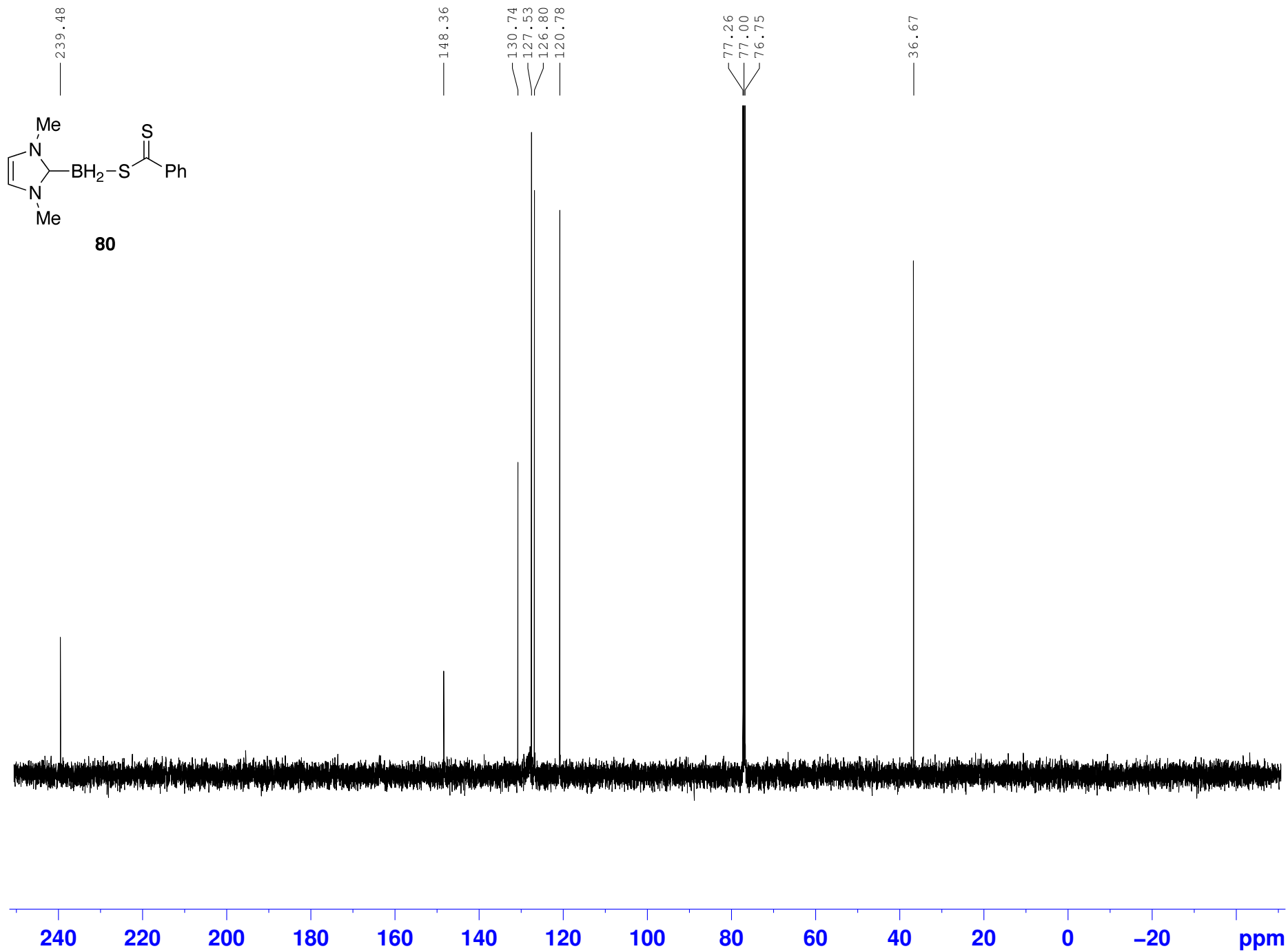
-23.44
-24.00



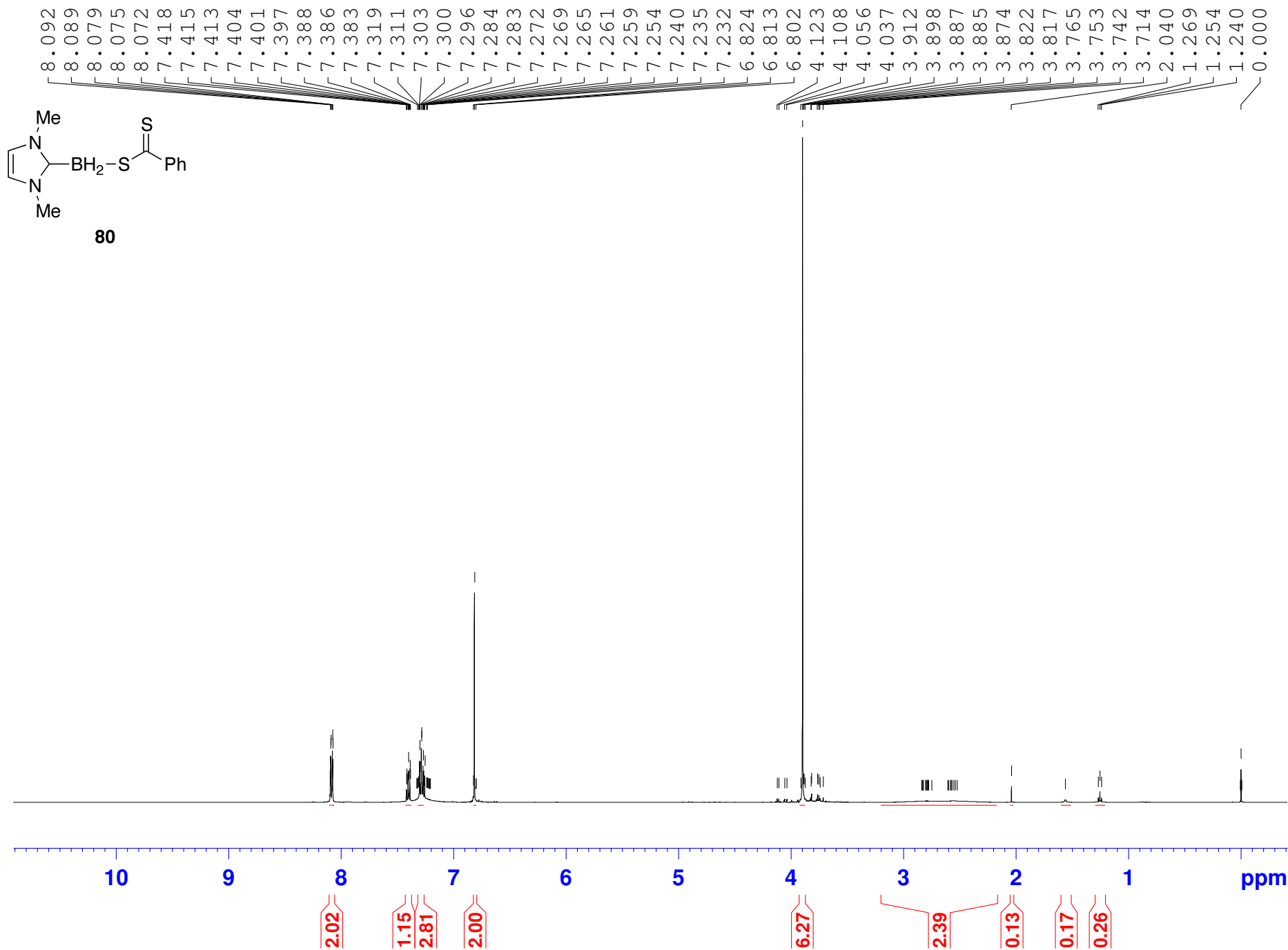
60 50 40 30 20 10 0 -10 -20 -30 -40 -50 -60 -70 ppm

100.00

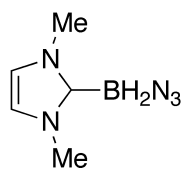
EM125.87.27-29 500 13C CDC13 red solid 8.26.13



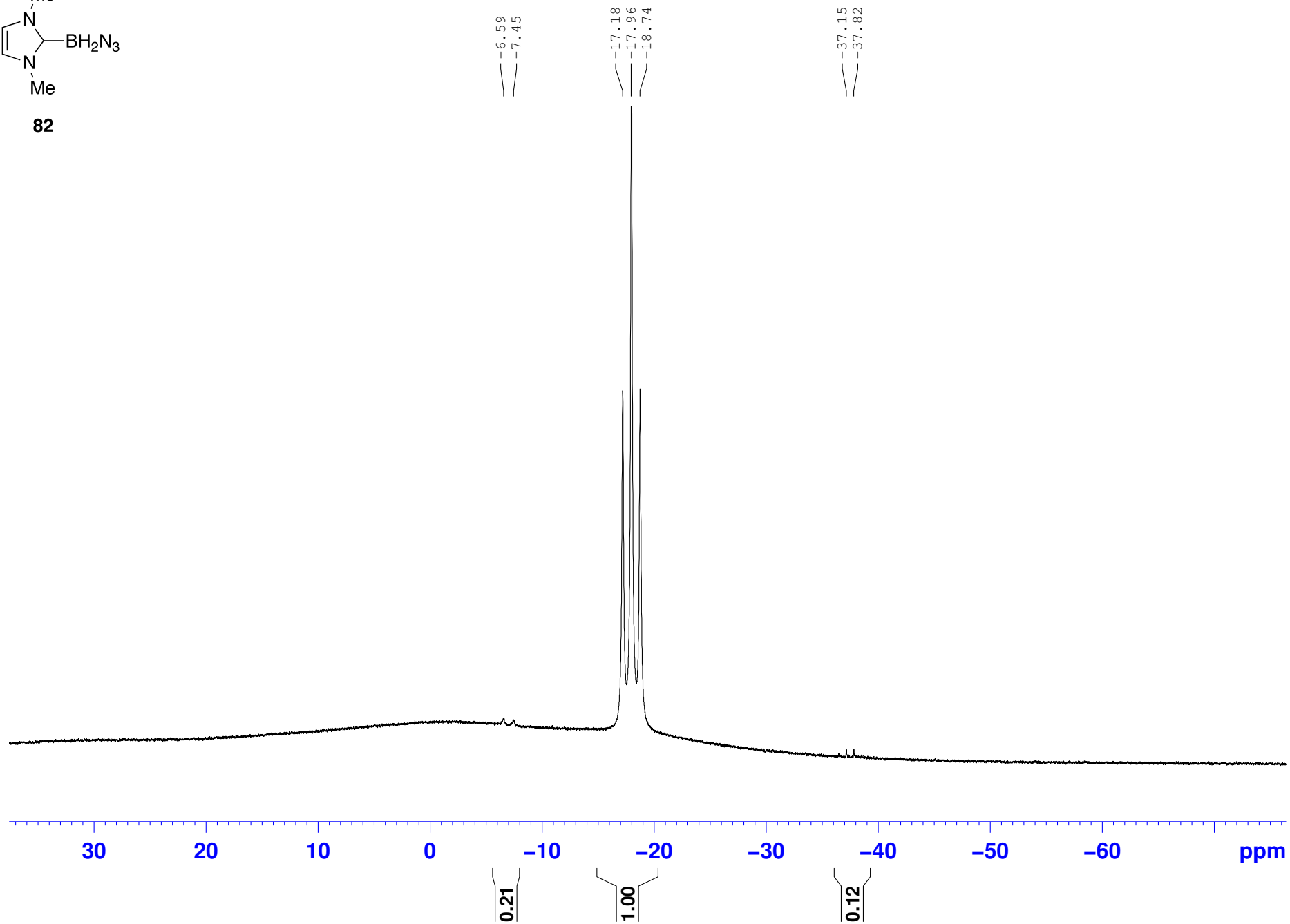
EM125.87.27-29 500 1H CDC13 red solid 8.26.13



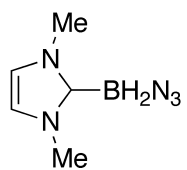
EM64.48.25 400a 11B CDC13 1.24.12



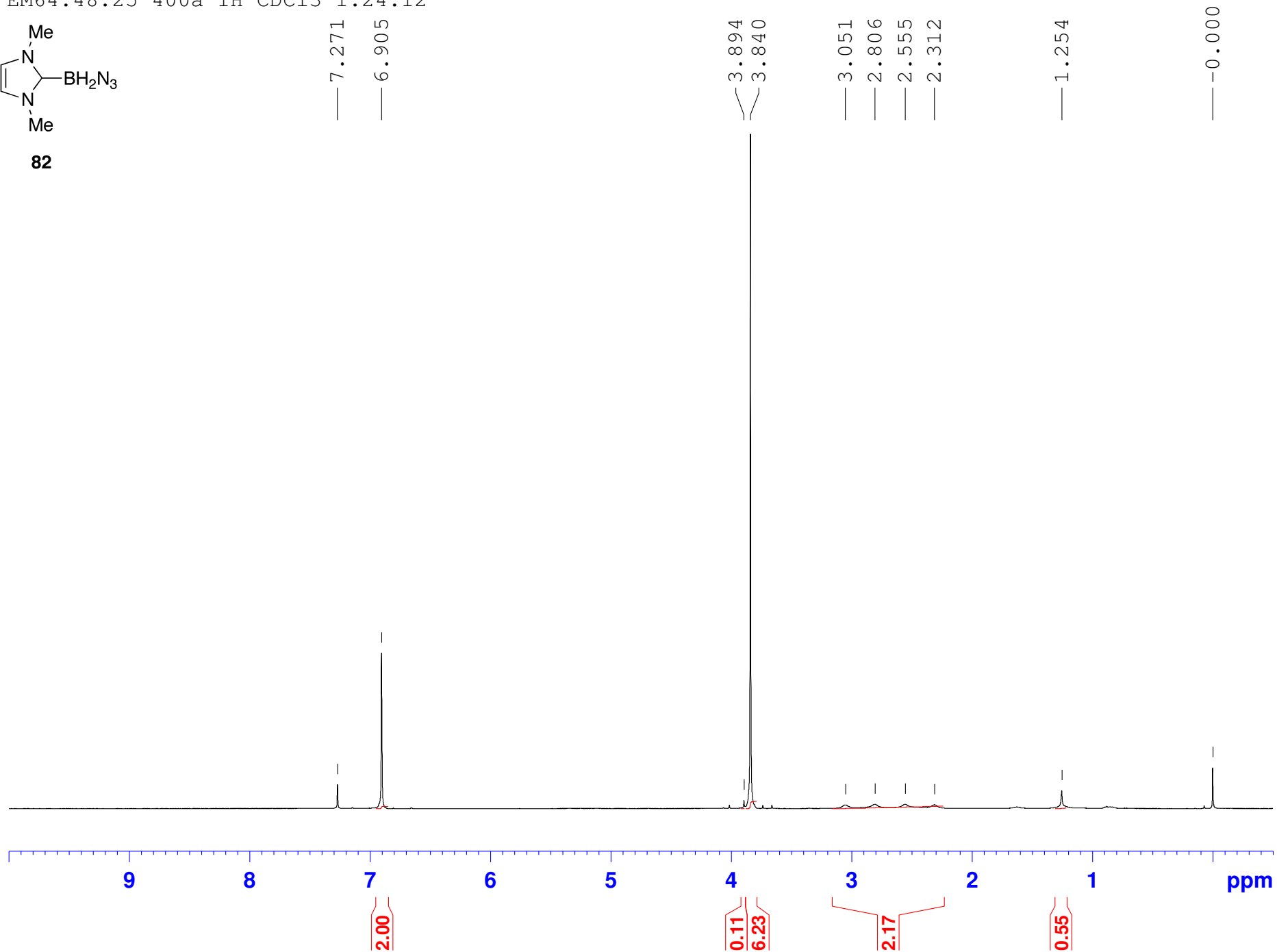
82



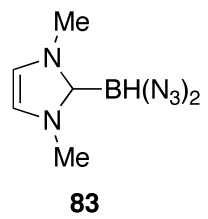
EM64.48.25 400a 1H CDC13 1.24.12



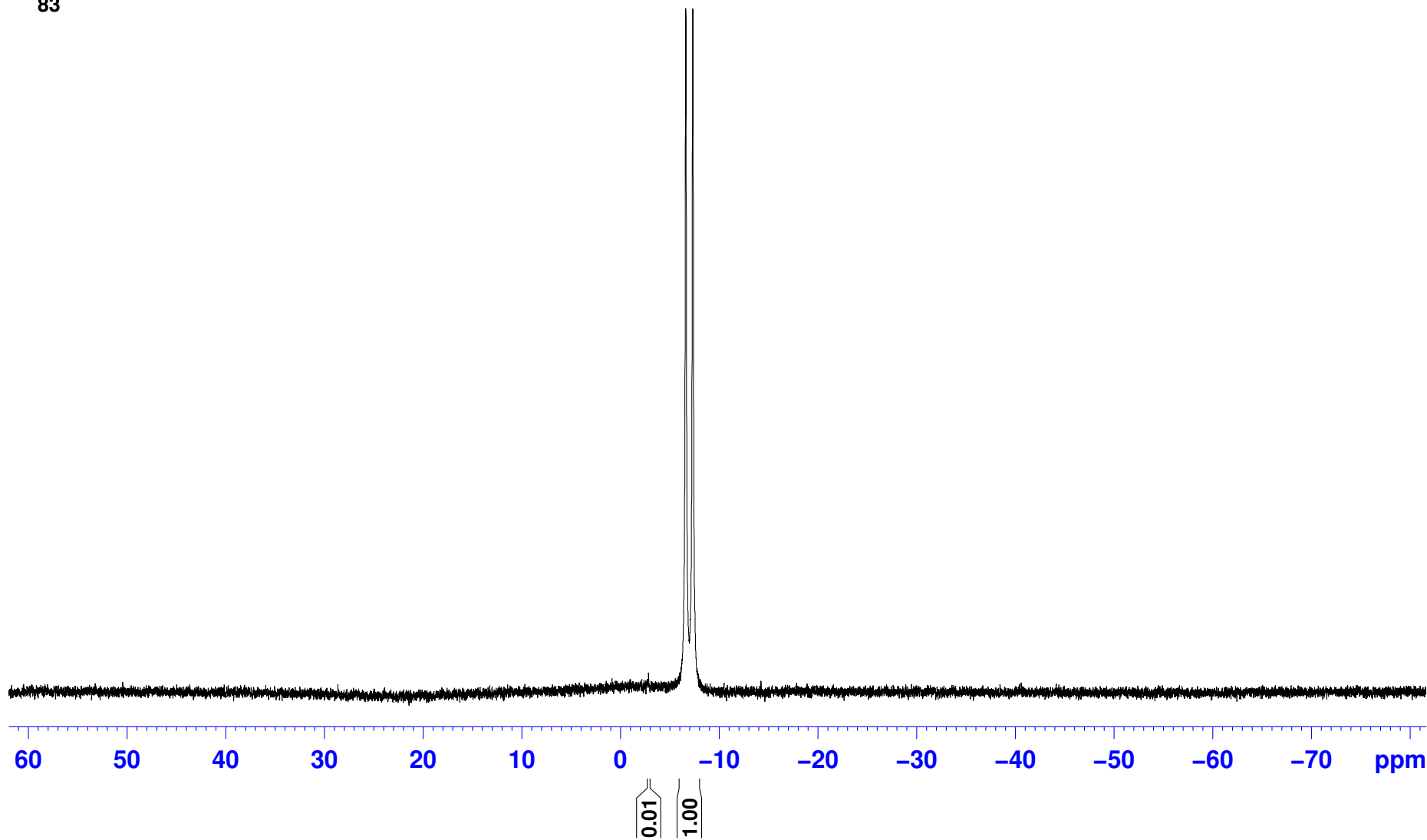
82



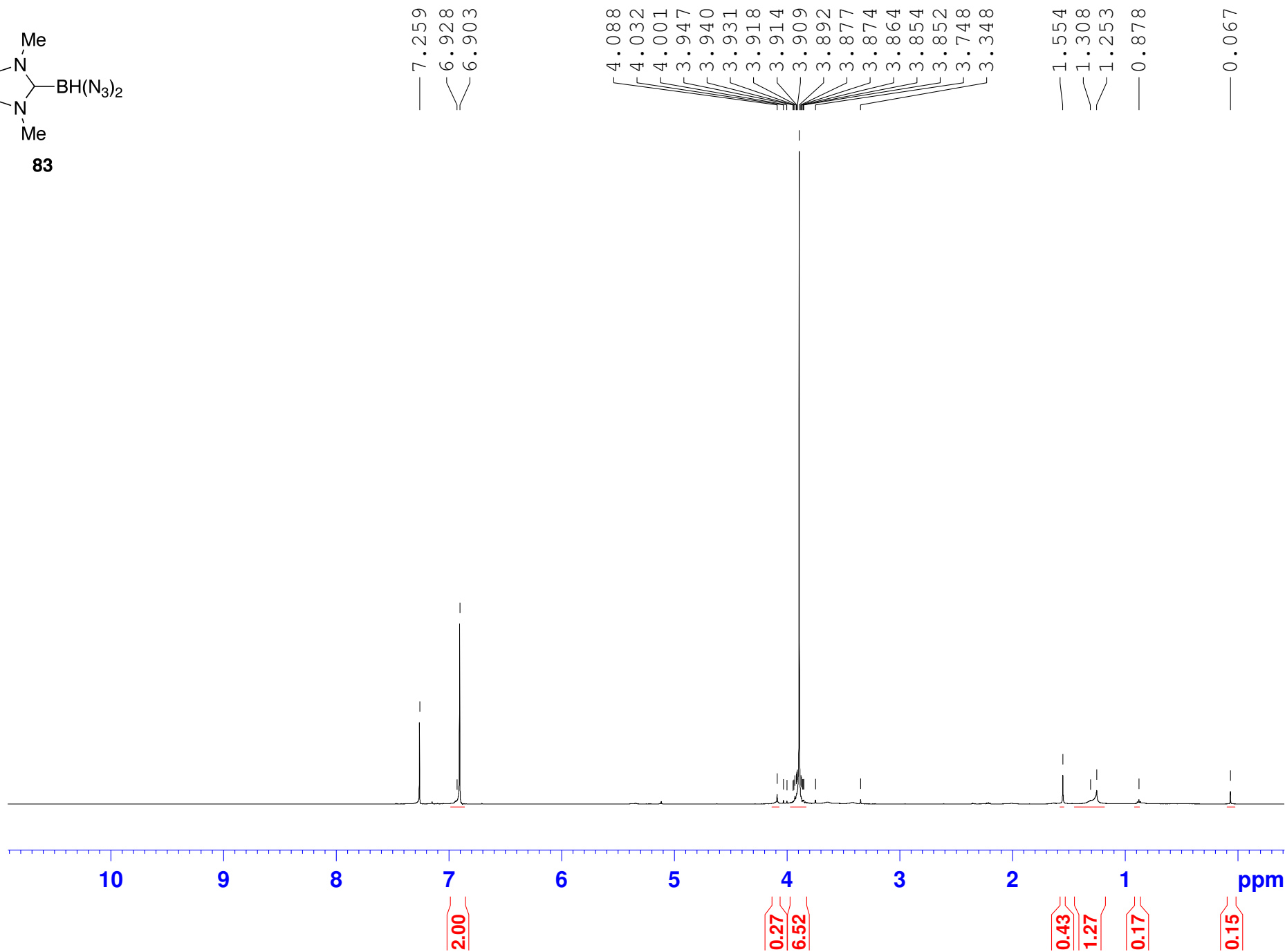
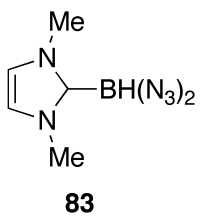
EM125.48.2 11B 500 CDC13 after column 23 to 38 5.13.13



-2.19
-2.86
-6.64
-7.35

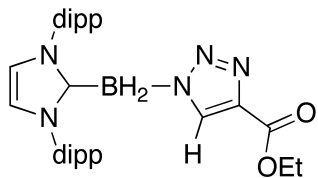


EM125.48.2 1H 500 CDC13 after column 23 to 38 5.13.13

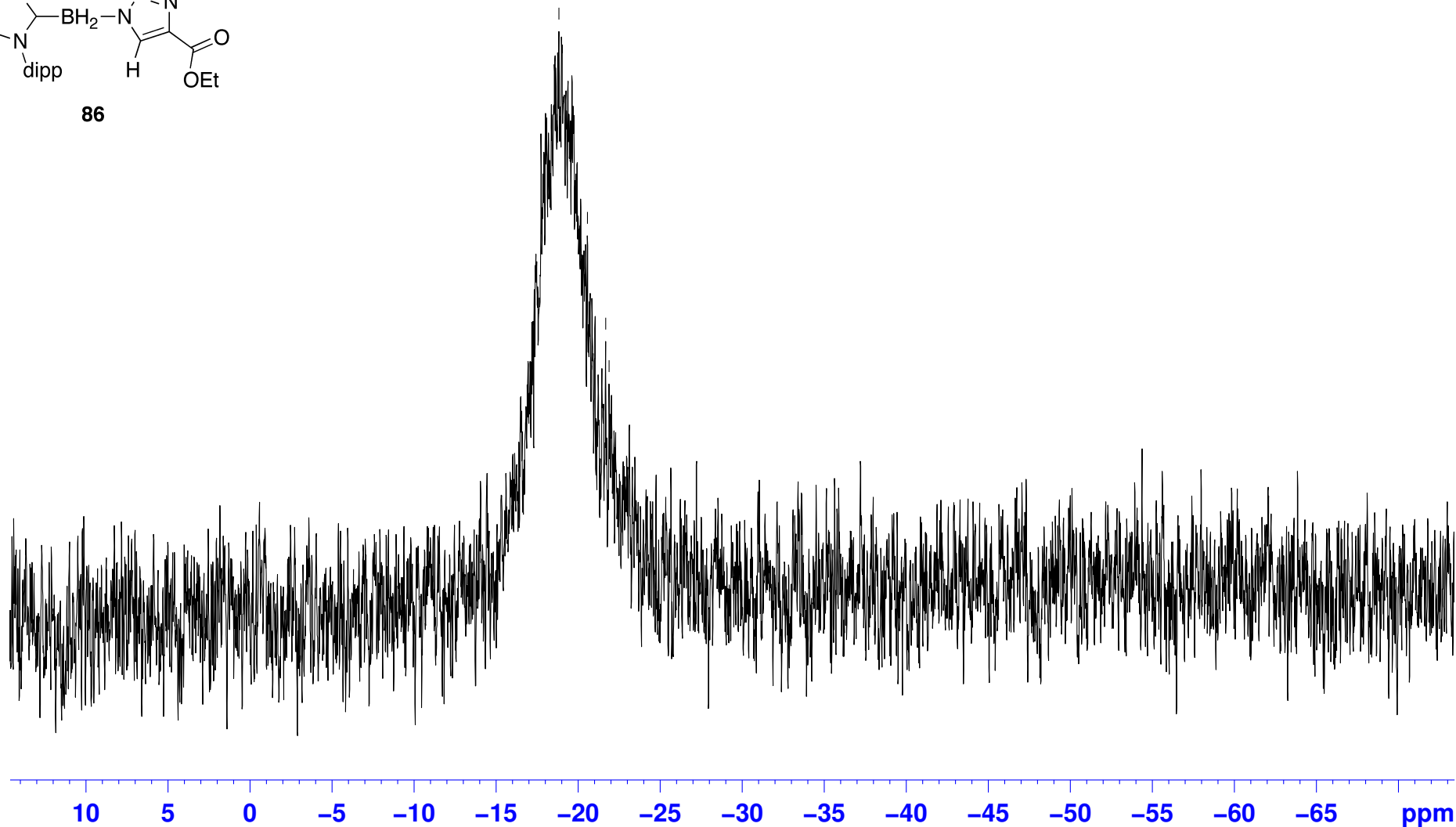


-18.828
-20.568
-21.680
-21.885

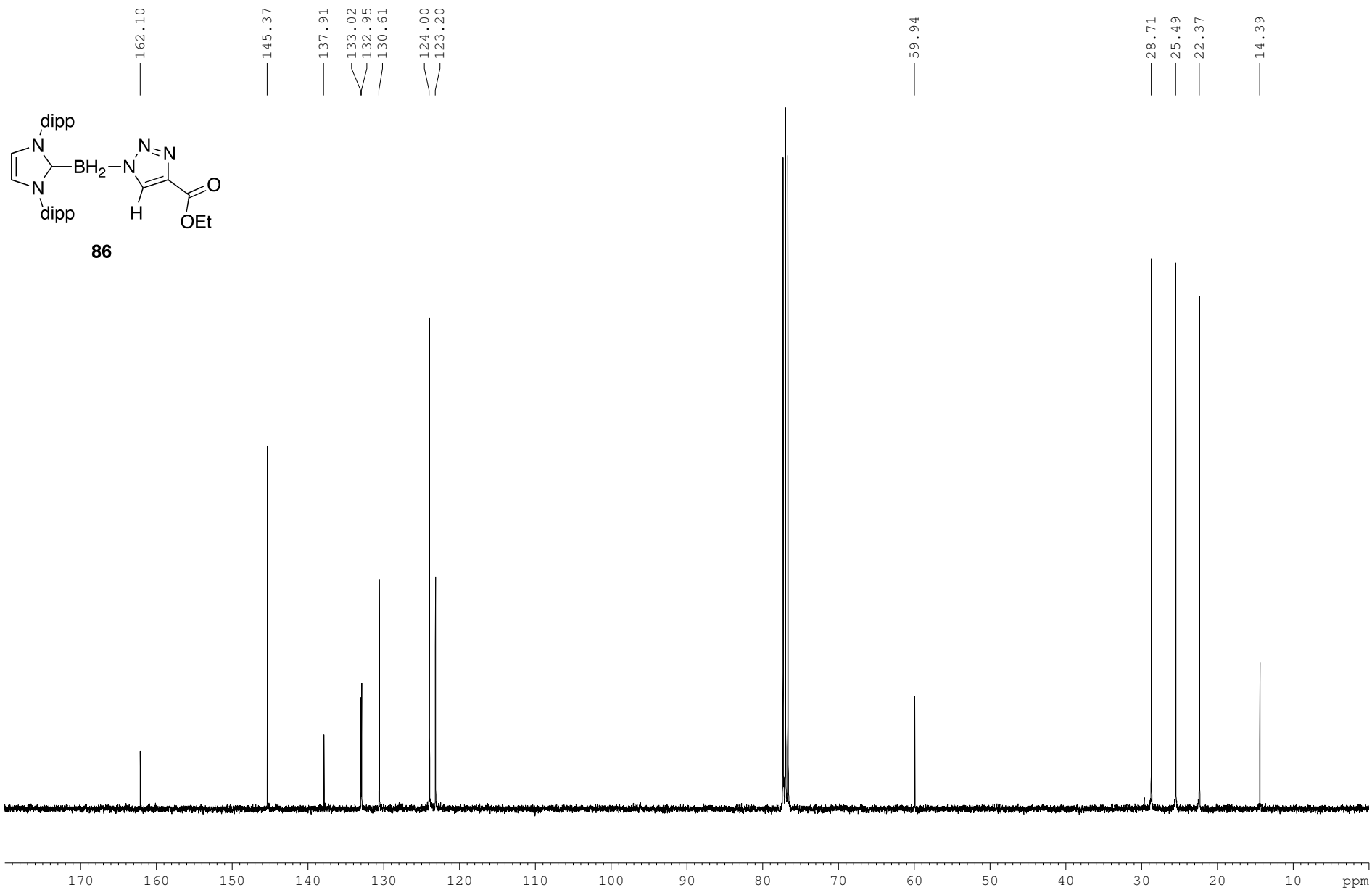
EWM-1-016 purity check cdcl3 11B 5.14.10



86



EWM-1-016-13C: iPr-IMD-BH2-N3 + Ethyl propiolate

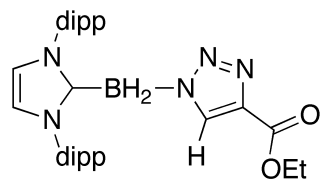


7.610
7.584
7.559
7.385
7.359
7.270
7.118

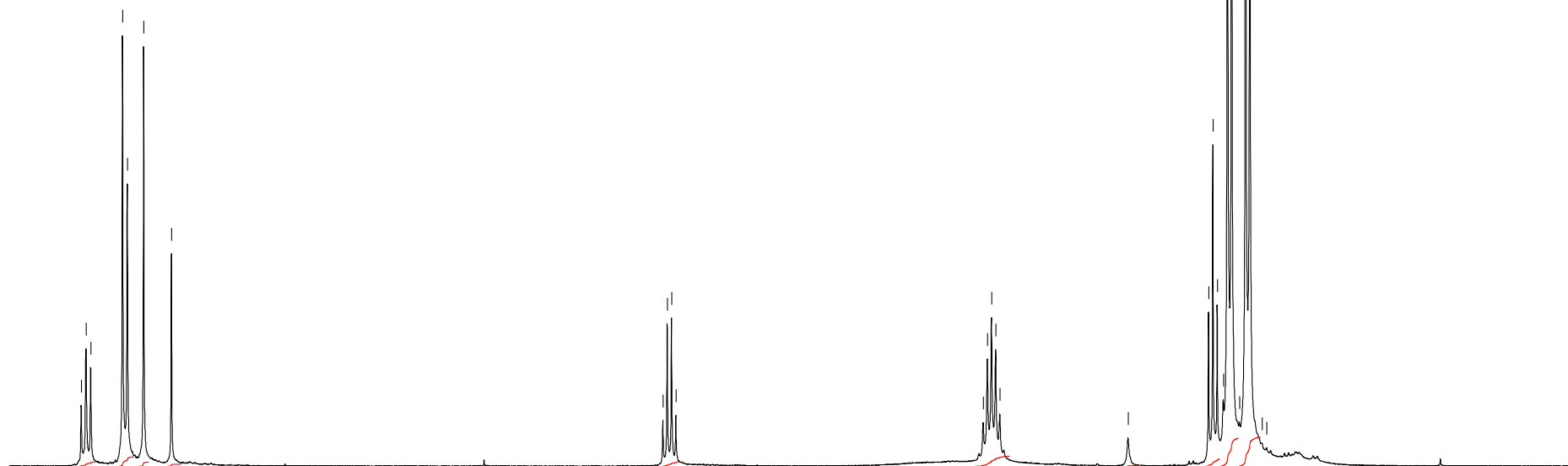
4.437
4.414
4.390
4.366

2.690
2.667
2.644
2.622
2.599
1.899
1.460
1.437
1.413
1.379
1.357
1.334
1.292
1.258
1.235
1.169
1.144

EWM-1-016 purity check cdcl3 5.14.10



86



1.00
2.19
1.04
0.56

1.02

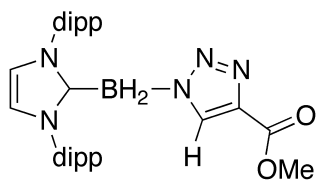
2.31

0.21

1.70
6.47
6.68

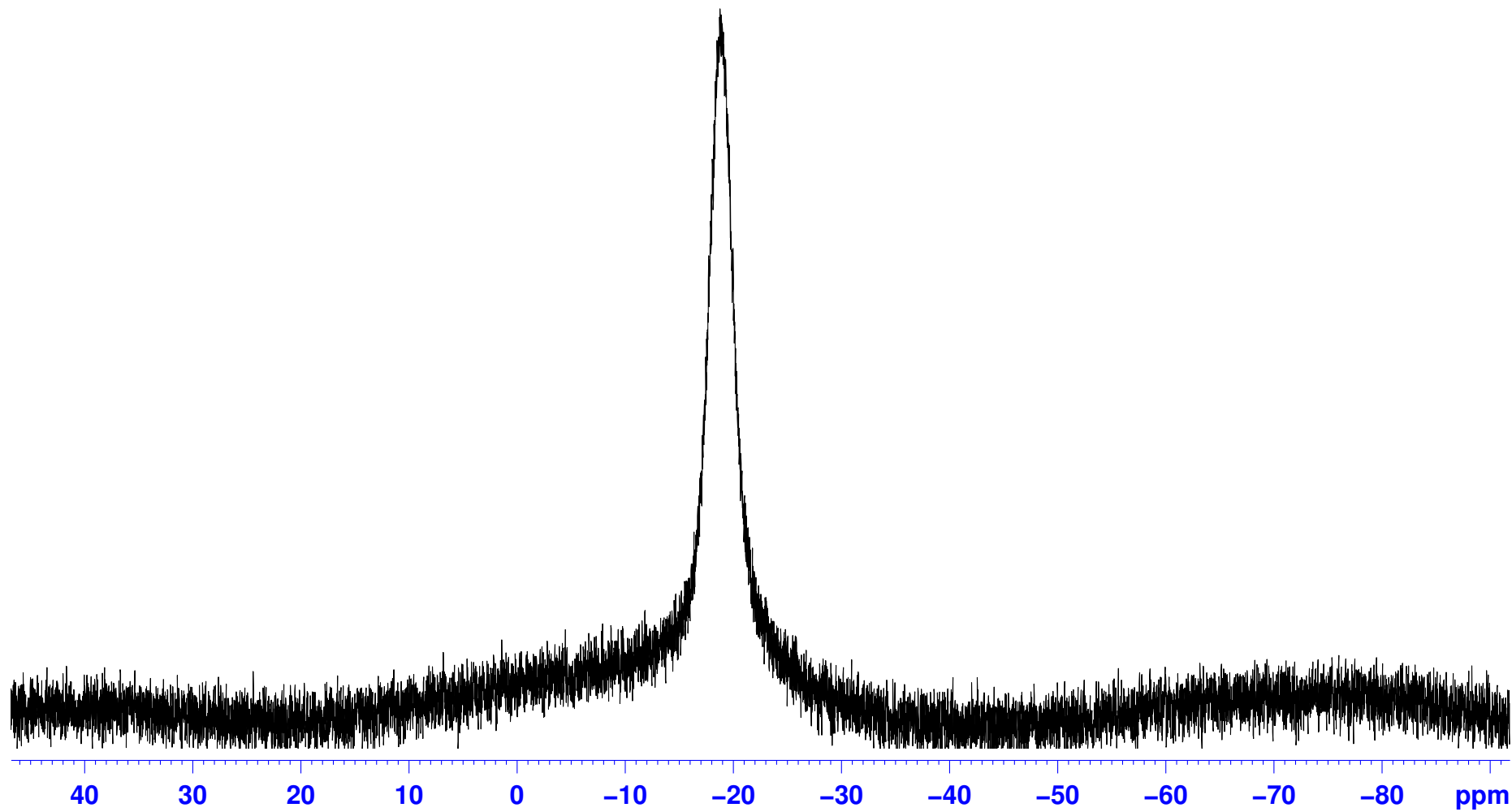
7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0.0 ppm

EWM-1-041D 400b CDCl3 11B vacuum 6.4.10

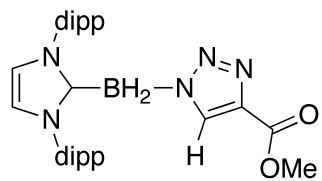


89

---18.79

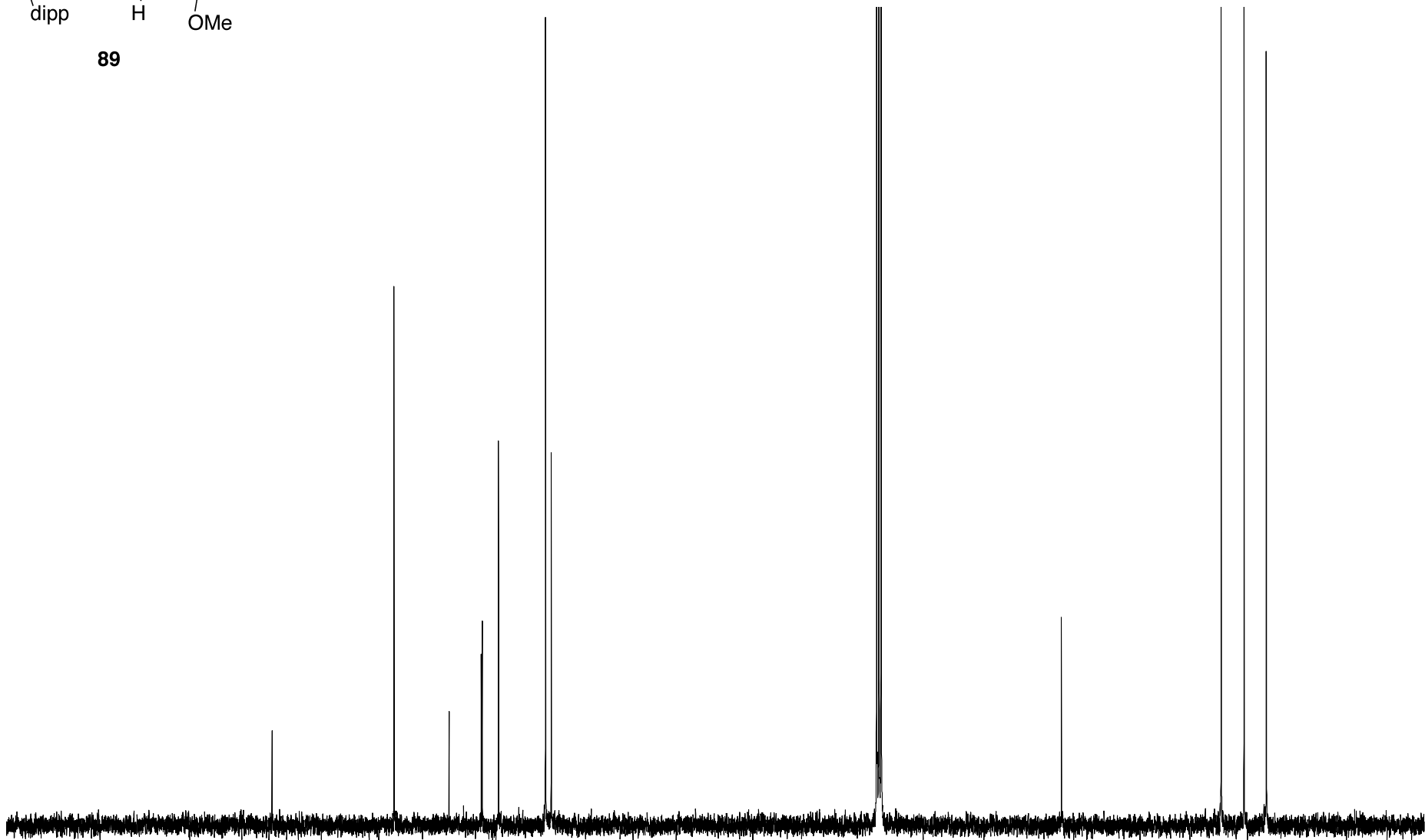


EWM-1-041D cdcl3 13C after vacuum 6.4.10



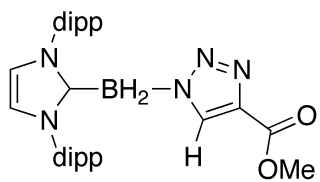
89

162.54
145.36
137.58
133.06
132.92
130.62
124.00
123.19
77.31
76.99
76.67
51.25
28.72
25.50
22.36



190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 ppm

EWM-1-041D 400b CDC13 vacuum 6.4.10



89

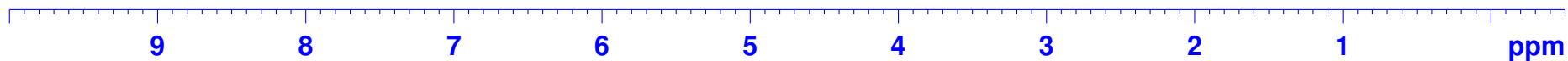
7.714
7.694
7.675
7.492
7.473
7.385
7.269

4.034

2.787
2.770
2.753
2.736
2.719

1.963

1.462
1.445
1.367
1.349



2.00
4.42
2.00
1.00

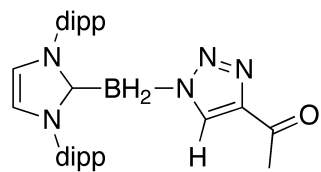
2.94

4.45

0.50

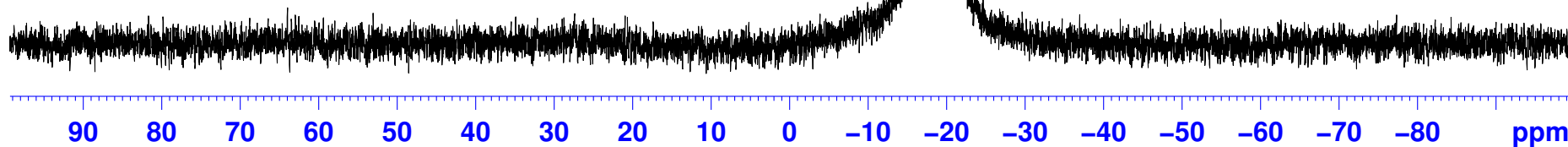
11.96
12.20

EWM-1-075 400b CDCl3 11B after column butynone 9.1.10

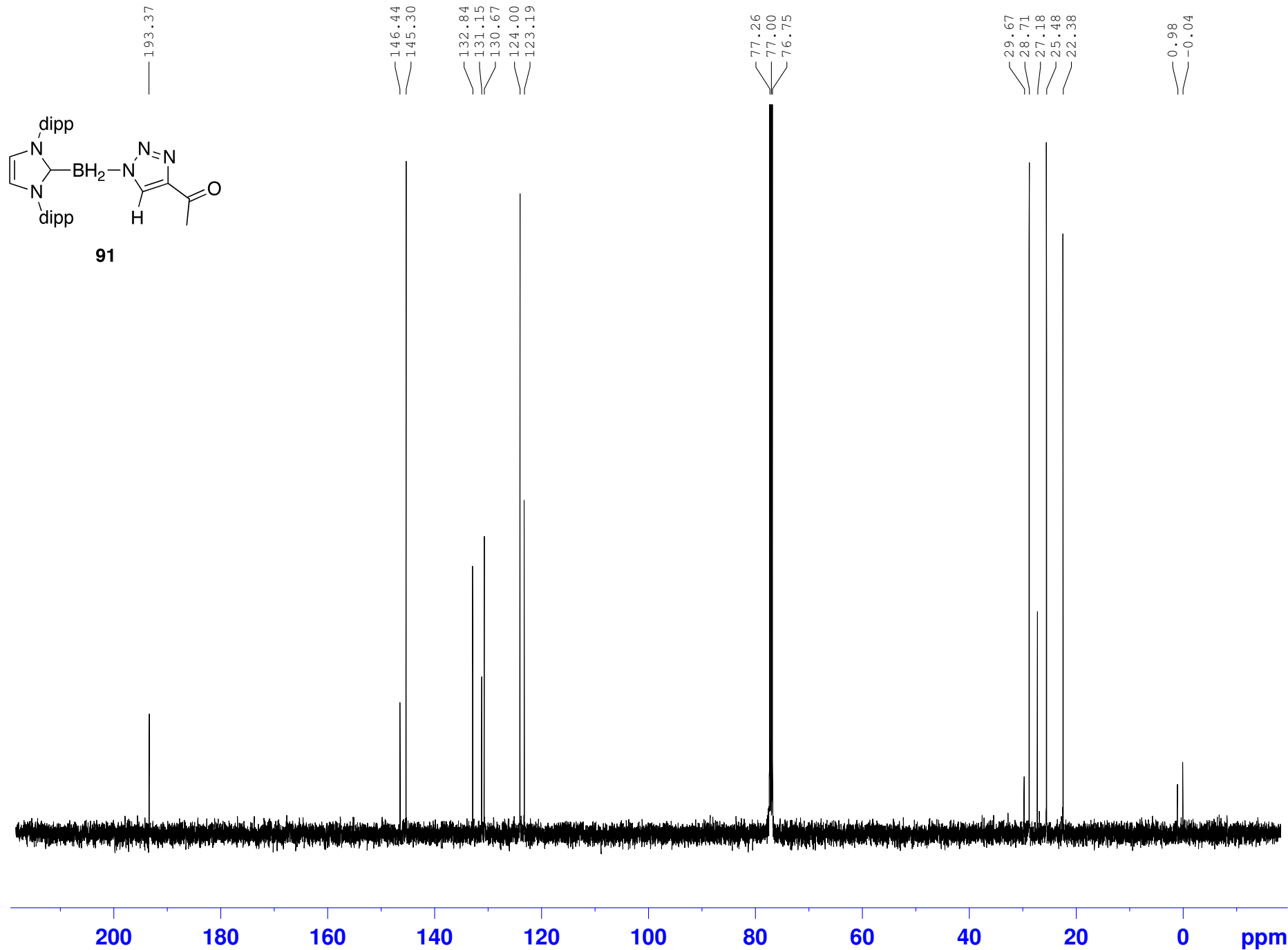


91

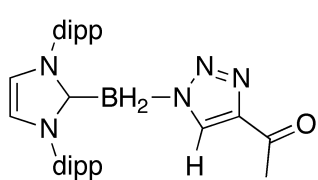
-18.63



EM40.75 500 13C CDCl3 3.24.12



EM40.75 500 1H CDC13 purity check 3.22.12



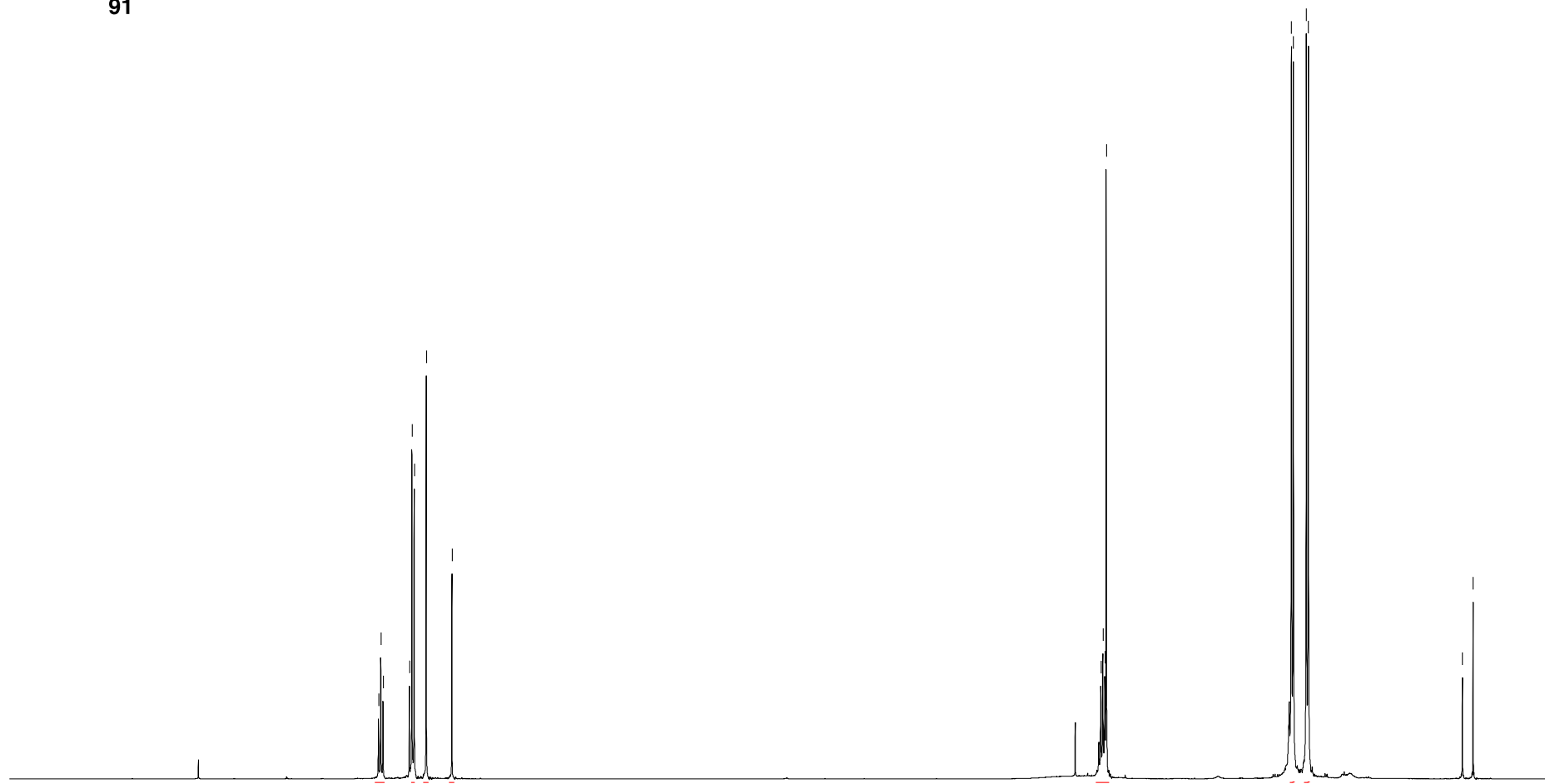
91

7.477
7.462
7.446
7.266
7.249
7.233
7.151
6.975

2.541
2.527
2.514
2.504

1.242
1.228
1.139
1.125

0.073
-0.000



9

8

7

6

5

4

3

2

1

ppm

2.03

3.79

2.00

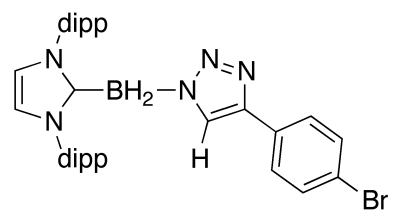
0.97

7.34

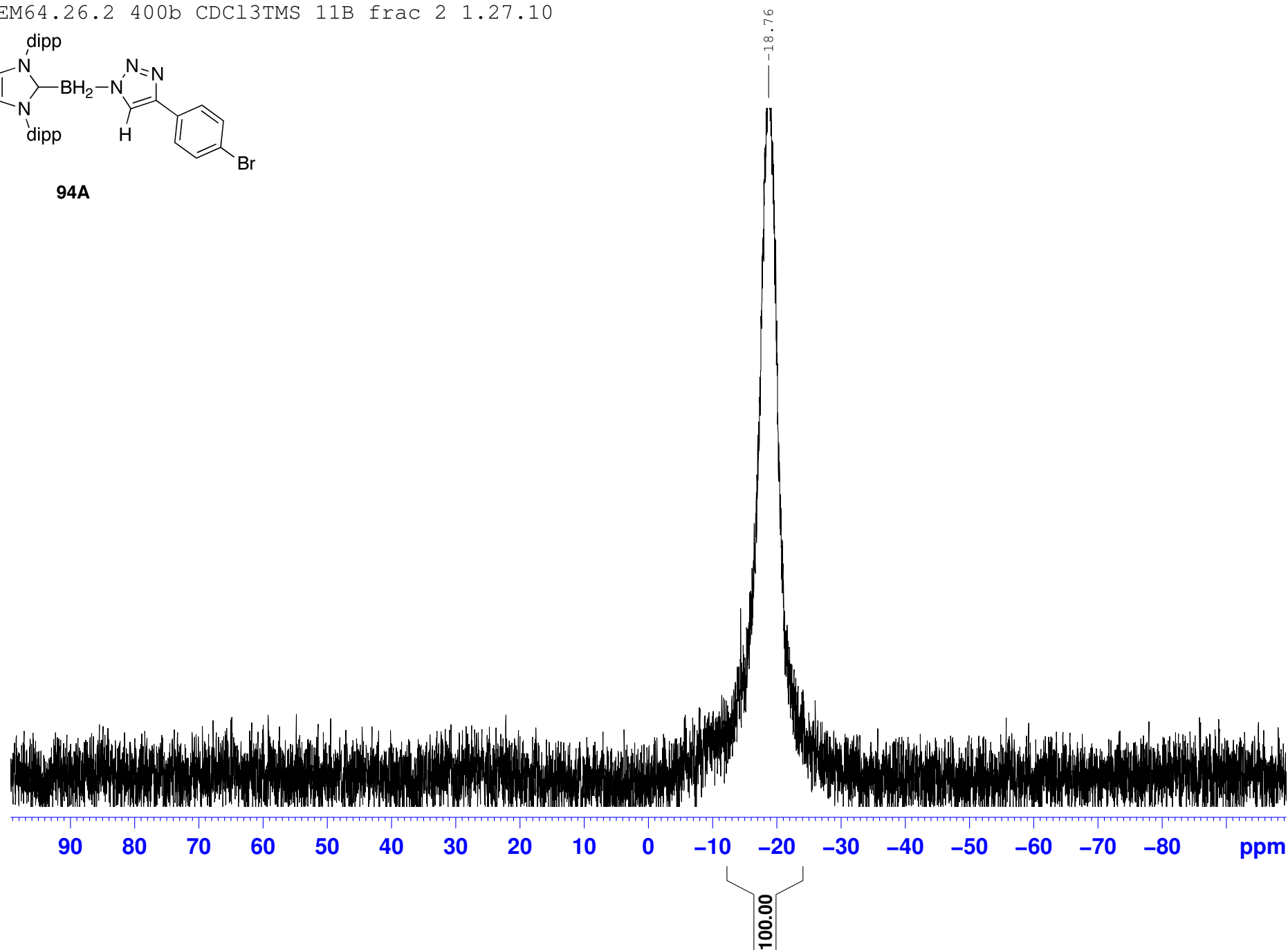
12.10

11.93

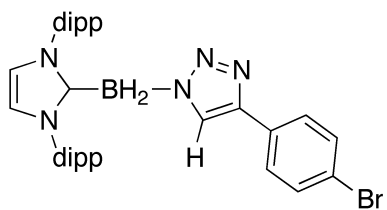
EM64.26.2 400b CDC13TMS 11B frac 2 1.27.10



94A



EM64.26.2 400b CDC13TMS 13C frac 2 1.27.10

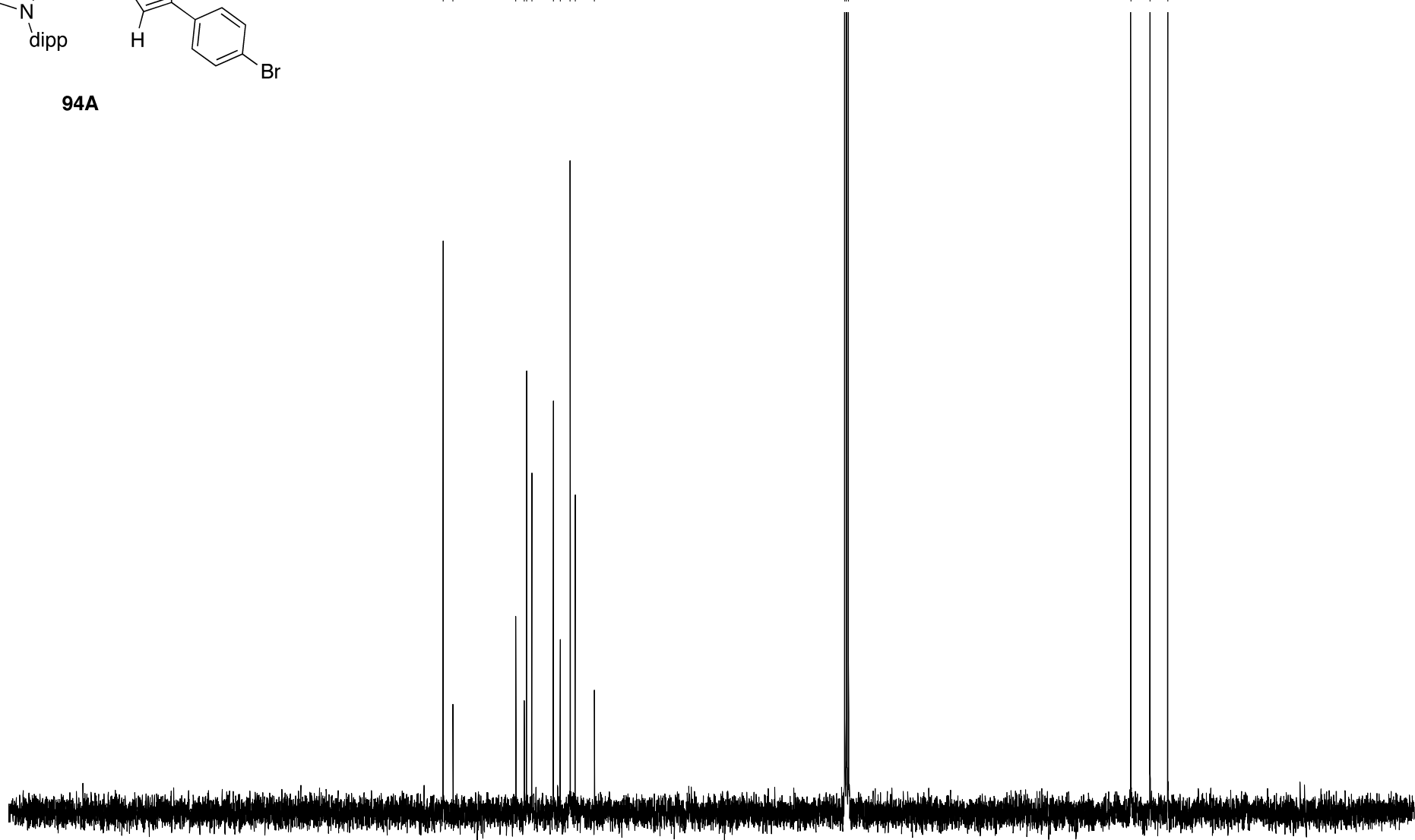


94A

145.55
143.86
133.17
131.76
131.36
130.47
126.82
125.65
123.95
123.10
119.84

77.32
77.00
76.68

28.71
25.45
22.44



200

180

160

140

120

100

80

60

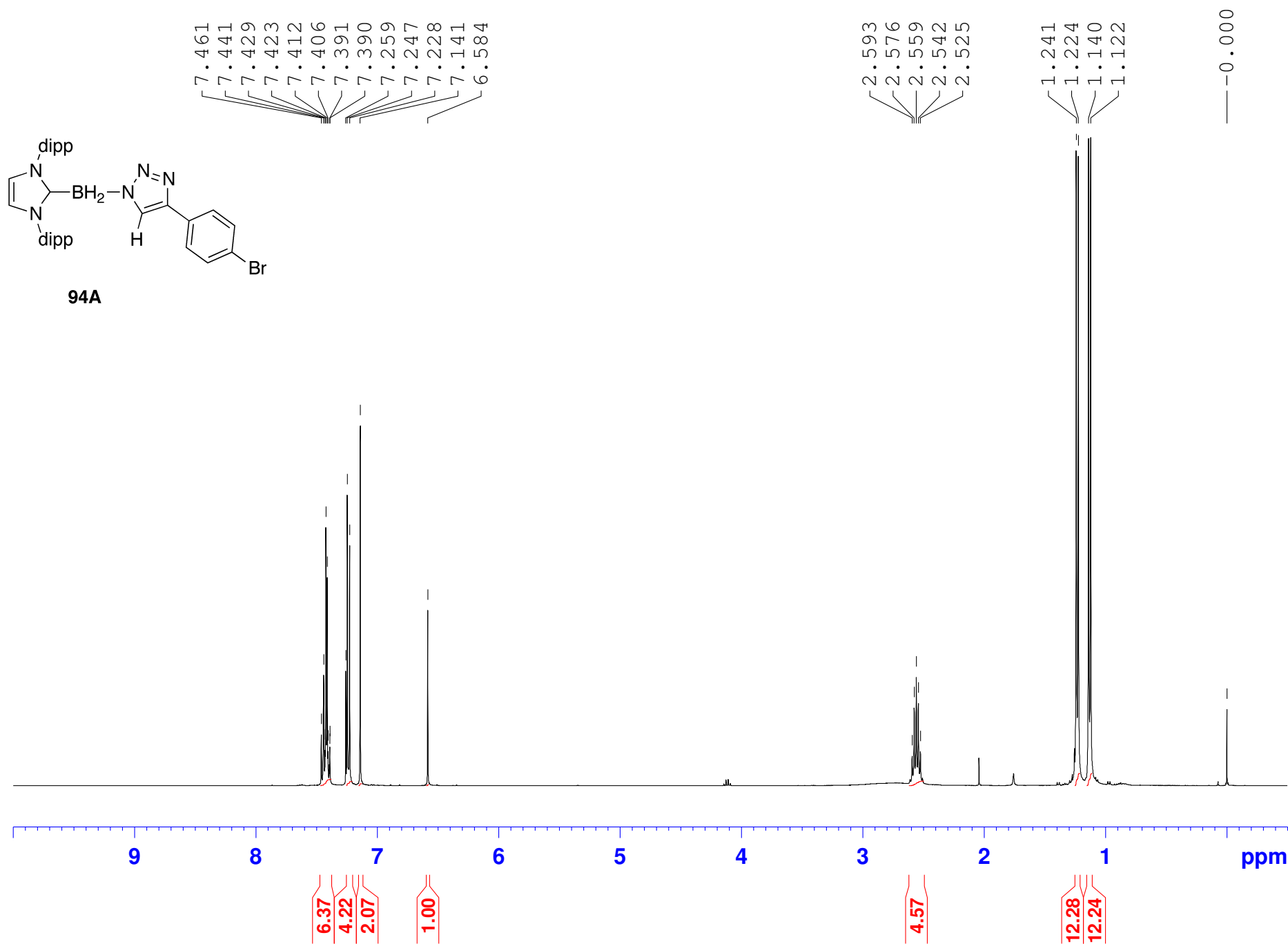
40

20

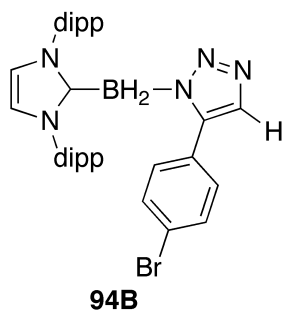
0

ppm

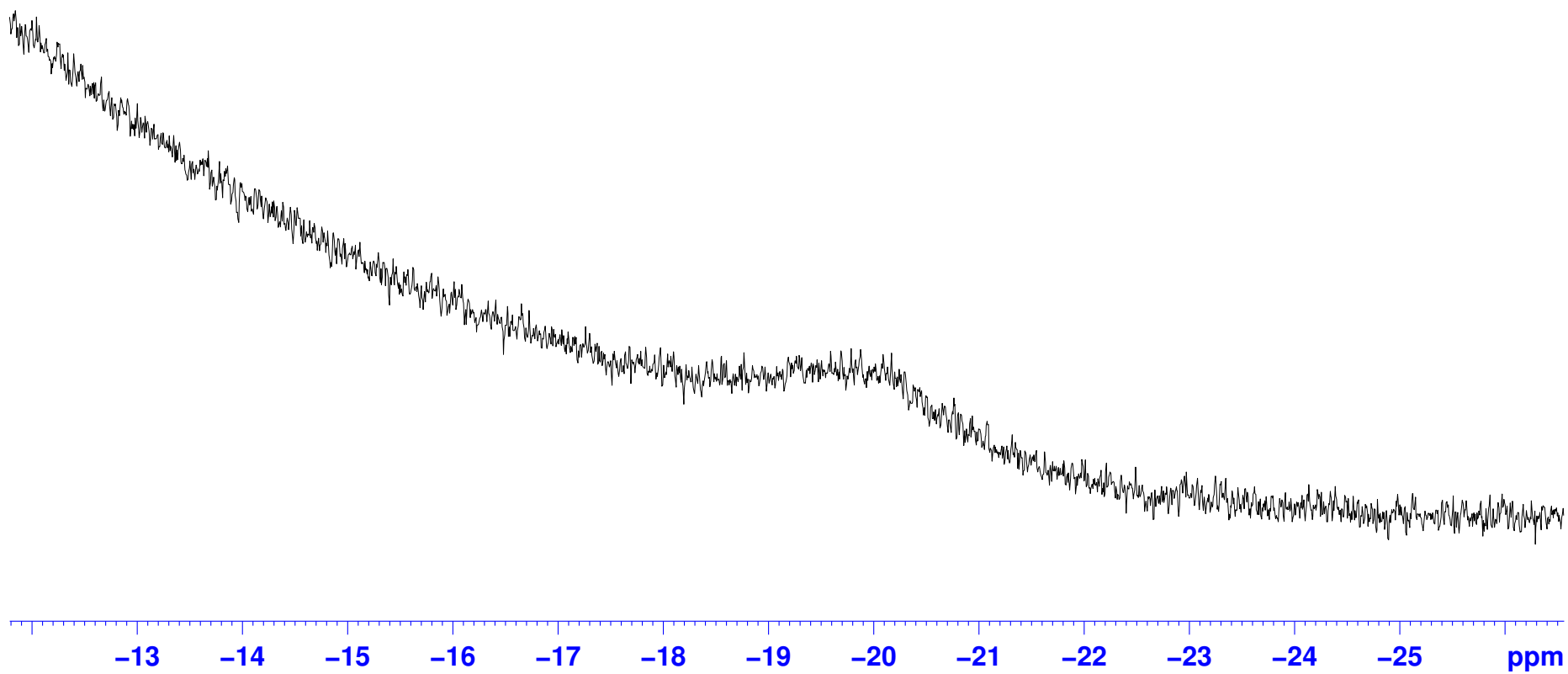
EM64.26.2 400b CDCl3TMS 1H frac 2 1.27.10



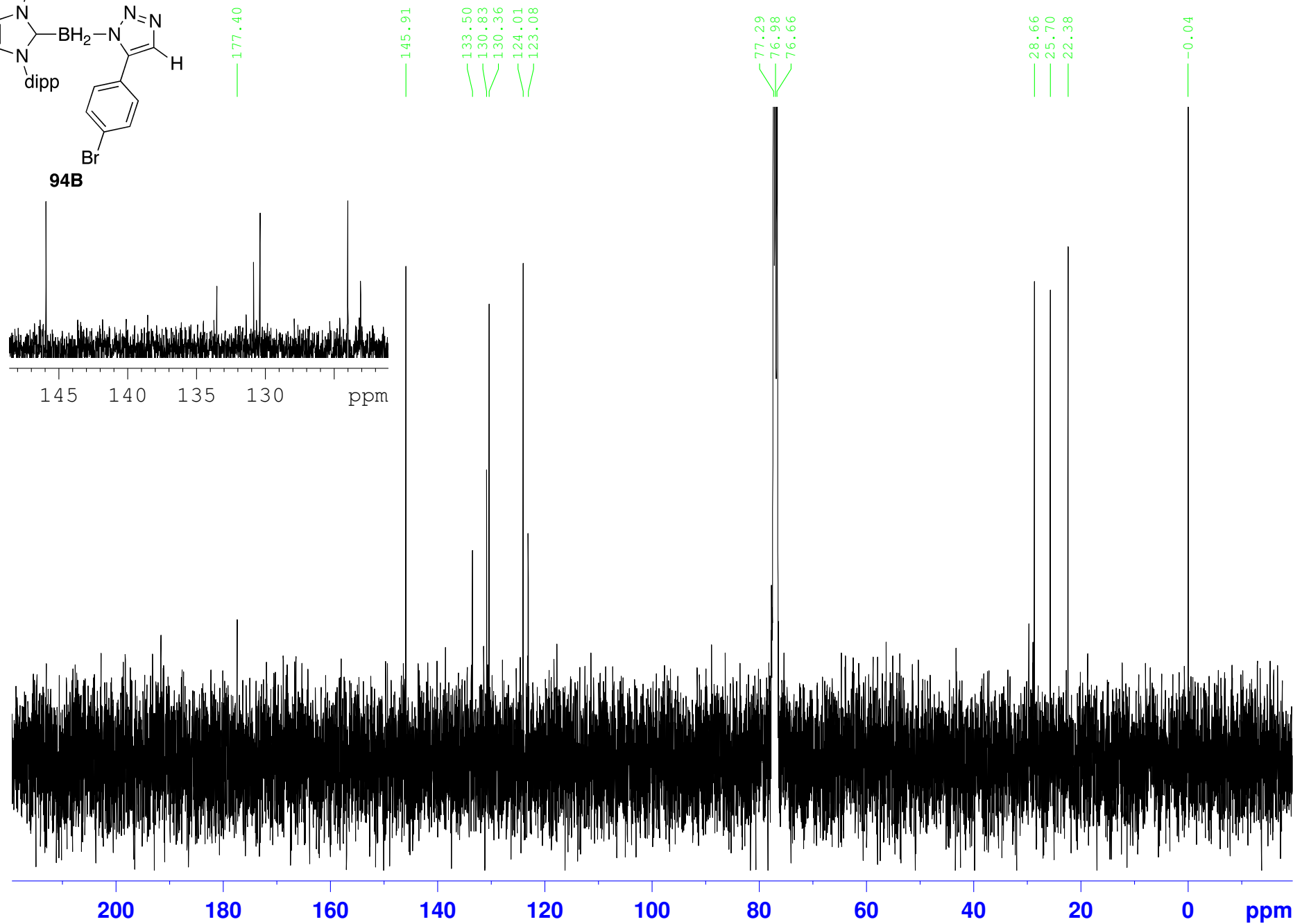
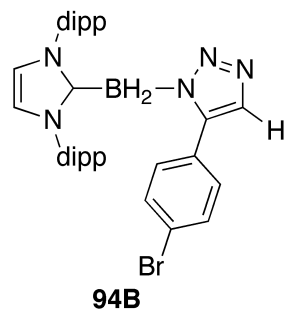
EM64.26.3 500 11B CDCl3 purity check 3.22.12



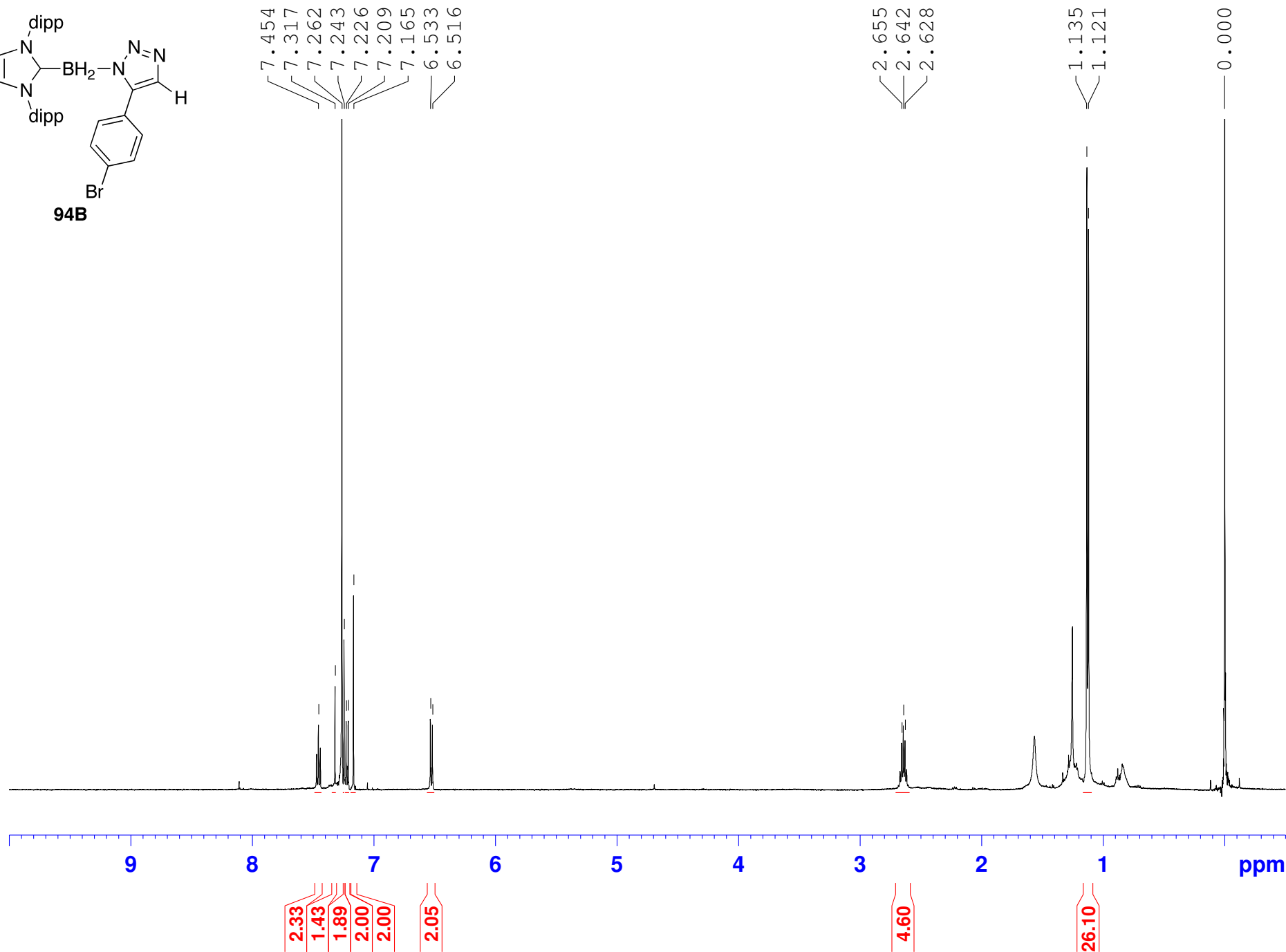
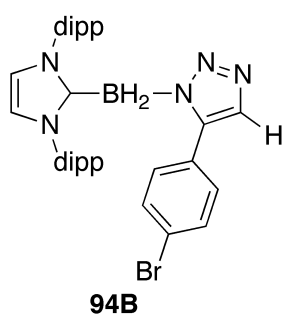
— -19.90



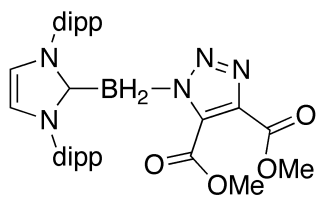
EM64.26.3 3.22.12



EM64.26.3 500 1H CDC13 purity check 3.22.12

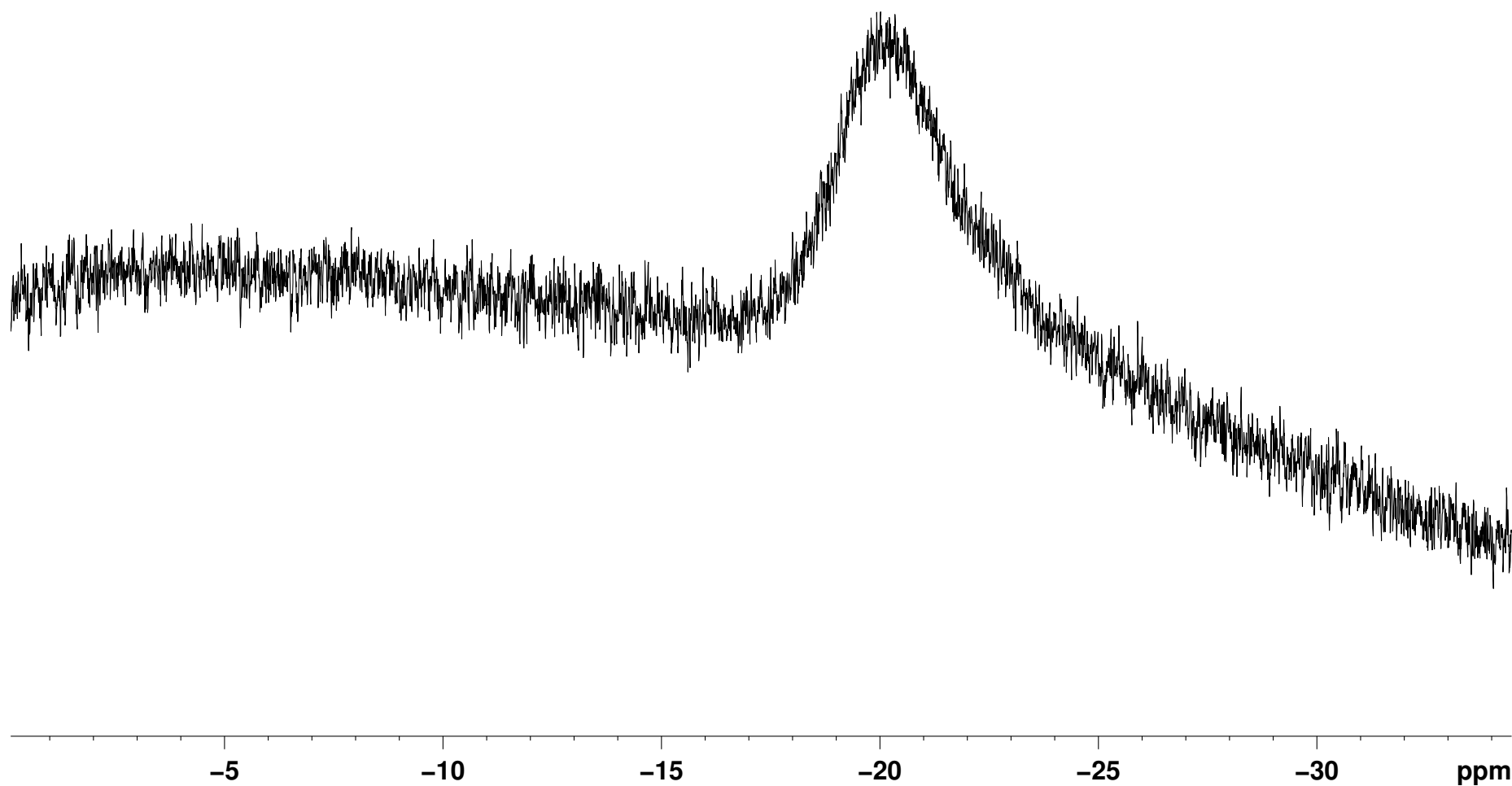


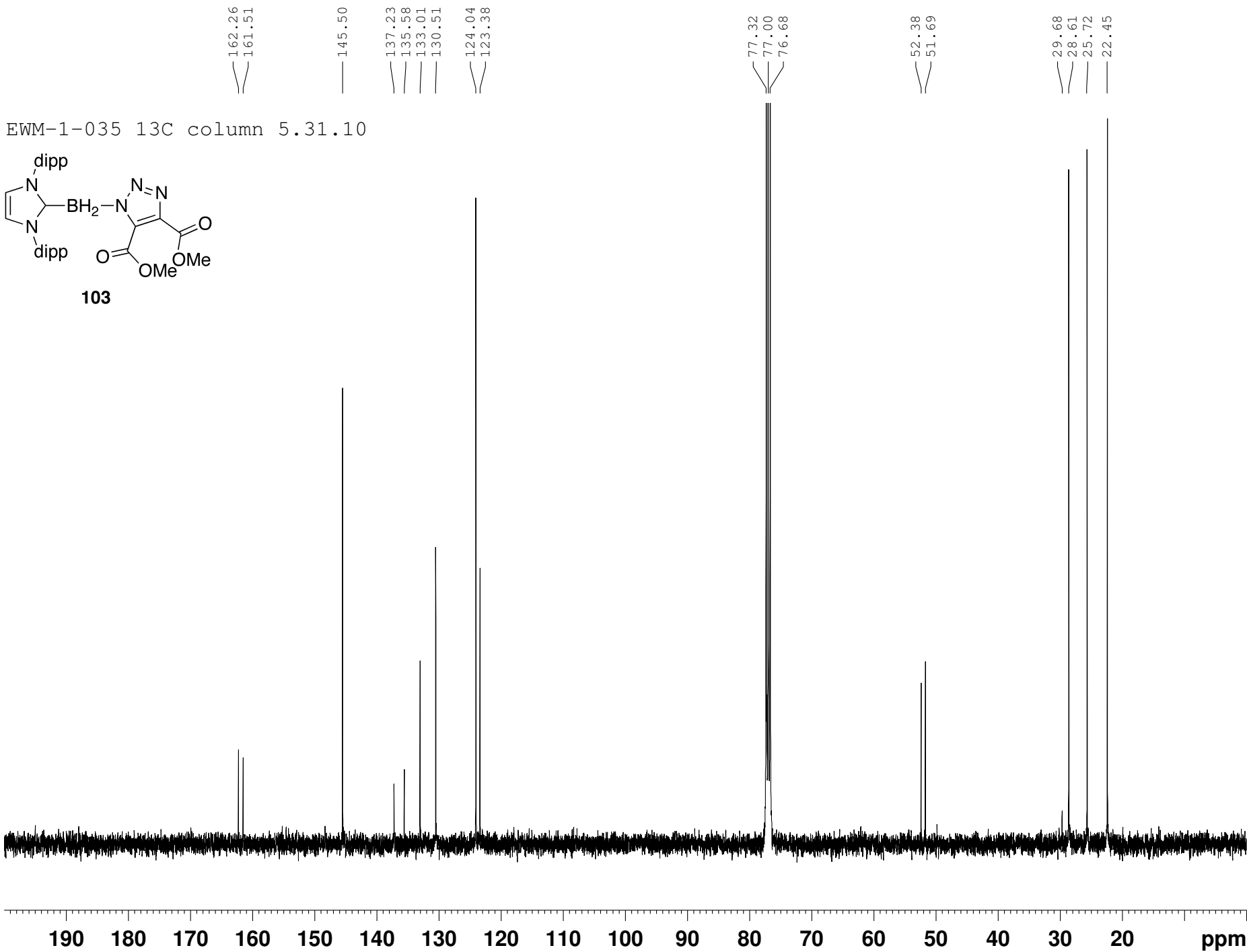
EWM-1-035 column 400b 11B 5.31.10

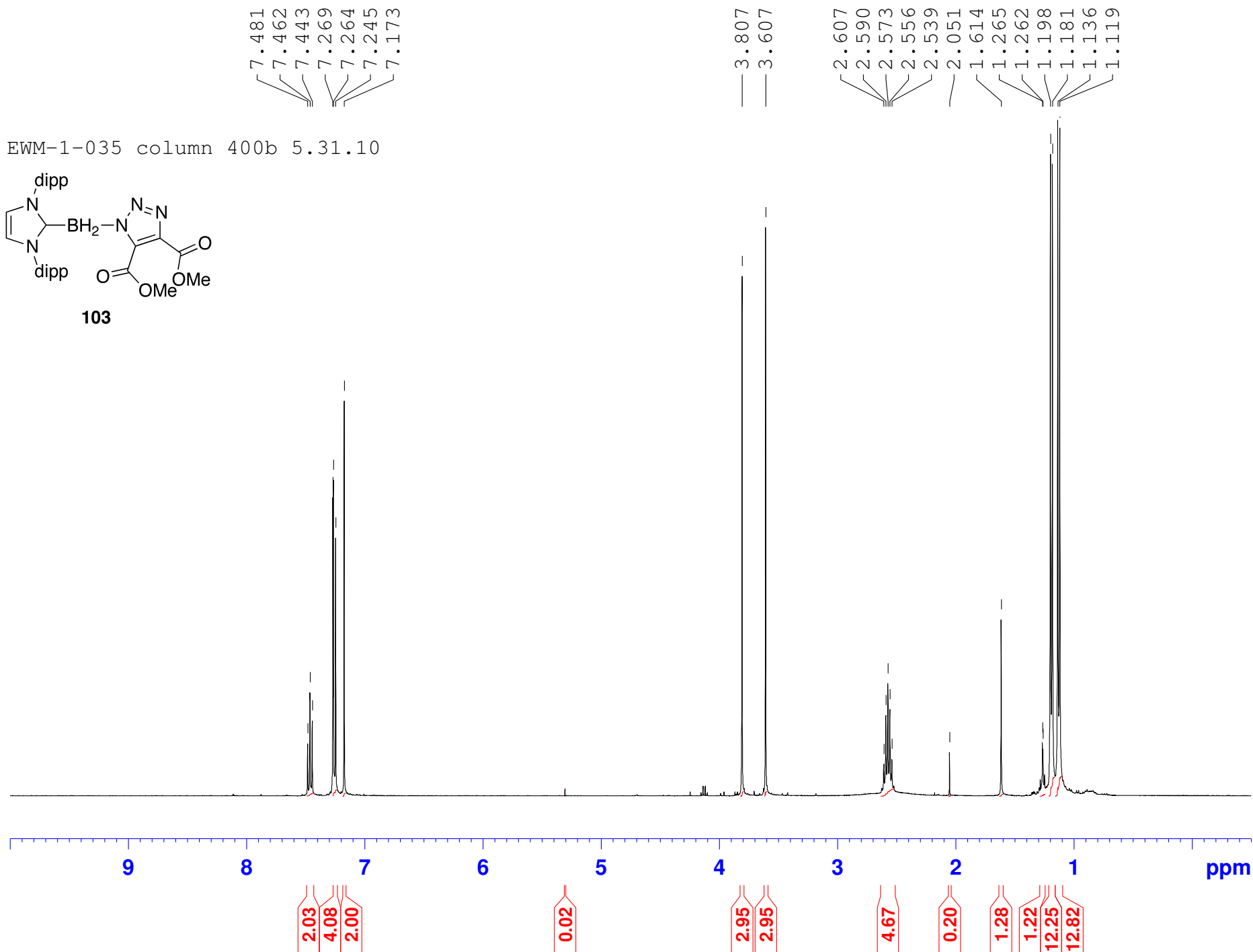


103

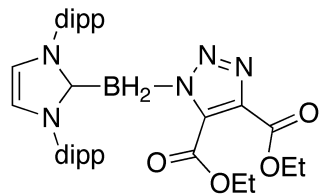
-20.01





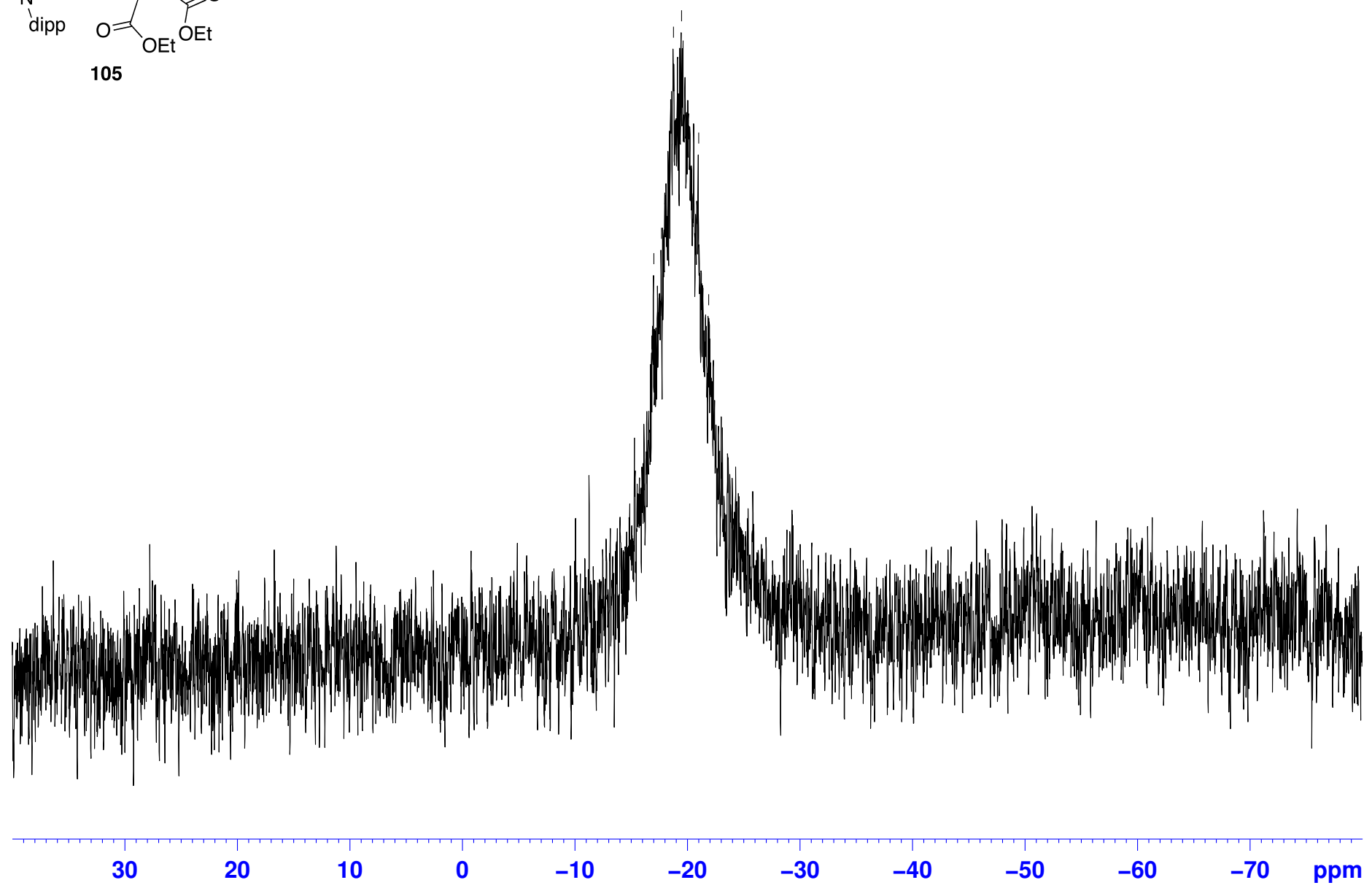


EWM-1-038 4h 1B 6.1.10

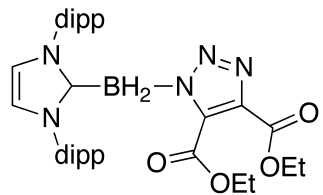


105

17.011
17.689
18.755
19.473
20.997
21.882

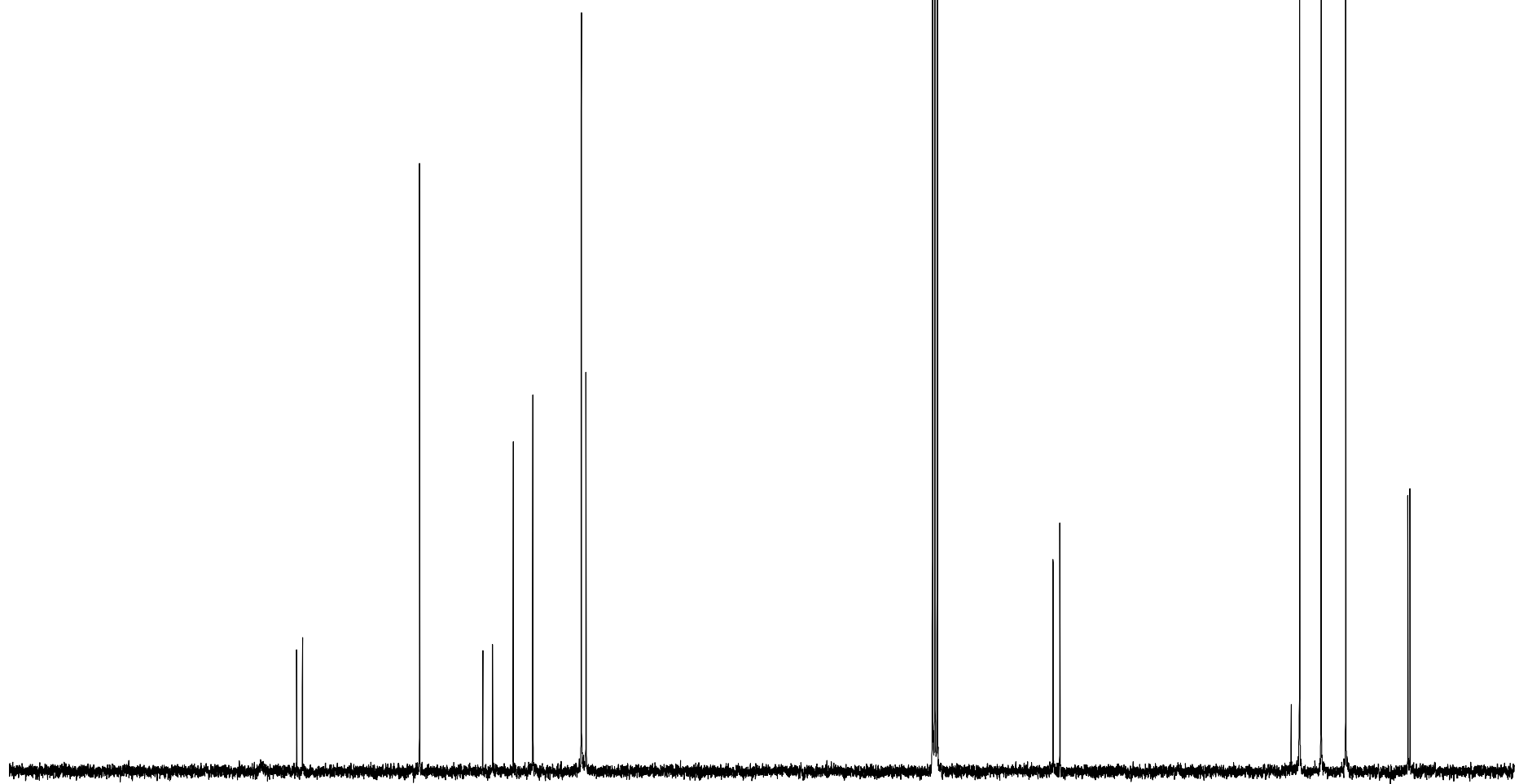


EWM-1-038 400a CDCl3 13C pure sample diethyl ester alkyne 8.24.10



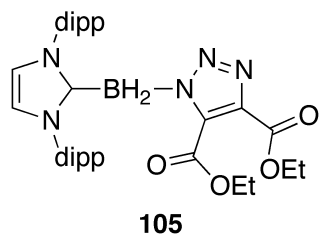
105

161.82
161.04
145.48
137.08
135.78
133.03
130.43
123.99
123.36
77.31
77.00
76.68
61.30
60.39
29.65
28.54
25.68
22.41
14.15
13.87



190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 ppm

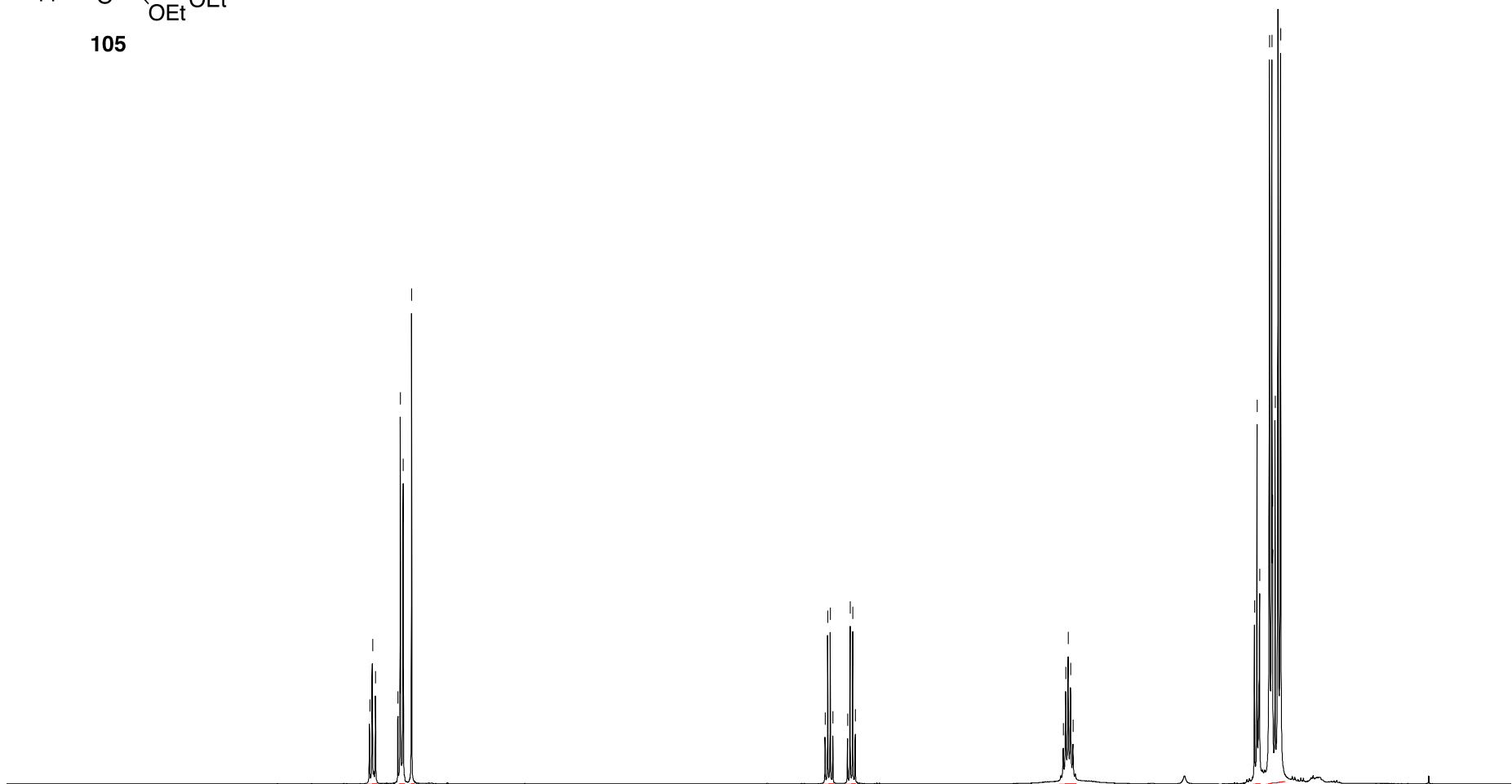
EWM-1-038 400a CDCl3 1H pure sample diethyl ester alkyne 8.24.10



7.465
7.446
7.426
7.270
7.253
7.233
7.175

4.289
4.271
4.253
4.235
4.132
4.114
4.096
4.079

2.627
2.610
2.593
2.576
2.559
1.293
1.275
1.257
1.189
1.172
1.167
1.149
1.128
1.111



9 8 7 6 5 4 3 2 1 ppm

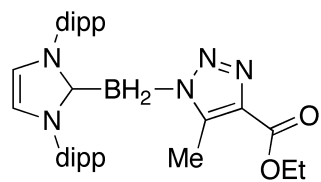
2.03
3.97
2.00

2.03
2.02

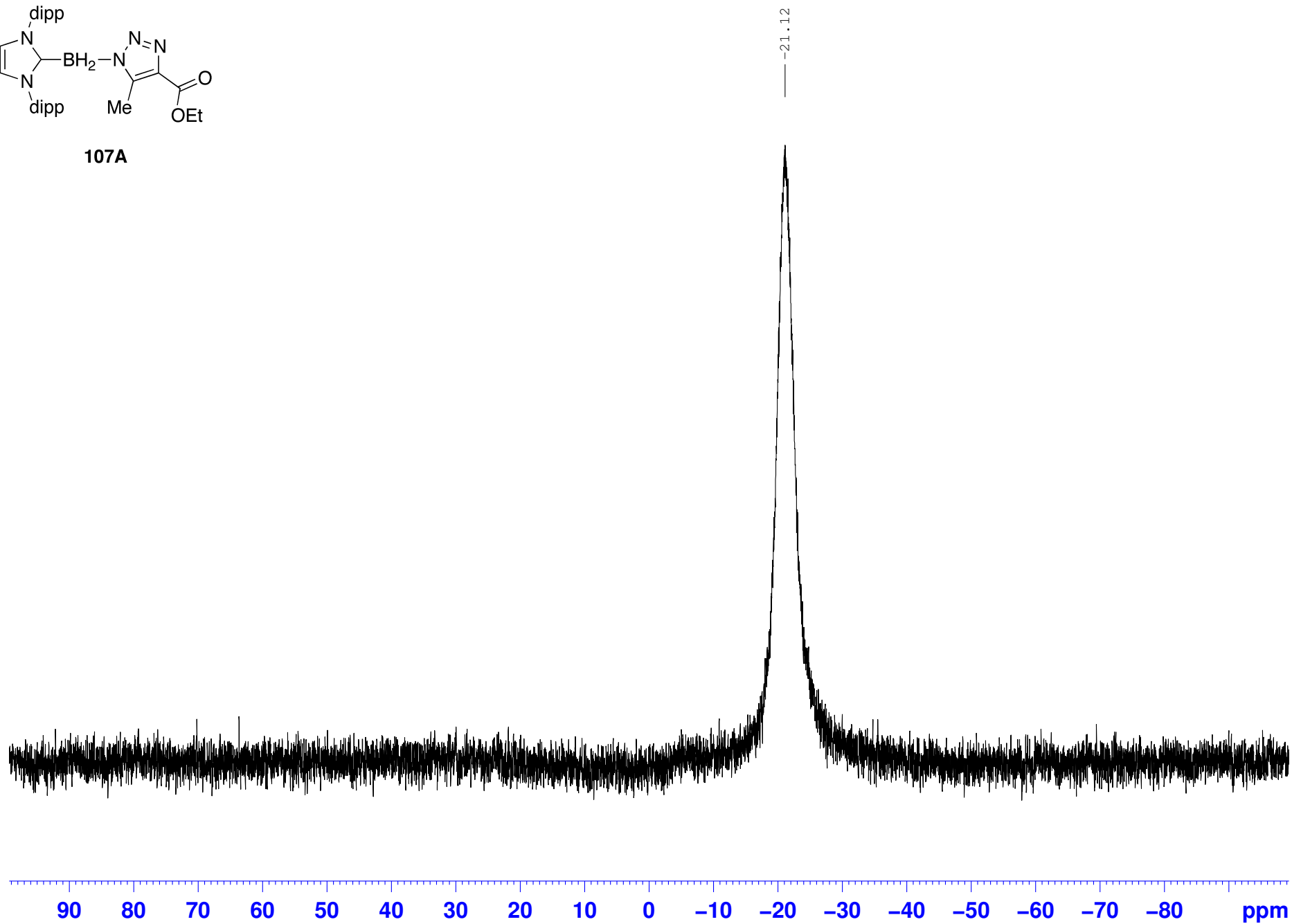
4.57

4.54
27.77

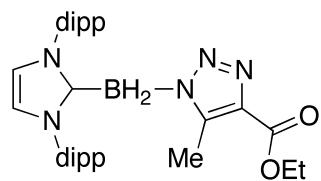
EWM-1-087A2 400b CDC13 11B second half 10.8.10



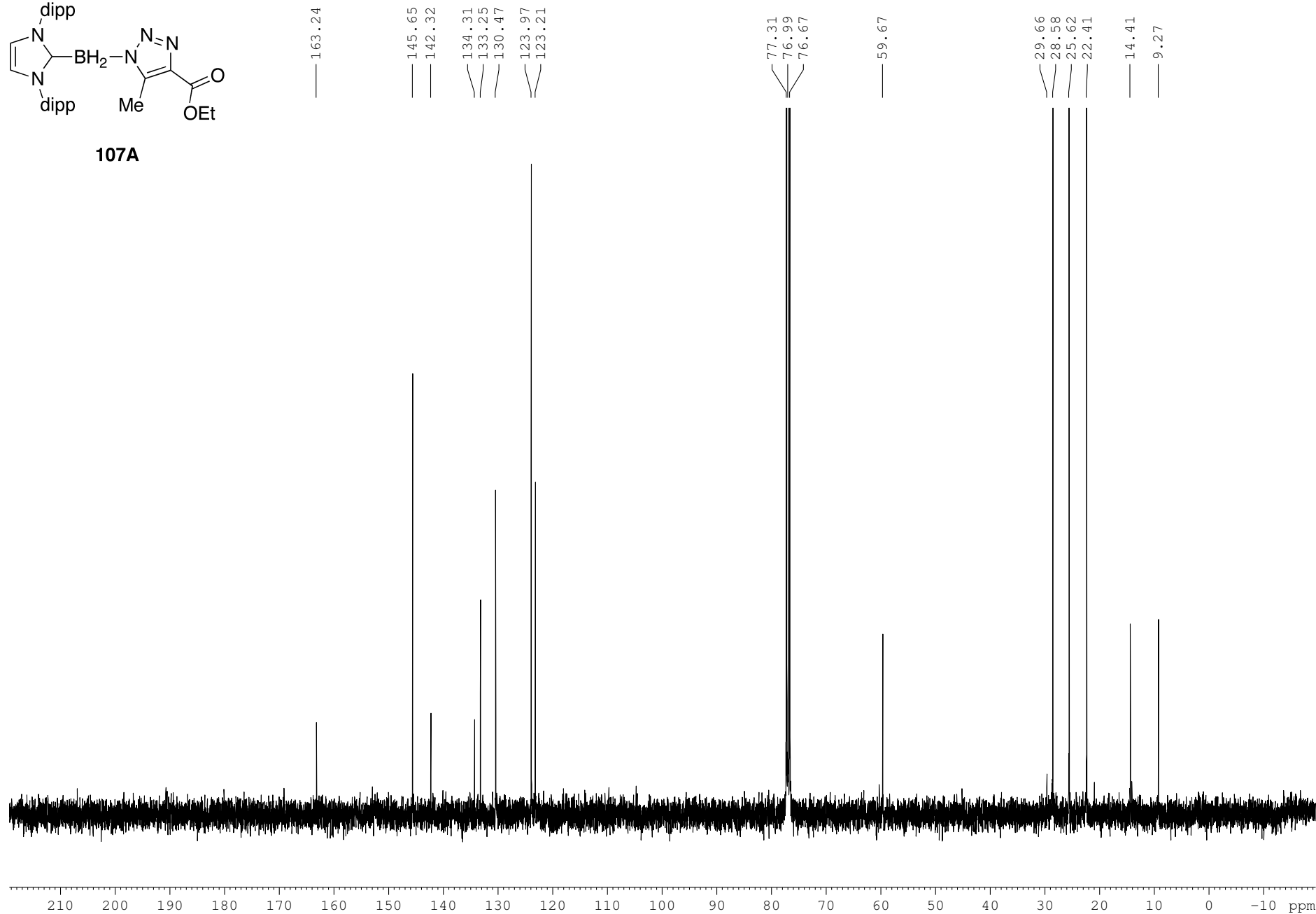
107A



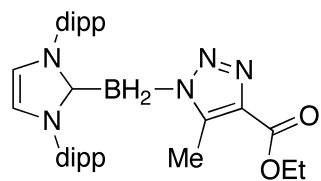
EWM-1-087A2 400b CDC13 13C second half 10.8.10



107A



EM40.87A2 300b 1H 11.16.11



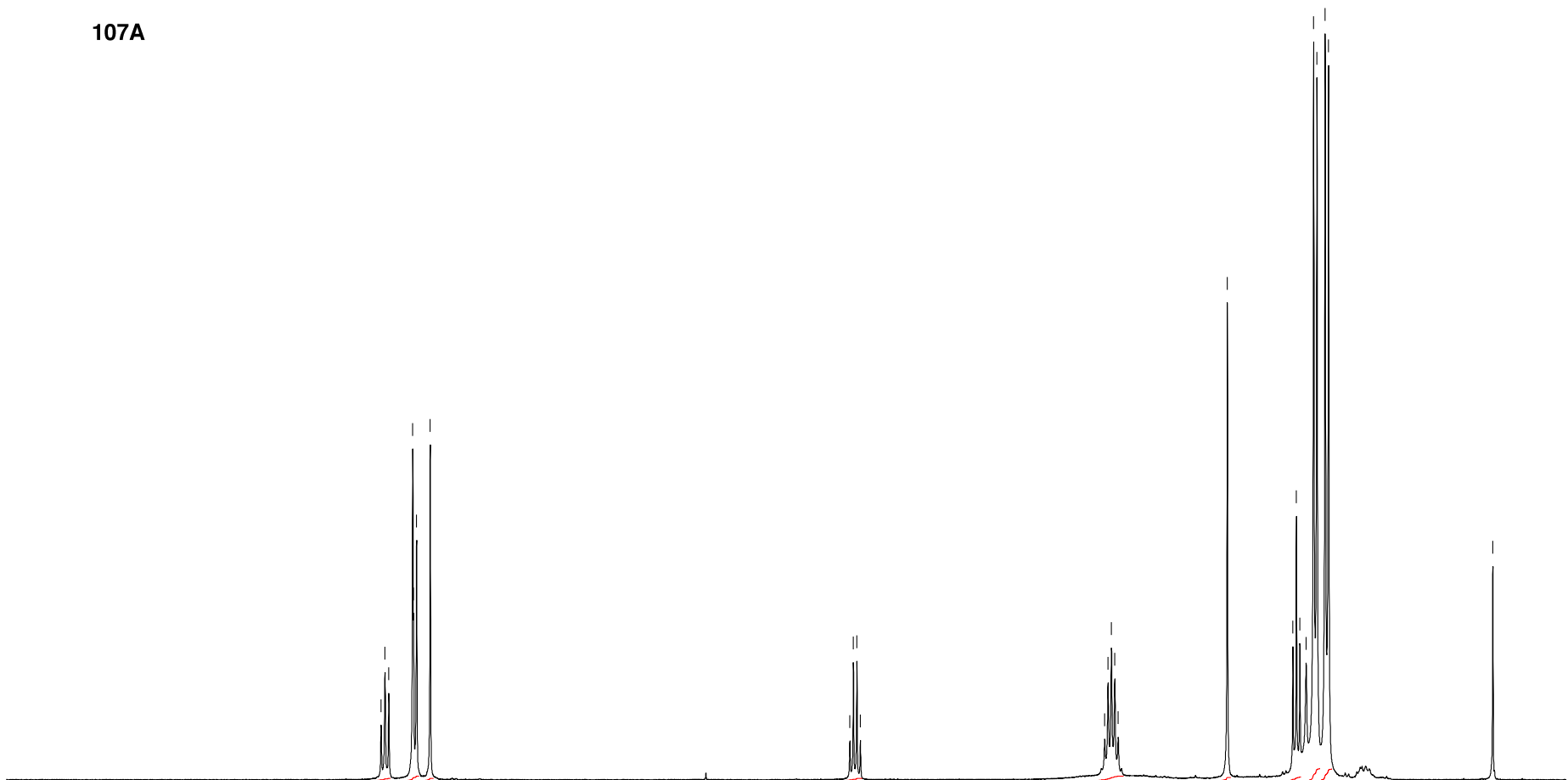
107A

7.481
7.455
7.429
7.268
7.263
7.242
7.150

4.326
4.302
4.279
4.255

2.611
2.588
2.566
2.543
2.520
1.786
1.345
1.321
1.297
1.255
1.205
1.183
1.127
1.105

—0.001



9

8

7

6

5

4

3

2

1

ppm

2.05

4.65

2.00

2.02

4.69

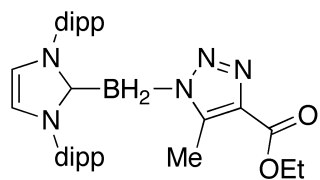
3.04

3.75

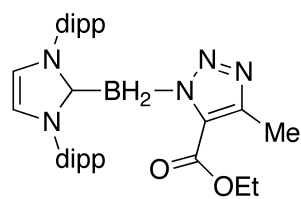
13.02

12.43

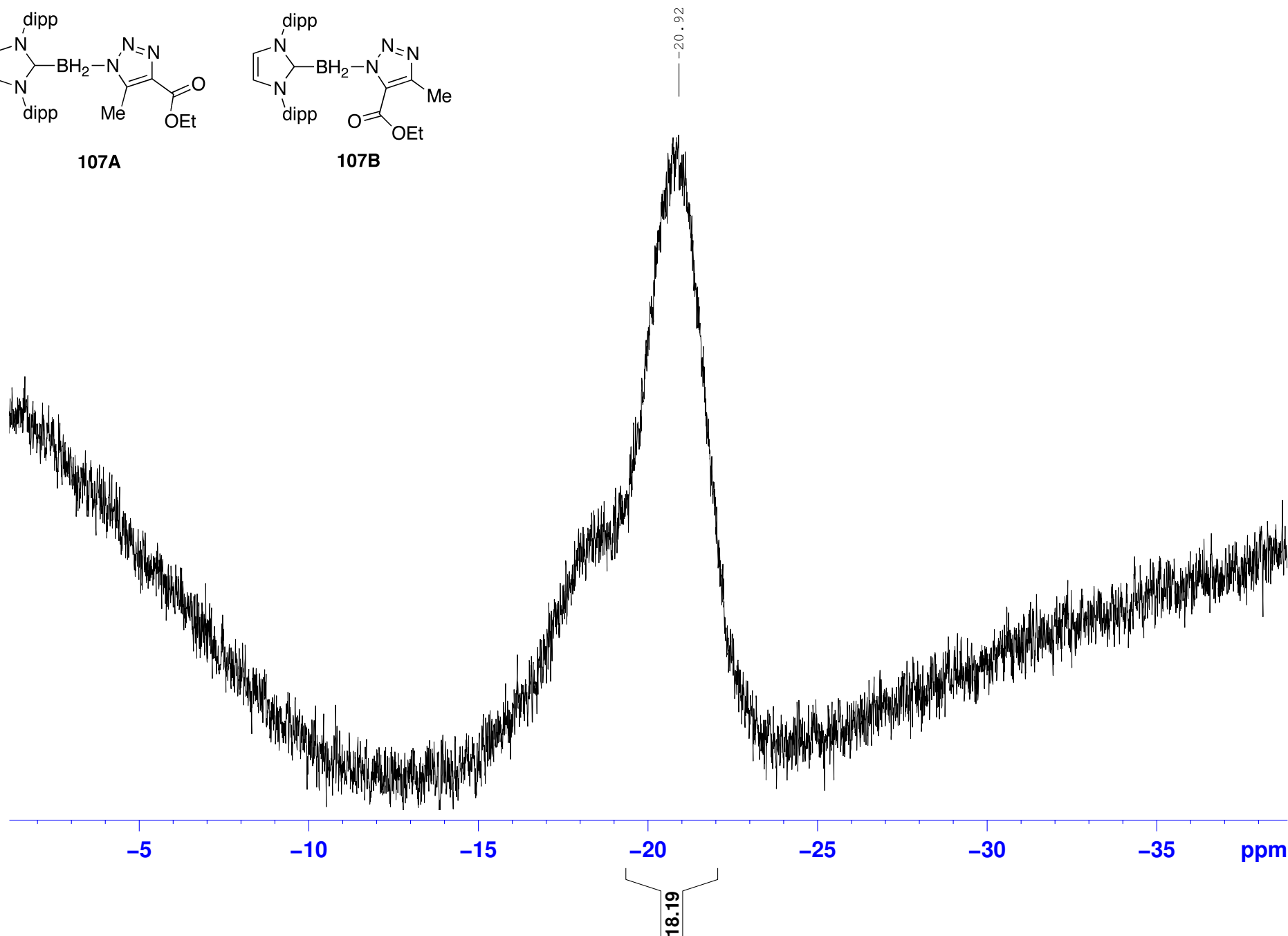
EM64.70.1 500 11B CDCl3 column 1st fractions 2.21.12



107A



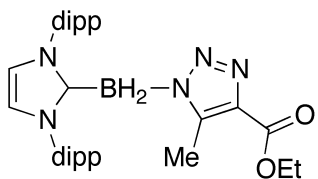
107B



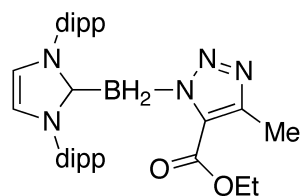
EWM-1-087A1 400b CDCl3 1H first half 10.8.10

7.466
7.447
7.428
7.410
7.391
7.372
7.270
7.259
7.239
7.213
7.193
7.154
7.119

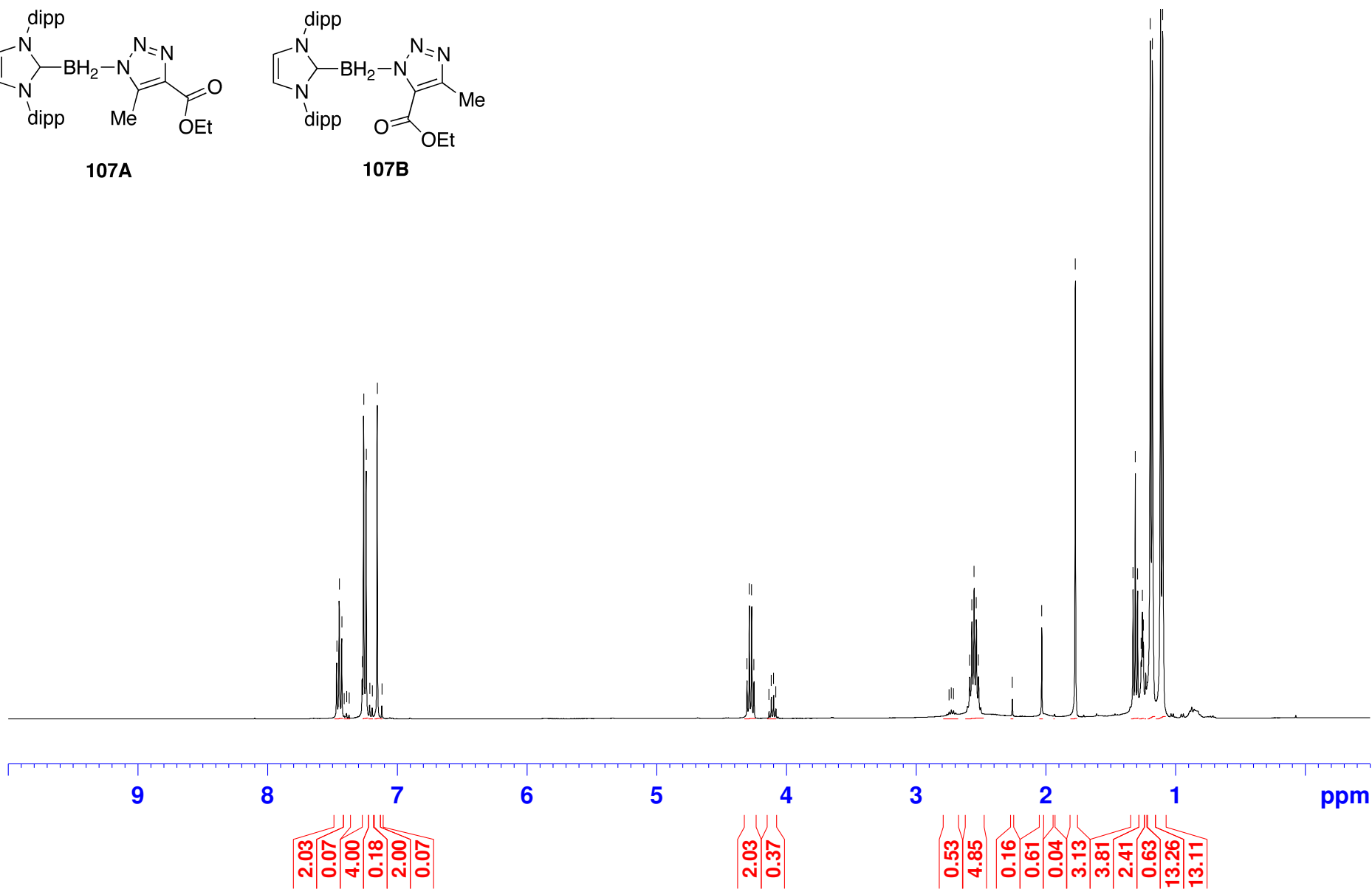
4.305
4.287
4.270
4.252
4.136
4.118
4.100
4.083
2.747
2.730
2.713
2.588
2.571
2.555
2.538
2.521
2.260
2.033
1.774
1.329
1.311
1.294
1.266
1.256
1.249
1.196
1.179
1.117
1.100



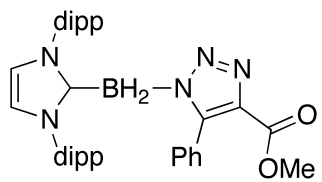
107A



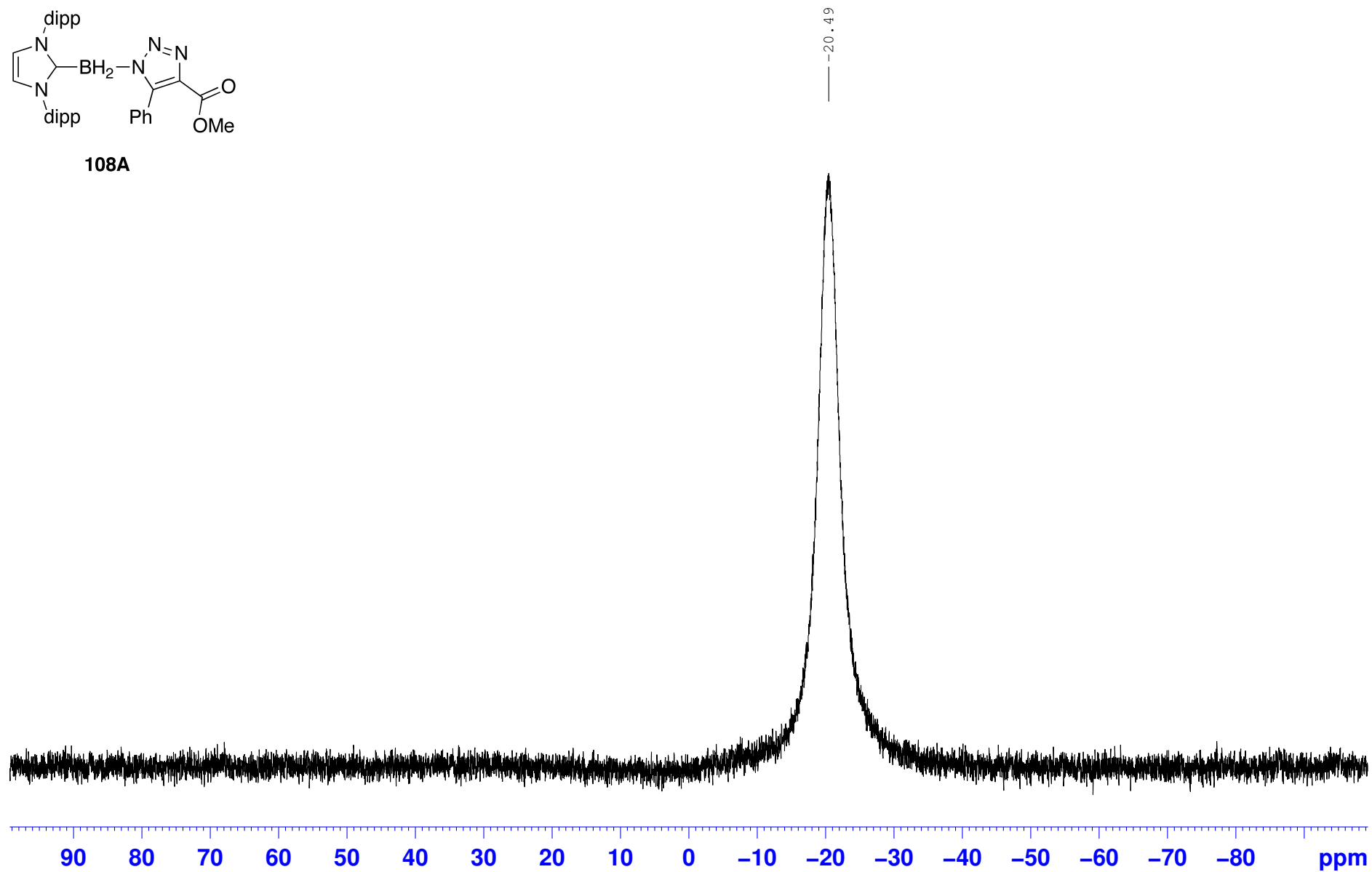
107B



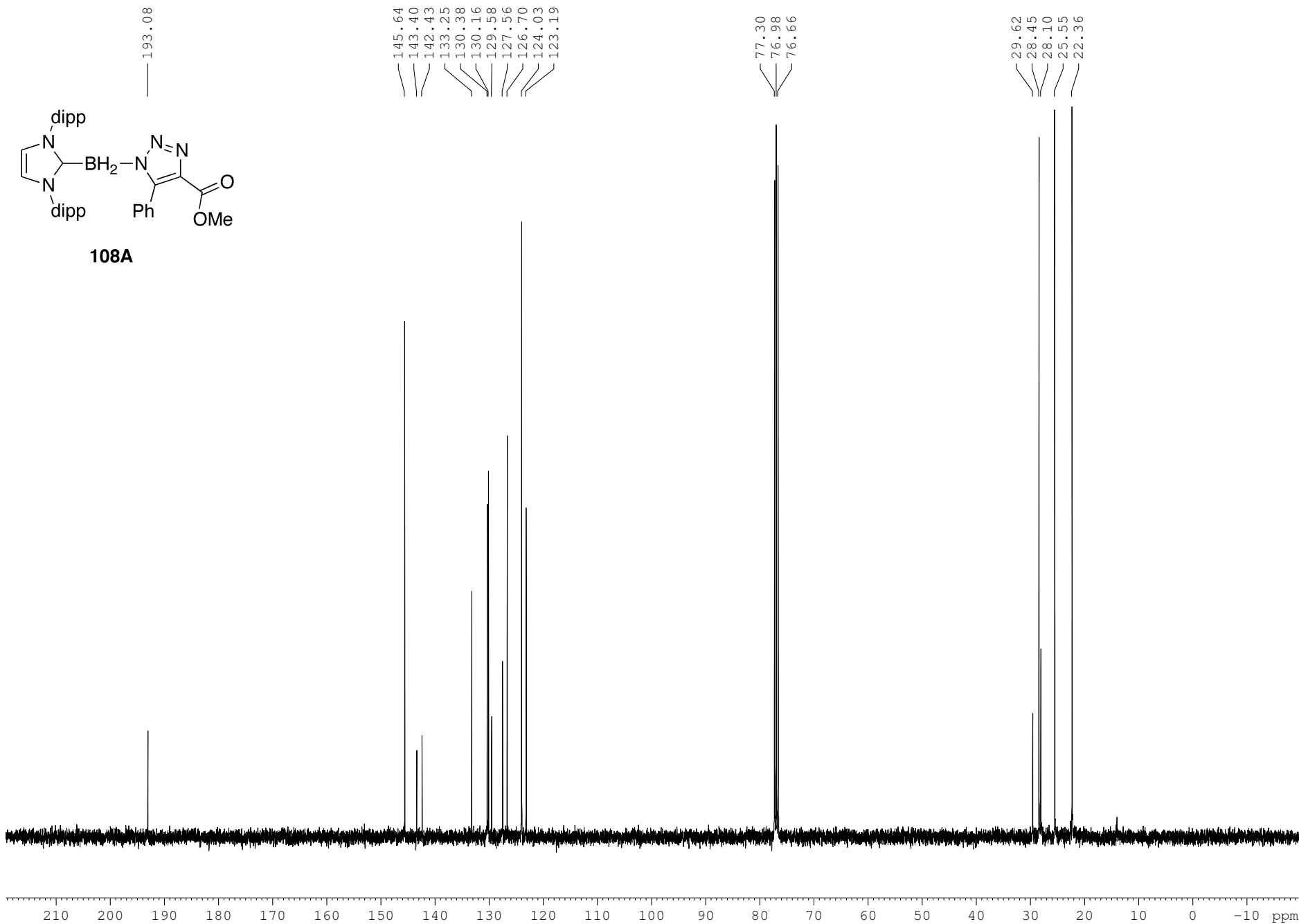
EWM-1-087C4 400b CDCl3 11B fourth frac 10.4.10



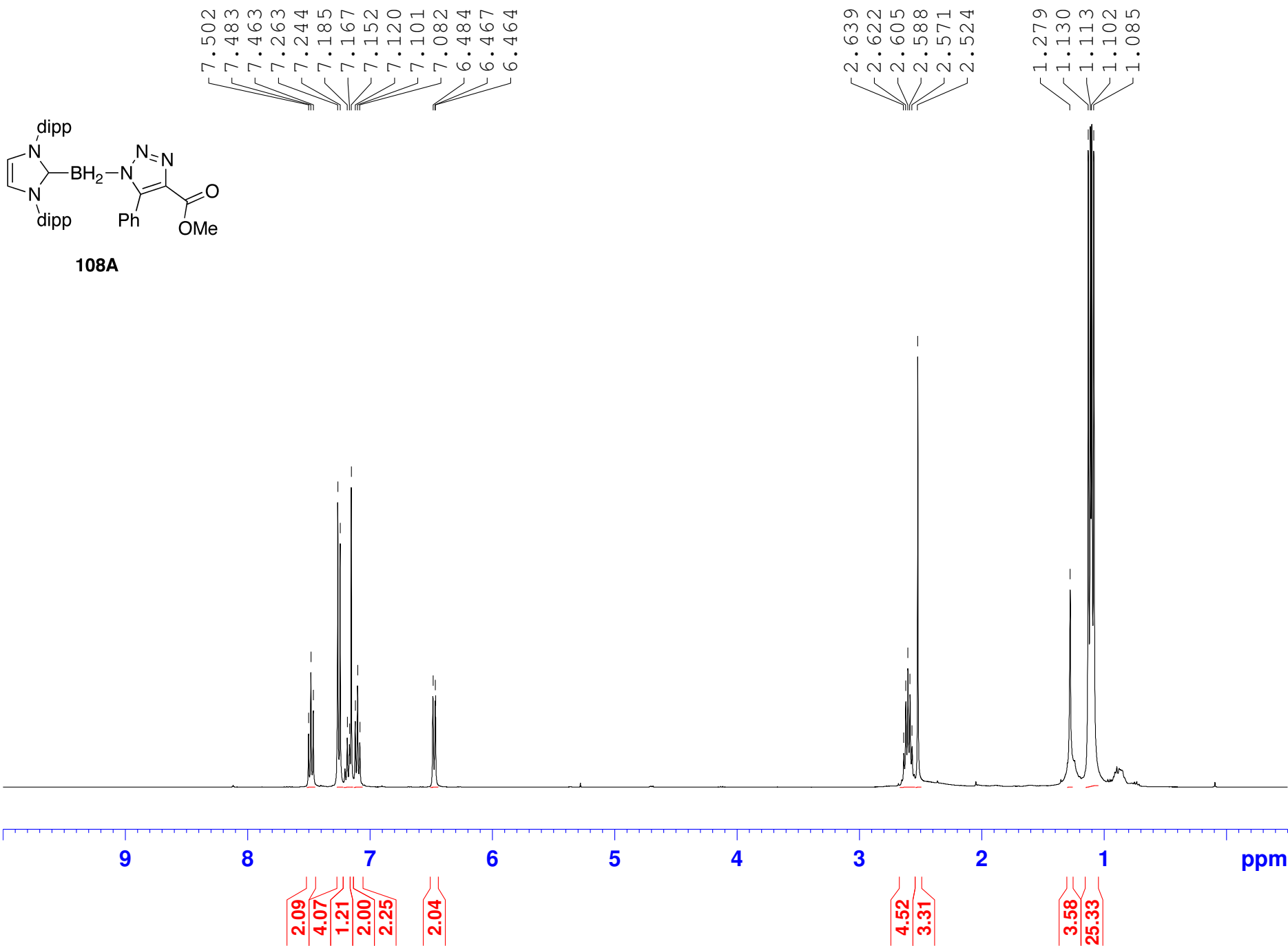
108A



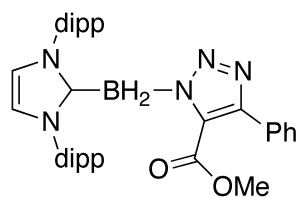
EWM-1-087C4 400b CDC13 13C fourth frac 10.4.10



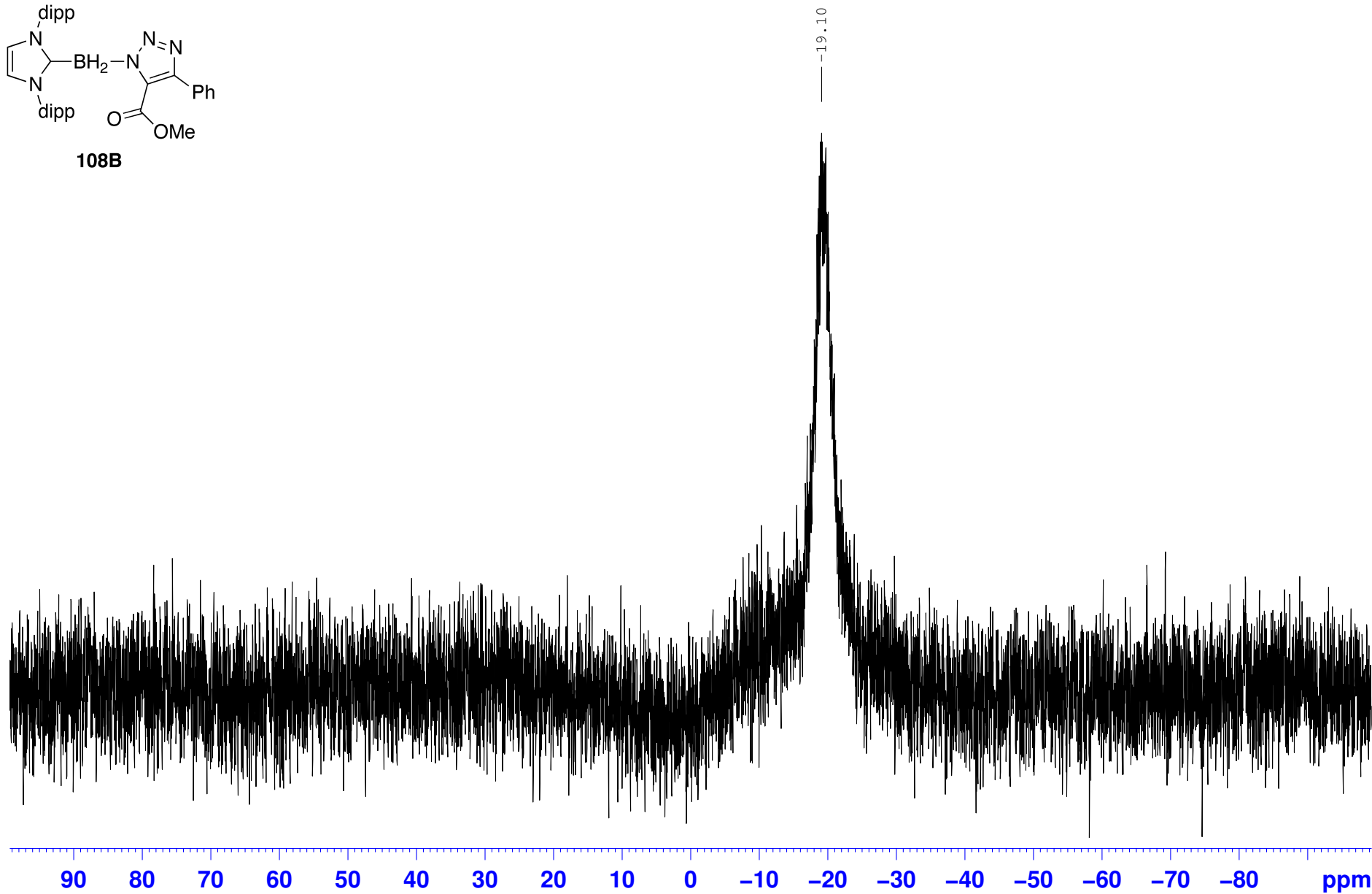
EWM-1-087C4 400b CDCl3 1H fourth frac 10.4.10



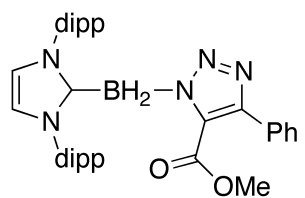
EWM-1-087C3 400b CDCl3 11B third frac 10.4.10



108B



EWM-1-087C3 400b CDCl3 13C 3rd frac 10.5.10

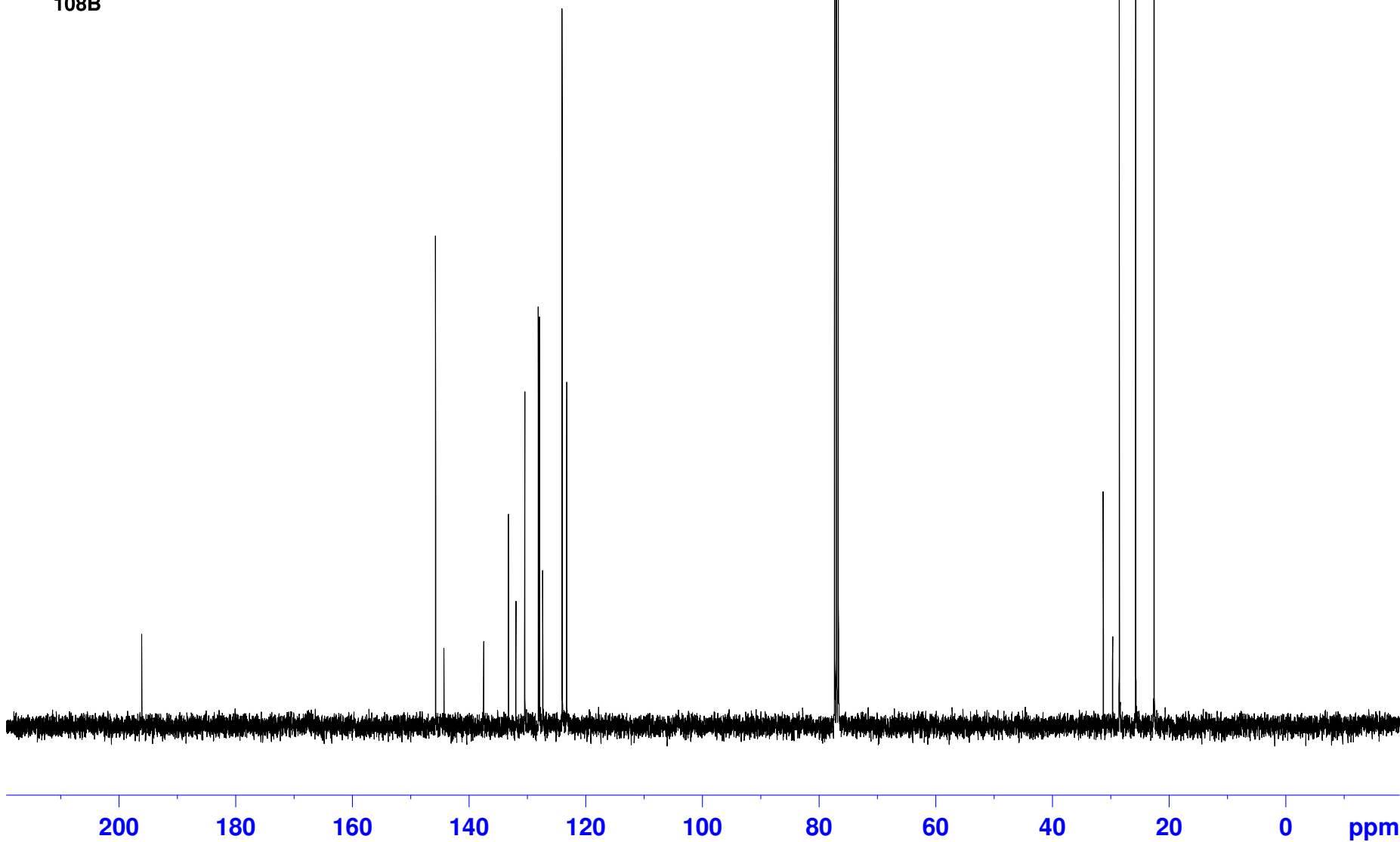


108B

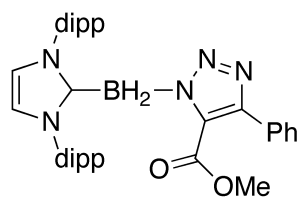
145.72
144.31
137.48
133.25
131.96
130.43
128.11
127.92
127.36
124.03
123.25

77.32
77.00
76.68

31.26
29.66
28.52
25.70
22.55



EWM-1-087C3 400b CDCl3 1H 3rd frac 10.5.10



108B

7.550
7.547
7.529
7.460
7.441
7.422
7.328
7.310
7.292
7.265
7.246
7.198

2.752
2.736
2.719
2.702
2.685
— 1.954
1.273
1.217
1.200
1.160
1.143



9

8

7

6

5

4

3

2

1

ppm

1.90

1.95

2.00

4.71

2.00

4.33

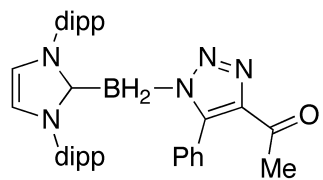
2.86

2.25

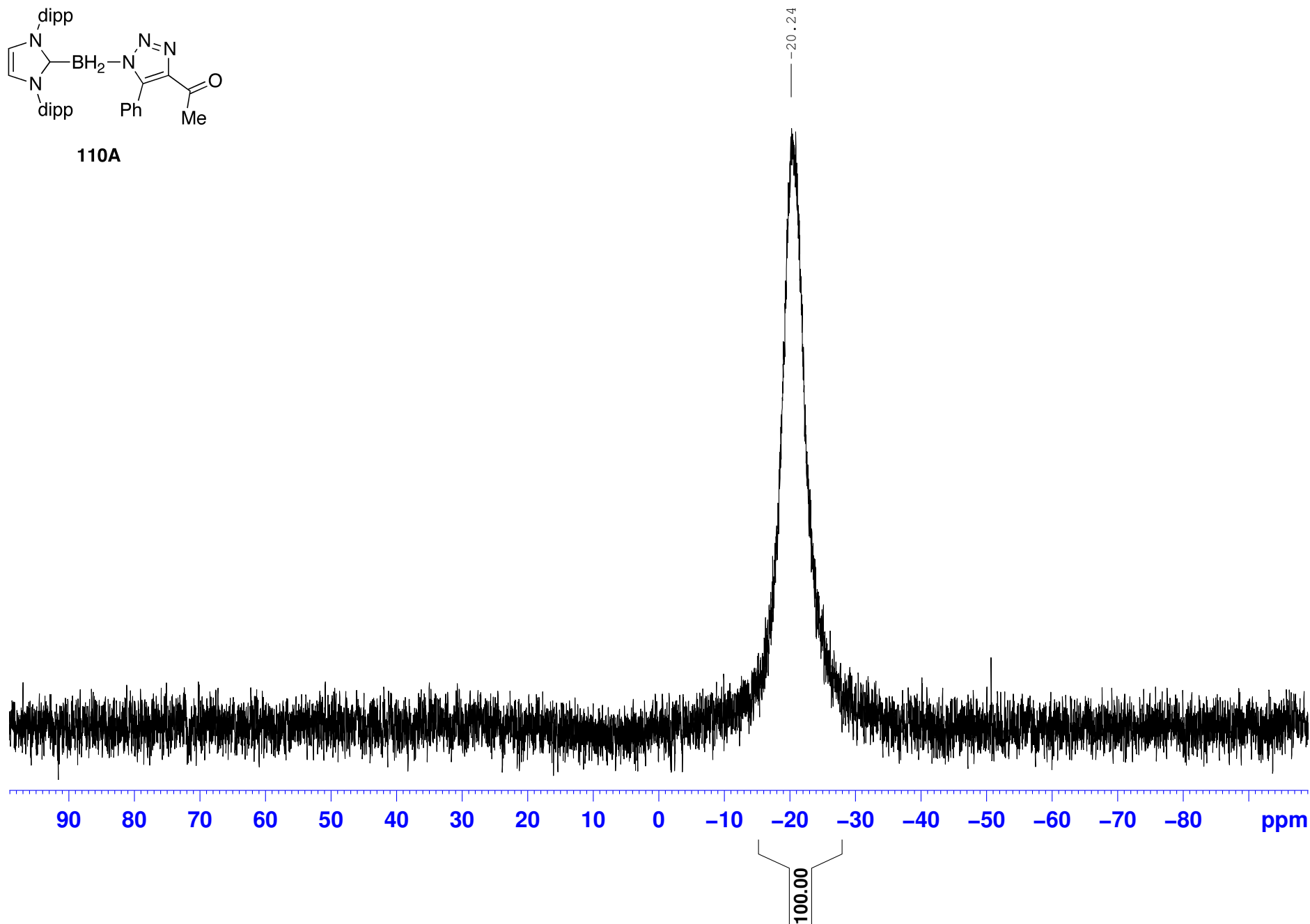
11.70

11.97

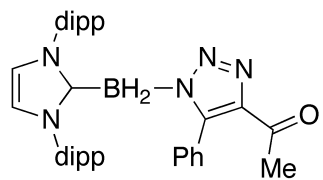
EWM-1-087C3 400b CDCl3 11B 3rd frac 10.5.10



110A



EWM-1-087B3 400b CDCl3 13C 3rd frac 10.5.10



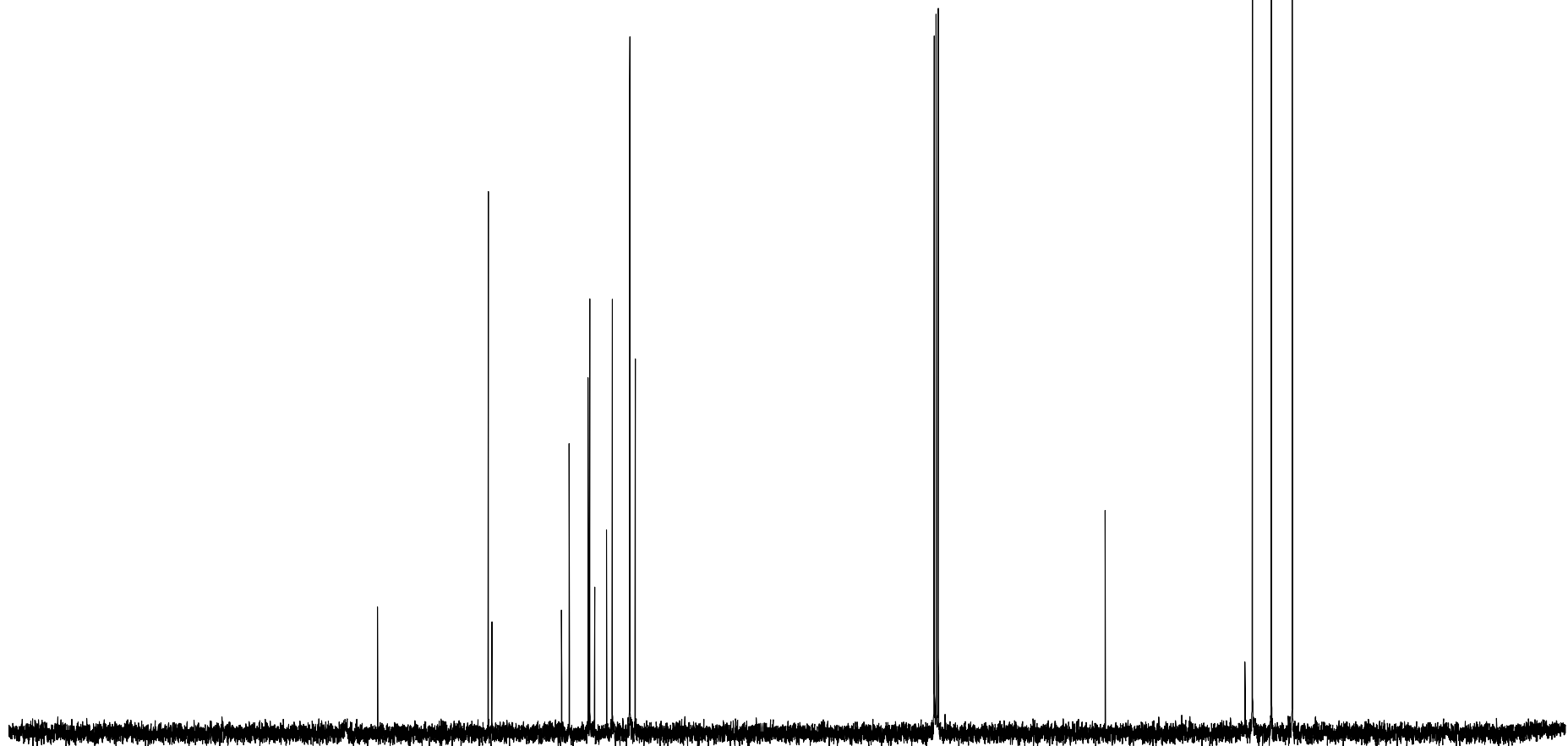
110A

162.68
145.70
145.15
134.45
133.28
130.37
130.13
129.39
127.56
126.67
124.00
123.16

77.31
76.99
76.67

51.07

29.60
28.48
25.58
22.35



200

180

160

140

120

100

80

60

40

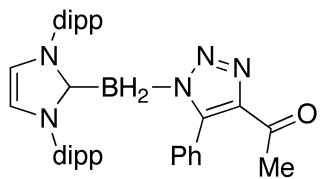
20

0

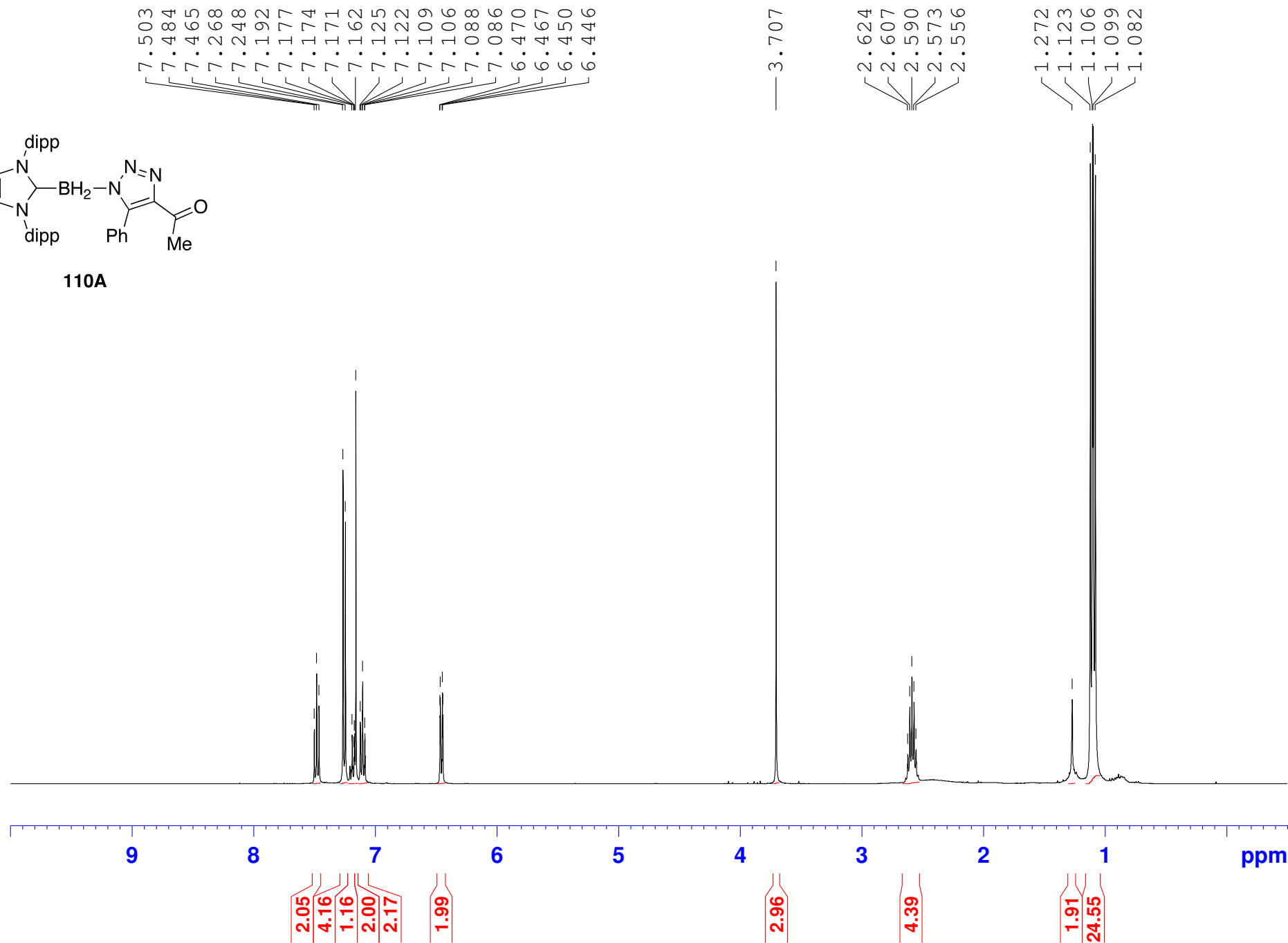
ppm

EWM-1-087B3 400b CDCl3 1H 3rd frac 10.5.10

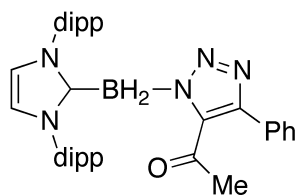
7.503
7.484
7.465
7.268
7.248
7.192
7.177
7.174
7.171
7.162
7.125
7.122
7.109
7.106
7.088
7.086
6.470
6.467
6.450
6.446



110A

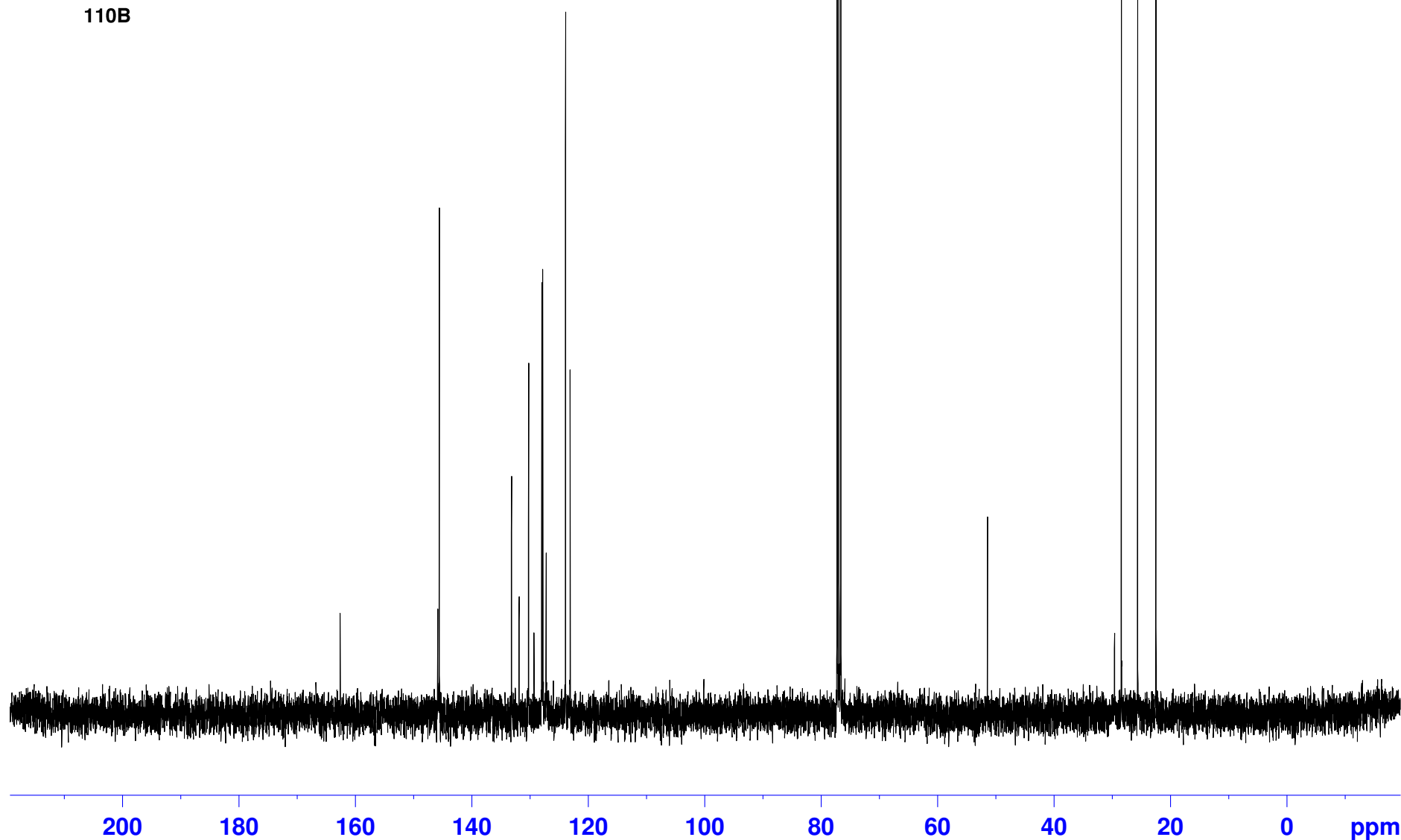


EWM-1-087B2 400b CDCl3 13C 2nd frac 10.5.10



110B

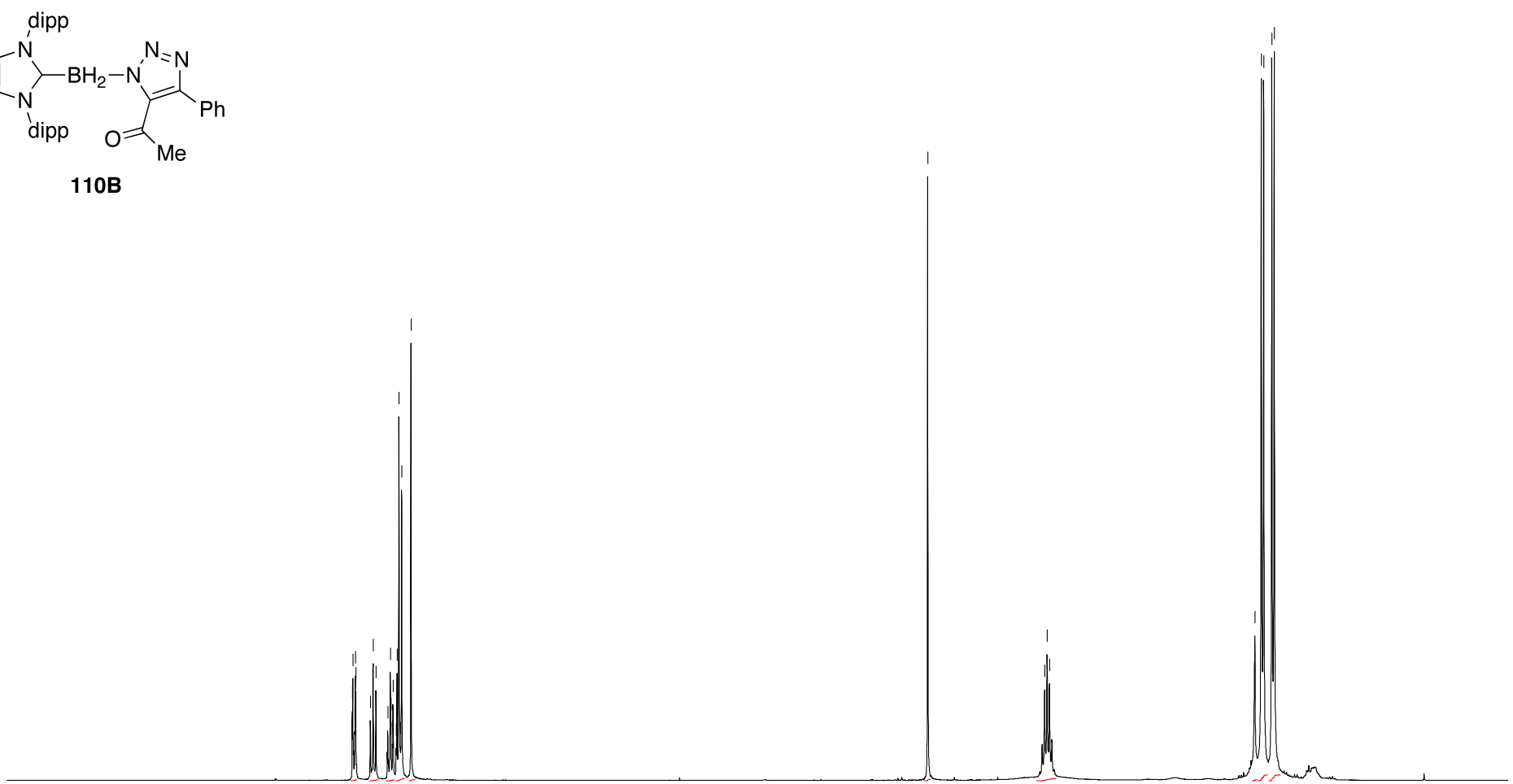
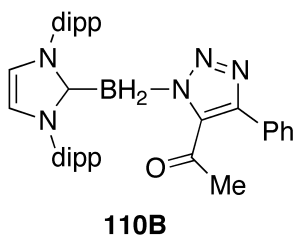
162.66
145.91
145.61
133.23
131.93
130.28
129.39
128.03
127.85
127.27
123.95
123.16
77.30
76.98
76.66
51.47
29.65
28.47
25.68
22.53



EWM-1-087B2 400b CDC13 1H 2nd frac 10.5.10

7.582
7.579
7.565
7.561
7.558
7.456
7.437
7.417
7.334
7.316
7.312
7.301
7.298
7.276
7.272
7.269
7.257
7.247
7.237
7.172

3.560
2.742
2.725
2.708
1.273
1.228
1.211
1.154
1.137



9 8 7 6 5 4 3 2 1 ppm

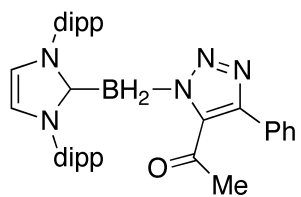
1.88
2.01
1.99
0.74
4.40
2.00

2.81

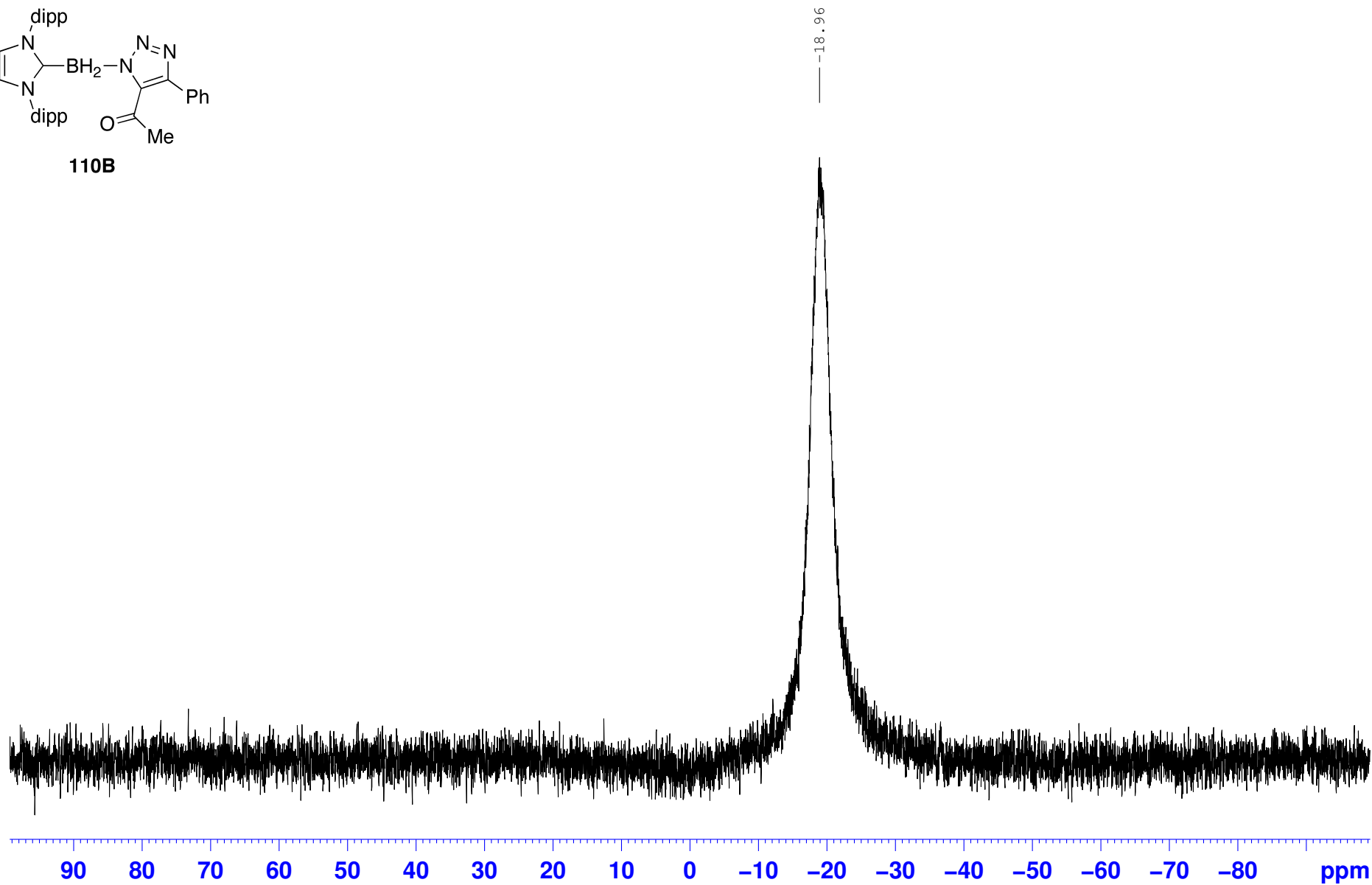
4.47

2.40
12.29
12.34

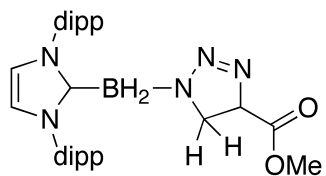
EWM-1-087B2 400b CDCl3 11B 2nd frac 10.5.10



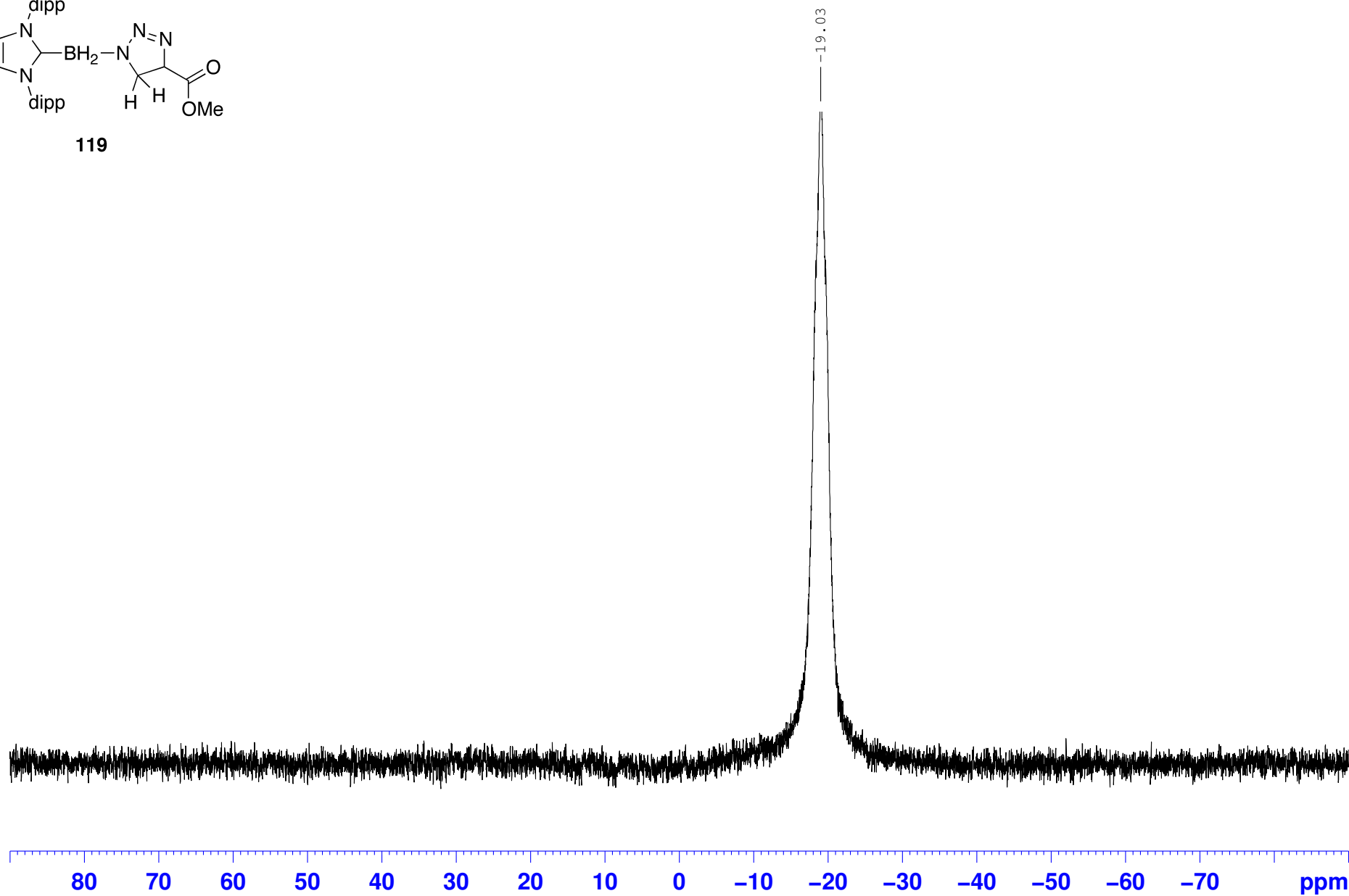
110B



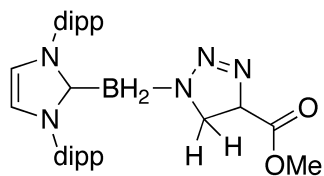
EM64.36 400b 11B purified methyl acrylate 1501 10.31.11



119



EM64.36 400b 13C purified methyl acrylate 1501 10.31.11



119

171.42

145.52
145.25

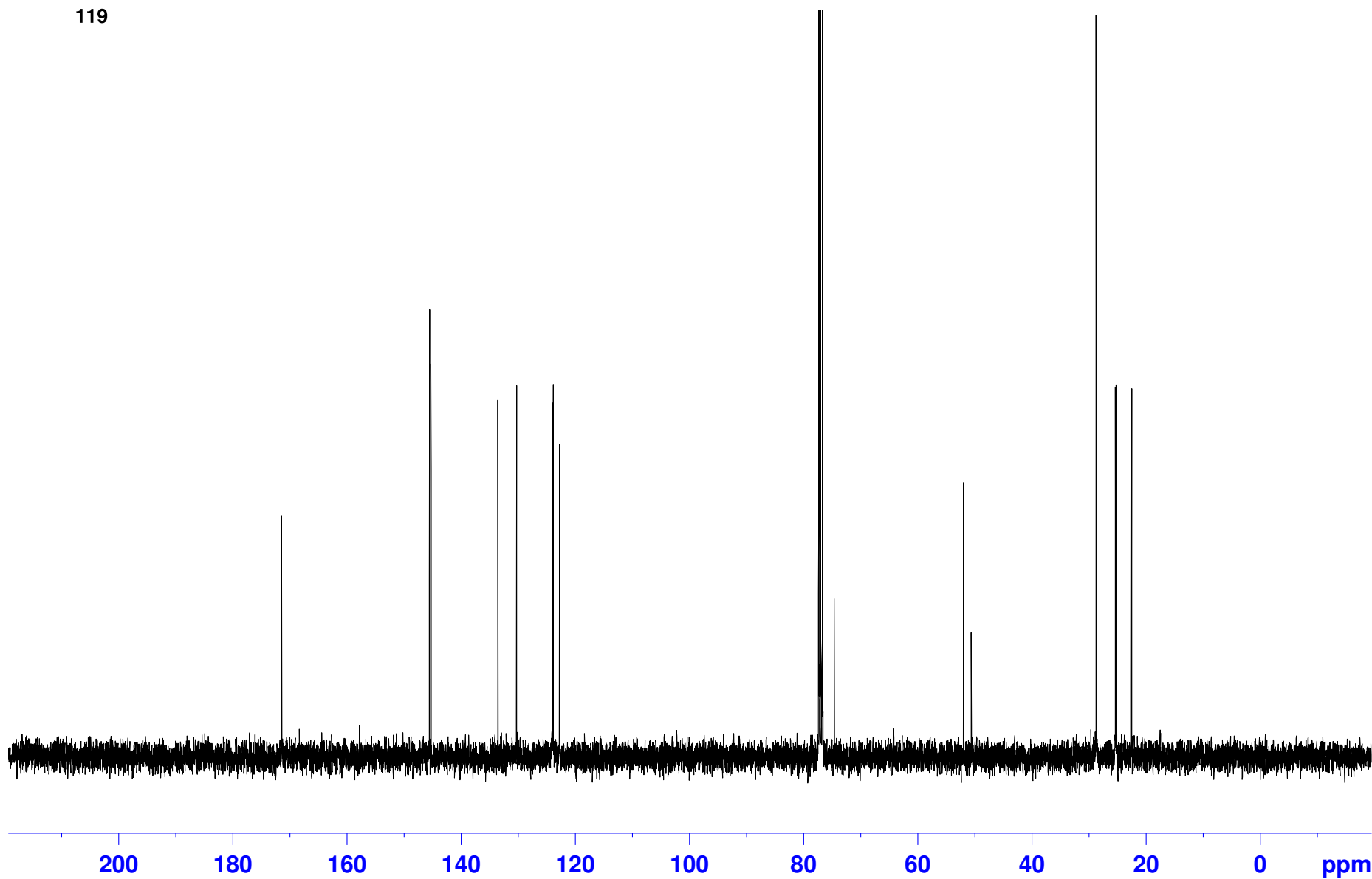
133.54
130.25

124.02
123.86
122.73

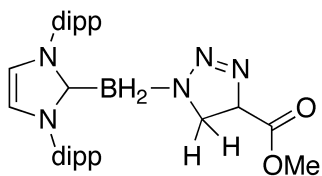
77.00
74.62

51.94
50.60

28.72
25.35
25.22
22.62
22.48



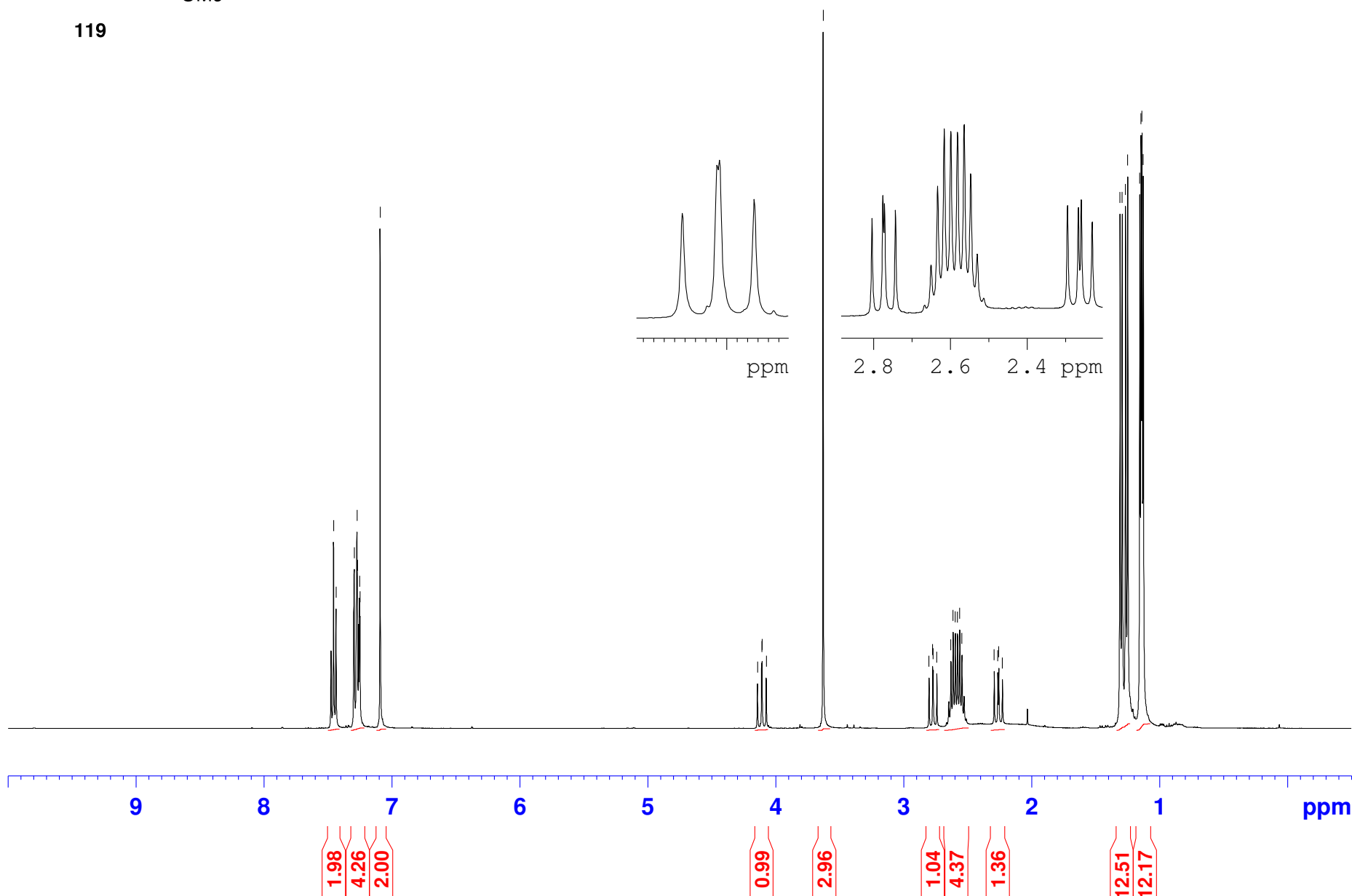
EM64.36 400b 1H purified methyl acrylate 1501 10.31.11



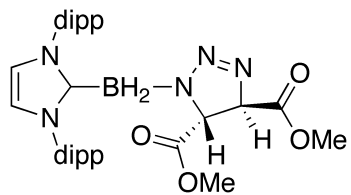
119

7.456
7.436
7.297
7.294
7.272
7.269
7.253
7.250
7.091

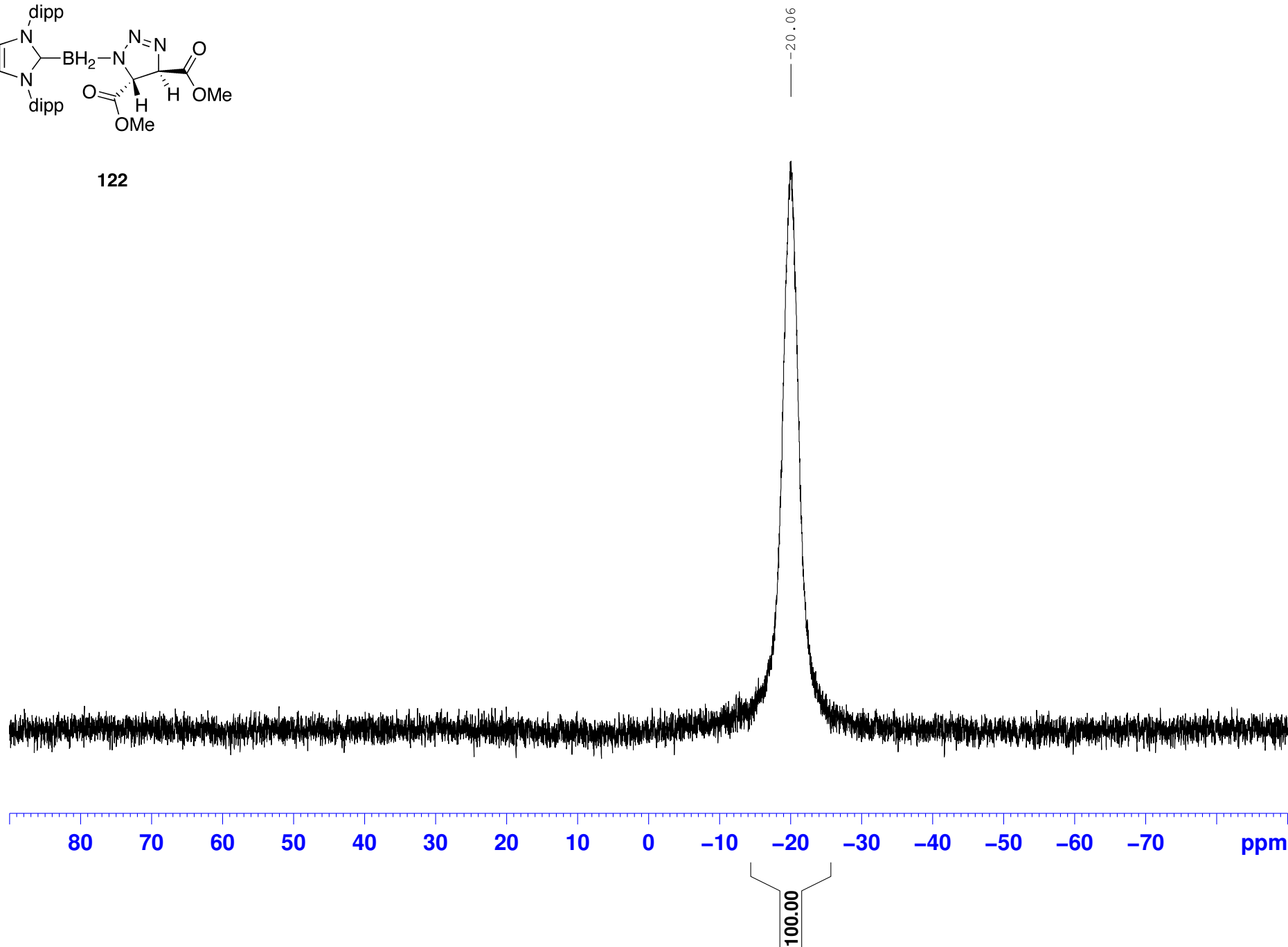
4.142
4.109
4.107
4.074
3.629
2.804
2.776
2.771
2.743
2.633
2.616
2.599
2.581
2.564
2.547
2.295
2.266
2.259
2.230
1.311
1.294
1.268
1.251
1.157
1.147
1.140
1.130



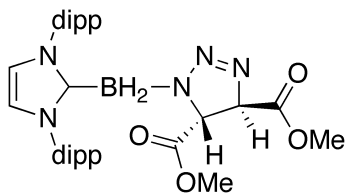
EM64.37 400b 11B purified dimethyl fumarate 1501 10.31.11



122



EM64.37 400b 13C purified dimethyl fumarate 1501 10.31.11



122

171.71
169.48

145.47
145.37

133.45
130.15

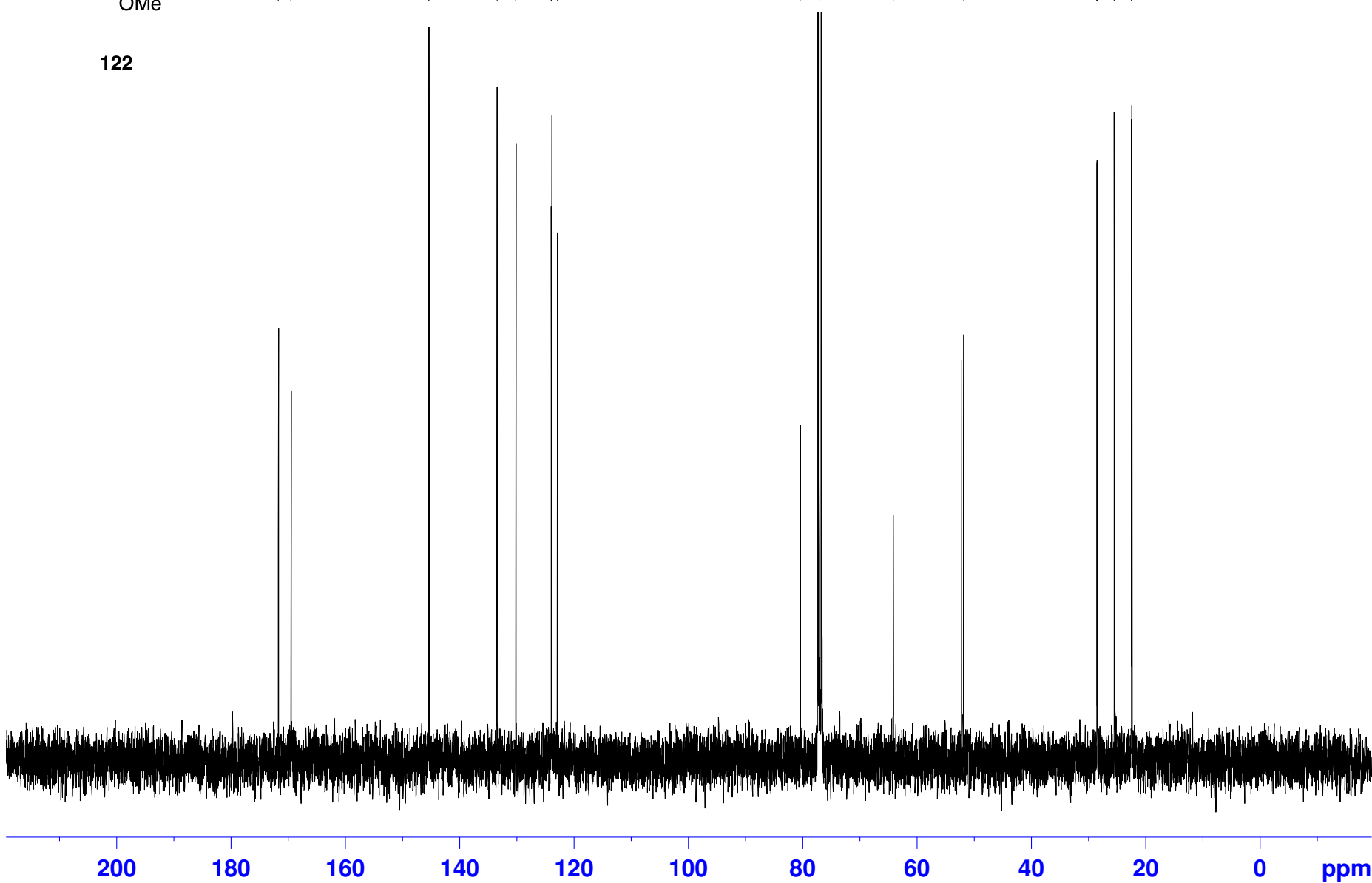
123.97
123.88
122.89

80.40
76.99

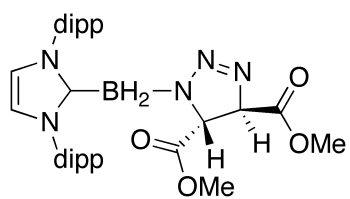
64.16

52.16
51.83

28.54
28.49
25.49
25.38
22.46
22.40



EM64.37 400b 1H purified dimethyl fumarate 1501 10.31.11



122

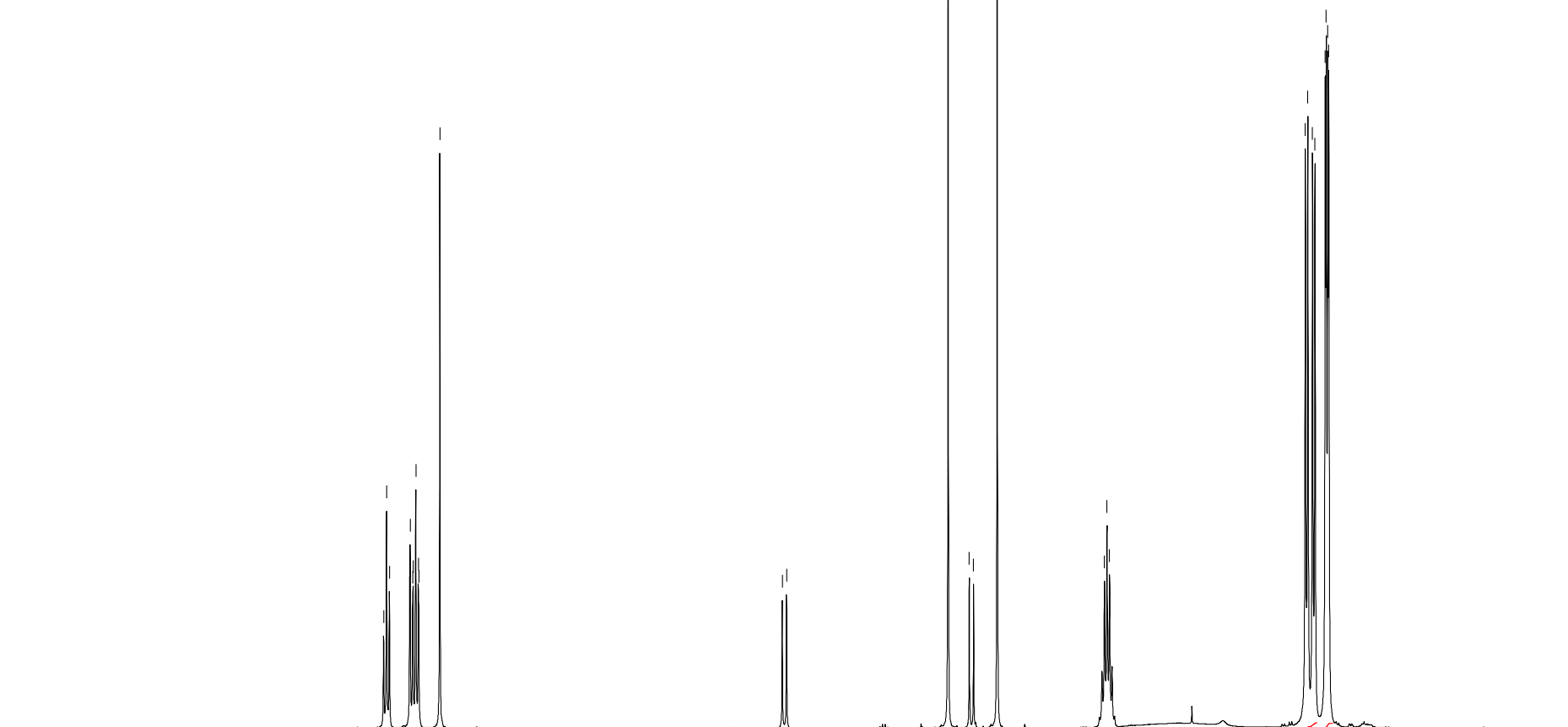
7.477
7.458
7.439
7.298
7.282
7.279
7.260
7.243
7.240
7.099

4.791
4.762

3.676
3.533
3.504
3.345

2.622
2.605
2.588

1.269
1.252
1.220
1.203
1.134
1.128
1.117
1.111



9

8

7

6

5

4

3

2

1

ppm

2.03
4.28
2.00

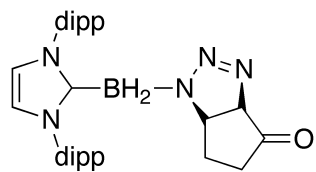
0.98

2.96
1.02
2.96

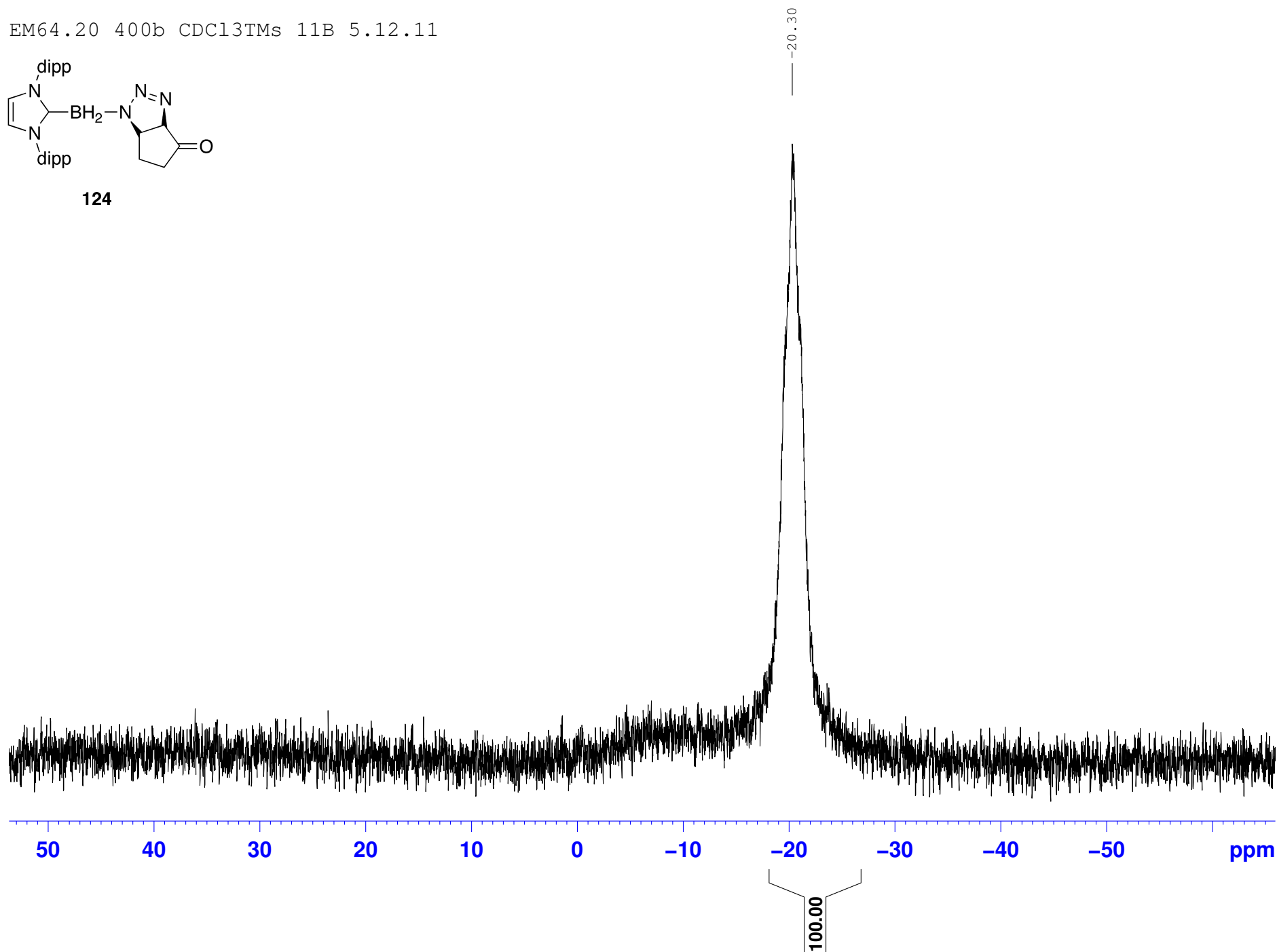
4.09

12.95
12.14

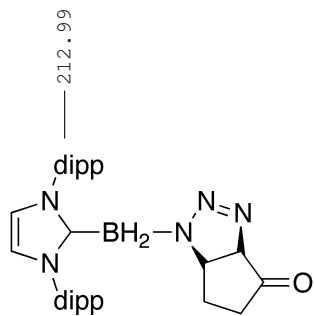
EM64.20 400b CDC13TMs 11B 5.12.11



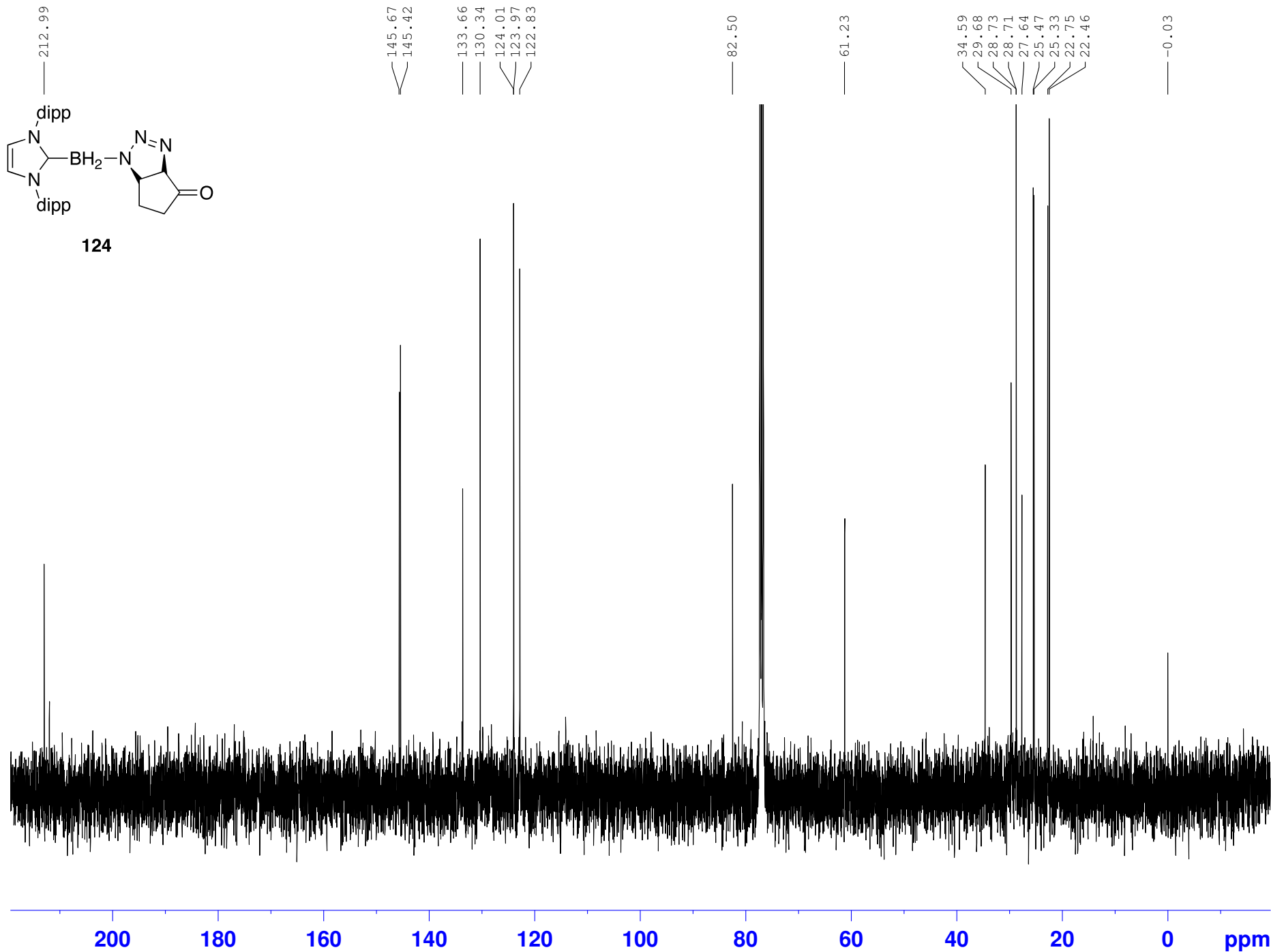
124



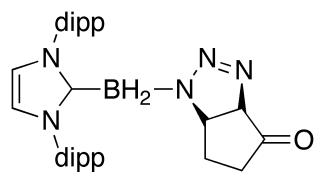
EM64.20 400b CDC13TMs 13C 5.12.11



124



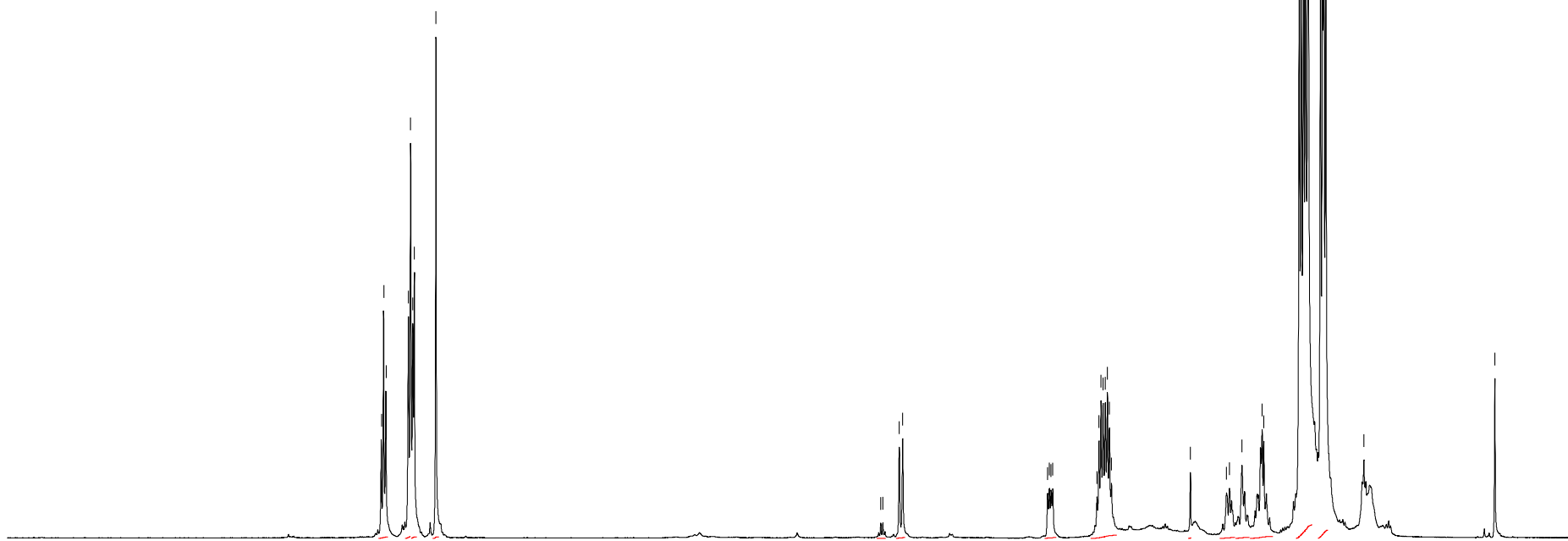
EM64.20 500 CDC13TMS 1H frac 23-28 12.13.10



124

7.483
7.467
7.452
7.303
7.289
7.274
7.263
7.118

4.128
4.114
4.003
3.981
3.006
2.994
2.984
2.972
2.675
2.661
2.647
2.633
2.618
2.604
2.591
2.577
2.046
1.804
1.784
1.700
1.564
1.553
1.315
1.301
1.286
1.272
1.254
1.172
1.158



9

8

7

6

5

4

3

2

1

ppm

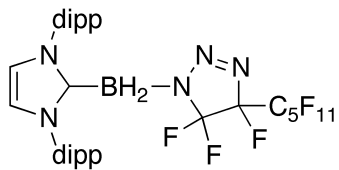
2.07
2.99
2.14
2.00

0.17
1.00

1.02
4.77

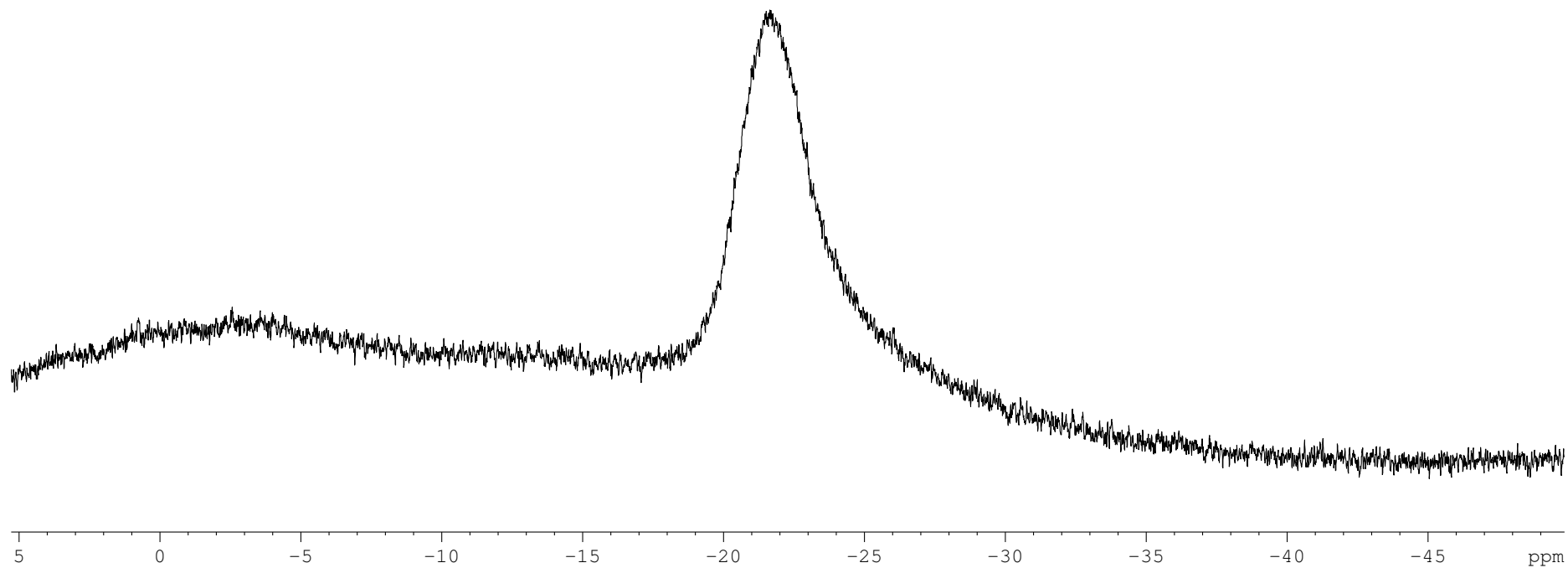
0.31
1.28
1.39
2.76
21.64
13.47

VL-39-30, Azide + Pefluoroheptene-1, fractions 8-11, CDCl₃, 400b, 11/04/10

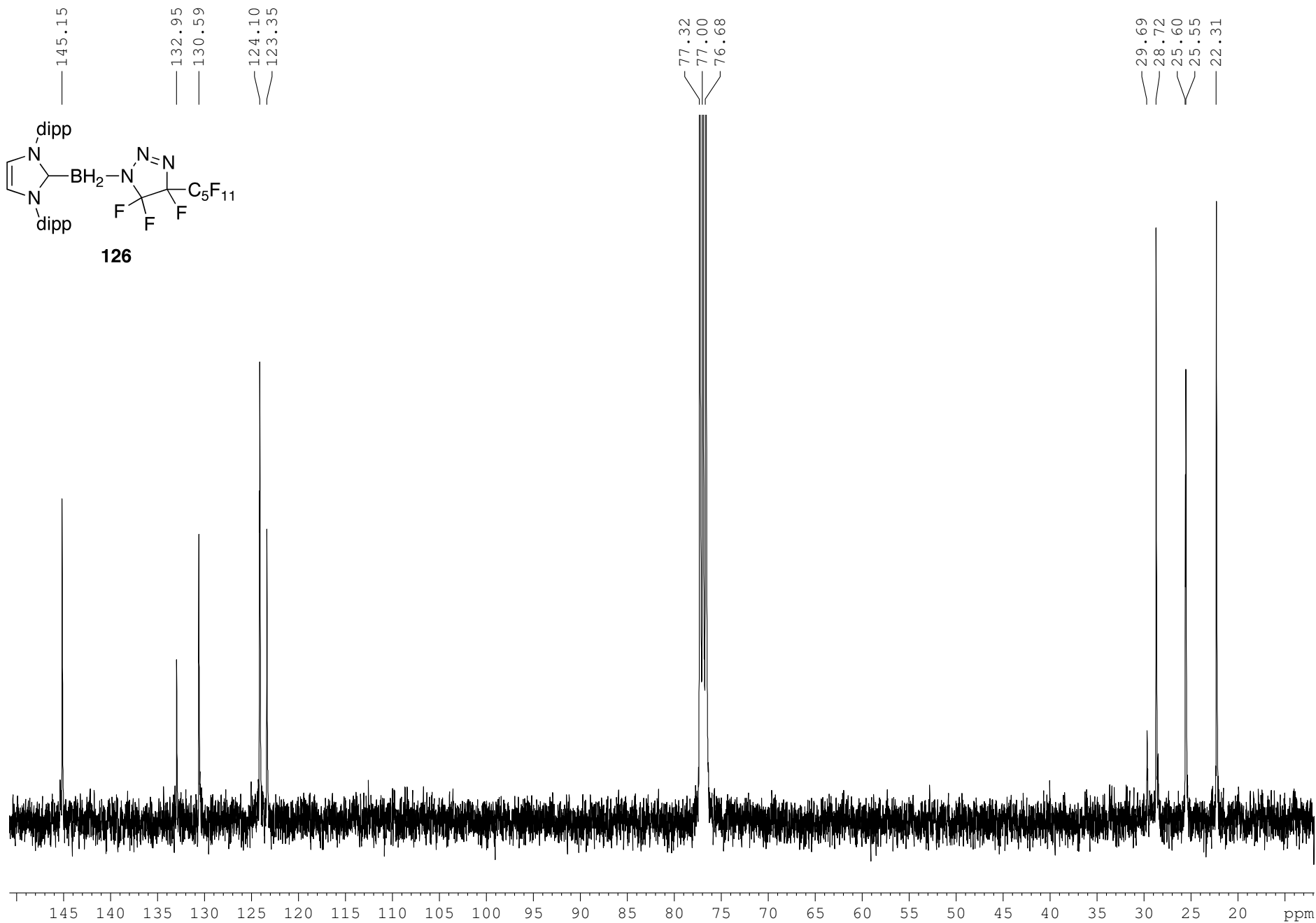


126

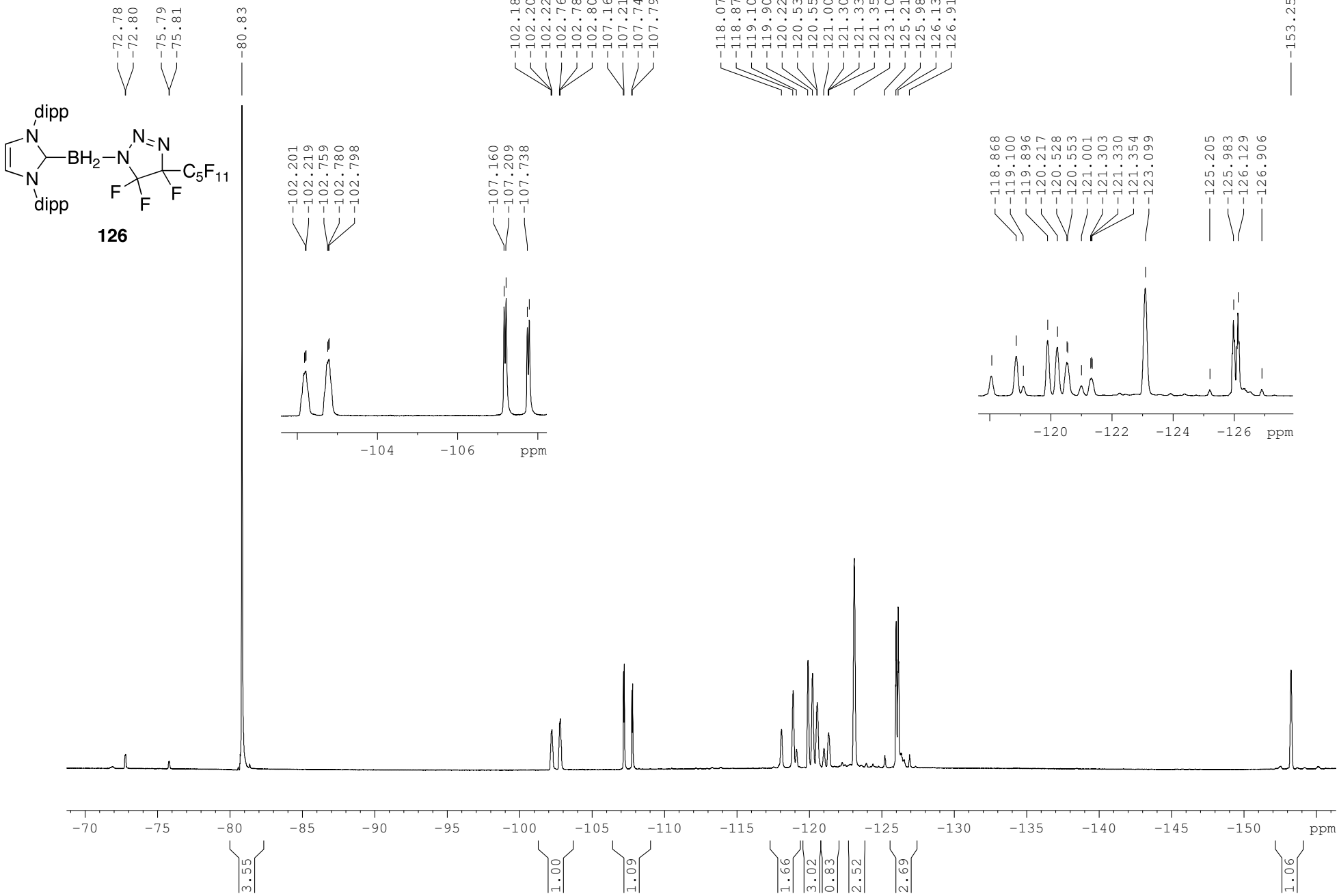
—21.64



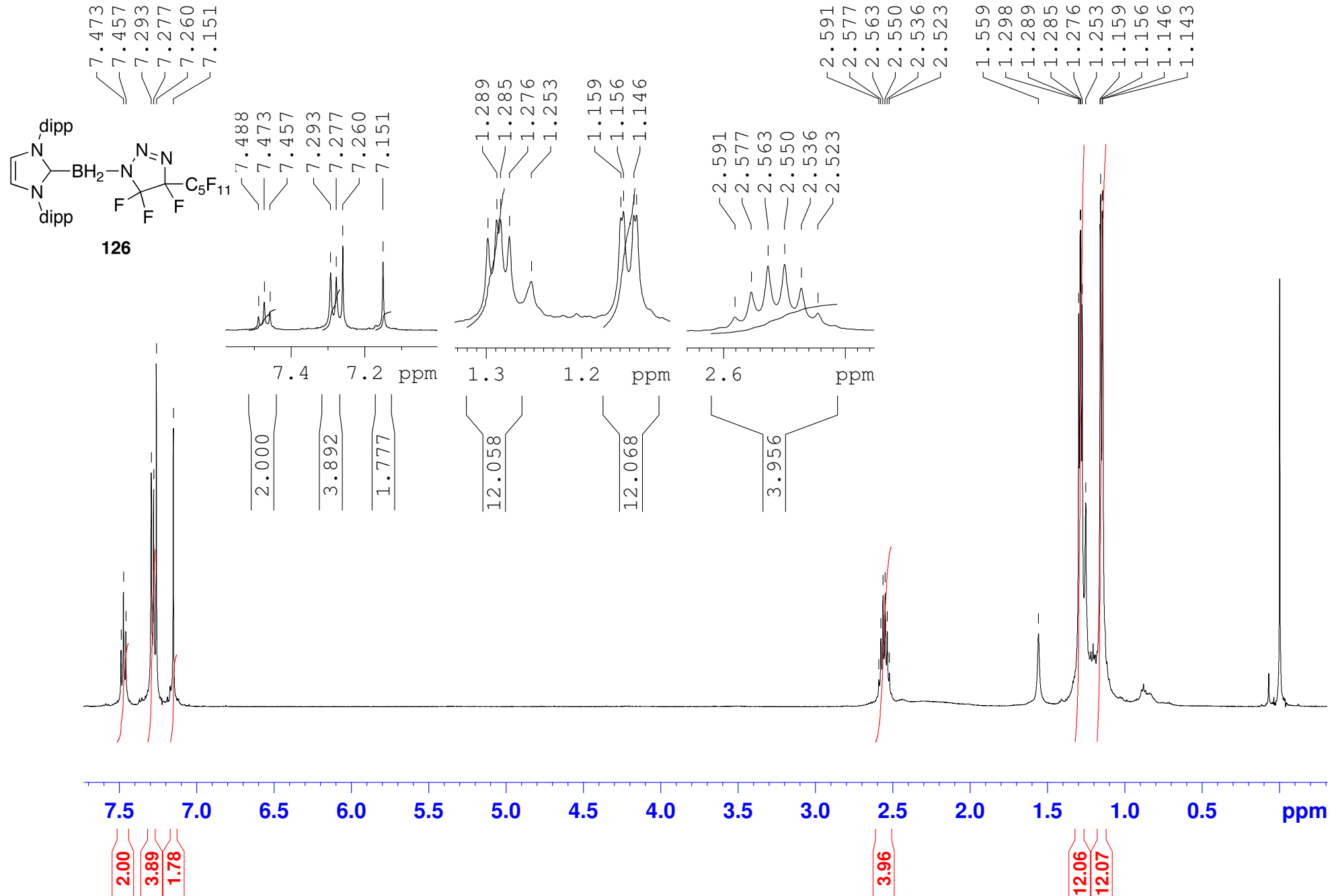
VL-39-30, Azide + Pefluoroheptene-1, fractions 8-11, CDCl3, 400b, 11/05/10



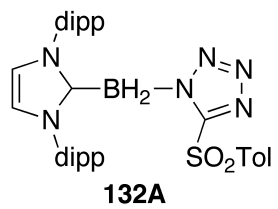
VL-39-30, Azide + Pefluoroheptene-1, fractions 8-11, CDCl3, 400b, 11/05/10



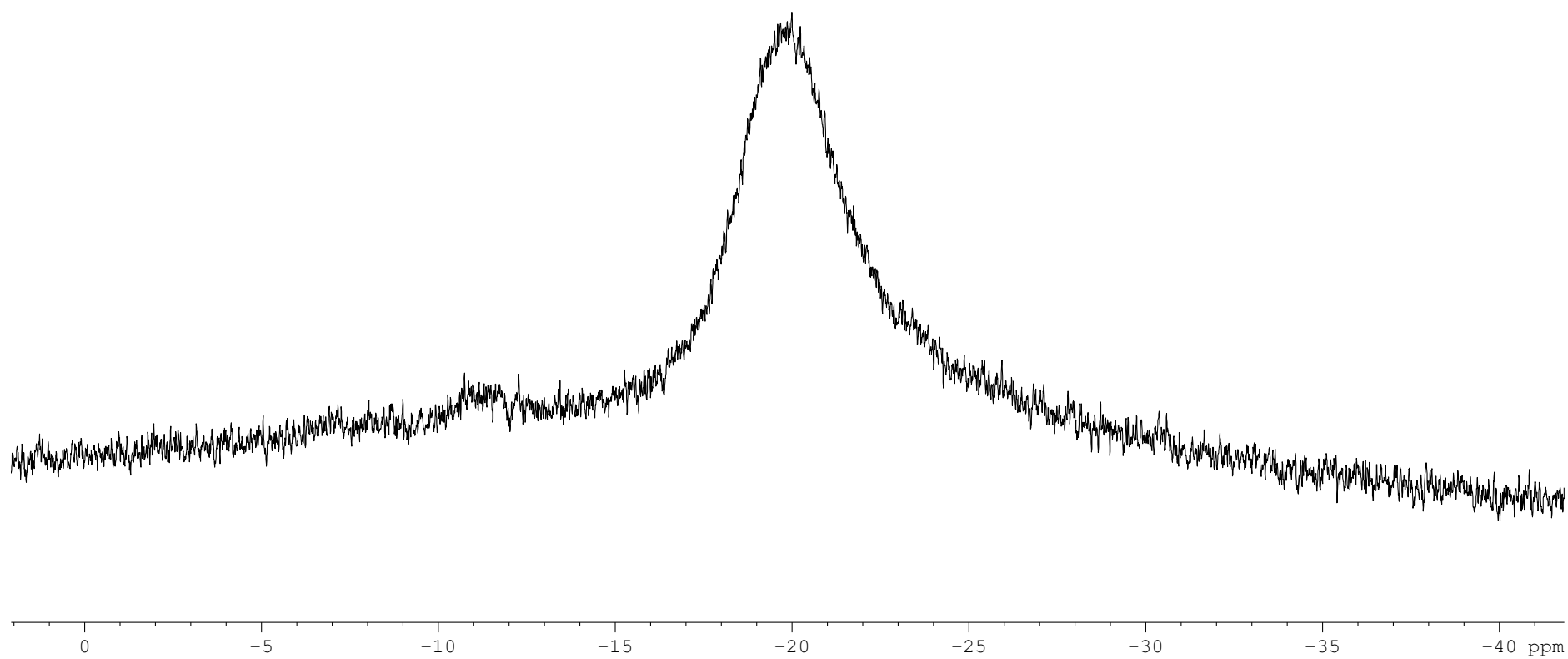
VL-39-30, Azide + Perfluoroheptene-1, pure, evaporated for no EA, CDCl3, 500, 01/21/11



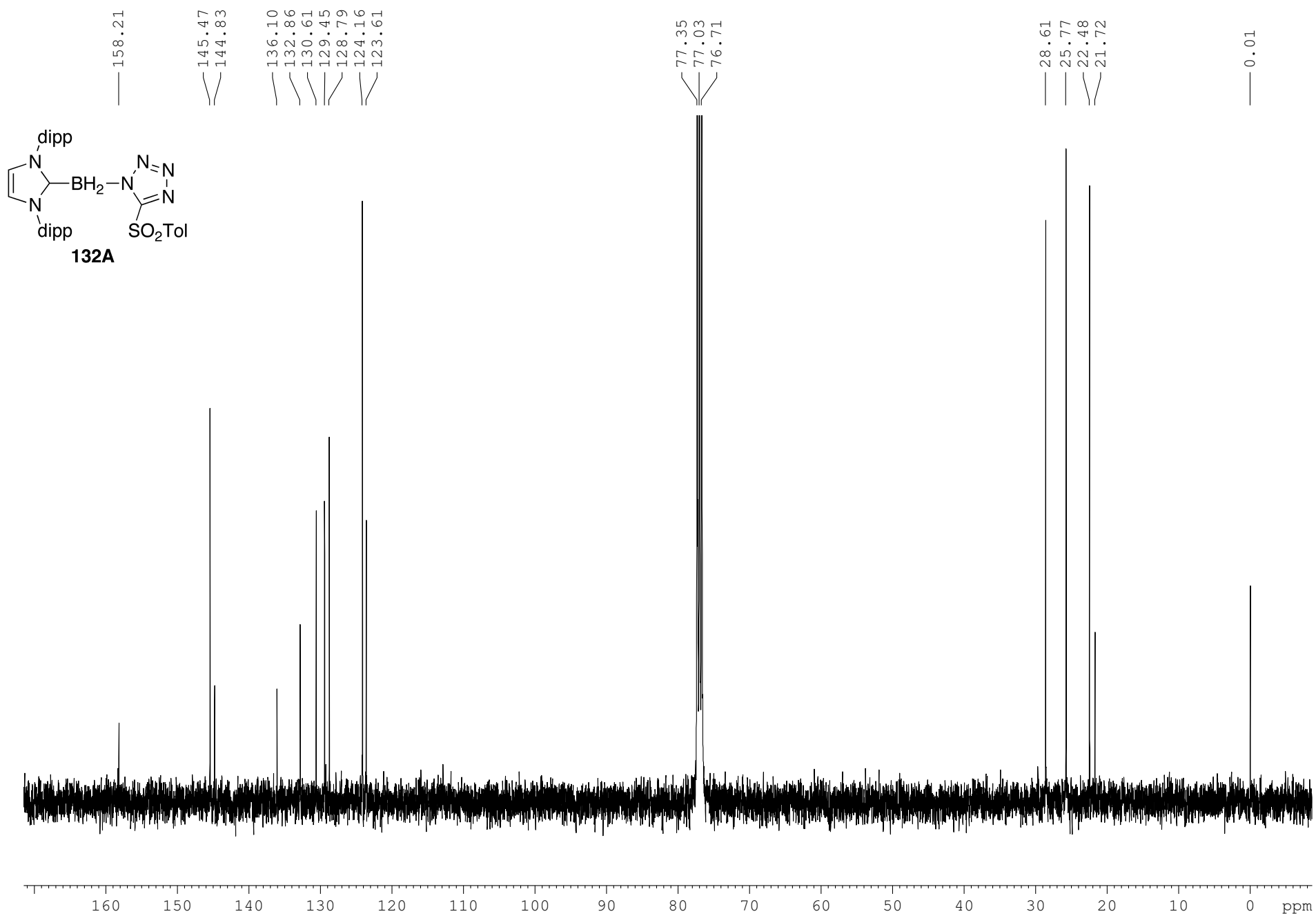
VL-39-32, Azide + TsCN, fraction 21-22, CDCl₃, 400b, 12/03/10



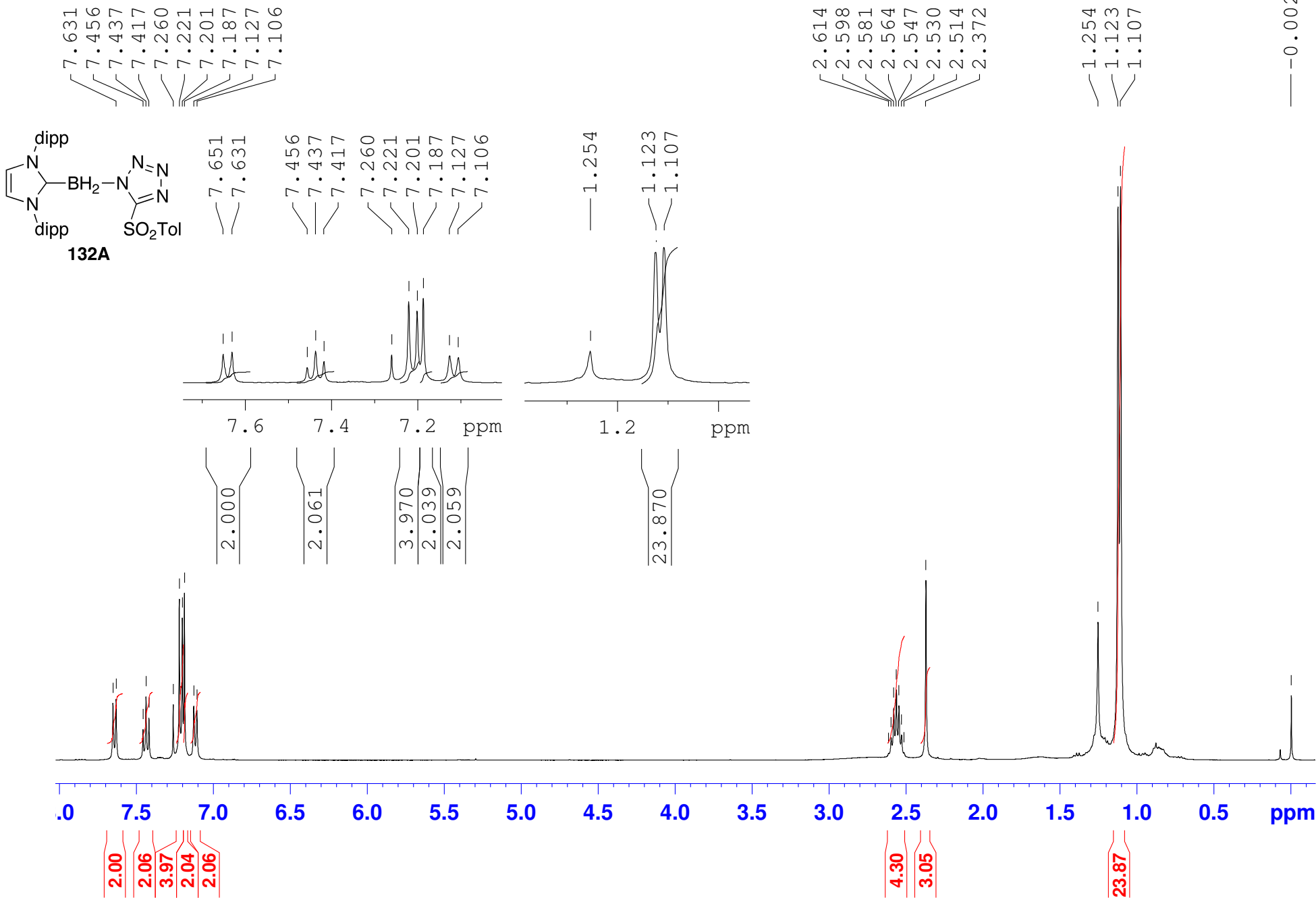
—20.00



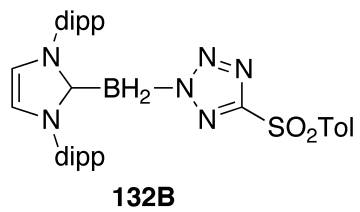
VL-39-15, Azide + TsCN, fractions 43-45, C-13 for 2 hours, CDCl3, 06/21/10



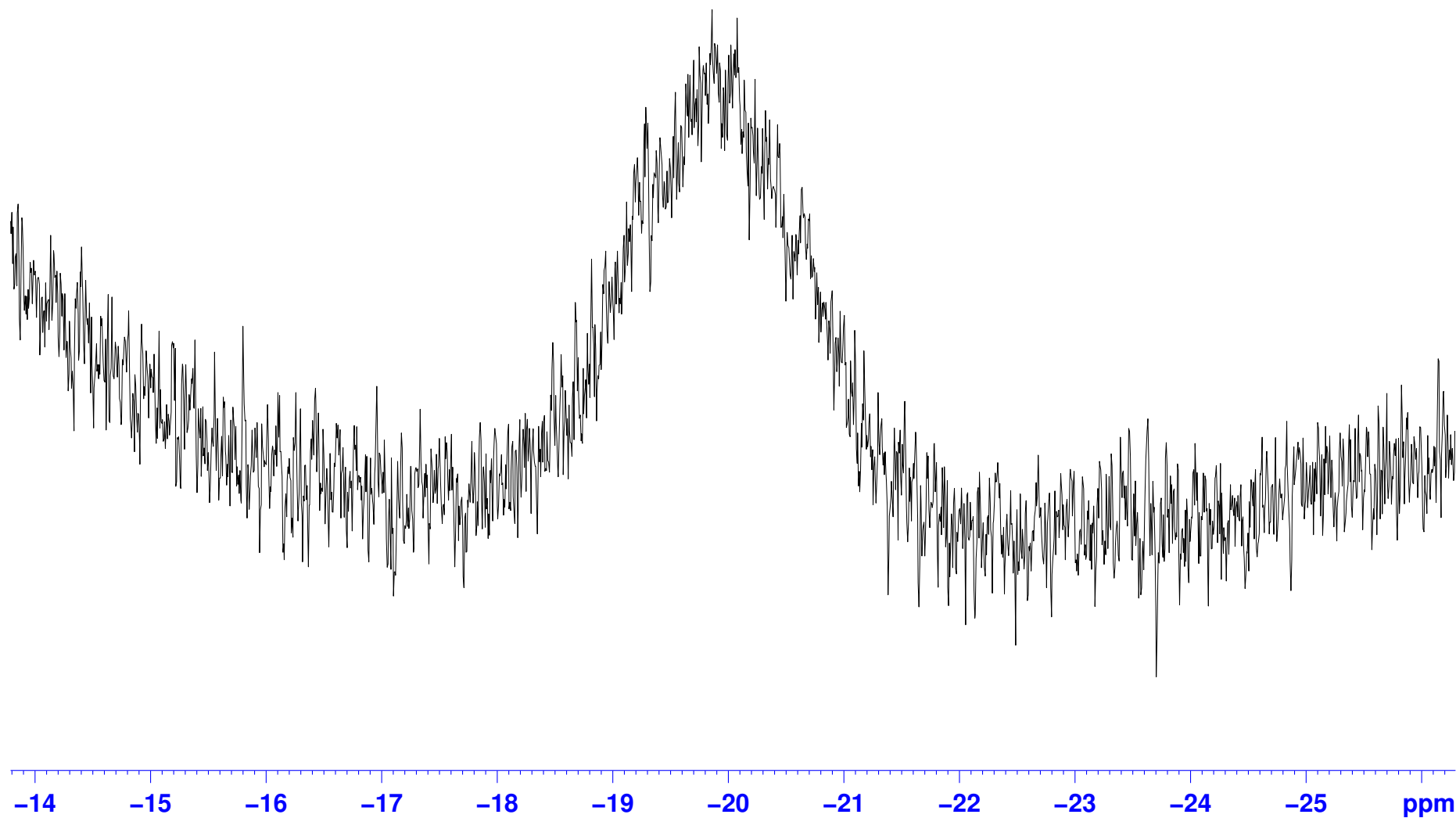
VL-39-15, Azide + TsCN, pure product, attempt for no ethyl acetate, CDCl3, 01/14/11



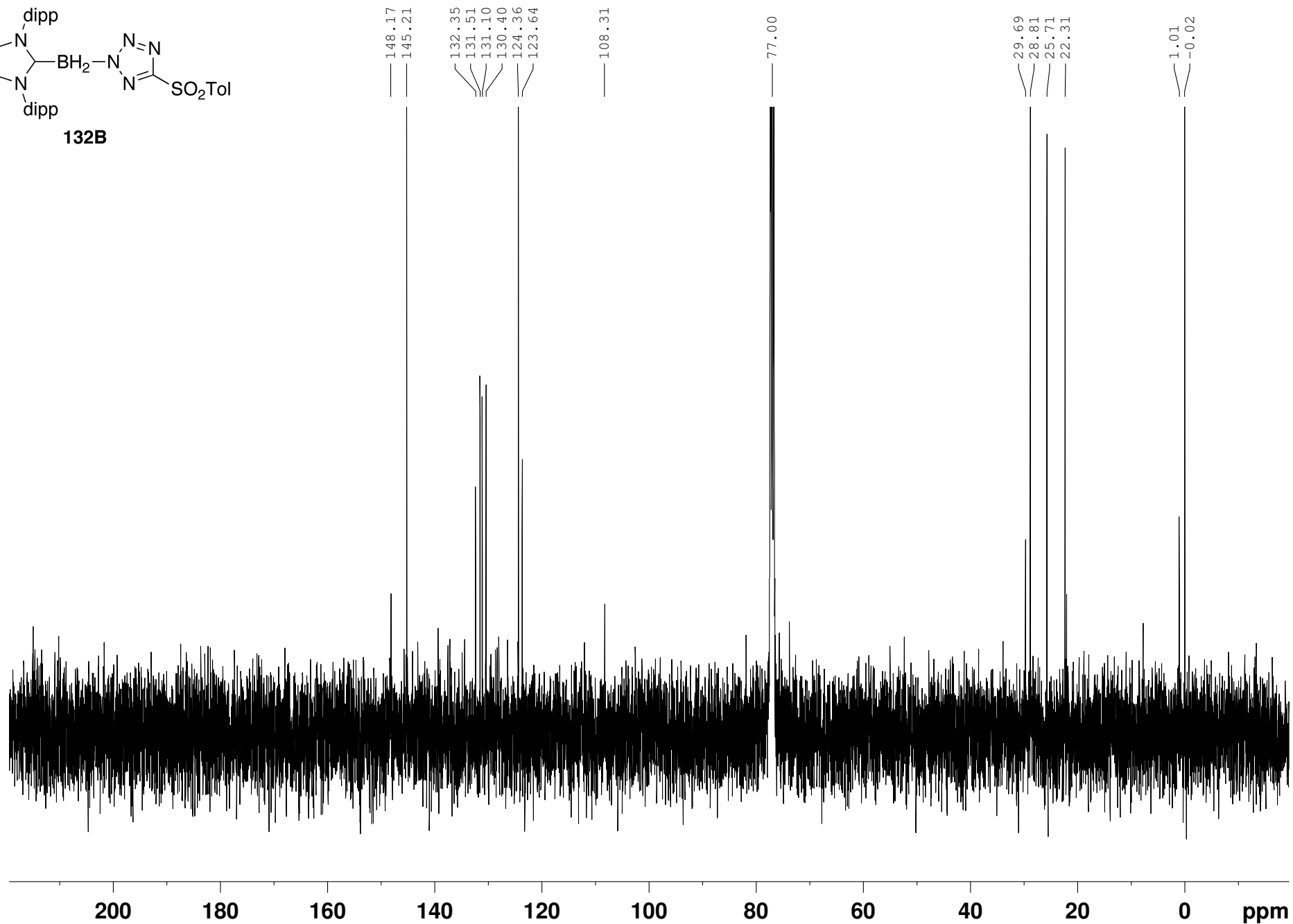
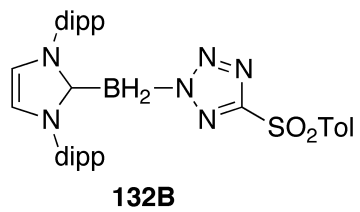
EM64.69.1 500 11B CDCl3 purity check 3.22.12



—19.90



EM64.69.1 3.22.12



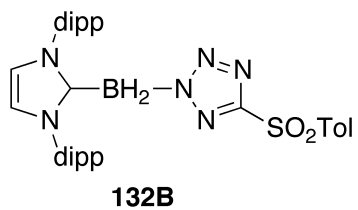
EM64.69.1 500 1H CDC13 purity check 3.22.12

7.858
7.841
7.526
7.510
7.494
7.441
7.425
7.424
7.298
7.282
7.262
7.220

2.512
2.485
2.472
2.458

1.255
1.242
1.156
1.143

0.070
0.000



9

8

7

6

5

4

3

2

1

ppm

1.46

2.20

1.56

4.41

2.00

2.10

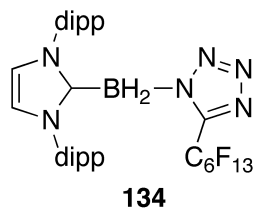
4.59

18.95

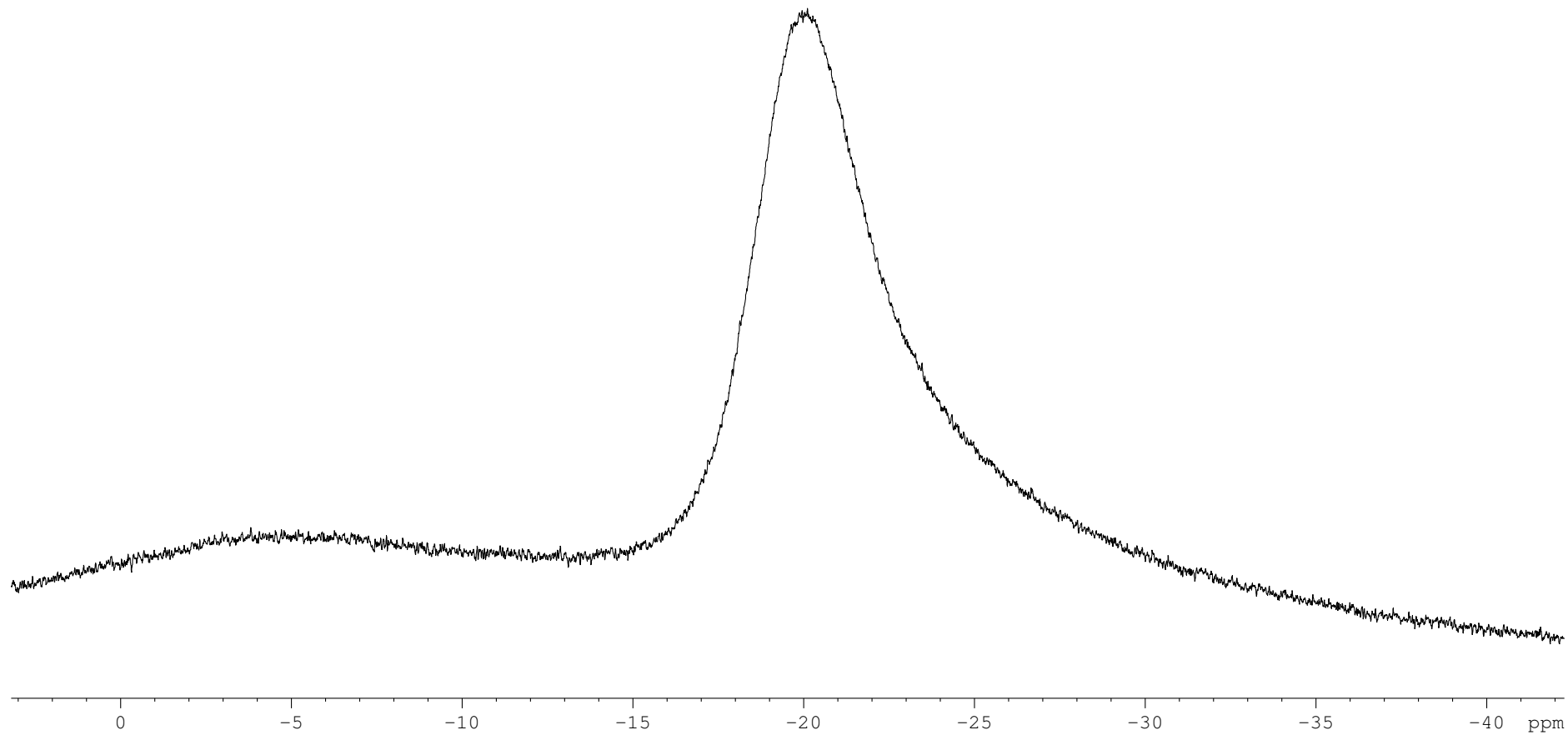
12.93

3.59

VL-39-27, Azide + C7F13N, combined fractions 27-38, 400b, CDCl3, 10/08/10



— -20.14



VL-39-27, Azide + C7F13N, combined fractions 27-38, 400b, CDCl3, 10/08/10

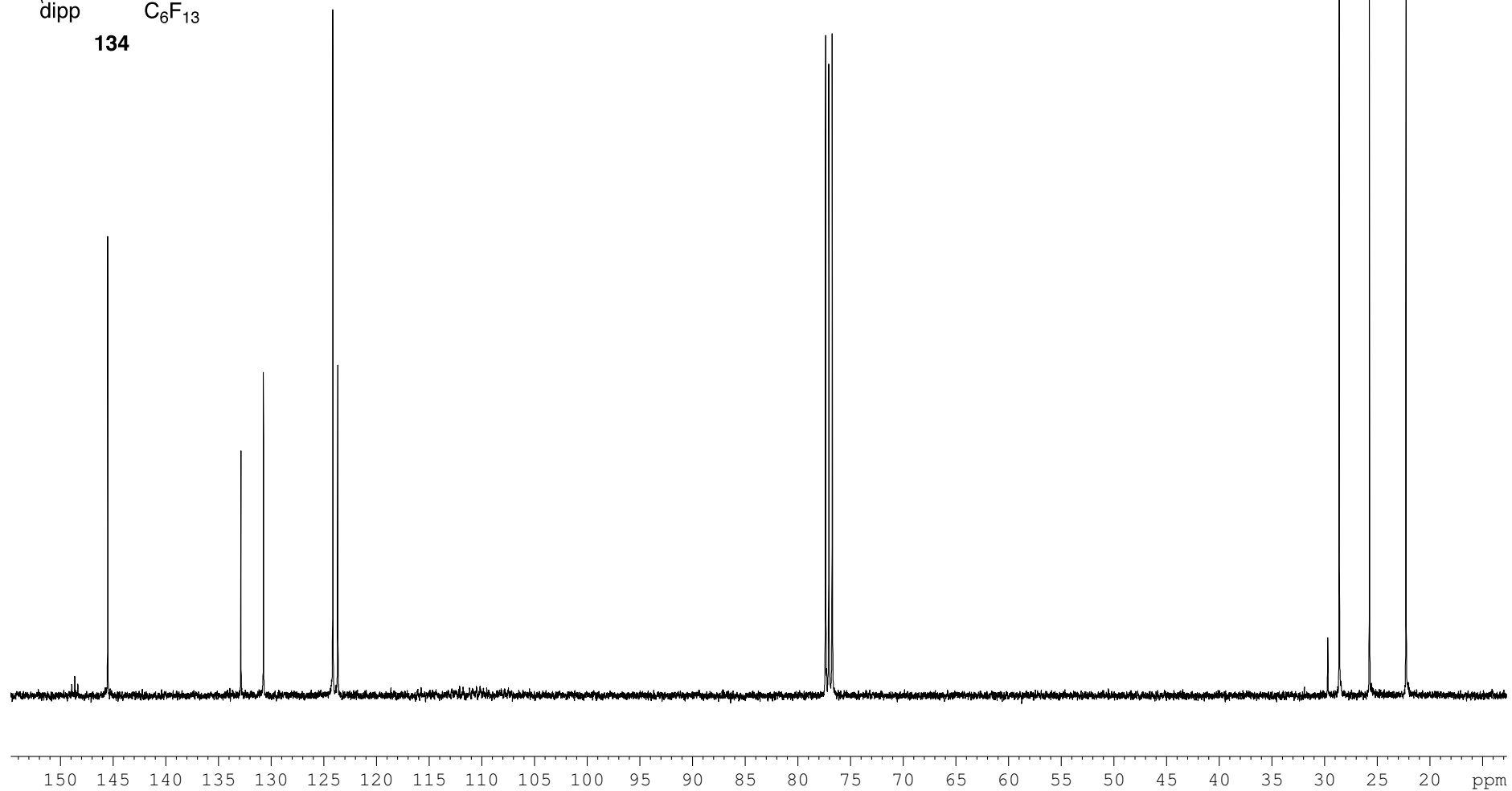
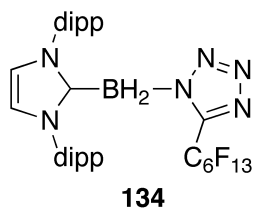
148.91
148.63
148.34
145.50

132.85
130.72

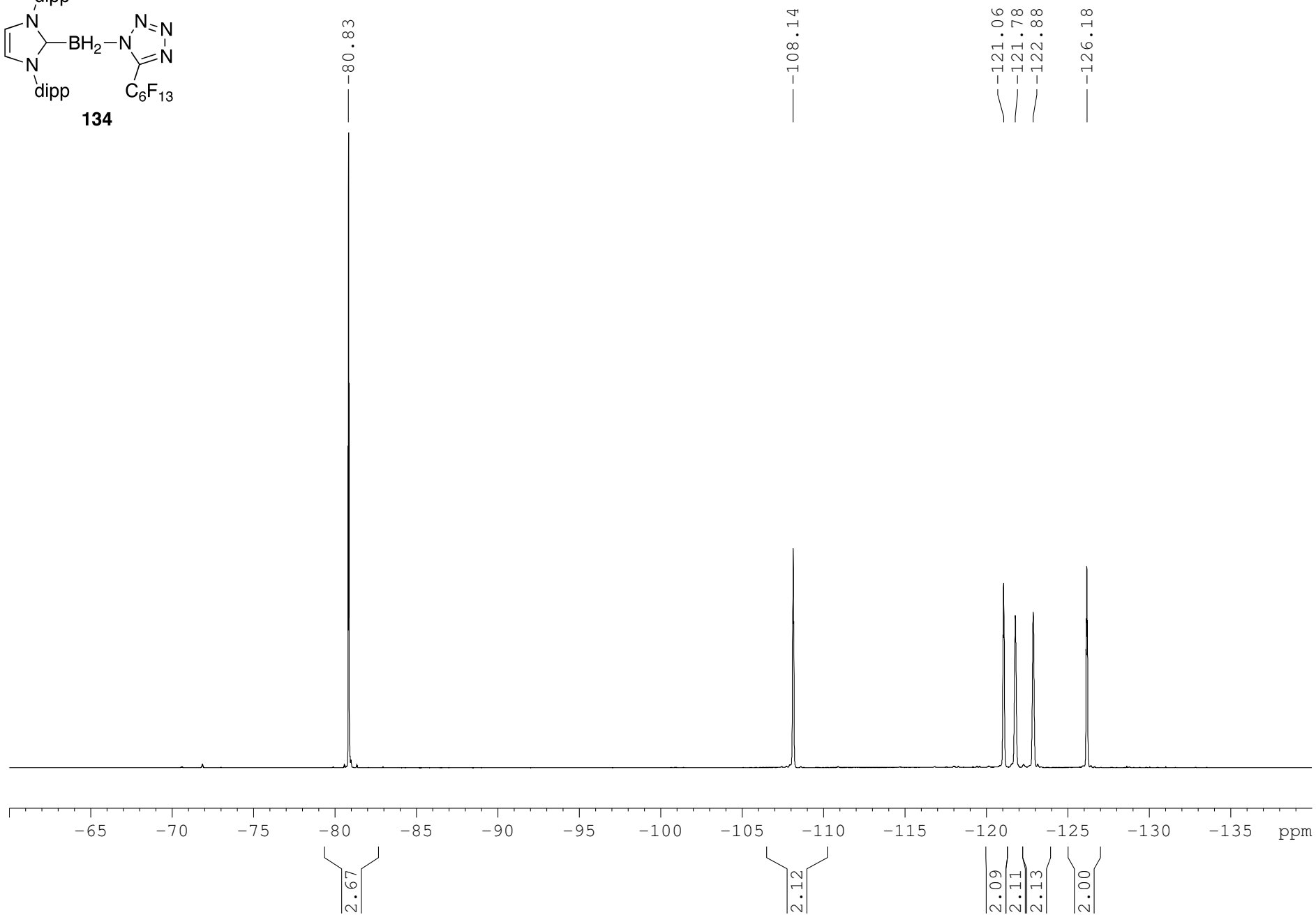
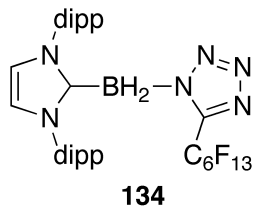
124.13
123.66

77.36
77.04
76.72

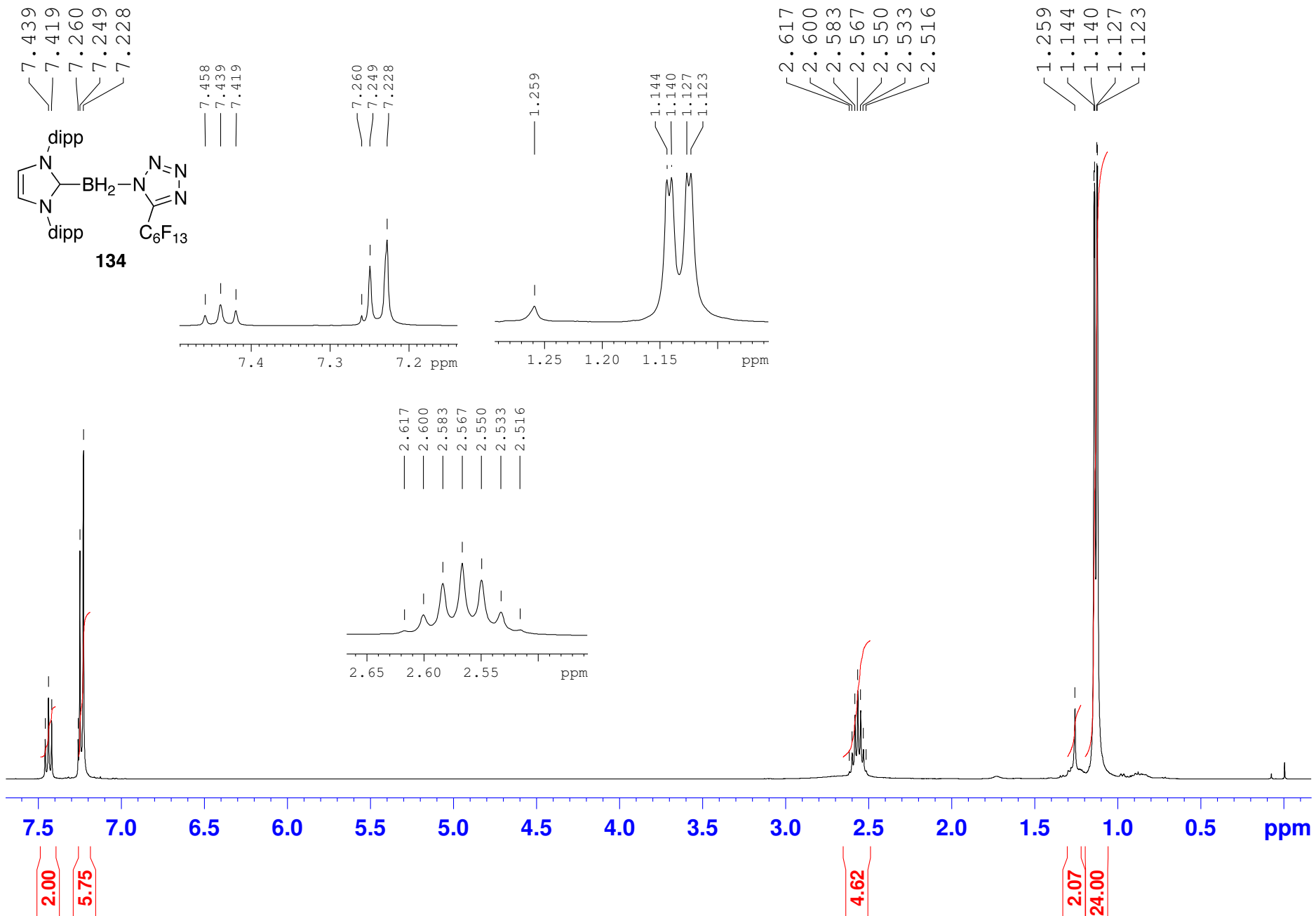
29.72
28.63
25.76
22.29



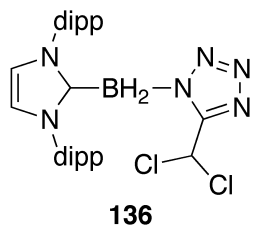
VL-39-27, Azide + C7F13N, combined fractions 27-38, 400b, CDCl3, 10/08/10



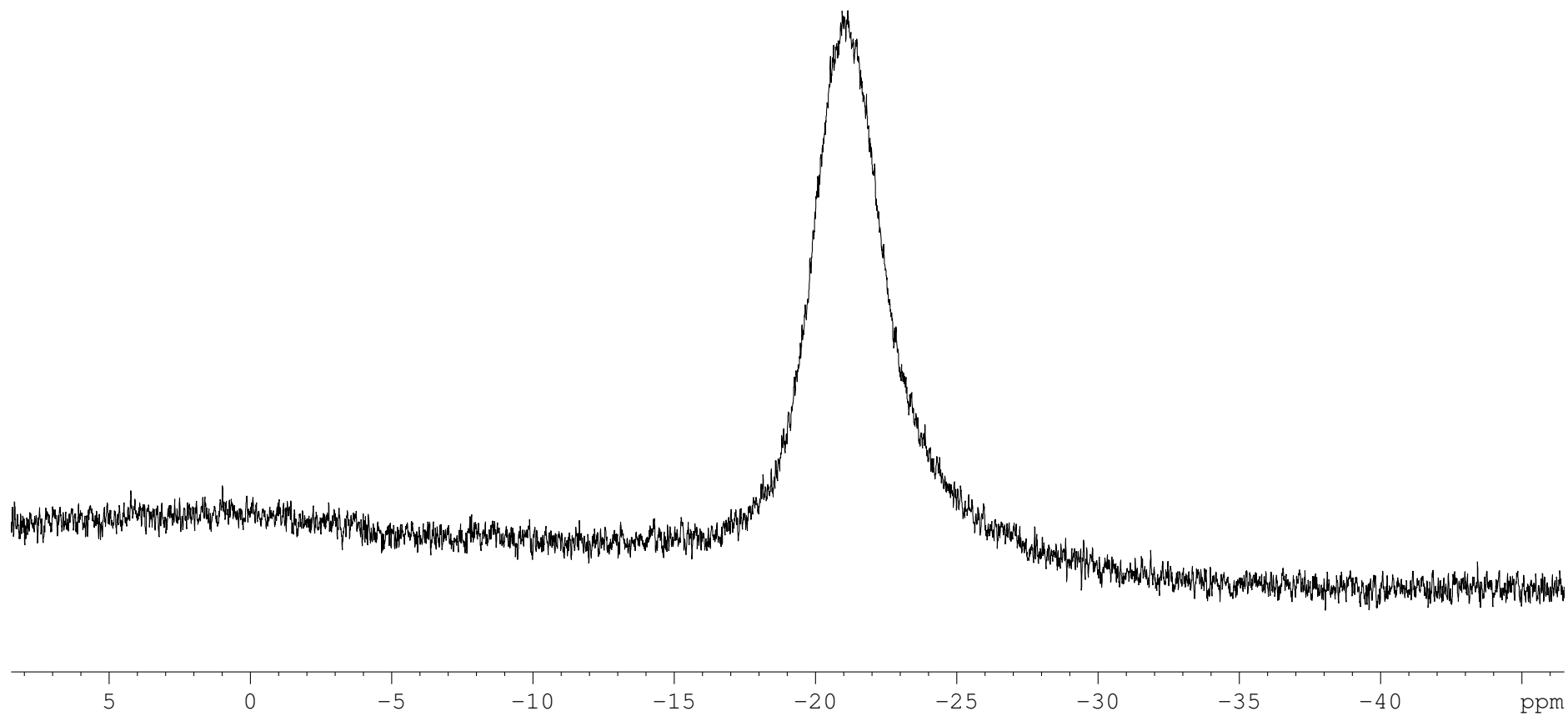
VL-39-27, Azide + C7F13N, combined fractions 27-38, 400b, CDCl3, 10/08/10



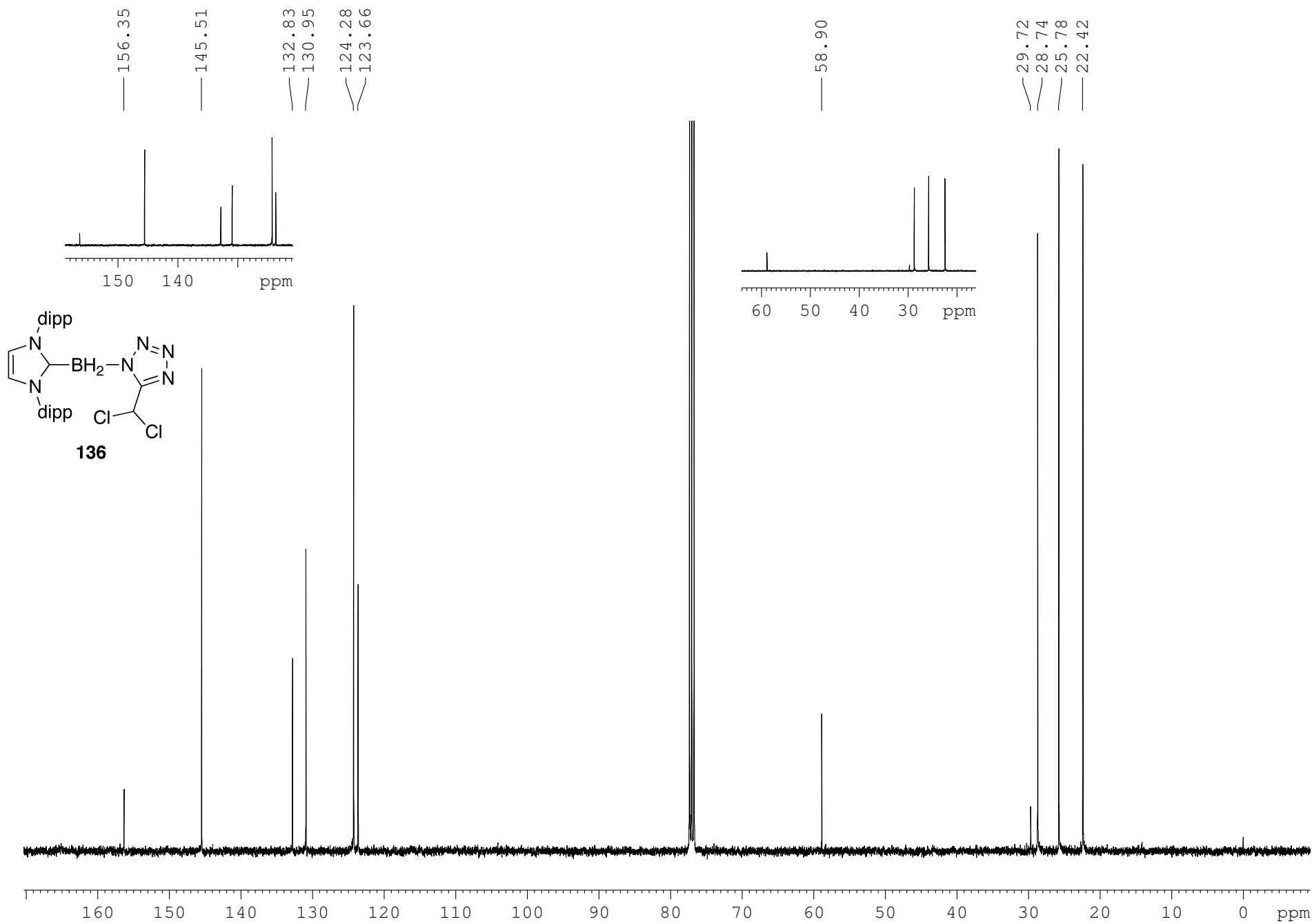
VL-39-33, Azide + Dichloroacetonitrile, fractions 30-34, CDCl₃, 400b, 12/10/10



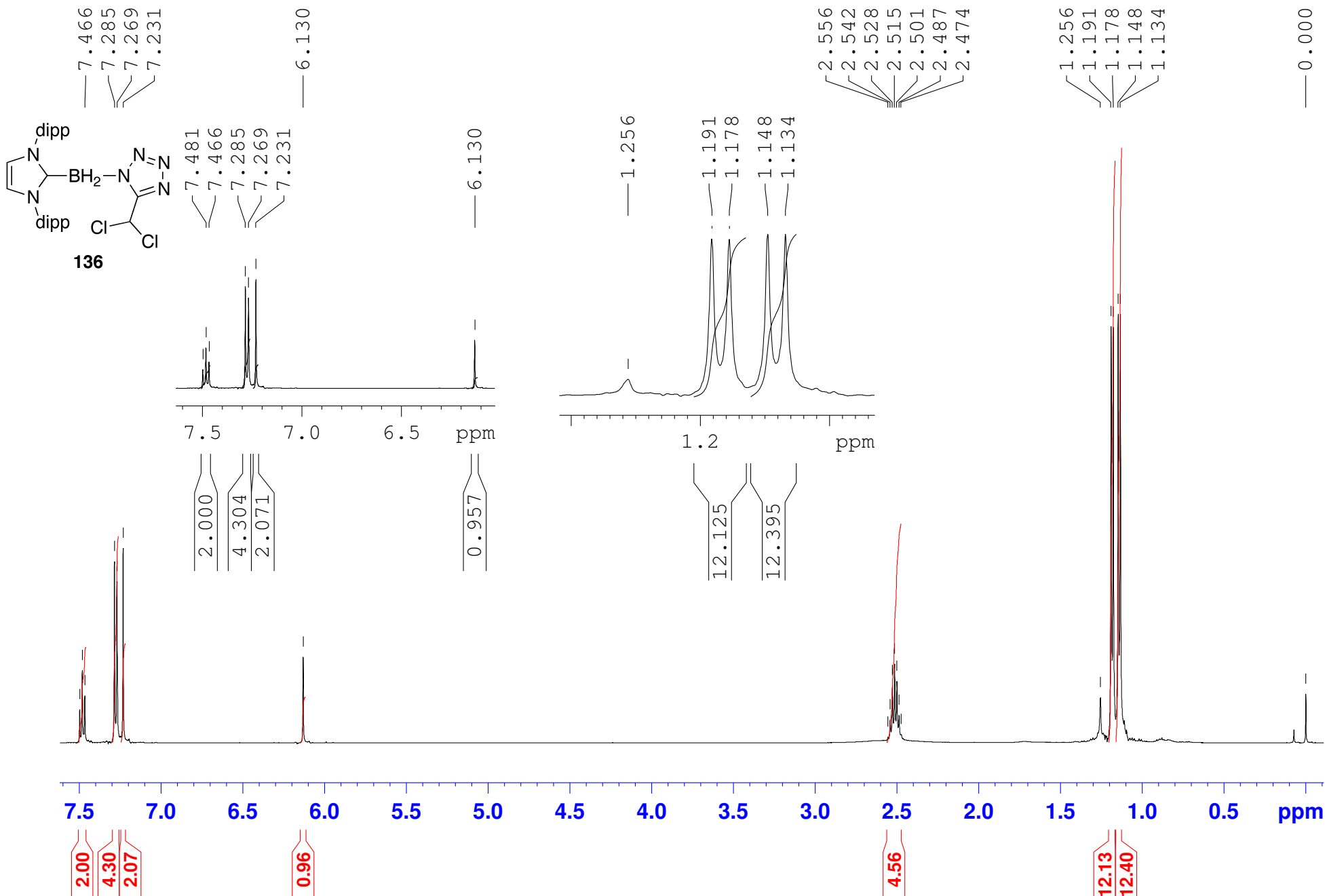
— -21.14



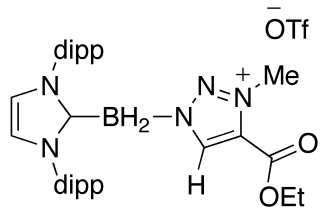
VL-39-22, Azide + Dichloroacetonitrile, fractions 44-48, 400b, ¹³C NMR for 40 minutes, CDCl₃, 08/09/10



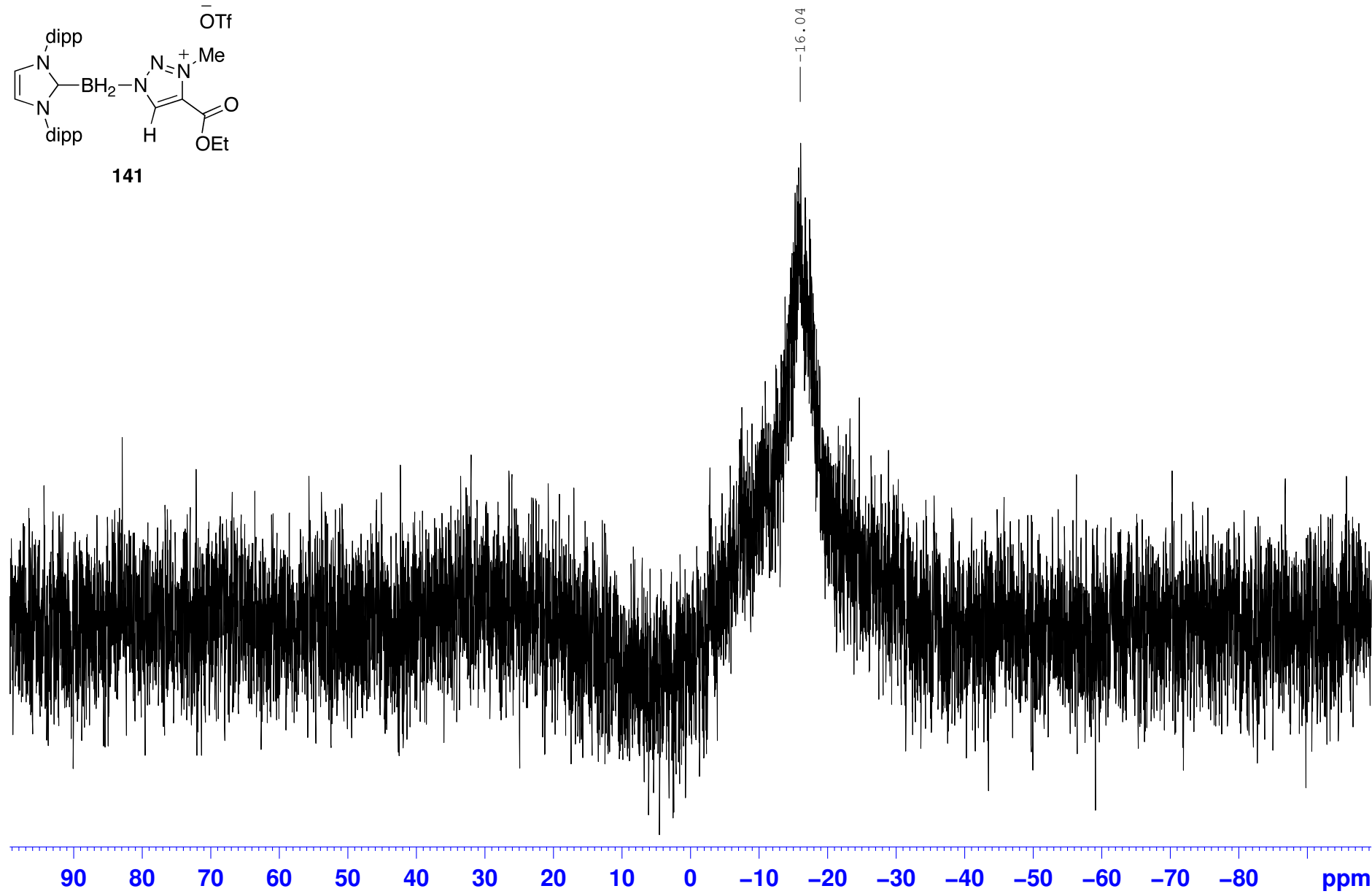
VL-39-33, Azide + Dichloroacetonitrile, pure, evaporated for no EA, CDCl3, 500, 01/21/11



EM.64.03 400b CDCl3TMS 11B methylated triazole with MeI 11.5.10



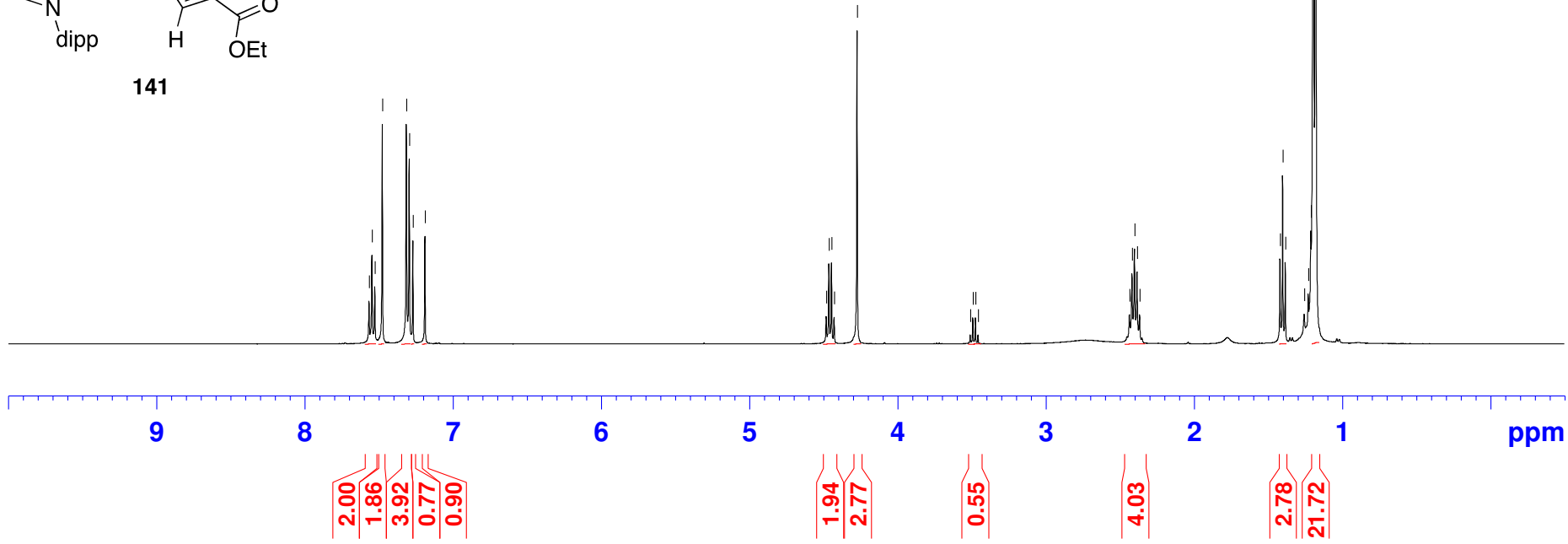
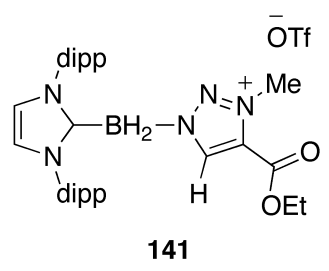
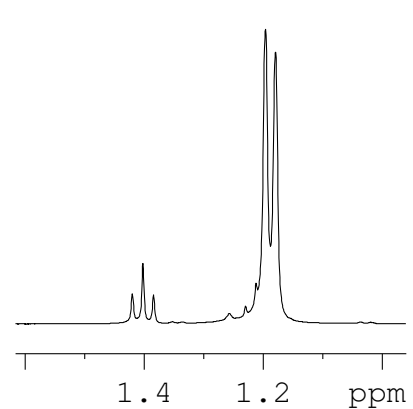
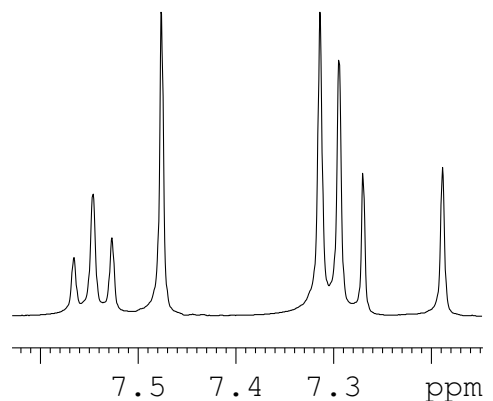
141



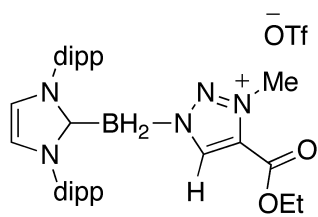
EWM-1-059 400a 1H CDCl3 methyl triazole 7.19.10

7.566
7.546
7.527
7.476
7.314
7.294
7.270
7.189

4.481
4.463
4.446
4.428
4.273
3.510
3.492
3.475
3.457
2.435
2.418
2.401
2.384
2.367
1.420
1.402
1.384
1.257
1.229
1.212
1.196
1.179



EWM-1-059 400a 13C CDC13 methyl triazole 7.19.10



141

155.17
145.20
136.34
132.12
131.33
131.11
124.94
124.35

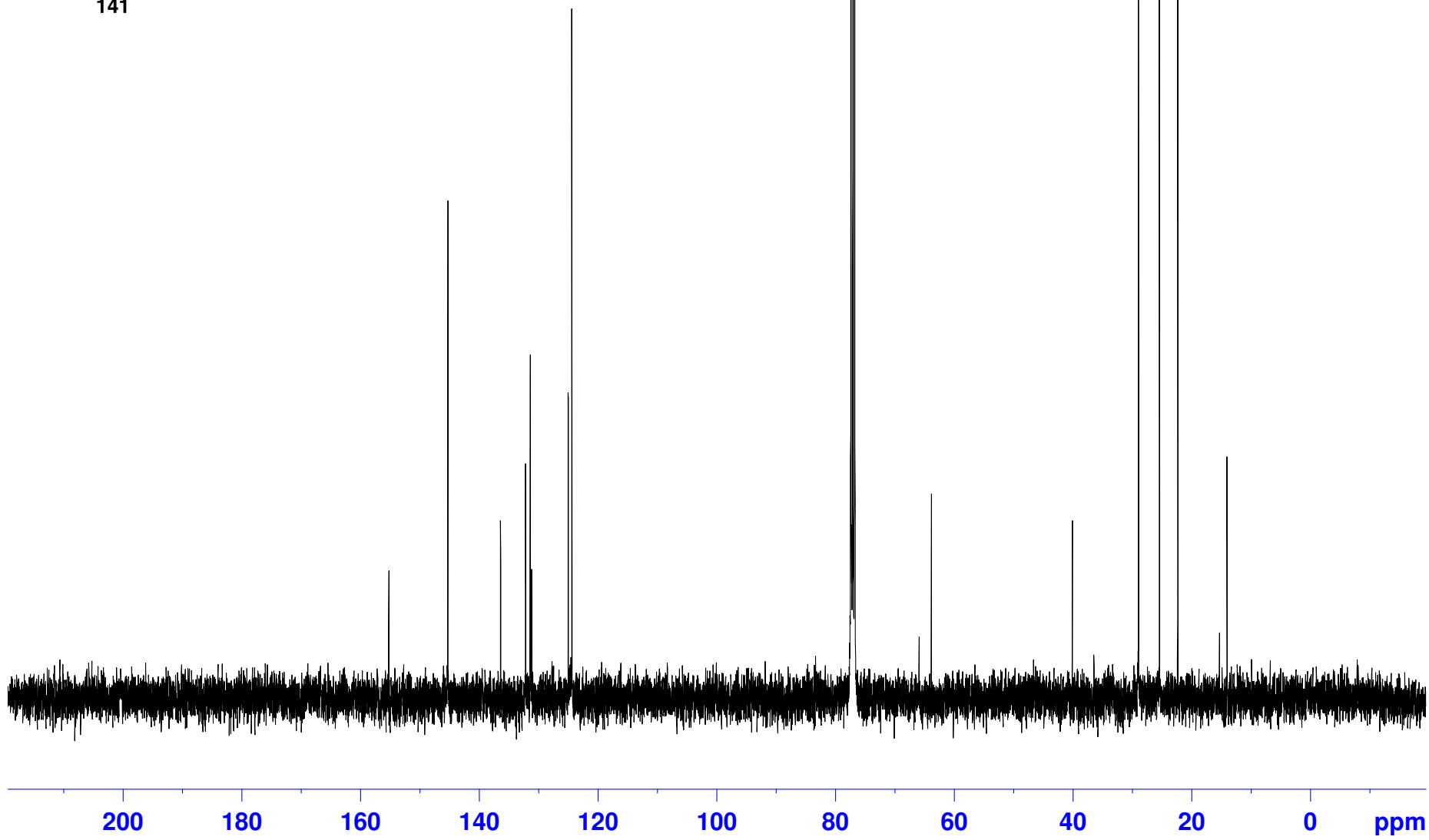
77.32
77.00
76.68

65.83
63.77

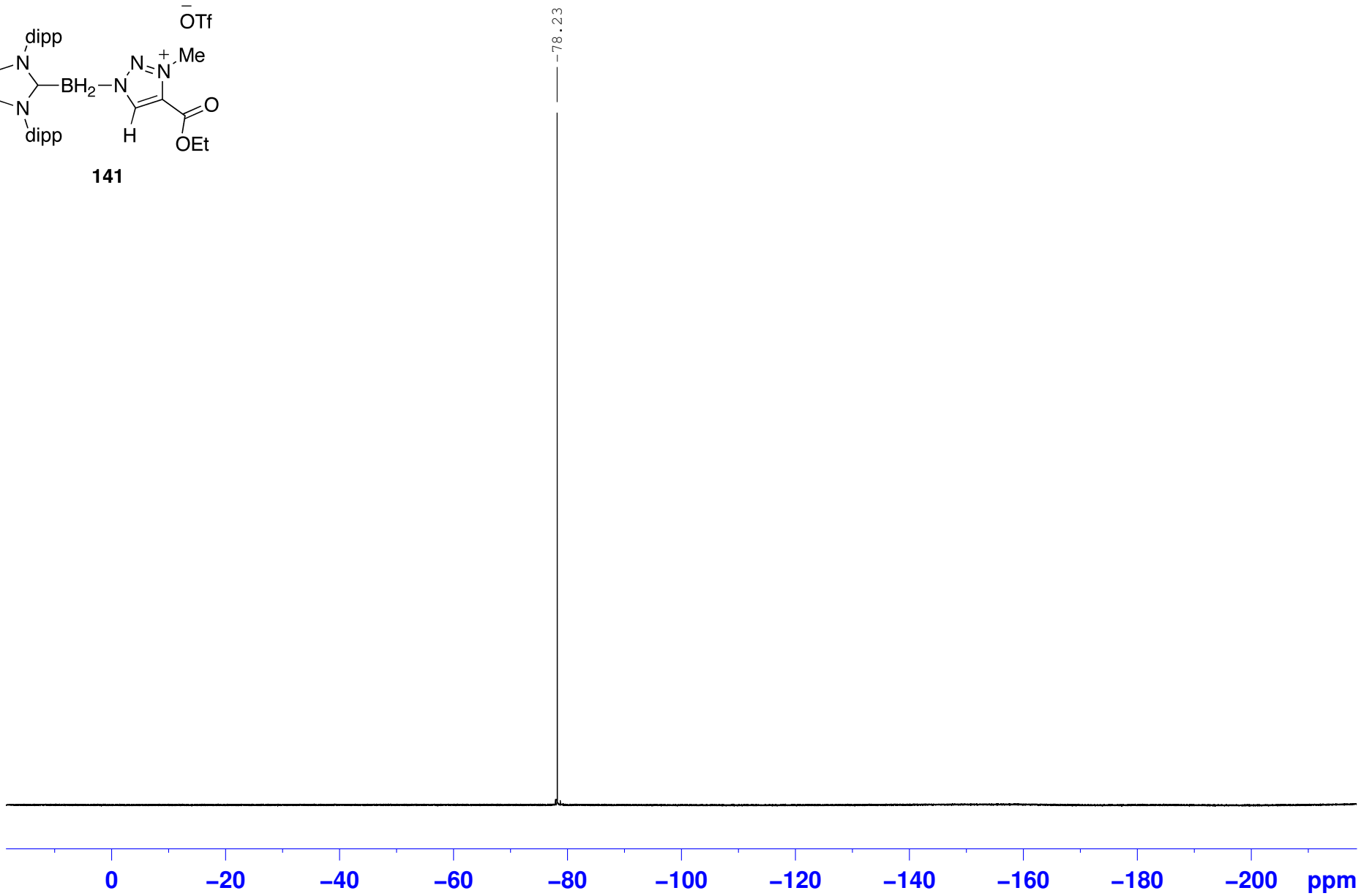
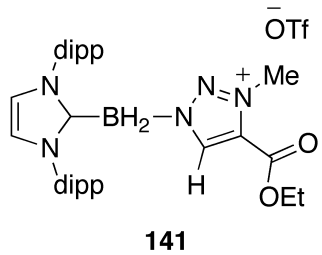
40.03

28.89
25.37
22.28

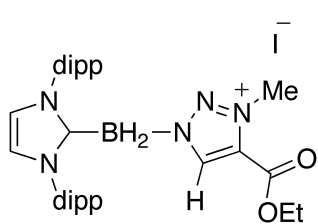
15.25
13.99



EWM-1-059 400b 19F CDC13 methylated triazole 7.20.10



EM64.03 500 CDC13TMS 1H 5.11.11



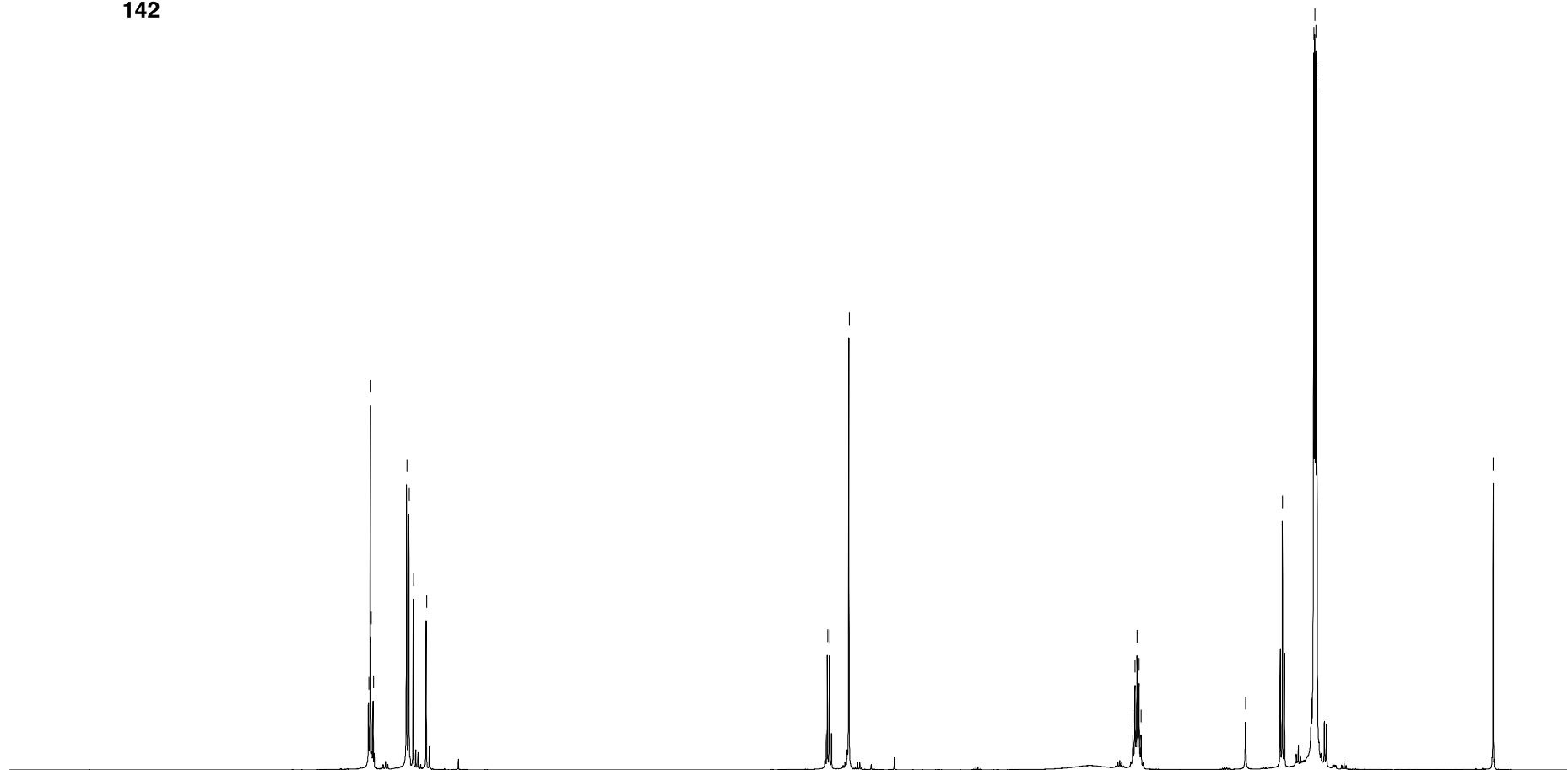
142

7.579
7.566
7.563
7.548
7.322
7.307
7.277
7.189

4.486
4.472
4.340

2.429
2.415
2.401
2.388
2.374
1.670
1.421
1.209
1.202
1.196
1.189

0.000



9

8

7

6

5

4

3

2

1

ppm

4.04

4.14

0.81

0.32

0.92

0.14

2.00

2.97

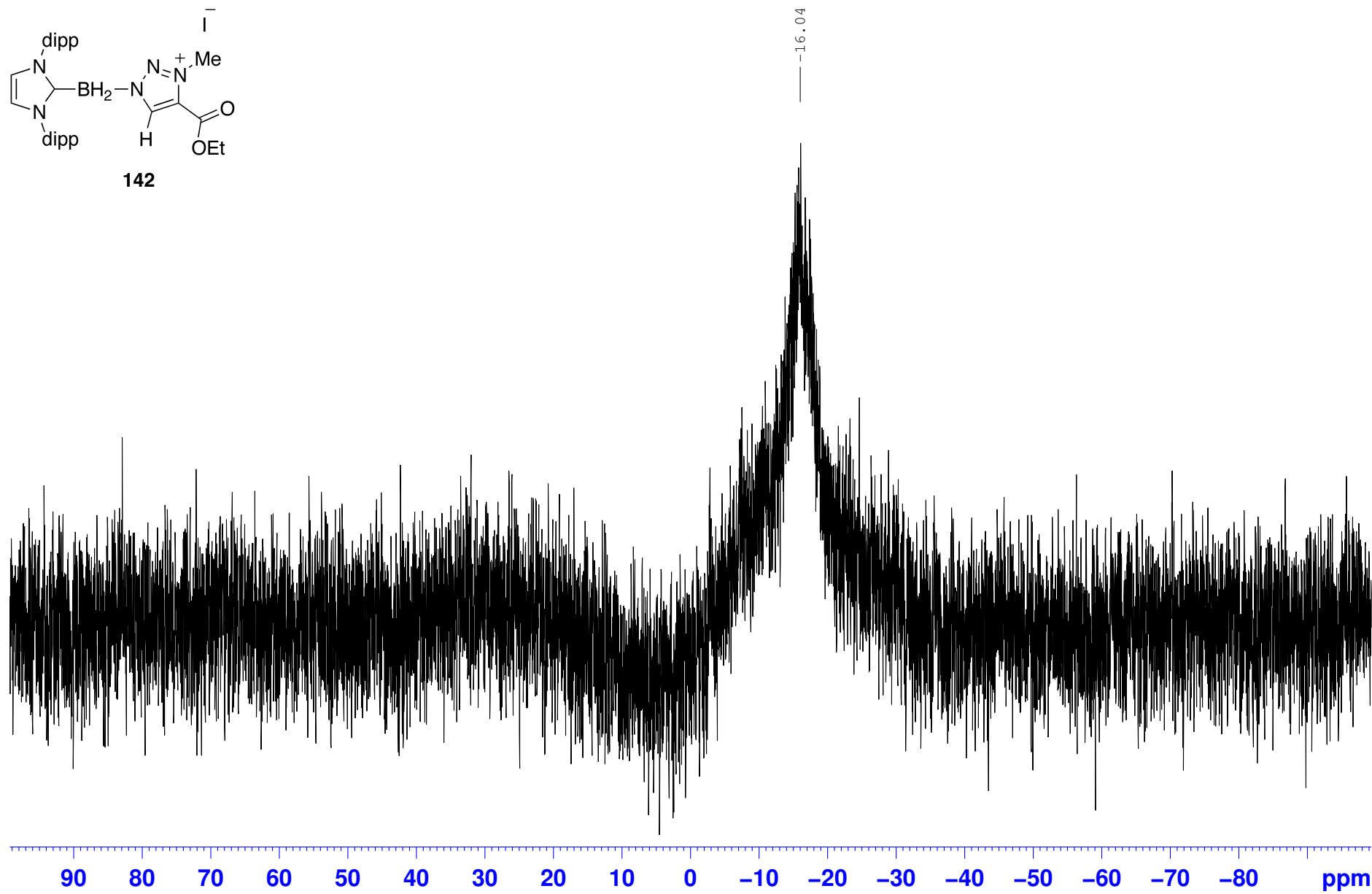
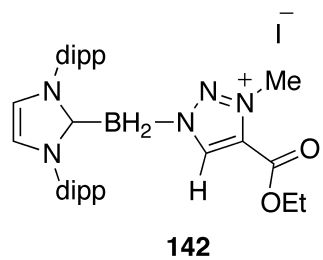
4.36

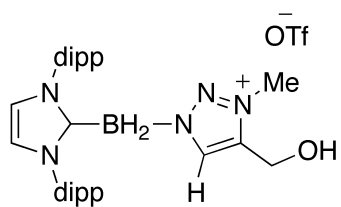
3.04

24.93

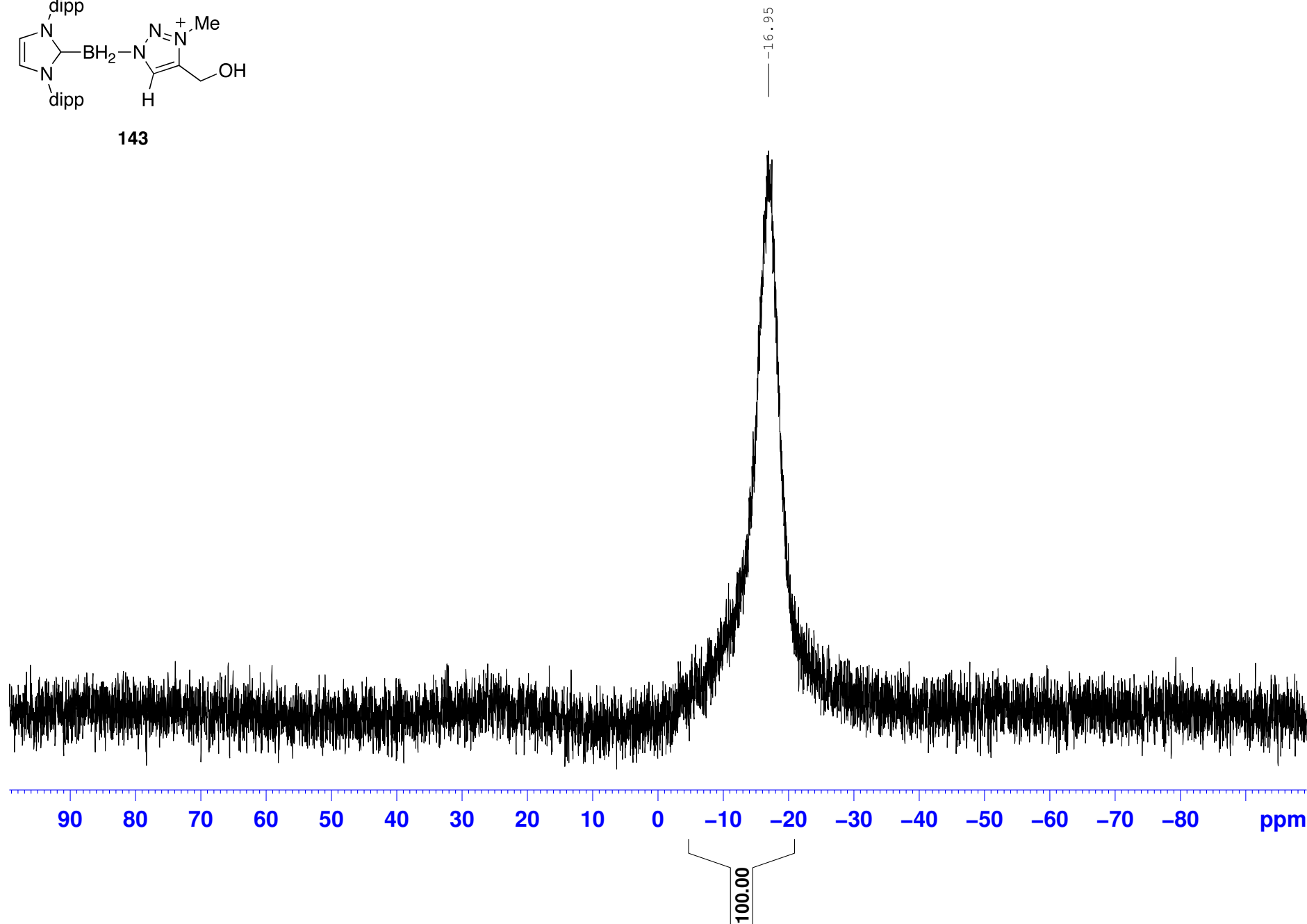
0.94

EM.64.03 400b CDCl3TMS 11B methylated triazole with MeI 11.5.10

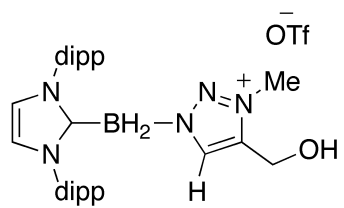




143

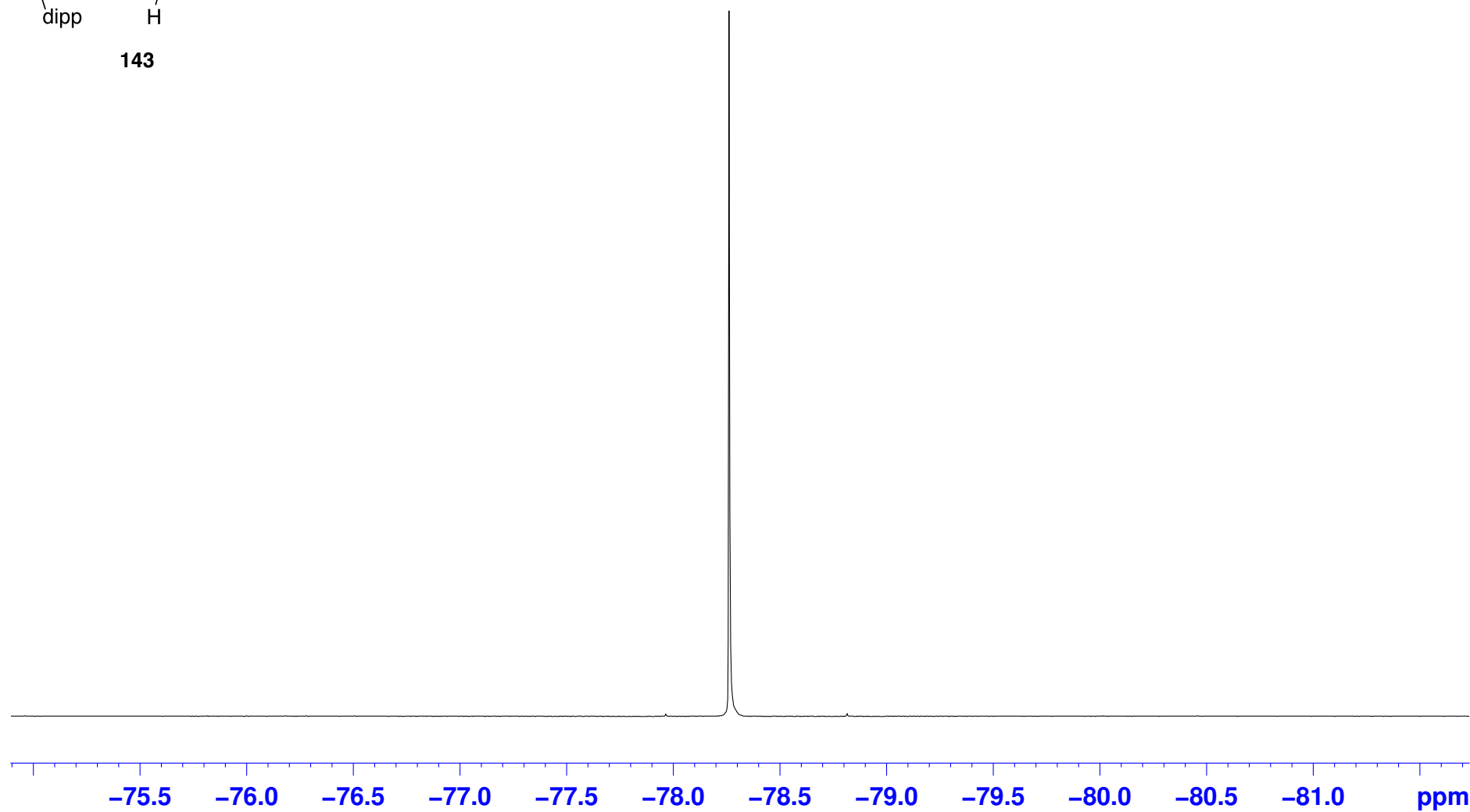


EM64.04 400b CDCl3TMS 19F 11.11.10

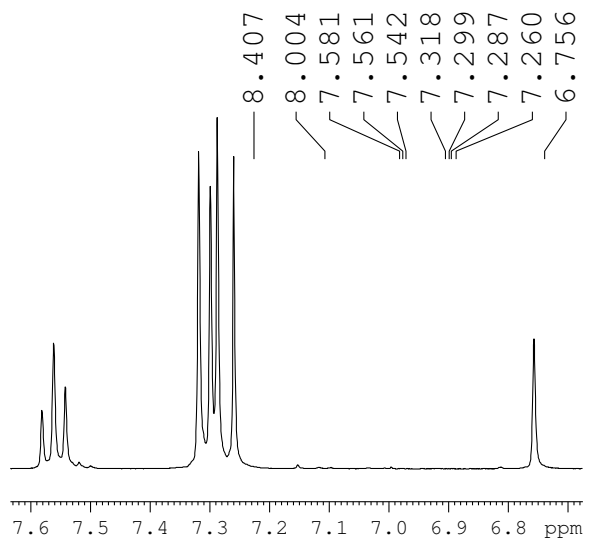


143

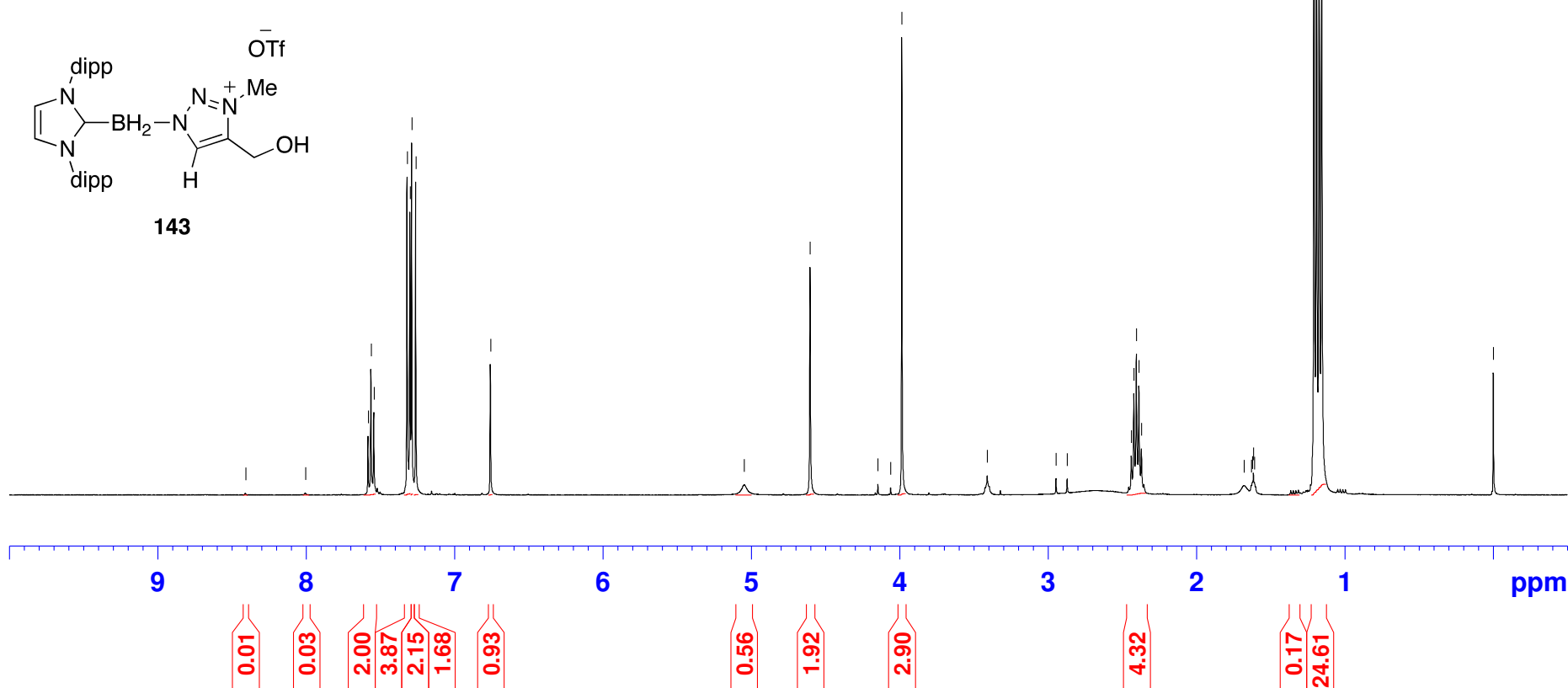
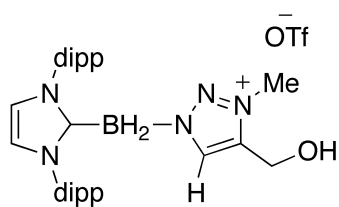
— -77.97
— -78.26
— -78.82



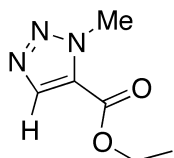
EM64.04 400b CDC13TMS 1H 11.11.10



5.048
4.604
4.148
4.062
3.986
3.410
2.947
2.872
2.439
2.422
2.405
2.388
2.371
1.679
1.630
1.623
1.616
1.609
1.208
1.191
1.174
1.156
-0.000



EM64.39.1 400b 1H CDC13 11.11.11



144

— 8.125

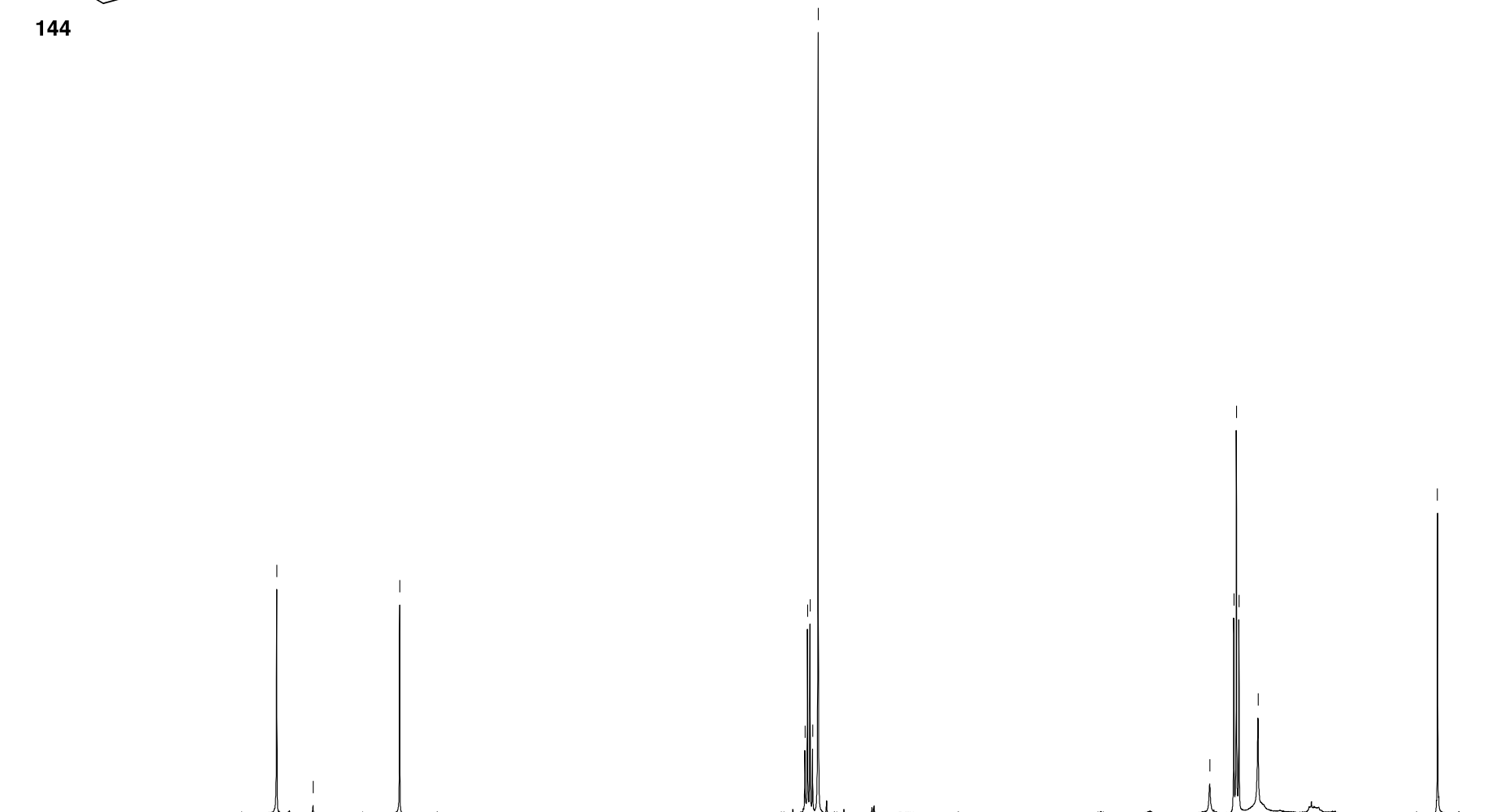
— 7.870

— 7.264

4.426
4.408
4.390
4.373
4.334

1.592
1.423
1.405
1.387
1.253

— -0.001



9

1.00
0.03

8

7

6

2.14
3.08

5

4

3

0.45
3.23
1.64

2

1

ppm