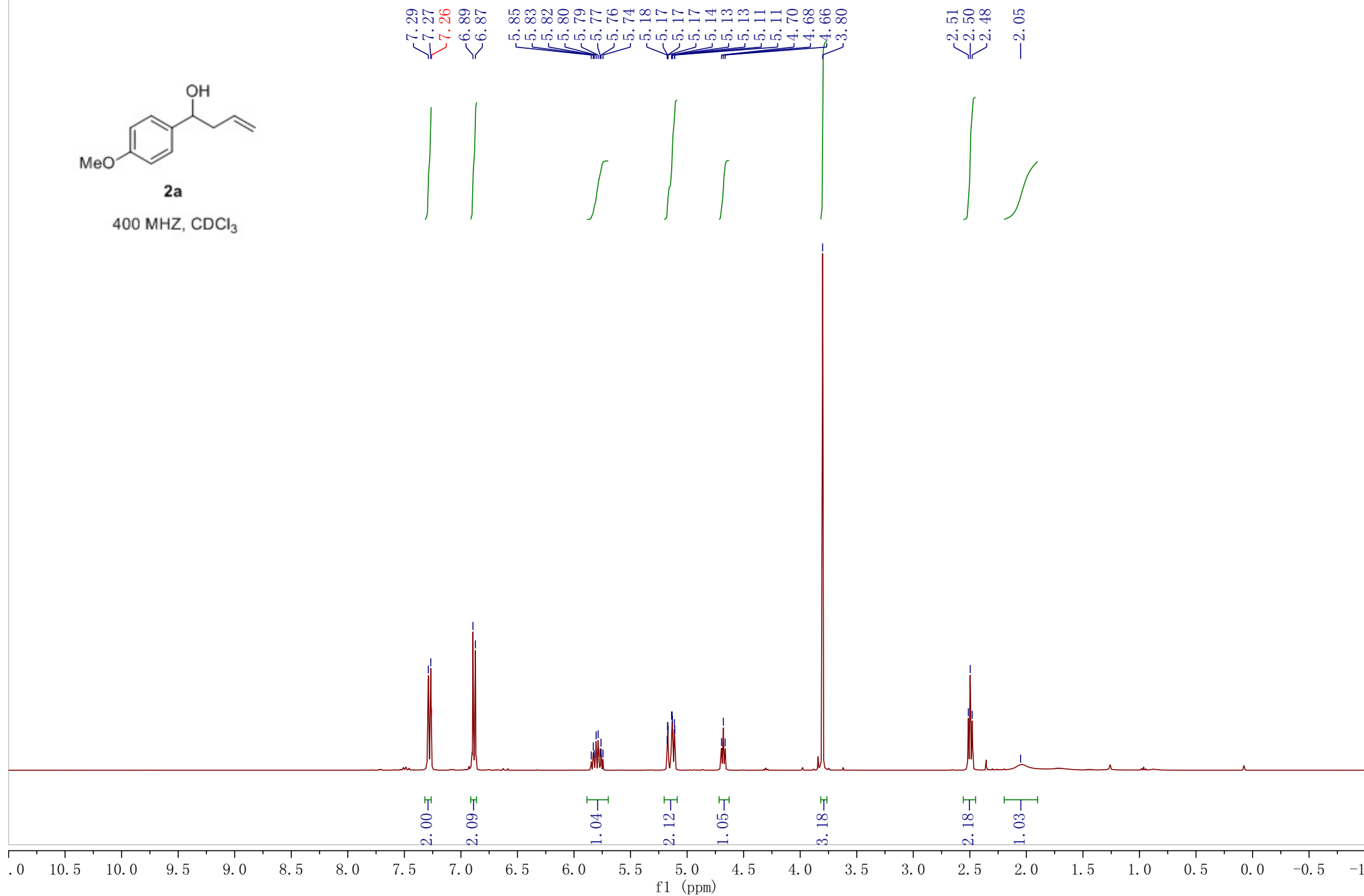
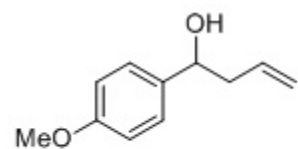


2a

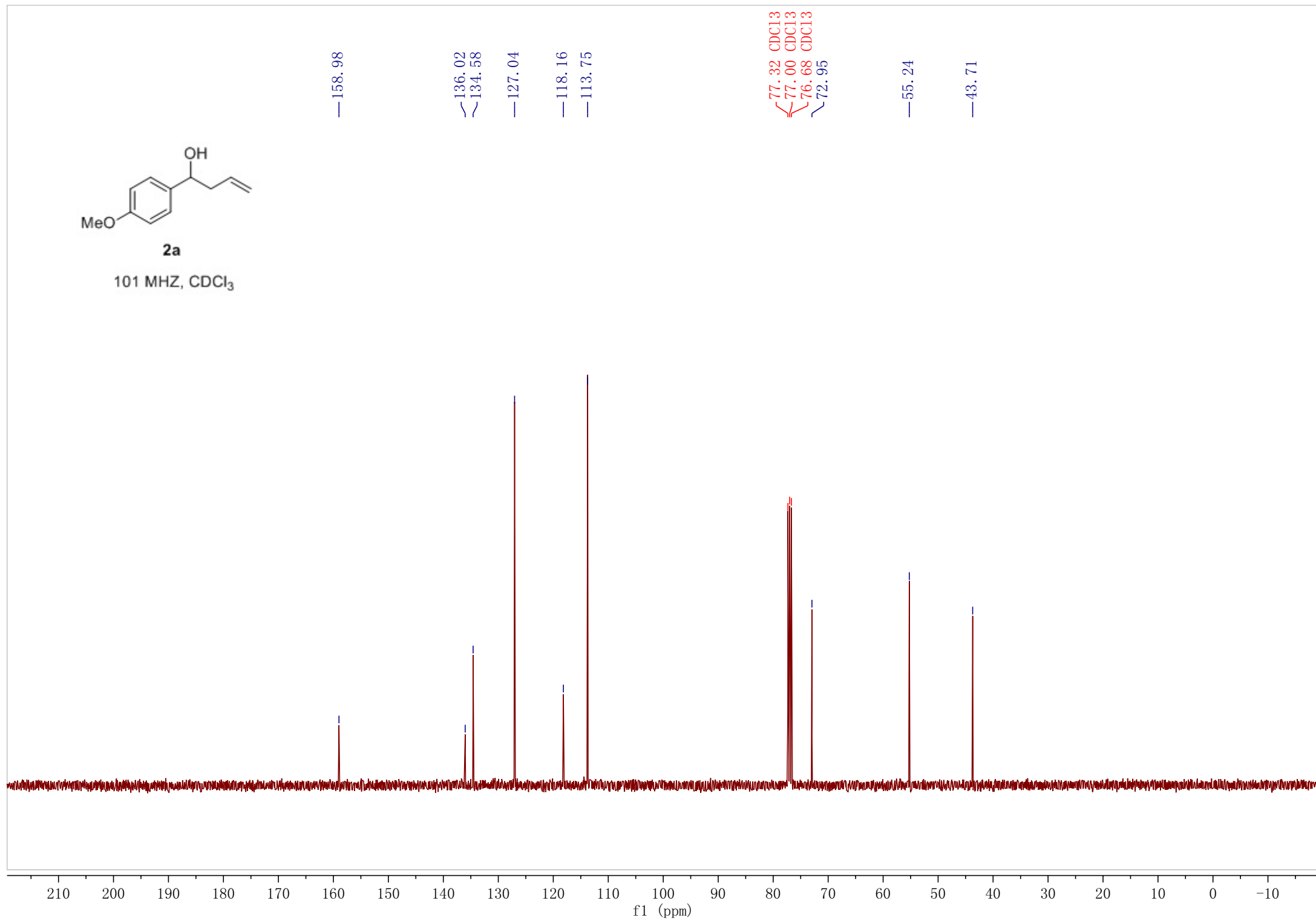
400 MHz, CDCl₃

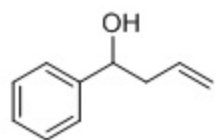




2a

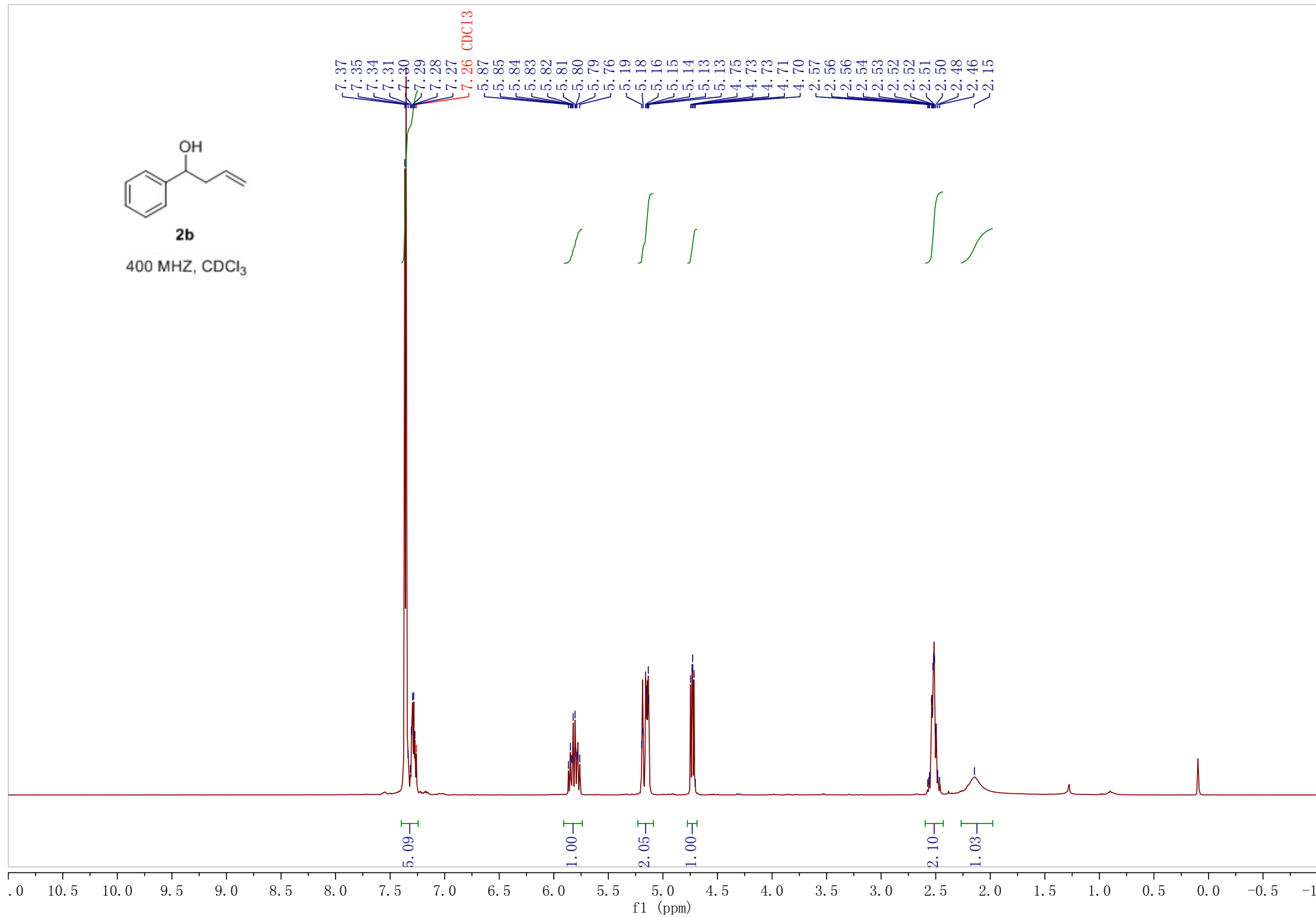
101 MHz, CDCl₃

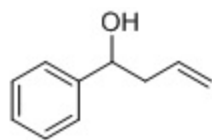




2b

400 MHZ, CDCl₃





2b

101 MHz, CDCl₃

—143.83

—134.42

—128.36

—127.48

—125.77

—118.31

77.32 CDCl₃

77.00 CDCl₃

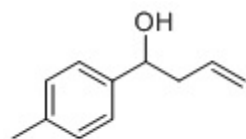
76.68 CDCl₃

73.26

—43.75

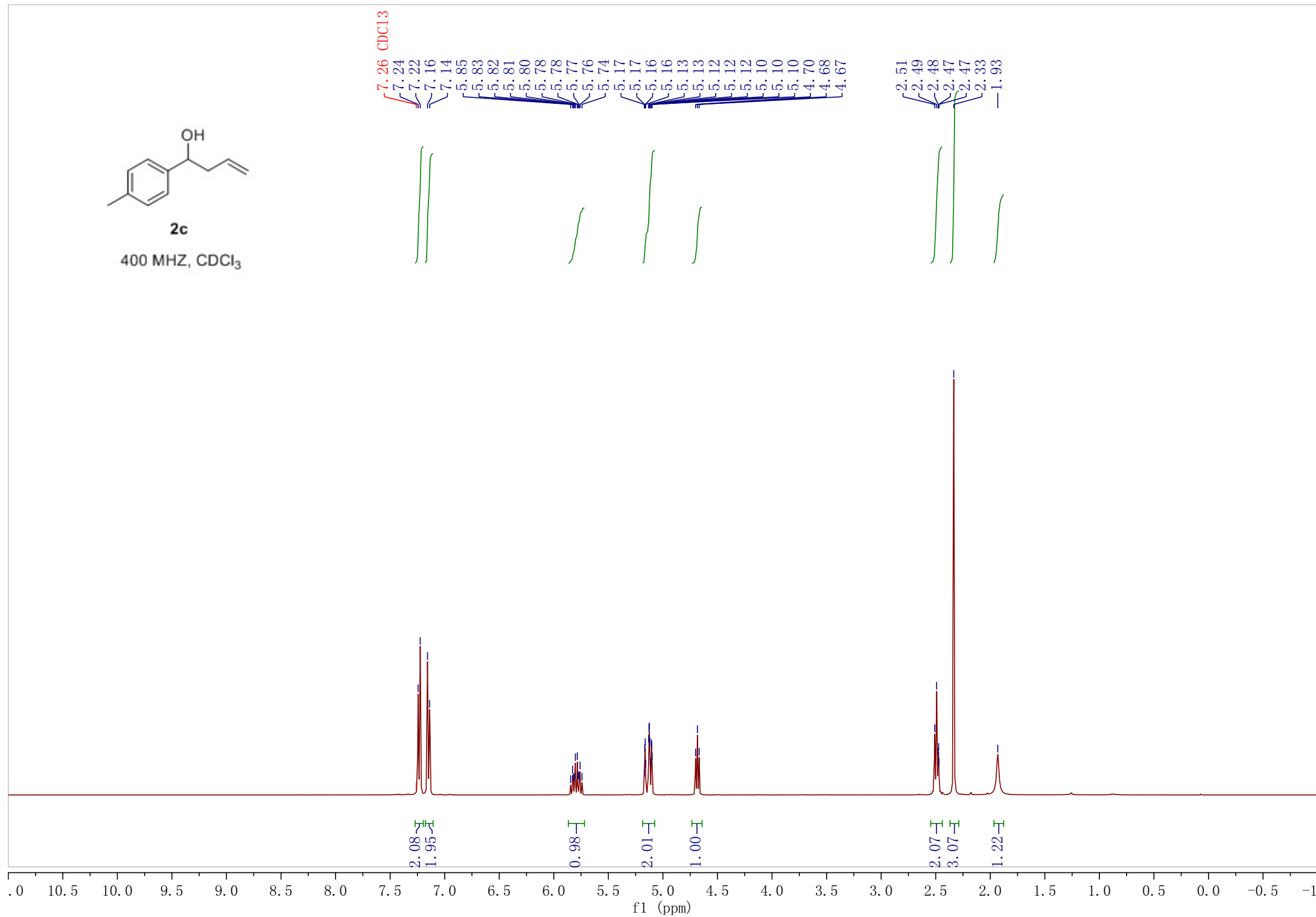
210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10

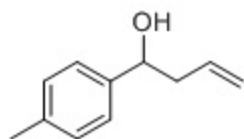
f1 (ppm)



2c

400 MHz, CDCl₃





2c

101 MHz, CDCl₃

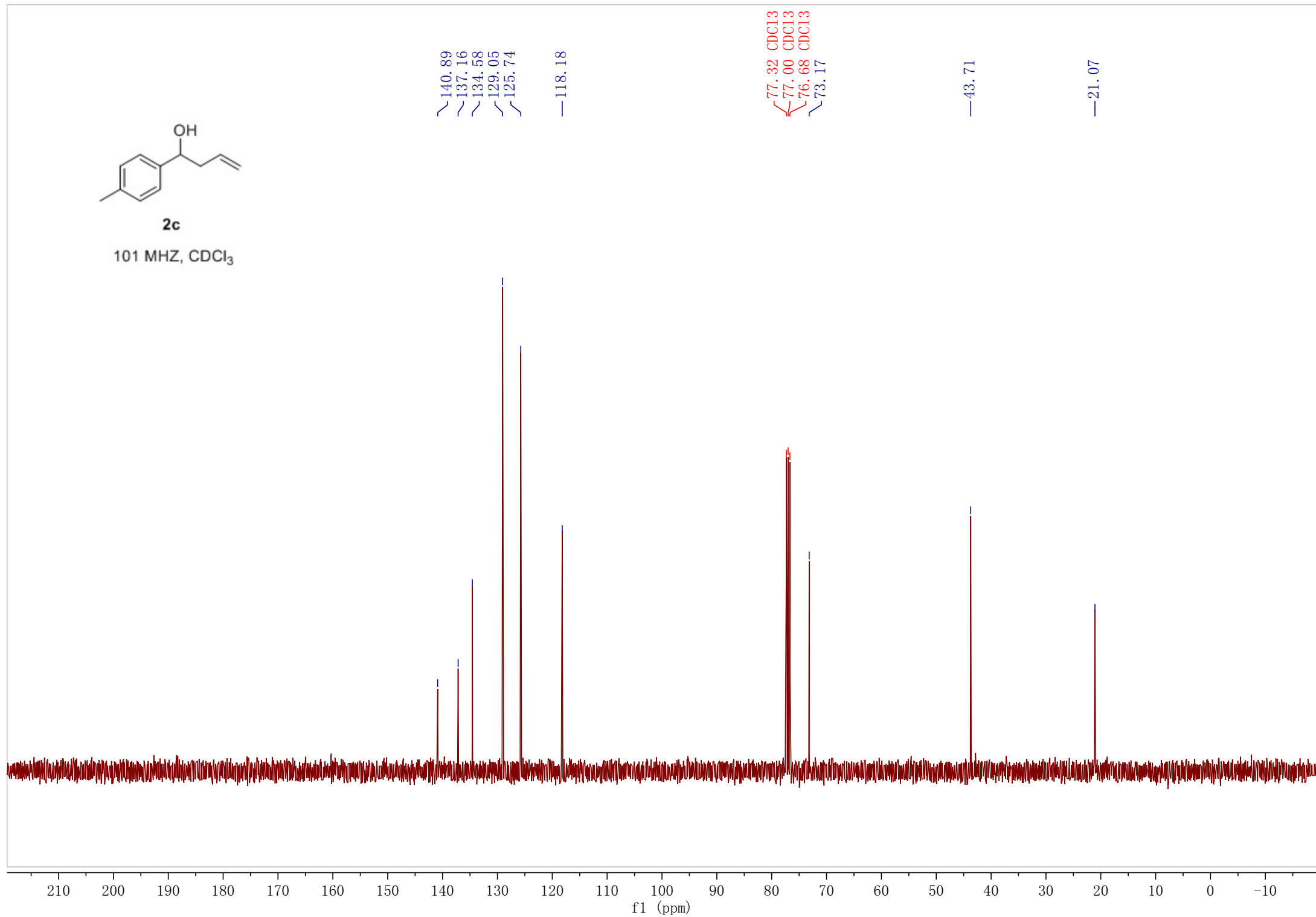
140.89
137.16
134.58
129.05
125.74

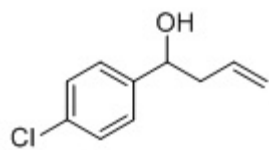
118.18

77.32 CDCl₃
77.00 CDCl₃
76.68 CDCl₃
73.17

43.71

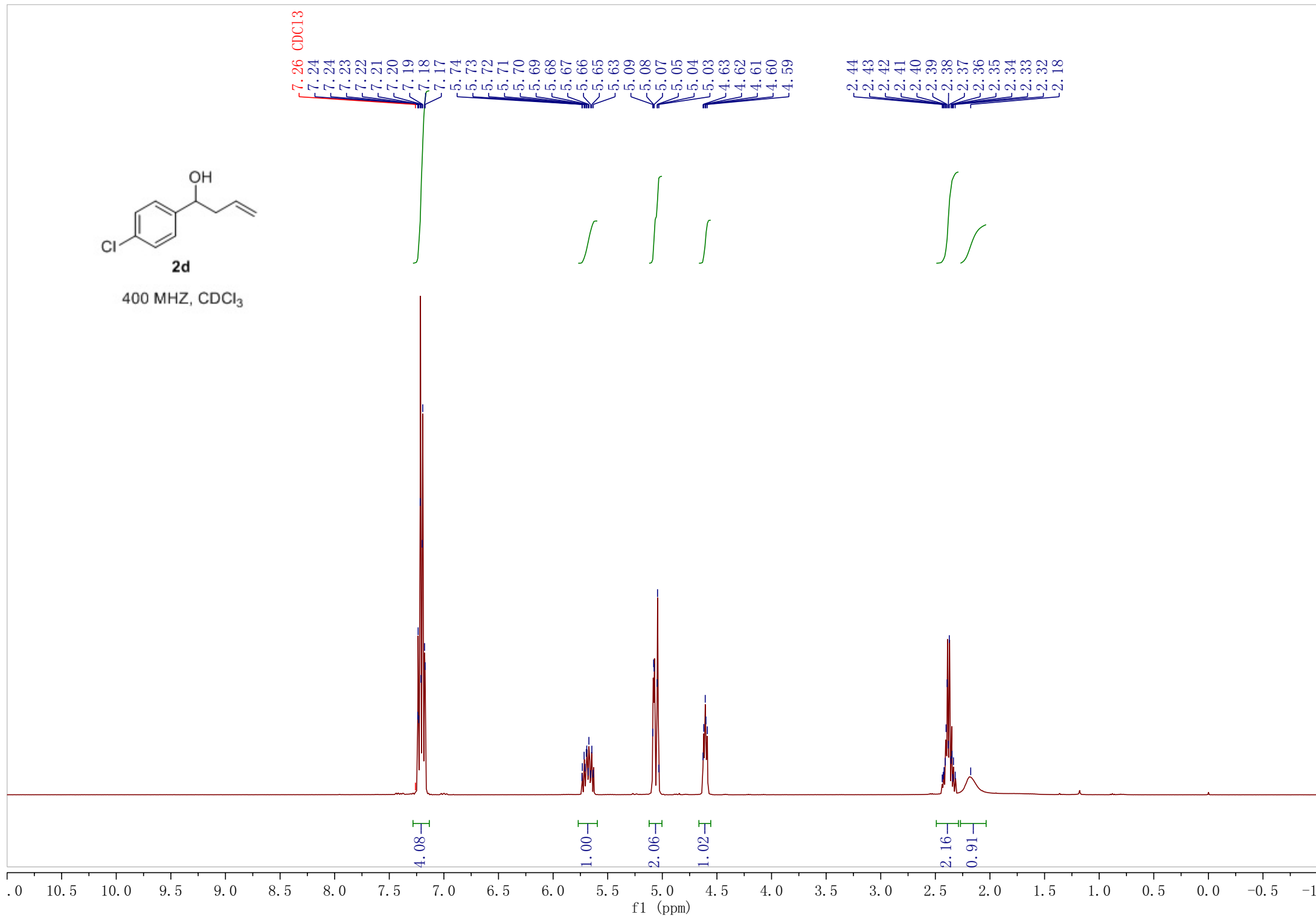
21.07

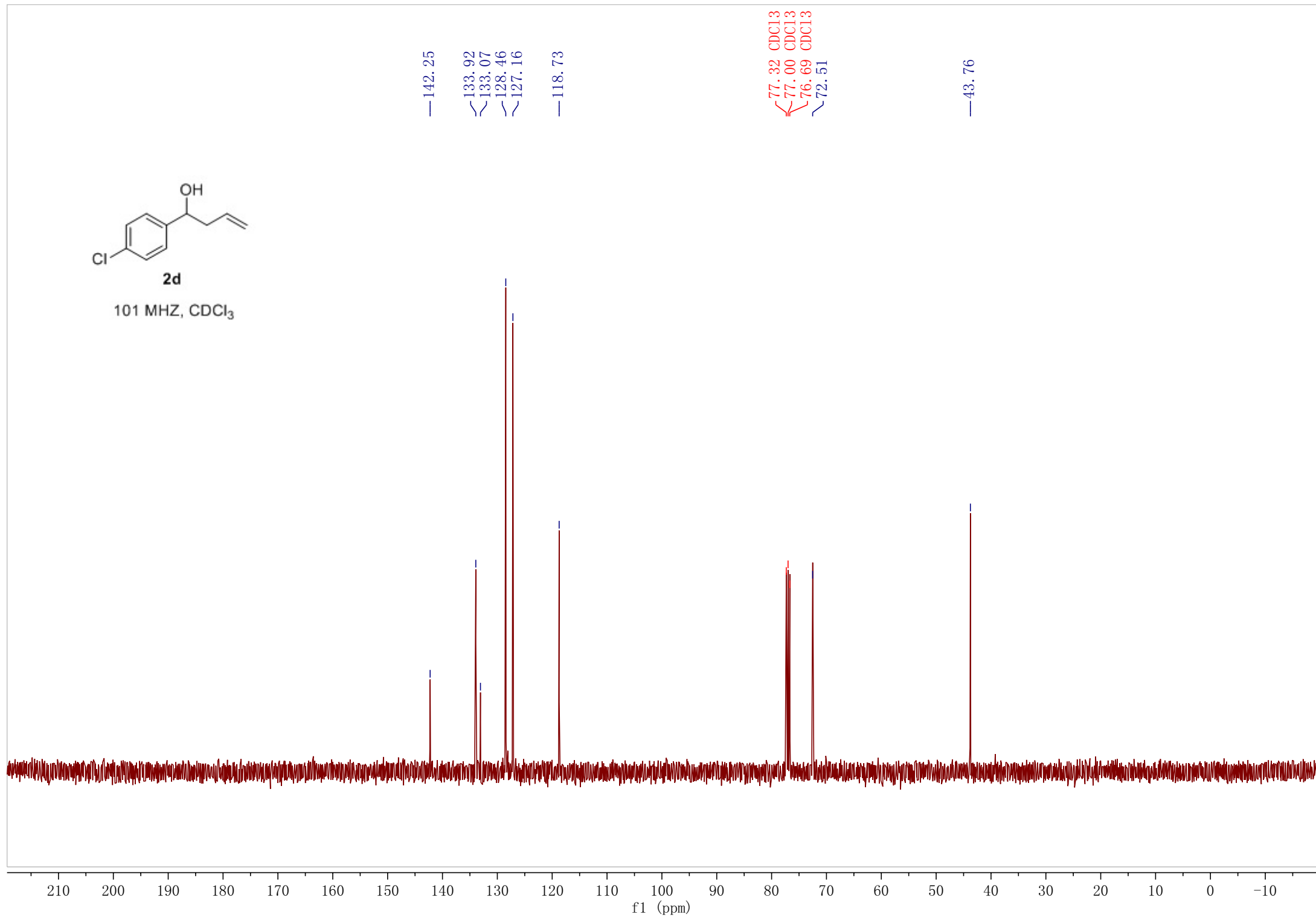
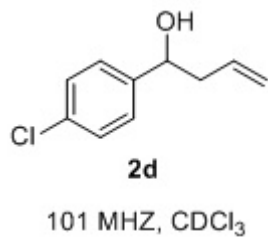


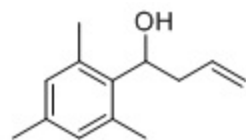


2d

400 MHZ, CDCl₃







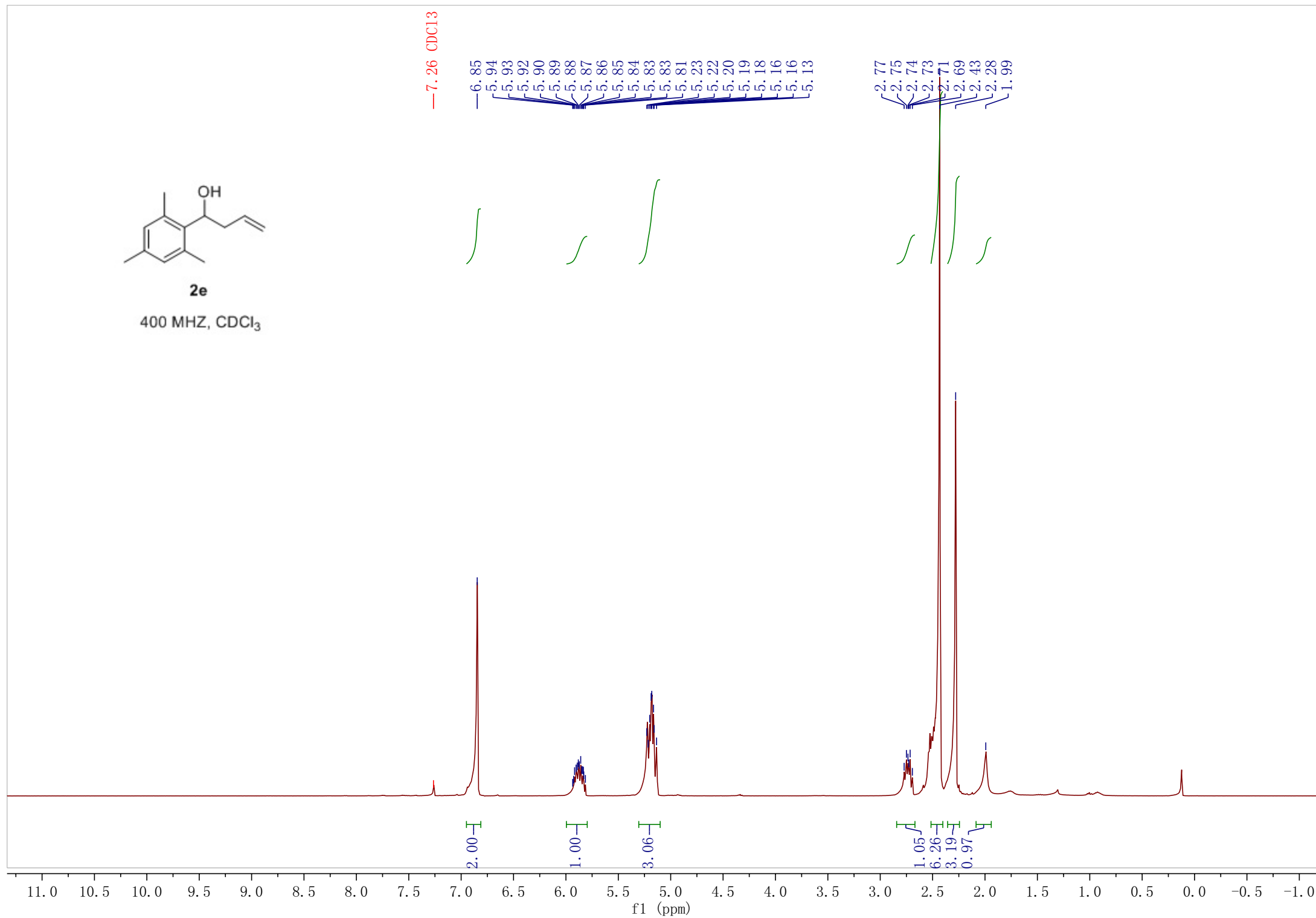
2e

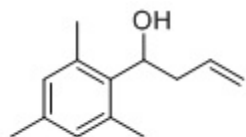
400 MHZ, CDCl₃

—7.26 CDCl₃

6.85
5.94
5.93
5.92
5.90
5.89
5.88
5.87
5.86
5.85
5.84
5.83
5.81
5.23
5.22
5.20
5.19
5.18
5.16
5.16
5.13

2.77
2.75
2.74
2.73
2.71
2.69
2.43
2.28
1.99





2e

101 MHz, CDCl₃

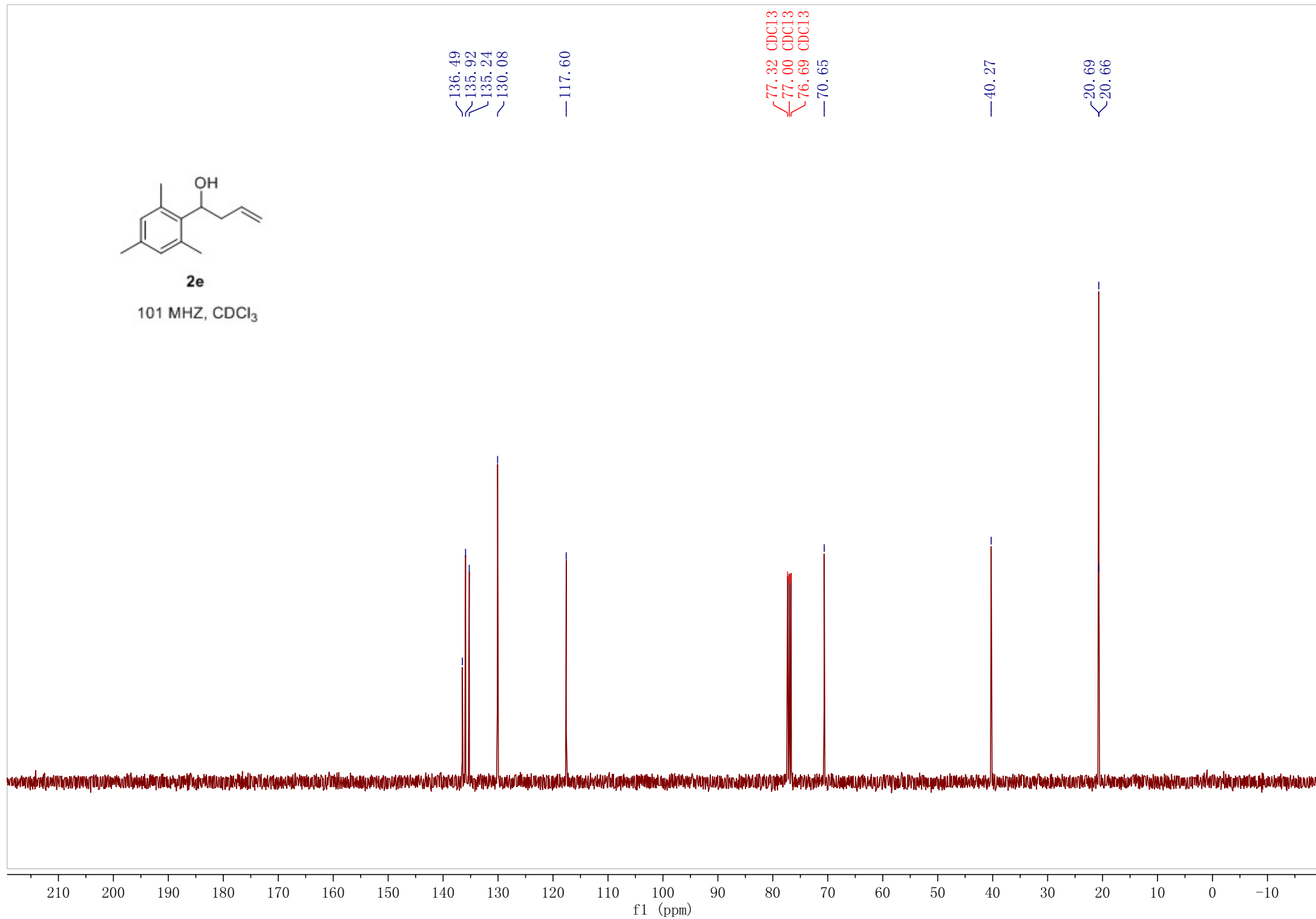
136.49
135.92
135.24
130.08

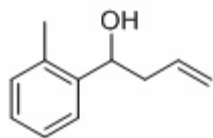
117.60

77.32 CDCl₃
77.00 CDCl₃
76.69 CDCl₃
70.65

40.27

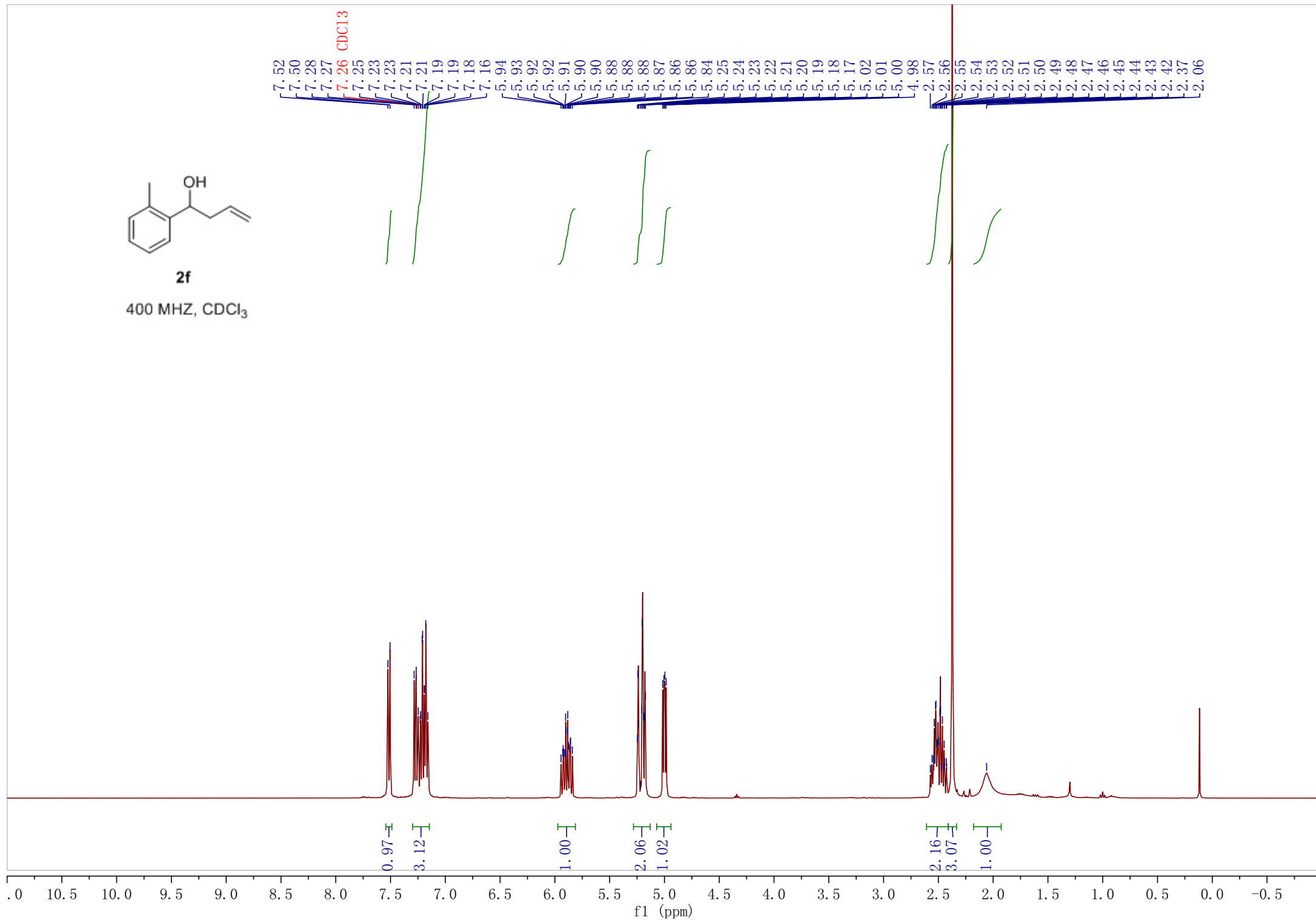
20.69
20.66

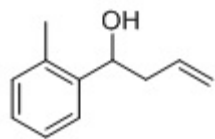




2f

400 MHZ, CDCl₃





2f

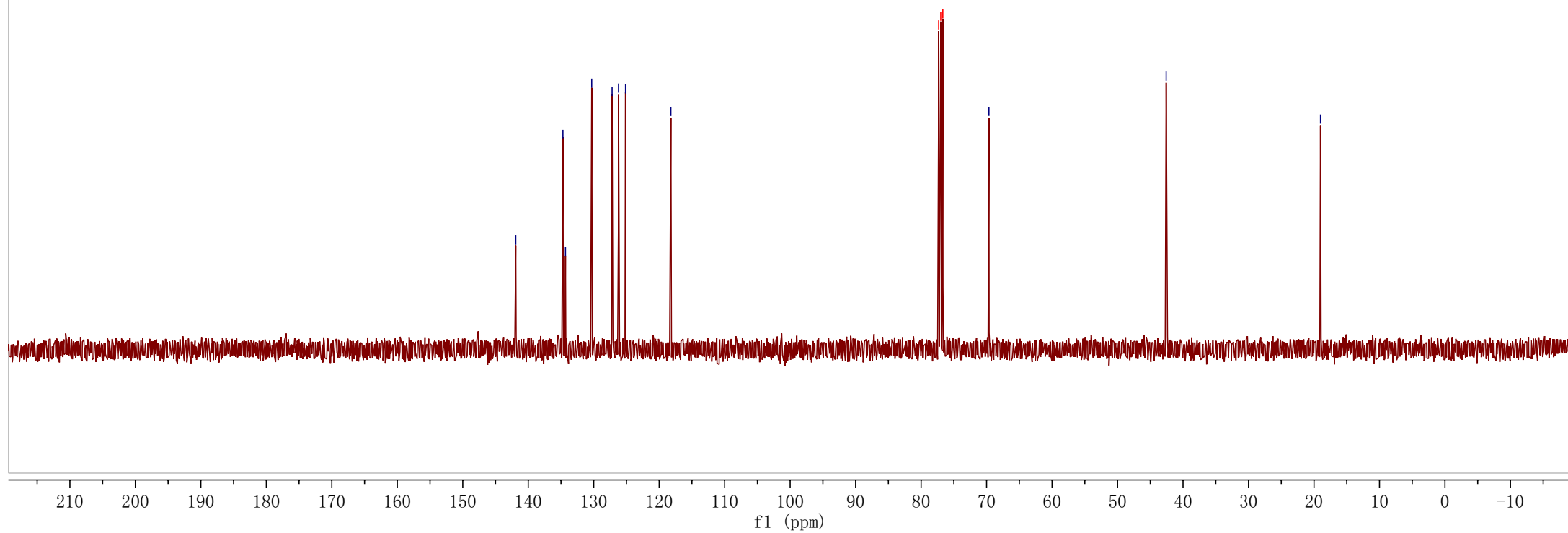
101 MHz, CDCl₃

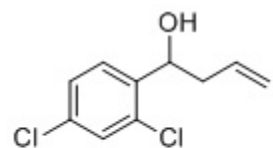
— 141.91
— 134.70
— 134.31
— 130.31
— 127.19
— 126.21
— 125.14
— 118.22

77.32 CDCl₃
77.00 CDCl₃
76.68 CDCl₃
— 69.64

— 42.58

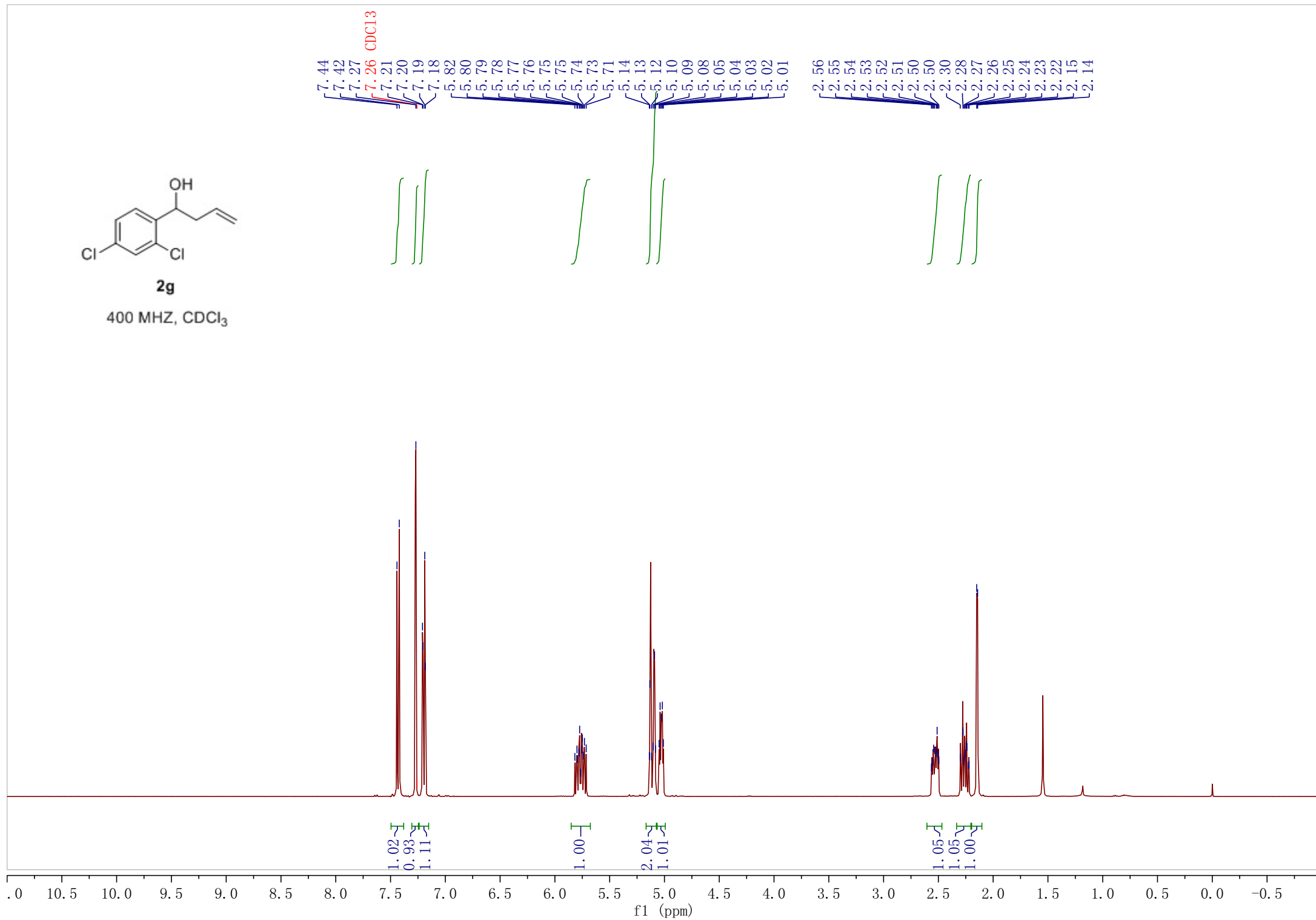
— 19.01

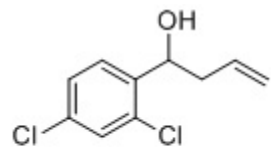




2g

400 MHZ, CDCl₃





2g

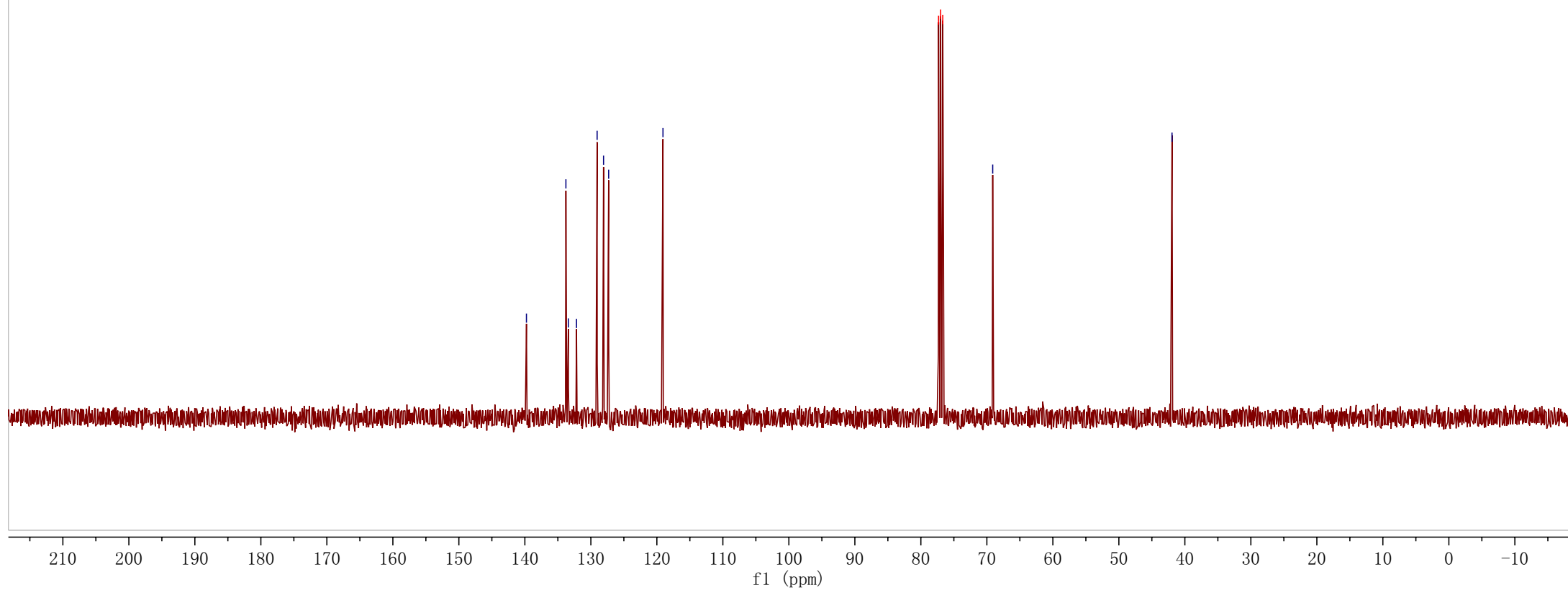
101 MHz, CDCl₃

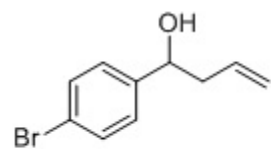
— 139.76
— 133.78
— 133.41
— 132.18
— 129.05
— 128.08
— 127.30
— 119.07

77.32 CDCl₃
77.00 CDCl₃
76.68 CDCl₃

— 69.12

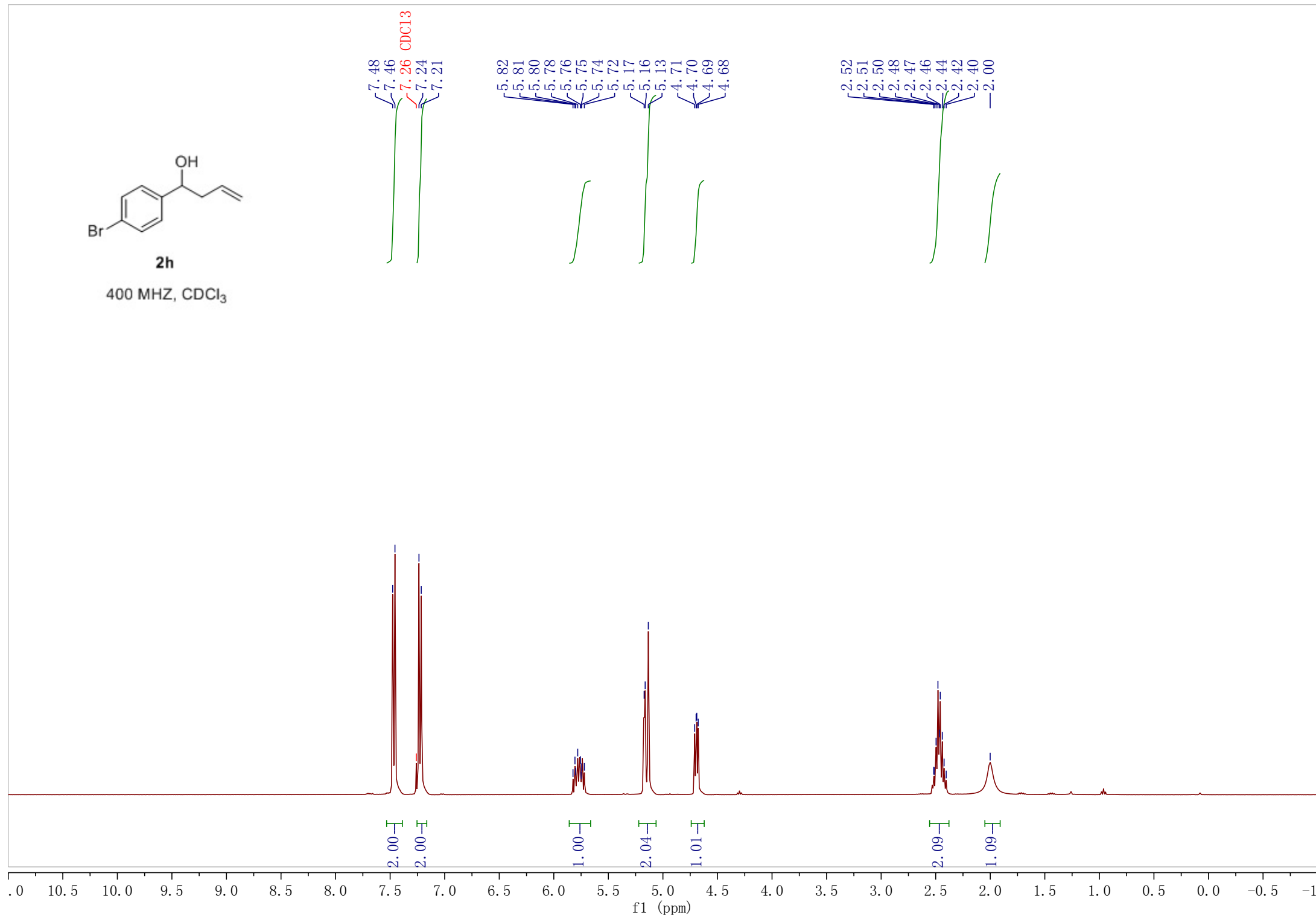
— 41.95

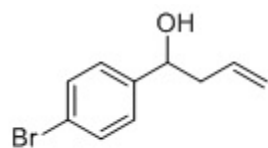




2h

400 MHz, CDCl₃





2h

101 MHz, CDCl₃

— 142.79

— 133.90

— 131.44

— 127.53

— 121.22

— 118.82

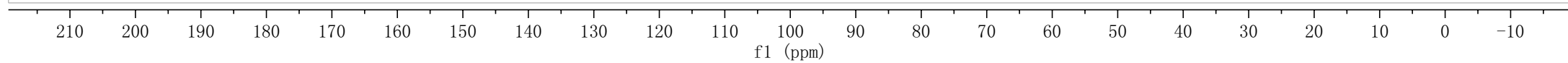
77.32 CDCl₃

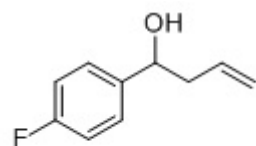
77.00 CDCl₃

76.68 CDCl₃

72.56

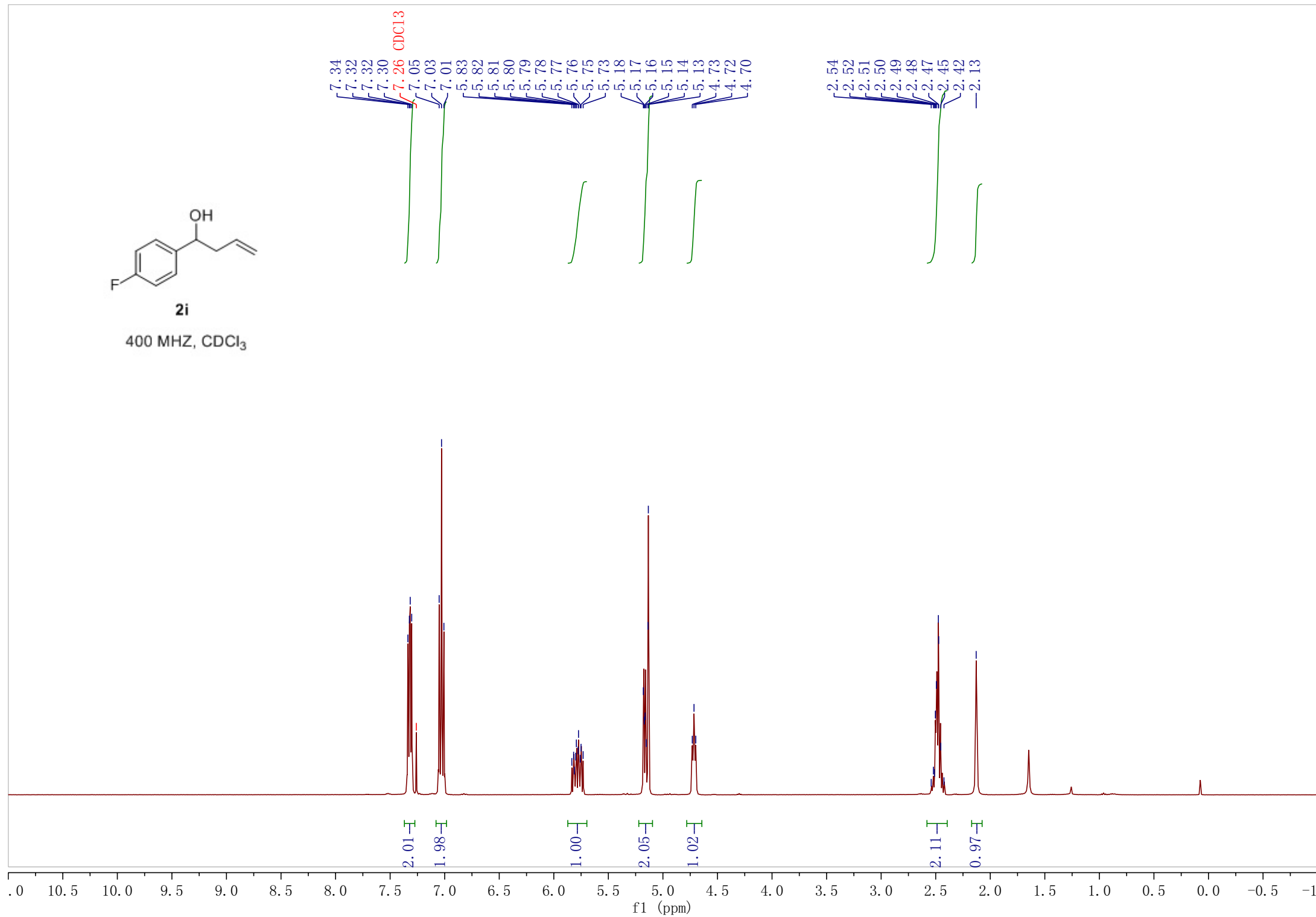
— 43.77

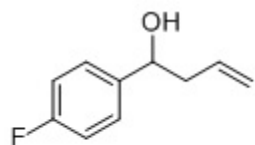




2i

400 MHZ, CDCl₃





2i

101 MHz, CDCl₃

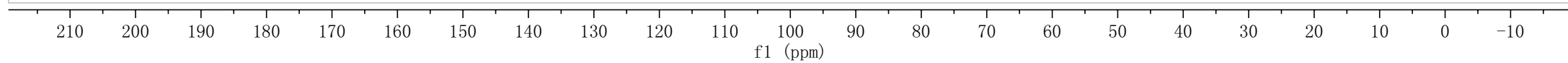
— 134.13

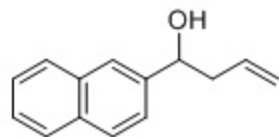
< 127.47
< 127.39

< 118.65
< 115.28
< 115.07

77.32 CDCl₃
< 77.00 CDCl₃
< 76.69 CDCl₃
< 72.61

— 43.91



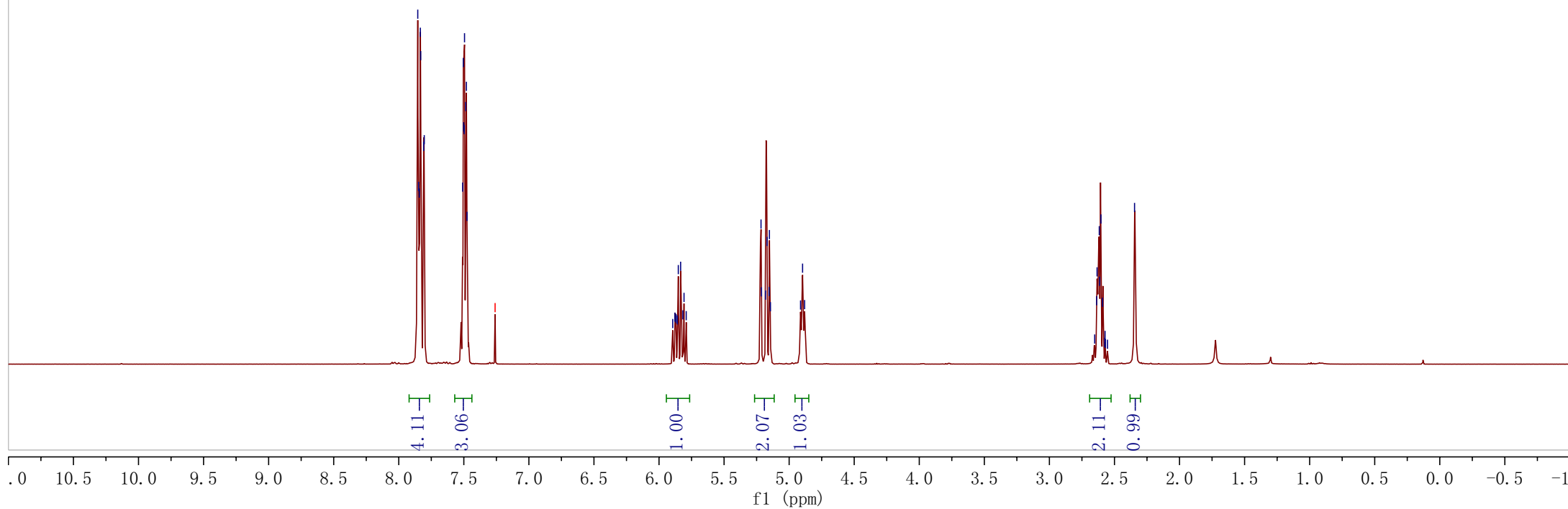


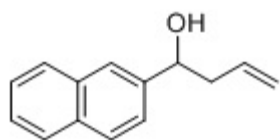
2j

400 MHZ, CDCl₃

7.85
7.85
7.84
7.83
7.83
7.81
7.80
7.51
7.50
7.50
7.50
7.49
7.49
7.48
7.48
7.26 CDCl₃
5.89
5.88
5.87
5.86
5.85
5.83
5.82
5.81
5.79
5.22
5.21
5.18
5.17
5.15
5.15
5.14
4.91
4.90
4.88

2.65
2.64
2.63
2.62
2.61
2.60
2.59
2.58
2.57
2.55
2.35





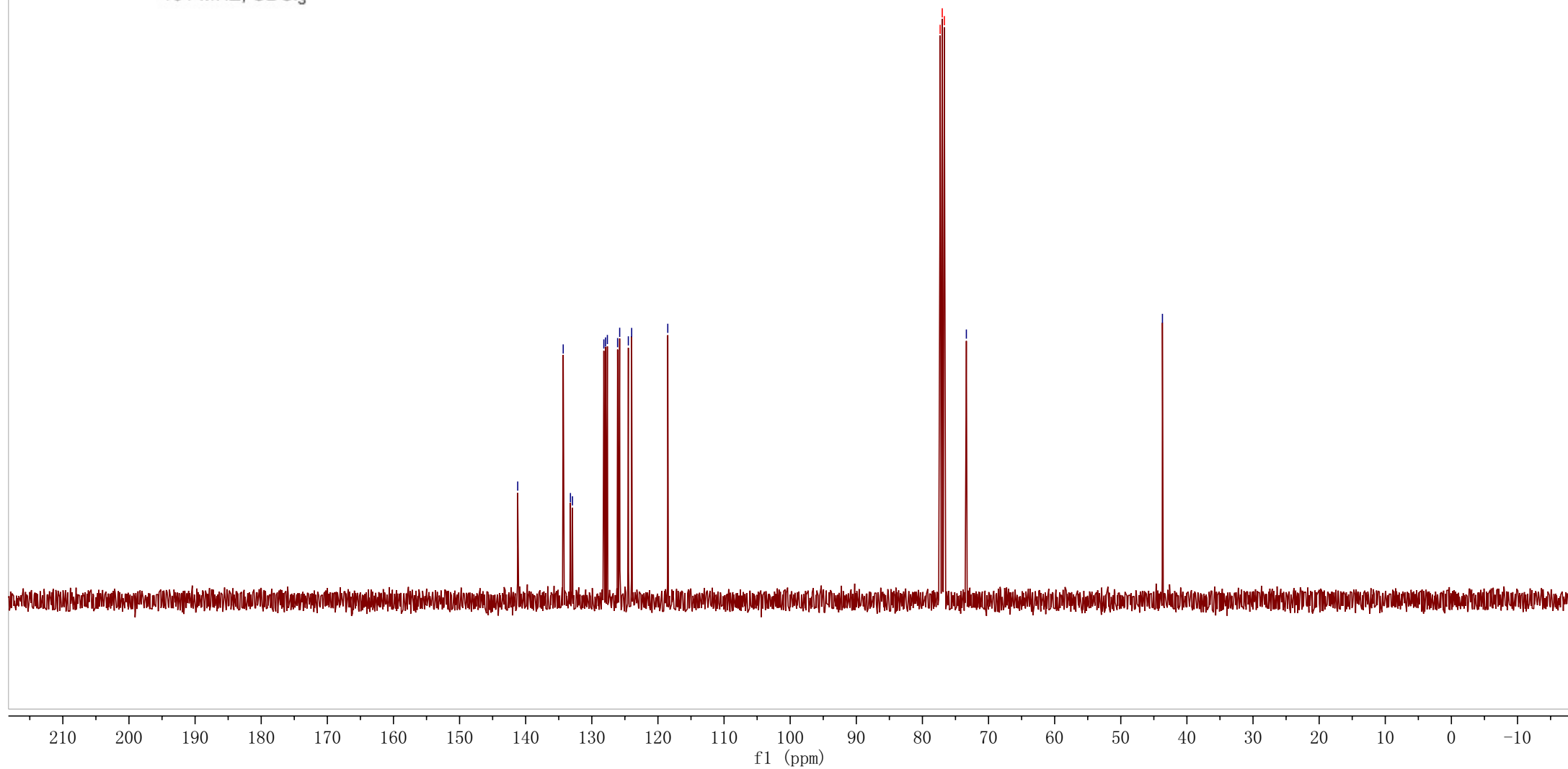
2j

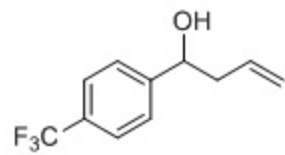
101 MHz, CDCl₃

141.21
134.33
133.23
132.92
128.18
127.93
127.65
126.10
125.78
124.48
123.97
118.51

77.32 CDCl₃
77.00 CDCl₃
76.68 CDCl₃
73.36

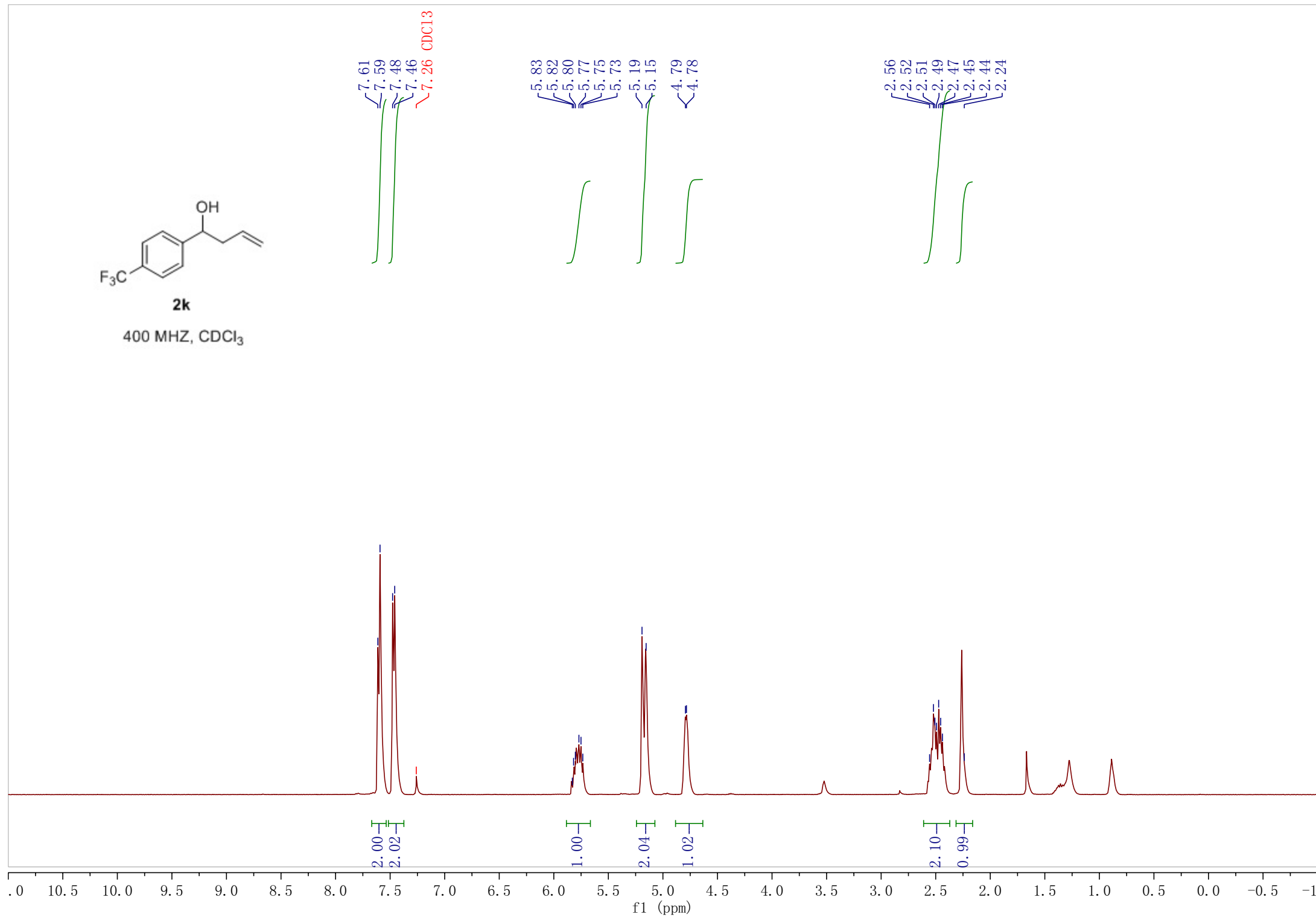
43.70

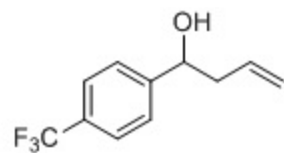




2k

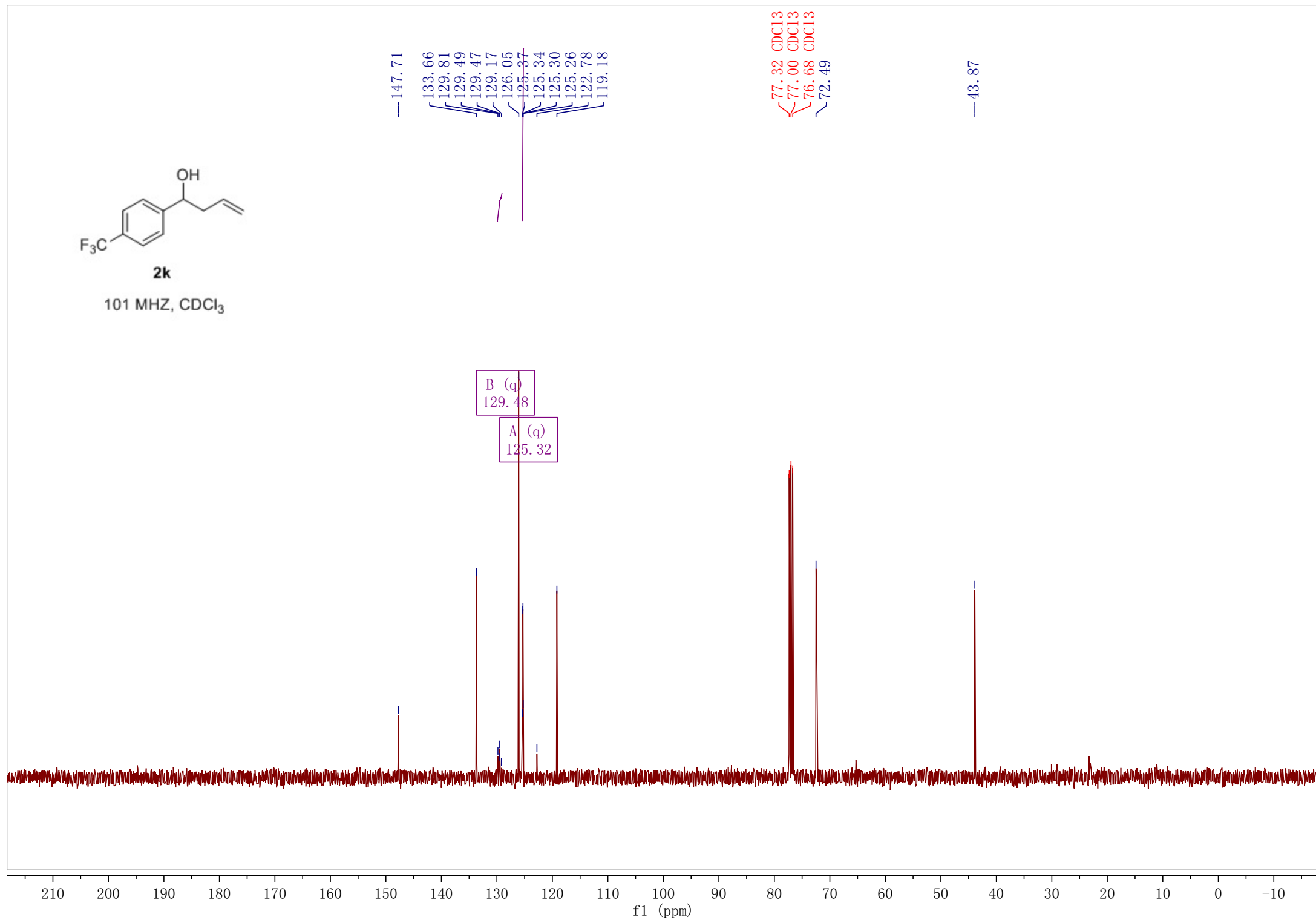
400 MHZ, CDCl₃

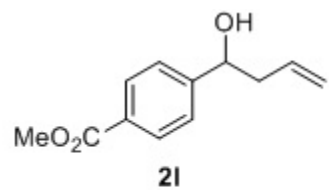




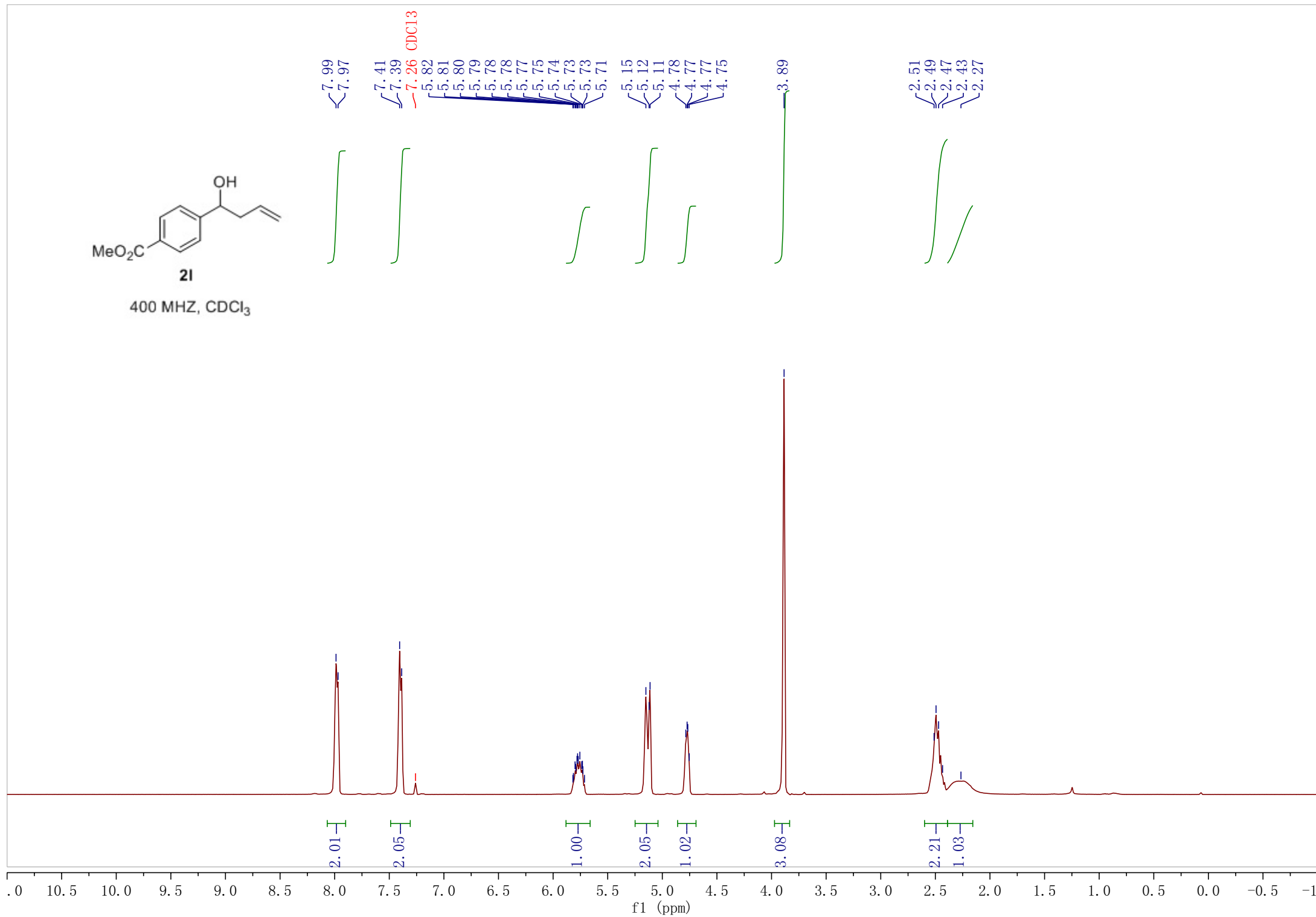
2k

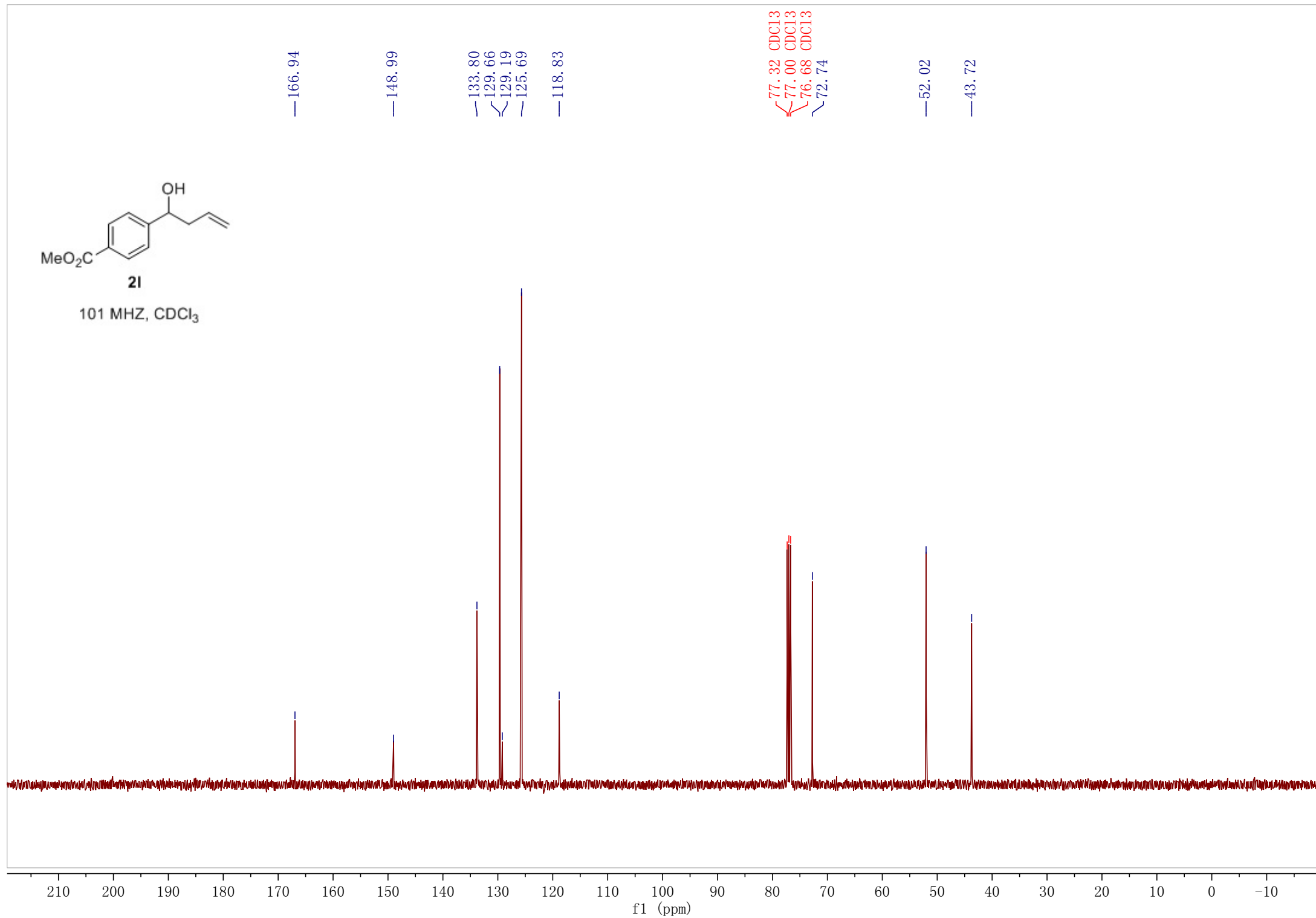
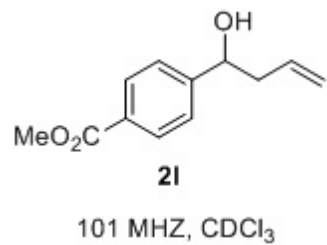
101 MHz, CDCl₃

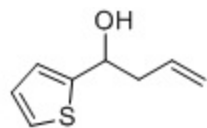




400 MHz, CDCl₃

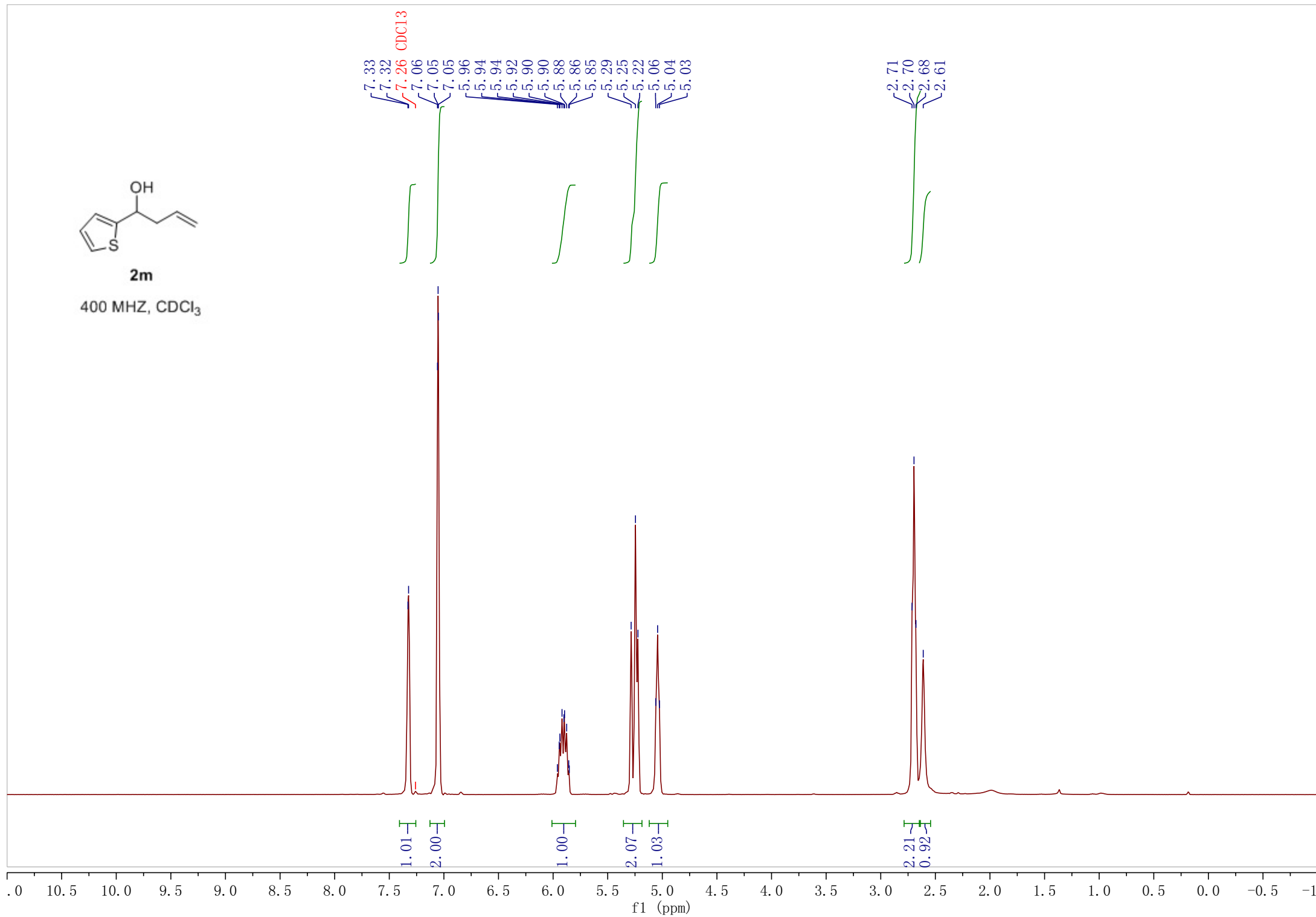


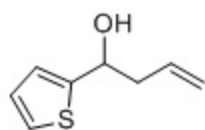




2m

400 MHZ, CDCl₃





2m

101 MHz, CDCl₃

— 147.76

— 133.80

— 126.61

— 124.55

— 123.67

— 118.82

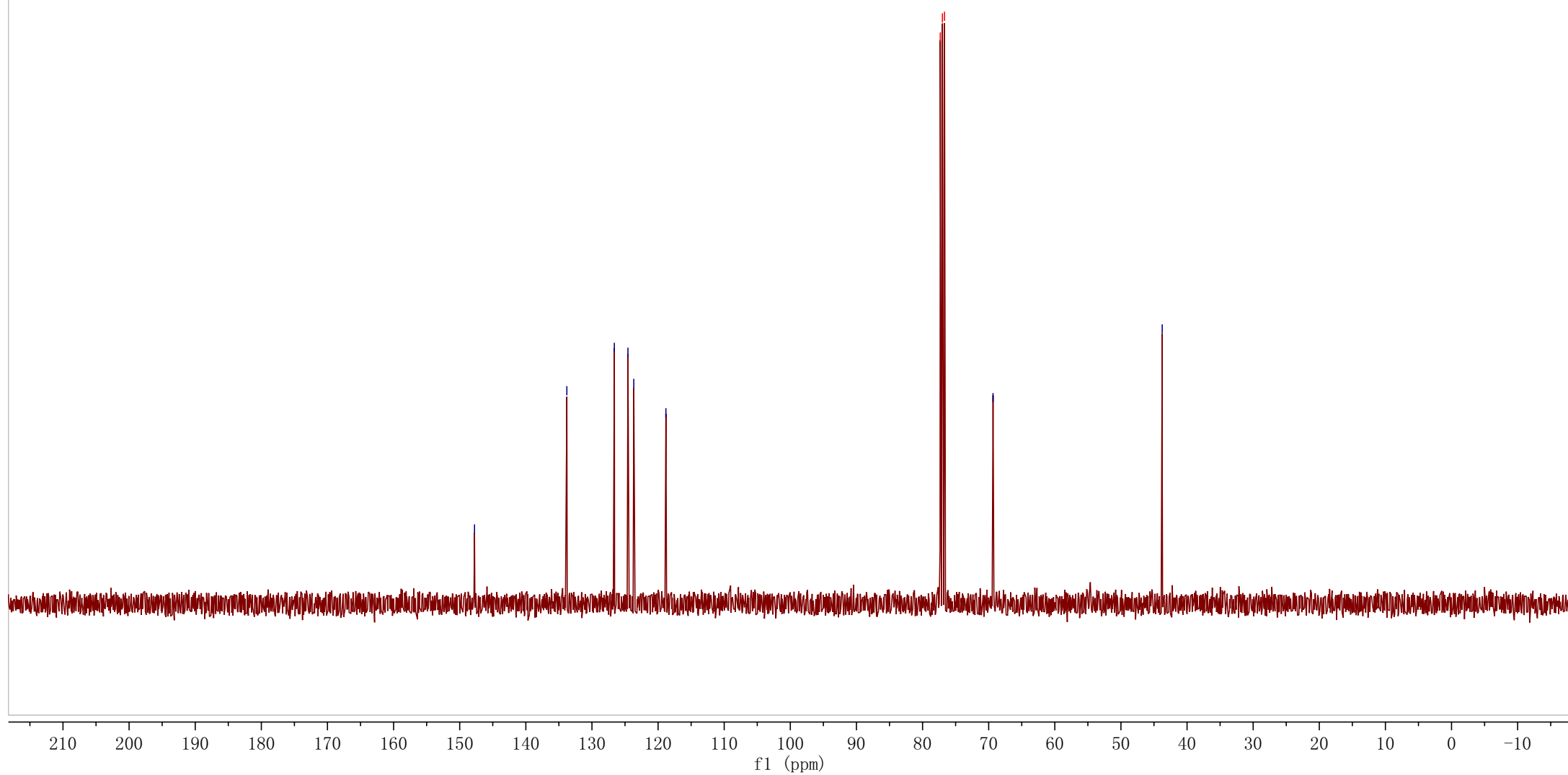
77.32 CDCl₃

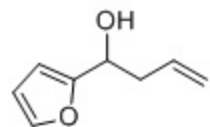
77.00 CDCl₃

76.68 CDCl₃

— 69.34

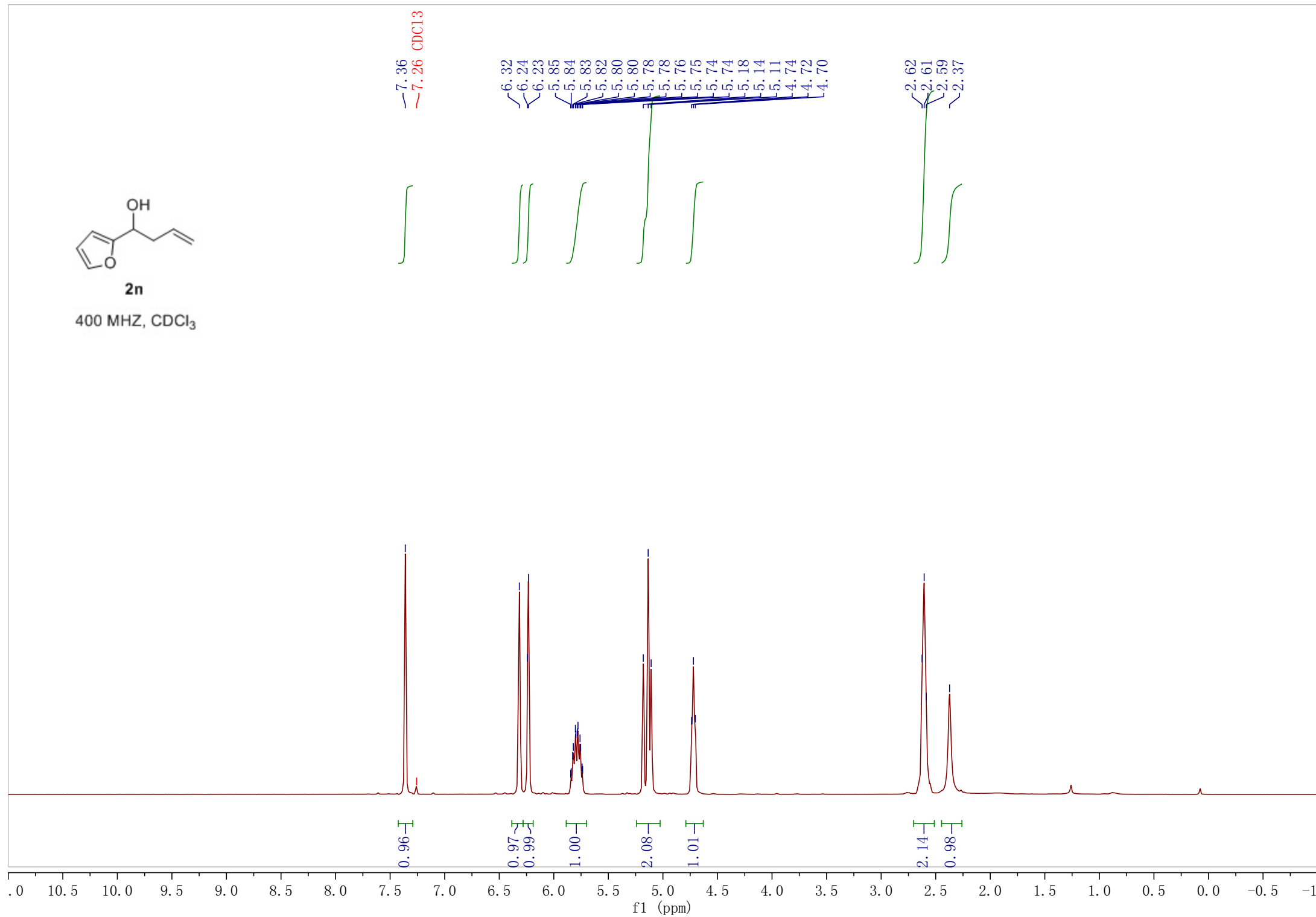
— 43.76

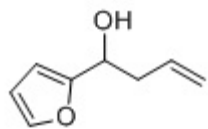




2n

400 MHz, CDCl₃





2n

101 MHz, CDCl₃

— 155.98

— 141.95

— 133.66

— 118.54

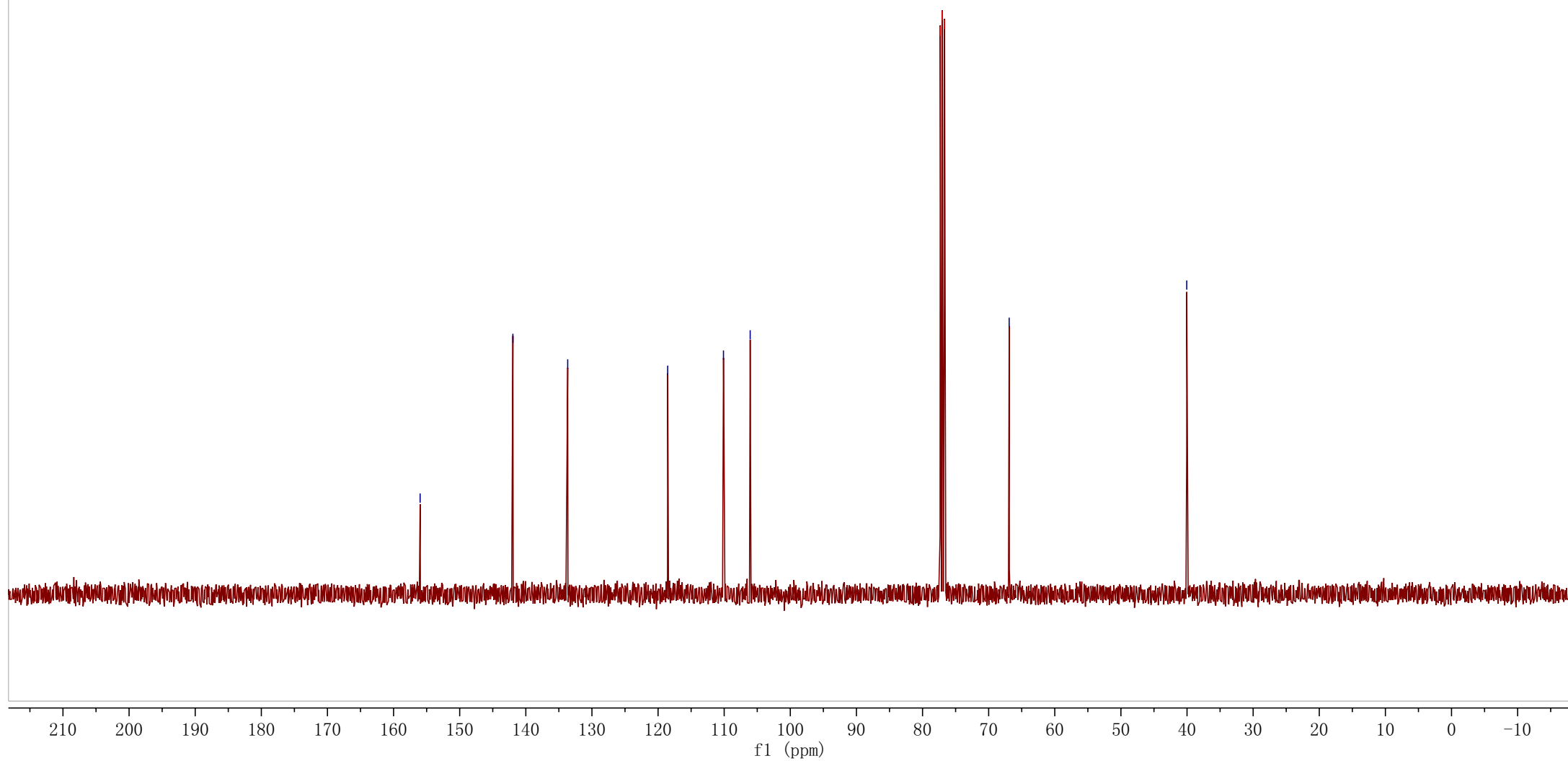
— 110.11

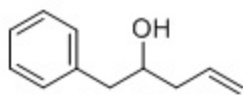
— 106.07

77.32 CDCl₃
77.00 CDCl₃
76.68 CDCl₃

— 66.90

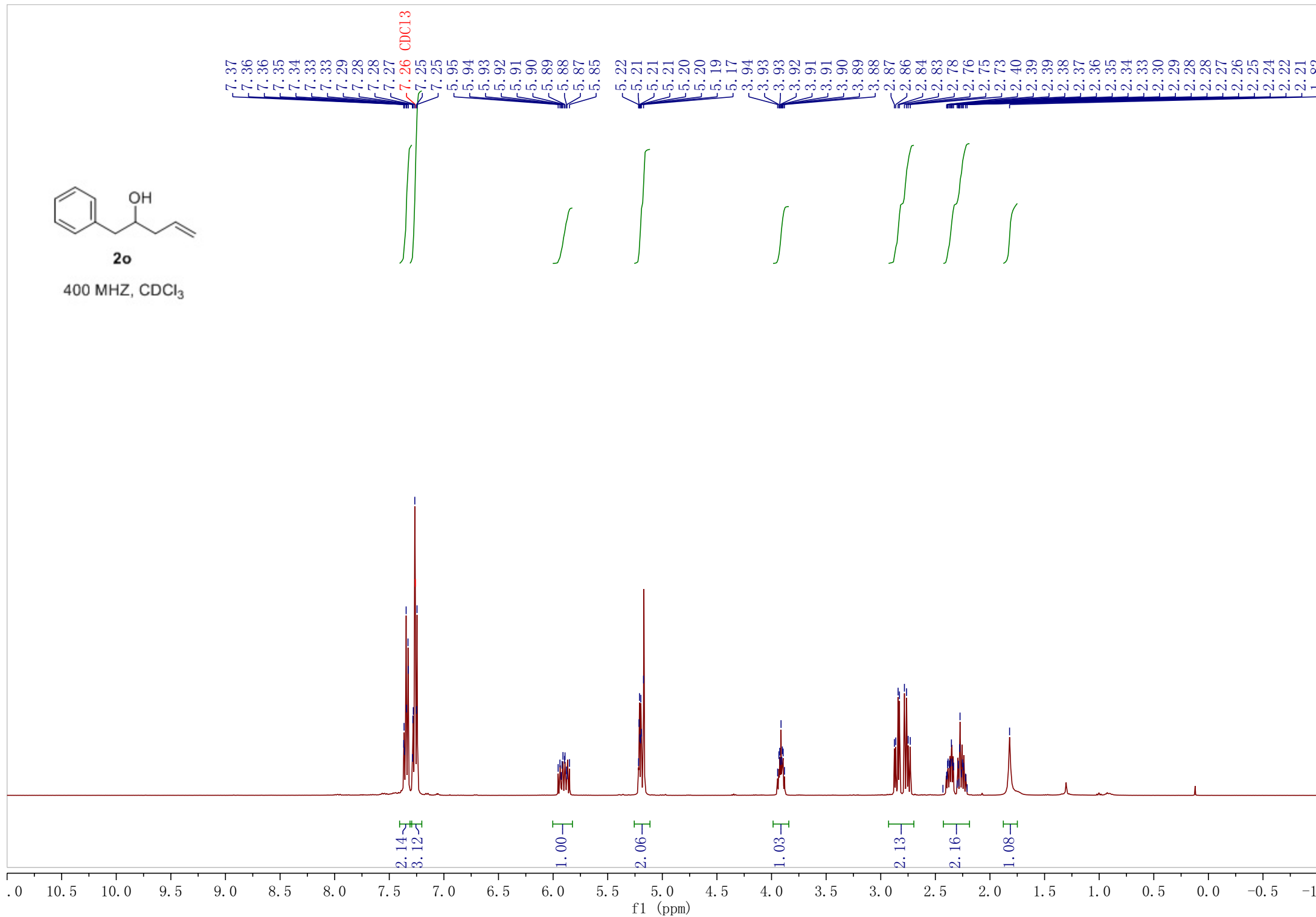
— 40.04

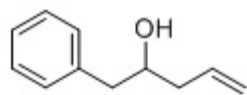




2o

400 MHZ, CDCl₃





2o

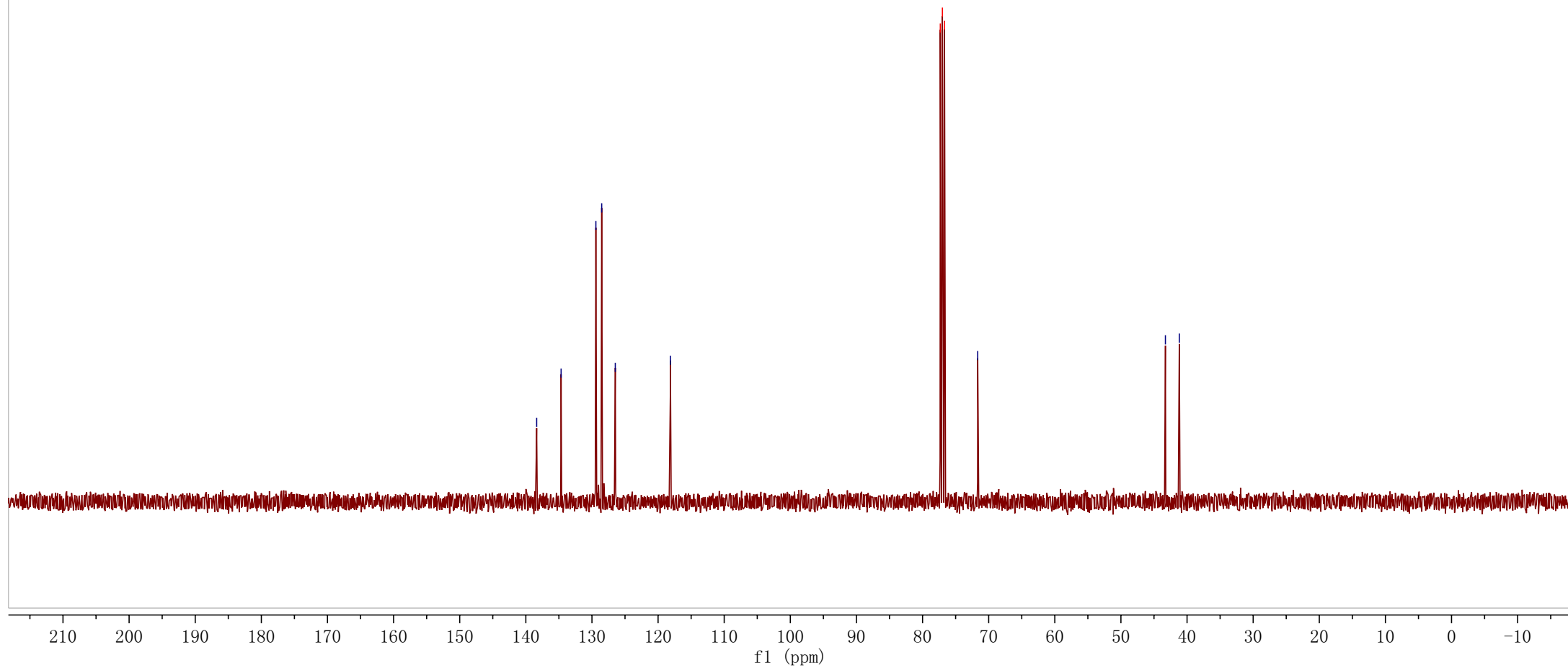
101 MHz, CDCl₃

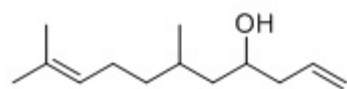
— 138.36
— 134.67
— 129.41
— 128.53
— 126.47

— 118.14

77.32 CDCl₃
77.00 CDCl₃
76.68 CDCl₃
71.66

— 43.27
— 41.17

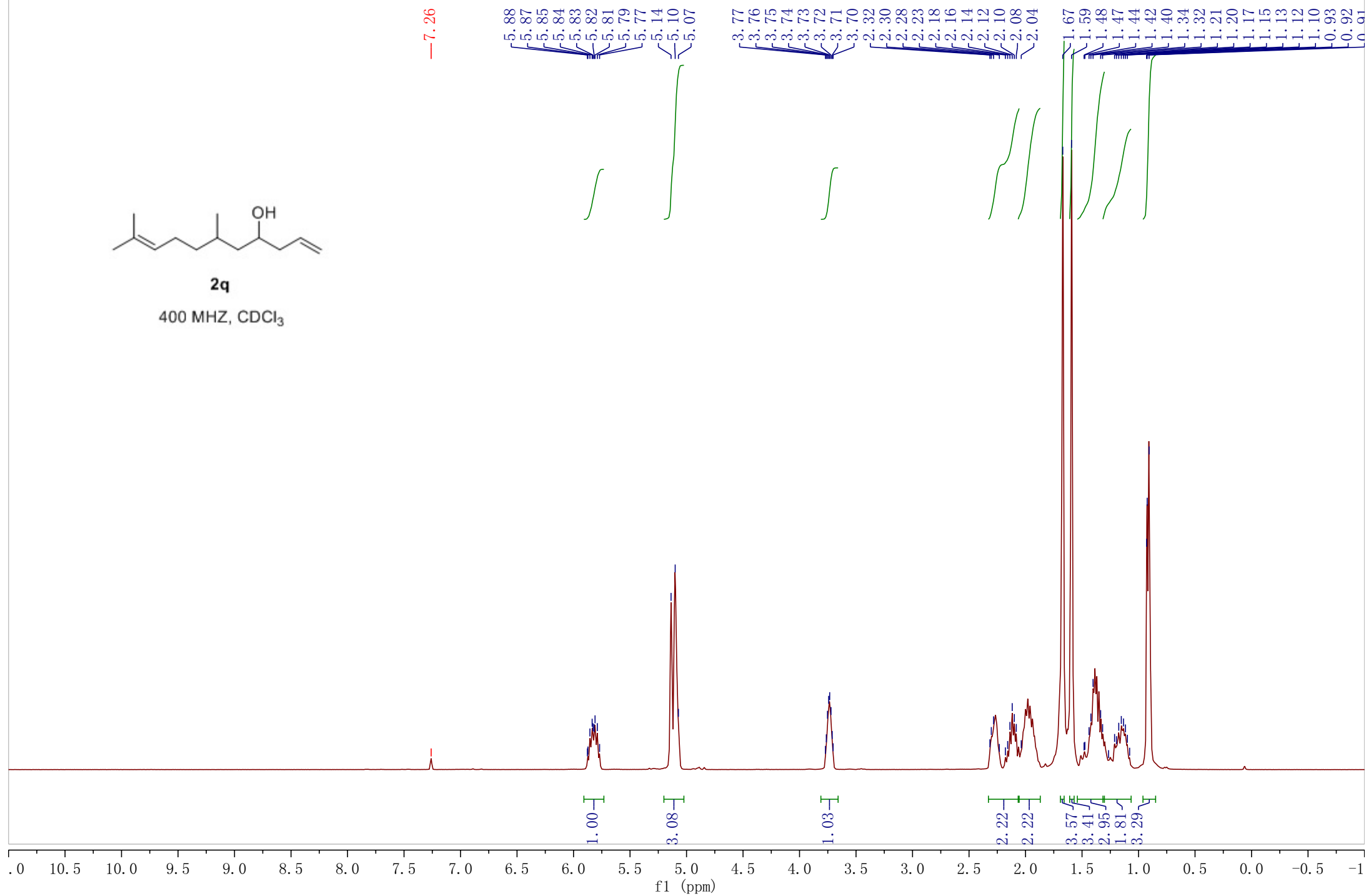


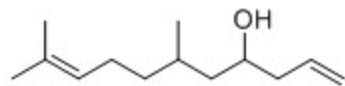


2q

400 MHz, CDCl₃

—7.26 CDCl₃





2q

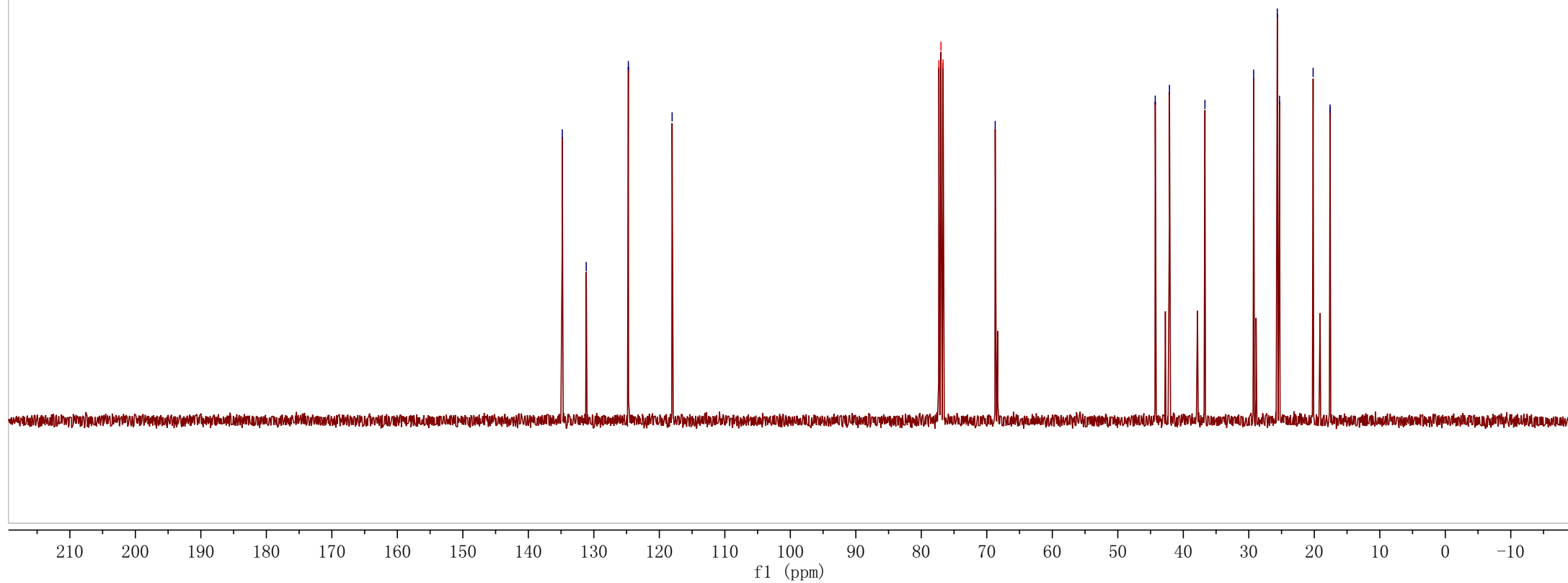
101 MHz, CDCl₃

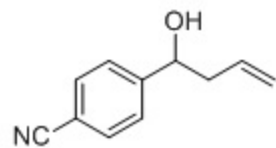
—134.82
—131.16
—124.73
—118.05

77.32 CDCl₃
77.00 CDCl₃
76.68 CDCl₃
—68.72

44.28
42.11
36.70

29.25
25.65
25.31
20.18
17.59





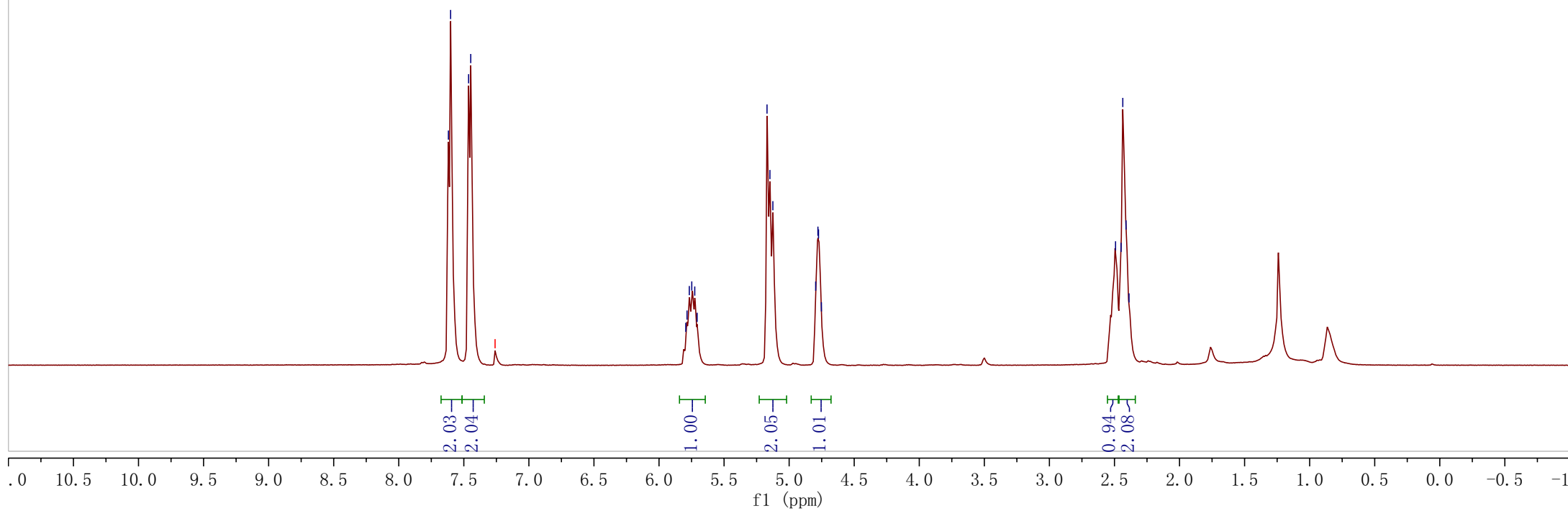
2r

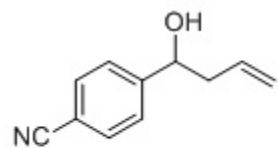
400 MHZ, CDCl₃

7.62
7.60
7.46
7.45
7.26 CDCl₃

5.79
5.78
5.77
5.75
5.73
5.71
5.17
5.15
5.13
4.80
4.78
4.77
4.75

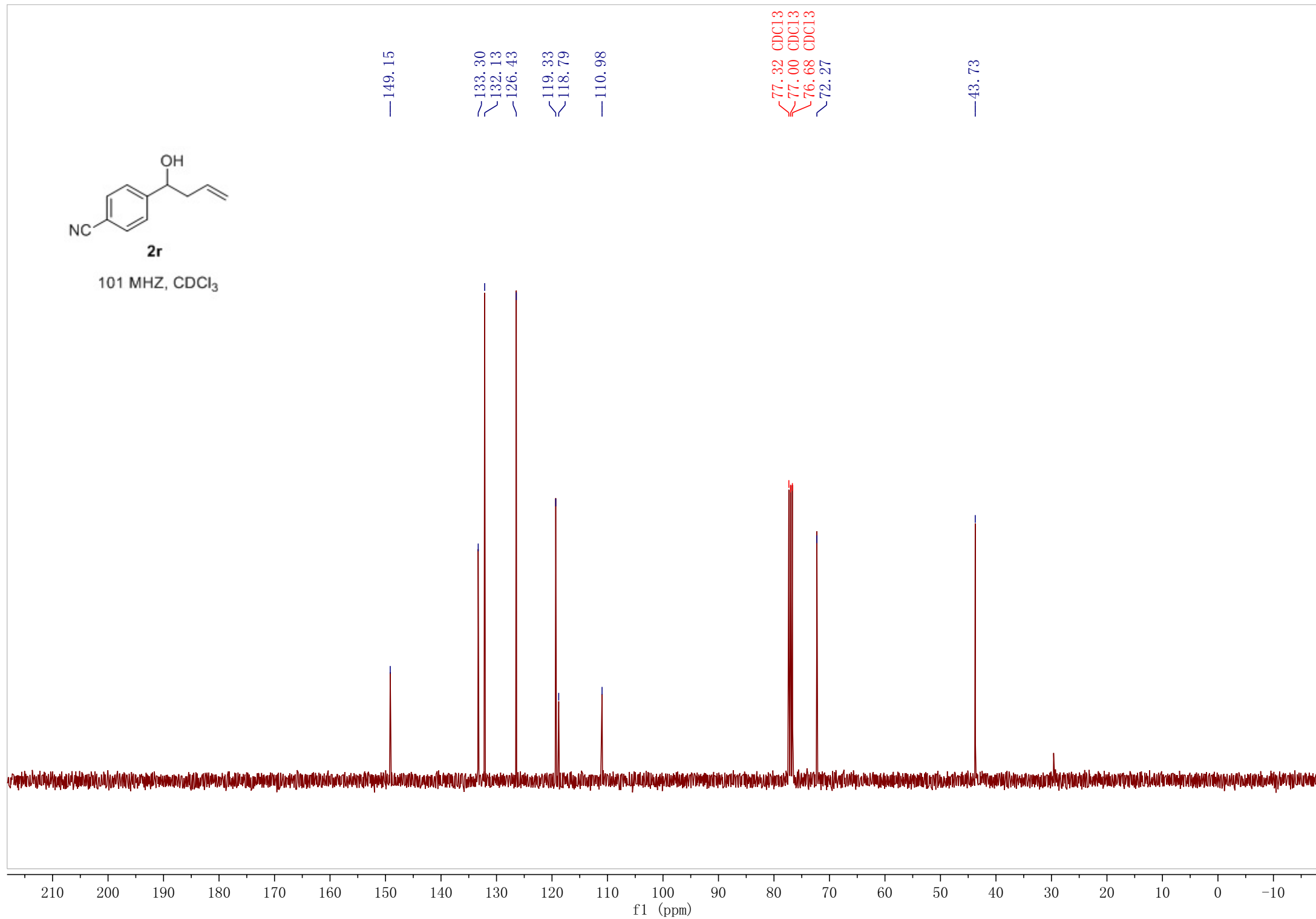
2.49
2.45
2.44
2.41
2.39

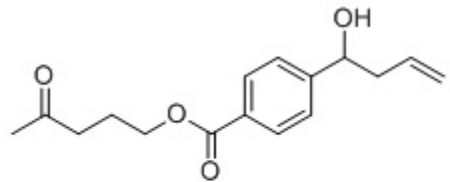




2r

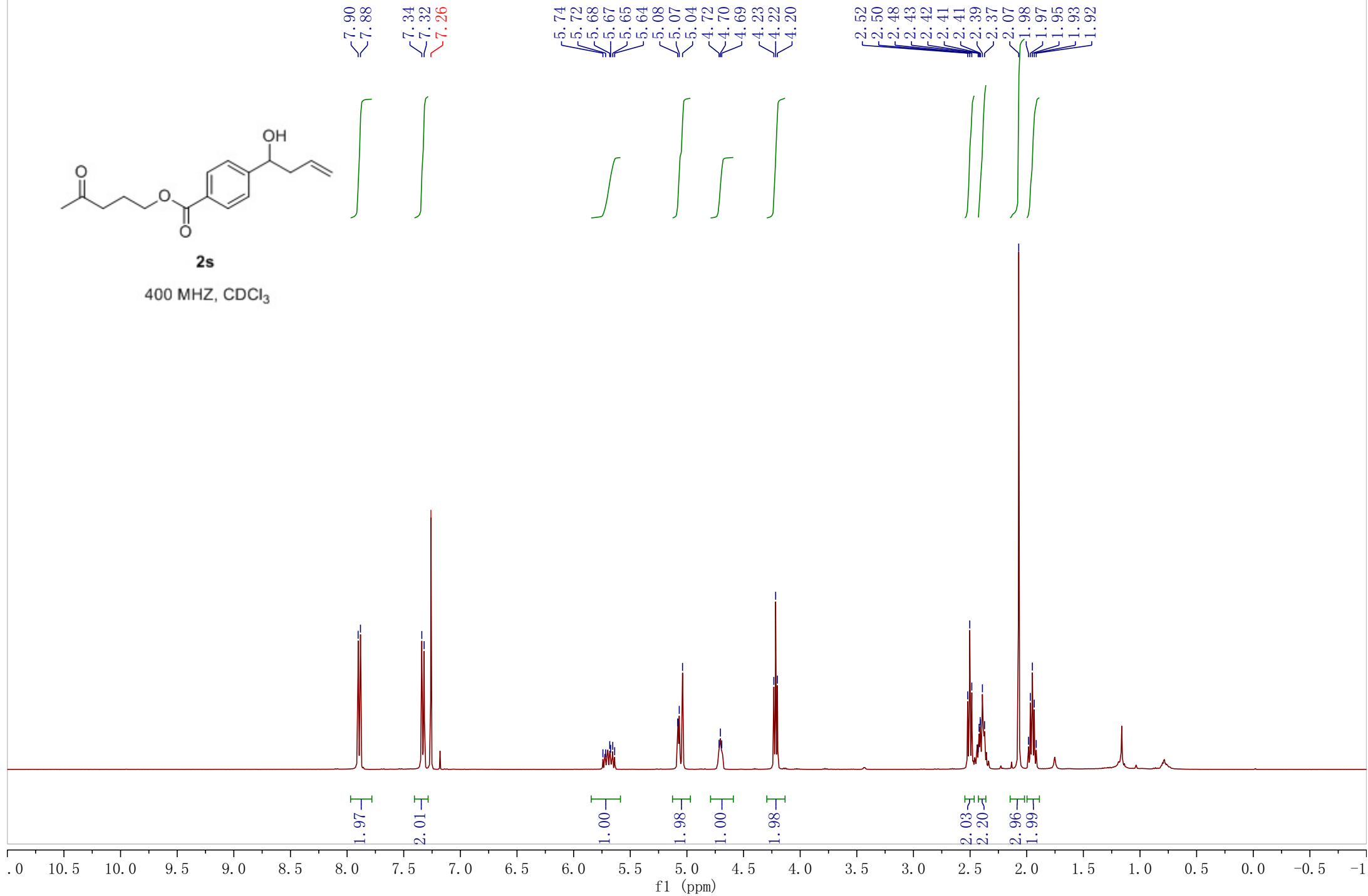
101 MHz, CDCl₃

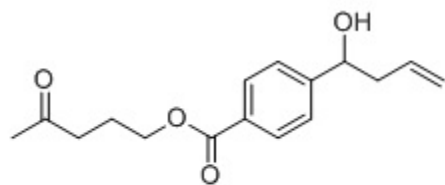




2s

400 MHz, CDCl₃





2s

101 MHz, CDCl₃

—207.75

—166.32

—149.10

—133.78

—129.60

—128.25

—125.70

—118.82

77.32 CDCl₃

77.00 CDCl₃

76.68 CDCl₃

72.67

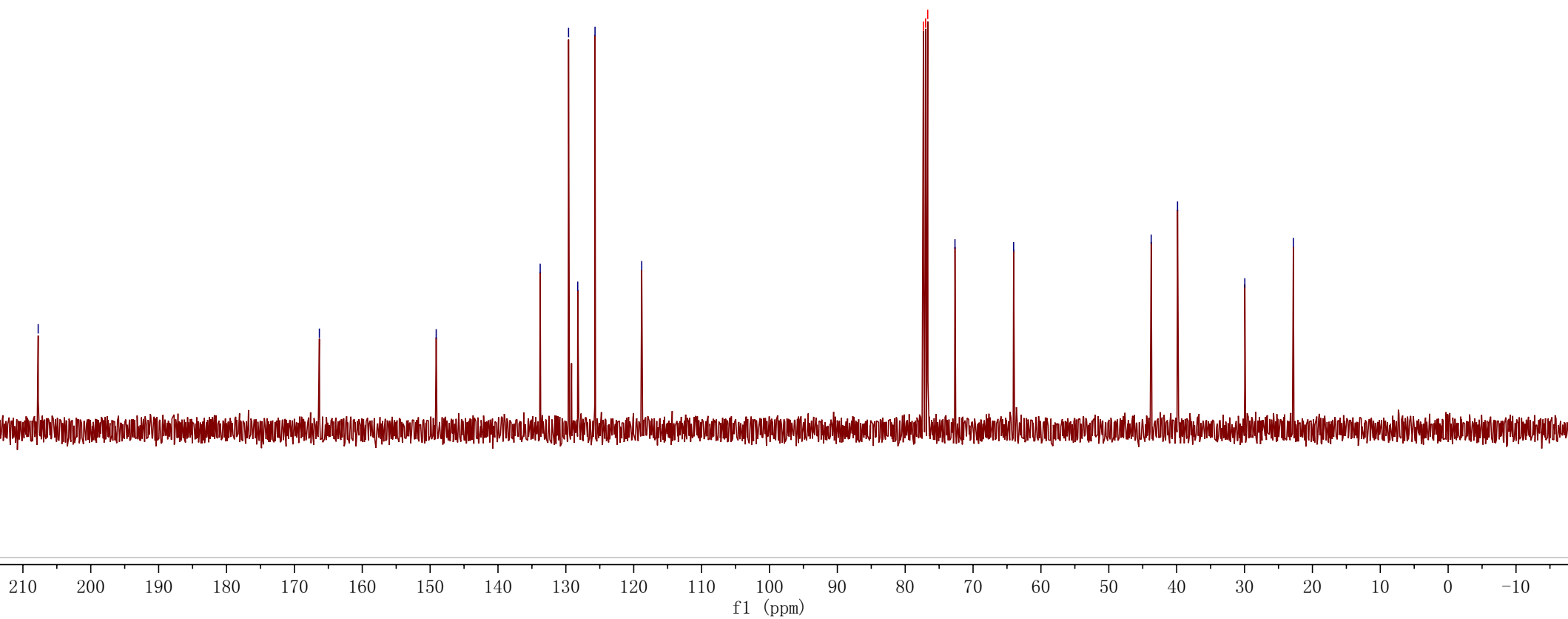
—64.02

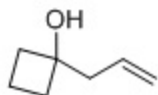
—43.76

—39.87

—29.96

—22.81





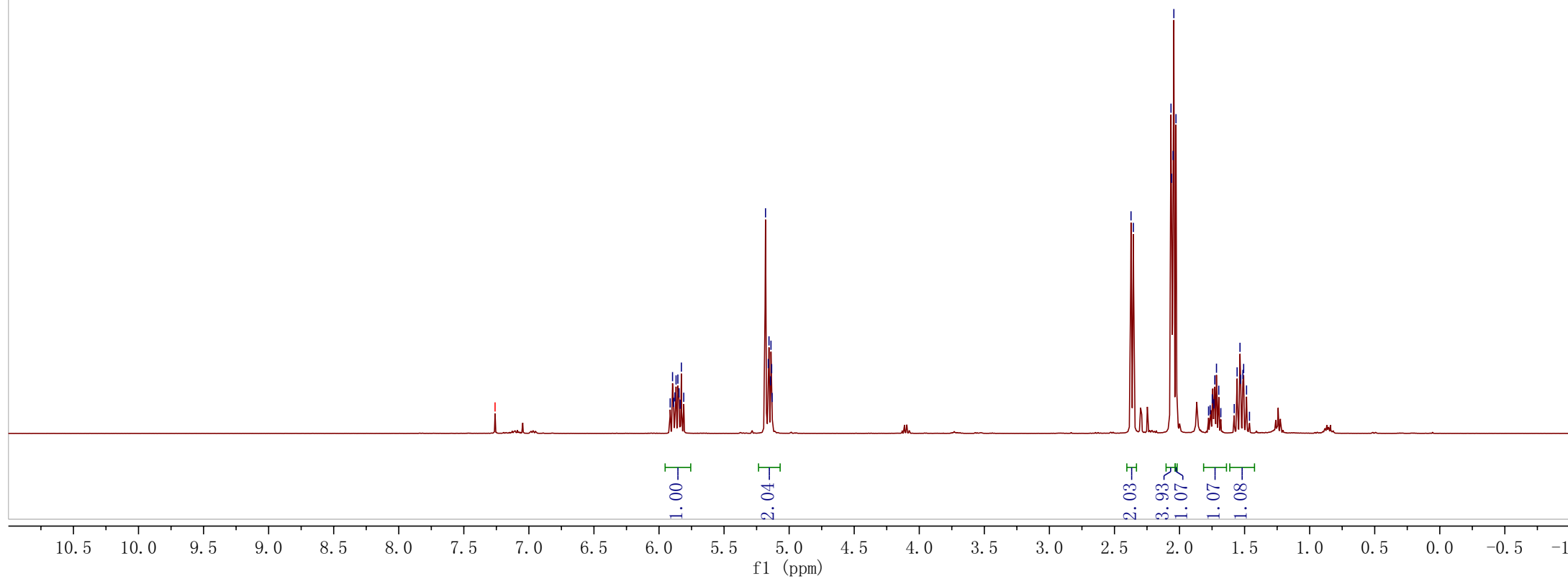
4a

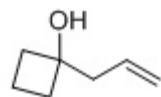
400 MHZ, CDCl₃

—7.26 CDCl₃

5.91
5.90
5.89
5.88
5.87
5.86
5.85
5.84
5.83
5.81
5.18
5.16
5.15
5.14
5.13
5.13

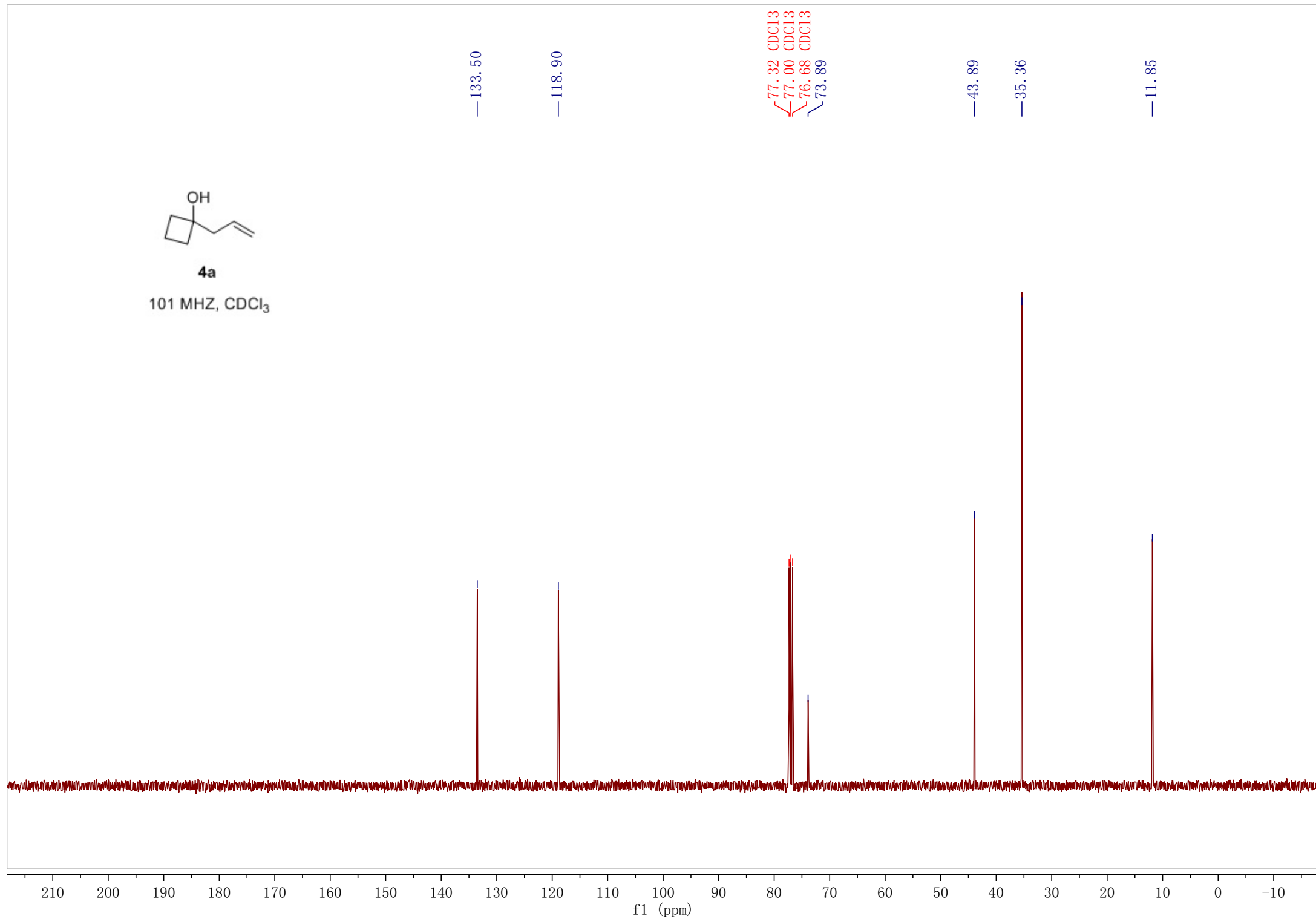
2.37
2.35
2.07
2.06
2.05
2.04
2.03
1.78
1.76
1.75
1.74
1.73
1.72
1.70
1.68
1.58
1.56
1.54
1.53
1.51
1.51
1.48
1.46

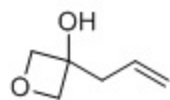




4a

101 MHz, CDCl₃



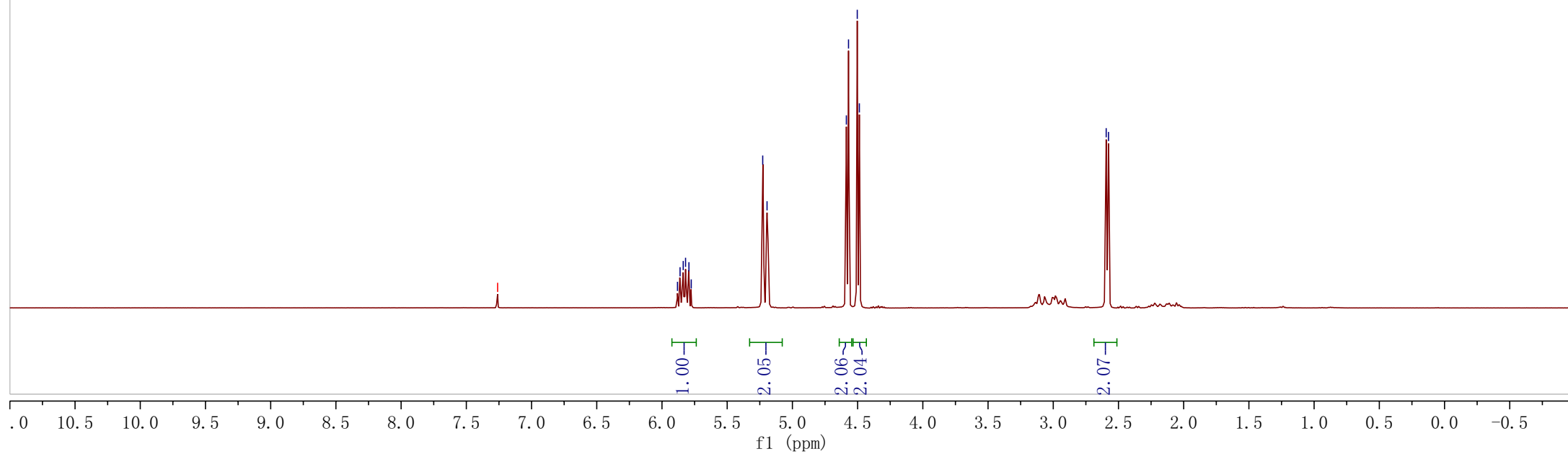


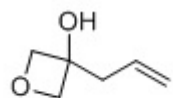
4b

400 MHz, CDCl₃

—7.26 CDCl₃

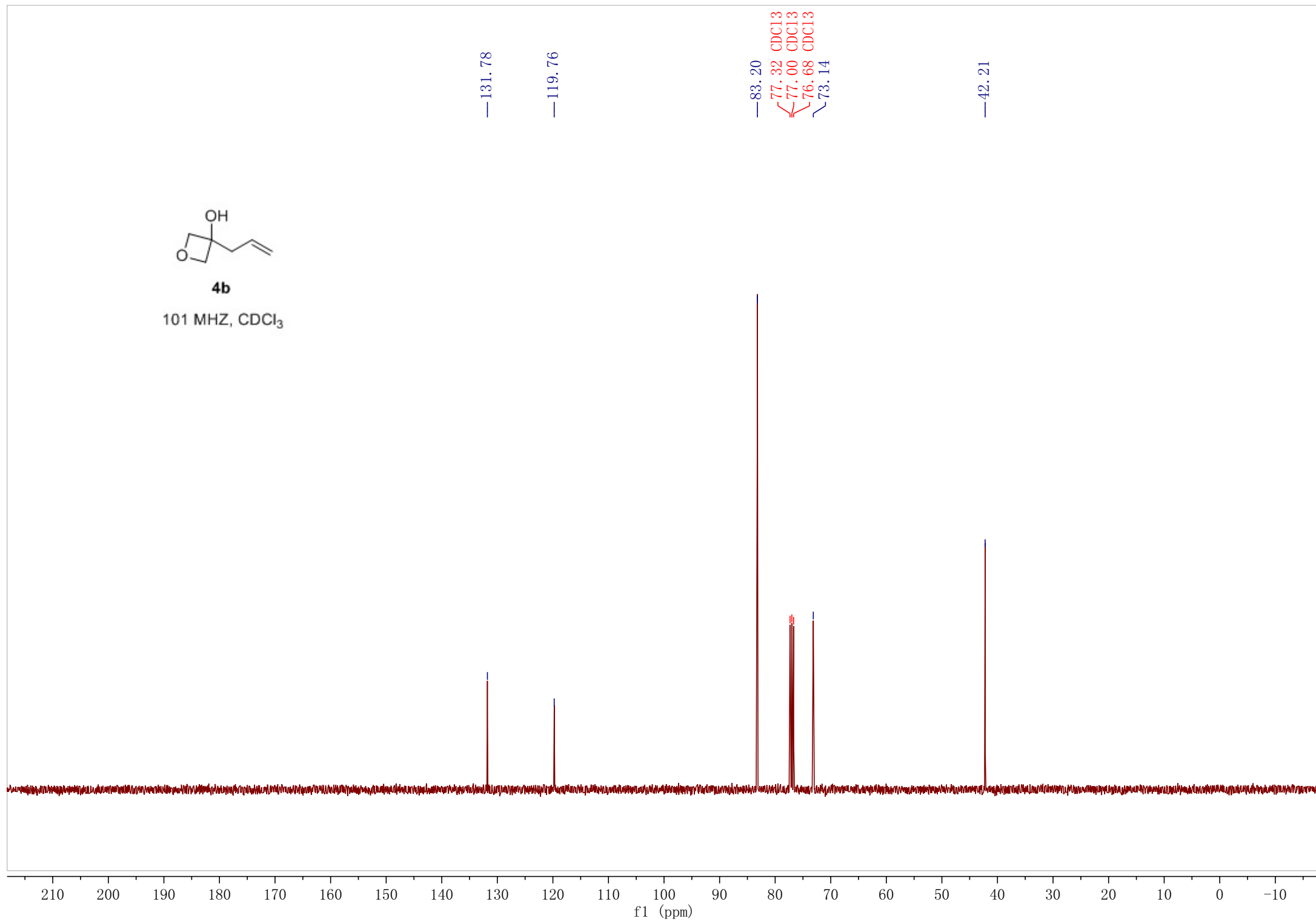
5.88
5.86
5.84
5.82
5.79
5.78
5.23
5.19
4.59
4.57
4.50
4.49
2.59
2.58

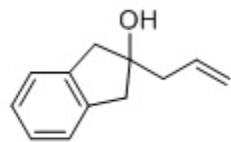




4b

101 MHz, CDCl₃



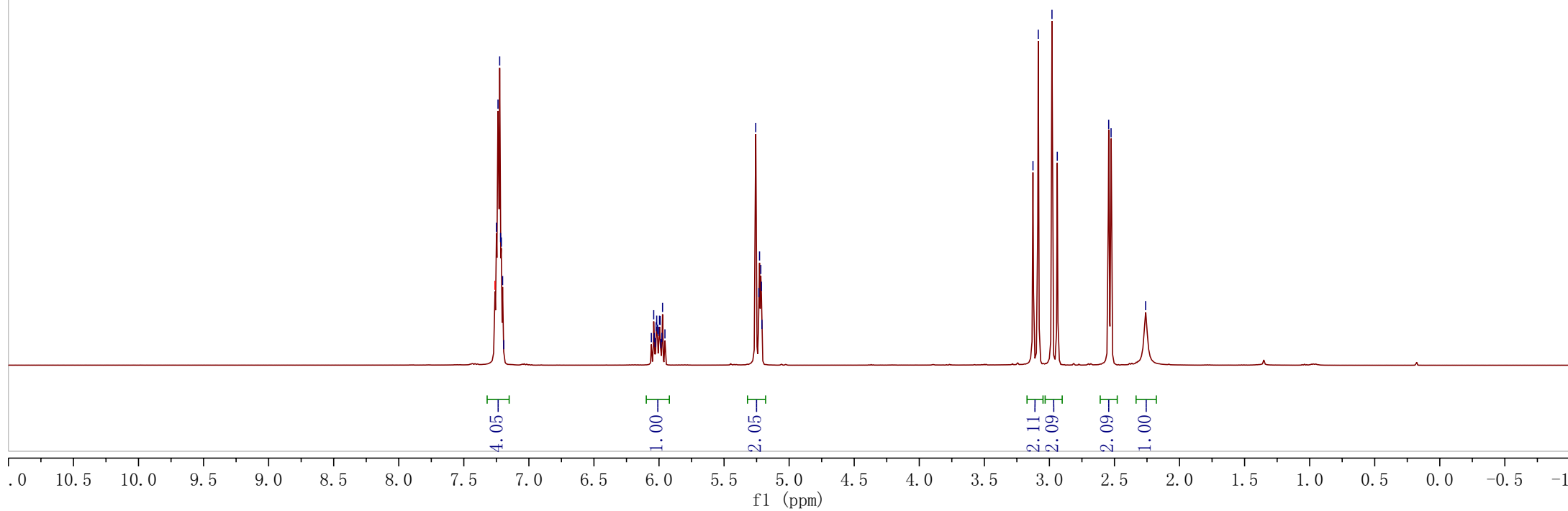


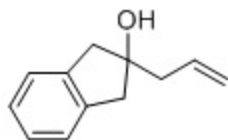
4c

400 MHz, CDCl₃

7.26 CDCl₃
7.25
7.24
7.22
7.22
7.21
7.20
7.19
6.06
6.04
6.03
6.02
6.02
6.01
6.00
5.99
5.99
5.98
5.97
5.95
5.26
5.23
5.23
5.22
5.21
5.21

3.13
3.09
2.98
2.94
2.54
2.53
2.26





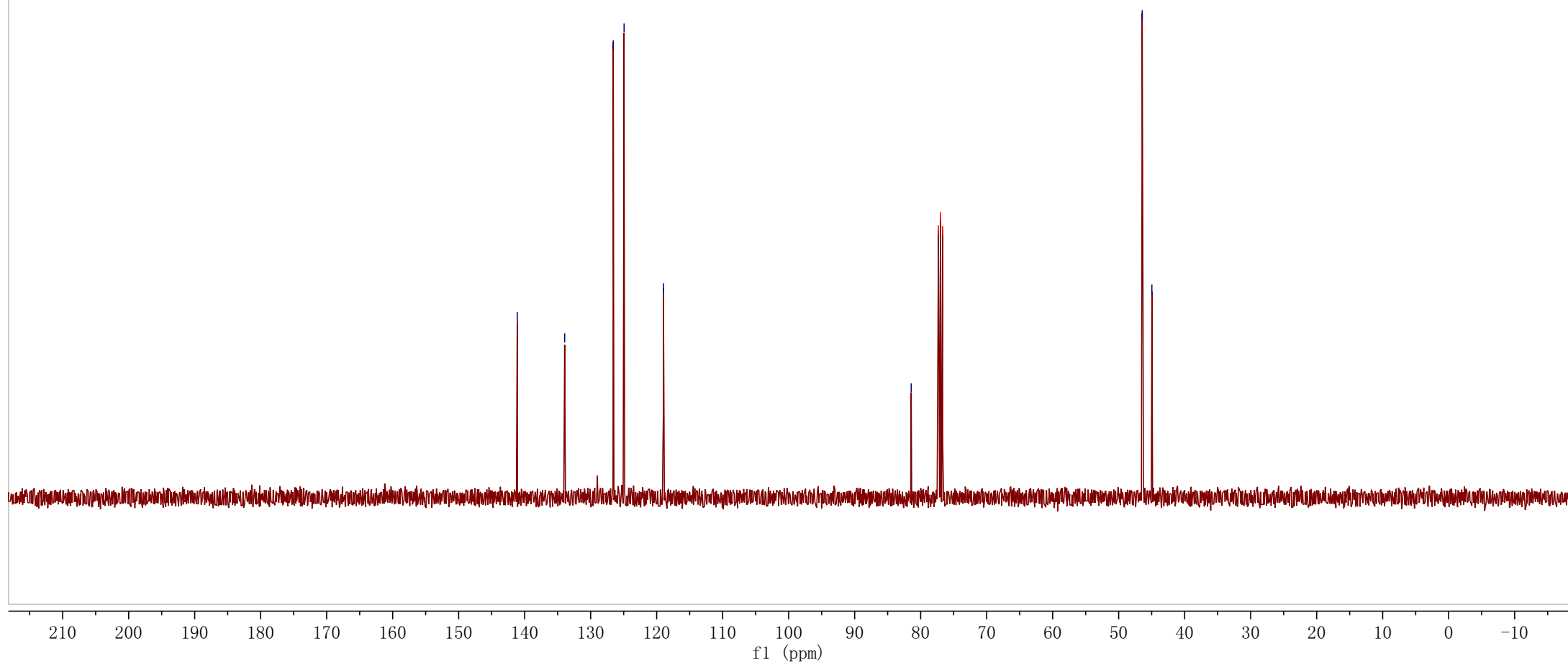
4c

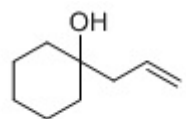
101 MHz, CDCl₃

— 141.12
— 133.94
~ 126.57
~ 124.94
— 118.98

~ 81.43 CDCl₃
~ 77.32 CDCl₃
~ 77.00 CDCl₃
~ 76.68 CDCl₃

~ 46.43
~ 44.97





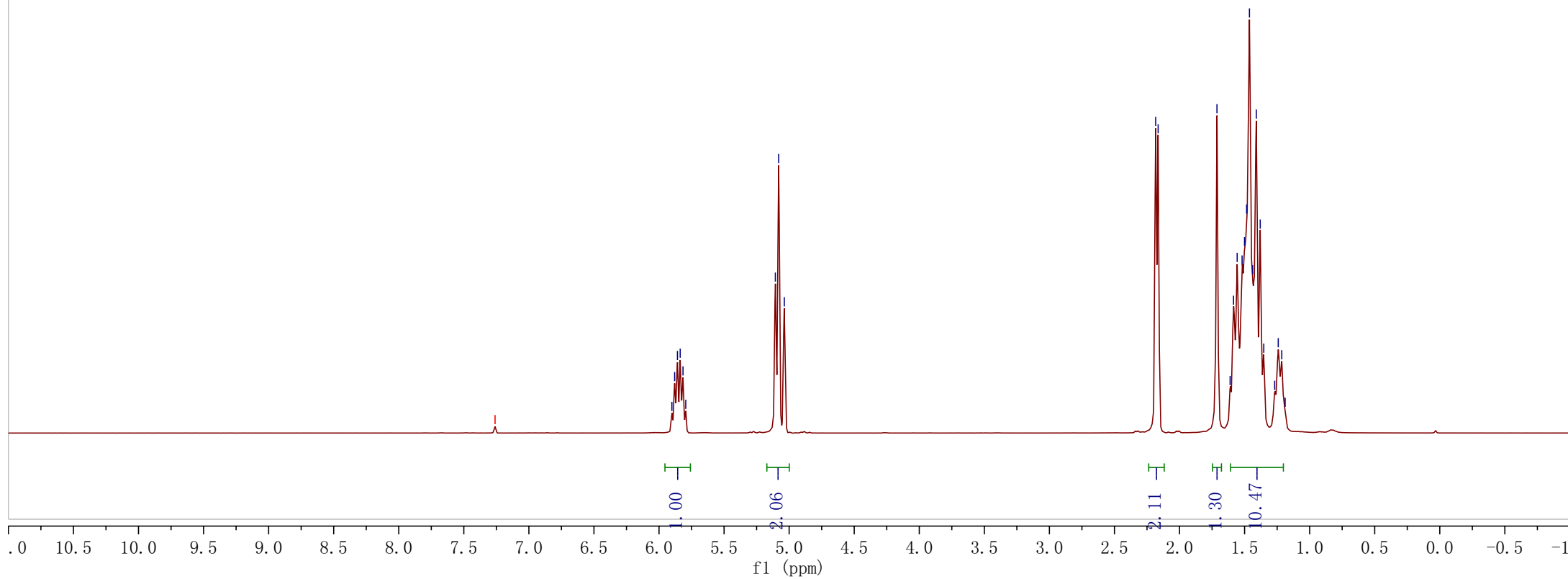
4d

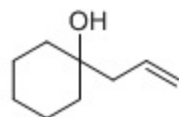
400 MHz, CDCl₃

—7.26 CDCl₃

5.90
5.88
5.86
5.84
5.82
5.79
5.11
5.08
5.04

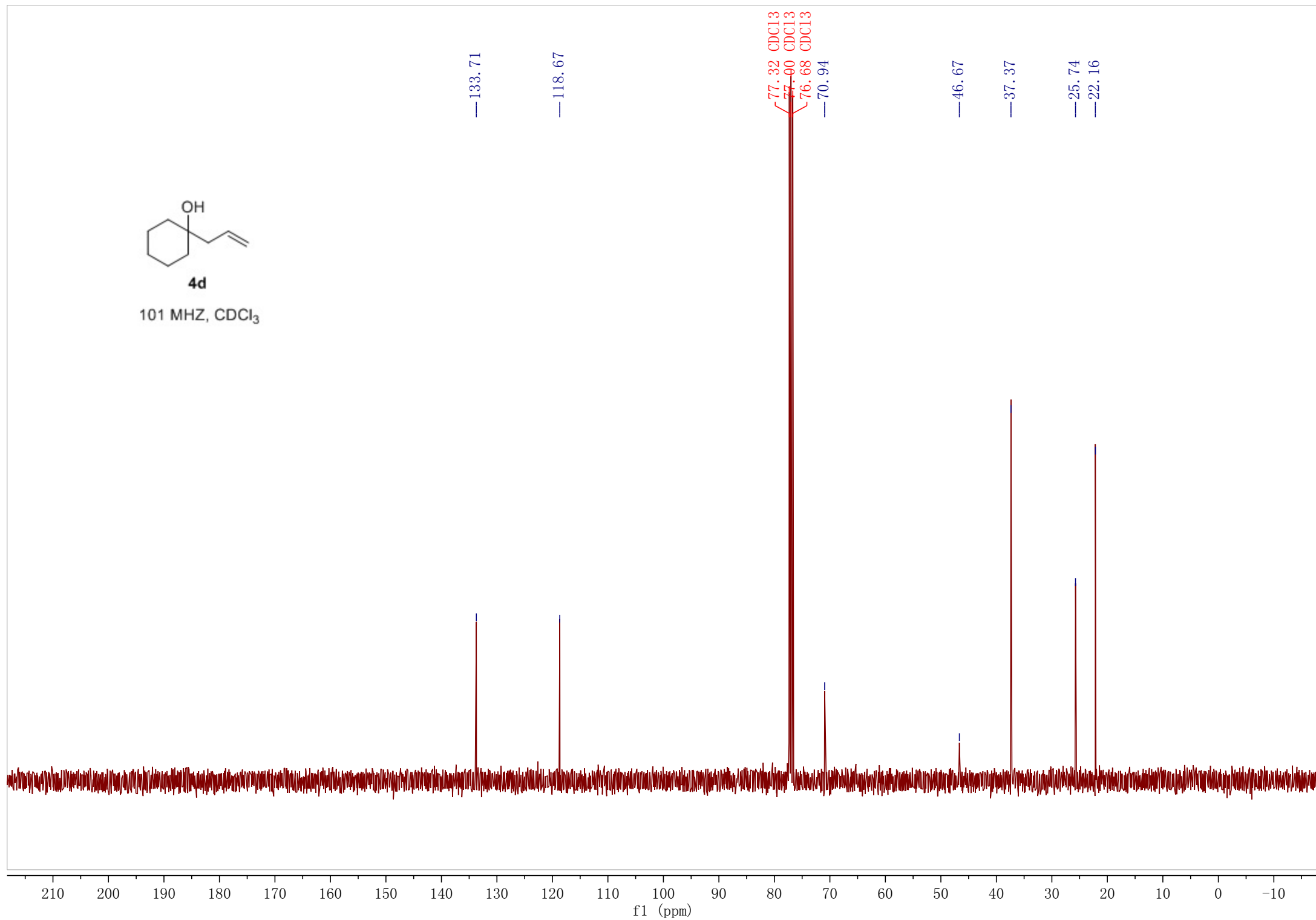
2.18
2.16
1.71
1.61
1.59
1.56
1.52
1.50
1.48
1.46
1.44
1.41
1.38
1.35
1.27
1.24
1.21
1.19

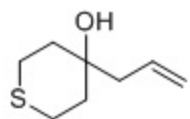




4d

101 MHz, CDCl₃





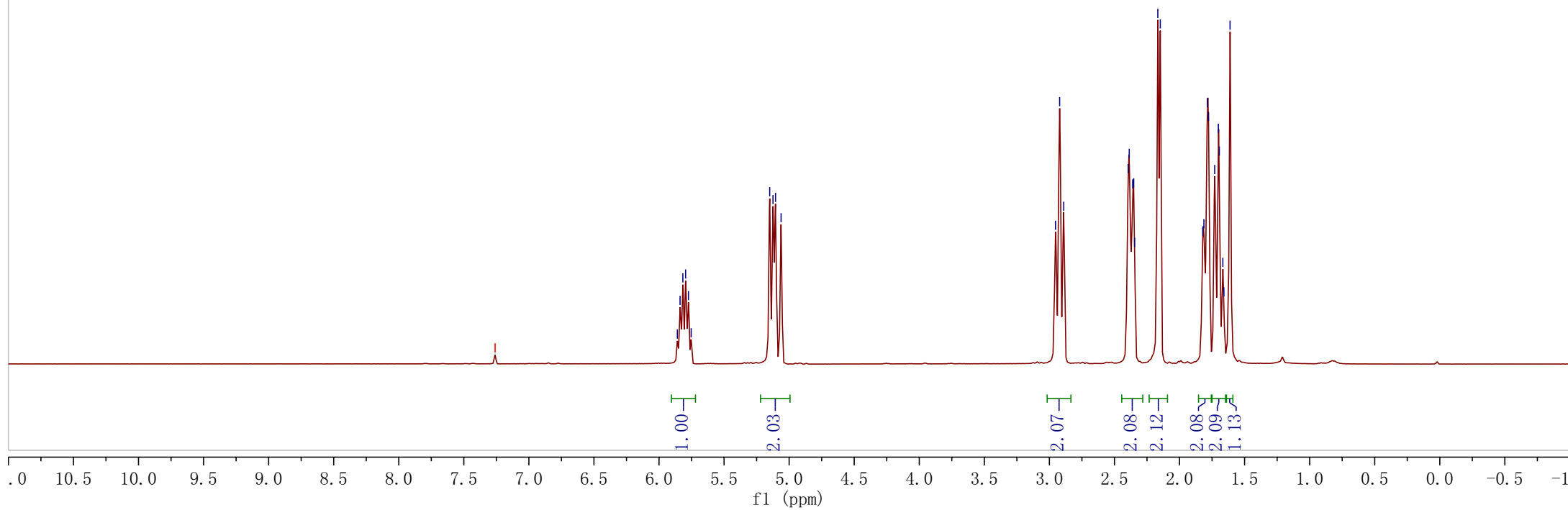
4e

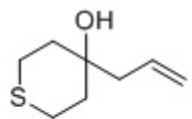
400 MHZ, CDCl₃

—7.26 CDCl₃

5.86
5.84
5.82
5.80
5.77
5.75
5.15
5.12
5.10
5.06

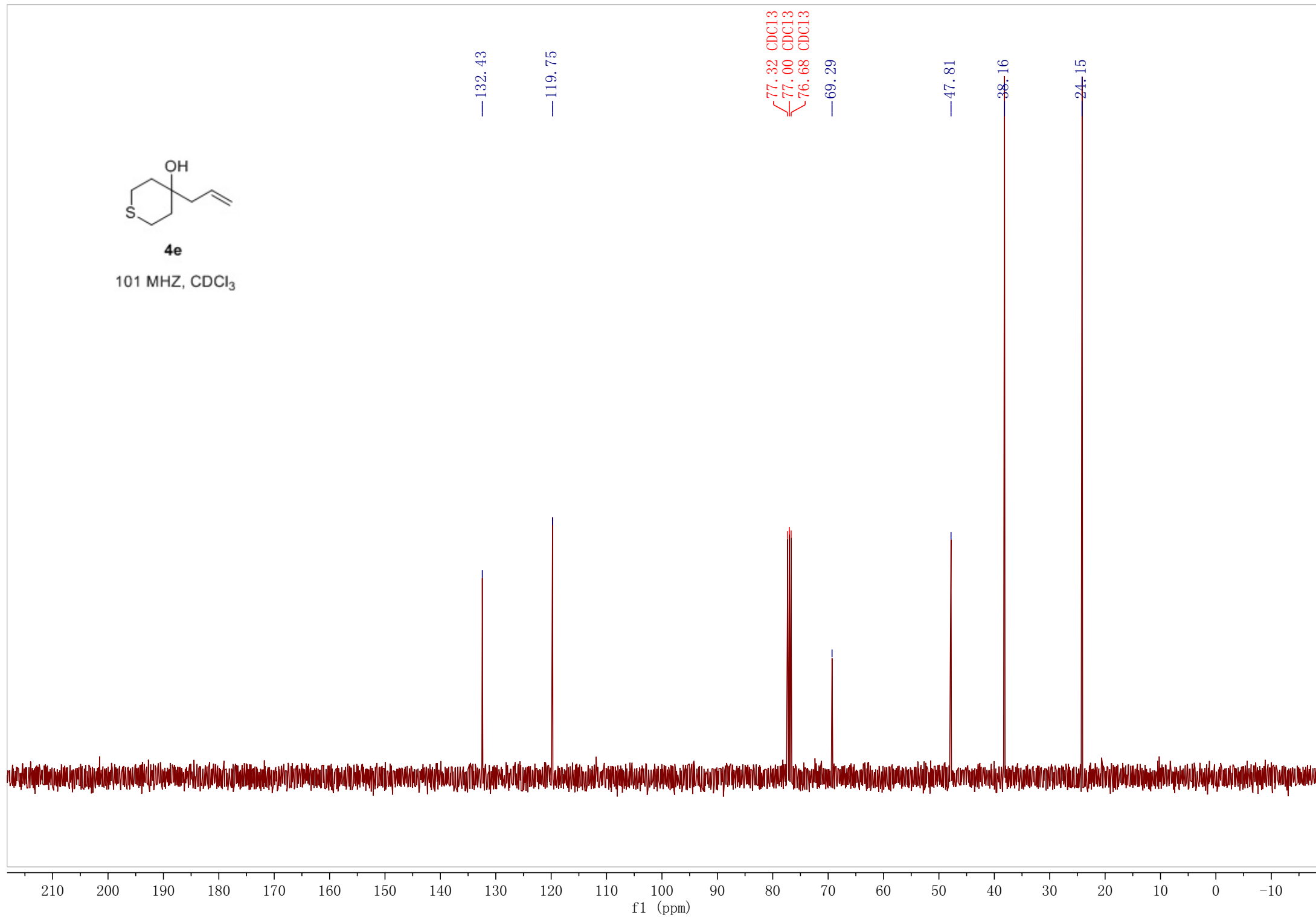
2.95
2.92
2.89
2.39
2.36
2.35
2.35
2.17
2.15
1.82
1.81
1.79
1.78
1.73
1.70
1.69
1.67
1.66
1.61

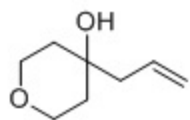




4e

101 MHz, CDCl₃





4f

400 MHZ, CDCl₃

—7.26 CDCl₃

5.88
5.86
5.84
5.82
5.80
5.78
5.16
5.13
5.12
5.08

3.76
3.73
3.70
3.63

2.21
2.19
1.98
1.69
1.68
1.66
1.65
1.64
1.63
1.62
1.46
1.42

1.00

2.05

4.18

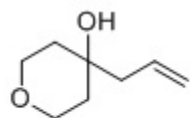
2.16

1.17

2.13

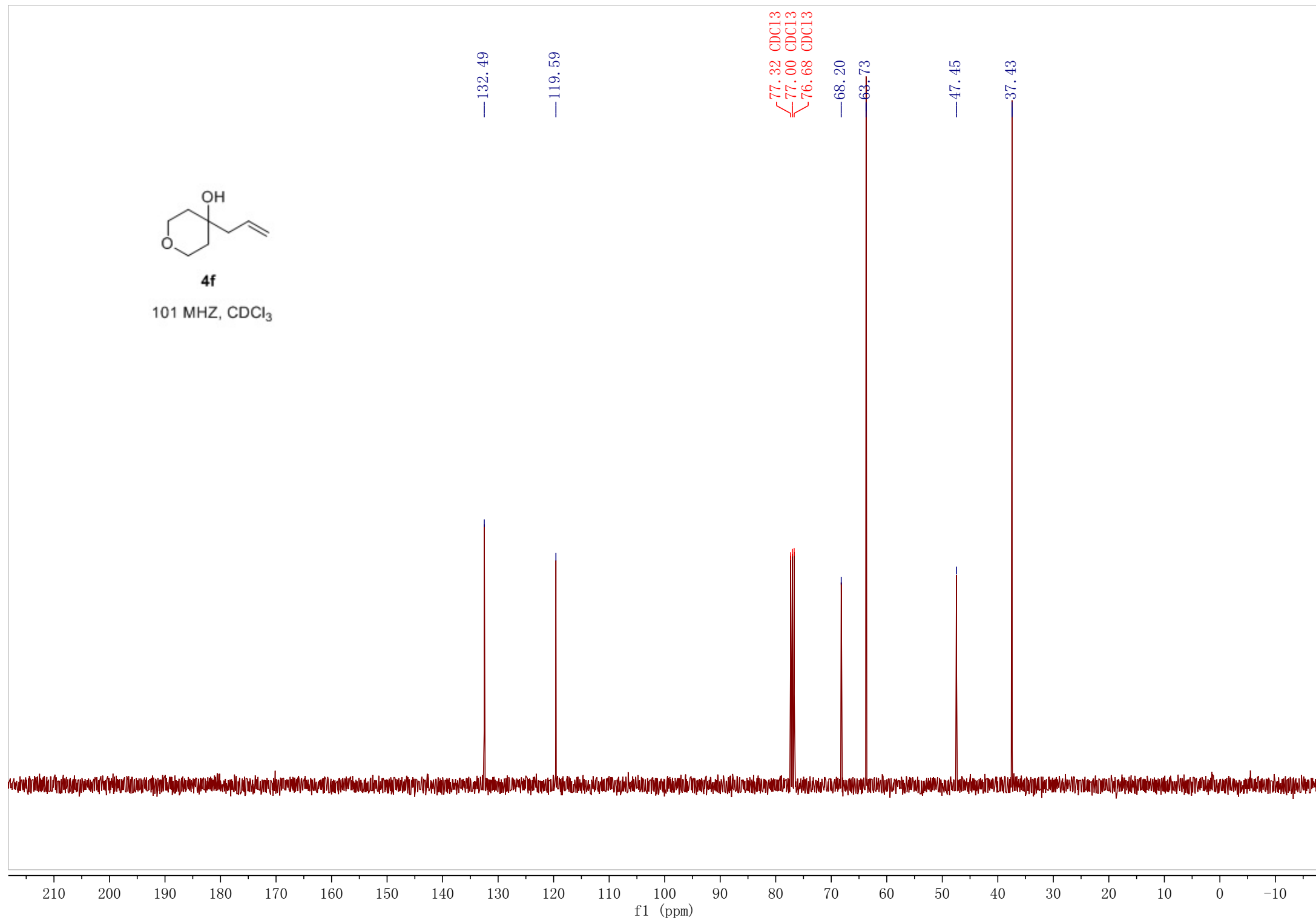
2.10

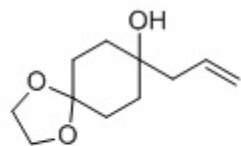
f1 (ppm)



4f

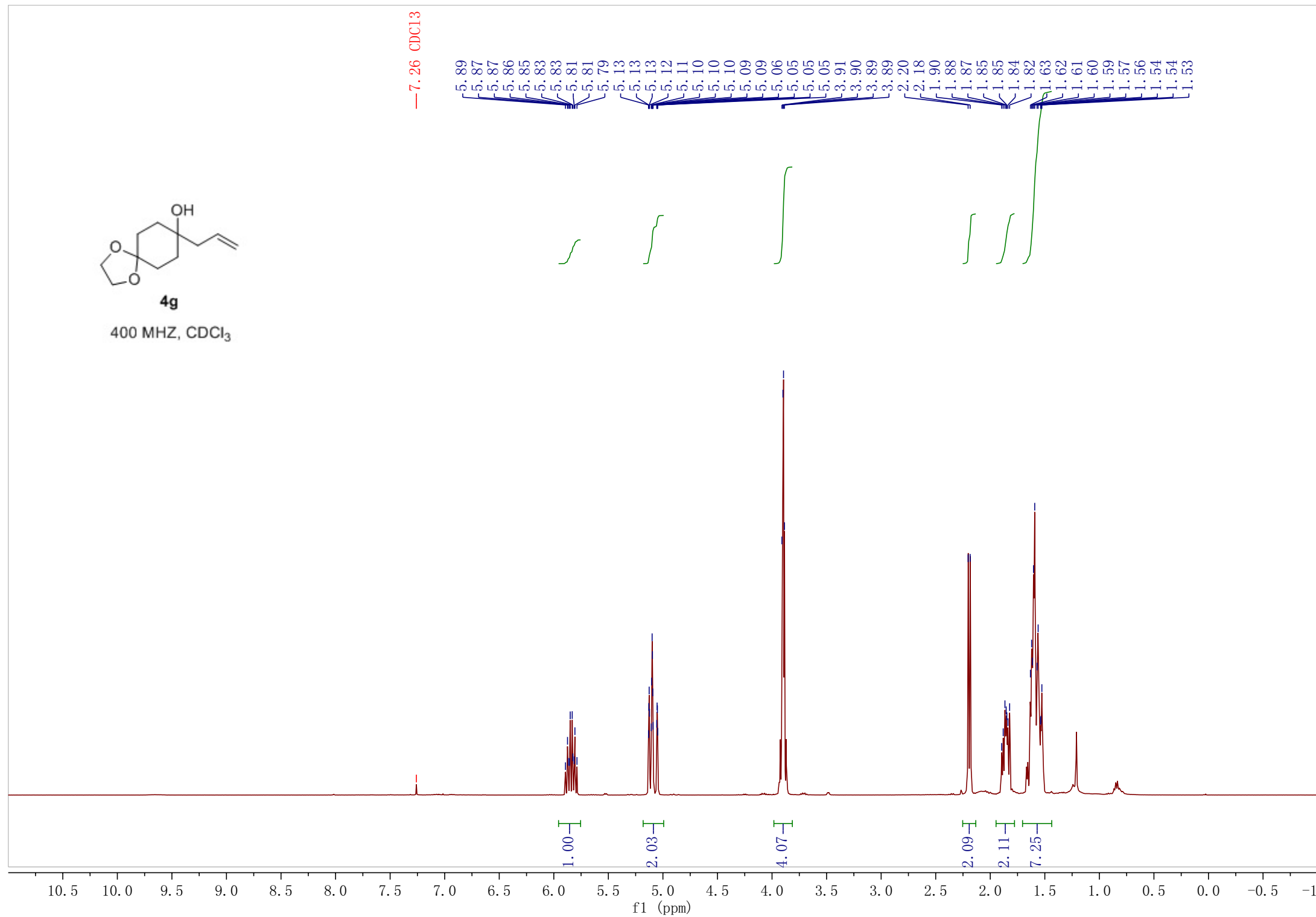
101 MHz, CDCl₃

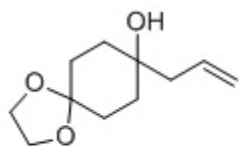




4g

400 MHZ, CDCl₃





4g

101 MHz, CDCl₃

—133.38

—118.96

—108.70

77.32 CDCl₃
77.00 CDCl₃
76.68 CDCl₃

69.79
64.12
64.05

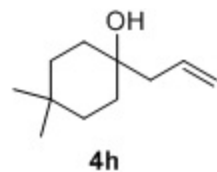
—46.76

—34.54

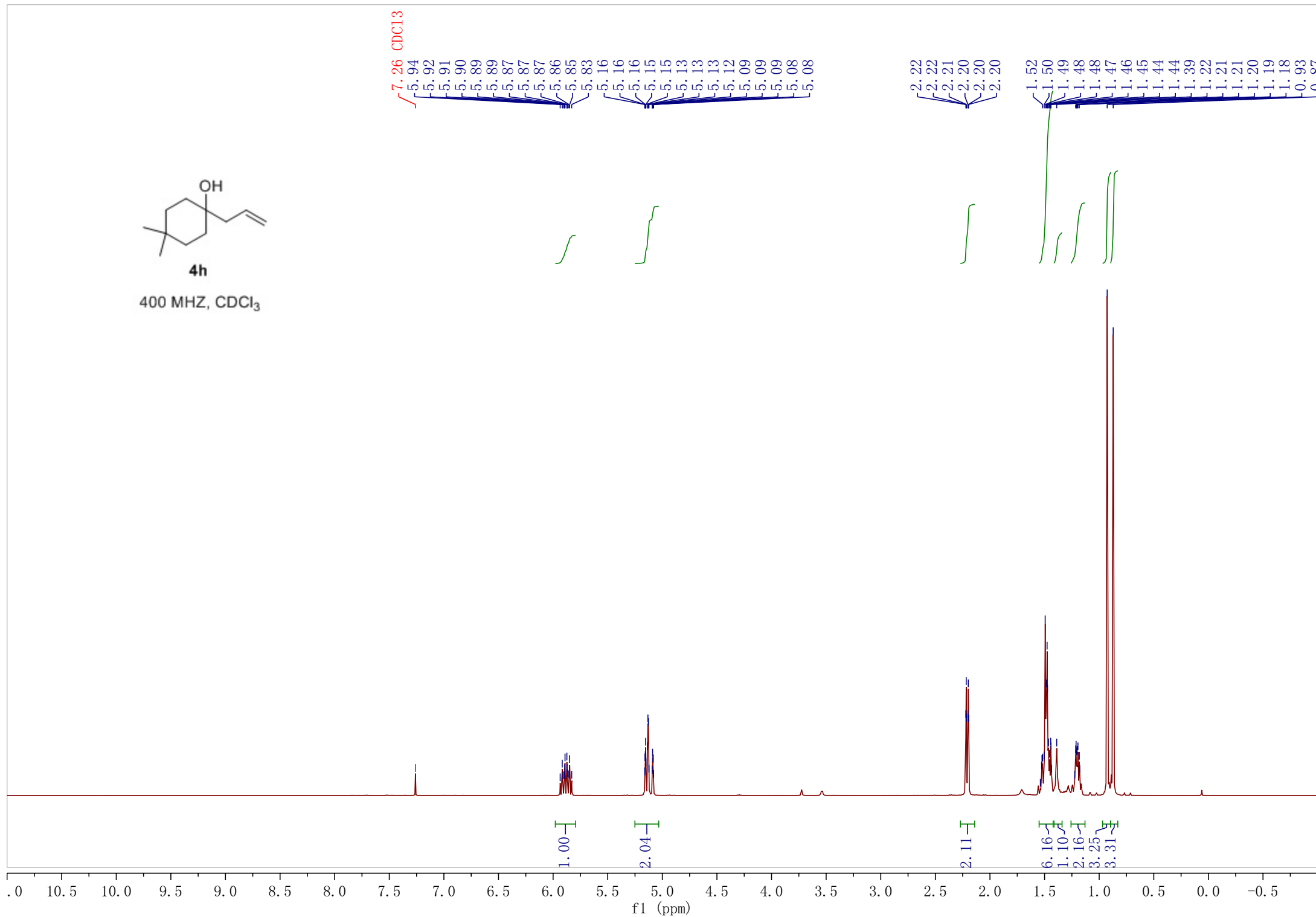
—30.34

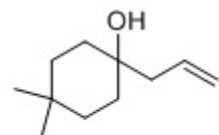
210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10

f1 (ppm)



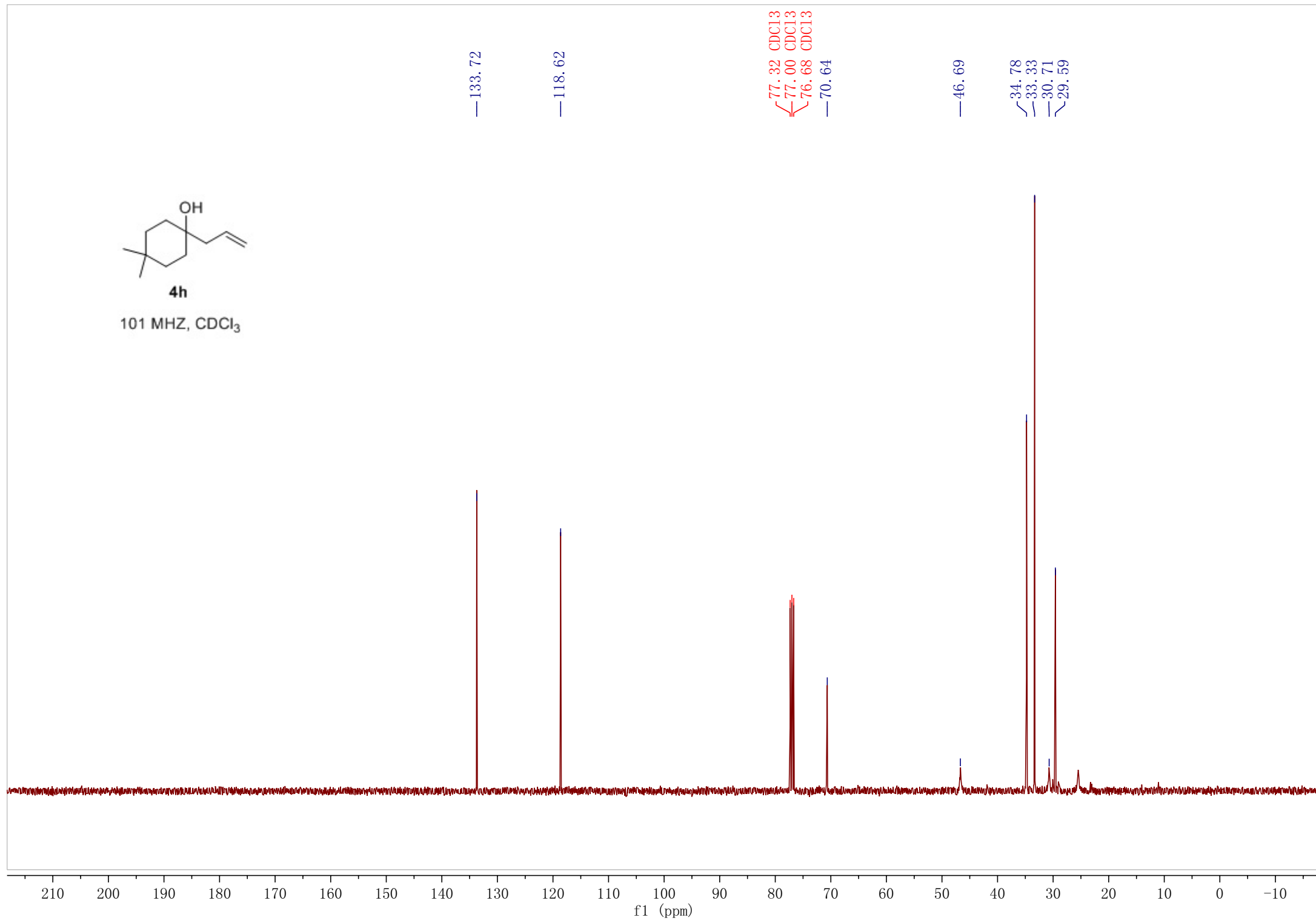
400 MHZ, CDCl₃

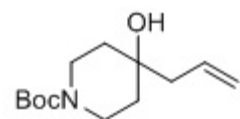




4h

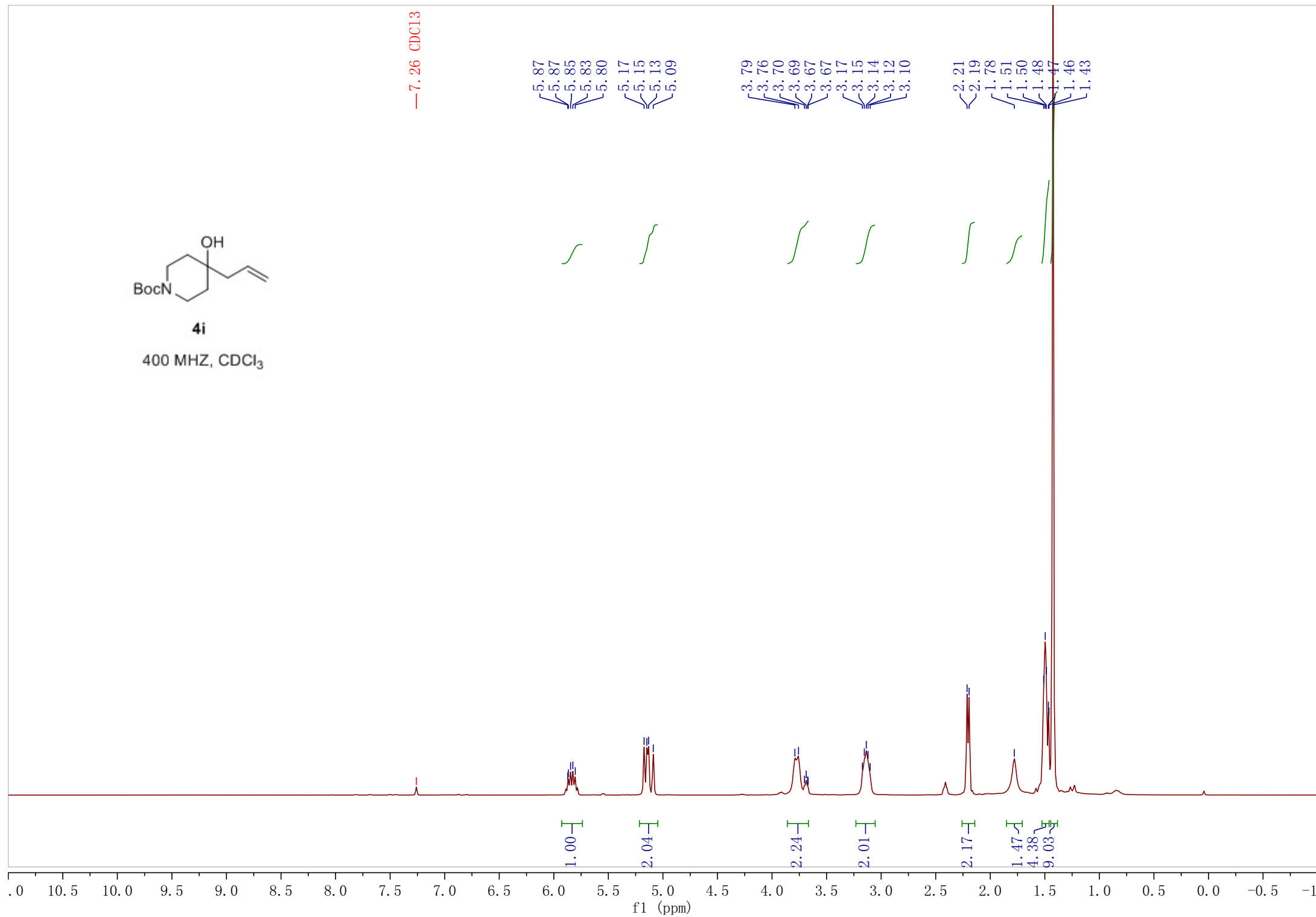
101 MHz, CDCl₃

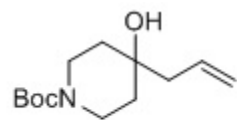




4i

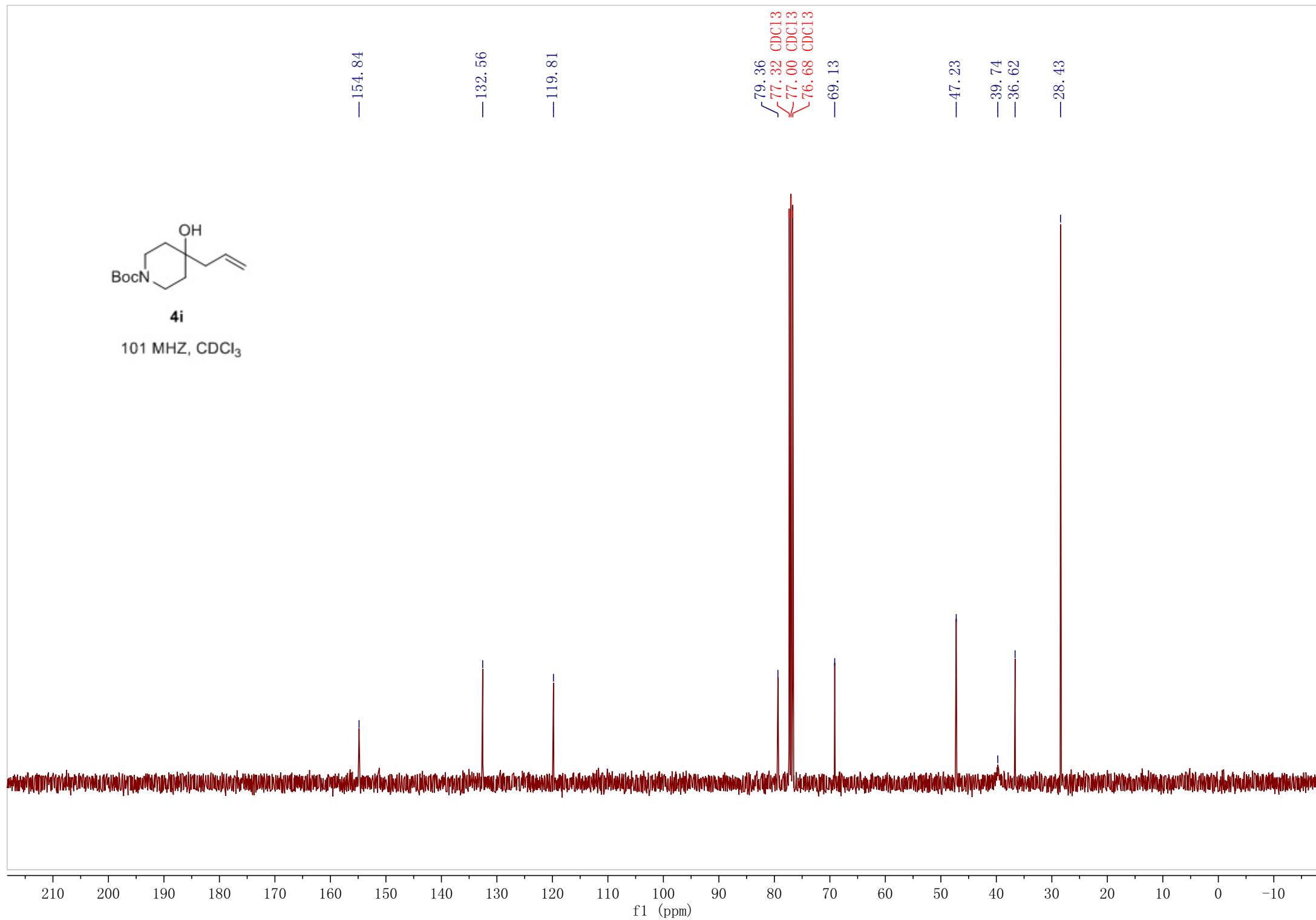
400 MHZ, CDCl₃

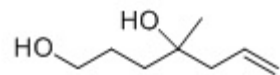




4i

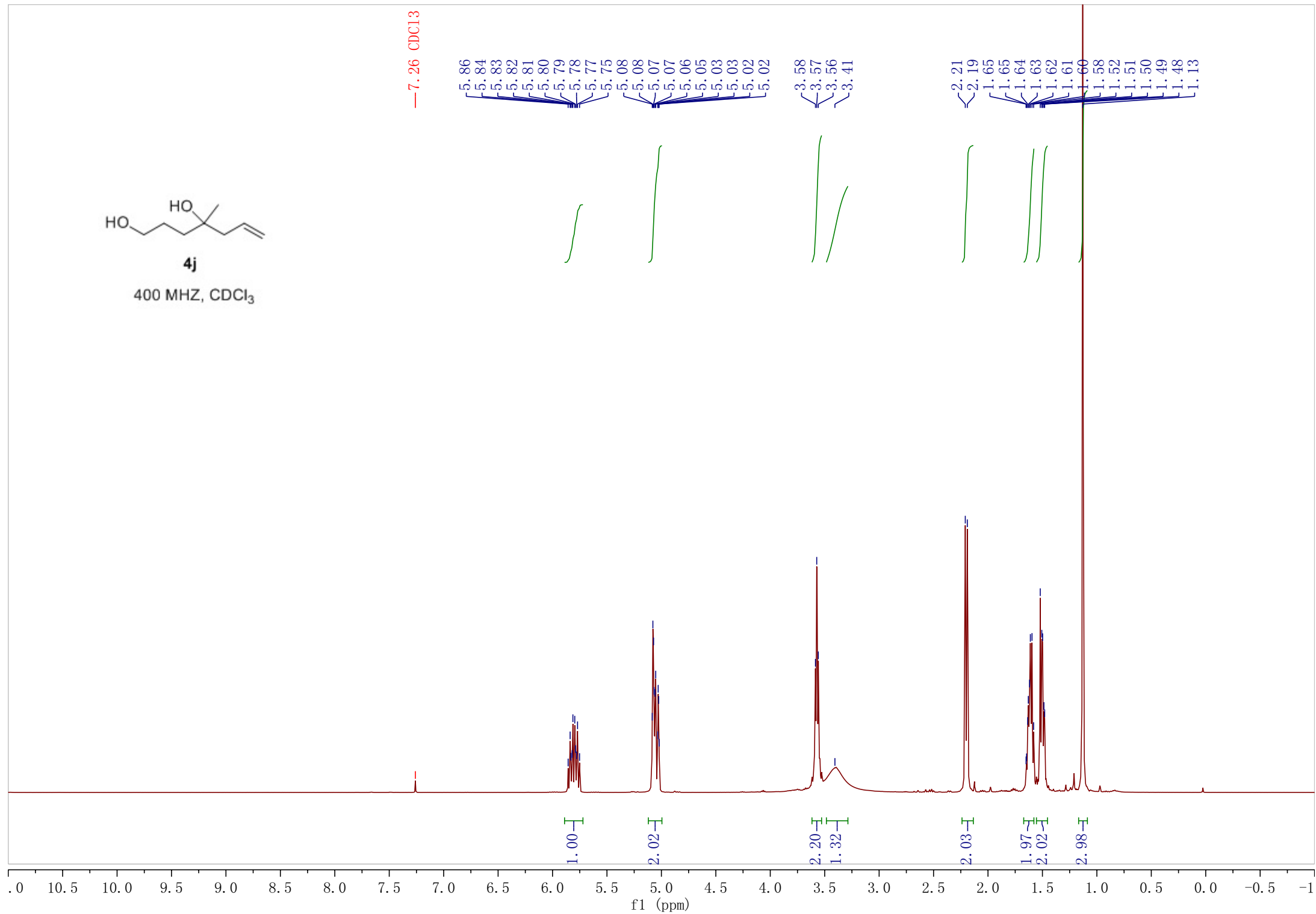
101 MHz, CDCl₃

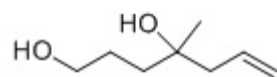




4j

400 MHz, CDCl₃





4j

101 MHz, CDCl₃

—133.92

—118.66

77.32 CDCl₃
77.00 CDCl₃
76.68 CDCl₃
71.83

—63.12

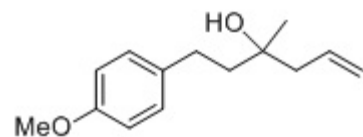
—46.63

—38.41

26.89
26.58

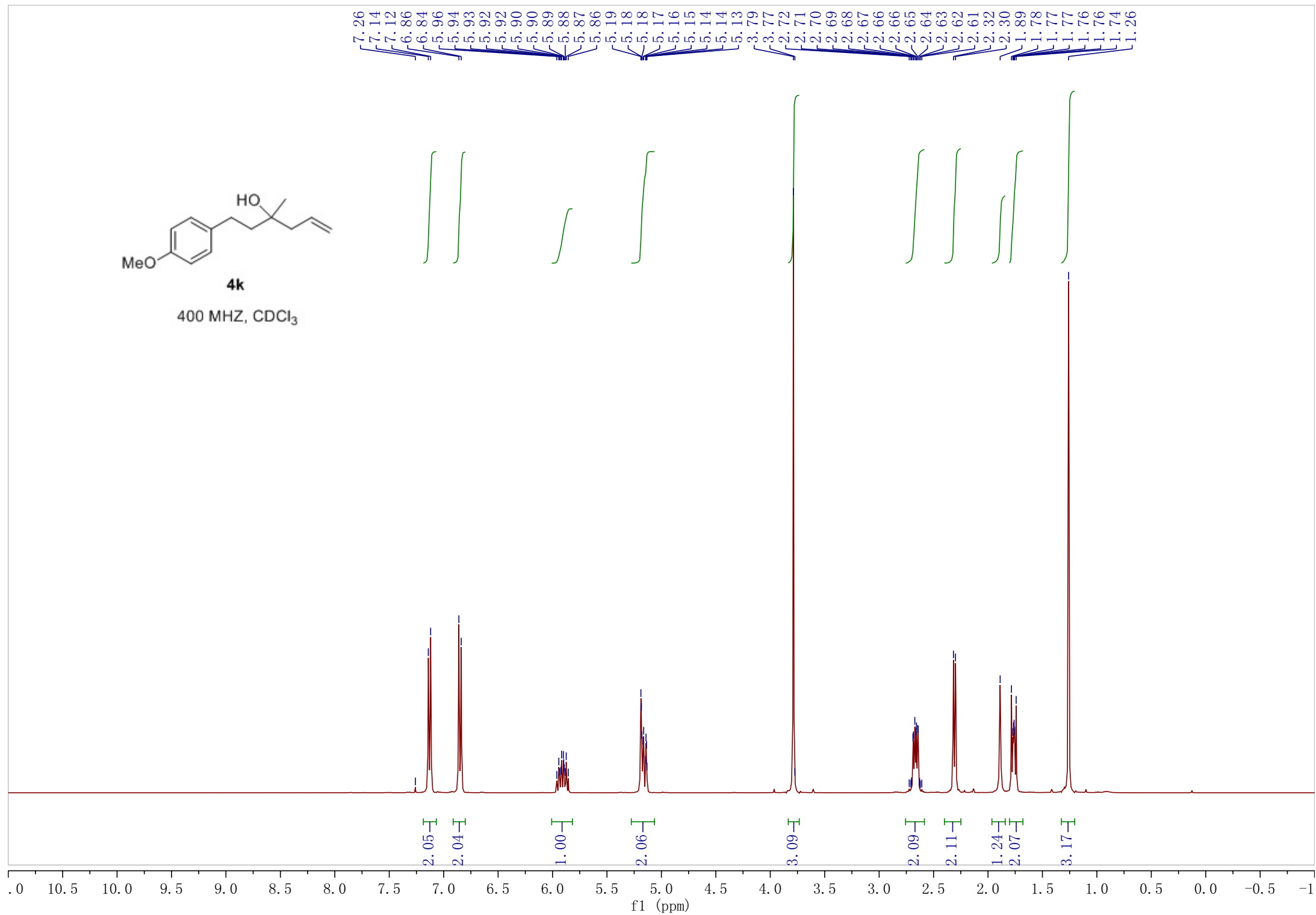
210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10

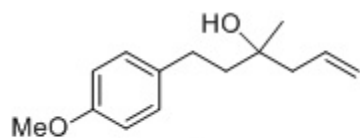
f1 (ppm)



4k

400 MHz, CDCl₃





4k

101 MHz, CDCl₃

—157.70
—154.58

—134.49
—133.82
—129.15

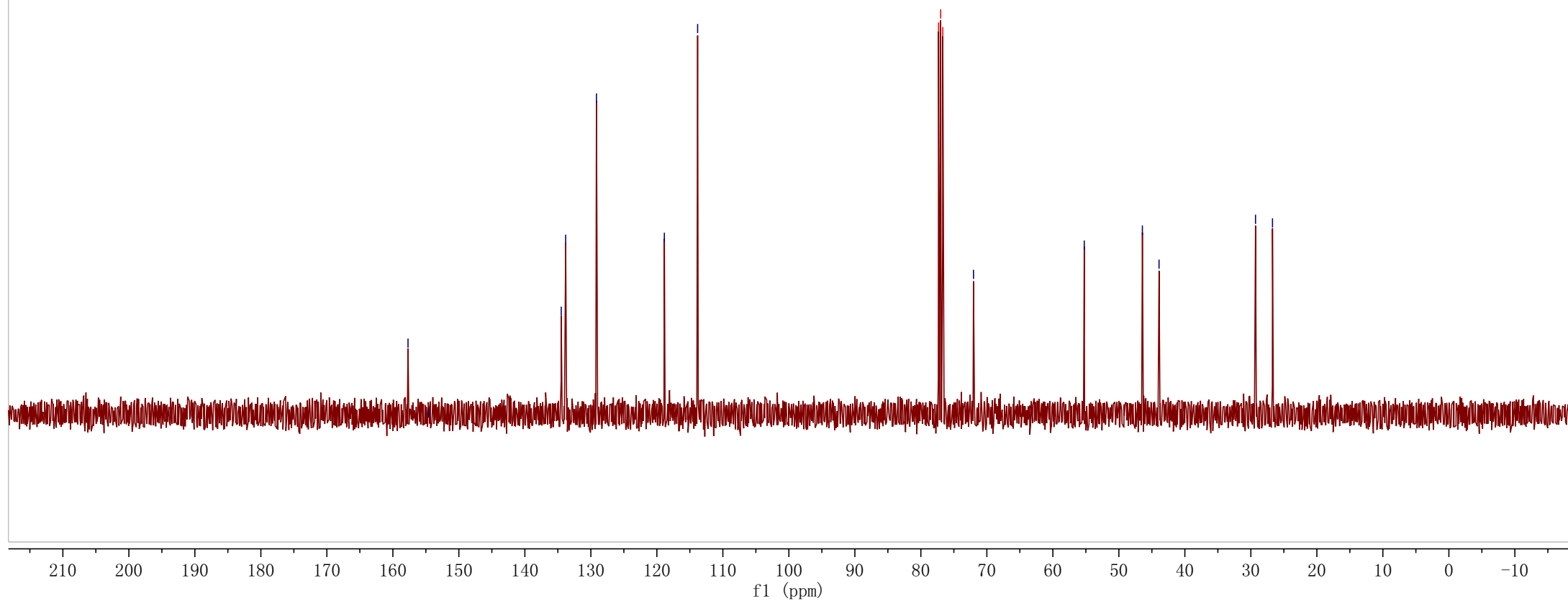
—118.87
—113.82

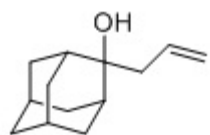
77.32 CDCl₃
77.00 CDCl₃
76.68 CDCl₃
72.02

—55.24

—46.43
—43.91

—29.29
—26.72





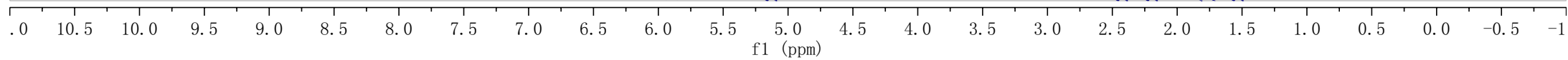
4l

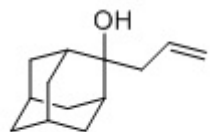
400 MHZ, CDCl₃

—7.26 CDCl₃

5.93
5.91
5.90
5.89
5.88
5.87
5.86
5.85
5.84
5.82
5.15
5.15
5.14
5.12
5.12
5.09
5.09

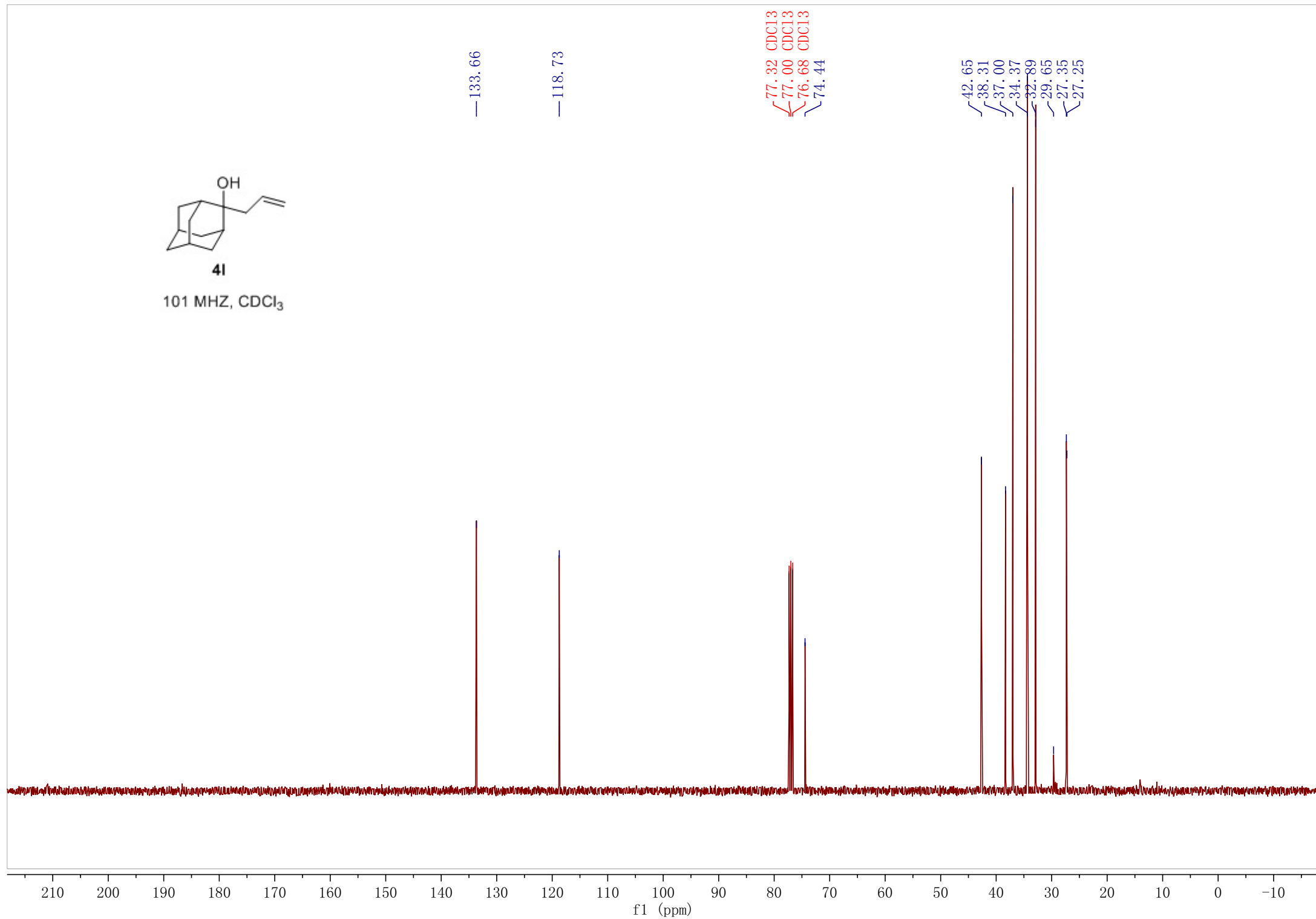
2.43
2.41
2.20
2.19
2.17
2.16
1.88
1.87
1.84
1.81
1.80
1.80
1.79
1.78
1.77
1.76
1.71
1.71
1.70
1.67
1.66
1.66
1.53
1.52
1.49

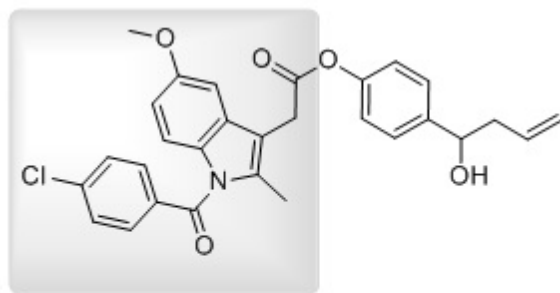




4l

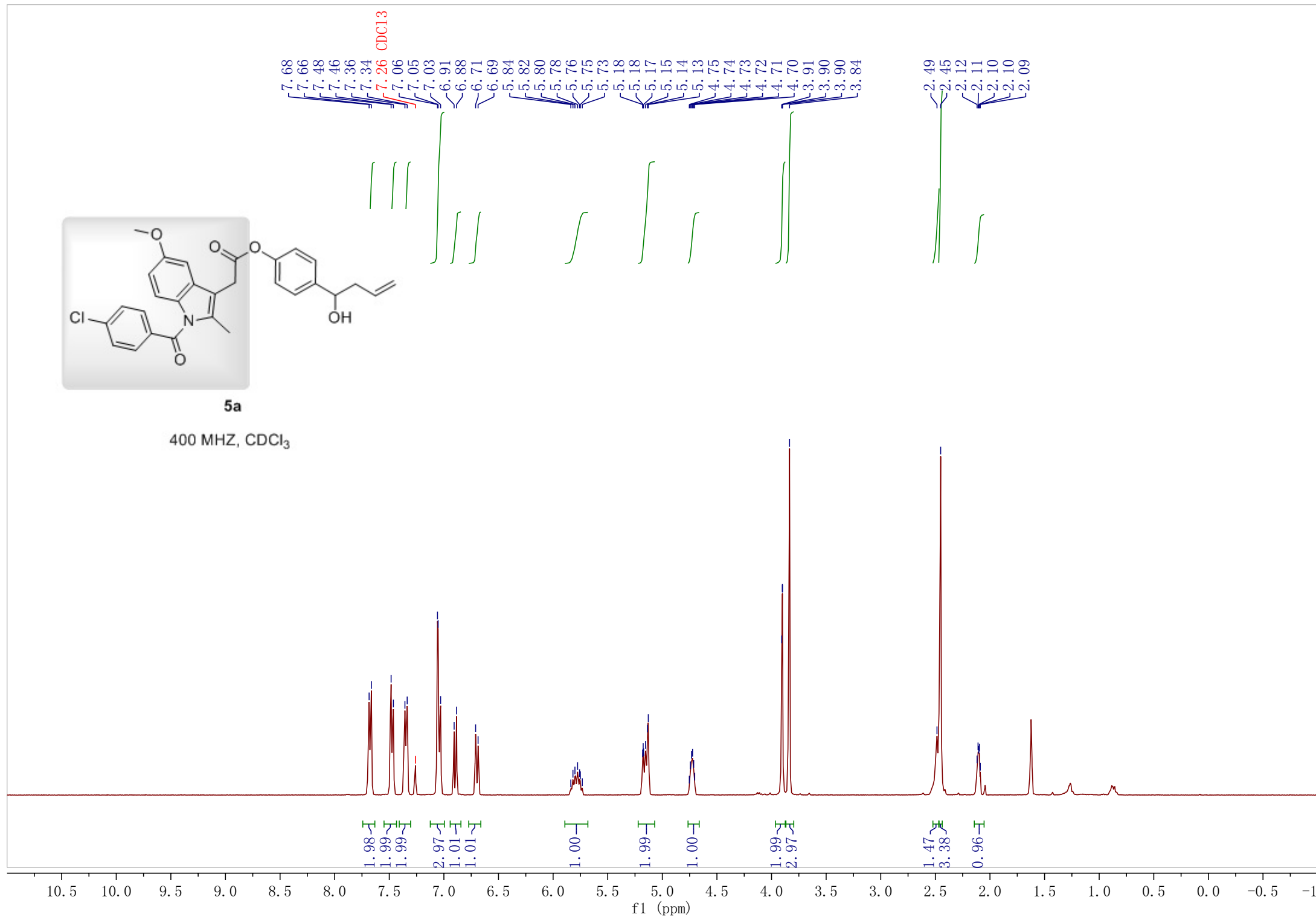
101 MHz, CDCl₃

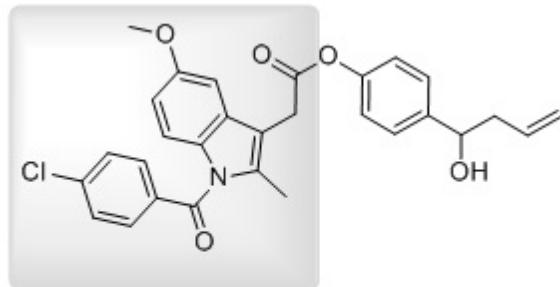




5a

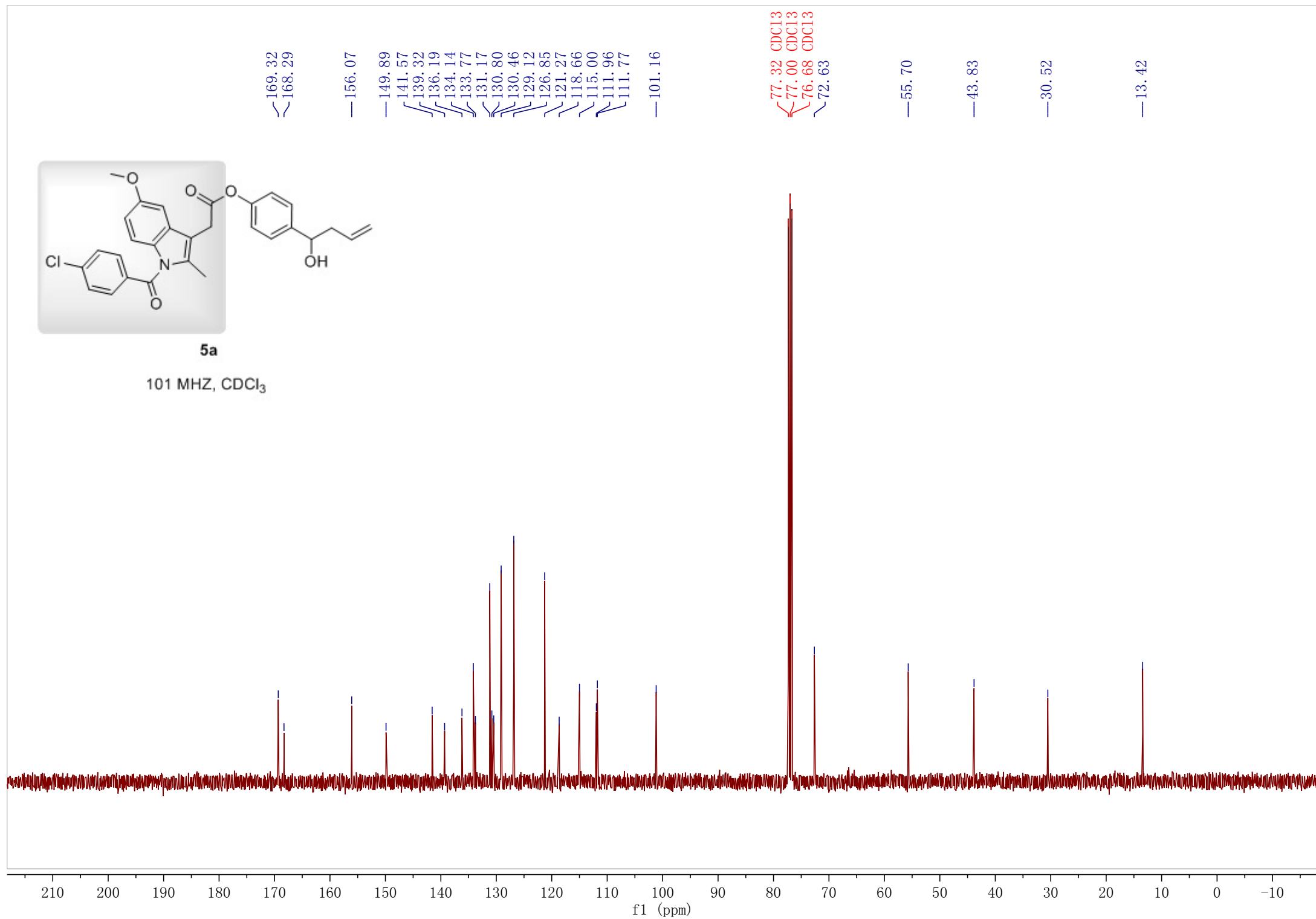
400 MHz, CDCl₃

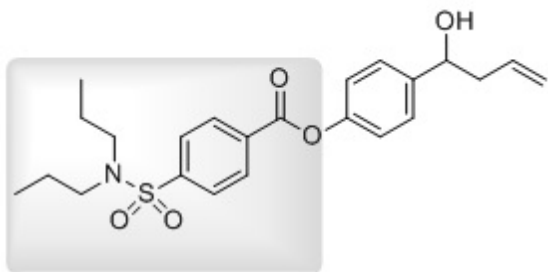




5a

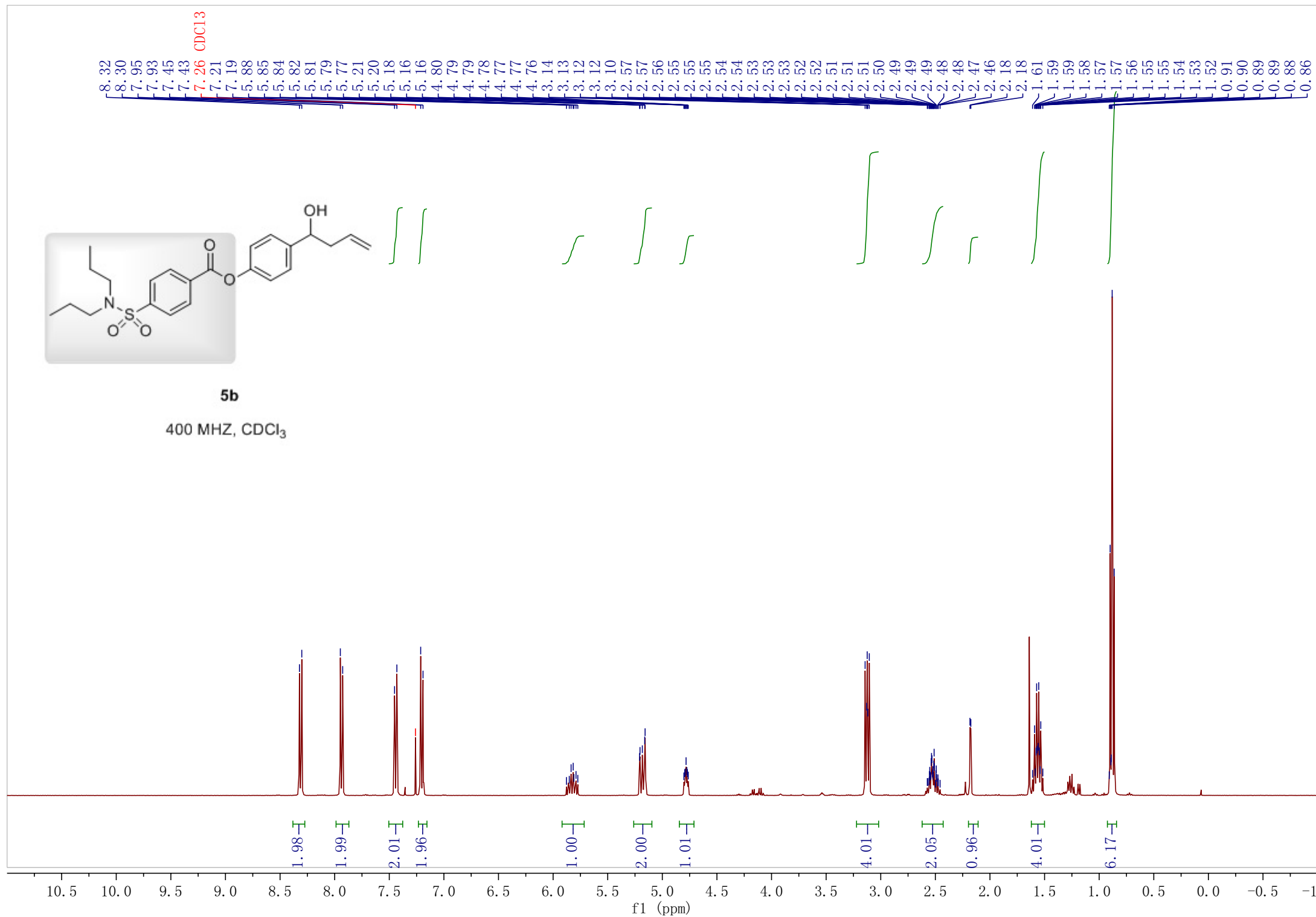
101 MHz, CDCl₃

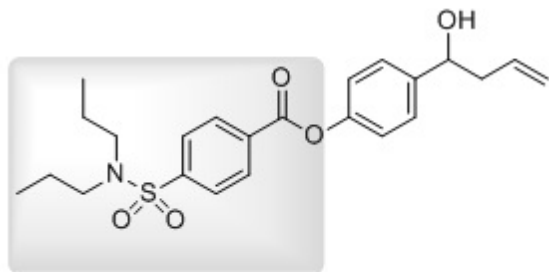




5b

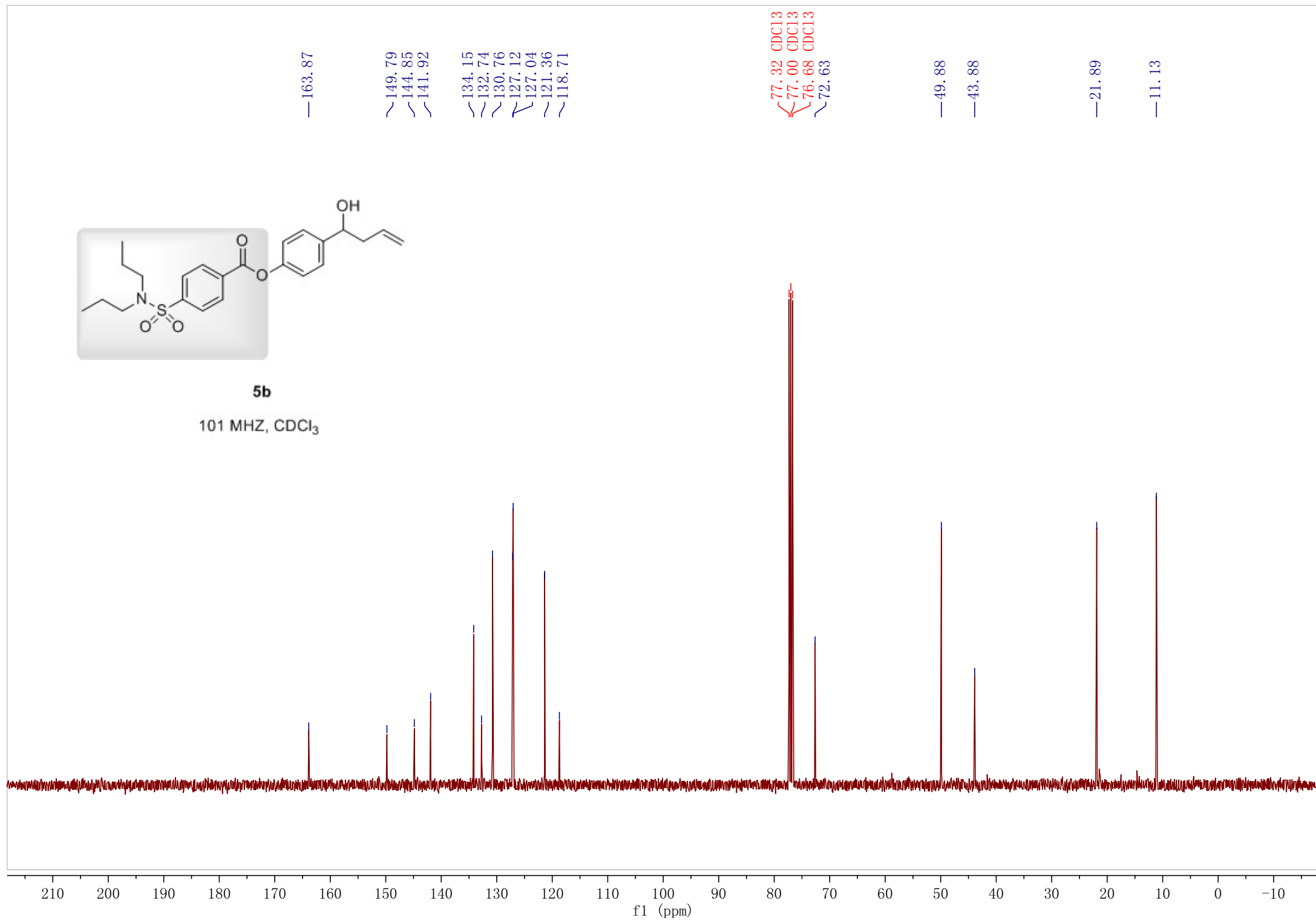
400 MHz, CDCl₃

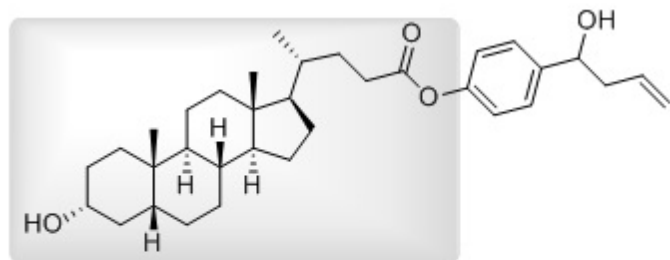




5b

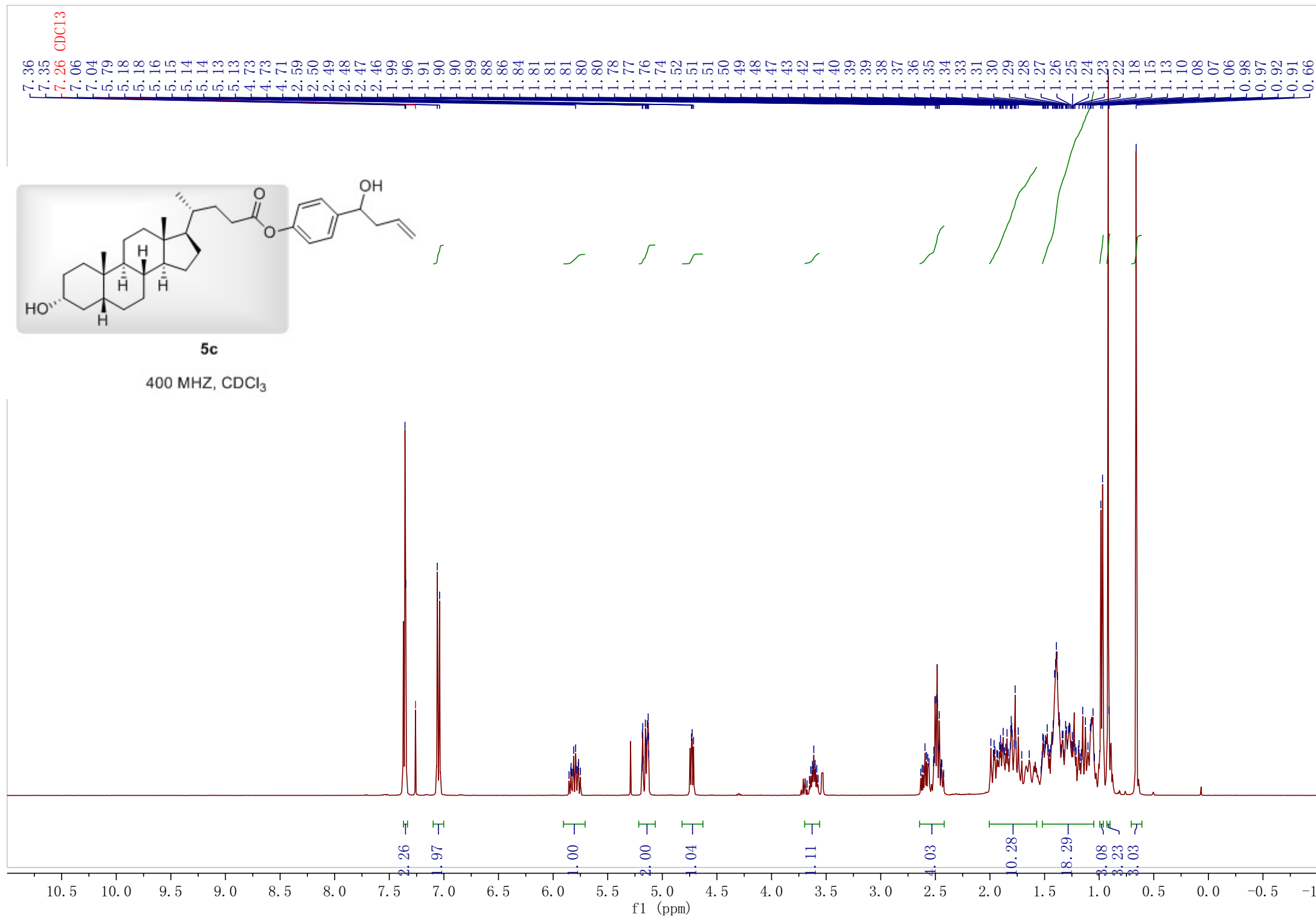
101 MHz, CDCl₃

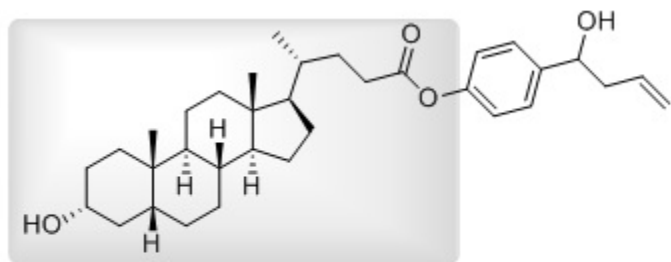




5c

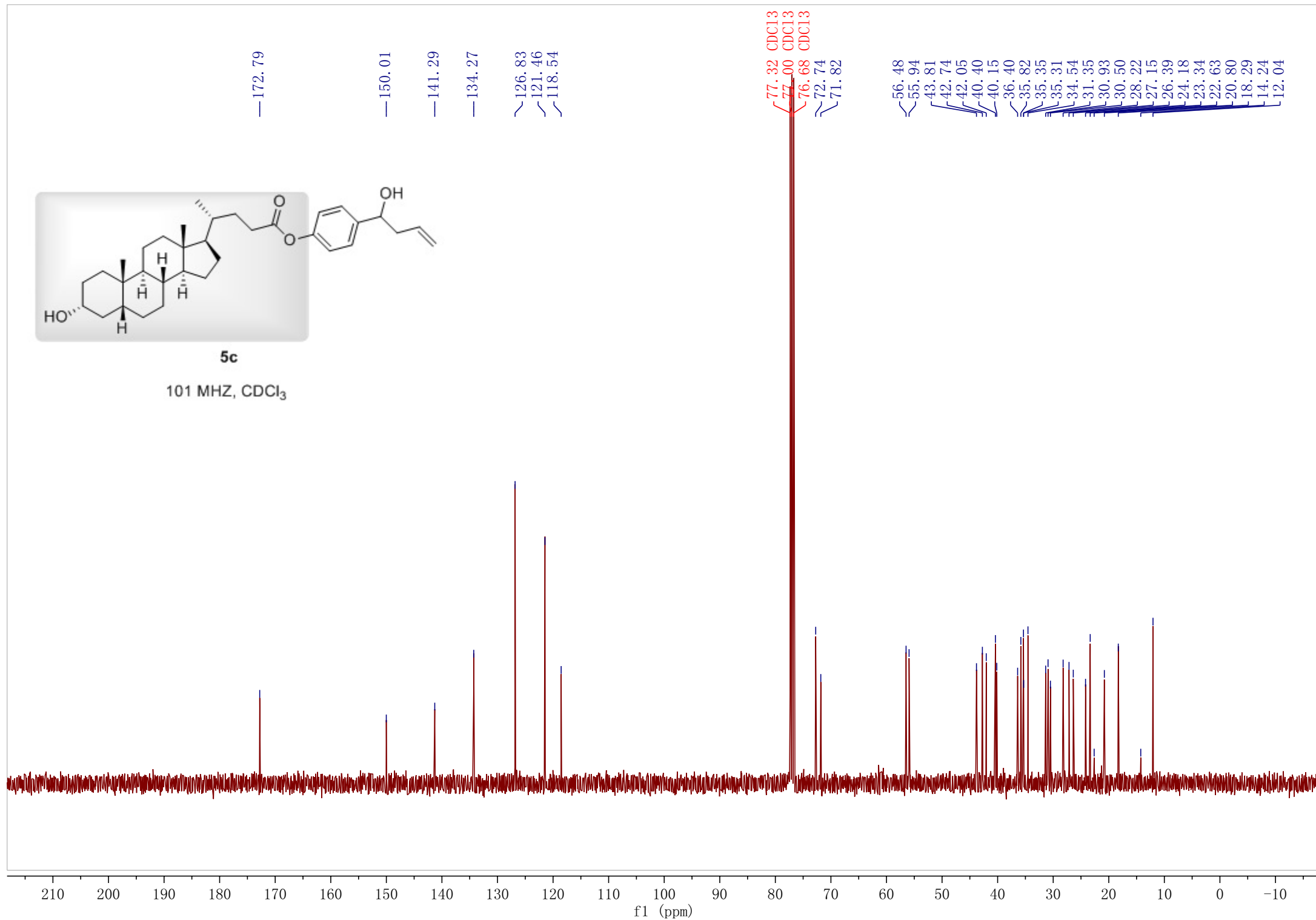
400 MHz, CDCl₃

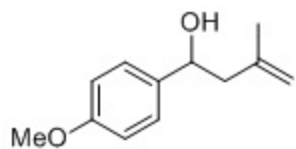




5c

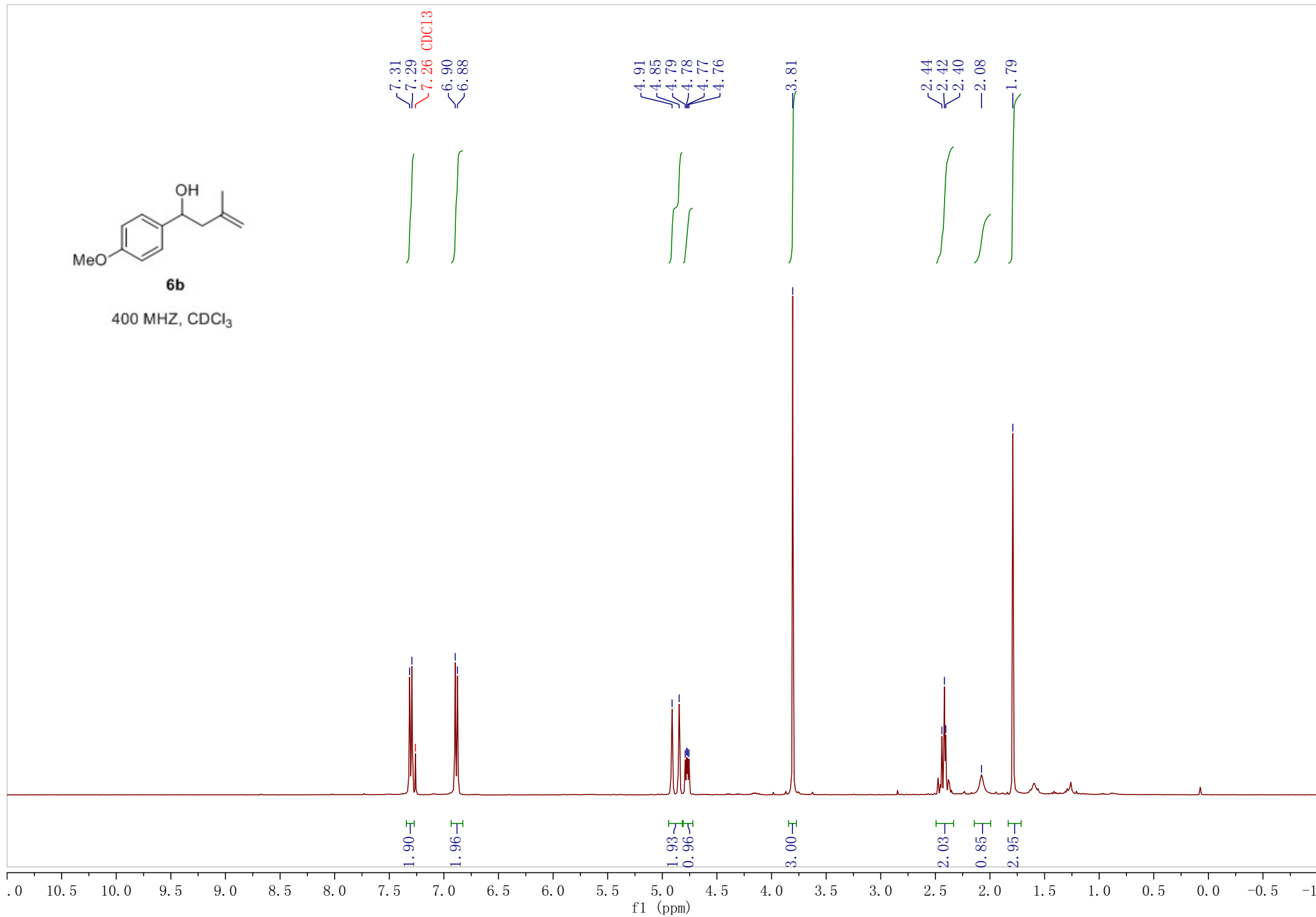
101 MHz, CDCl₃

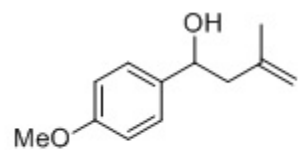




6b

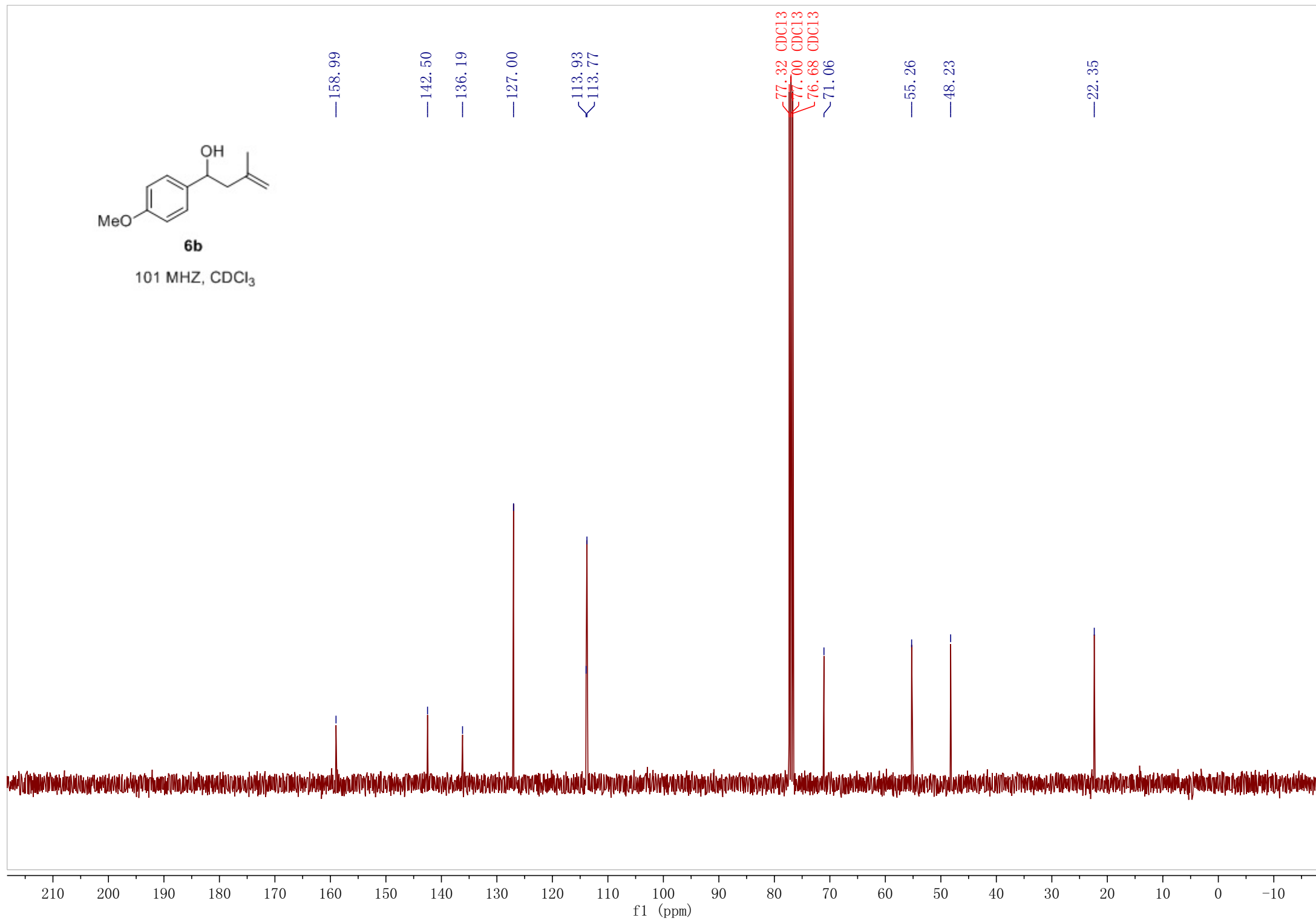
400 MHZ, CDCl₃

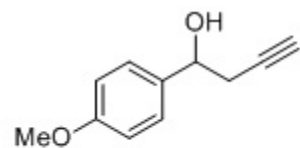




6b

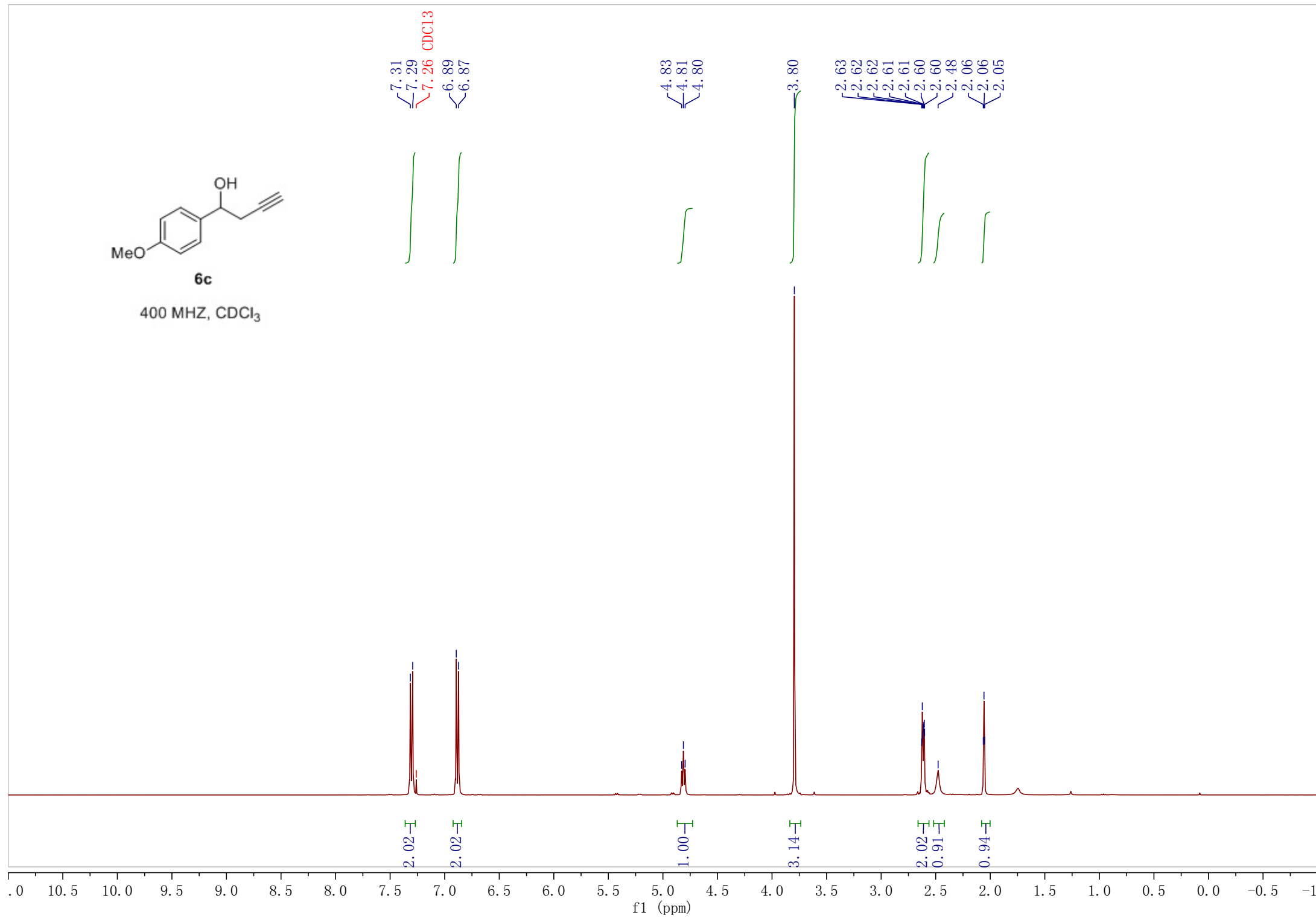
101 MHz, CDCl₃

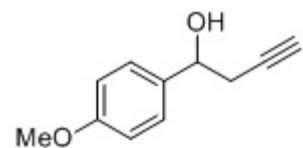




6c

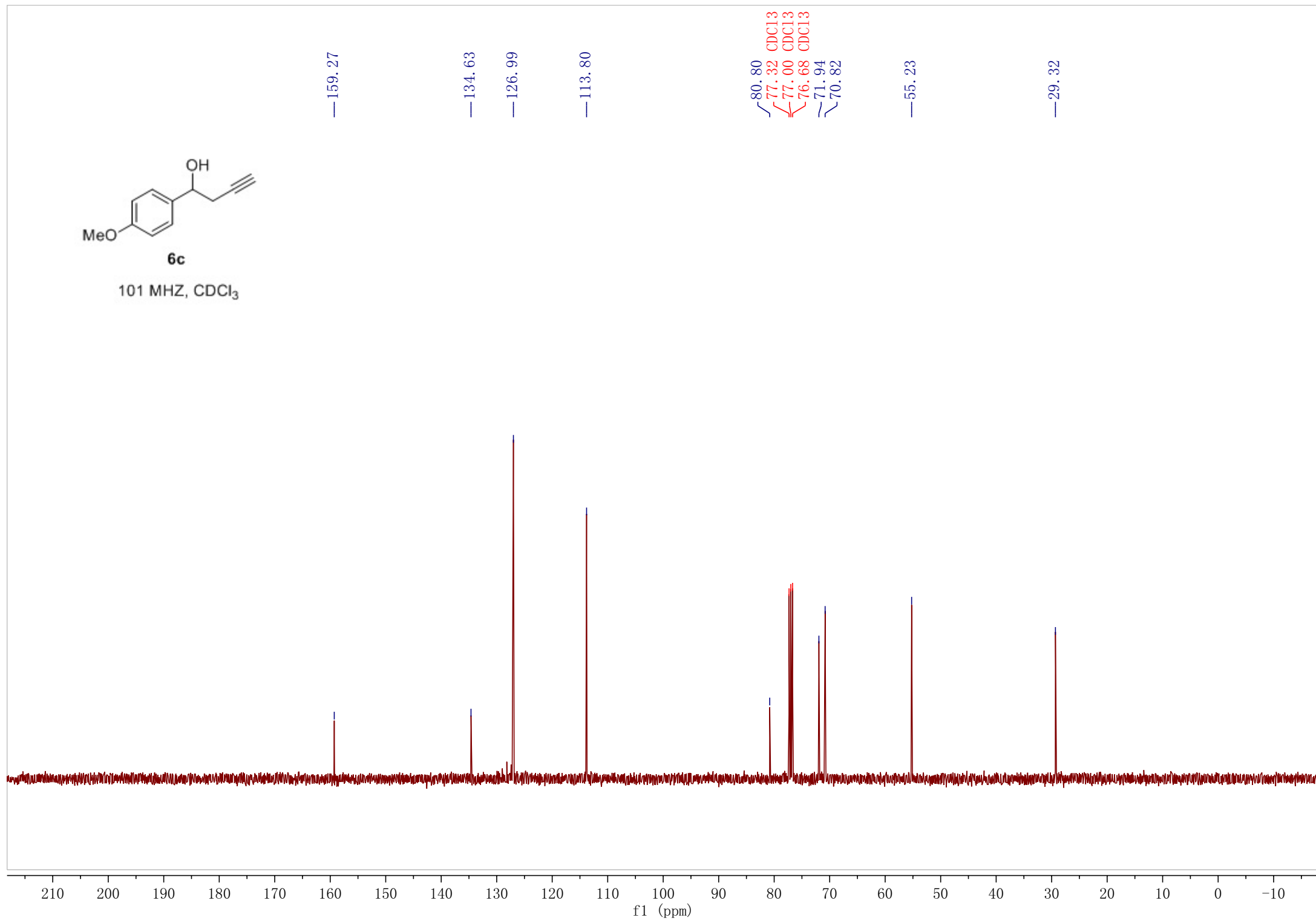
400 MHz, CDCl₃

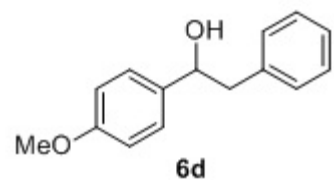




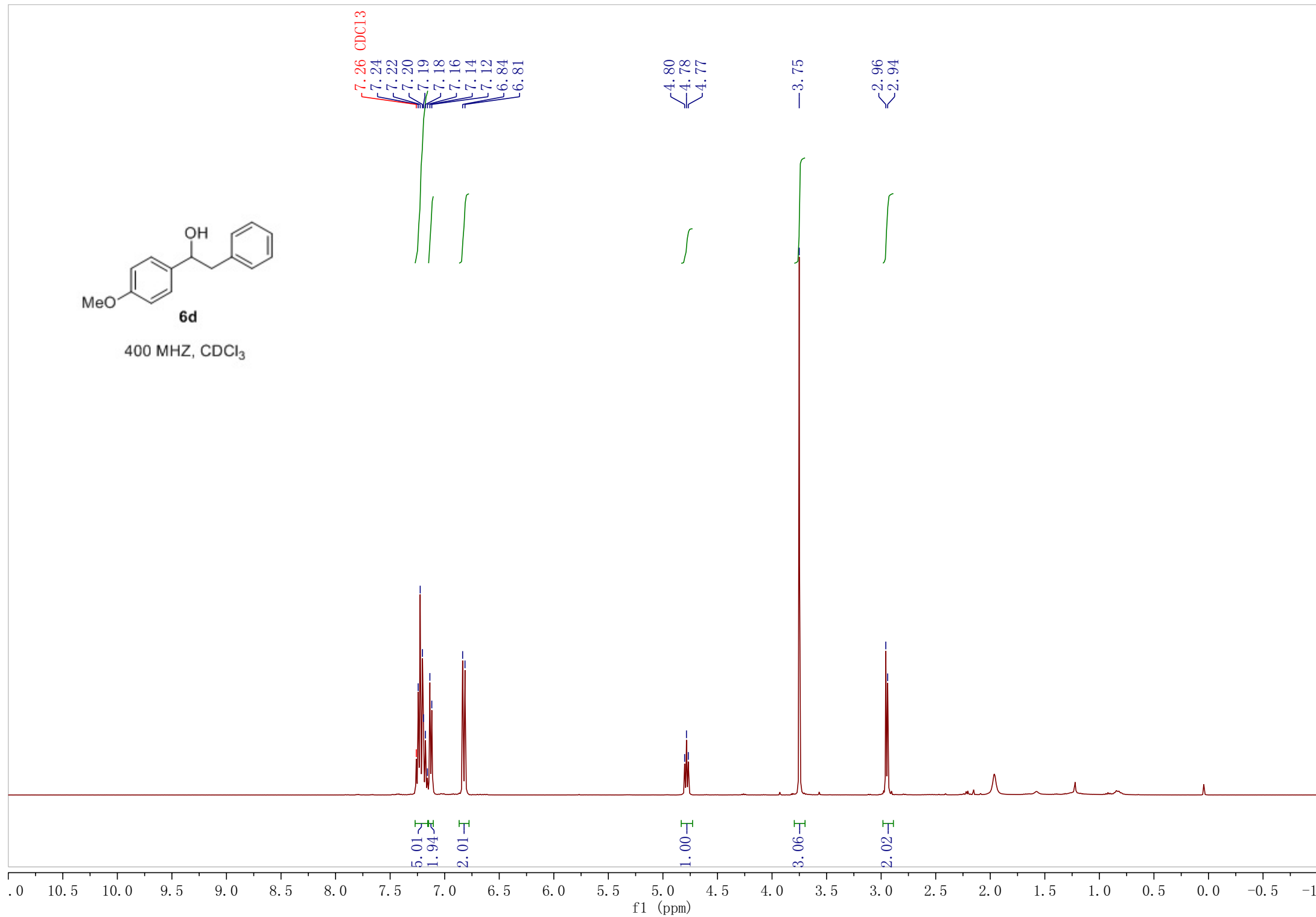
6c

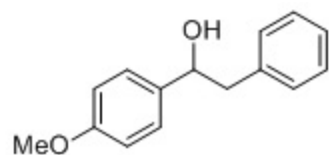
101 MHz, CDCl₃





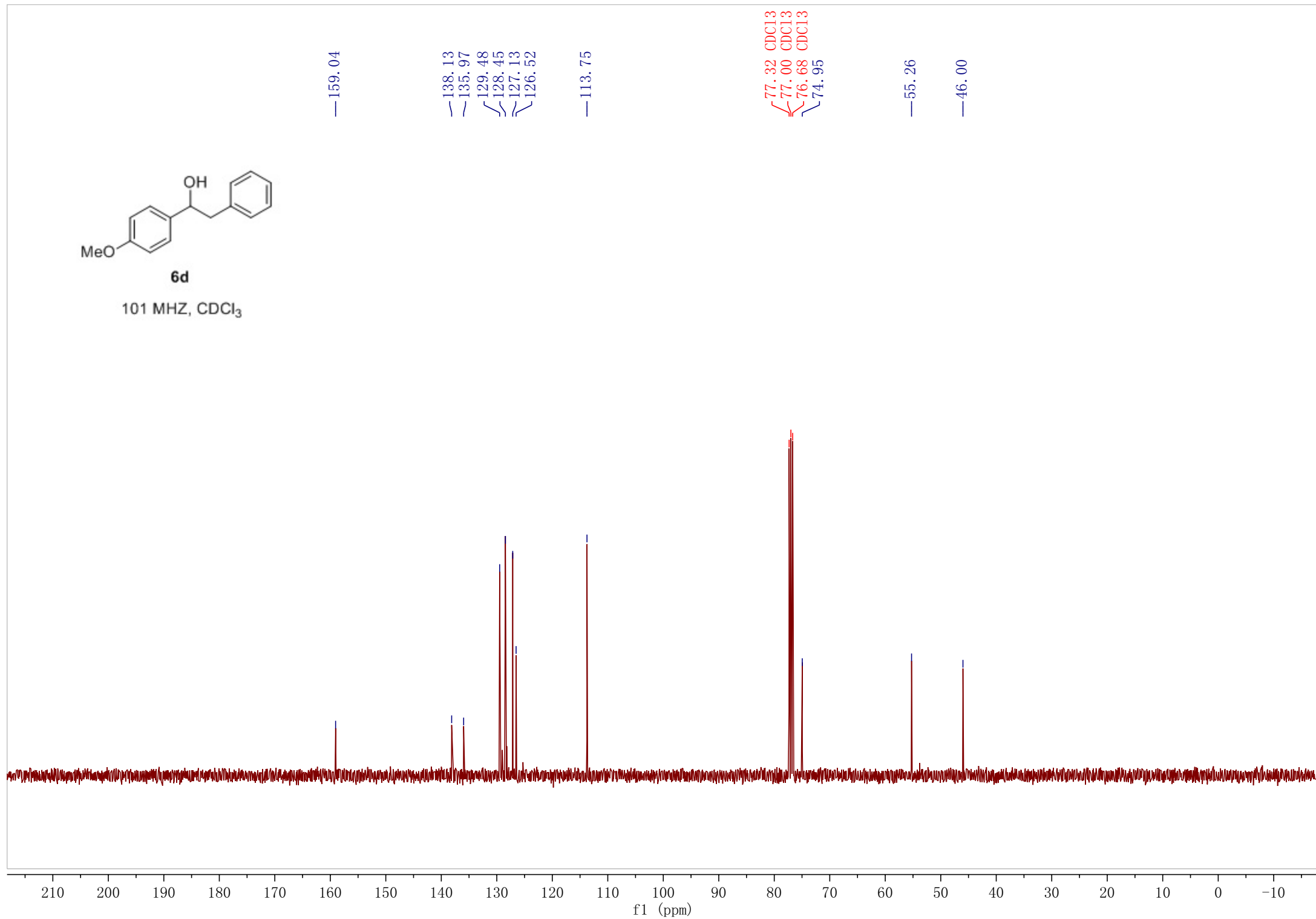
400 MHZ, CDCl₃

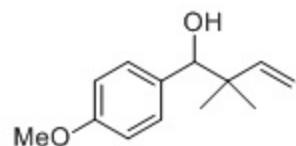




6d

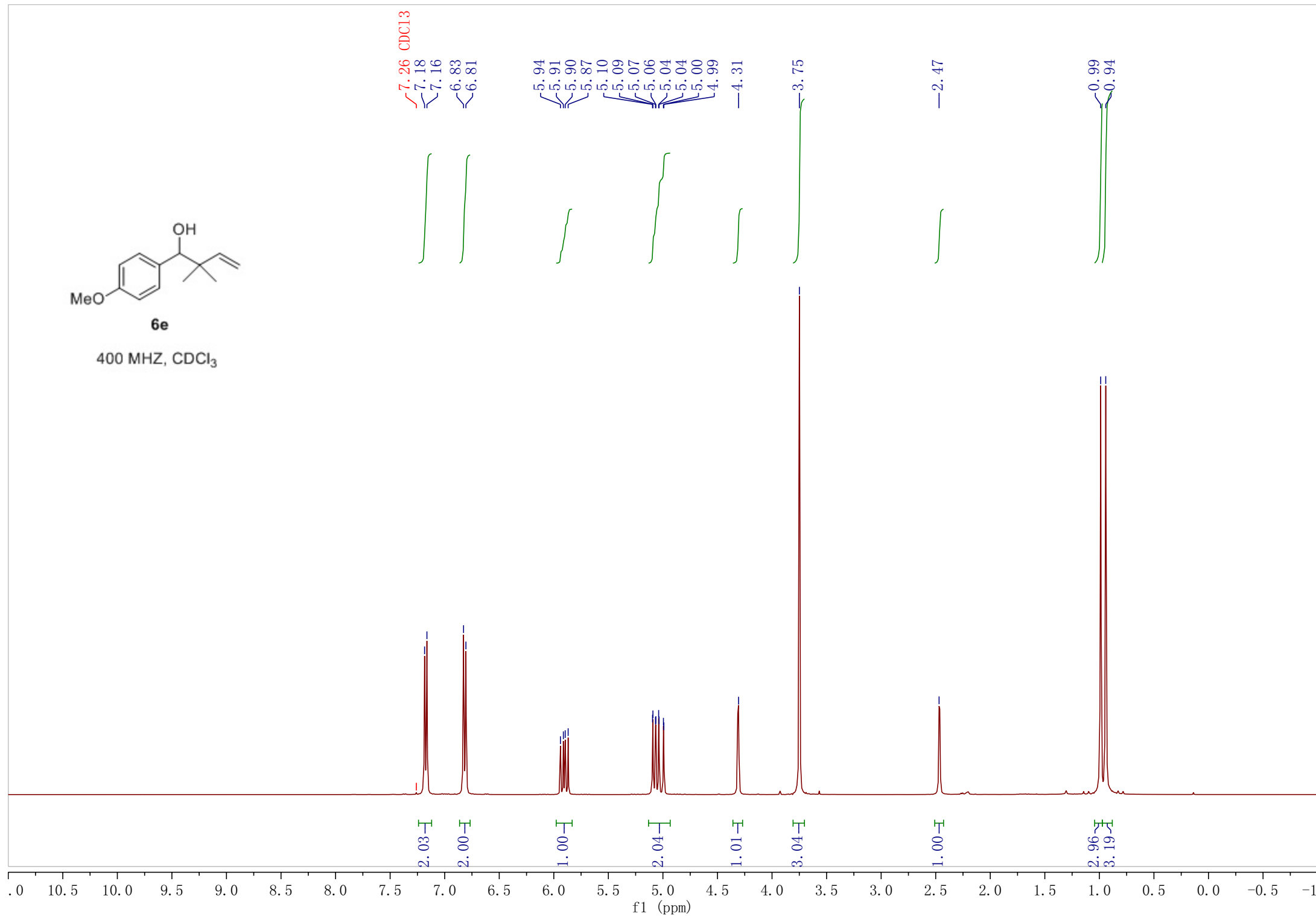
101 MHz, CDCl₃

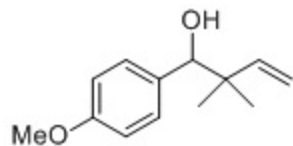




6e

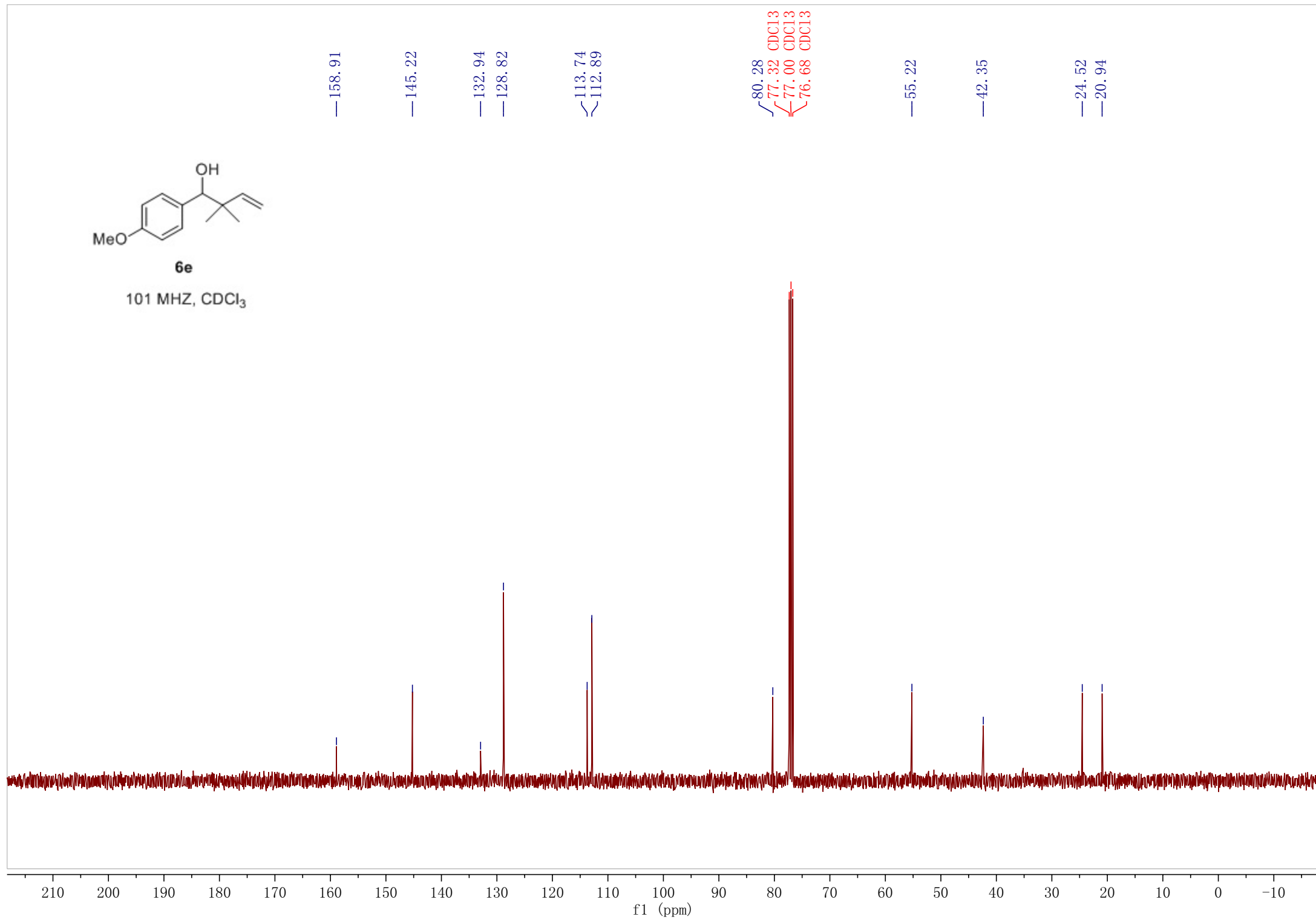
400 MHZ, CDCl₃

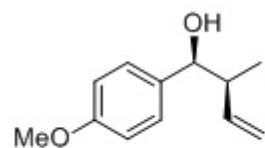




6e

101 MHz, CDCl₃

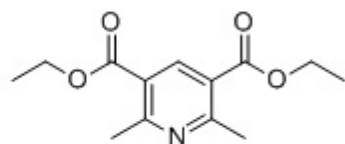




6f

400 MHz, CDCl₃

+



HP

400 MHz, CDCl₃

7.26
7.23
7.21
6.85
6.83

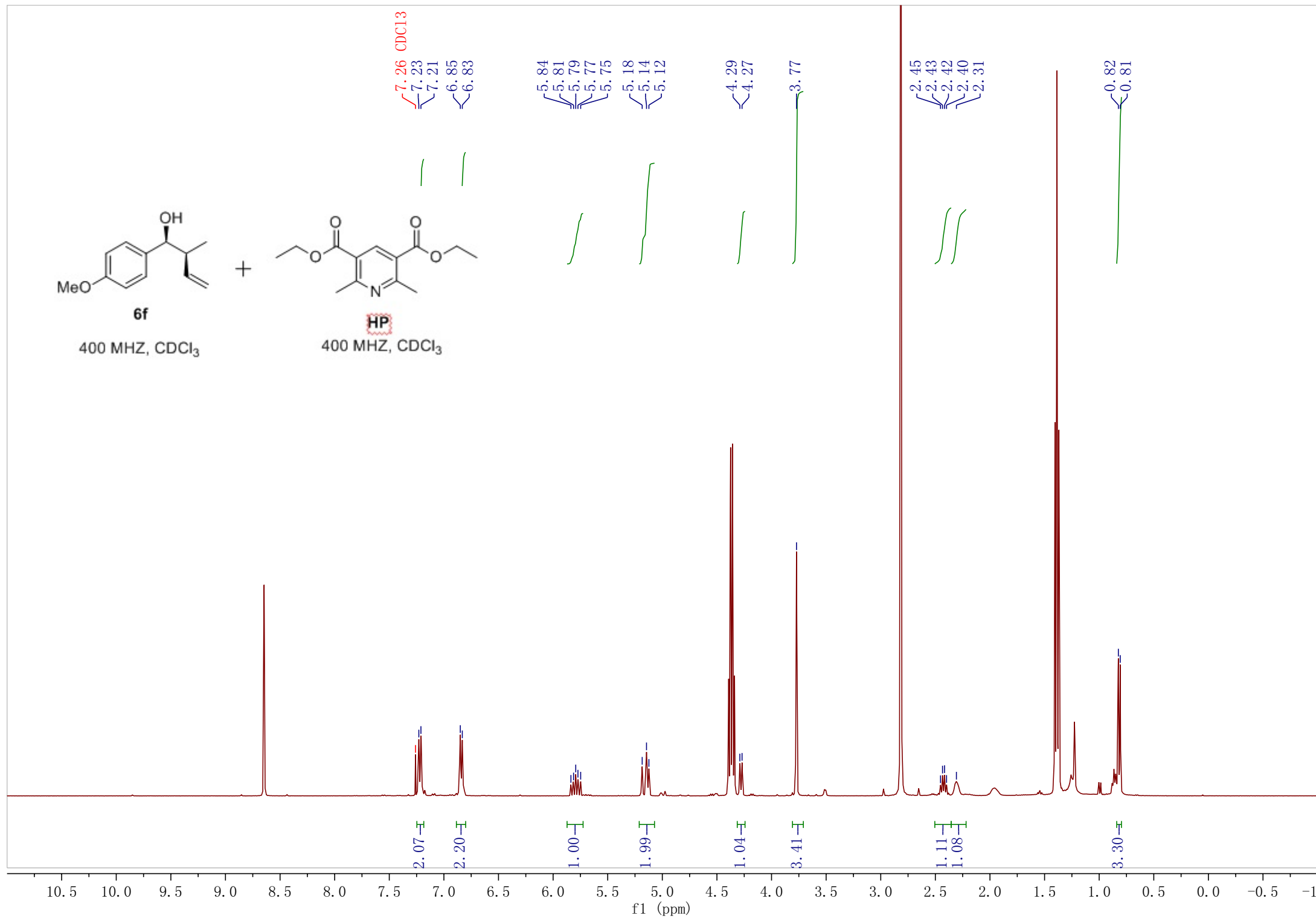
5.84
5.81
5.79
5.77
5.75
5.18
5.14
5.12

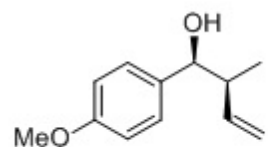
4.29
4.27

3.77

2.45
2.43
2.42
2.40
2.31

0.82
0.81

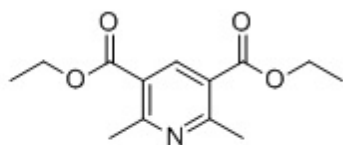




6f

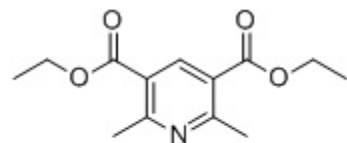
400 MHz, CDCl₃

+



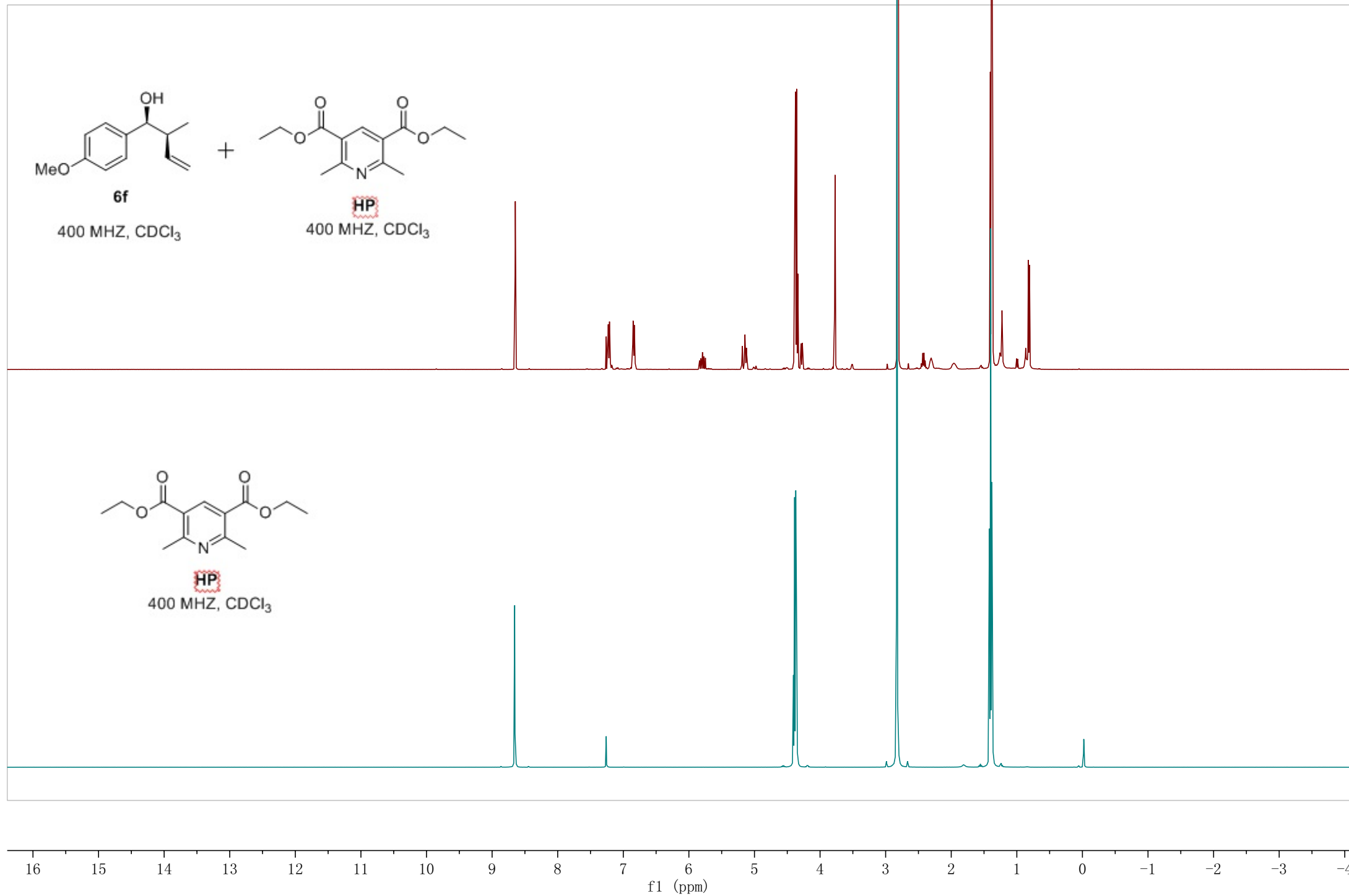
HP

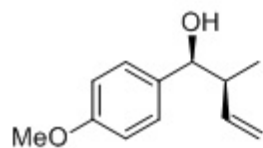
400 MHz, CDCl₃



HP

400 MHz, CDCl₃

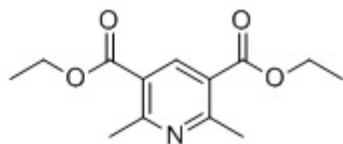




6f

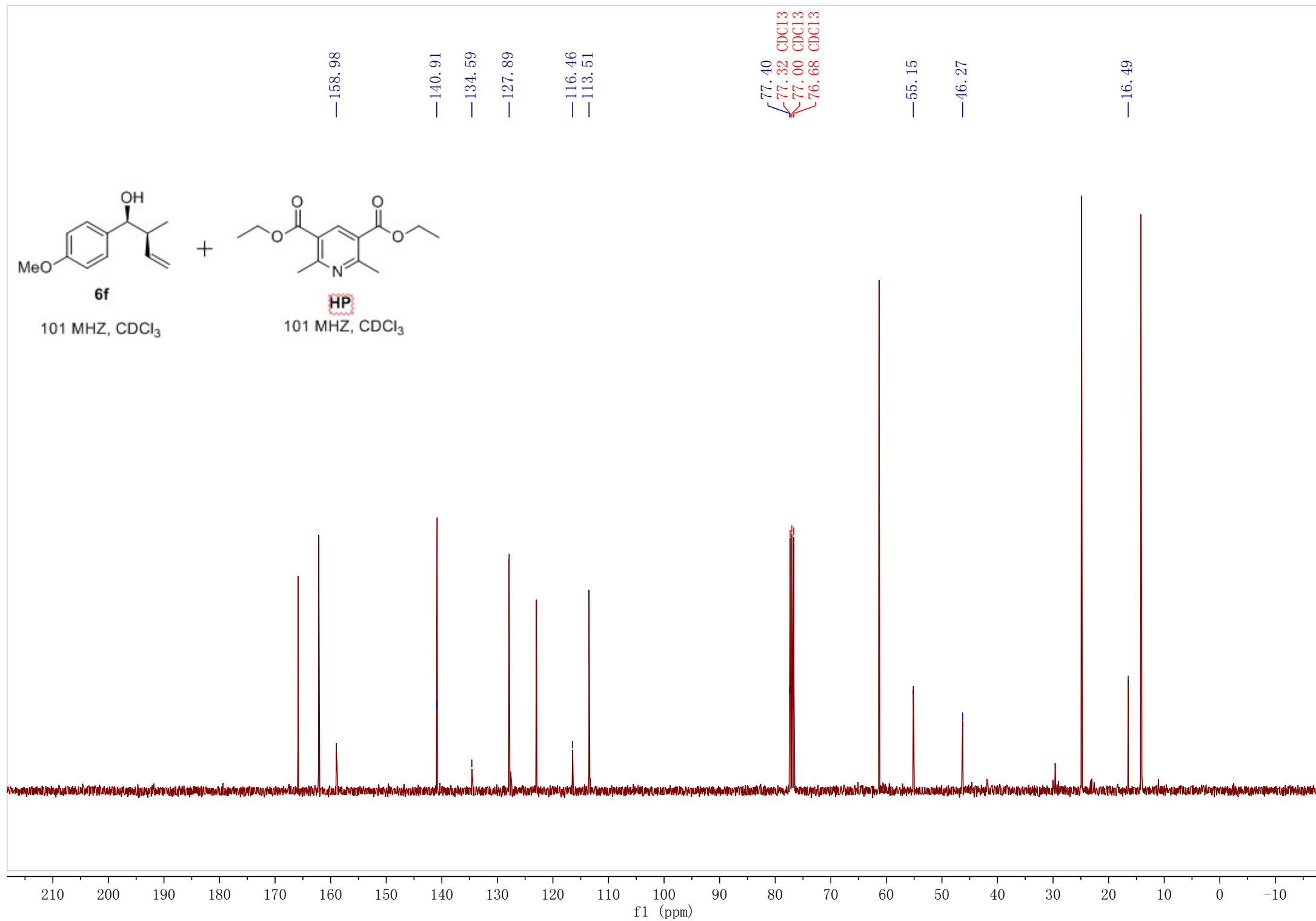
101 MHz, CDCl₃

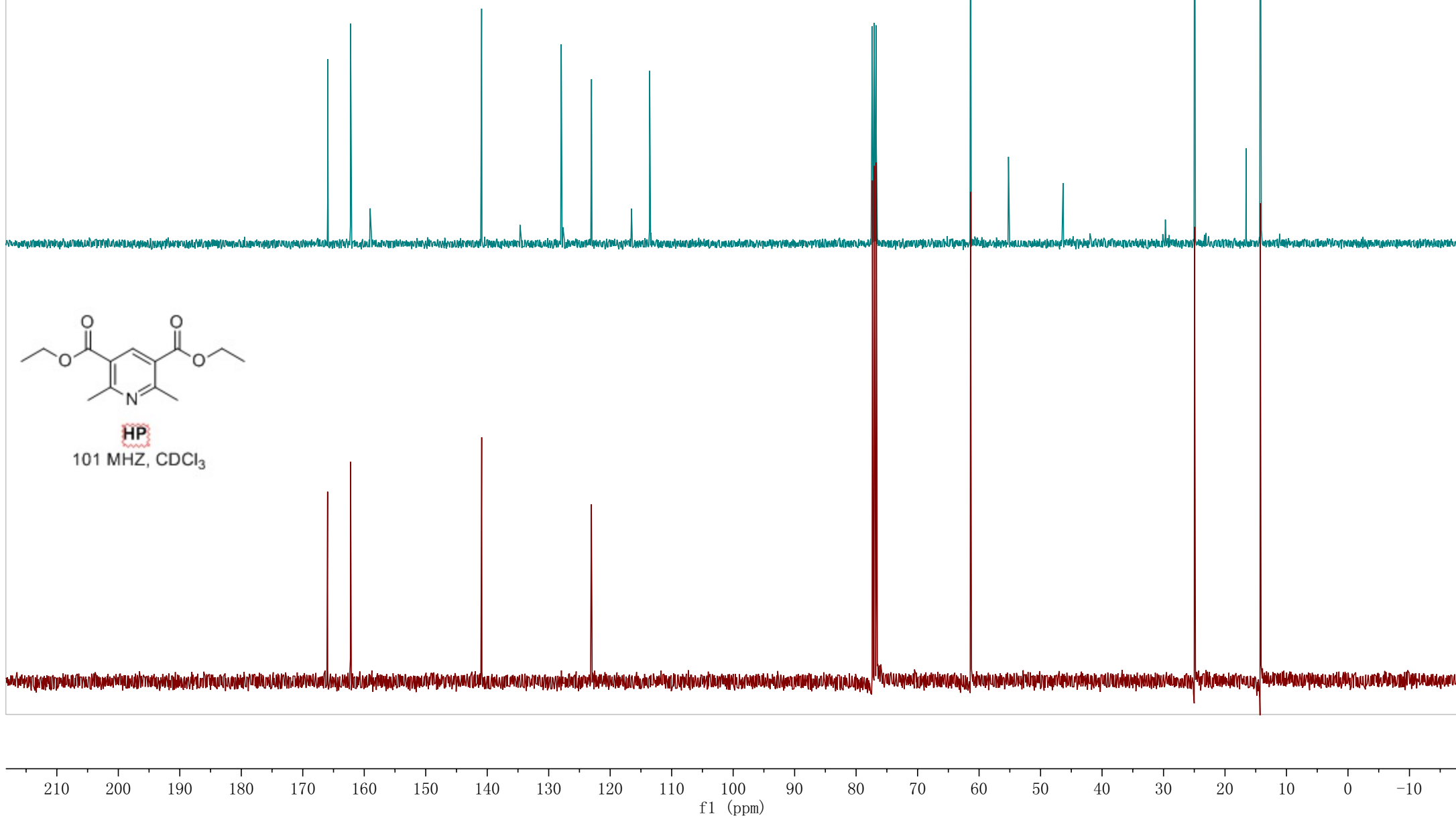
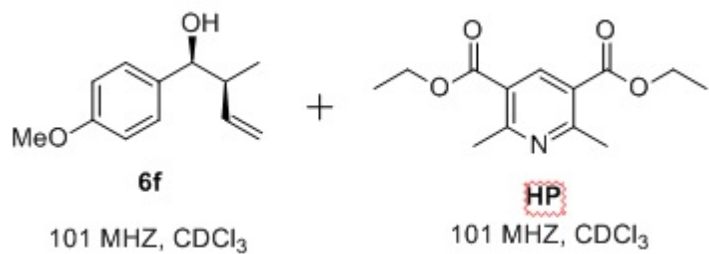
+

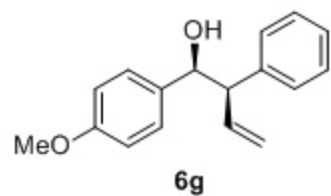


HP

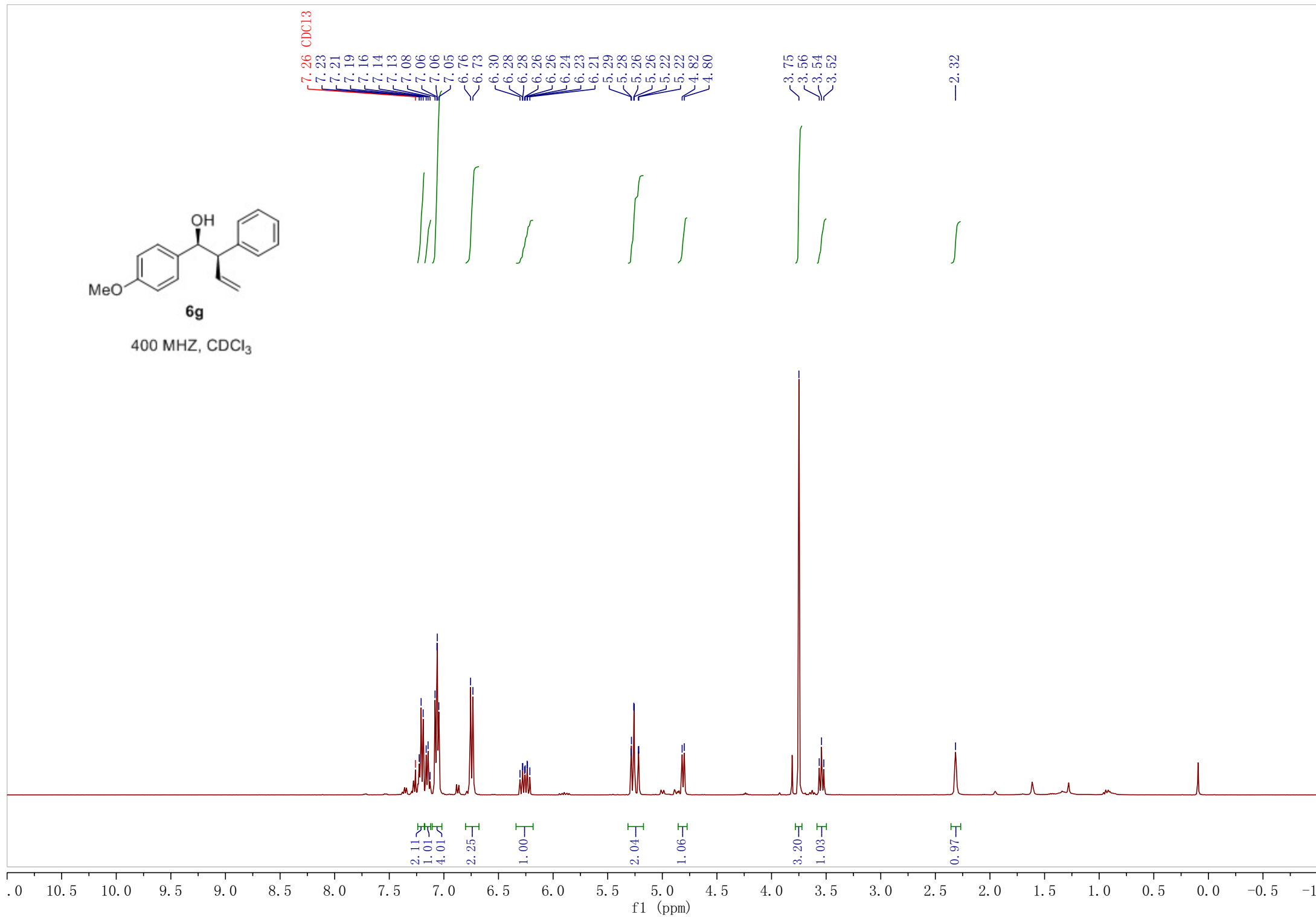
101 MHz, CDCl₃

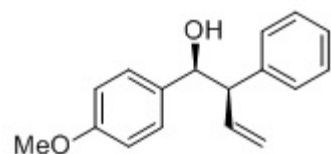






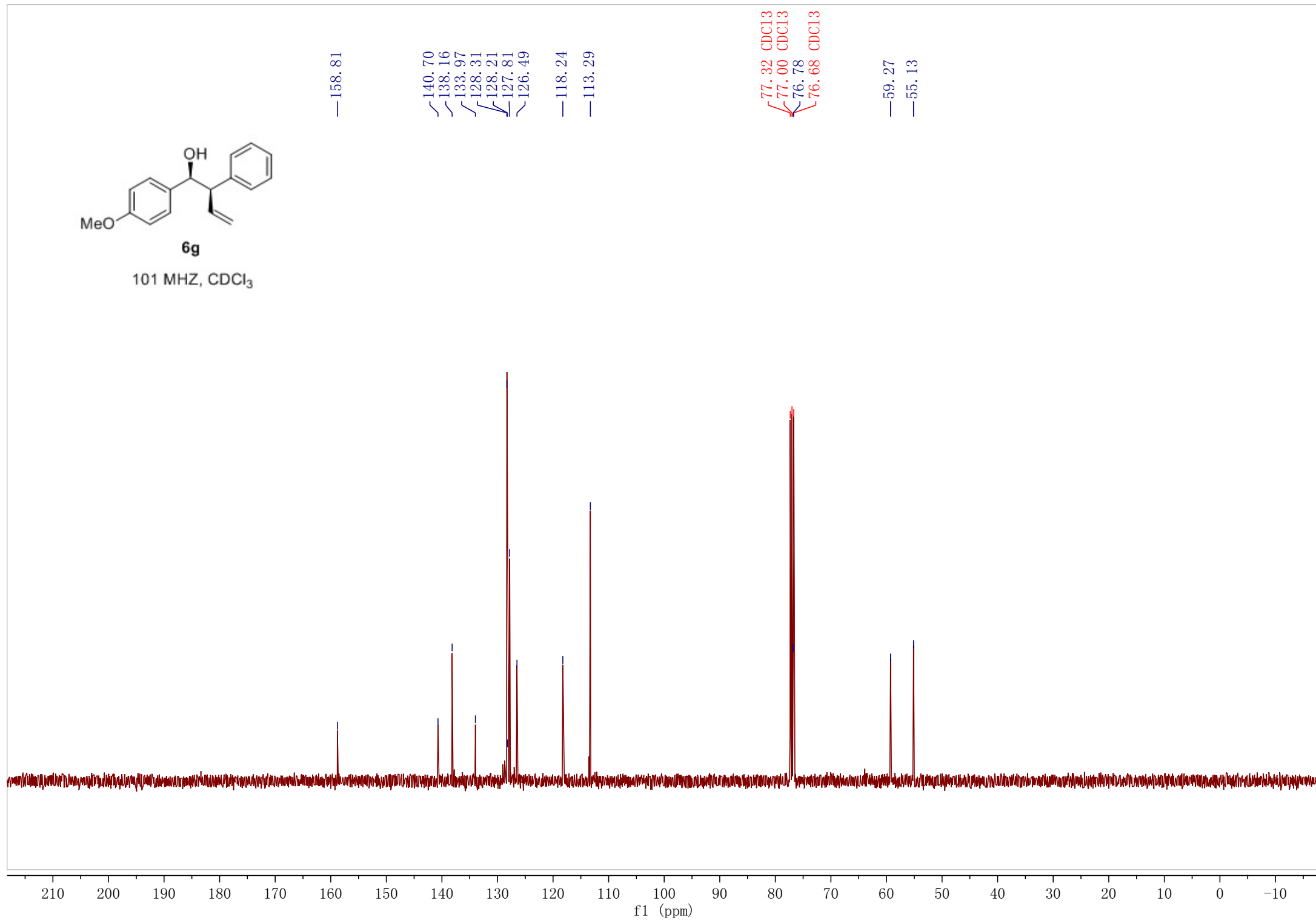
400 MHz, CDCl₃

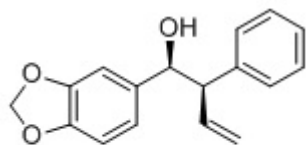




6g

101 MHz, CDCl₃



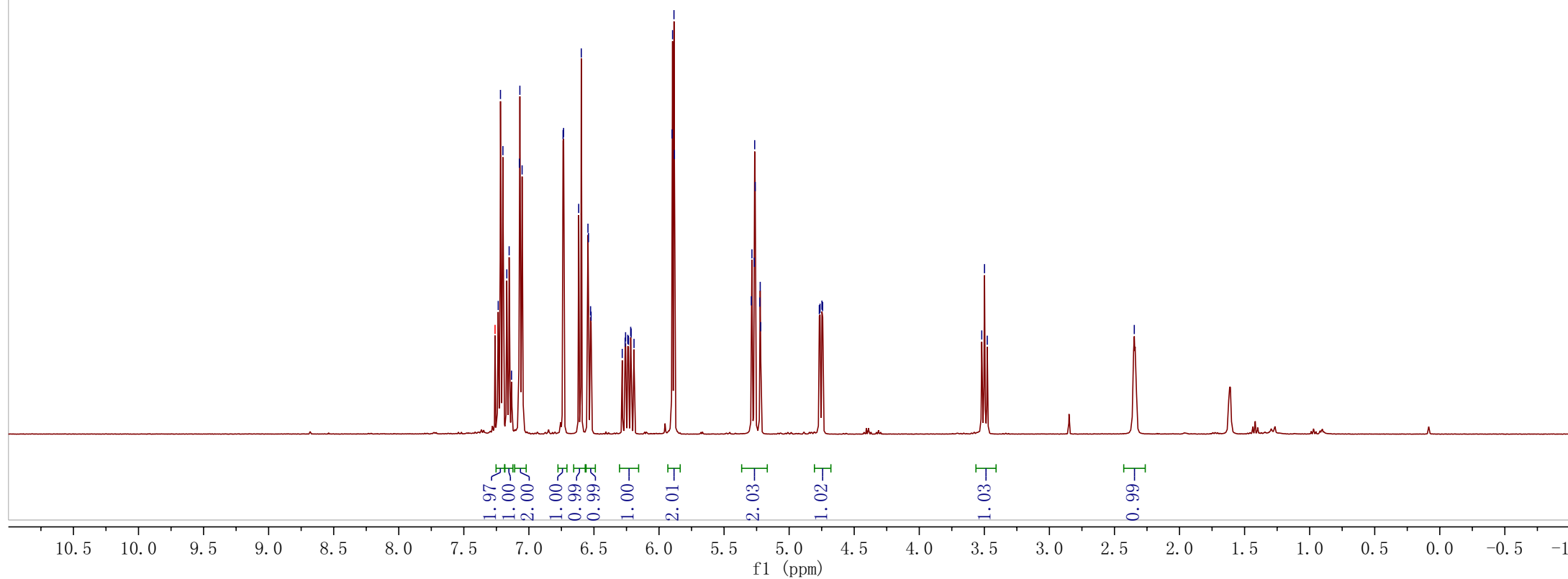


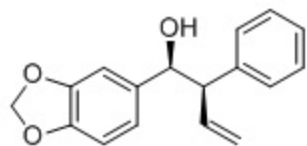
6h

400 MHz, CDCl₃

7.26 CDC13
7.24
7.22
7.20
7.17
7.15
7.13
7.07
7.07
7.05
6.74
6.73
6.62
6.60
6.55
6.54
6.53
6.52
6.28
6.26
6.26
6.24
6.23
6.22
6.21
6.19
5.90
5.90
5.89
5.88
5.29
5.29
5.27
5.26
5.26
5.22
5.22
5.22
4.77
4.76
4.75
4.74
3.52
3.50
3.48

2.35





6h

101 MHz, CDCl₃

147.31
146.68
140.55
137.99
135.79
128.36
128.22
126.58
120.30
118.39
107.59
106.96
100.81
77.32 CDCl₃
77.00 CDCl₃
76.97
76.68 CDCl₃
59.29

