

Supporting Information for
The First Total Synthesis of Rebaudioside R

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^1H and ^{13}C NMR of compound 43'	S86-S87
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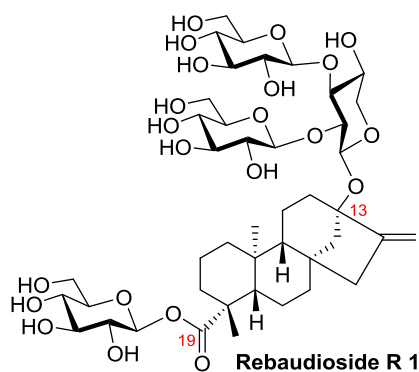


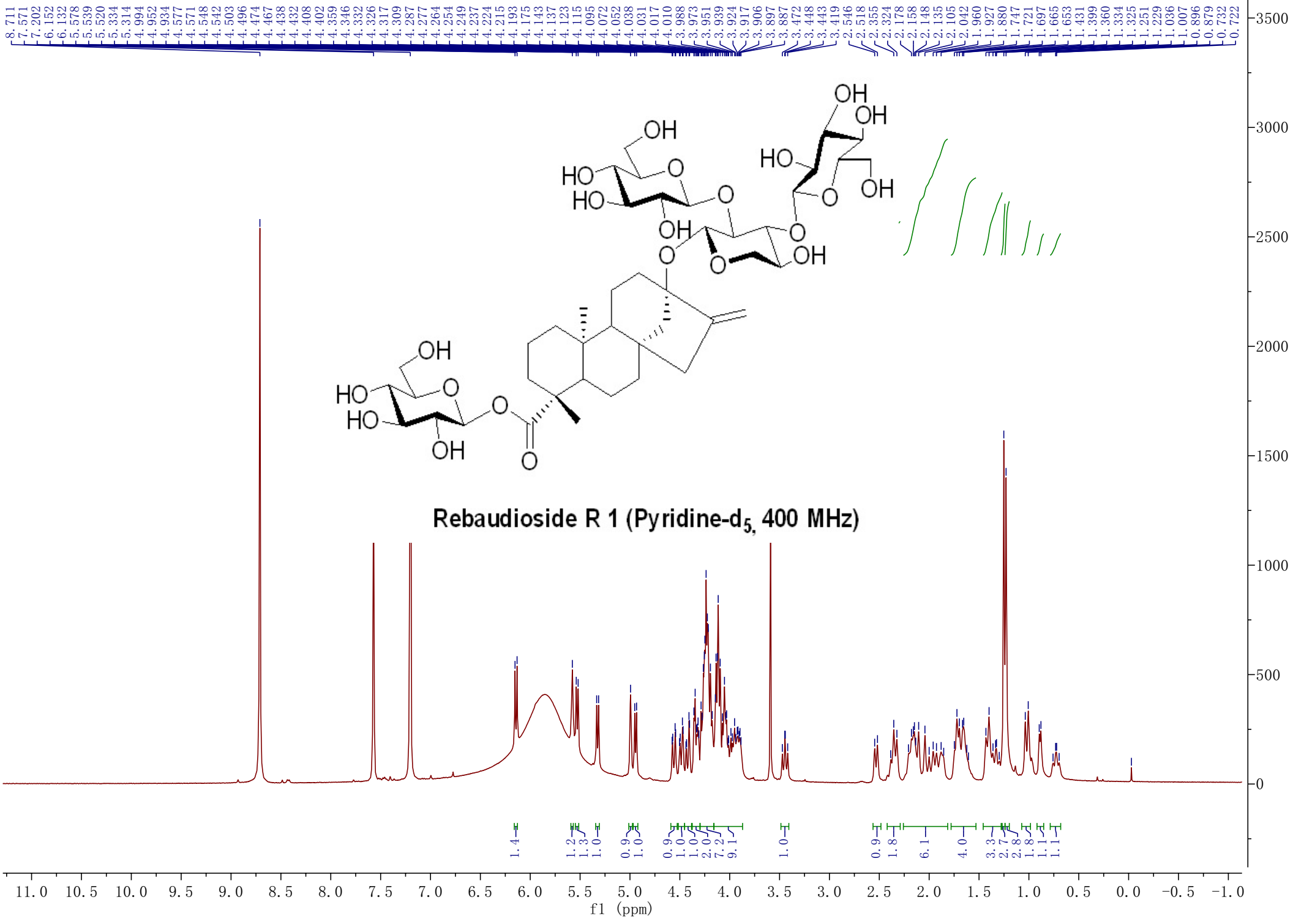
Table S1 Comparison of ^{13}C NMR data of the synthetic rebaudioside R **1** with the reported in literature.^[S1]

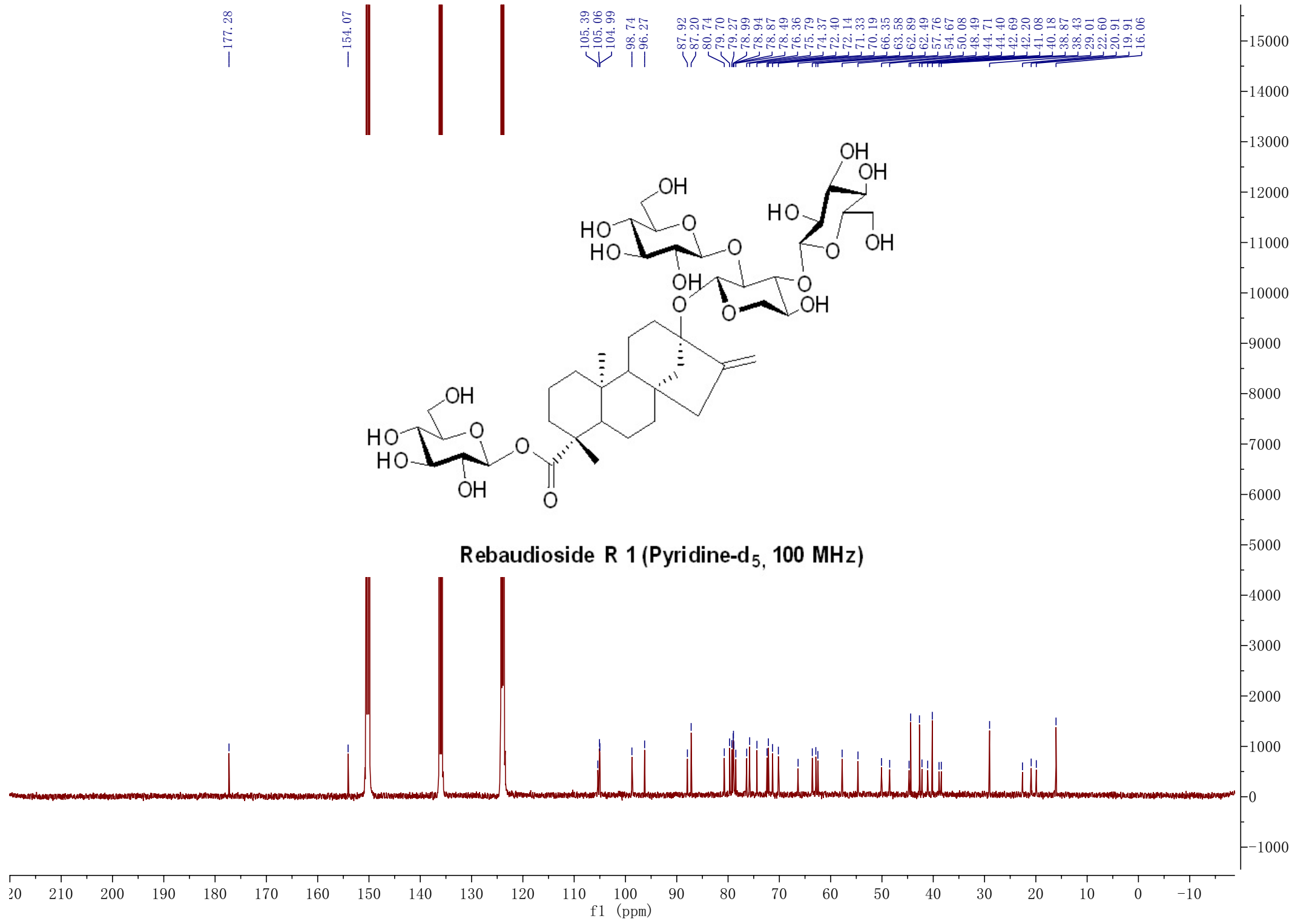
^{13}C NMR signal	Synthetic Rebaudioside R (1)	Reported data ^[S1]	$\Delta\delta$ (ppm)
1	177.3	177.3	0
2	154.1	154.1	0
3	105.4	105.4	0
4	105.1	105.1	0
5	105.0	105.0	0
6	98.7	98.7	0
7	96.3	96.3	0
8	87.9	88.1	-0.2
9	87.2	87.2	0
10	79.7	79.7	0
11	79.3	79.3	0
12	79.0	79.0	0
13	78.9	78.9	0
14	78.9	78.9	0
15	78.5	78.4	+0.1
16	76.3	76.3	0
17	72.4	72.4	0
18	72.1	72.1	0
19	71.3	71.3	0
20	70.2	70.2	0
21	48.5	48.5	0

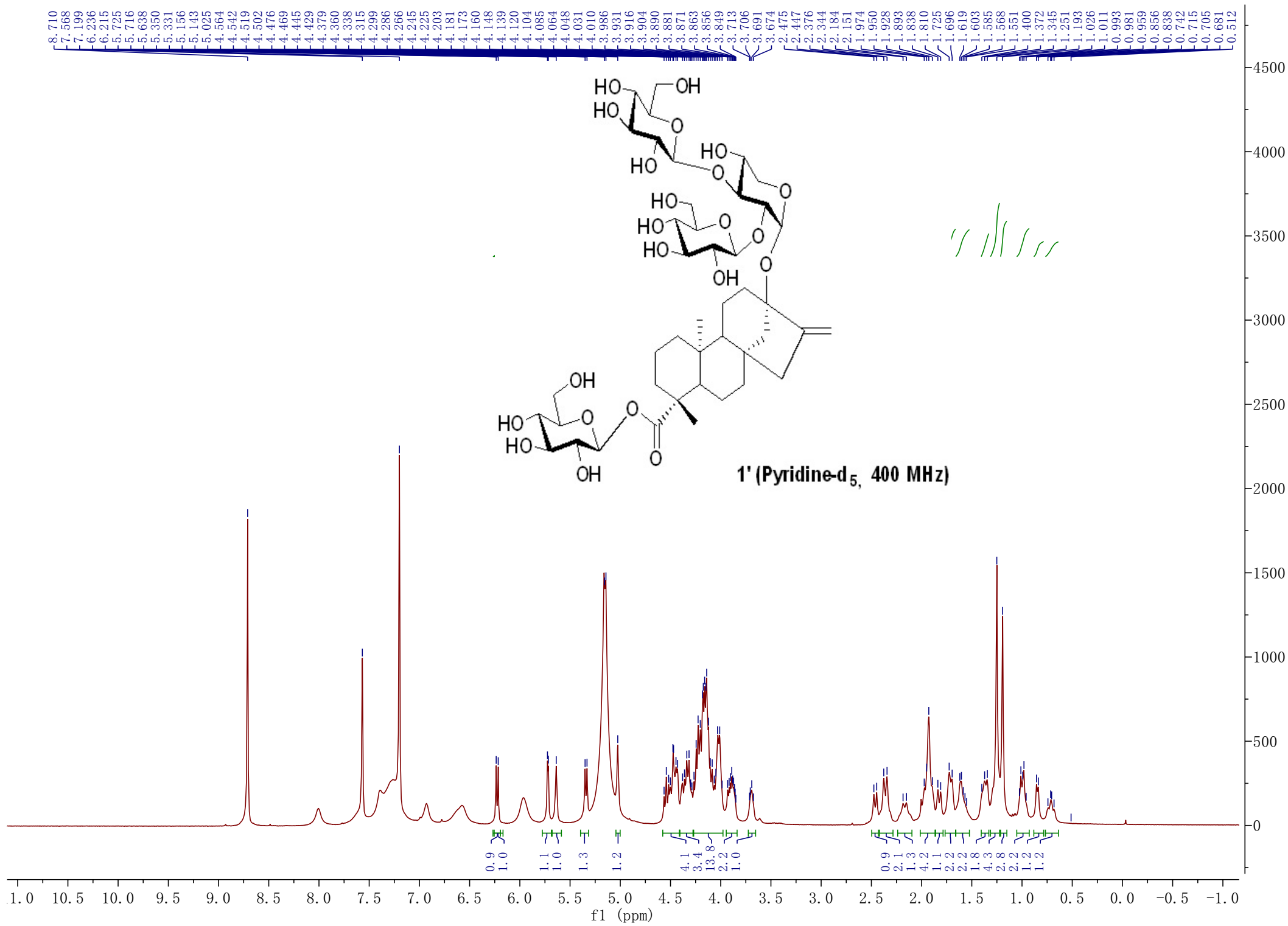
22	44.7	44.7	0
23	44.4	44.4	0
24	42.7	42.7	0
25	42.2	42.2	0
26	40.2	40.2	0
27	38.4	38.4	0
28	29.0	29.0	0
29	22.6	22.6	0
30	20.9	20.9	0
31	19.9	19.9	0
32	16.1	16.1	0

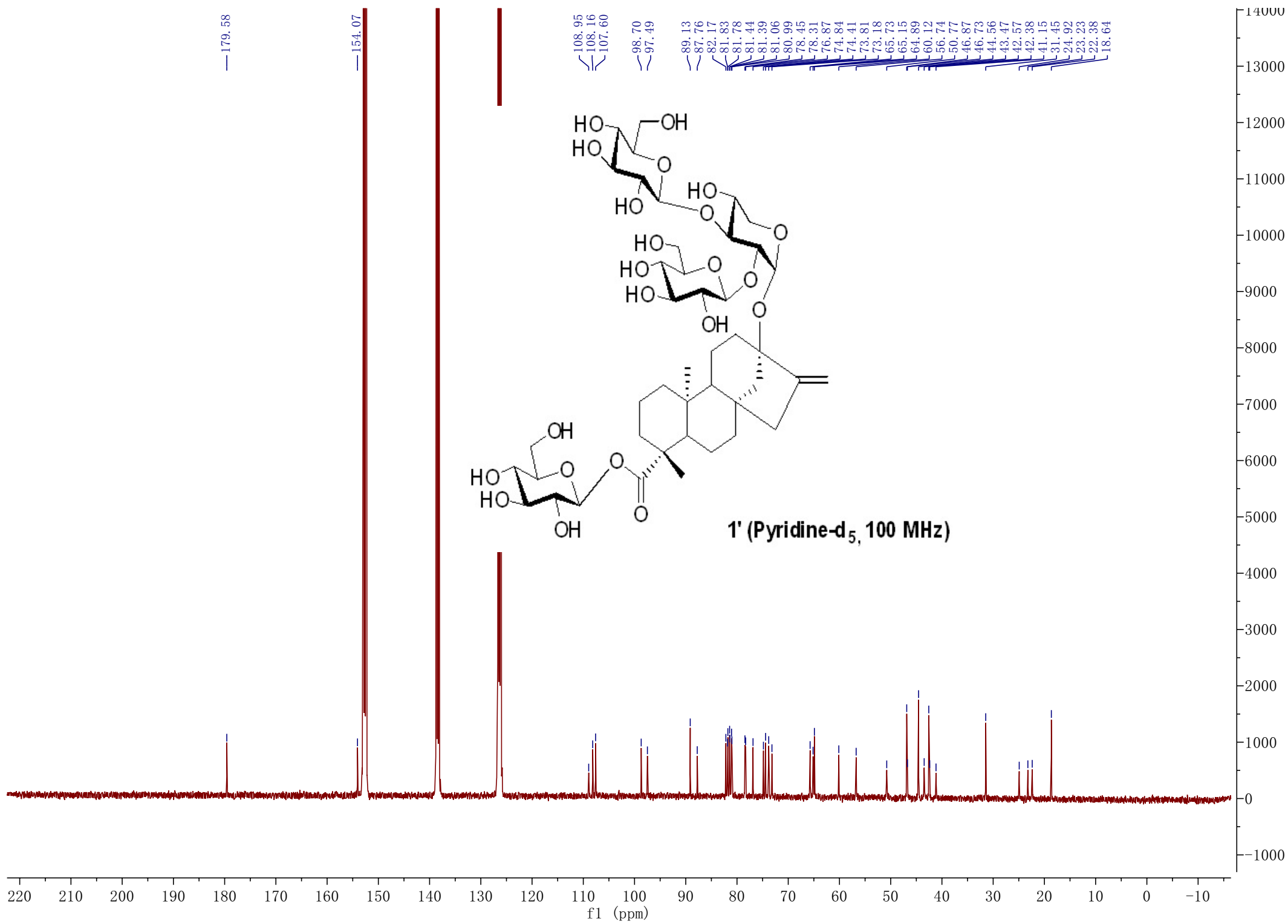
Reference

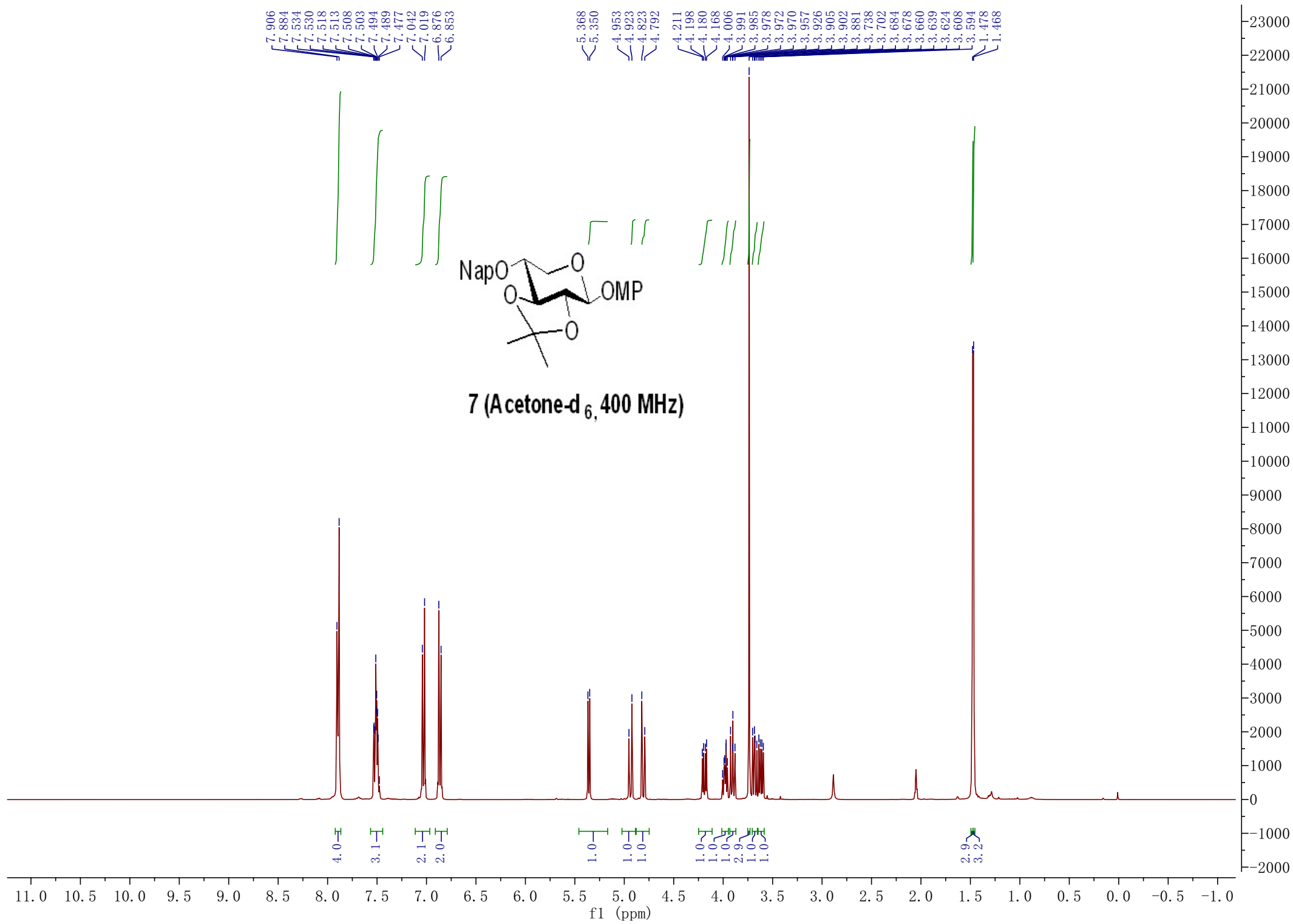
[S1] Ibrahim, M. A.; Rodenburg, D. L.; Alves, K.; Perera, W. H.; Fronczek, F. R.; Bowling, J.; McChesney, J. D. Rebaudiosides R and S, minor diterpene glycosides from the leaves of *Stevia rebaudiana*. *J. Nat. Prod.* **2016**, *79*, 1468-1472.

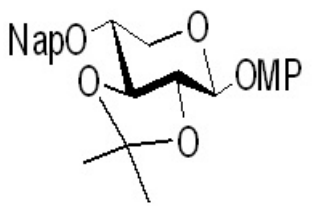
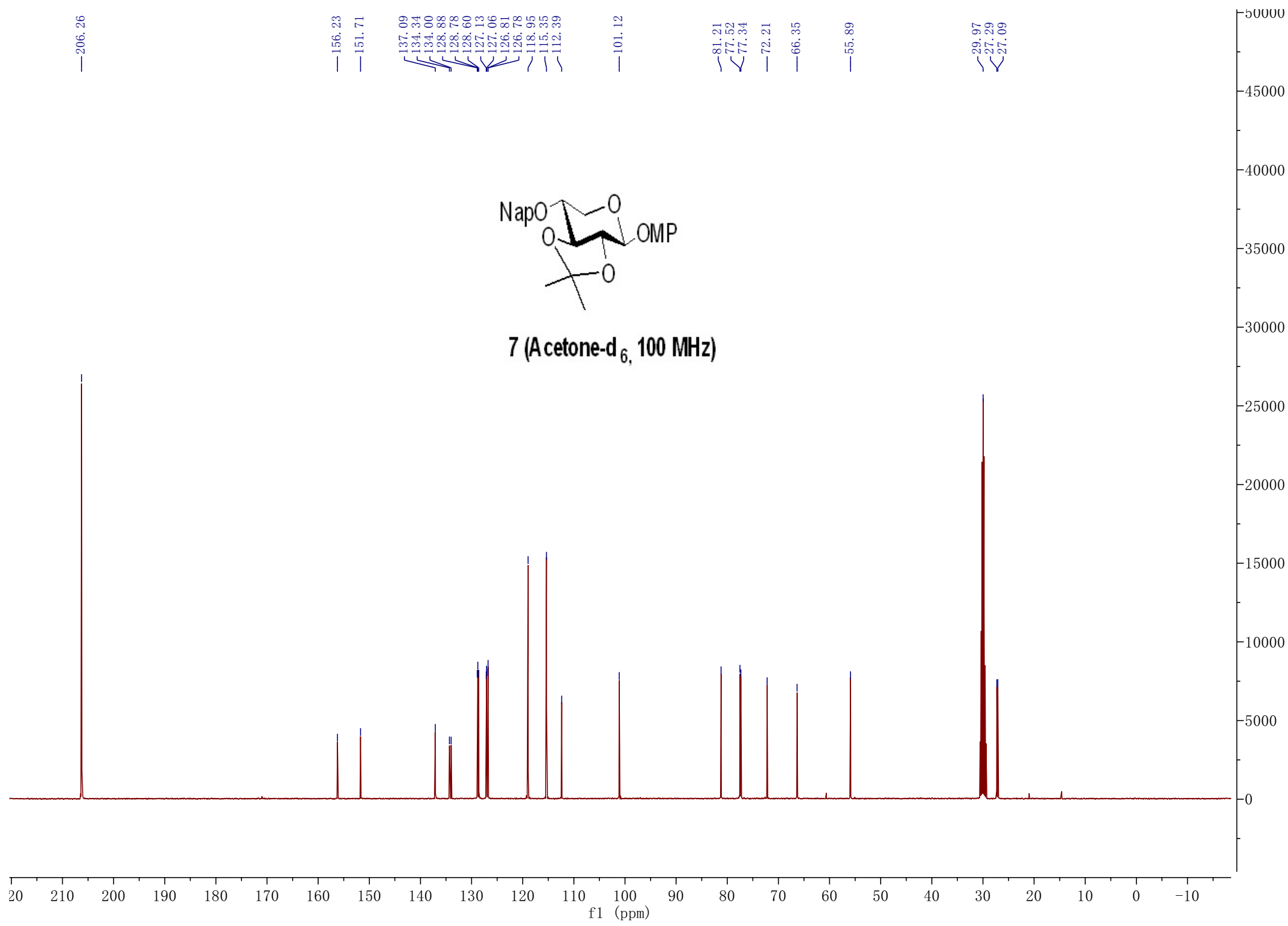








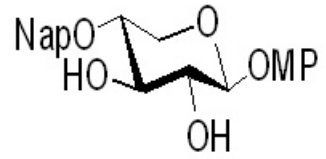




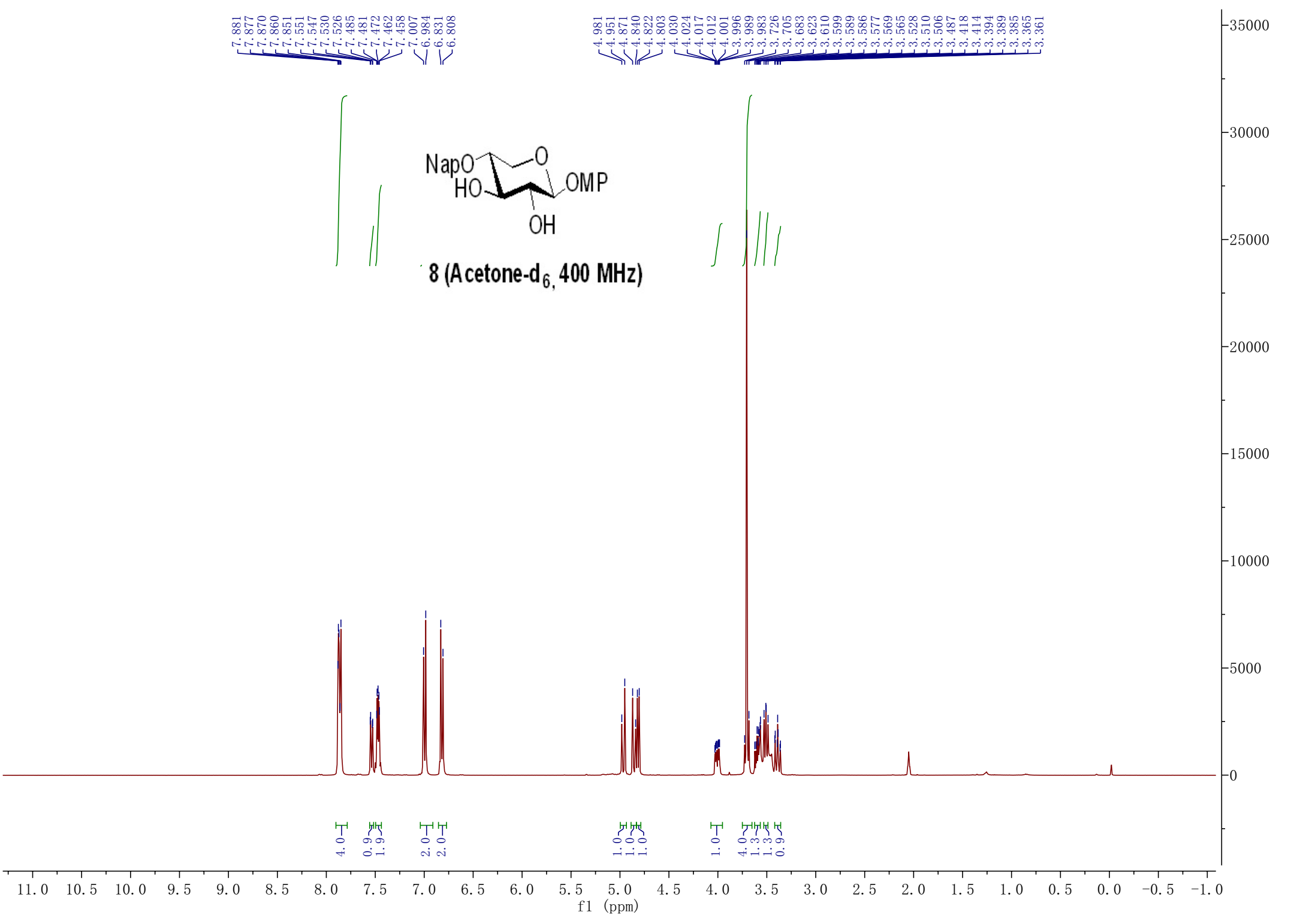
7 (Acetone-d₆, 100 MHz)

7.881
7.877
7.870
7.860
7.851
7.551
7.547
7.530
7.526
7.485
7.481
7.472
7.462
7.458
7.007
6.984
6.831
6.808

4.981
4.951
4.871
4.840
4.822
4.803
4.030
4.024
4.017
4.012
4.001
3.996
3.989
3.983
3.726
3.705
3.683
3.623
3.610
3.599
3.589
3.586
3.577
3.569
3.565
3.528
3.510
3.506
3.487
3.418
3.414
3.394
3.389
3.385
3.365
3.361



8 (Acetone-d₆, 400 MHz)



—206.26

—154.33

—150.83

—135.83

—132.55

—132.22

—127.10

—127.04

—126.82

—125.44

—125.28

—125.20

—117.45

—113.57

—101.76

—76.78

—75.01

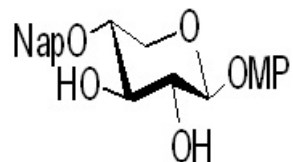
—72.75

—71.84

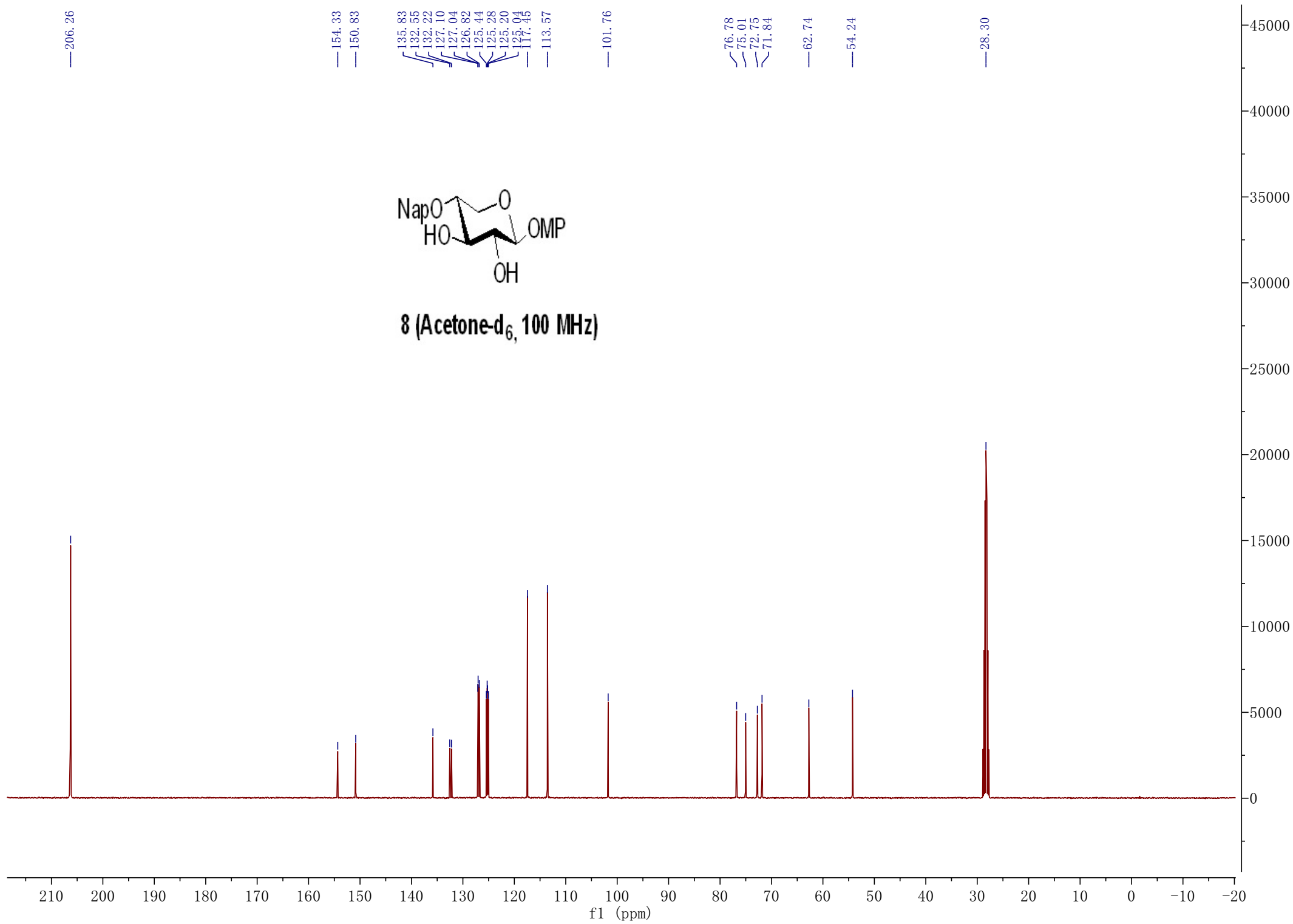
—62.74

—54.24

—28.30

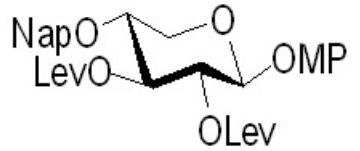


8 (Acetone-d₆, 100 MHz)

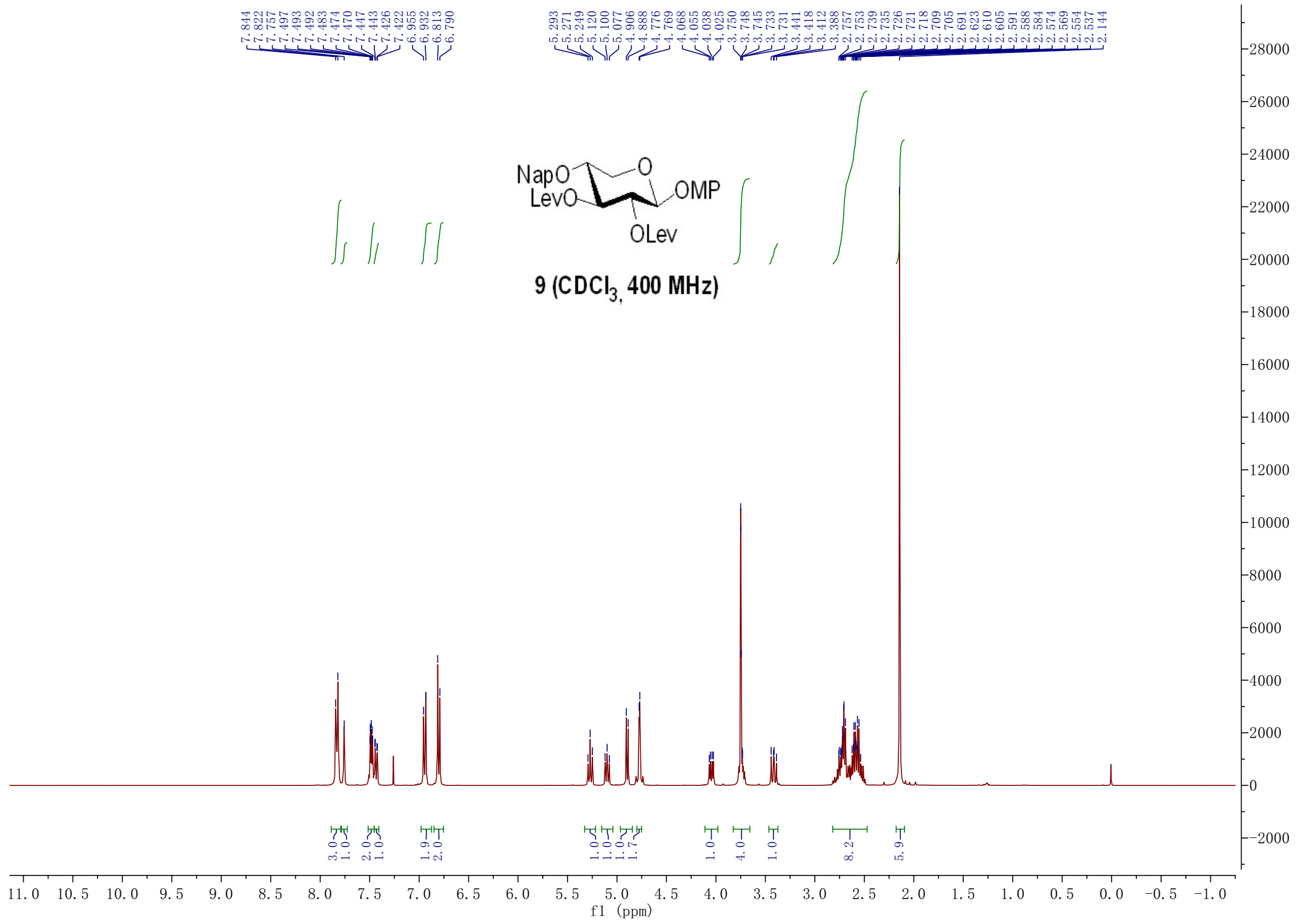


7.844
7.822
7.757
7.497
7.493
7.492
7.483
7.474
7.470
7.447
7.443
7.426
7.422
6.955
6.932
6.813
6.790

5.293
5.271
5.249
5.120
5.100
5.077
4.906
4.888
4.776
4.769
4.068
4.055
4.038
4.025
4.025
3.750
3.748
3.745
3.733
3.731
3.441
3.418
3.412
3.388
2.757
2.753
2.739
2.735
2.726
2.721
2.718
2.709
2.705
2.691
2.623
2.610
2.605
2.588
2.584
2.574
2.569
2.554
2.537
2.144



9 (CDCl₃, 400 MHz)



206.43
206.29

172.01
171.57

155.72

151.06

135.30

133.29

133.20

128.42

128.02

127.79

126.86

126.35

126.20

118.82

114.67

100.70

77.48 CDCl₃

77.16 CDCl₃

76.84 CDCl₃

74.84

73.37

73.29

71.25

63.81

55.75

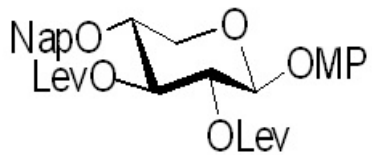
55.70

37.81

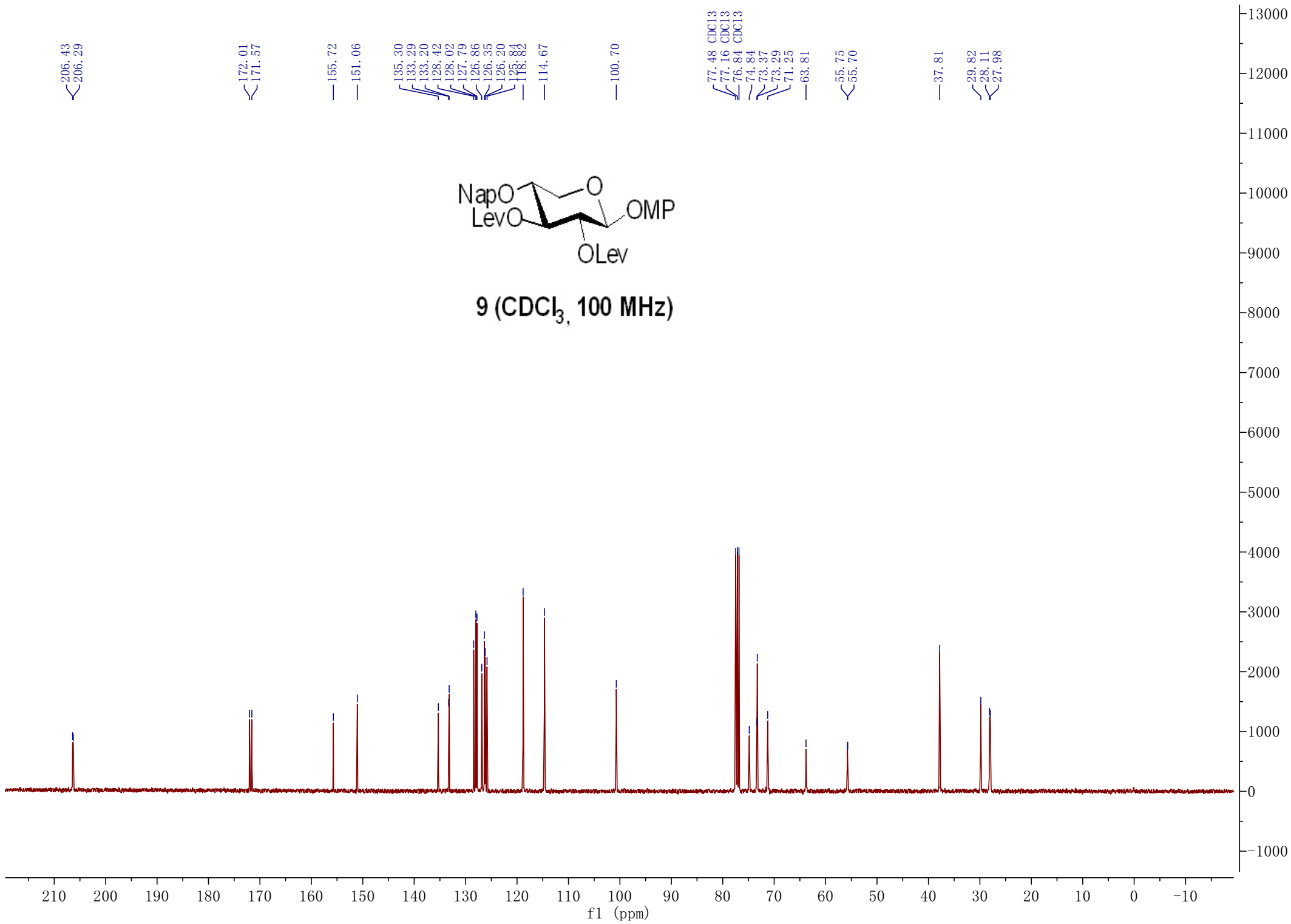
29.82

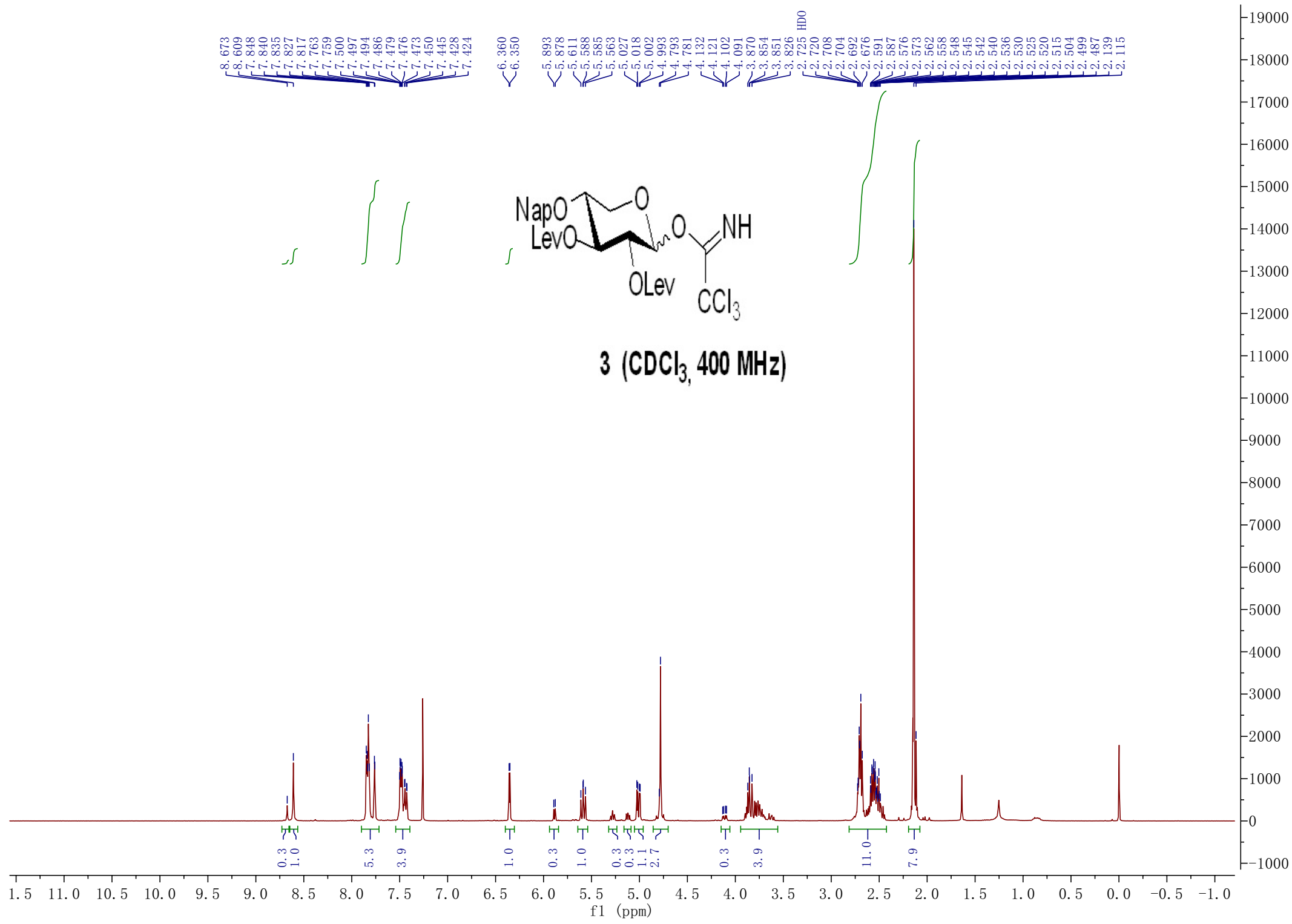
28.11

27.98



9 (CDCl₃, 100 MHz)





206.48
206.32

171.99
171.92

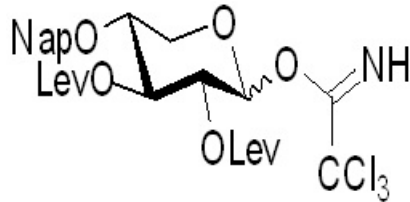
161.14

135.15
133.28
133.24
128.52
128.04
127.83
127.01
126.41
126.29
125.92

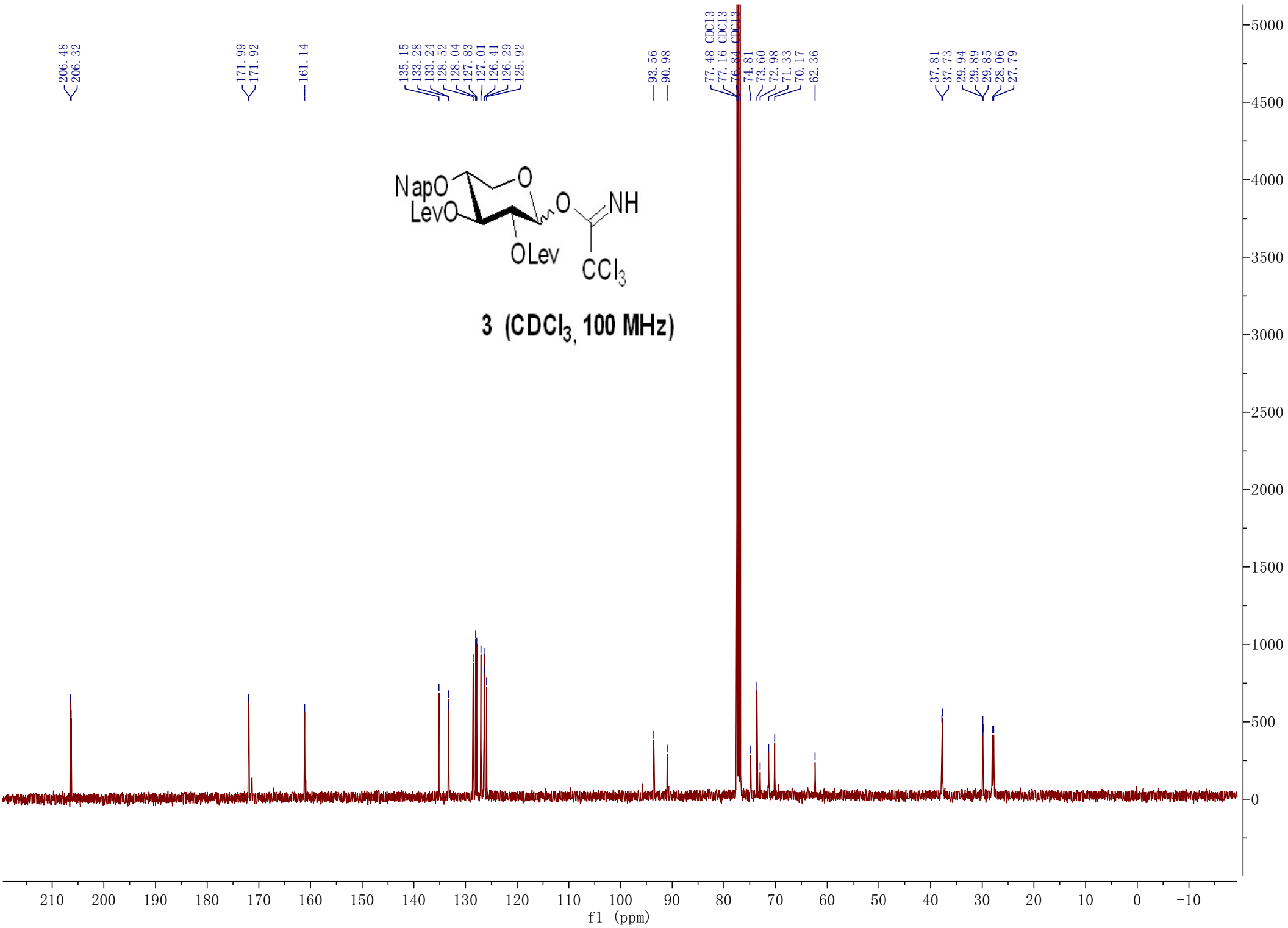
93.56
90.98

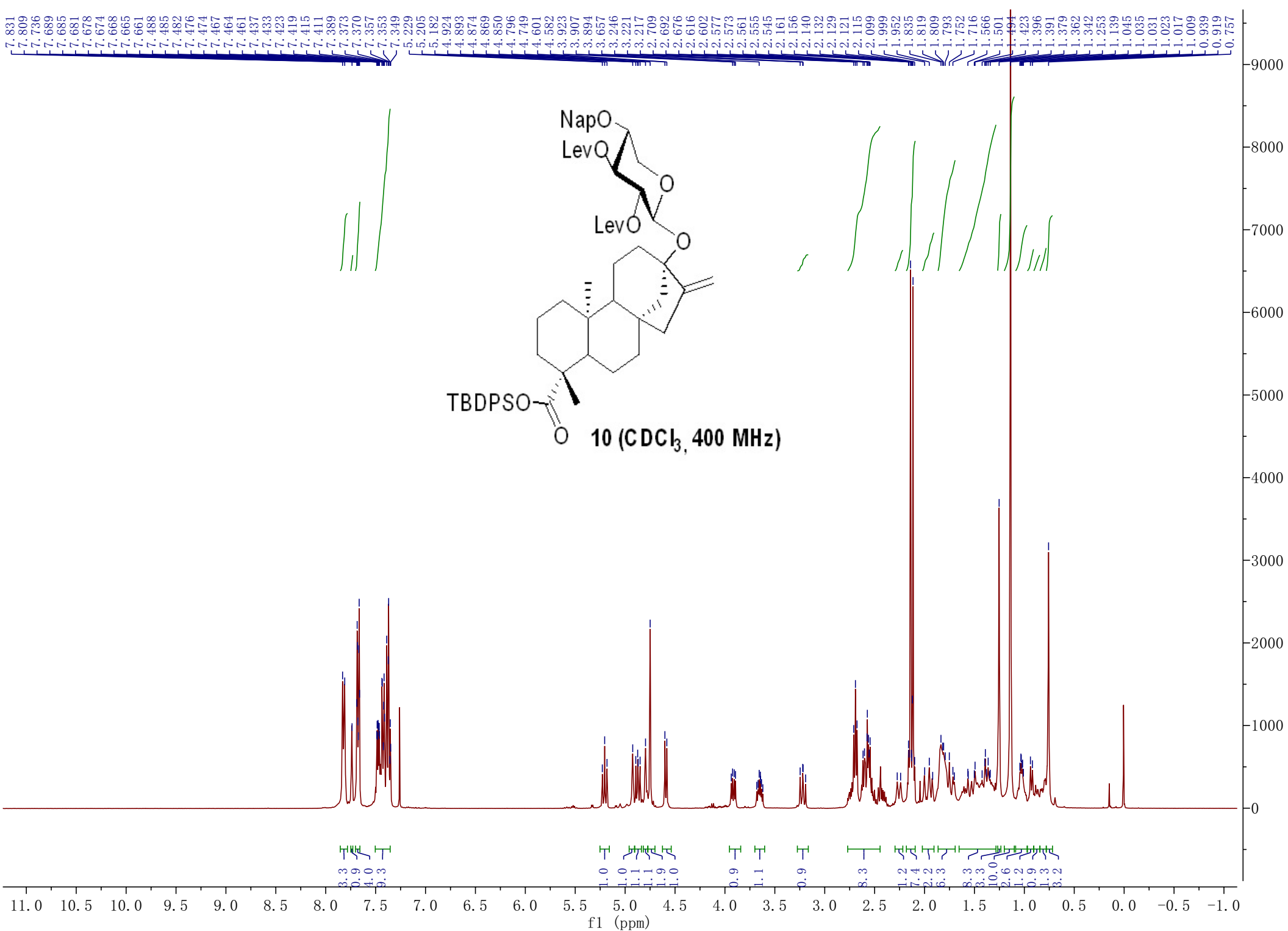
77.48 CDCl3
77.16 CDCl3
76.84 CDCl3
74.81
73.60
72.98
71.33
70.17
62.36

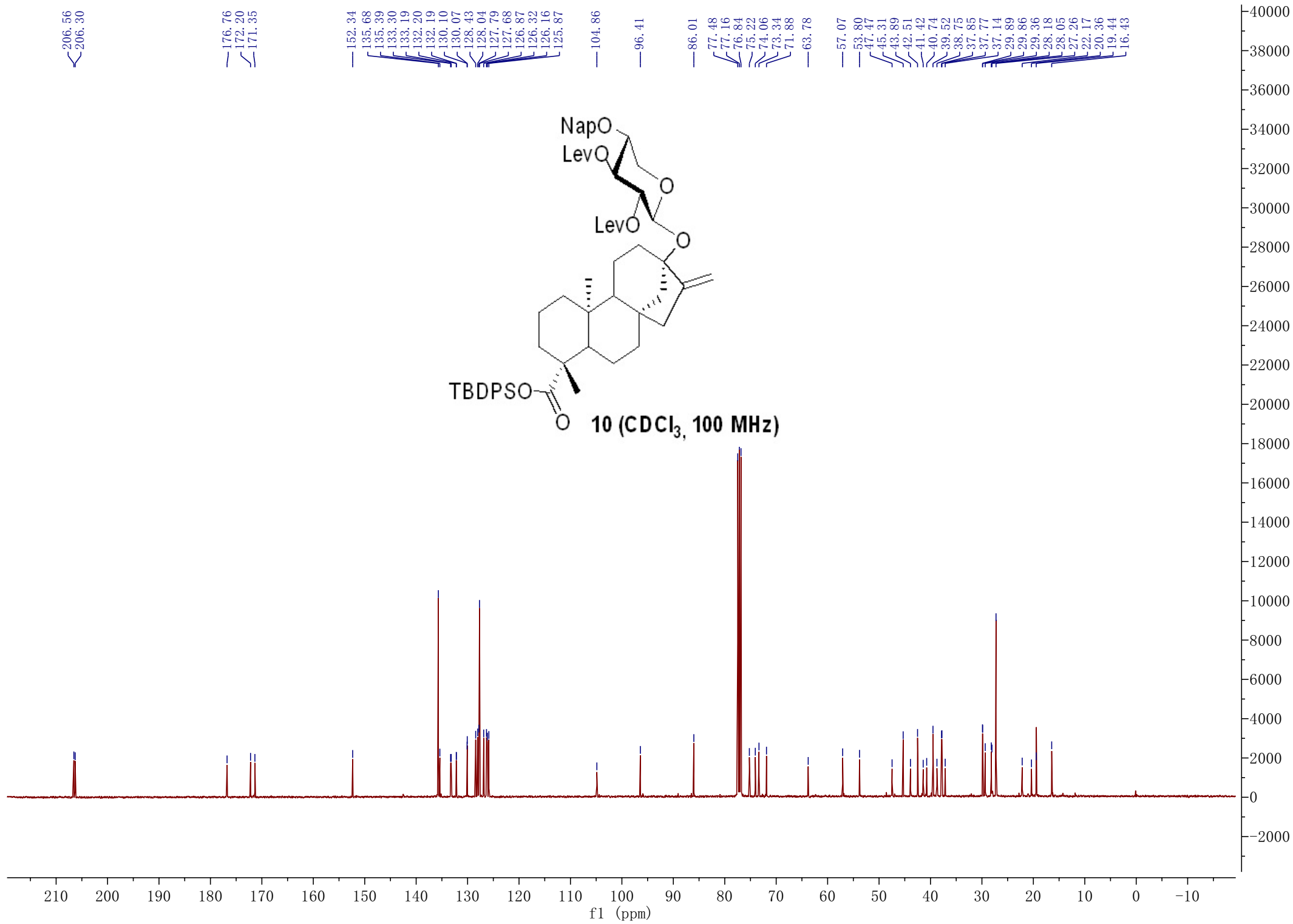
37.81
37.73
29.94
29.89
29.85
28.06
27.79

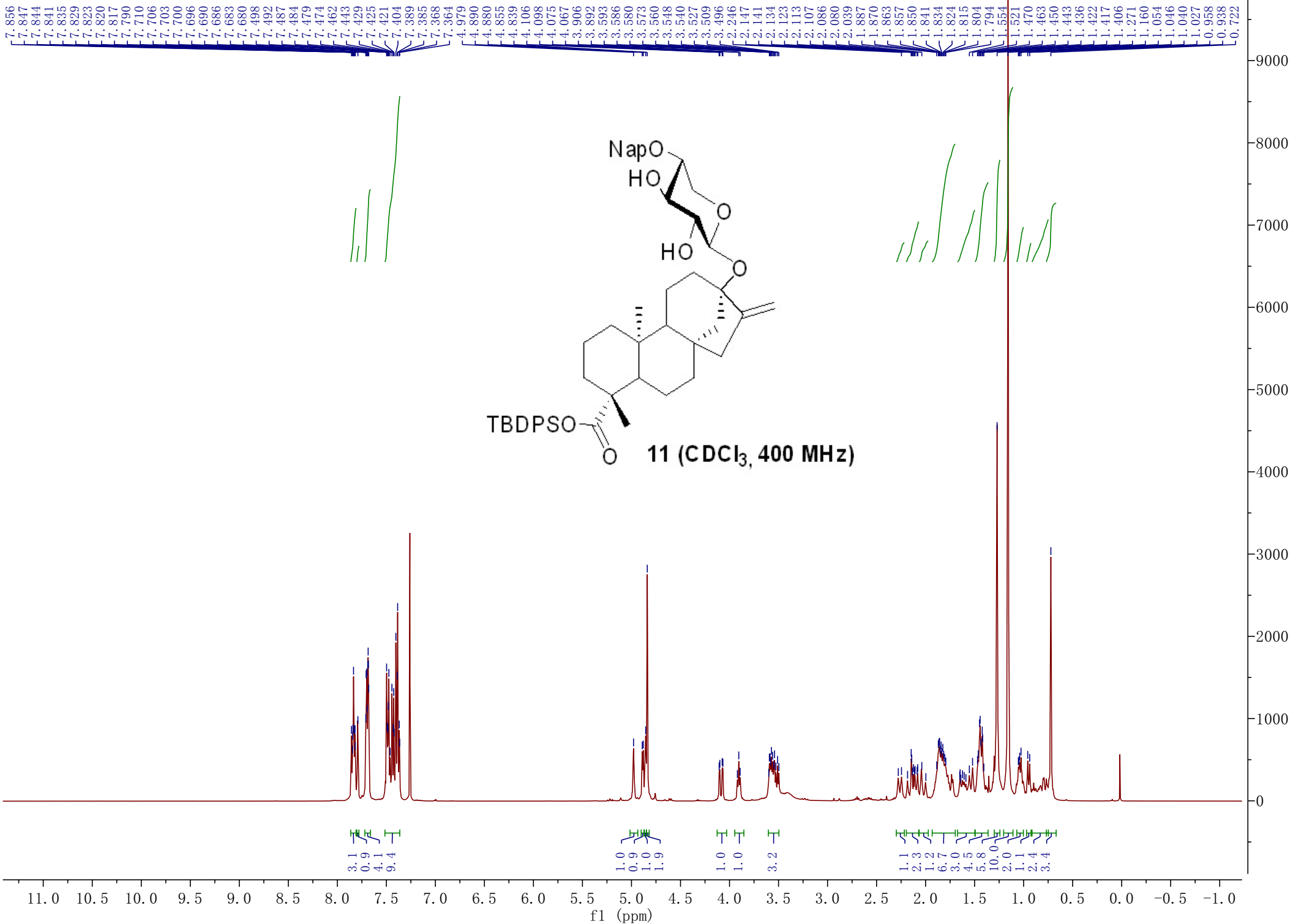


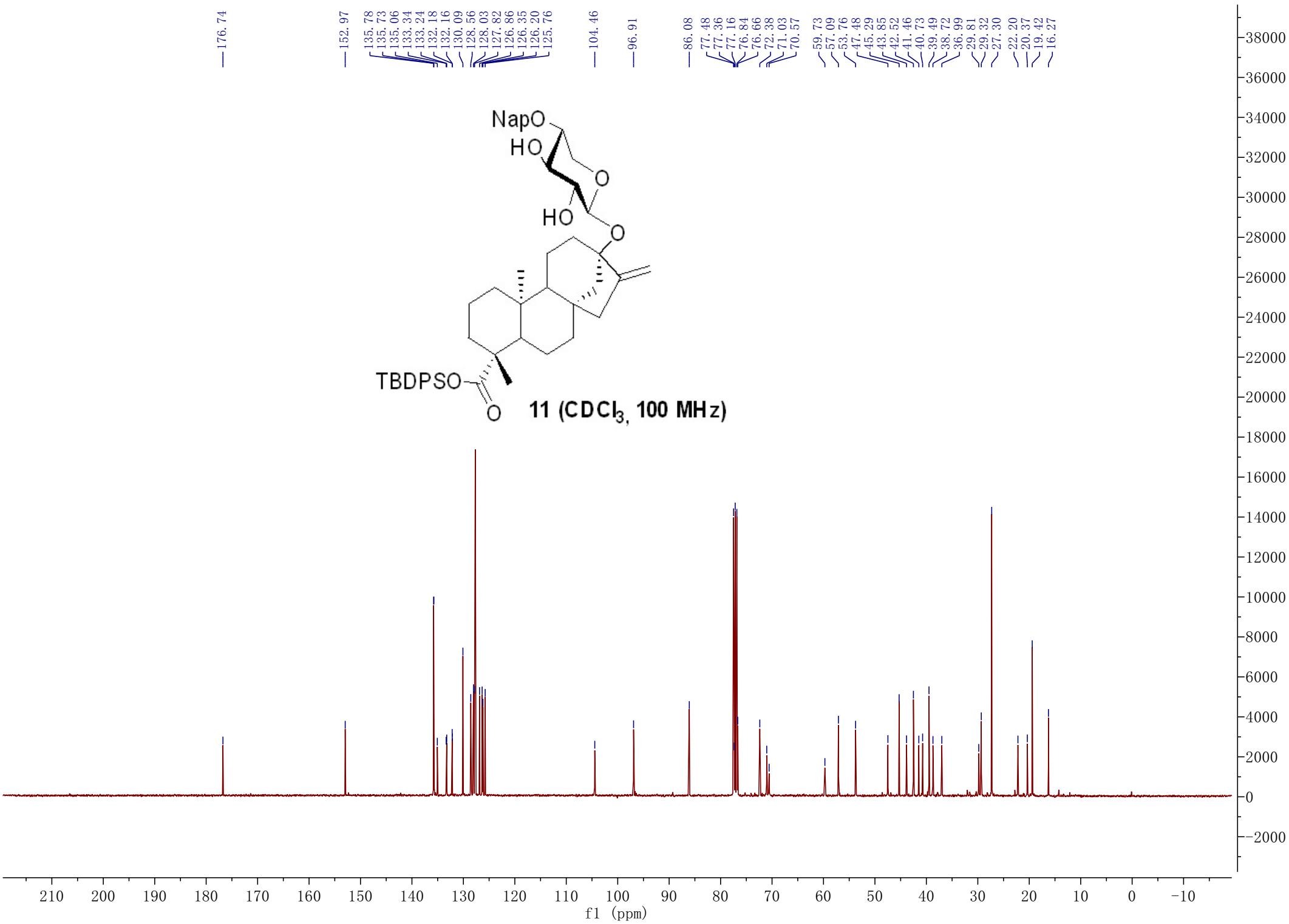
3 (CDCl₃, 100 MHz)

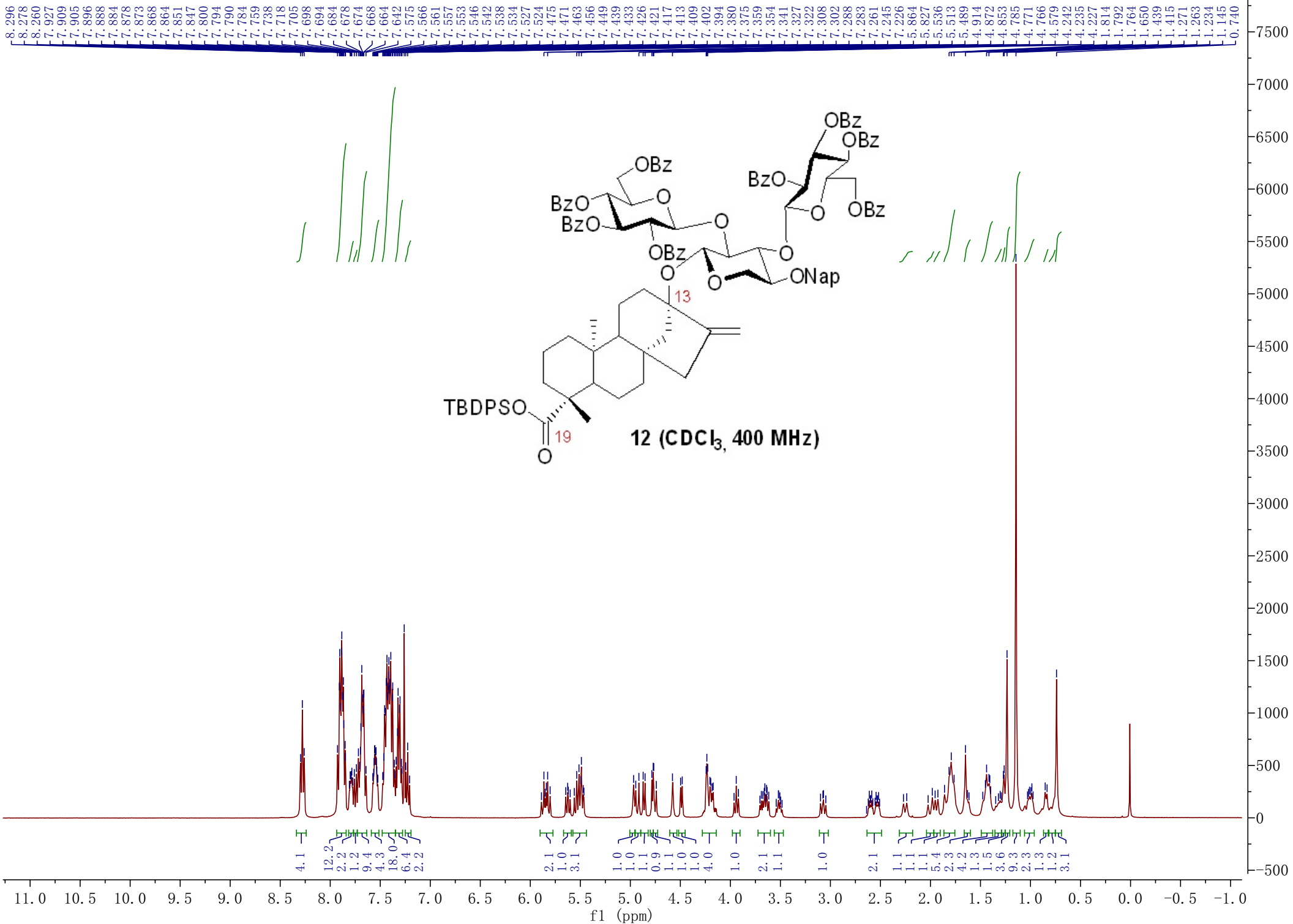


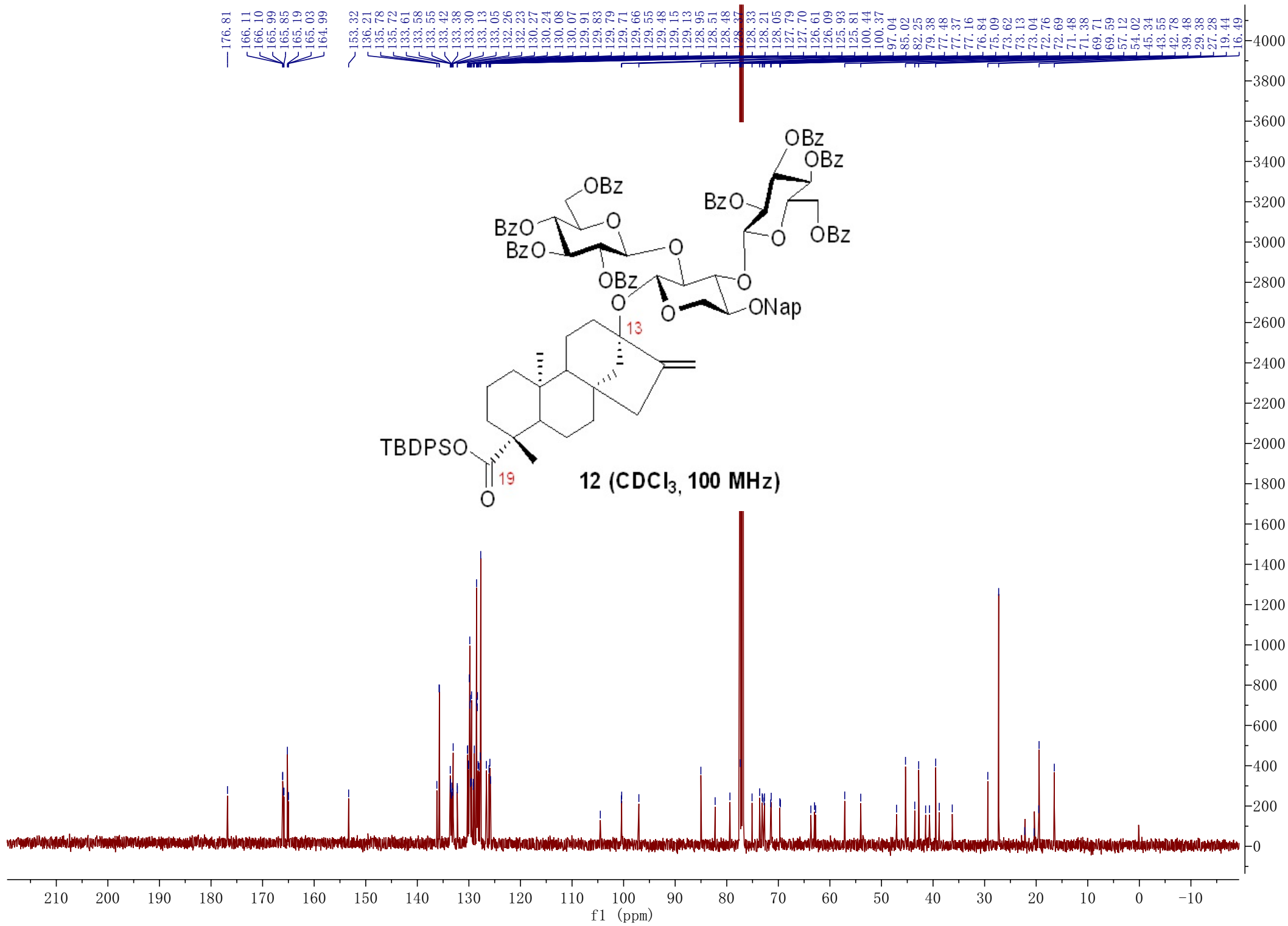


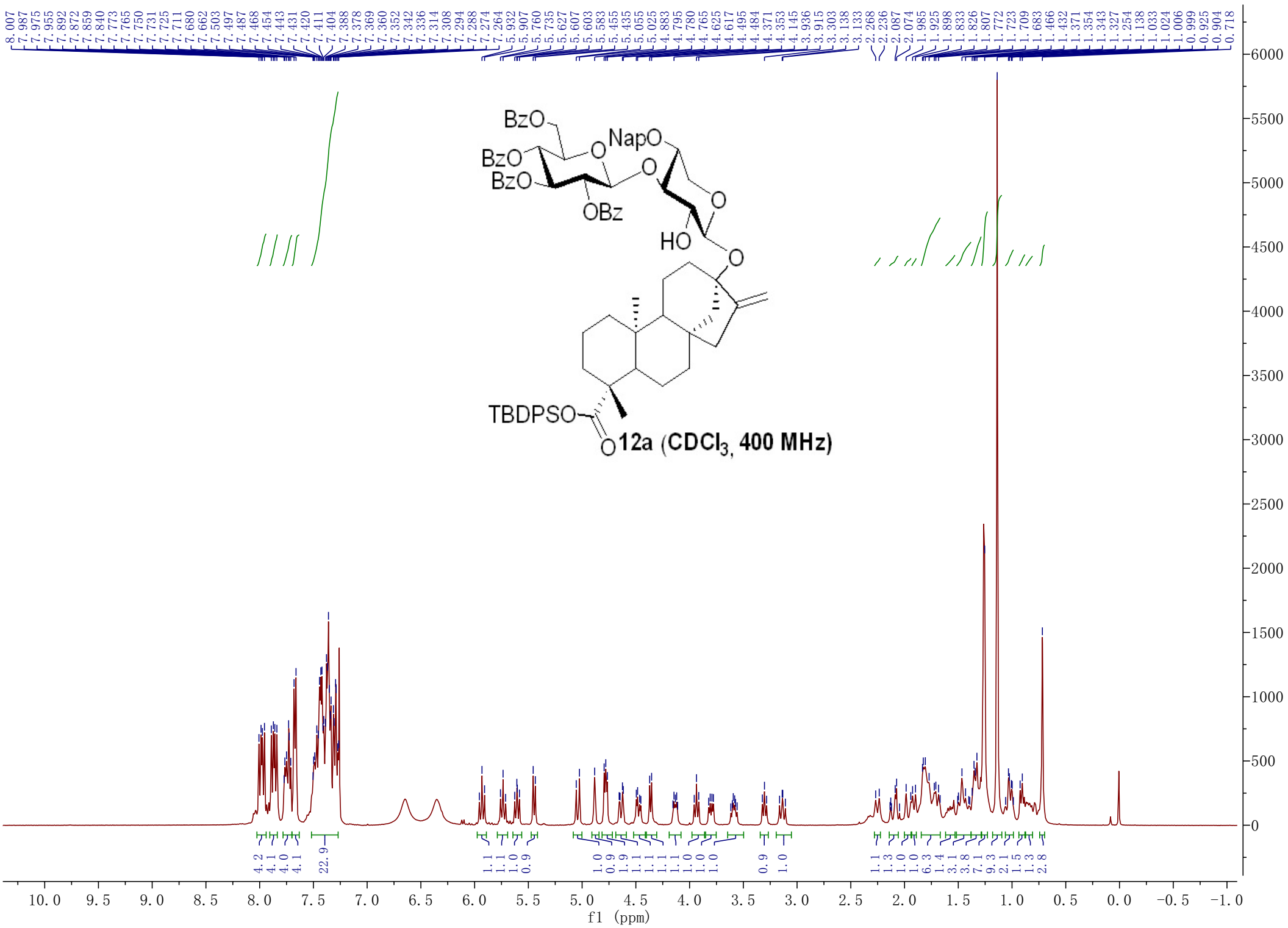


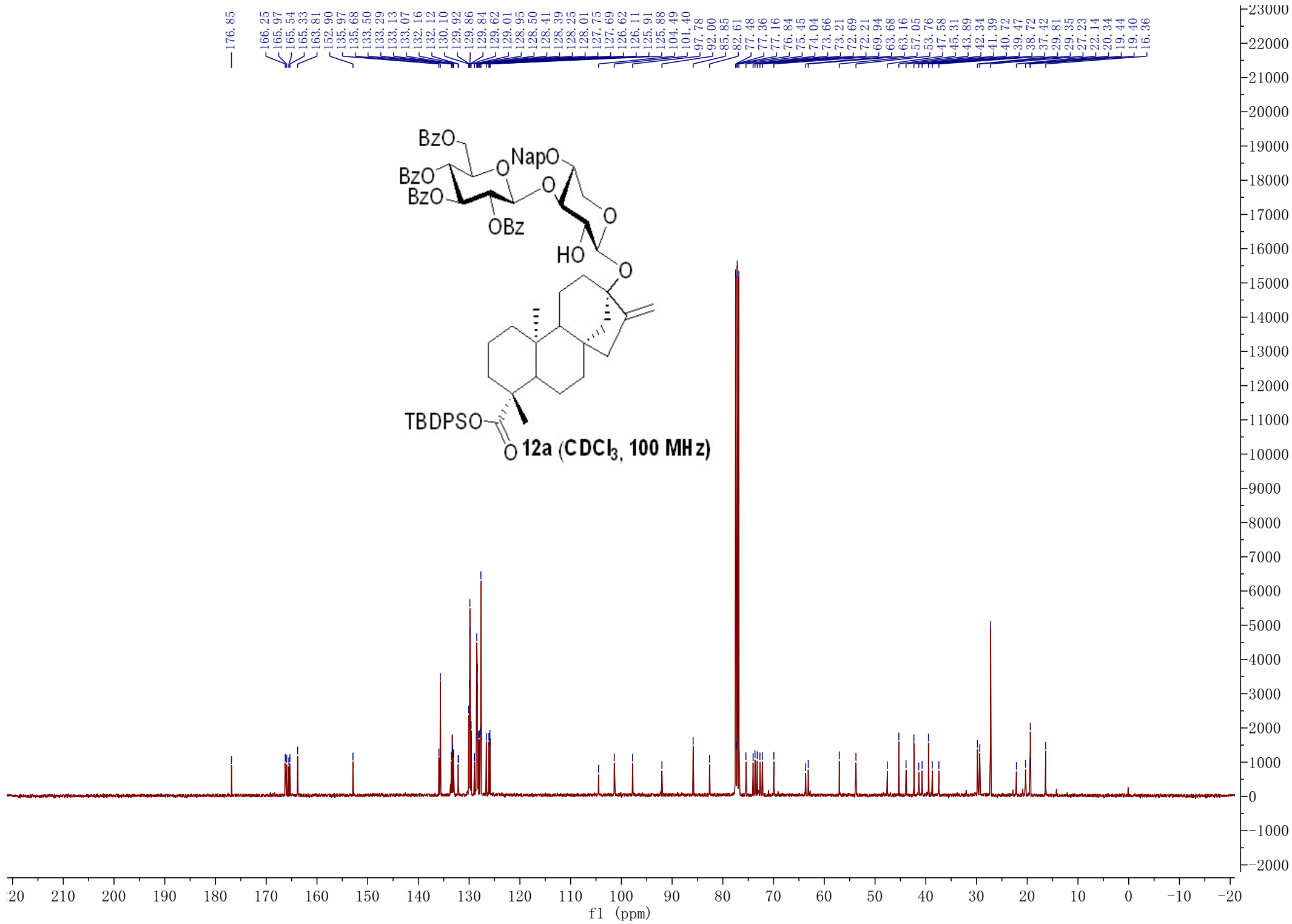


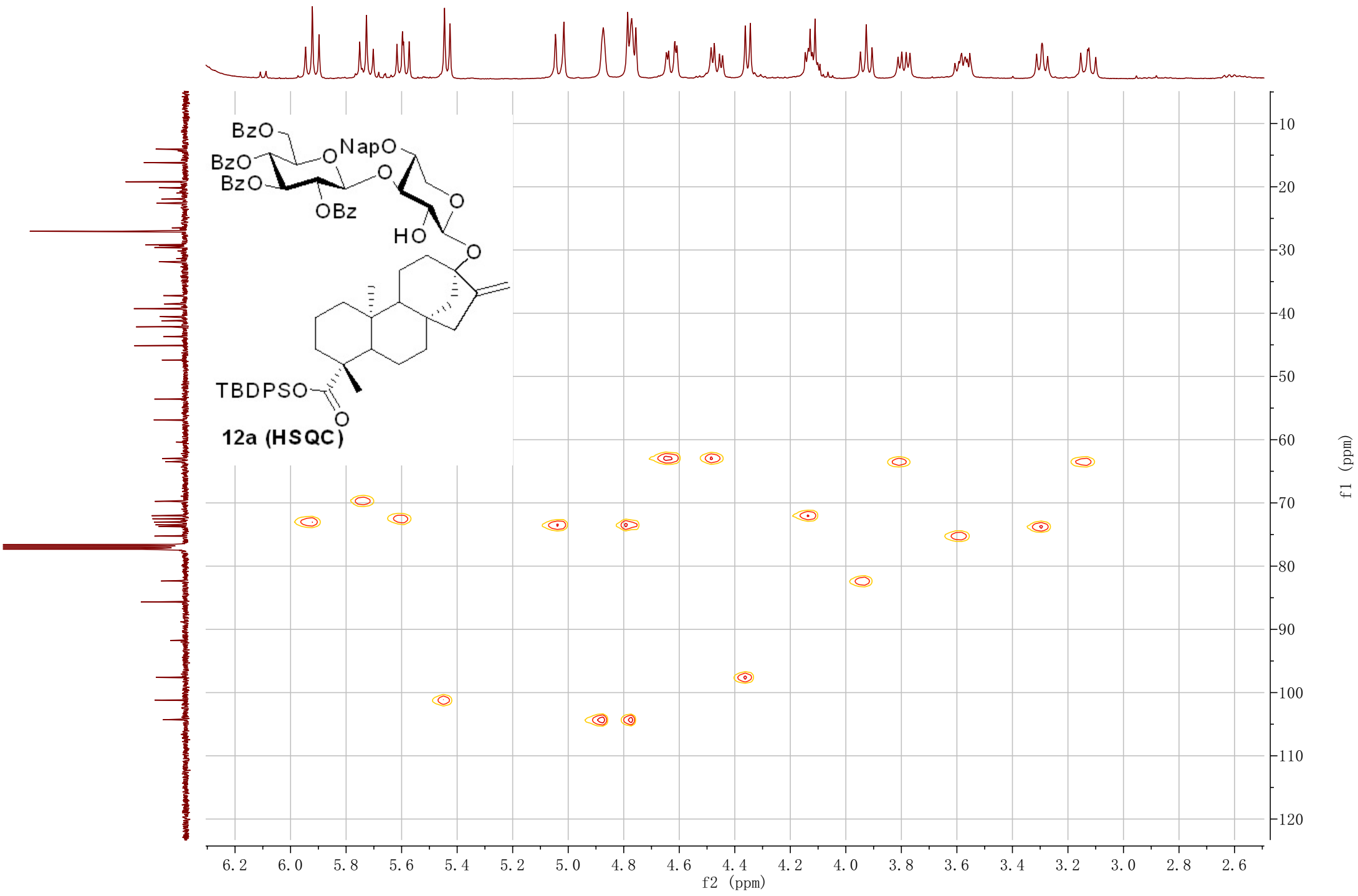


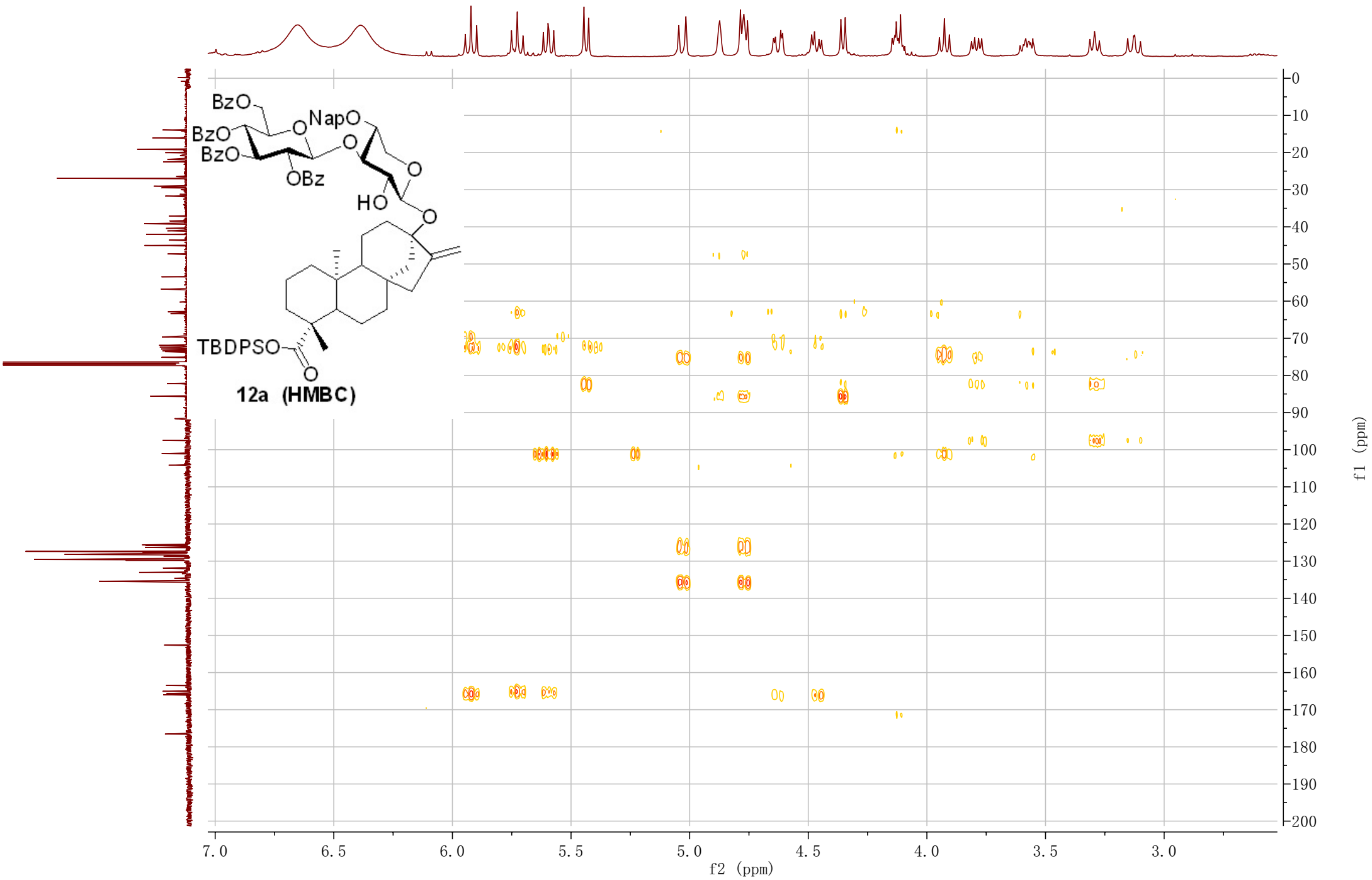


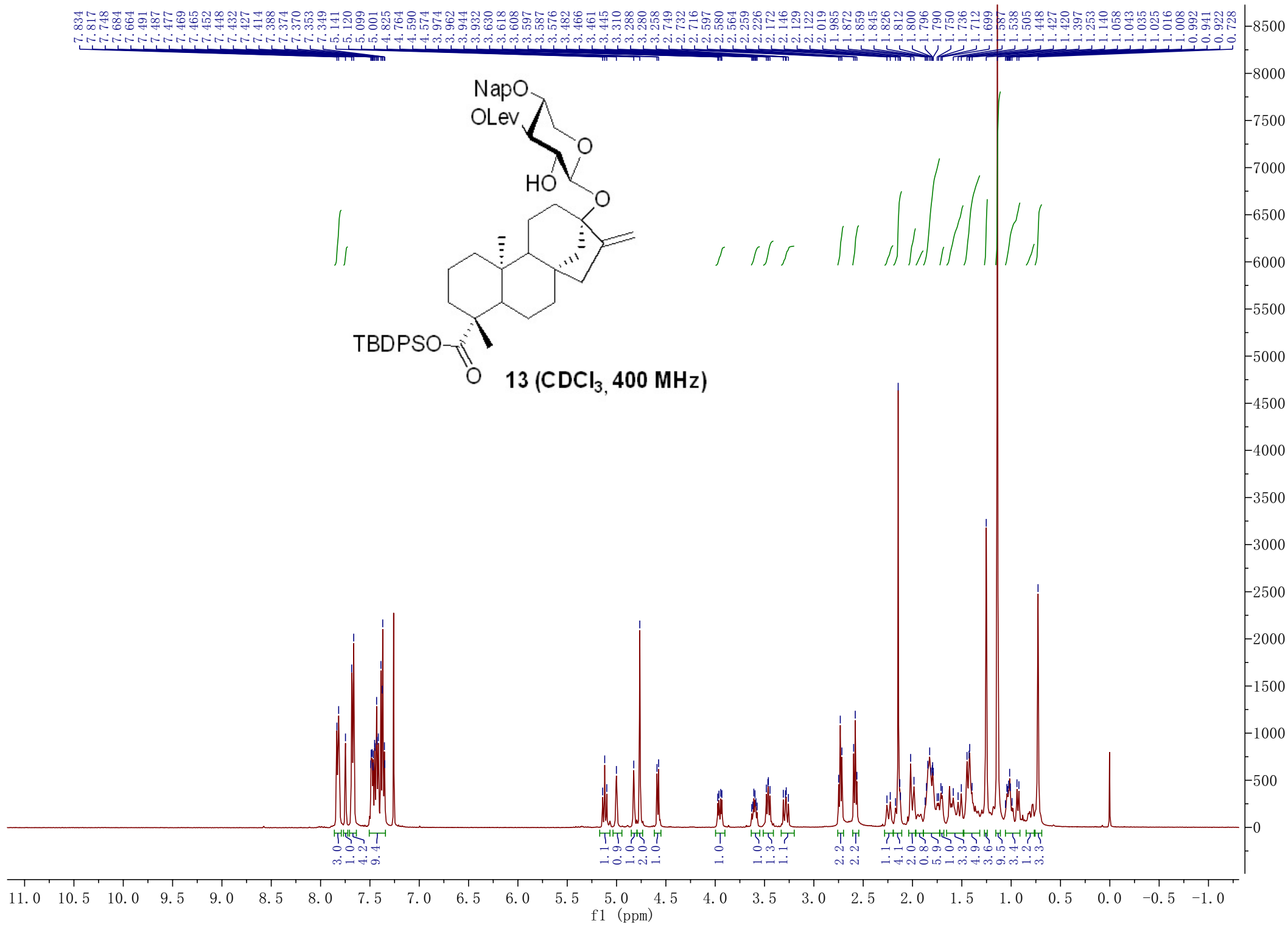


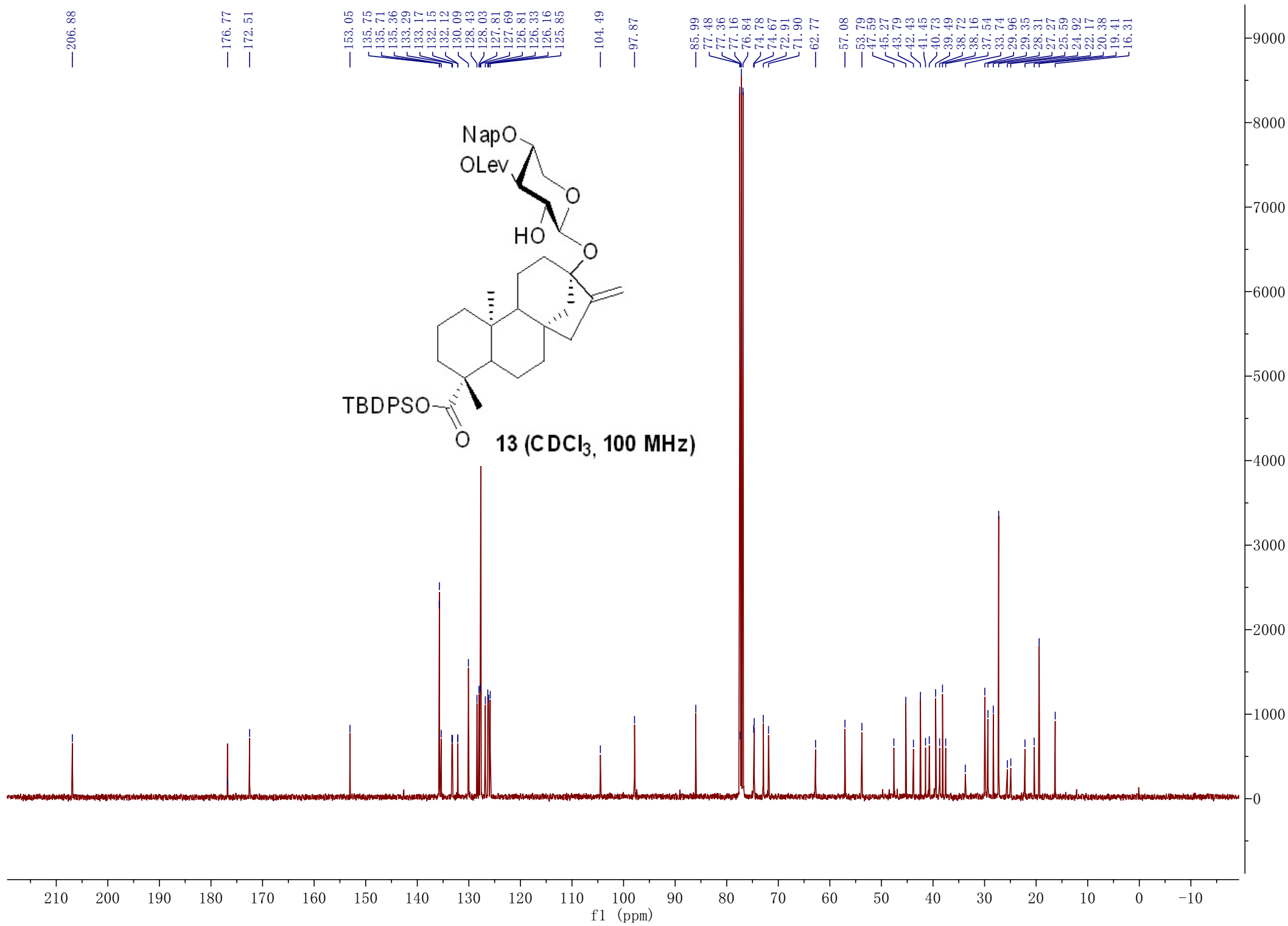


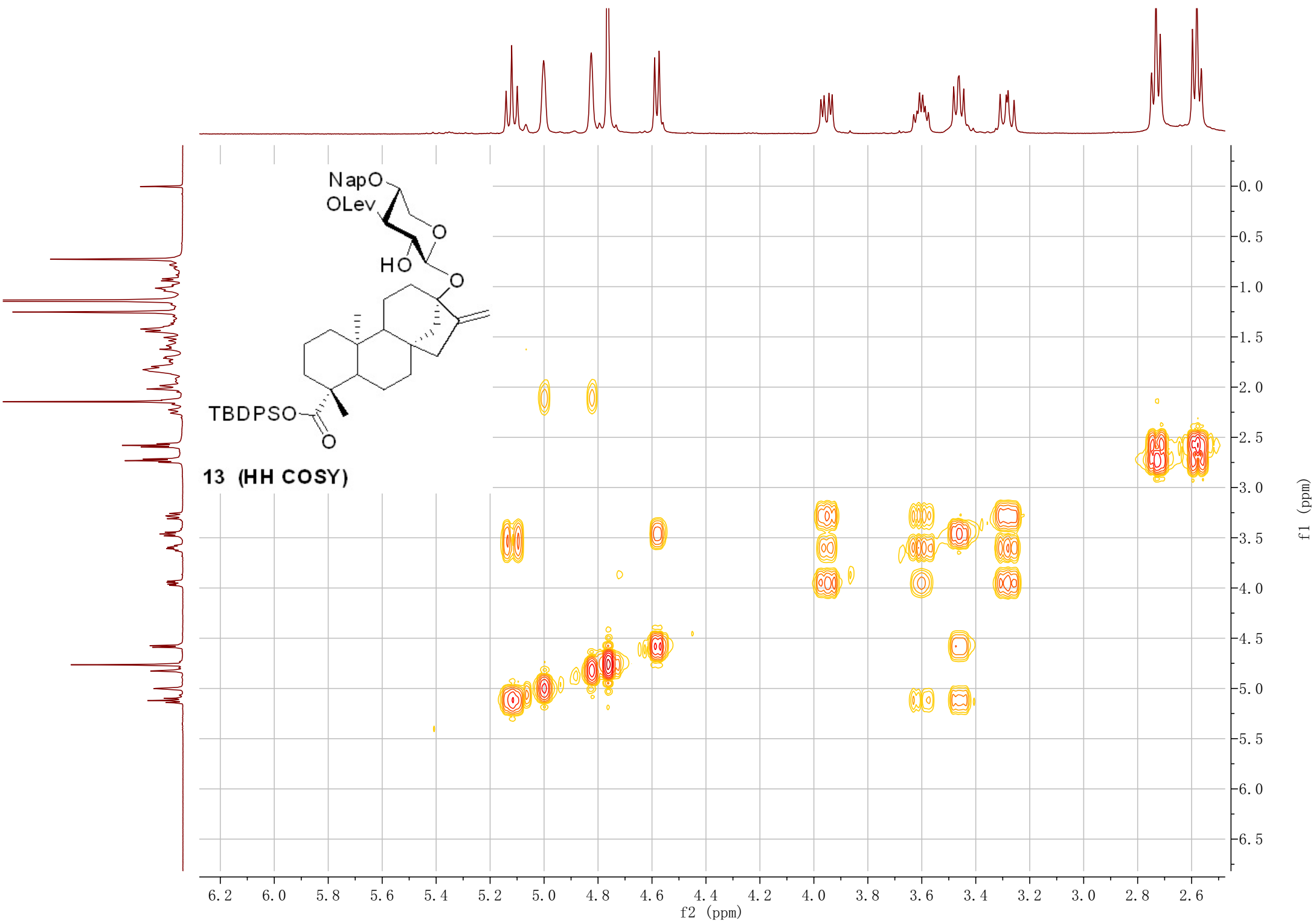




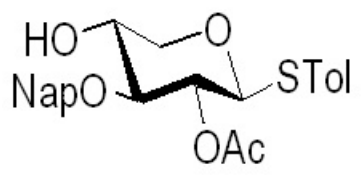




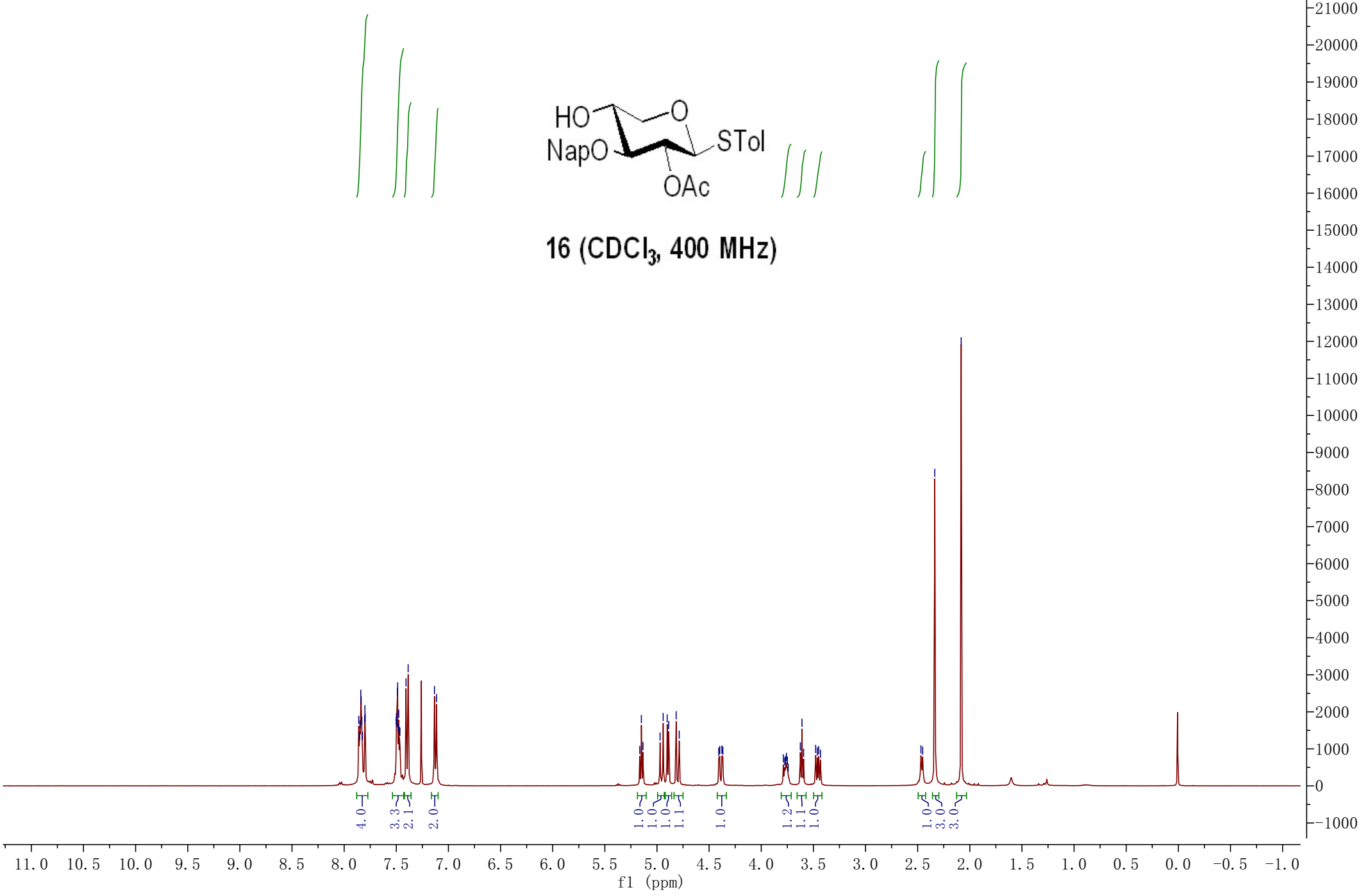




7.860
7.854
7.848
7.841
7.837
7.830
7.824
7.803
7.801
7.799
7.501
7.499
7.495
7.489
7.487
7.481
7.476
7.470
7.465
7.407
7.386
7.134
7.114
5.165
5.150
5.134
4.970
4.941
4.902
4.887
4.816
4.786
4.407
4.398
4.378
4.368
3.788
3.775
3.766
3.759
3.749
3.742
3.625
3.609
3.594
3.478
3.461
3.448
3.432
2.469
2.452
2.336
2.083



16 (CDCl₃, 400 MHz)



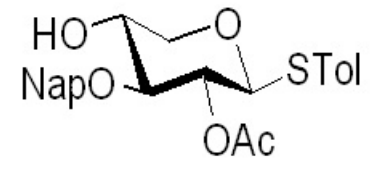
— 169.51

138.08
135.20
133.36
133.21
132.60
130.57
129.87
128.58
128.09
127.85
126.88
126.39
126.24
125.77

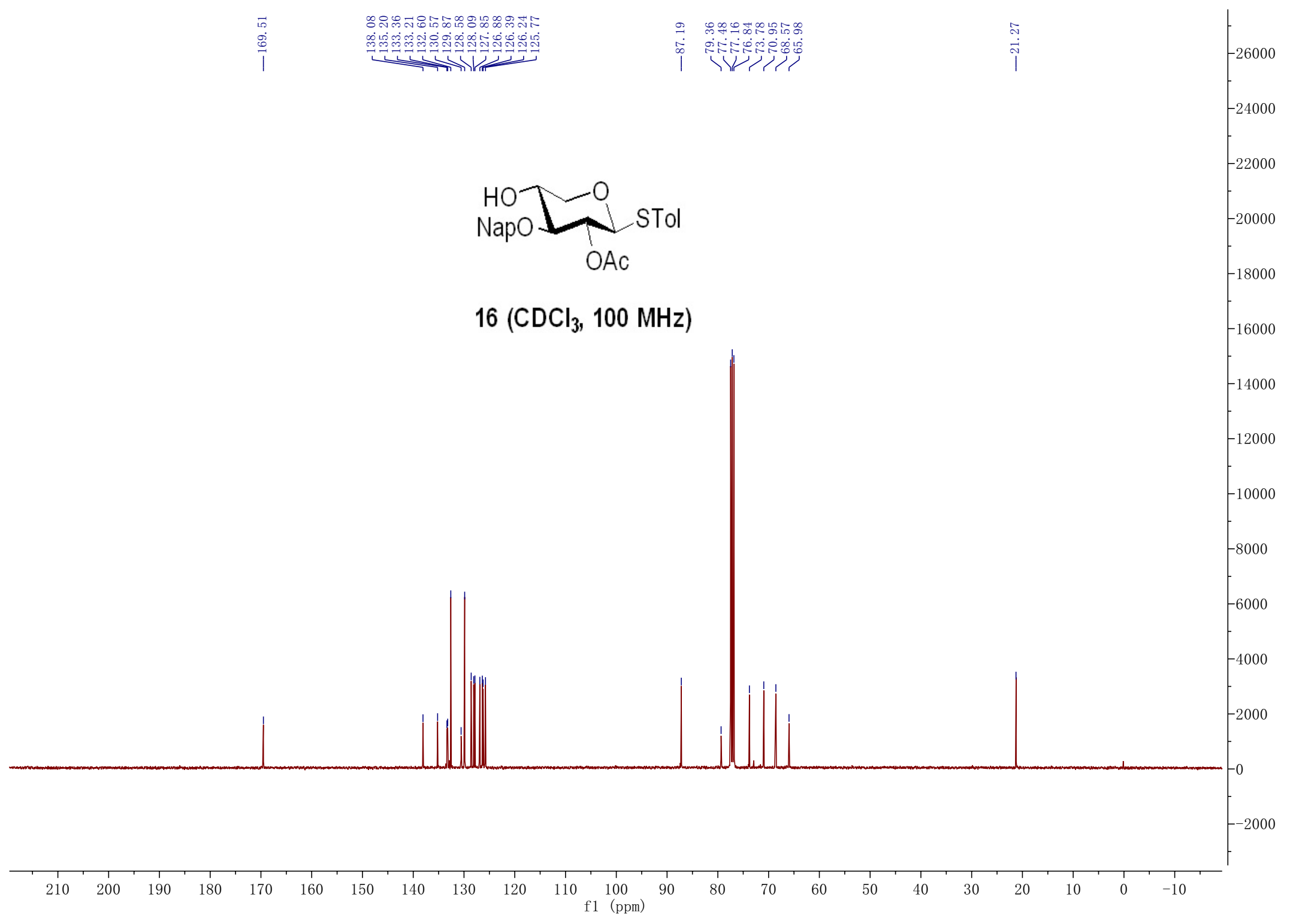
— 87.19

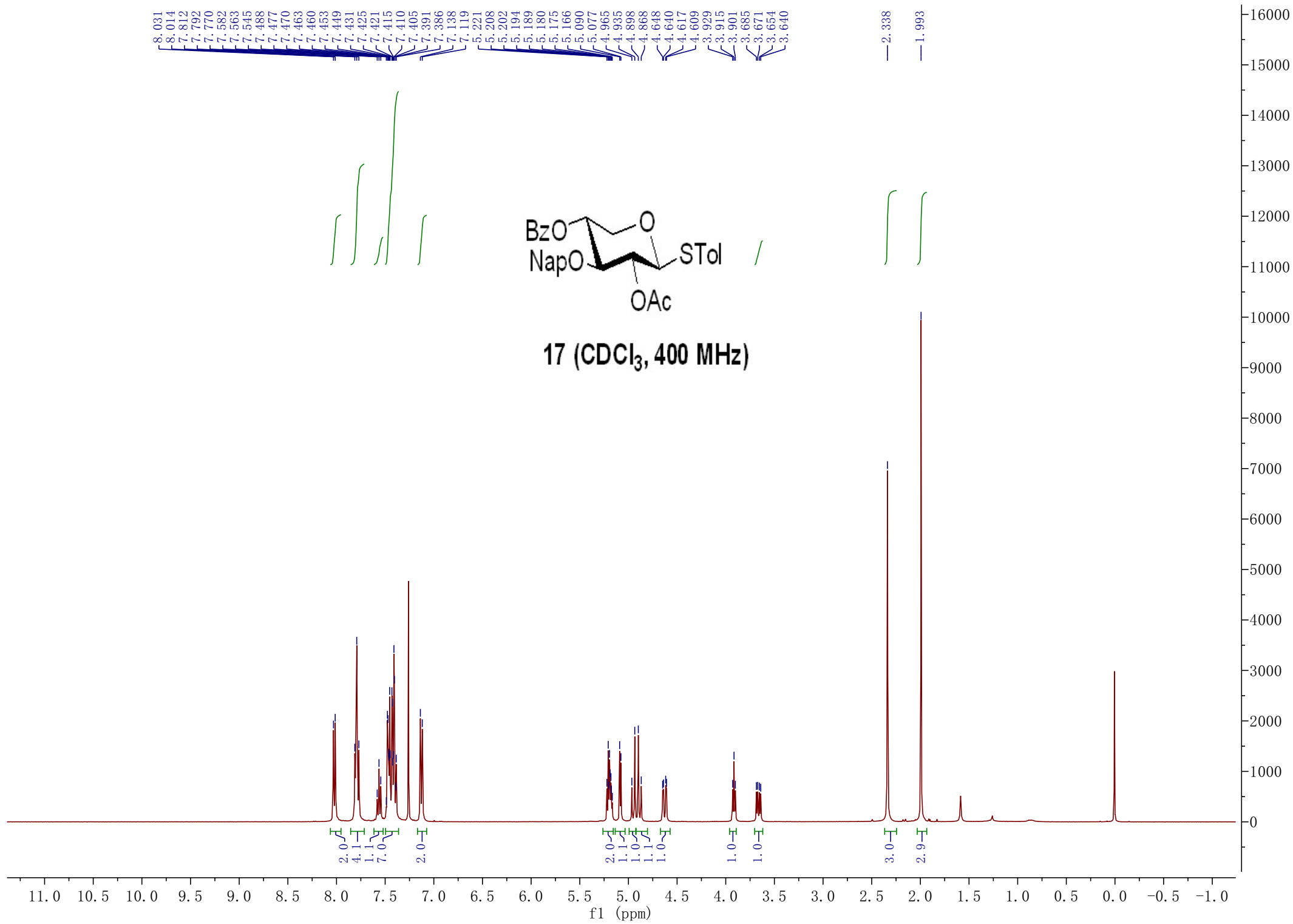
79.36
77.48
77.16
76.84
73.78
70.95
68.57
65.98

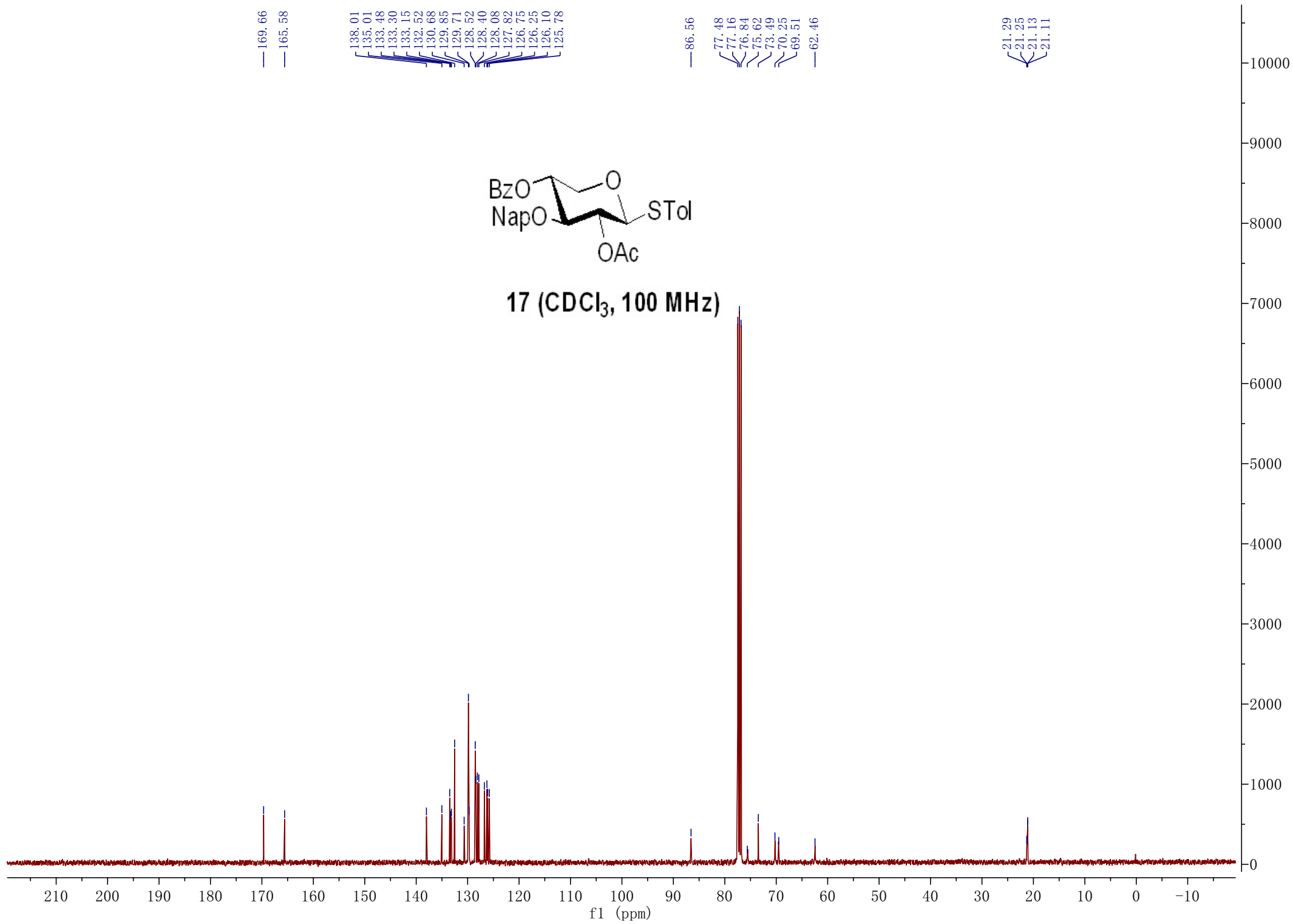
— 21.27

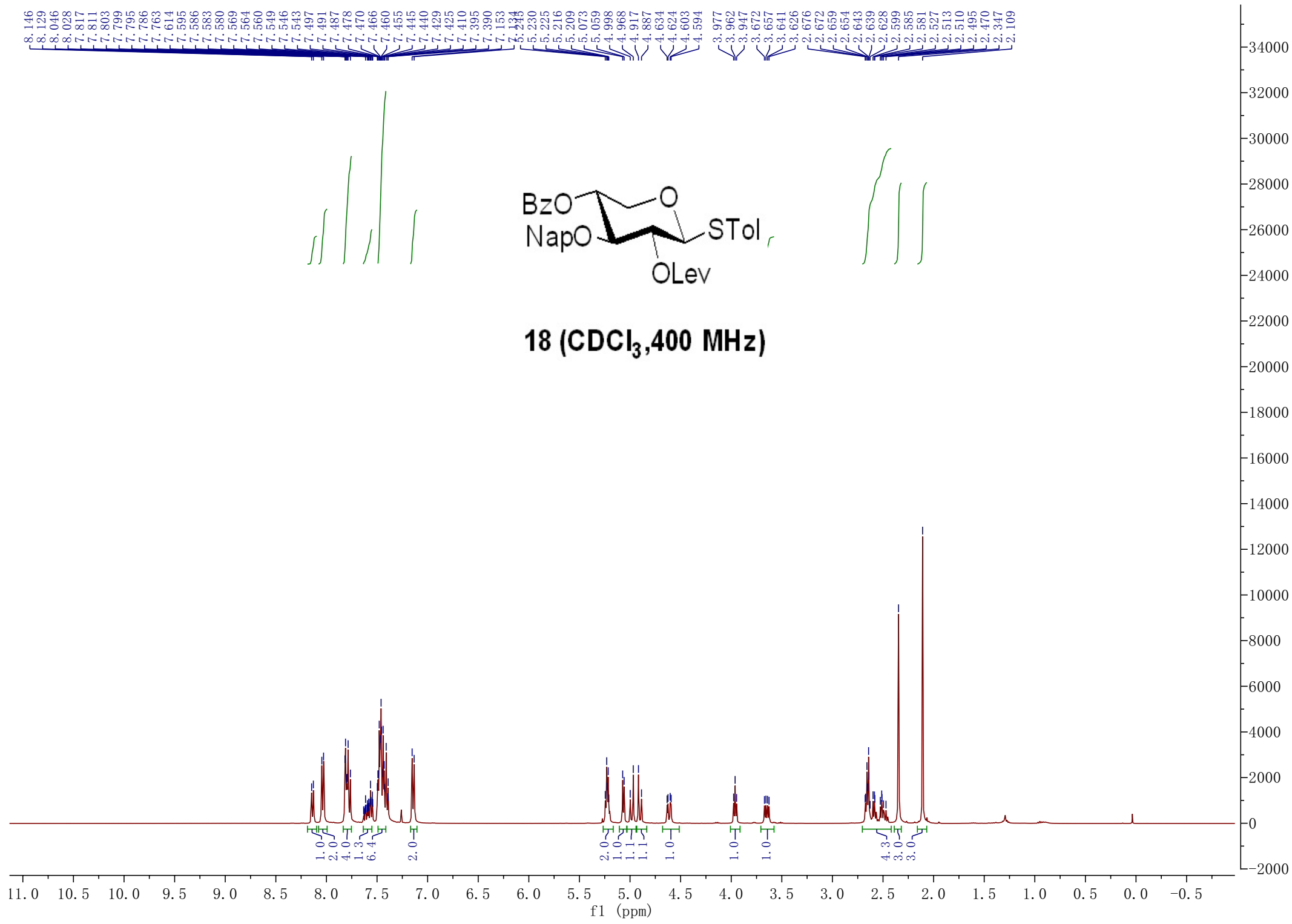


16 (CDCl₃, 100 MHz)









—206.30

—171.56

—171.52

—165.52

—137.98

—135.06

—133.73

—133.41

—133.21

—133.03

—132.59

—130.26

—130.19

—129.78

—129.75

—129.57

—129.41

—128.50

—128.45

—128.24

—127.99

—127.71

—126.65

—126.11

—125.96

—125.77

—86.50

—77.48

—77.16

—76.84

—76.23

—73.60

—70.62

—69.69

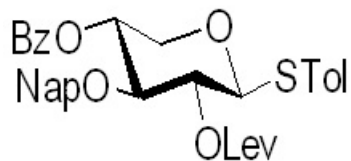
—62.88

—37.74

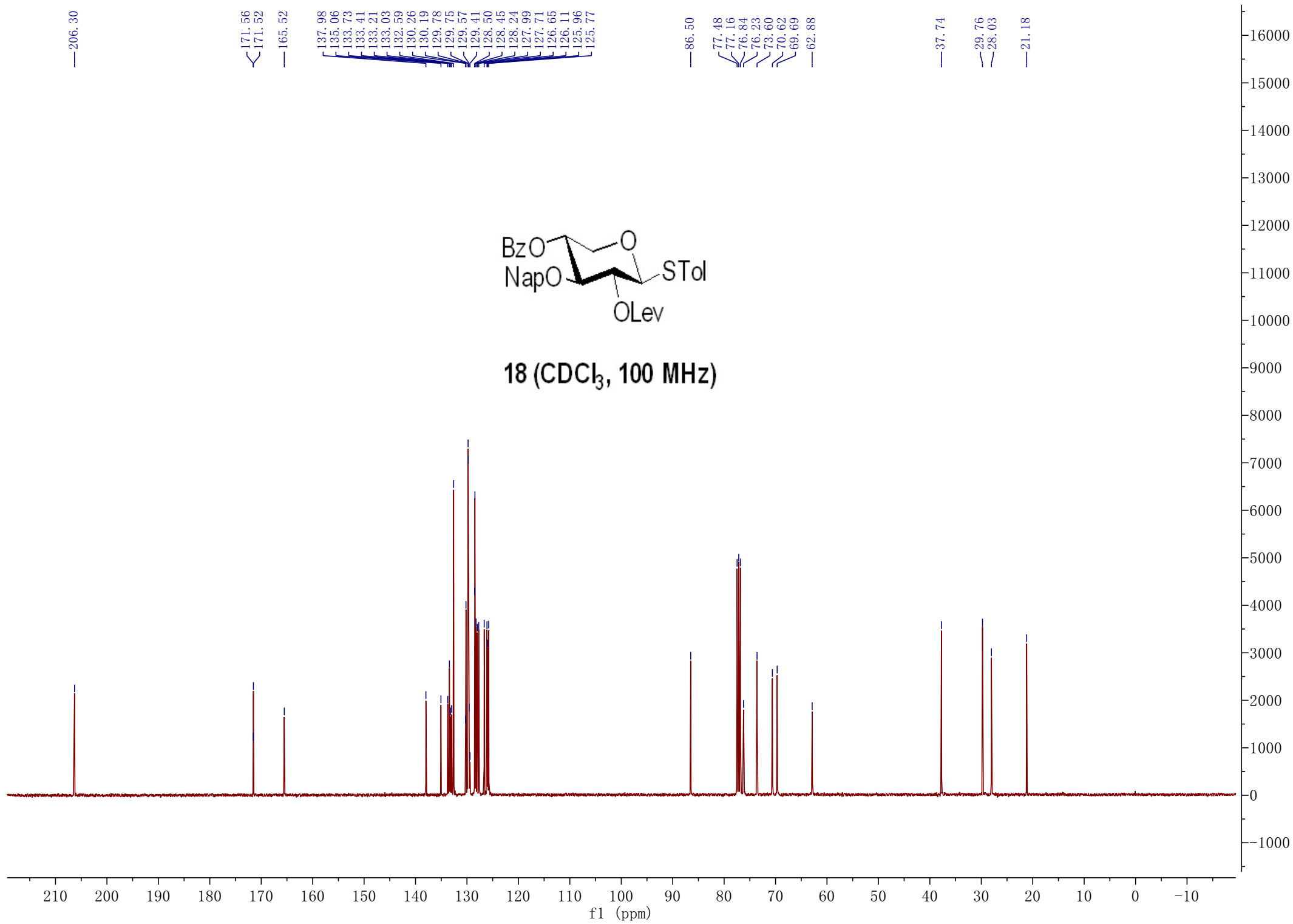
—29.76

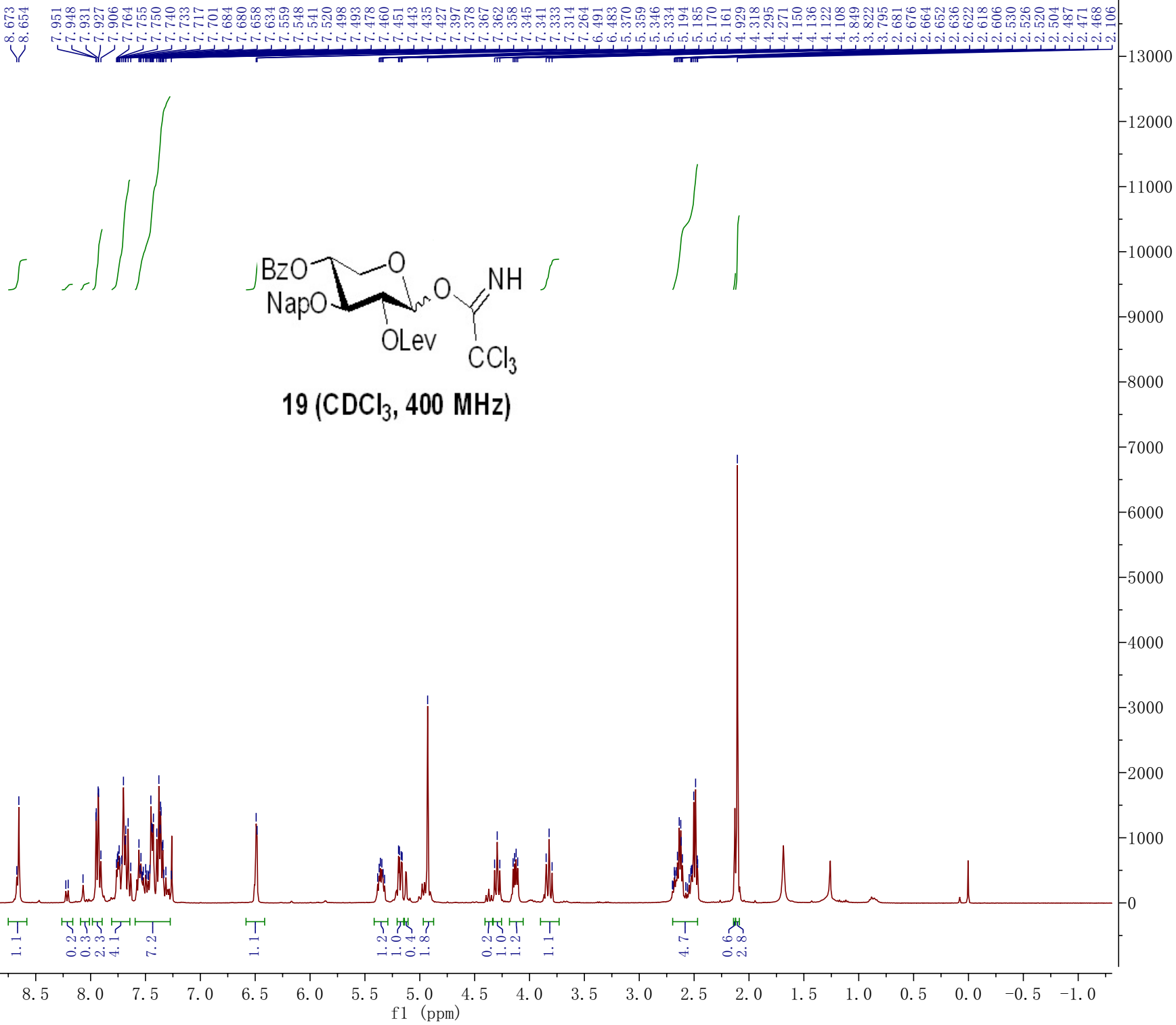
—28.03

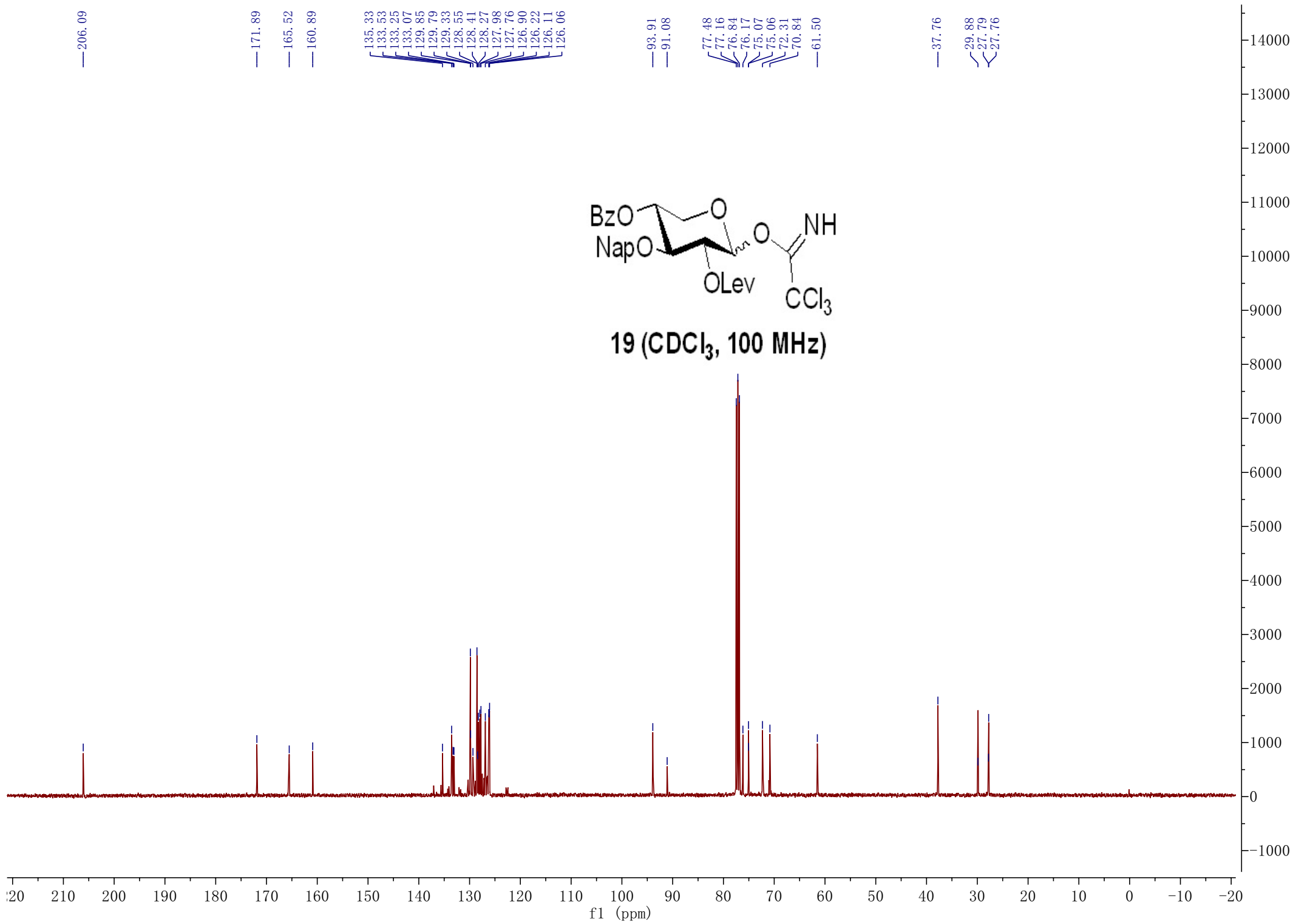
—21.18

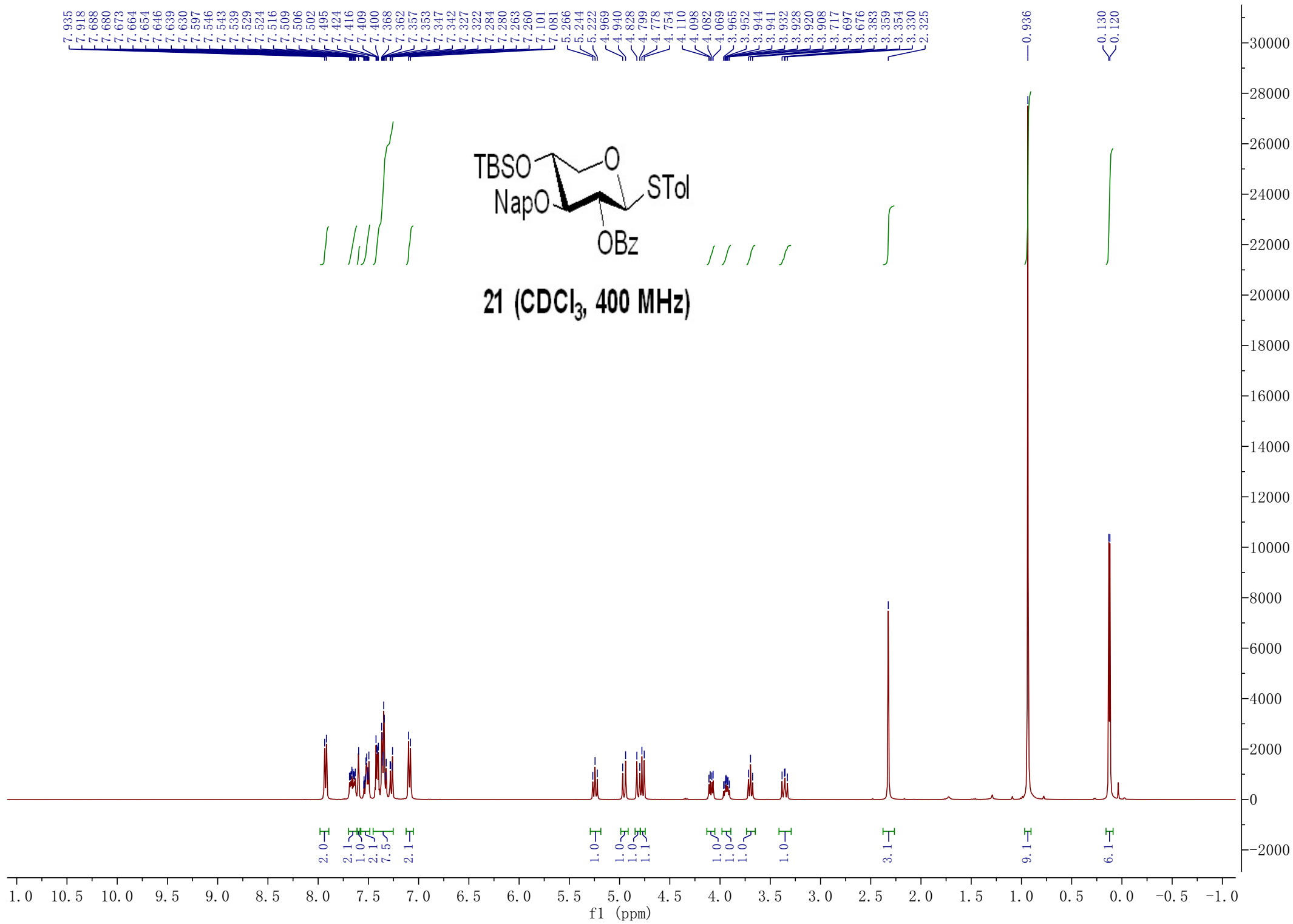


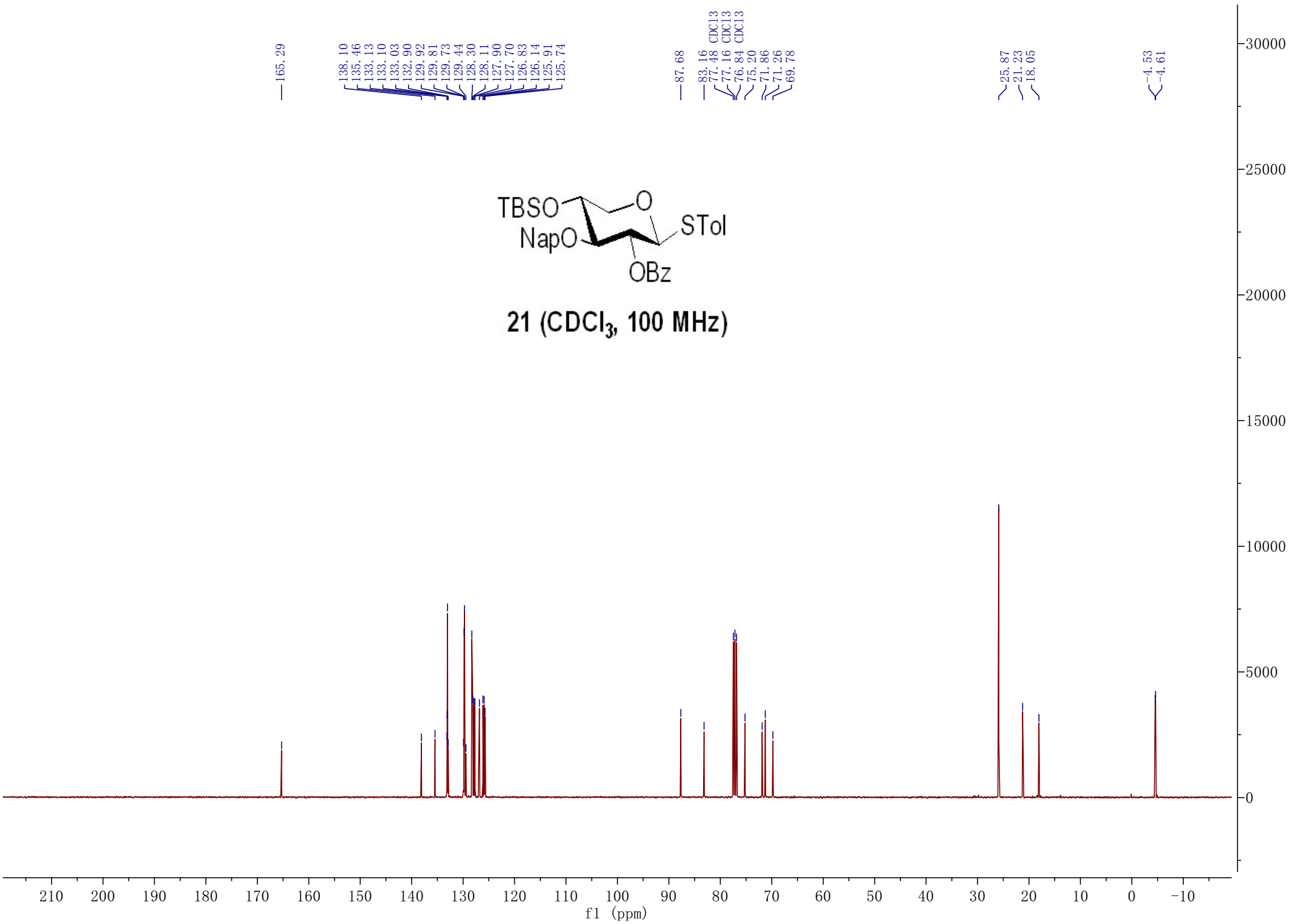
18 (CDCl₃, 100 MHz)

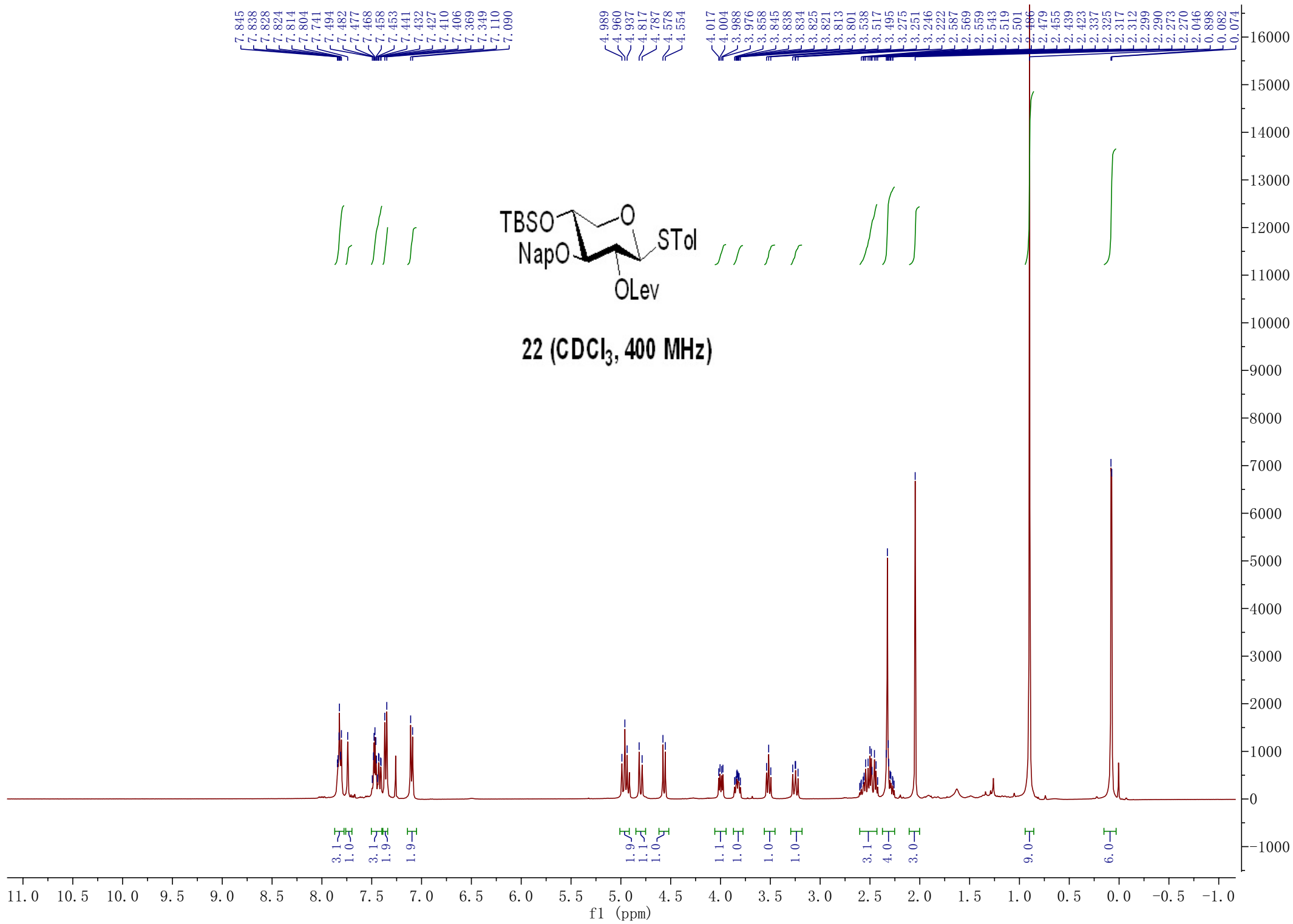












— 206.17

— 171.45

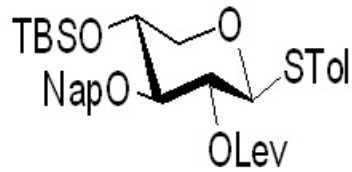
138.05
135.87
133.23
132.91
132.85
129.70
129.28
128.02
127.94
127.69
126.49
126.08
126.01
125.88

— 87.48
— 83.65
77.48 CDCl₃
77.16 CDCl₃
76.84 CDCl₃
75.18
71.58
71.09
69.80

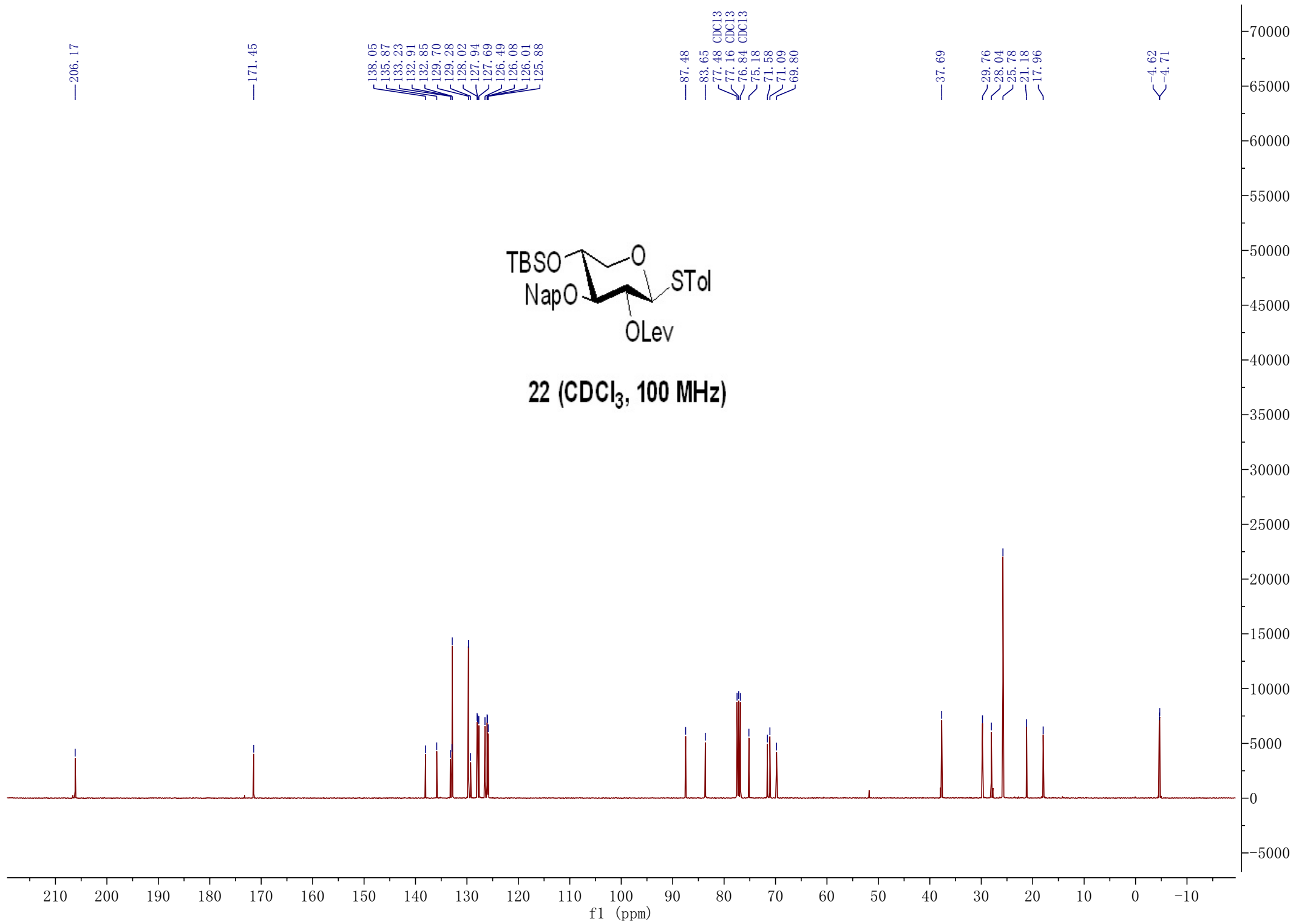
— 37.69

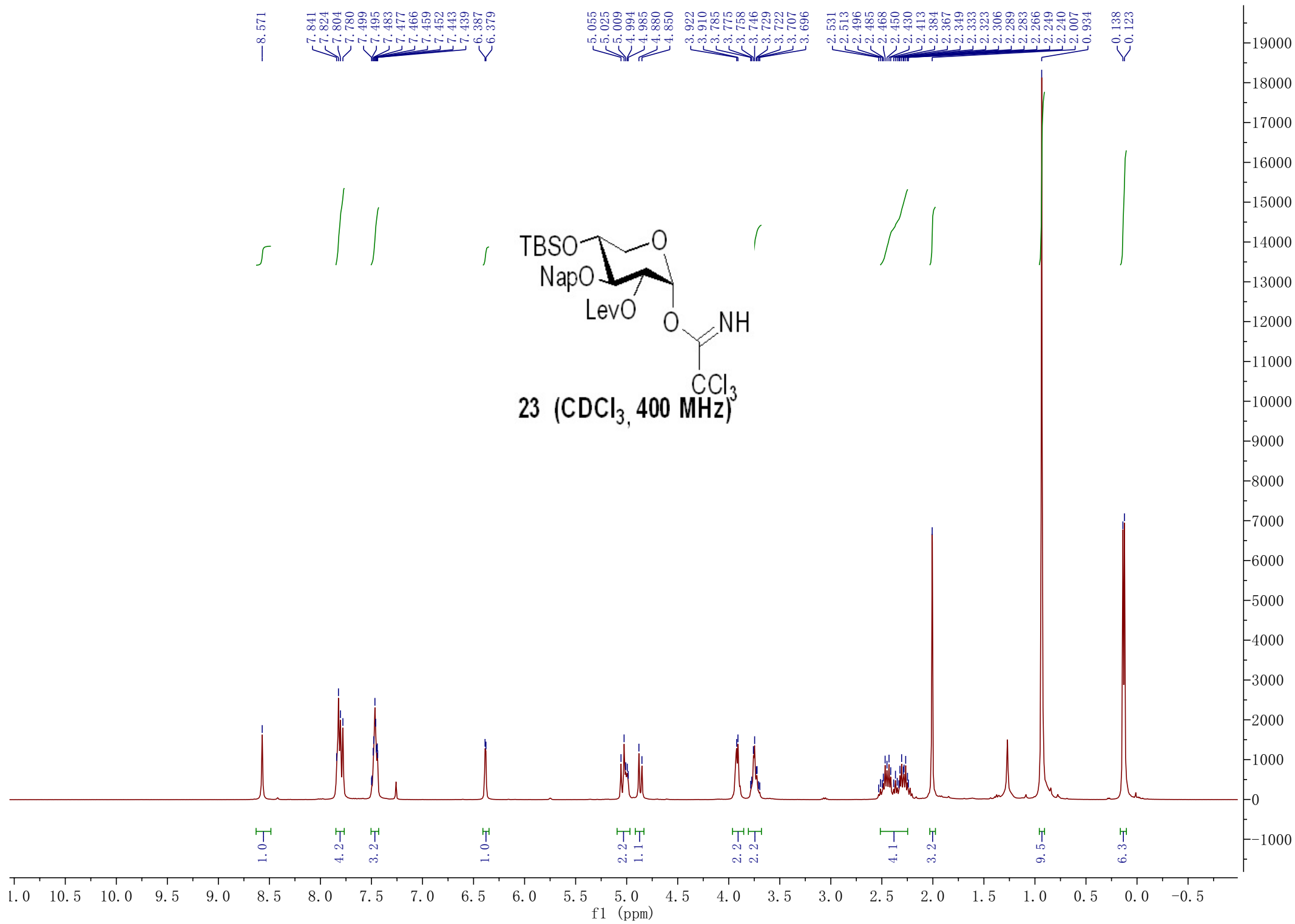
29.76
28.04
25.78
21.18
17.96

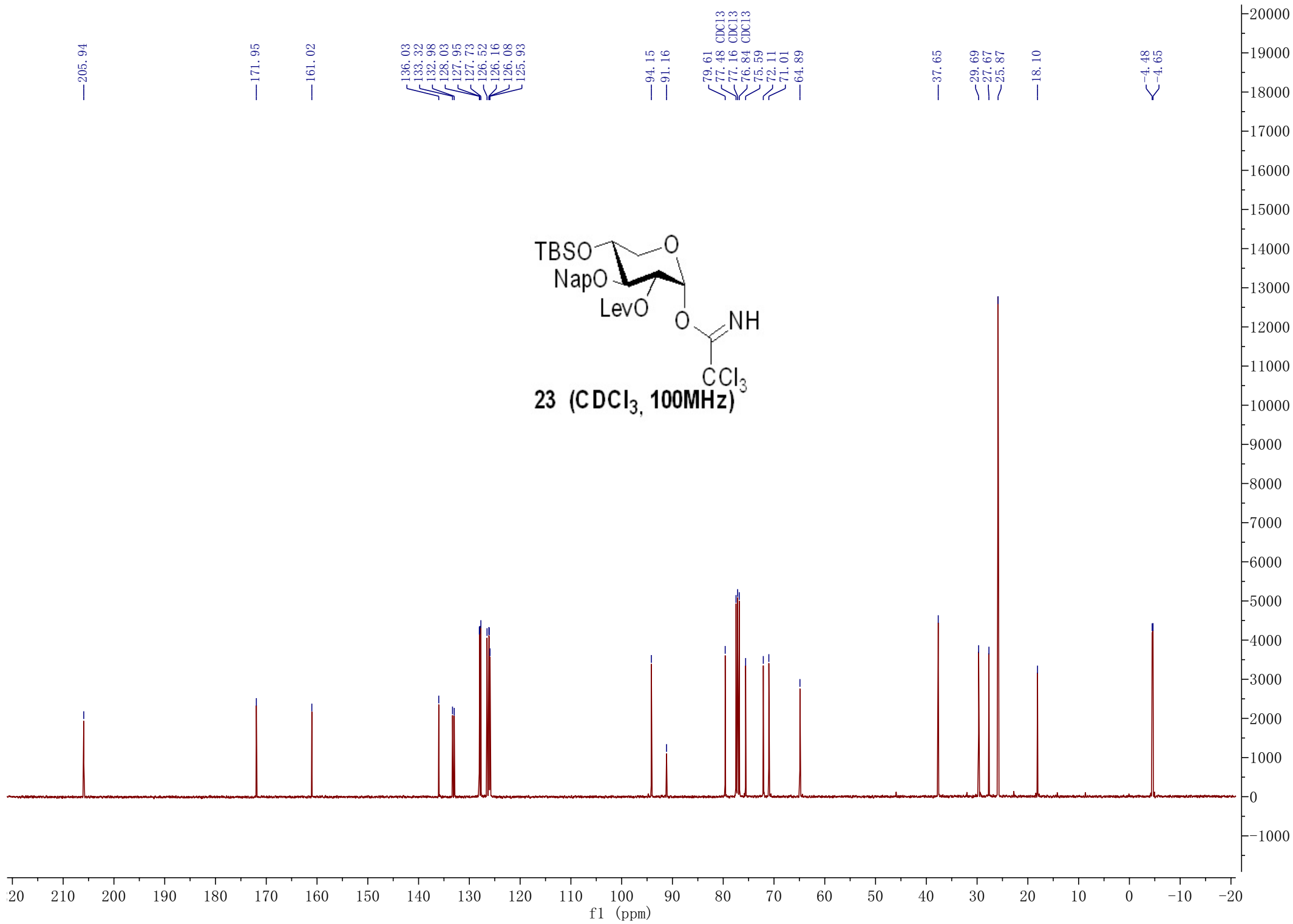
-4.62
-4.71

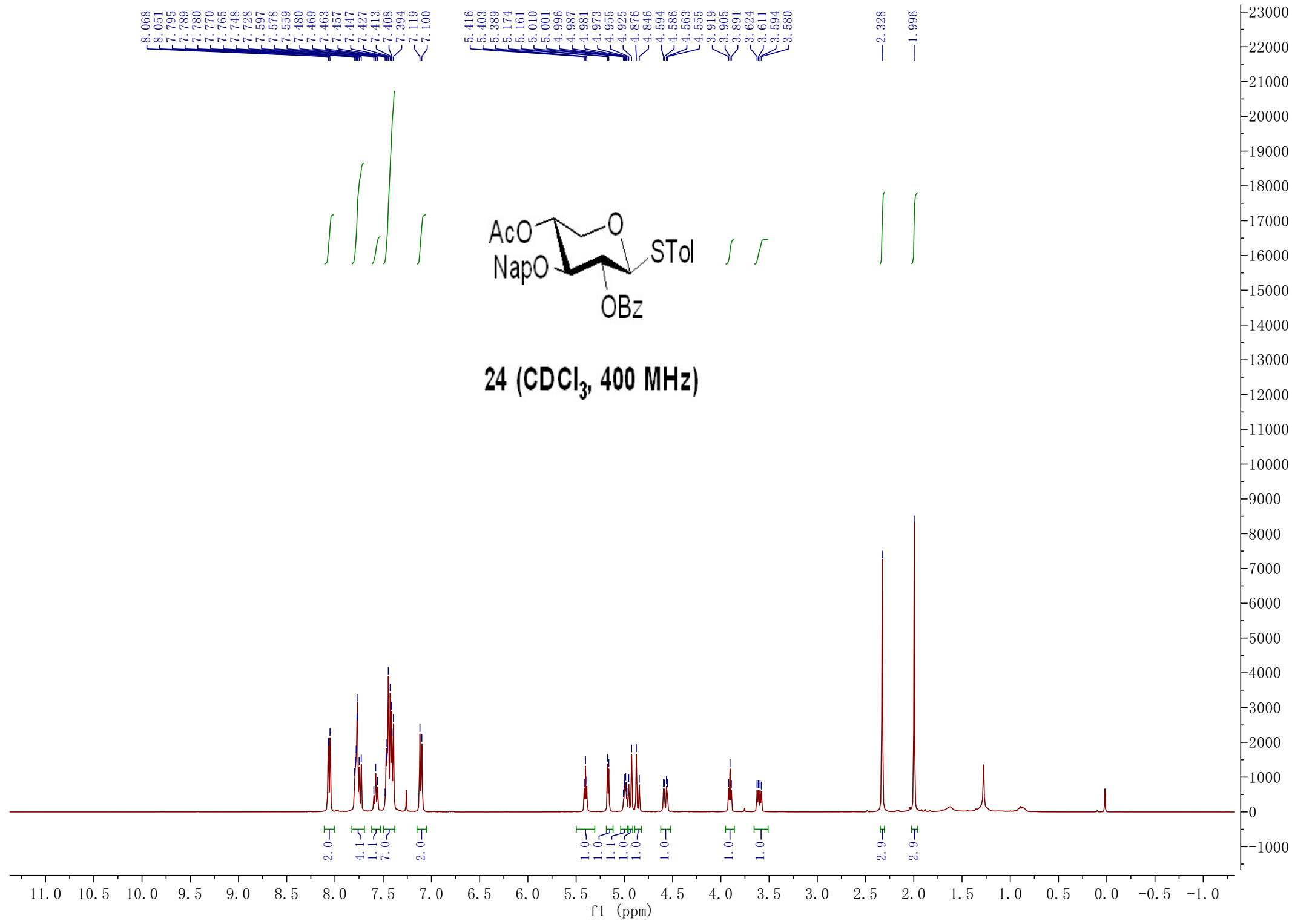


22 (CDCl₃, 100 MHz)









170.04

165.20

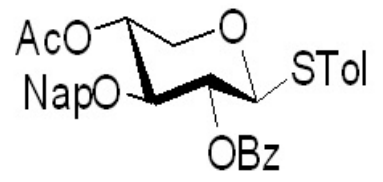
138.00
134.97
133.47
133.28
133.14
132.62
130.64
129.94
129.82
129.77
128.50
128.34
128.05
127.79
126.79
126.19
126.05
125.82

86.61

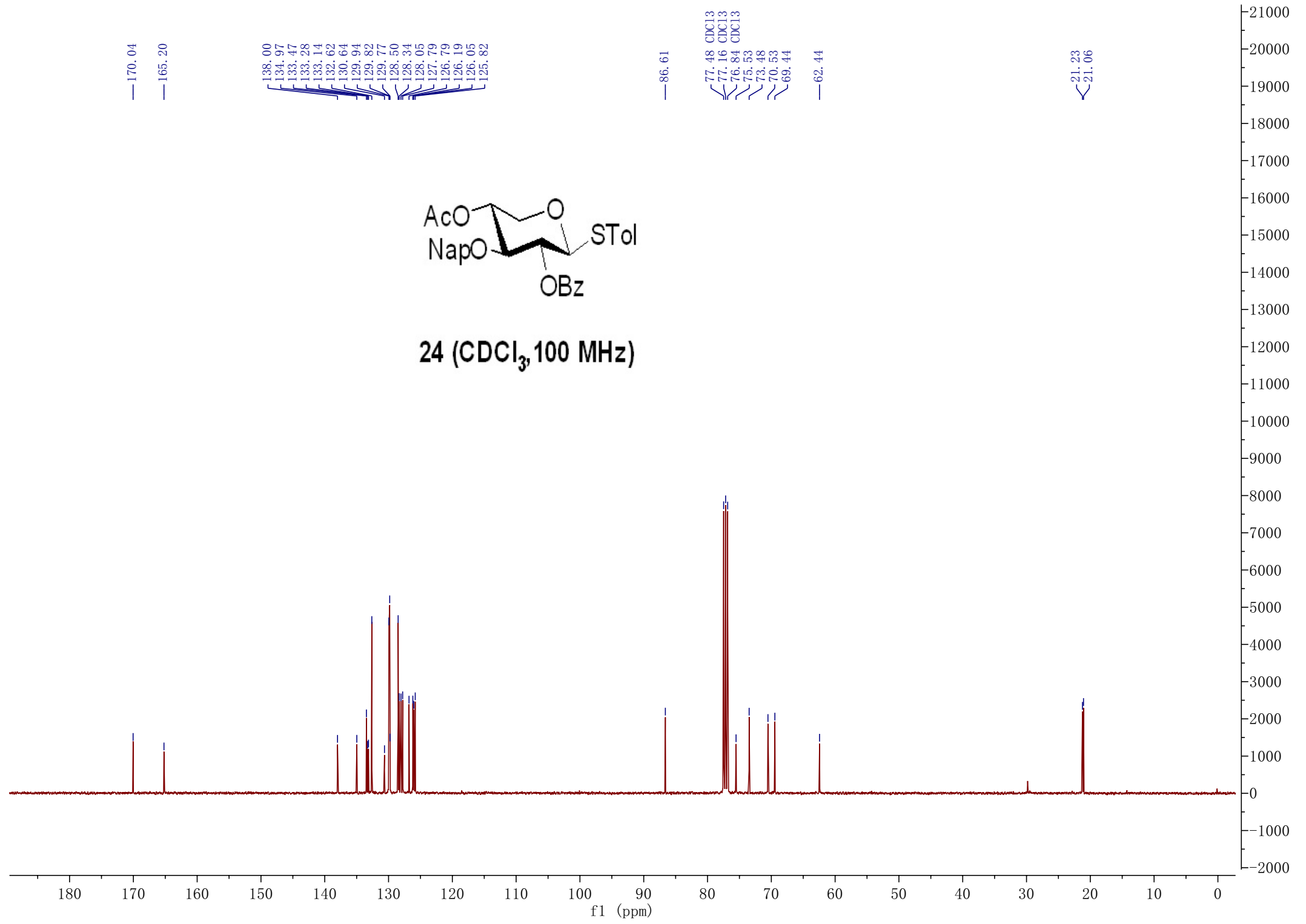
77.48 CDCl3
77.16 CDCl3
76.84 CDCl3
75.53
73.48
70.53
69.44

62.44

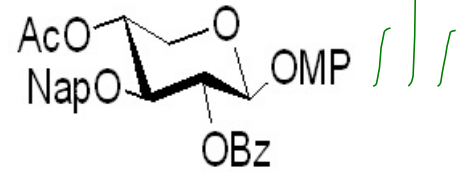
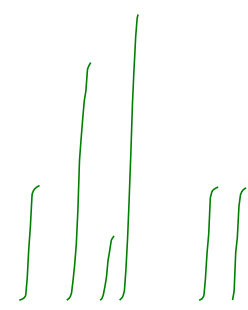
21.23
21.06



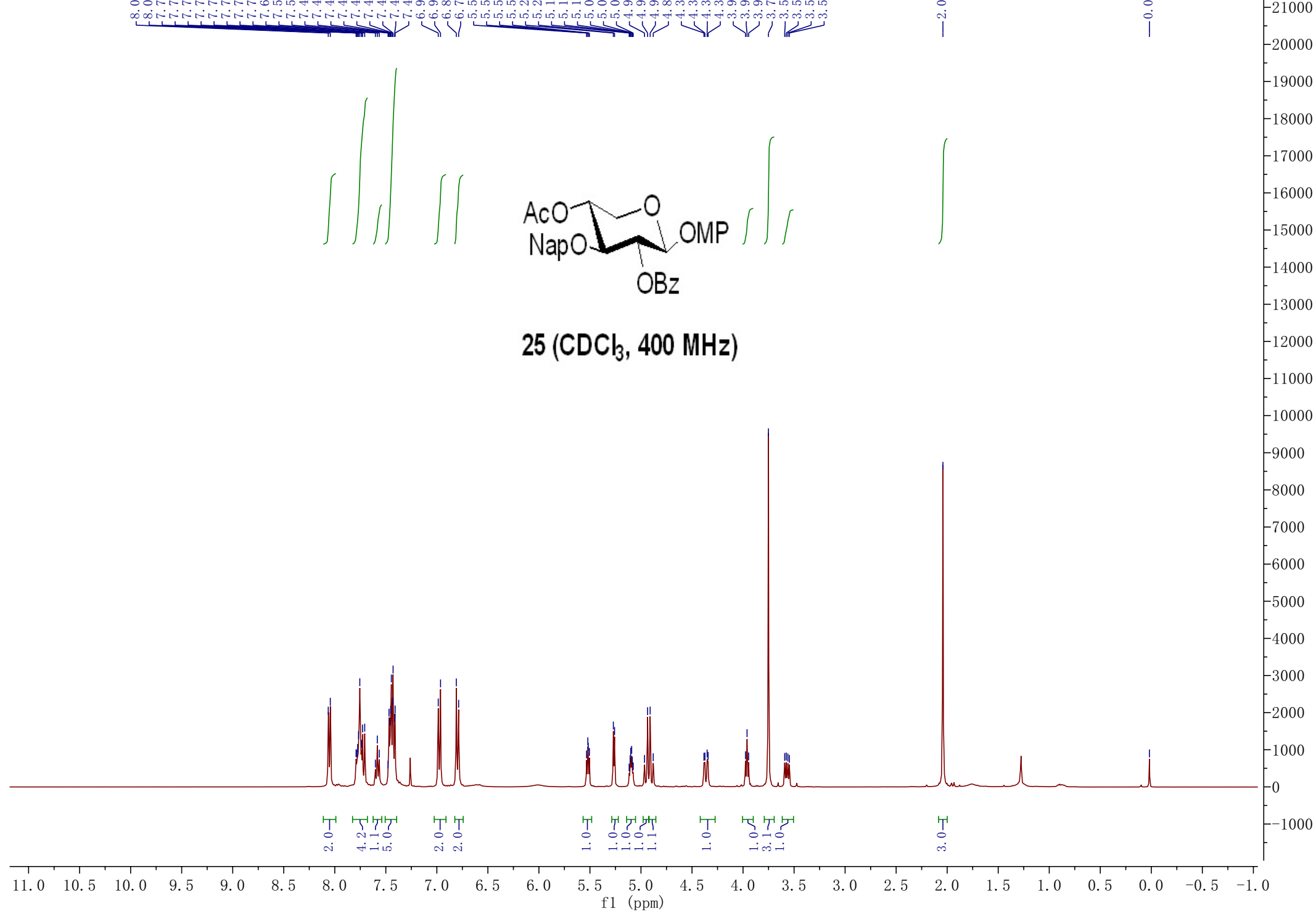
24 (CDCl₃, 100 MHz)



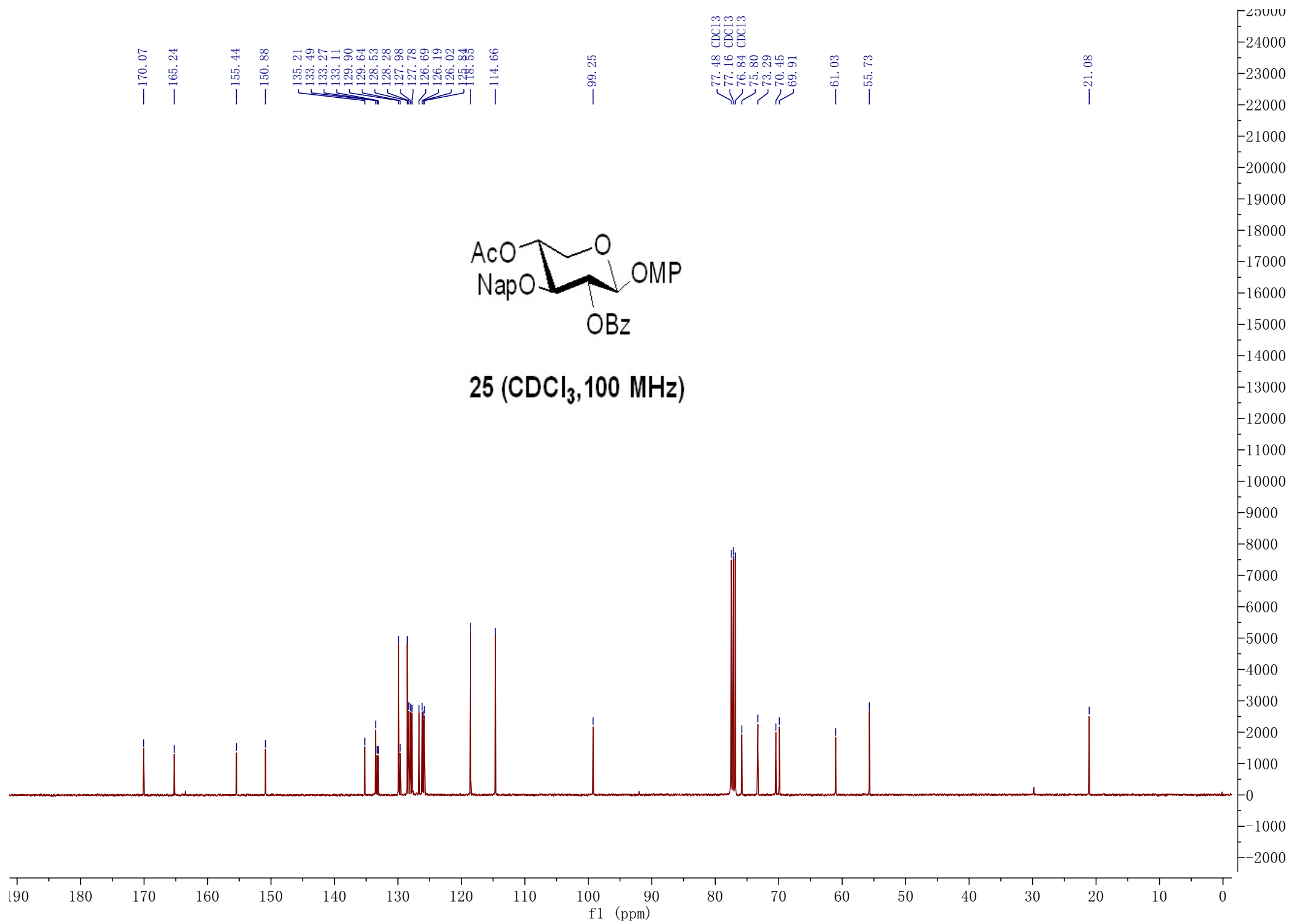
8.064
8.044
7.791
7.782
7.776
7.767
7.755
7.738
7.728
7.707
7.602
7.583
7.564
7.478
7.469
7.460
7.453
7.446
7.434
7.429
7.413
7.409
6.986
6.964
6.809
6.787
5.533
5.521
5.517
5.505
5.271
5.259
5.116
5.106
5.101
5.091
5.085
5.076
4.965
4.935
4.910
4.880
4.383
4.373
4.352
4.343
4.343
3.976
3.961
3.945
3.751
3.592
3.577
3.561
3.546

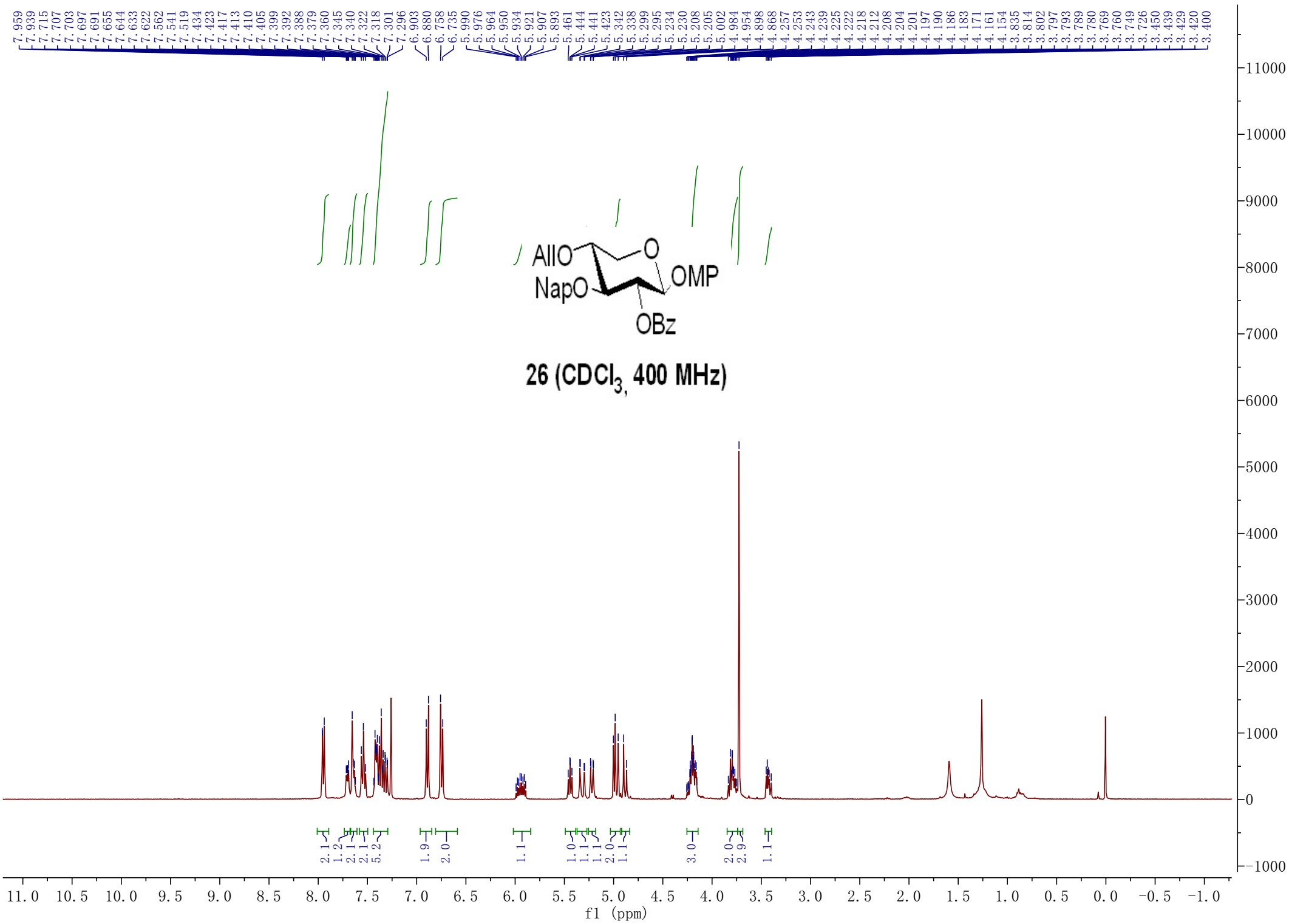


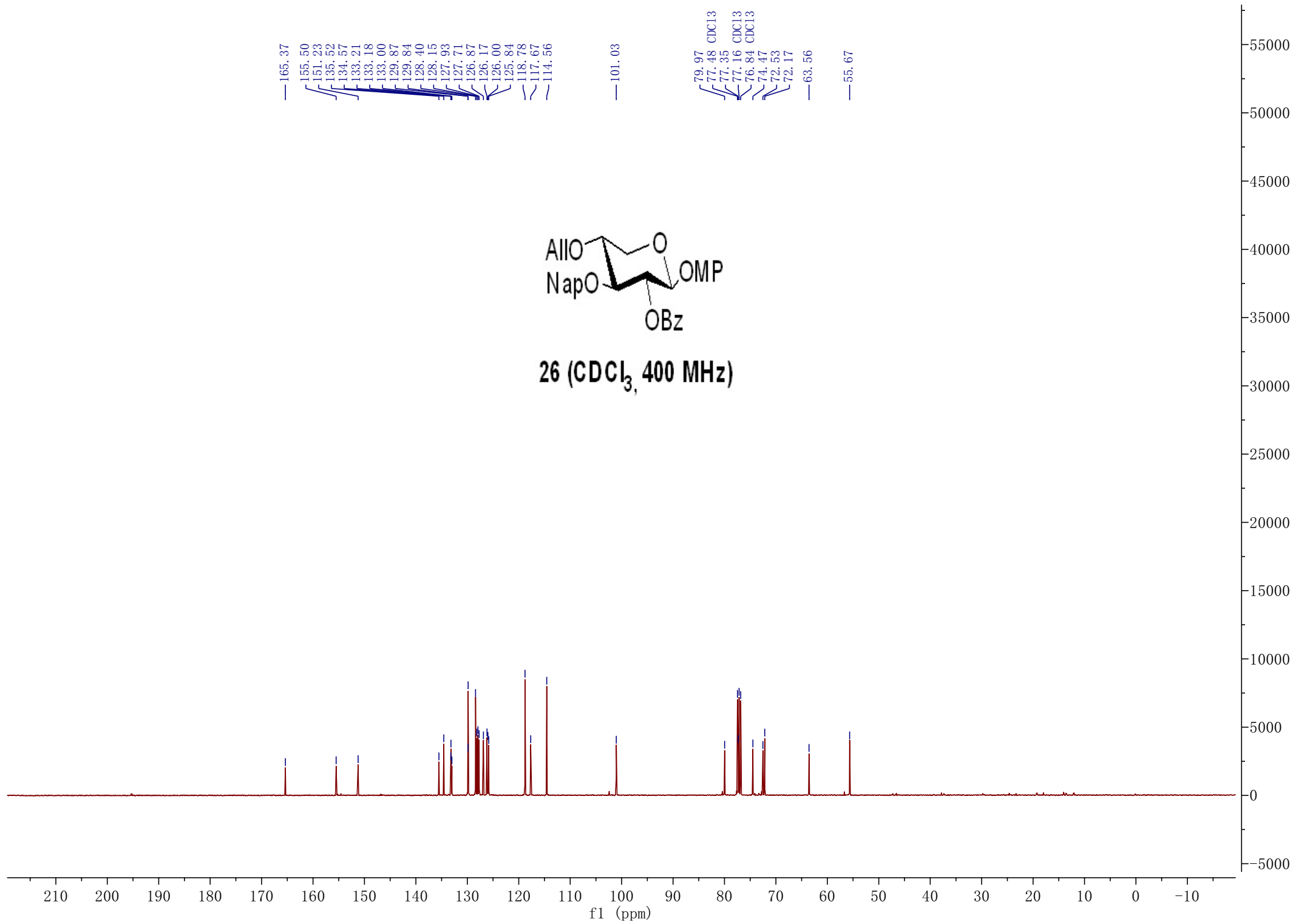
25 (CDCl₃, 400 MHz)

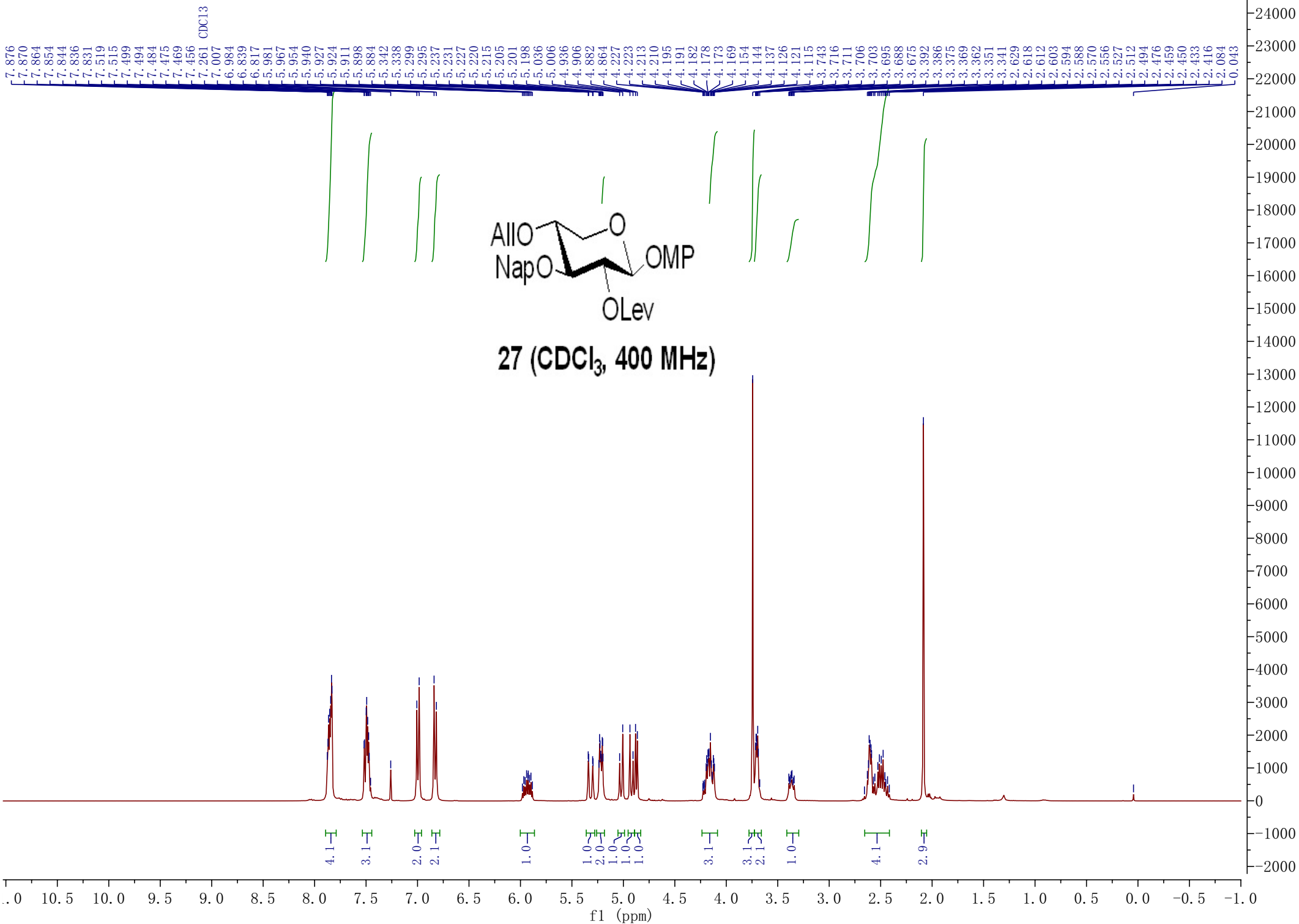


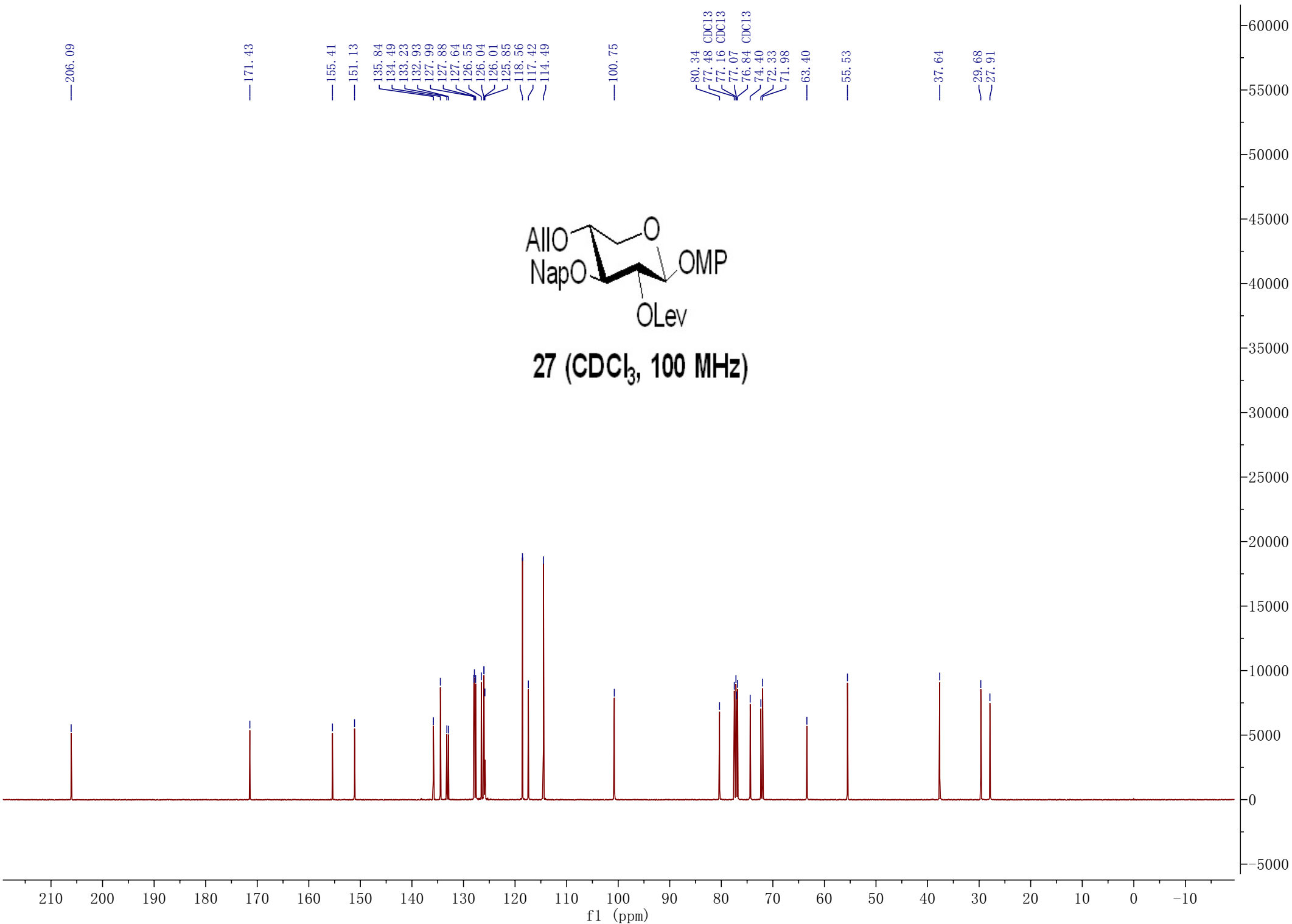
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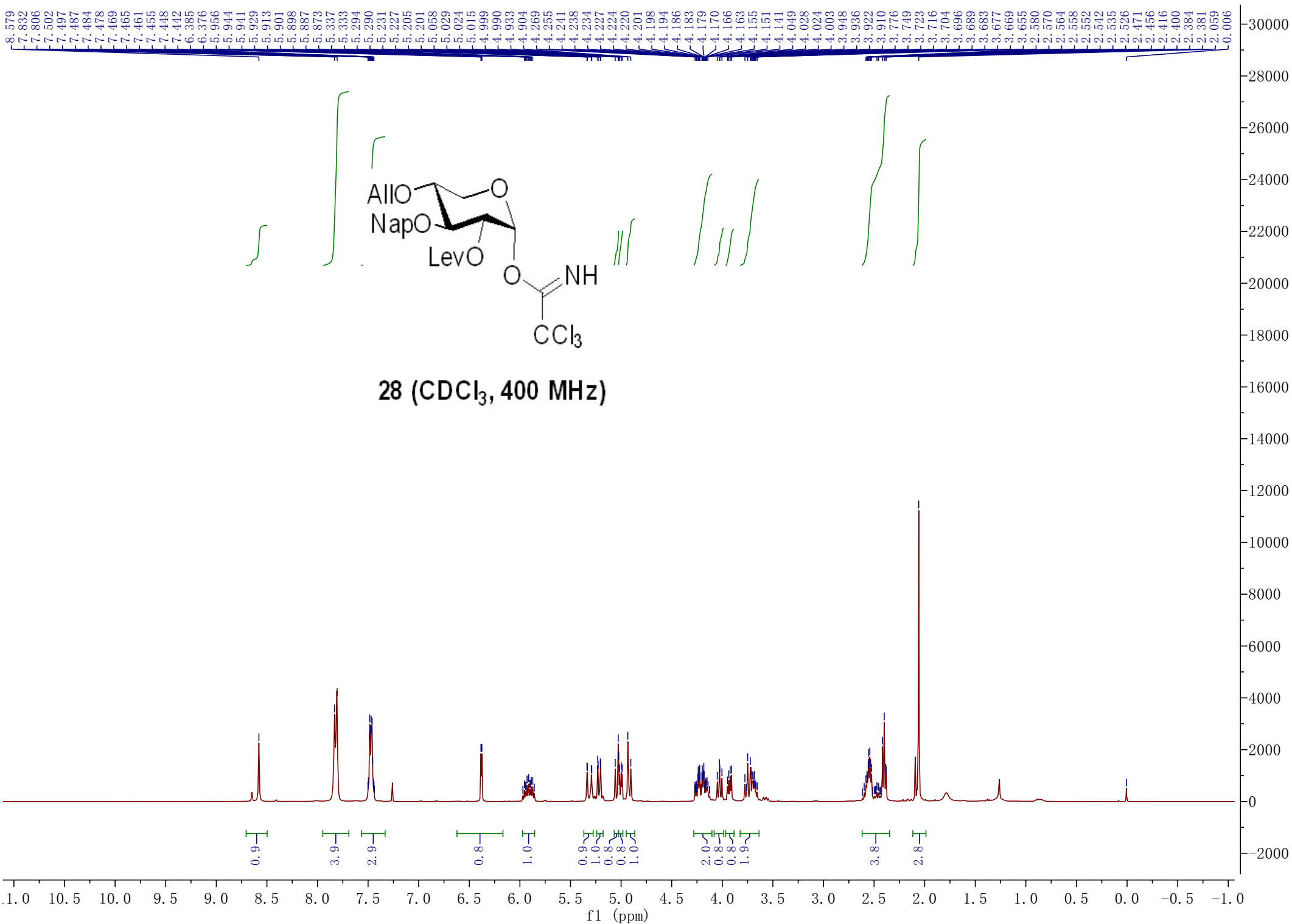


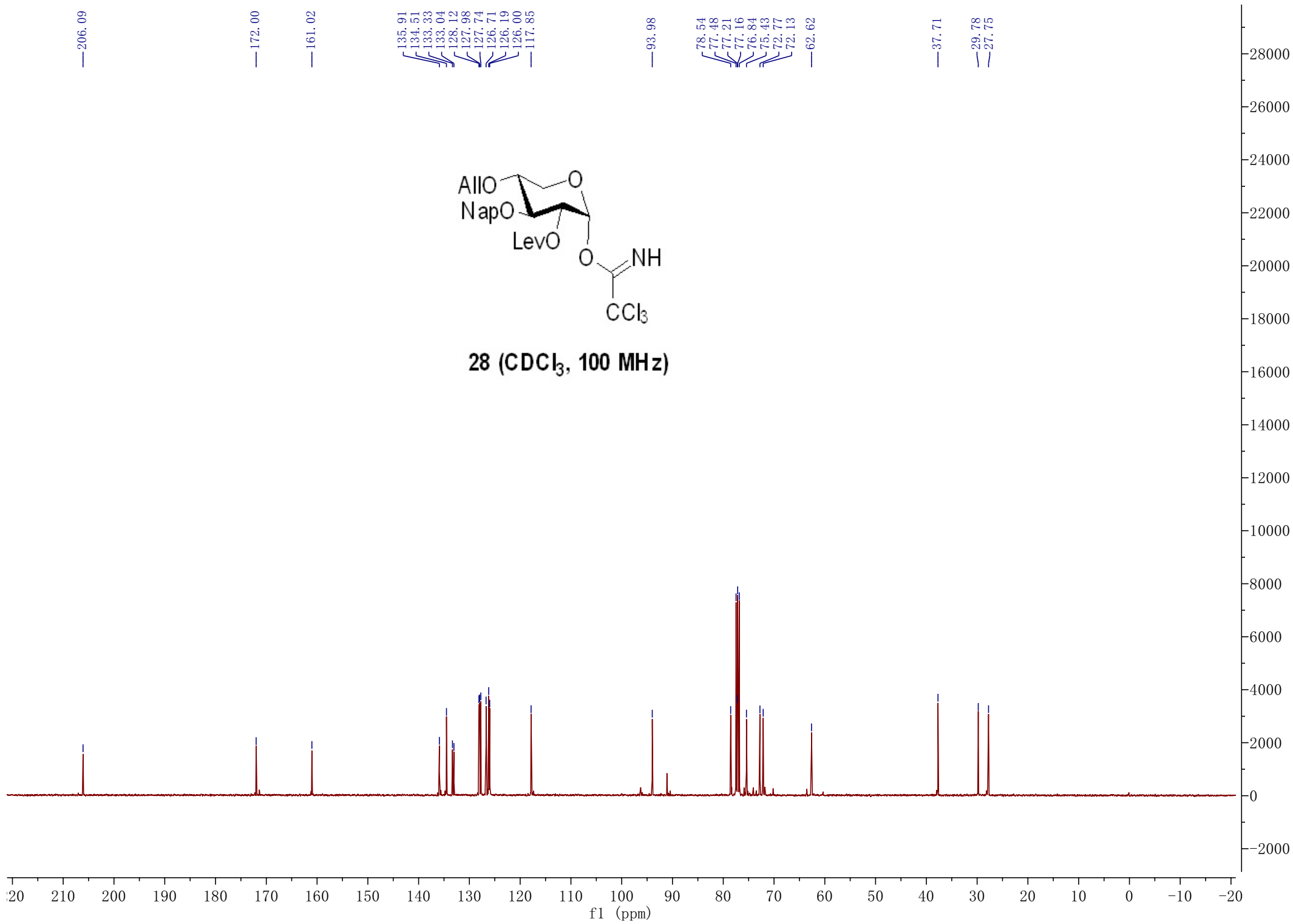


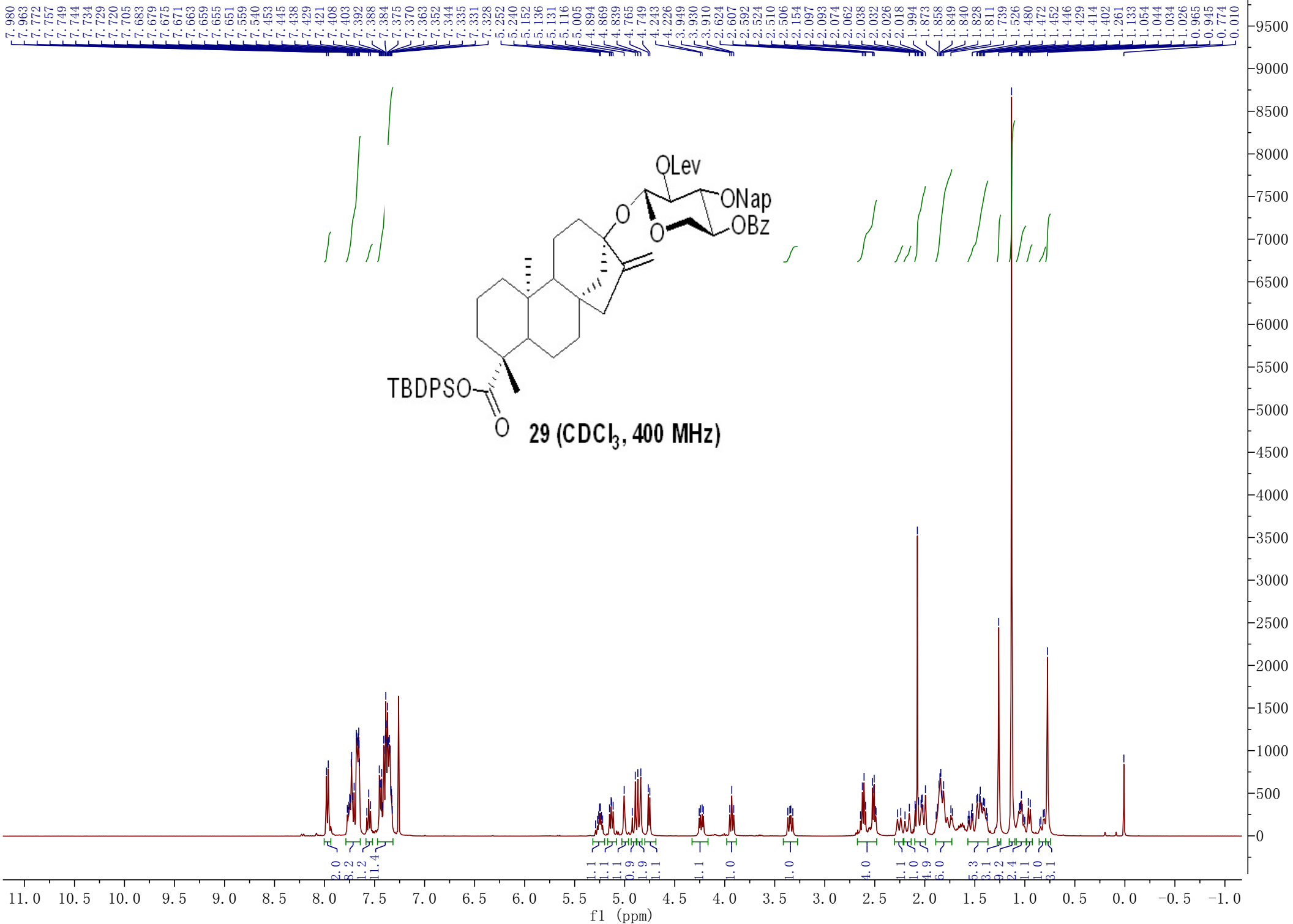


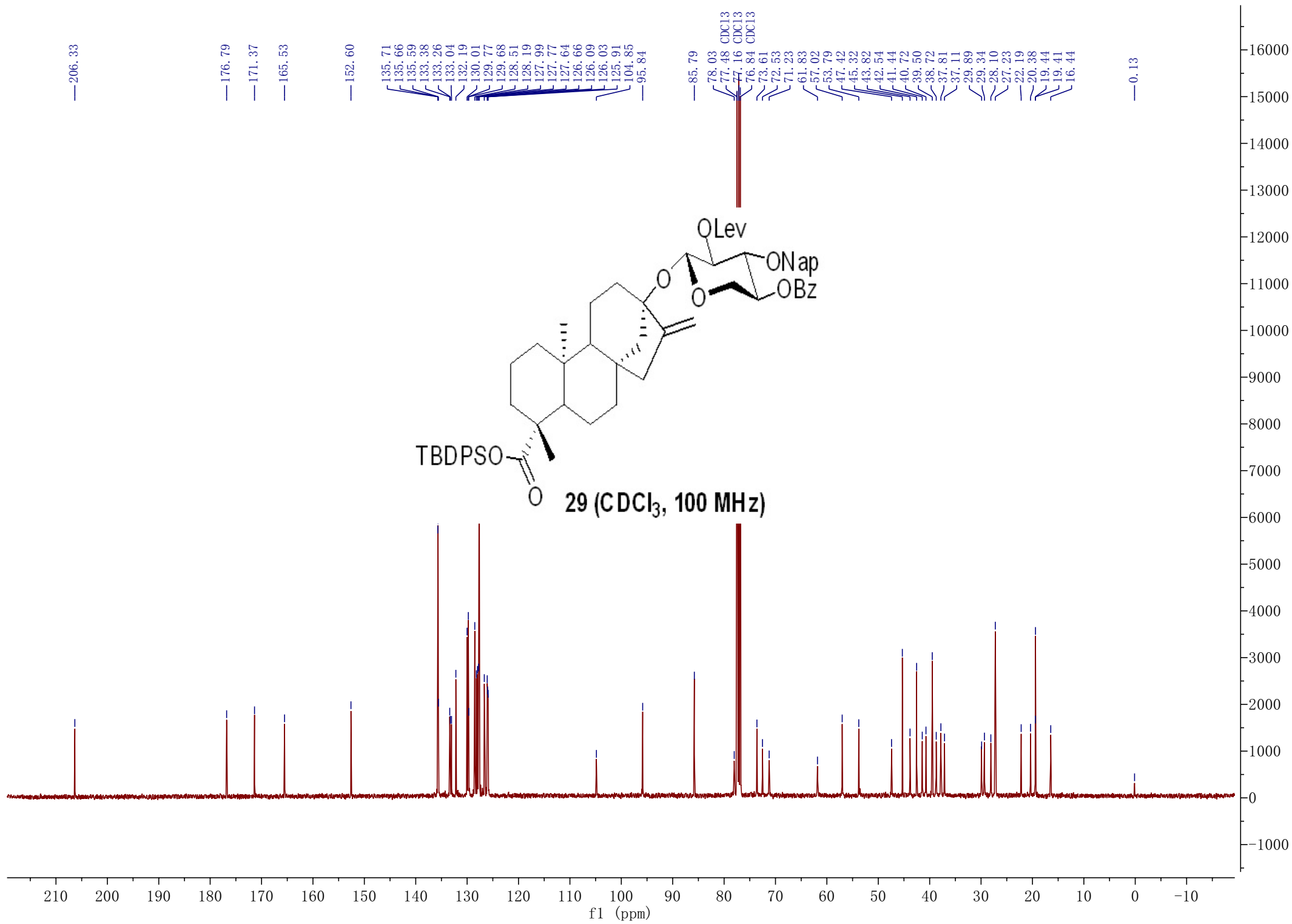


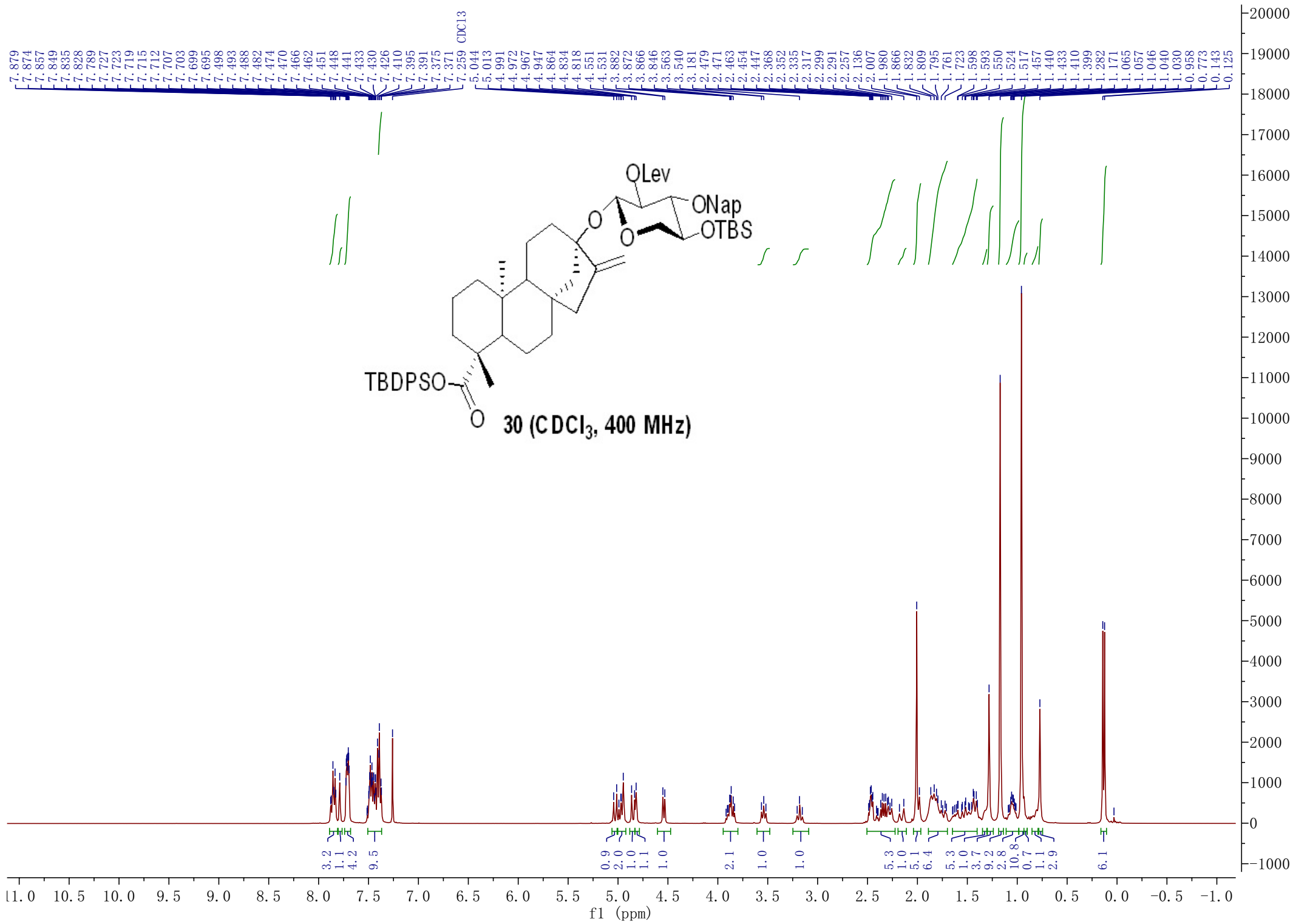












— 206.26

— 176.74

— 171.22

— 152.45

136.17

135.65

135.61

133.27

132.93

132.13

132.07

129.96

127.99

127.96

127.71

127.58

126.48

126.13

126.04

125.82

— 104.72

— 96.72

85.50

82.93

77.48

77.36

77.16

76.84

75.00

73.27

71.63

66.14

56.93

53.62

47.23

45.22

43.98

42.47

41.33

40.63

39.41

38.63

37.64

36.73

29.77

29.28

27.96

27.19

25.84

22.08

20.29

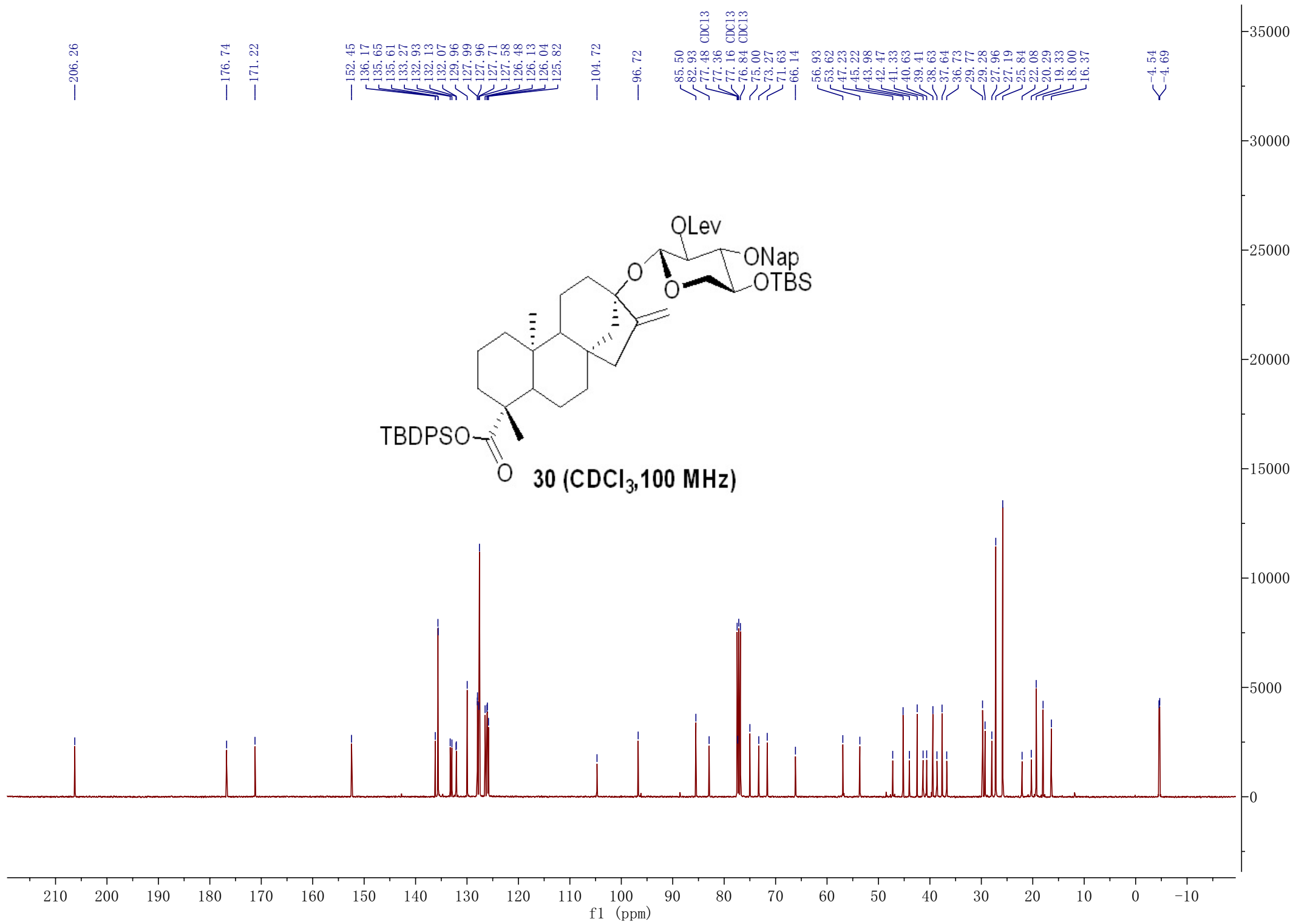
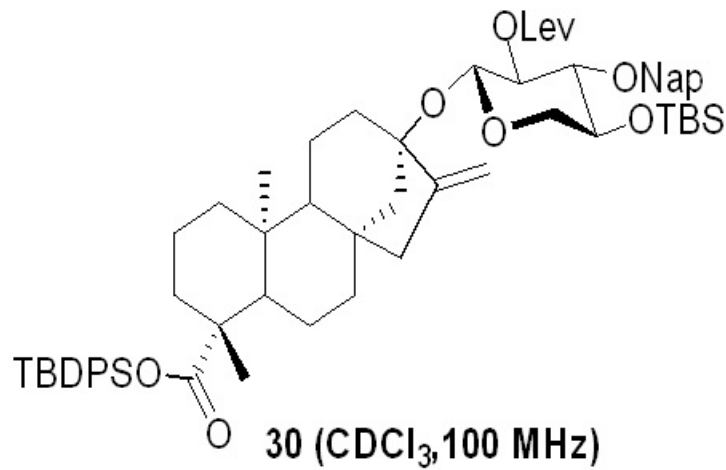
19.33

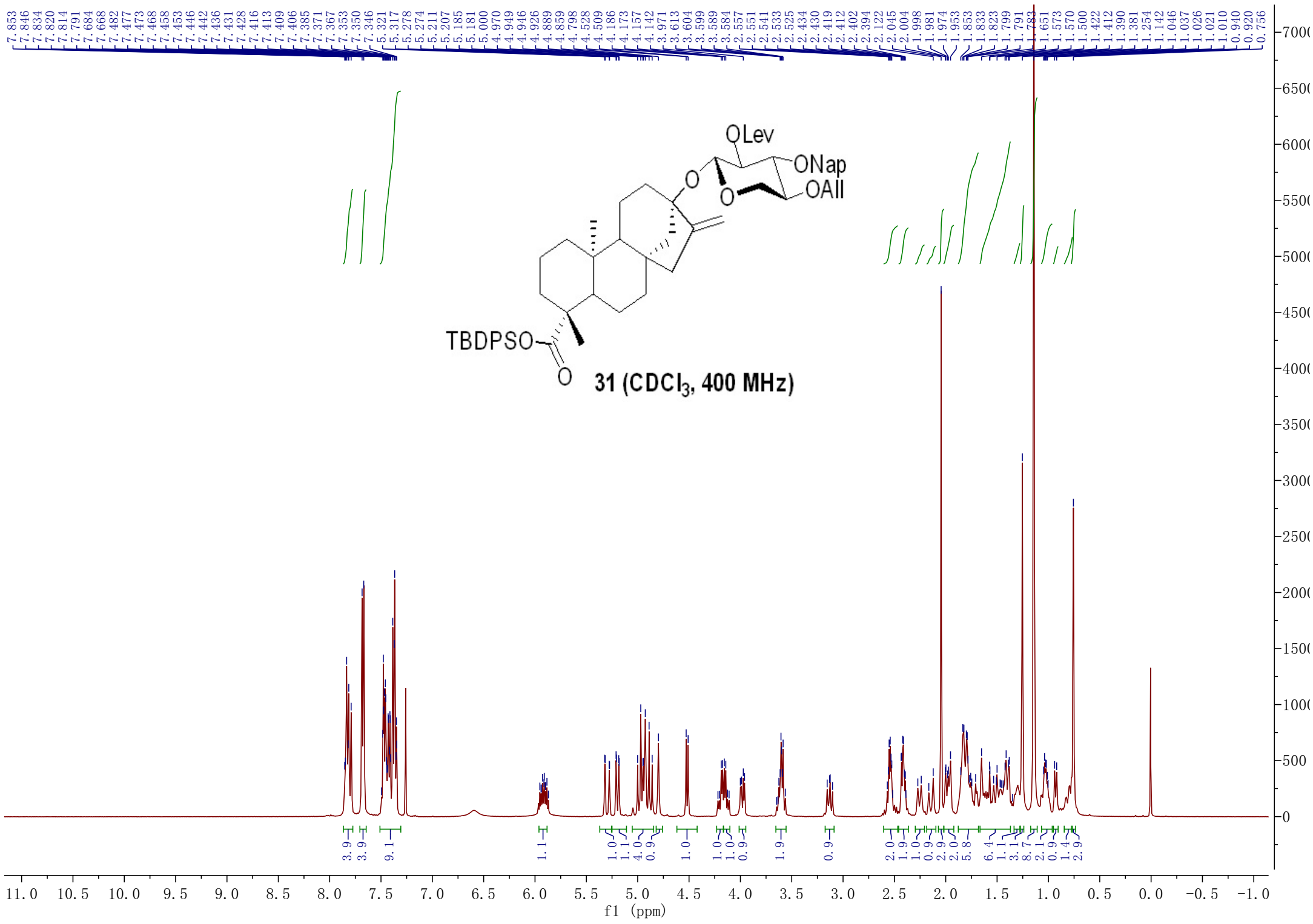
18.00

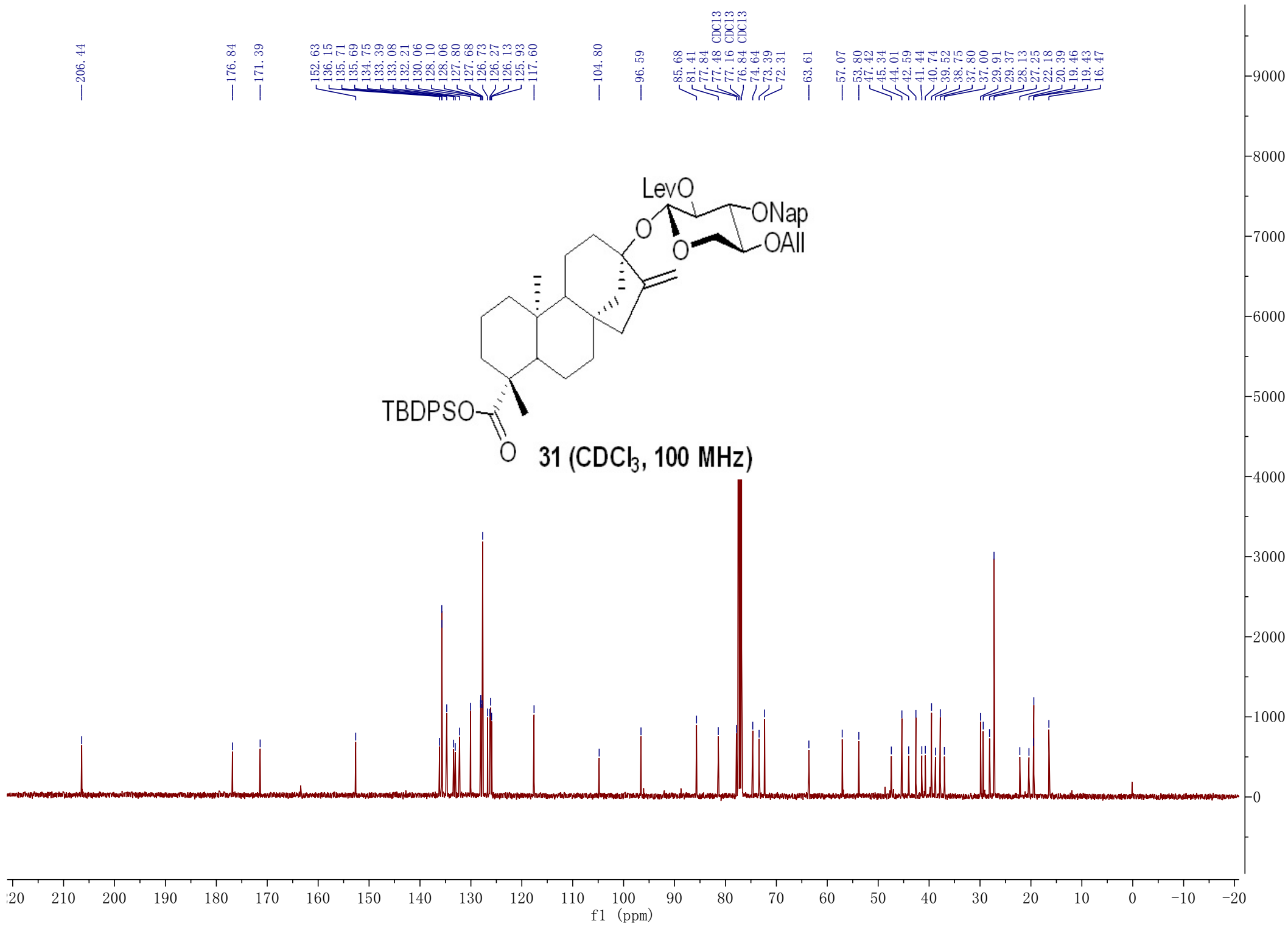
16.37

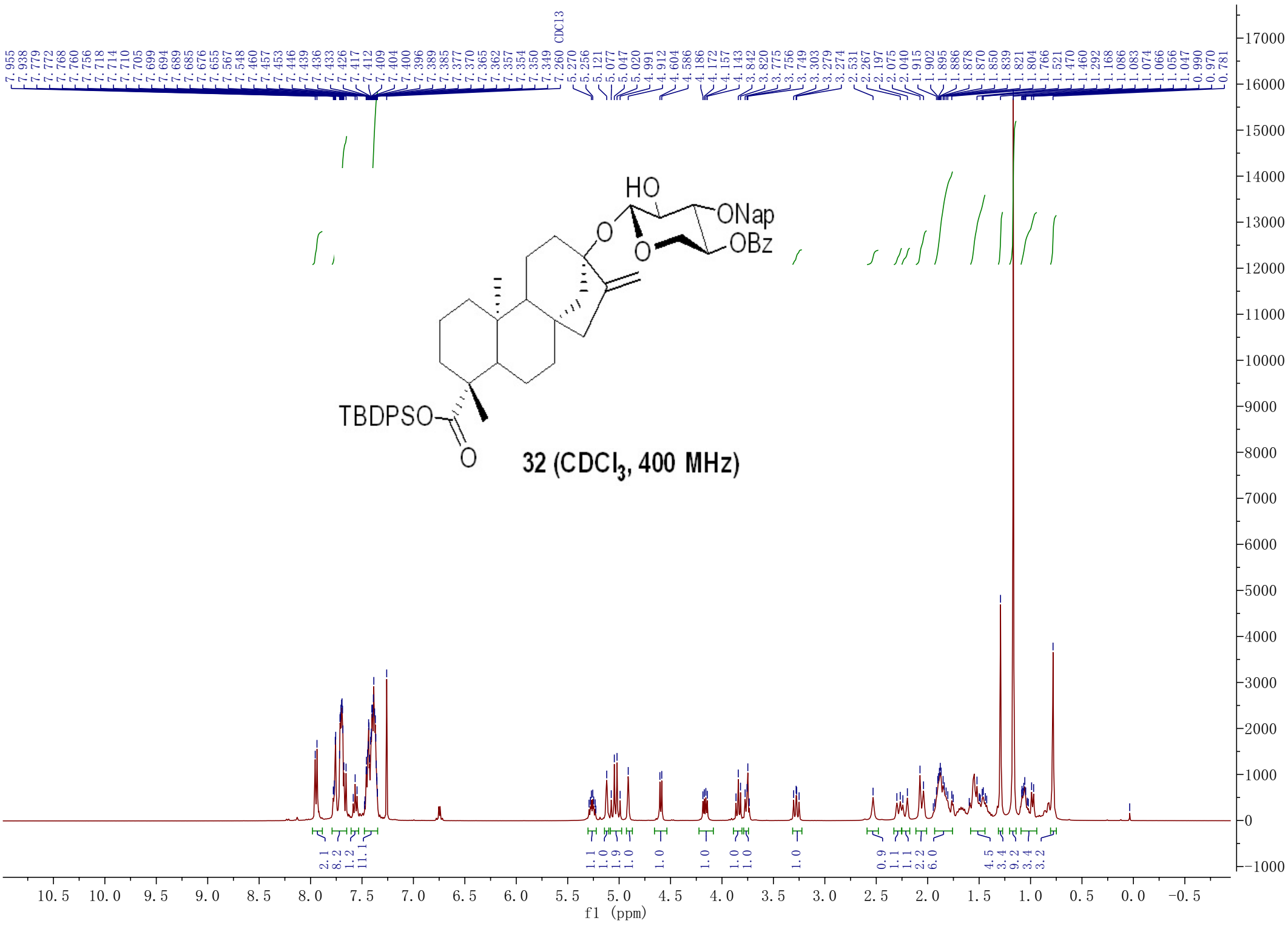
— 4.54

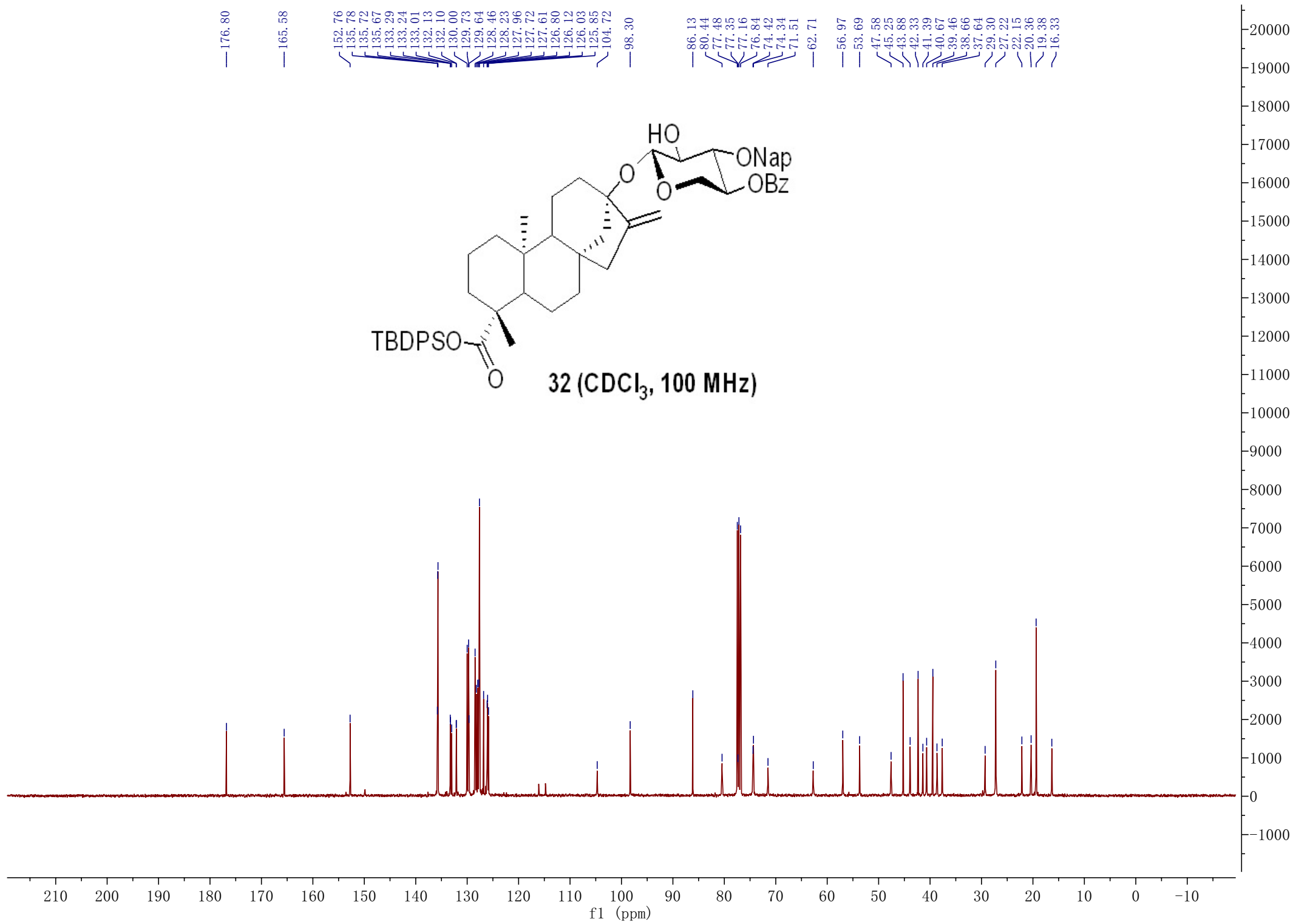
— 4.69

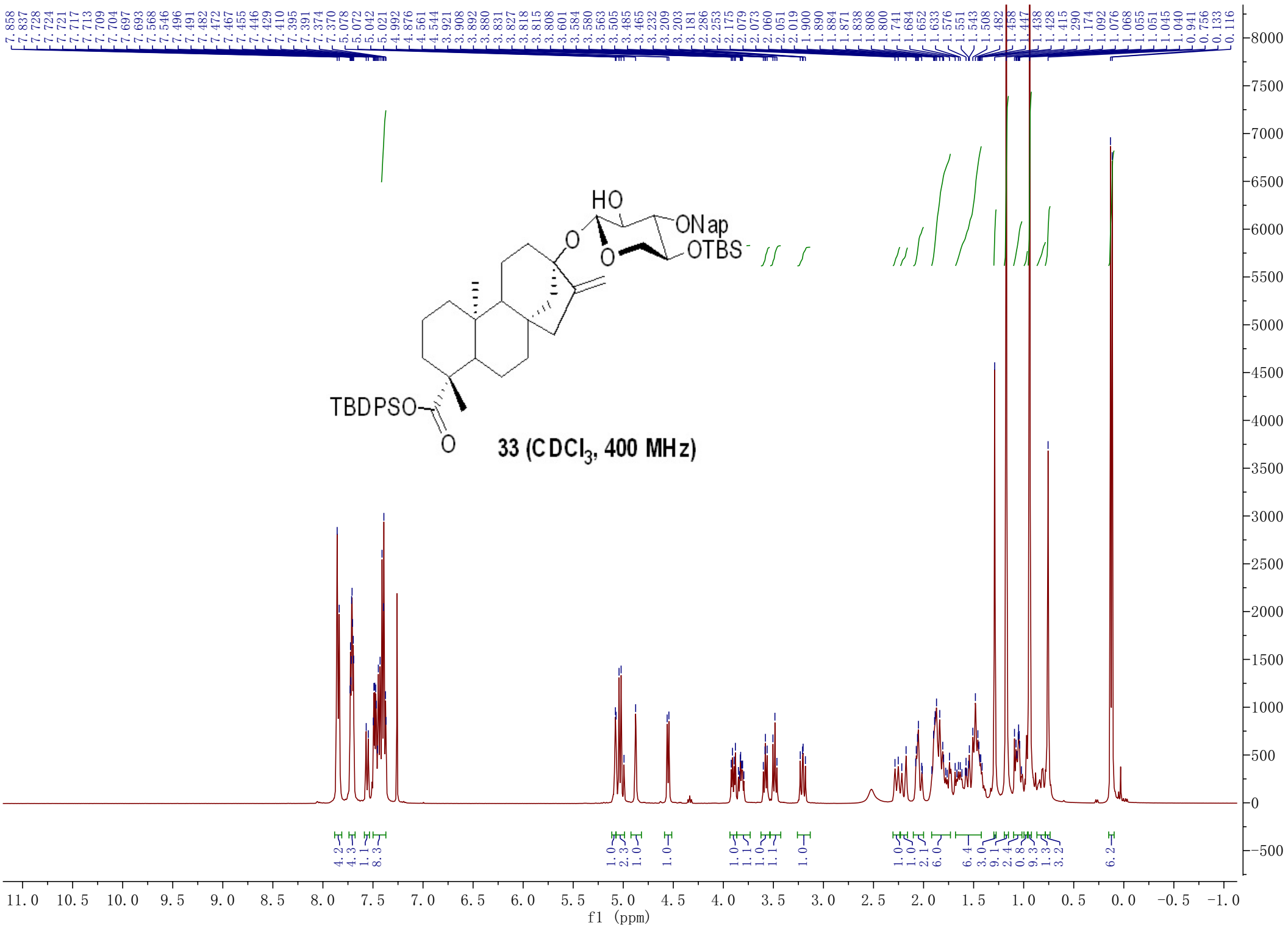


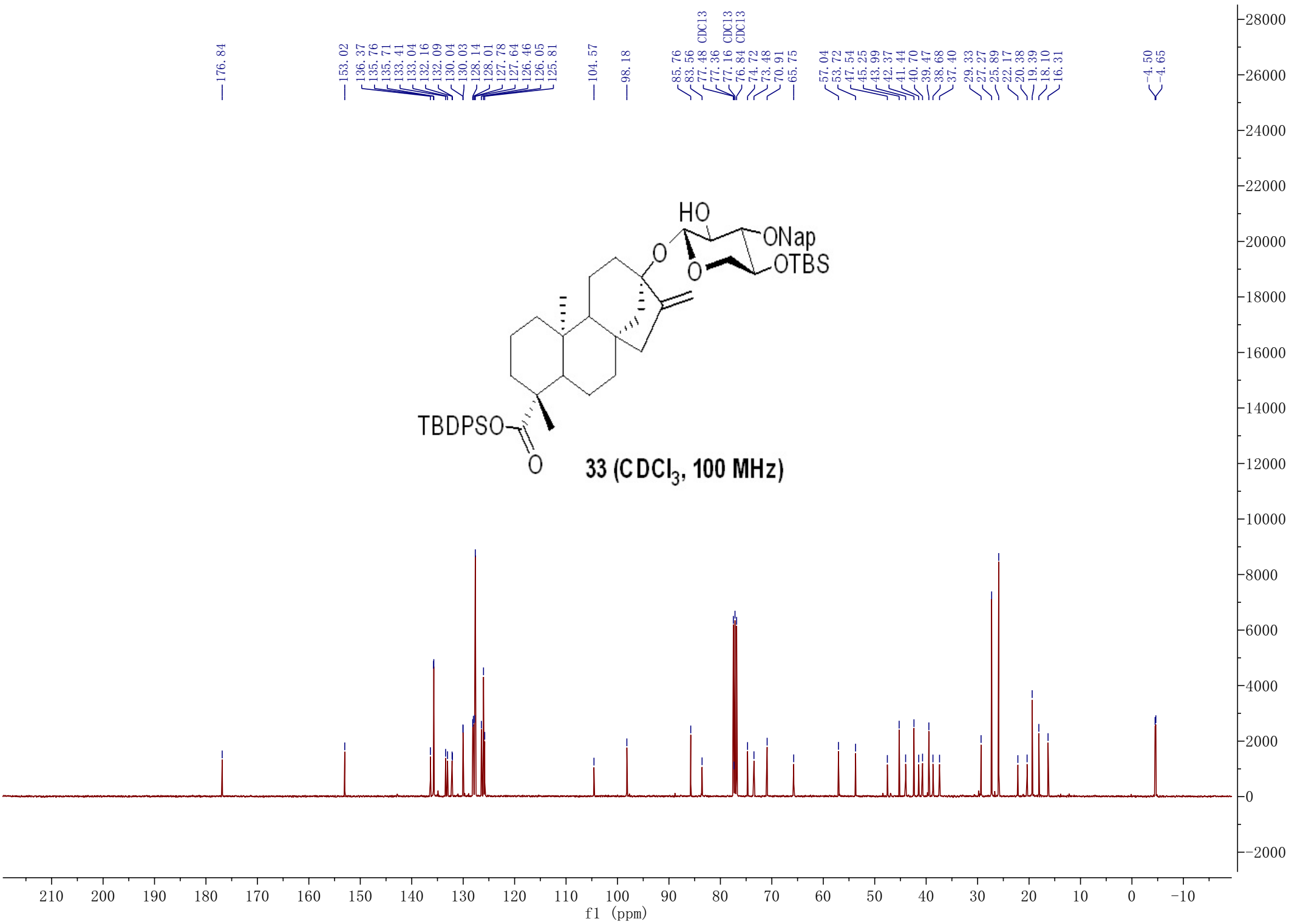


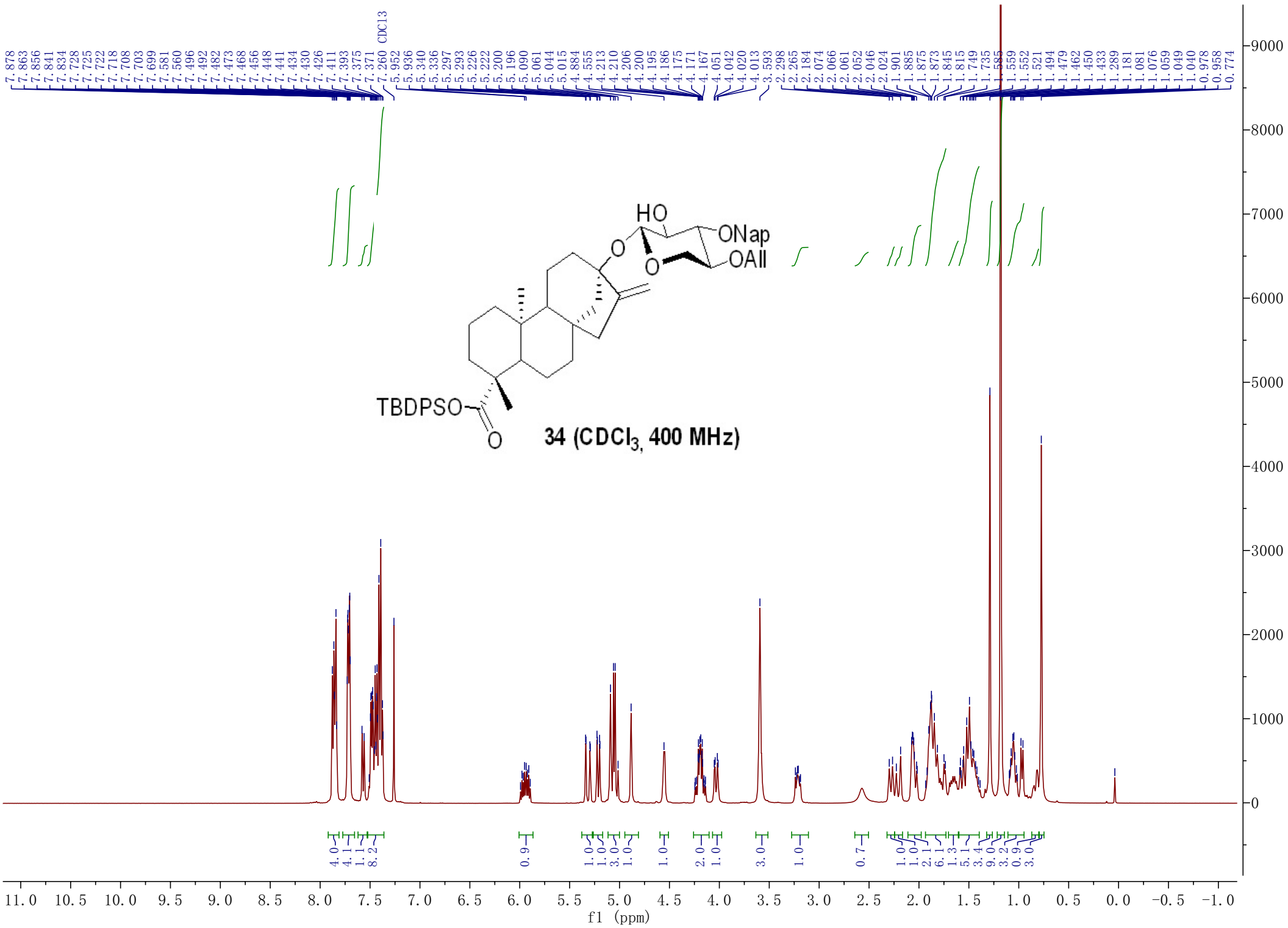


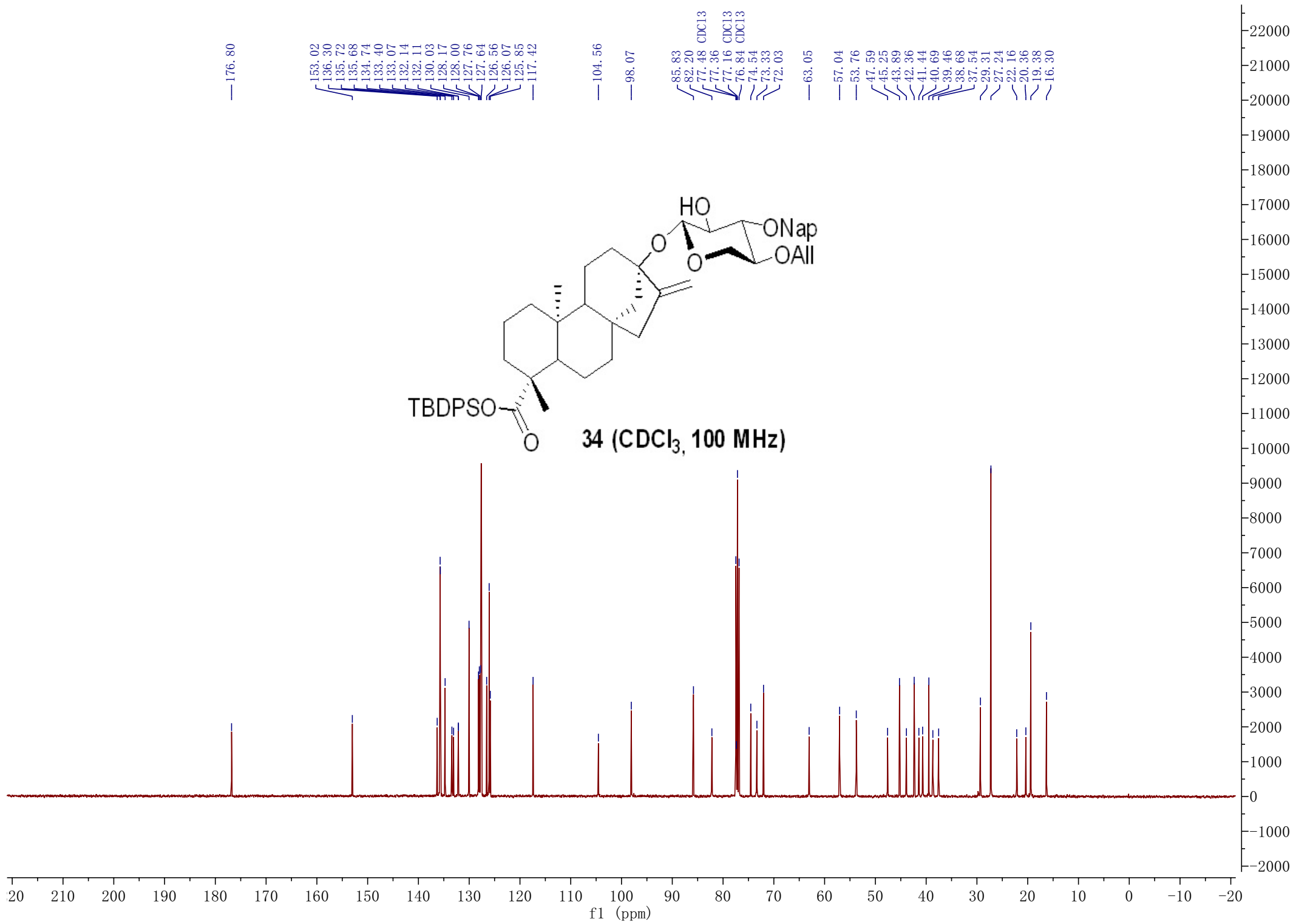


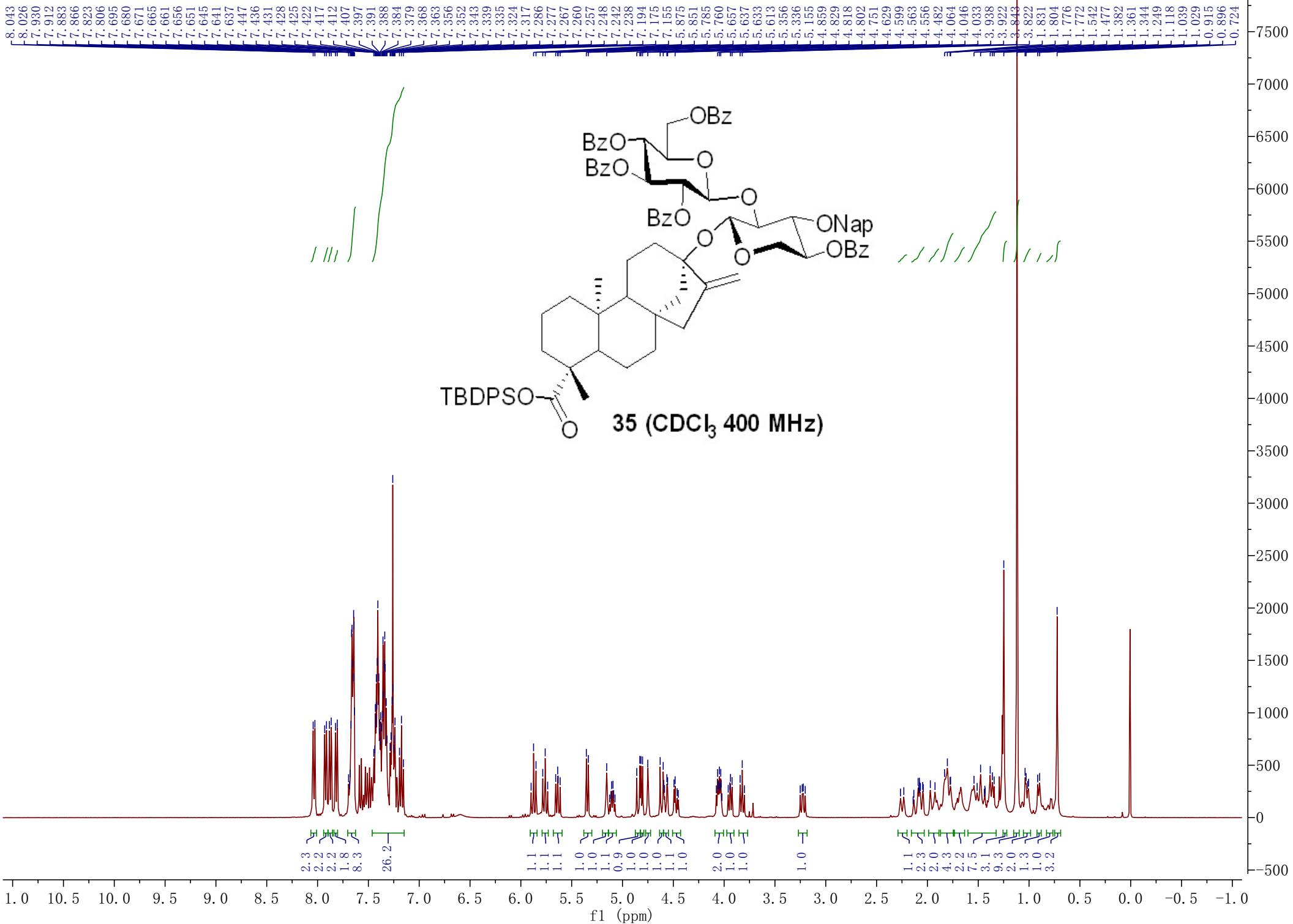


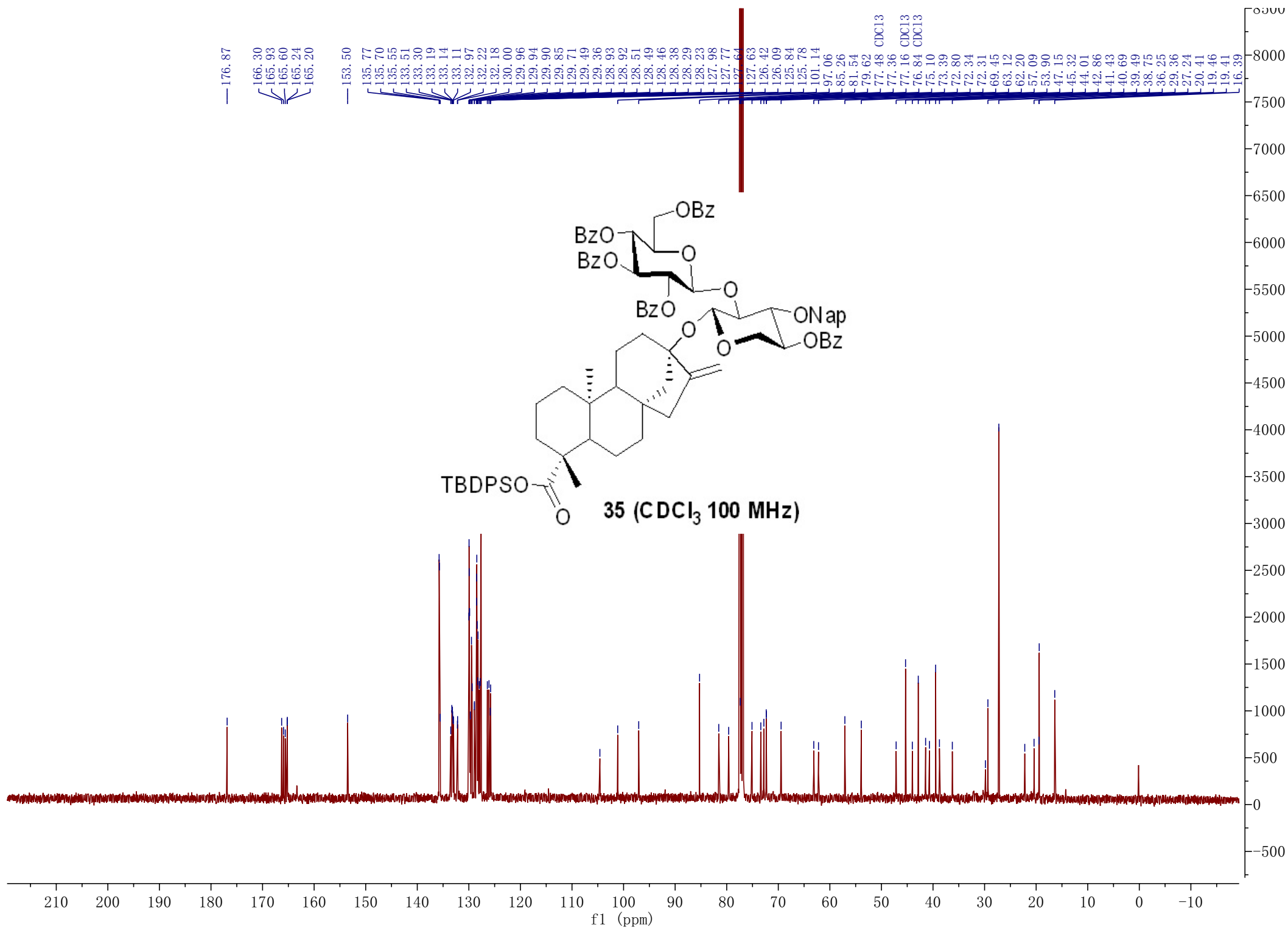


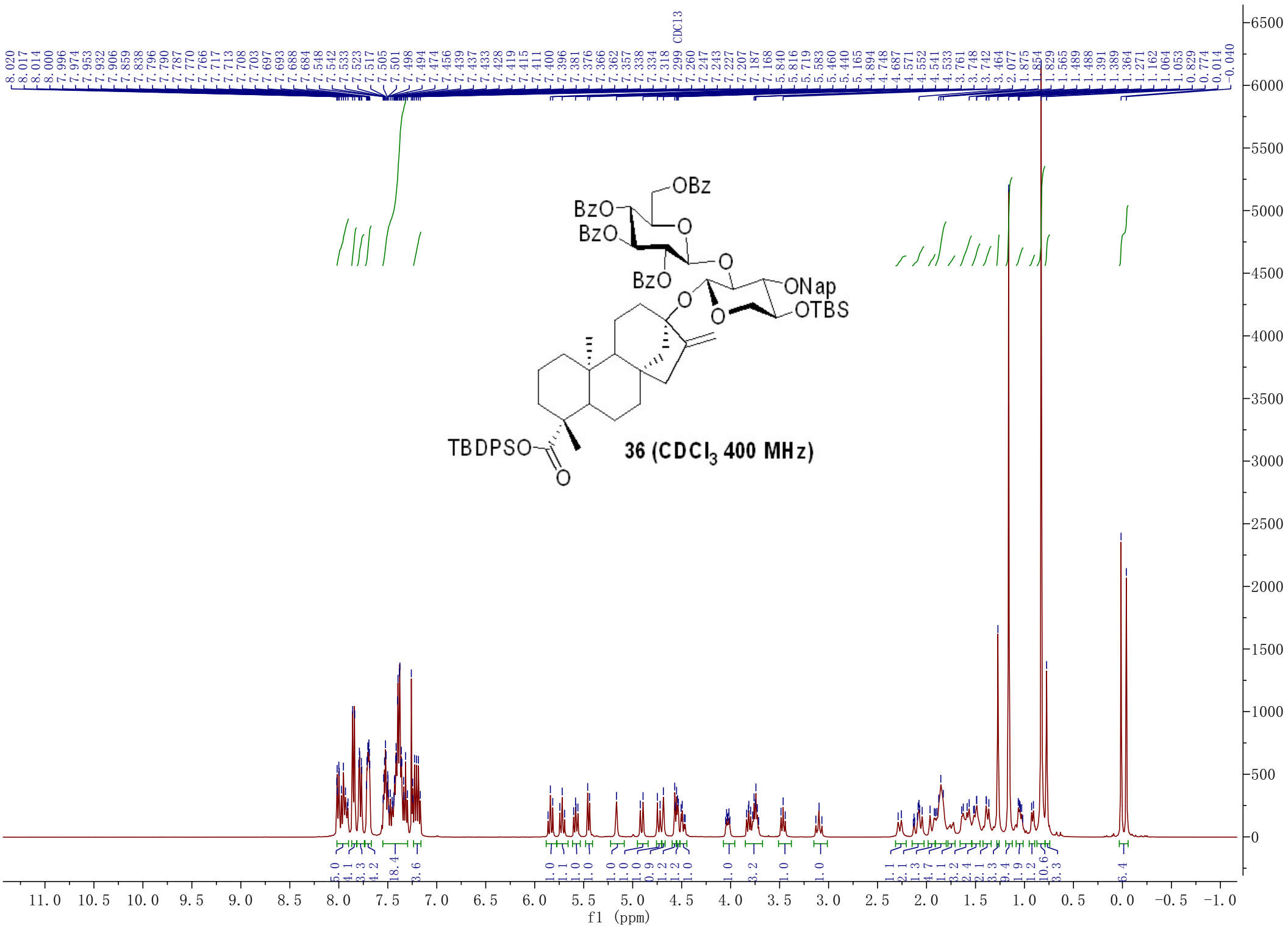


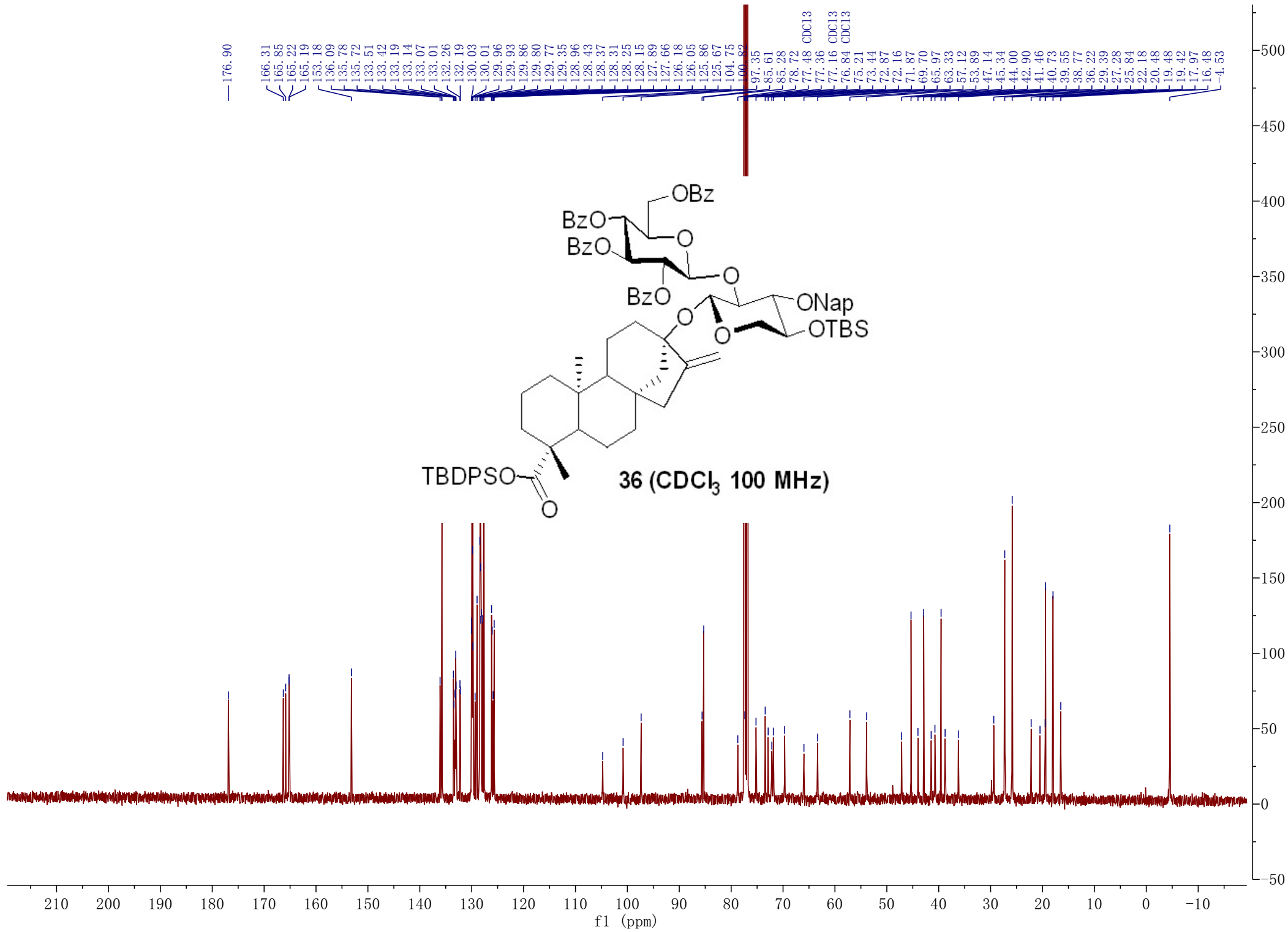


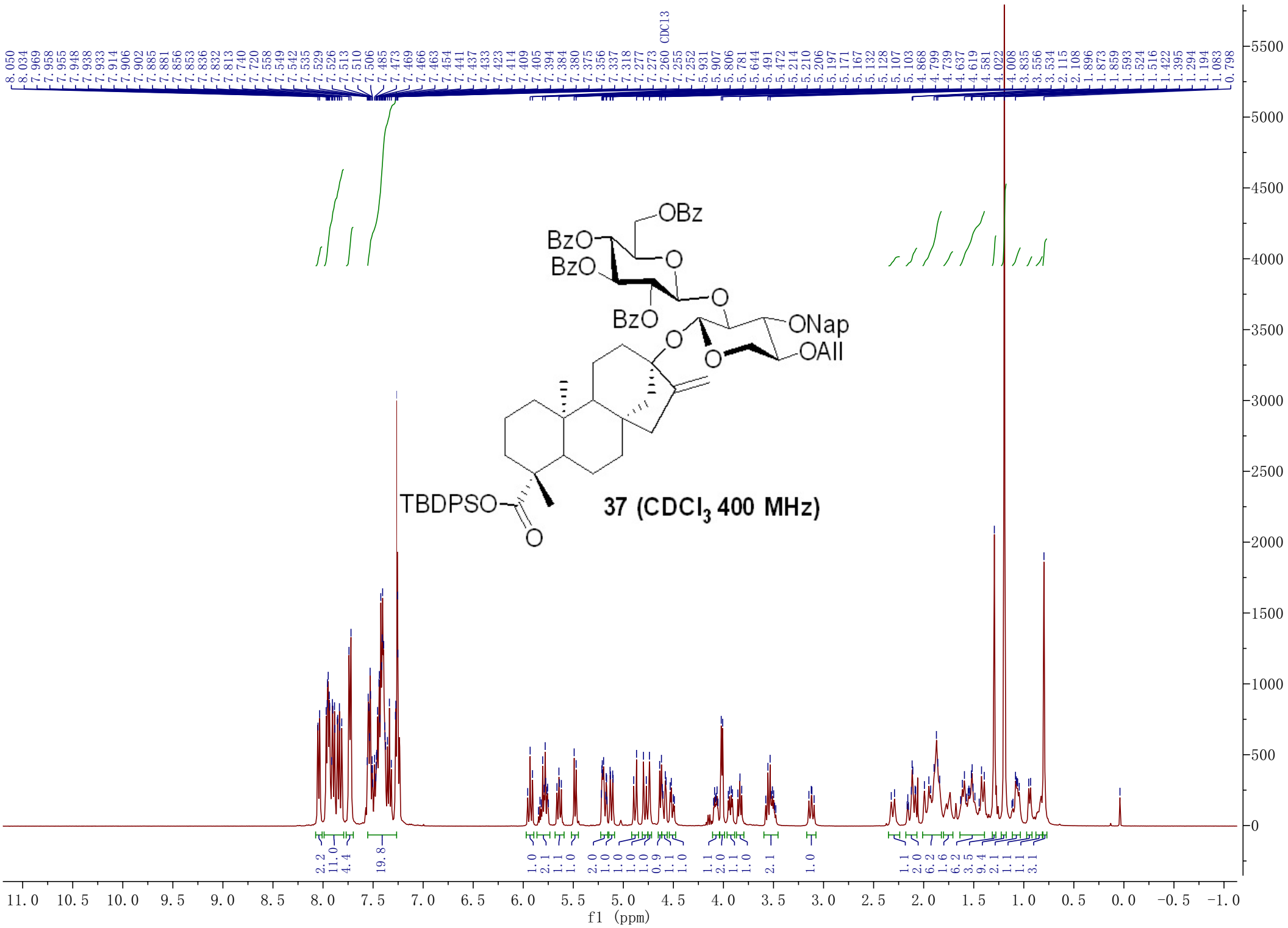


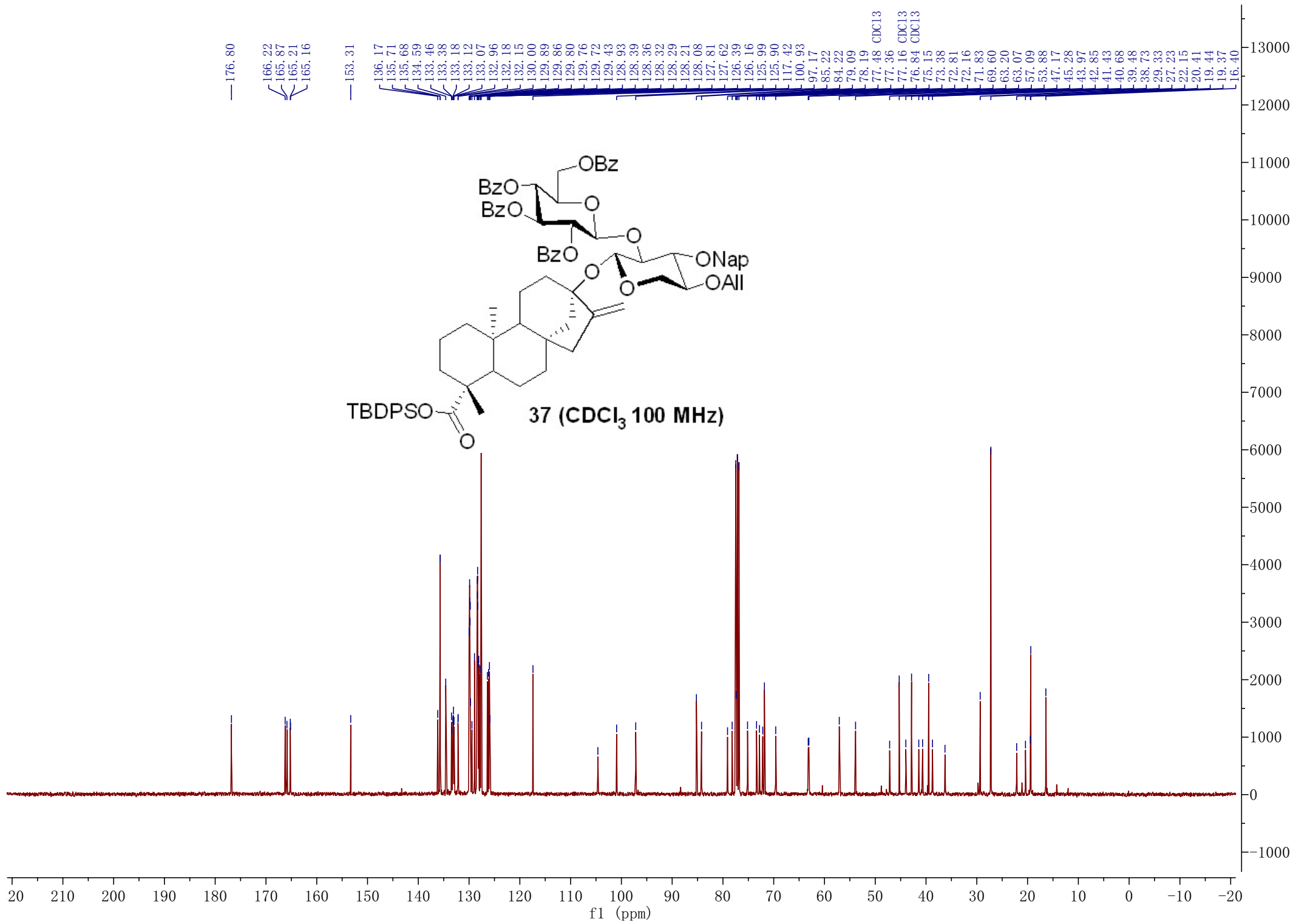


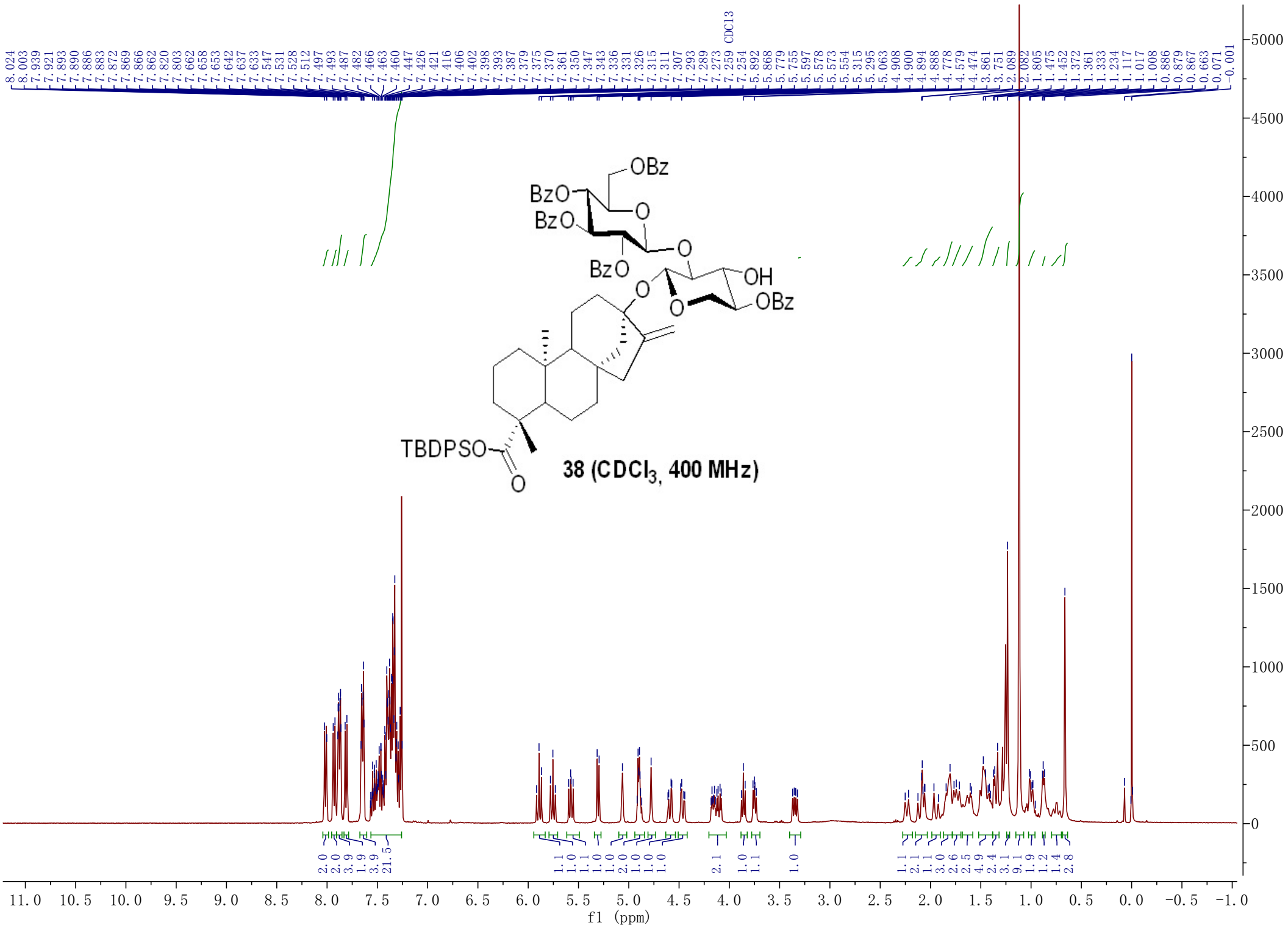


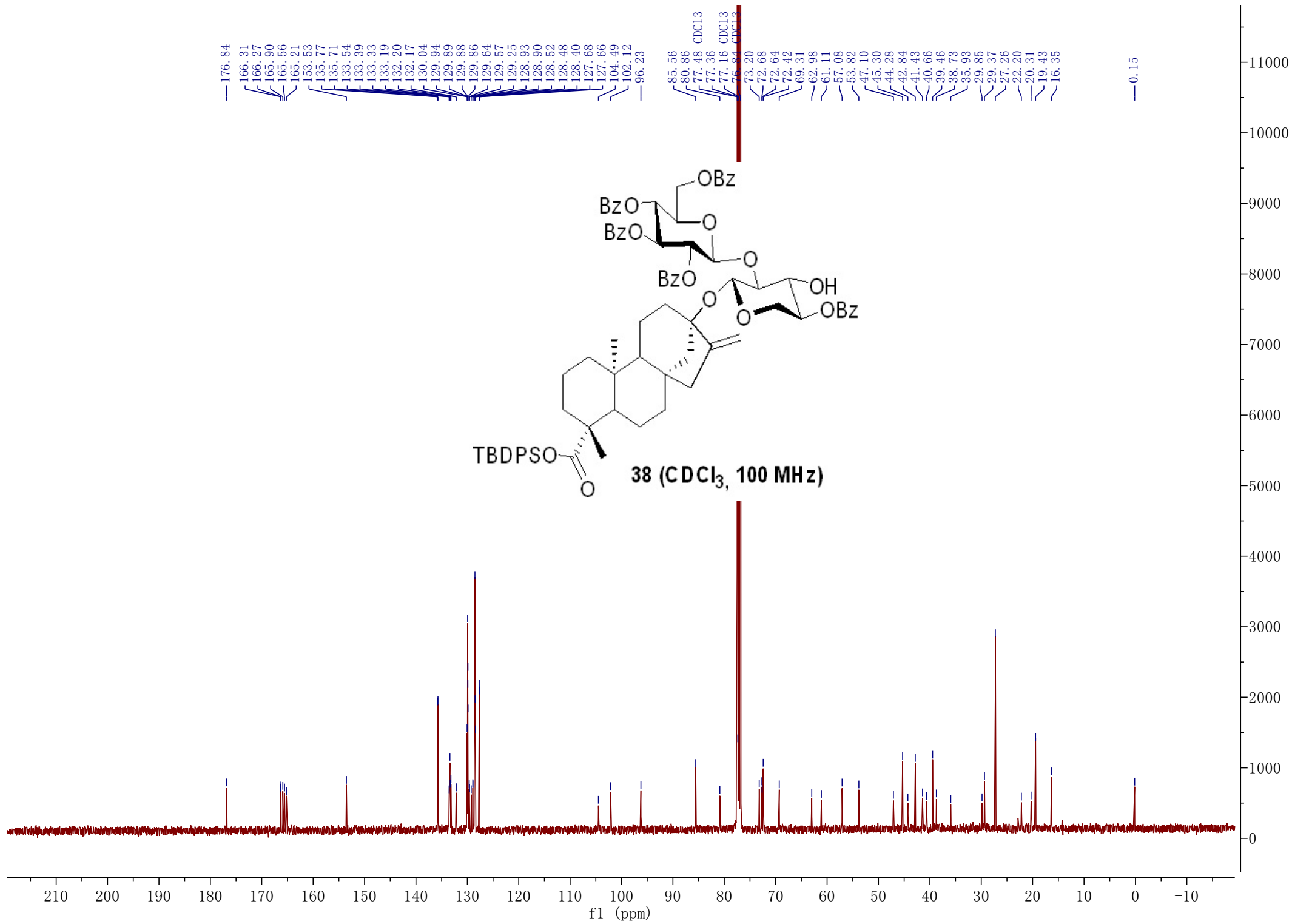


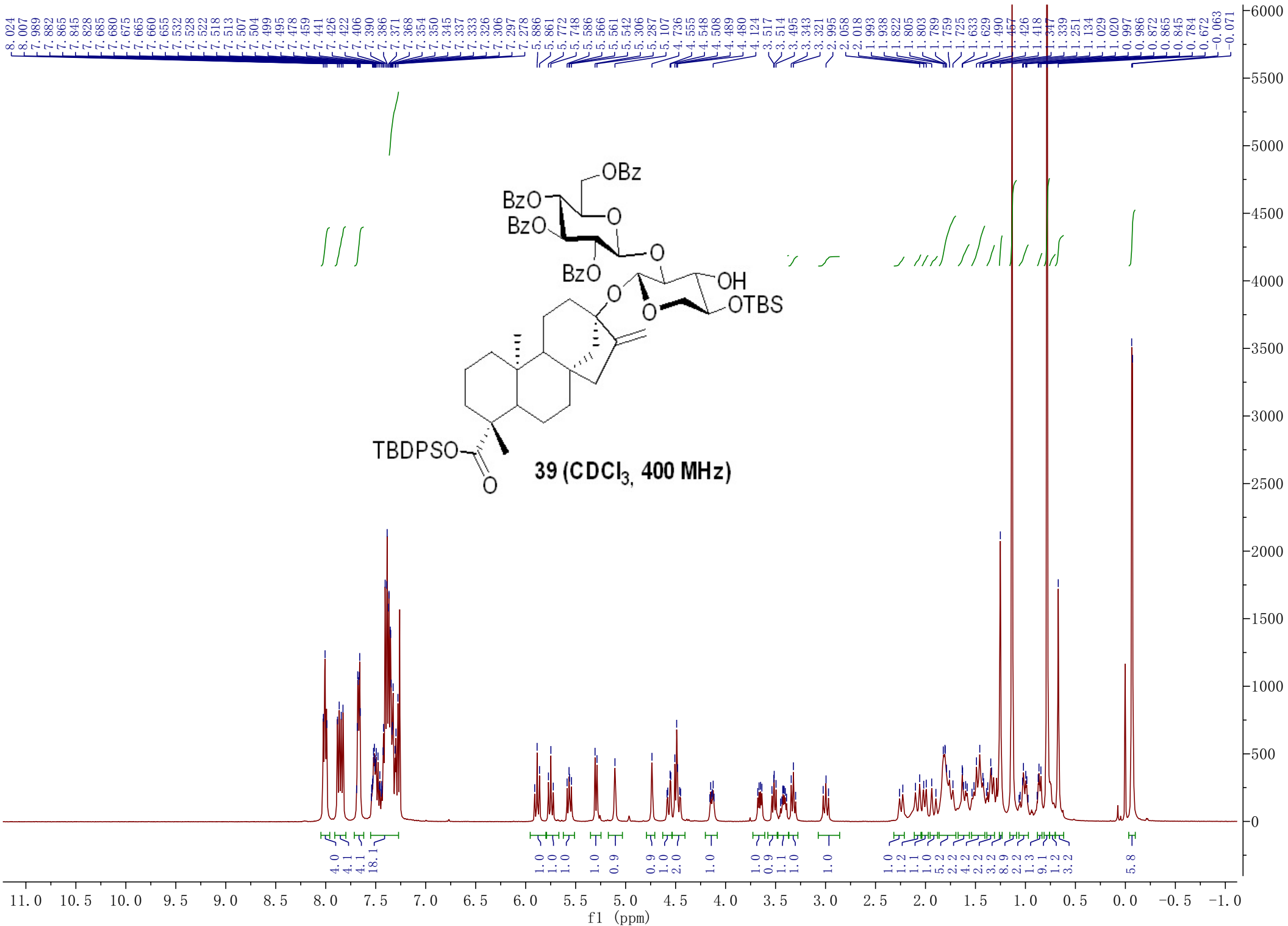


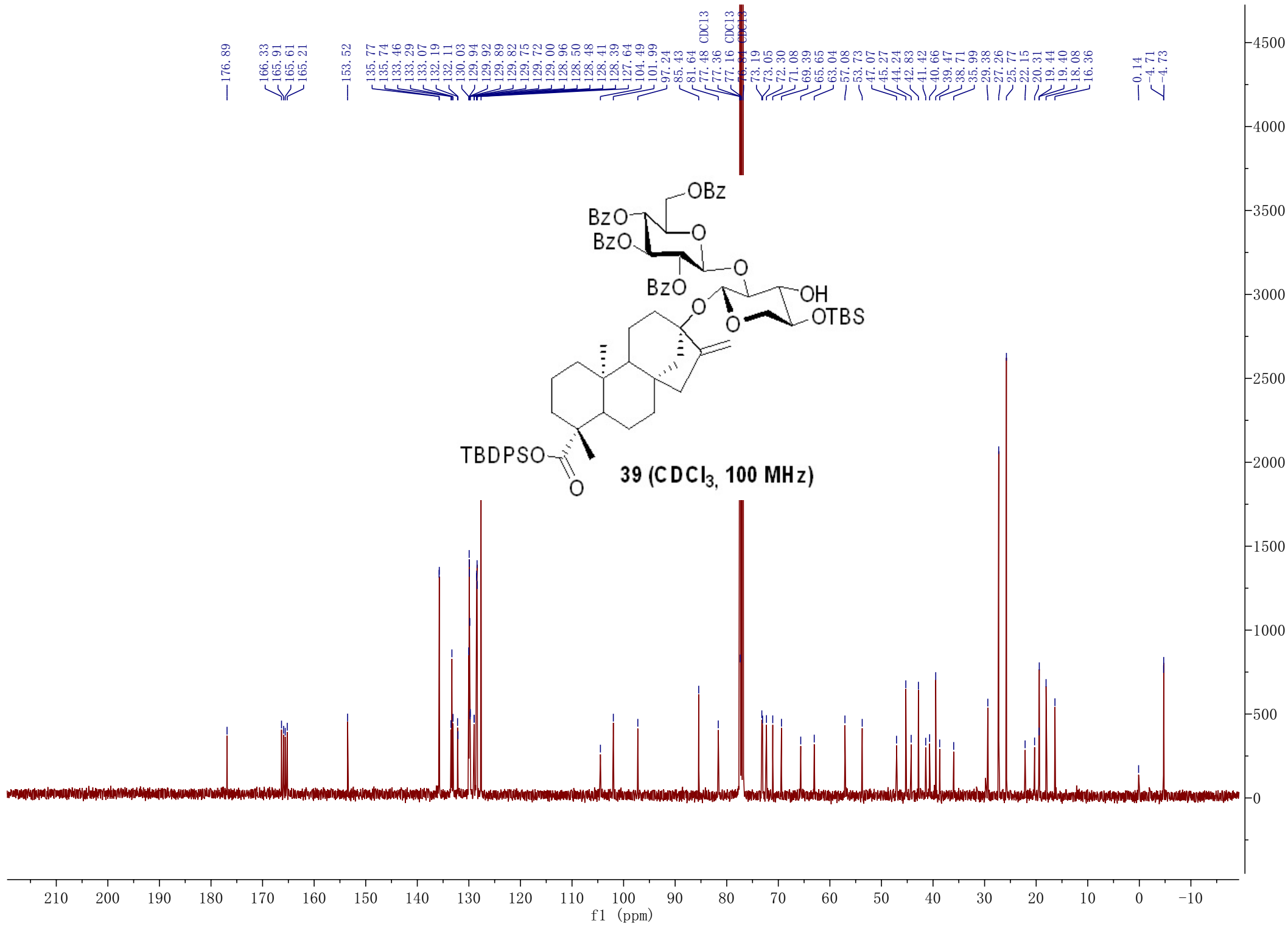


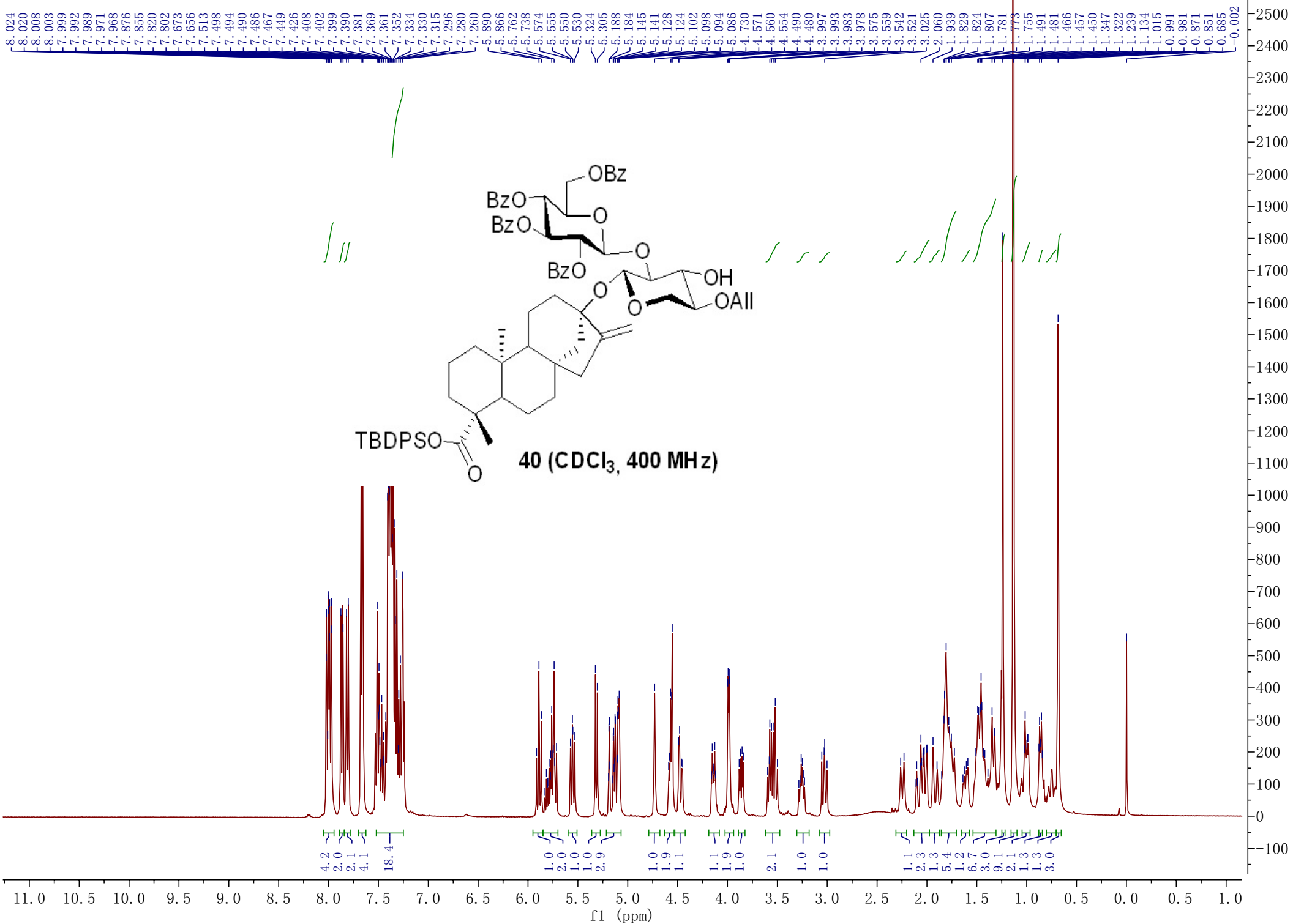


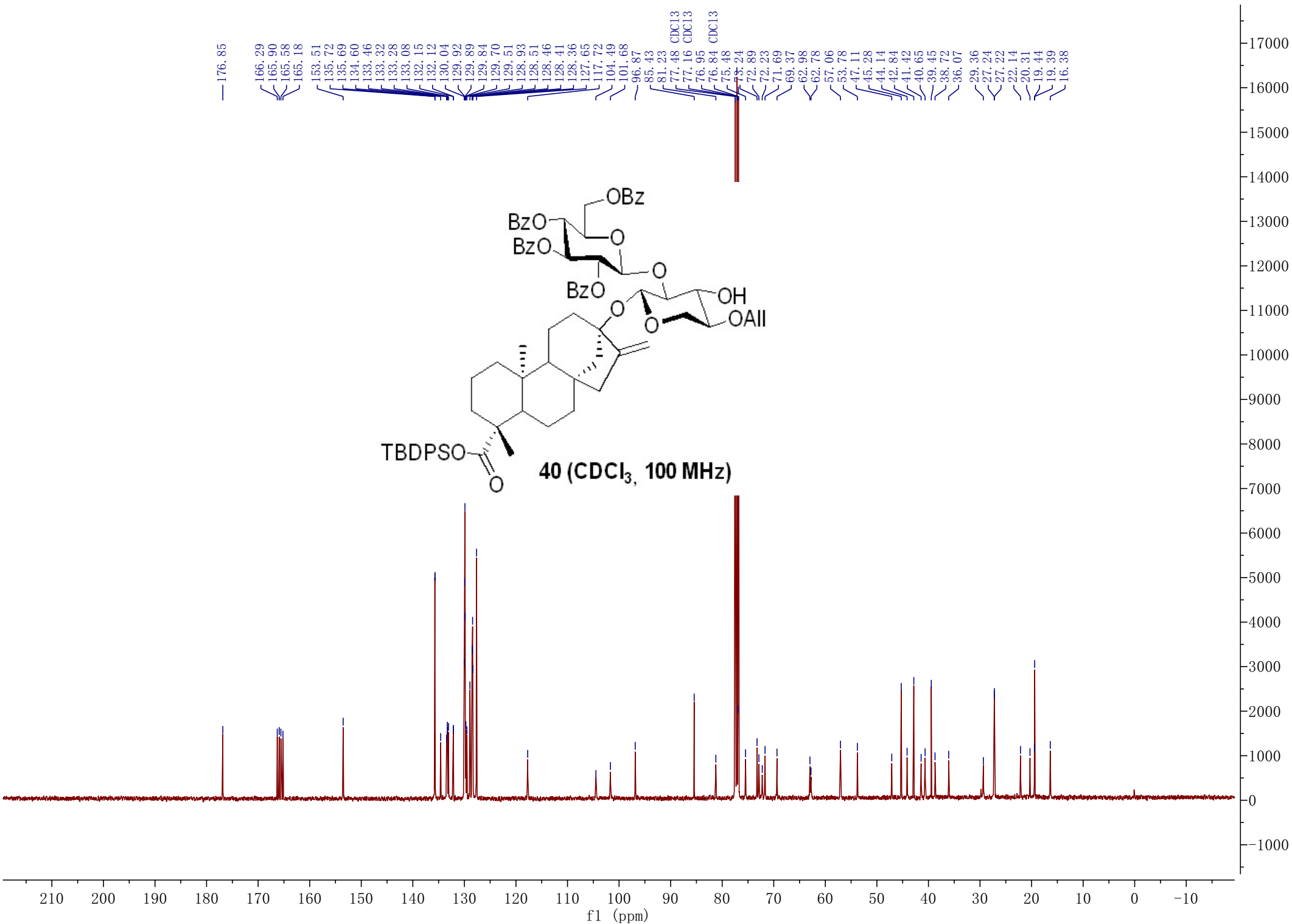


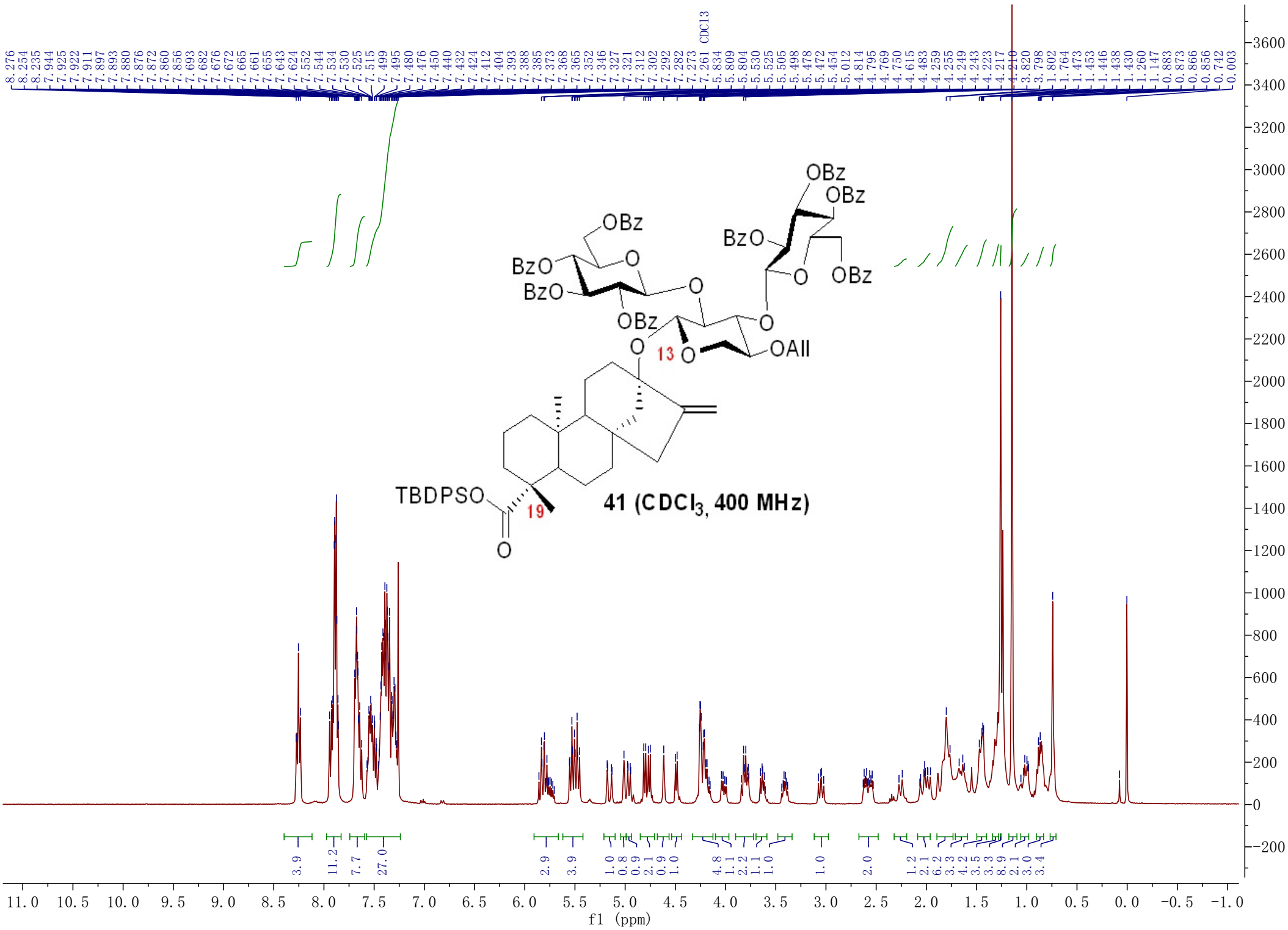




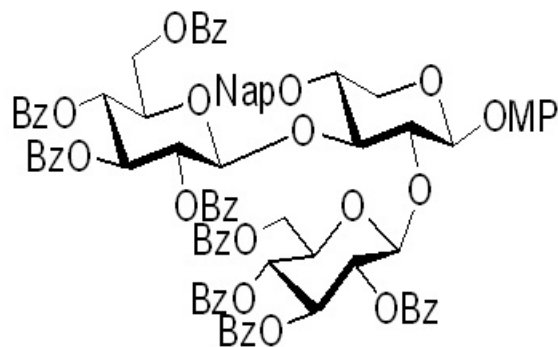




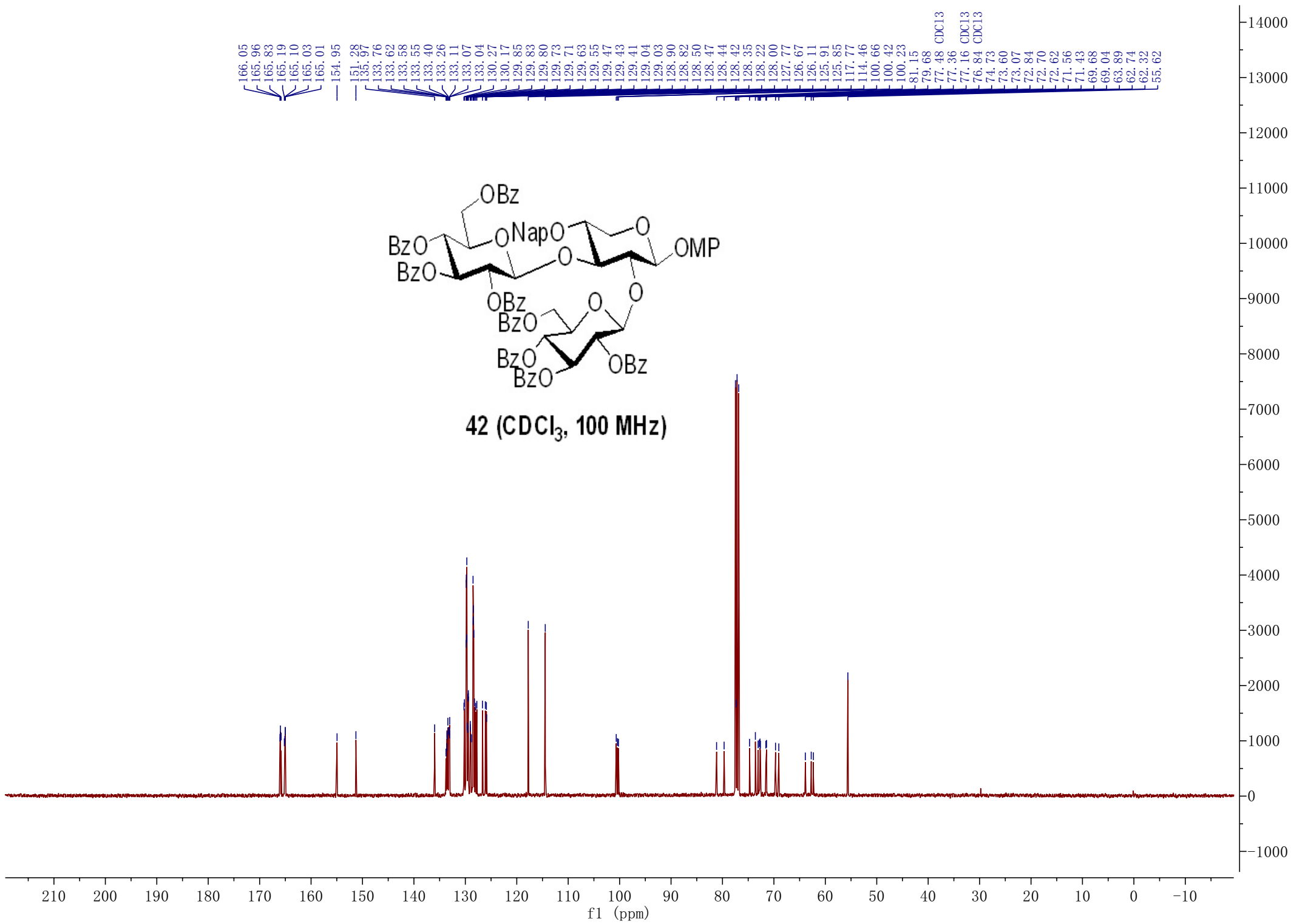


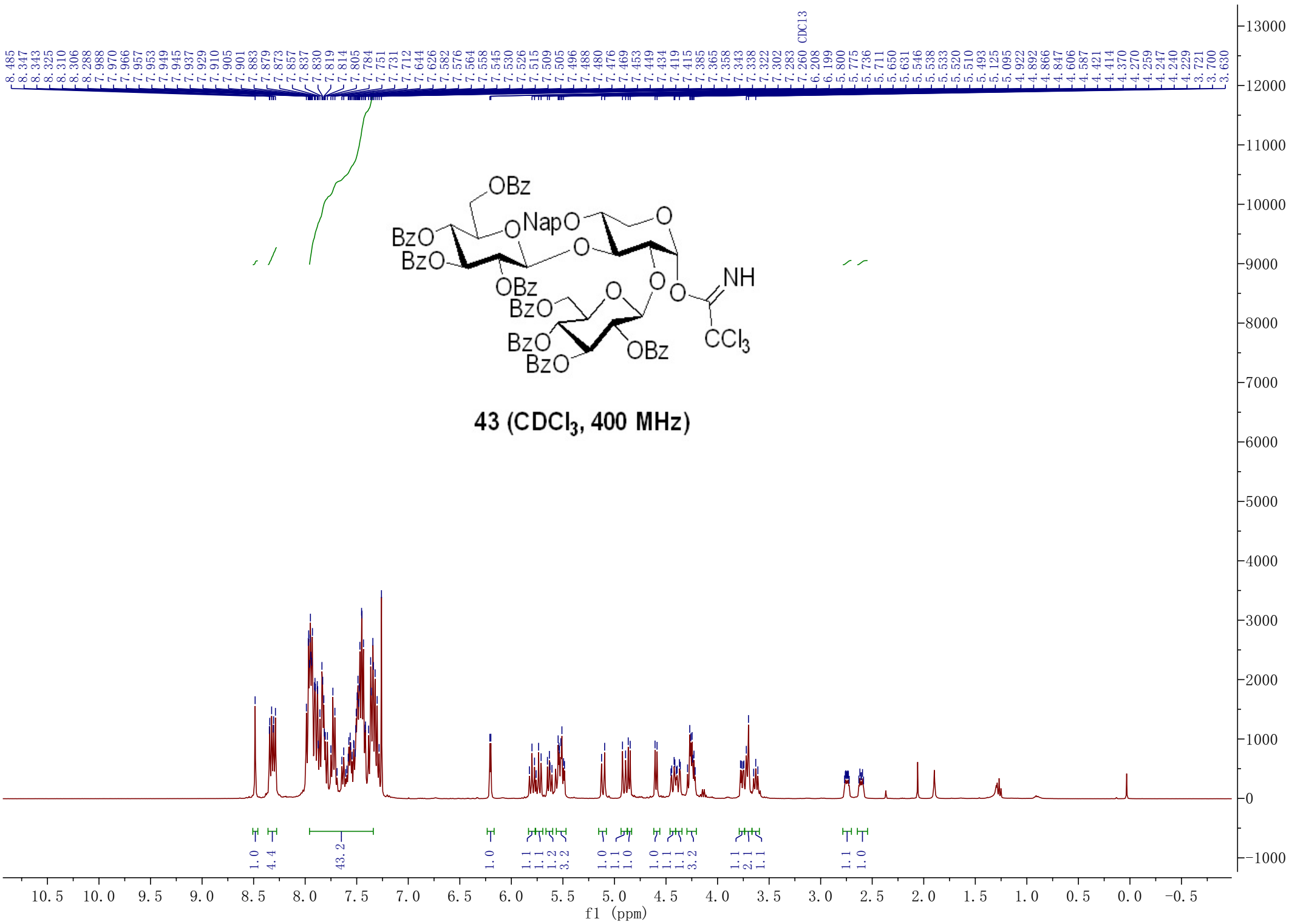


166.05
 165.96
 165.83
 165.19
 165.10
 165.03
 165.01
 154.95
 151.28
 135.97
 133.76
 133.62
 133.58
 133.55
 133.40
 133.26
 133.11
 133.07
 133.04
 130.27
 130.17
 129.85
 129.83
 129.80
 129.73
 129.71
 129.63
 129.55
 129.47
 129.43
 129.41
 129.04
 129.03
 128.90
 128.82
 128.82
 128.50
 128.47
 128.44
 128.42
 128.35
 128.22
 128.22
 128.00
 127.77
 126.67
 126.11
 125.91
 125.85
 117.77
 114.46
 100.66
 100.42
 100.23
 81.15
 79.68
 77.48 CDCl₃
 77.36
 77.16 CDCl₃
 76.84 CDCl₃
 74.73
 73.60
 73.07
 72.84
 72.70
 72.62
 71.56
 71.43
 69.68
 69.04
 63.89
 62.74
 62.32
 55.62

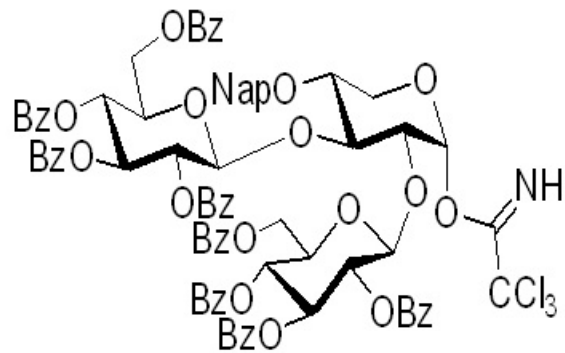


42 (CDCl₃, 100 MHz)

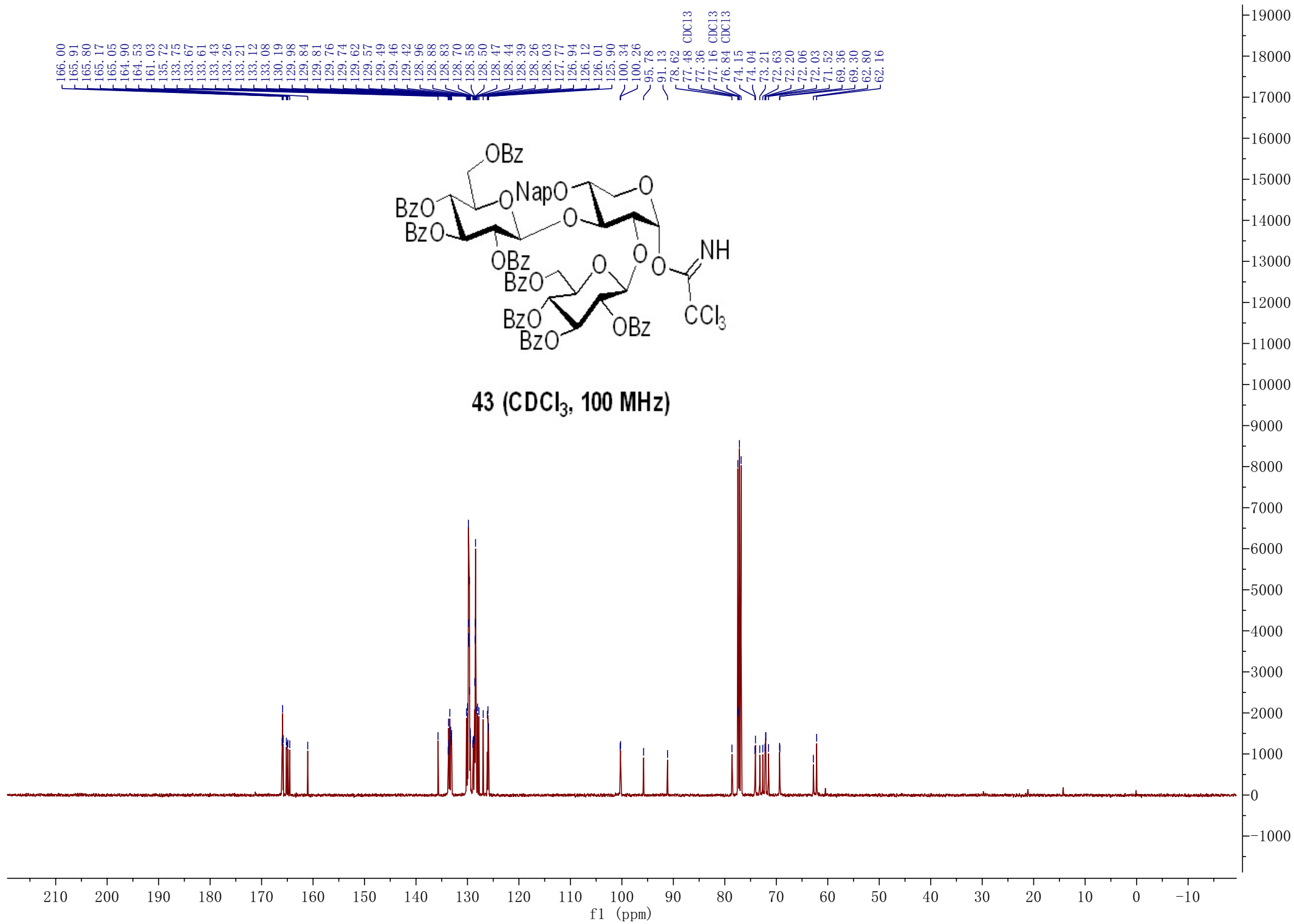


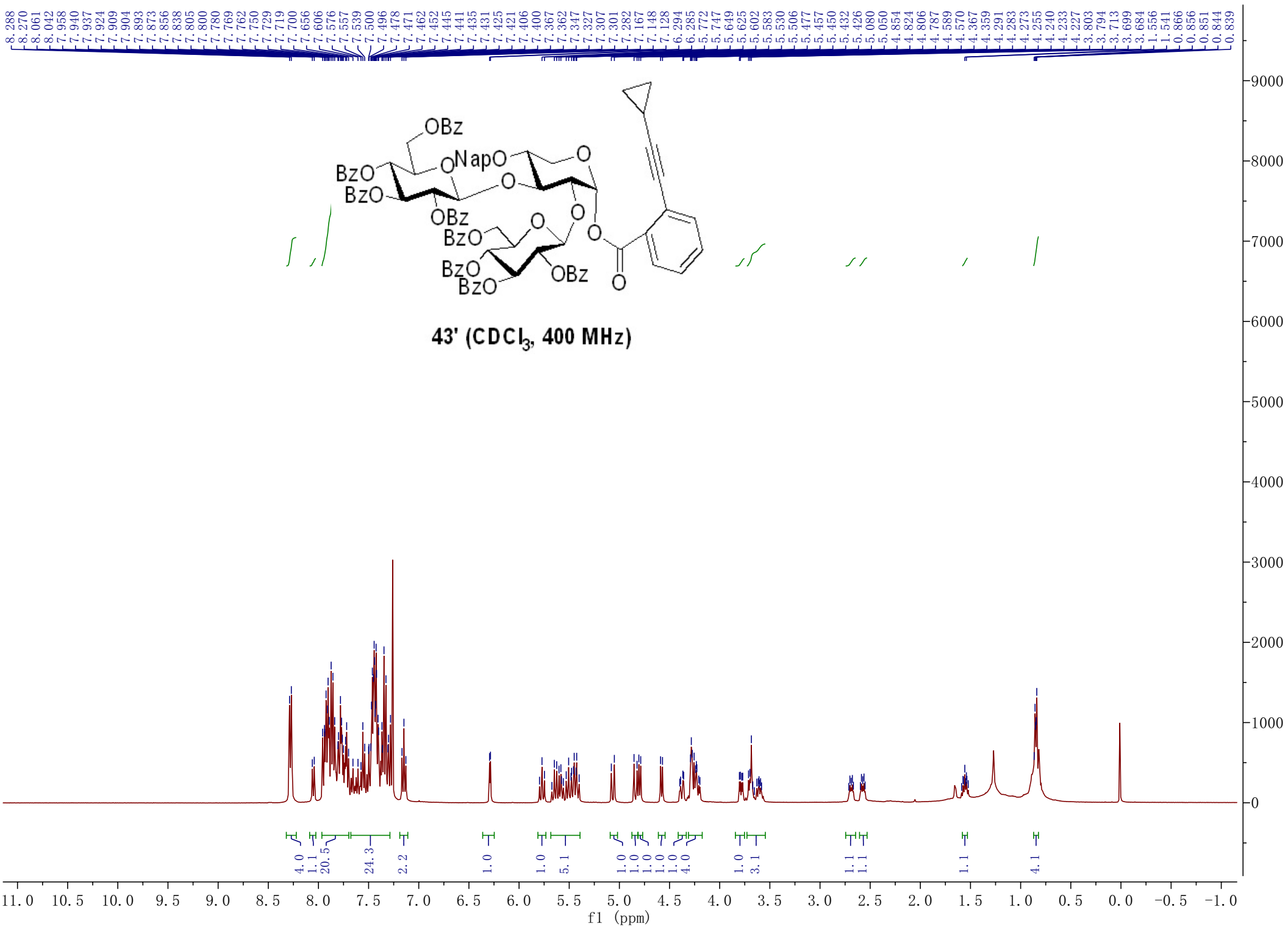


166.00
165.91
165.80
165.17
165.05
164.90
164.53
161.03
135.72
133.75
133.67
133.61
133.43
133.26
133.21
133.12
133.08
130.19
129.98
129.84
129.81
129.76
129.74
129.62
129.57
129.49
129.46
129.42
128.96
128.88
128.83
128.70
128.58
128.50
128.47
128.44
128.39
128.26
128.03
127.77
126.94
126.12
126.01
125.90
100.34
100.26
95.78
91.13
78.62
77.48 CDCl₃
77.36
77.16 CDCl₃
76.84 CDCl₃
74.15
74.04
73.21
72.63
72.20
72.06
72.03
71.52
69.36
69.30
62.80
62.16

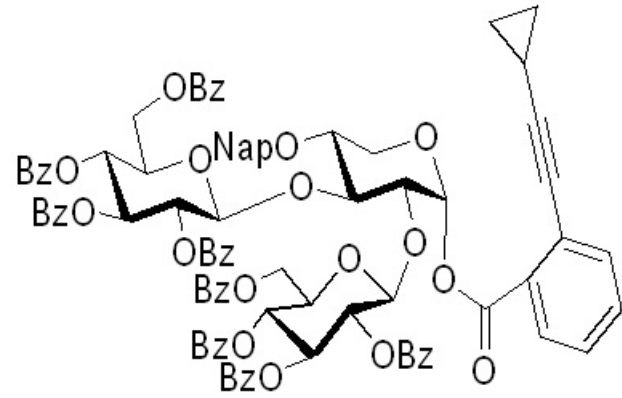


43 (CDCl₃, 100 MHz)





166.01
 165.93
 165.91
 165.90
 165.18
 165.02
 165.00
 164.67
 164.55
 135.92
 134.10
 133.79
 133.75
 133.62
 133.44
 133.41
 133.29
 133.19
 133.08
 133.07
 131.79
 131.74
 131.18
 130.21
 130.12
 129.89
 129.86
 129.81
 129.65
 129.61
 129.51
 129.46
 129.06
 129.03
 128.93
 128.82
 128.58
 128.52
 128.50
 128.47
 128.33
 128.24
 128.05
 127.81
 127.31
 126.77
 126.15
 125.95
 125.90
 124.88
 100.52
 100.46
 99.66
 92.58
 79.11
 77.48 CDCl3
 77.48
 77.36
 77.16 CDCl3
 77.05
 76.84 CDCl3
 74.50
 74.44
 74.10
 73.20
 72.67
 72.32
 72.17
 72.13
 71.33
 69.55
 69.48
 62.69
 62.53
 62.12
 9.13
 9.04
 0.88



43' (CDCl₃, 100 MHz)

