

Supporting Information

Synthesis of ^{13}C -methyl-labeled amino acids and their incorporation into proteins in mammalian cells

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Figure 1S.....	Page 2
Spectra (^1H NMR, ^{13}C NMR).....	Page 3

Figure 1S

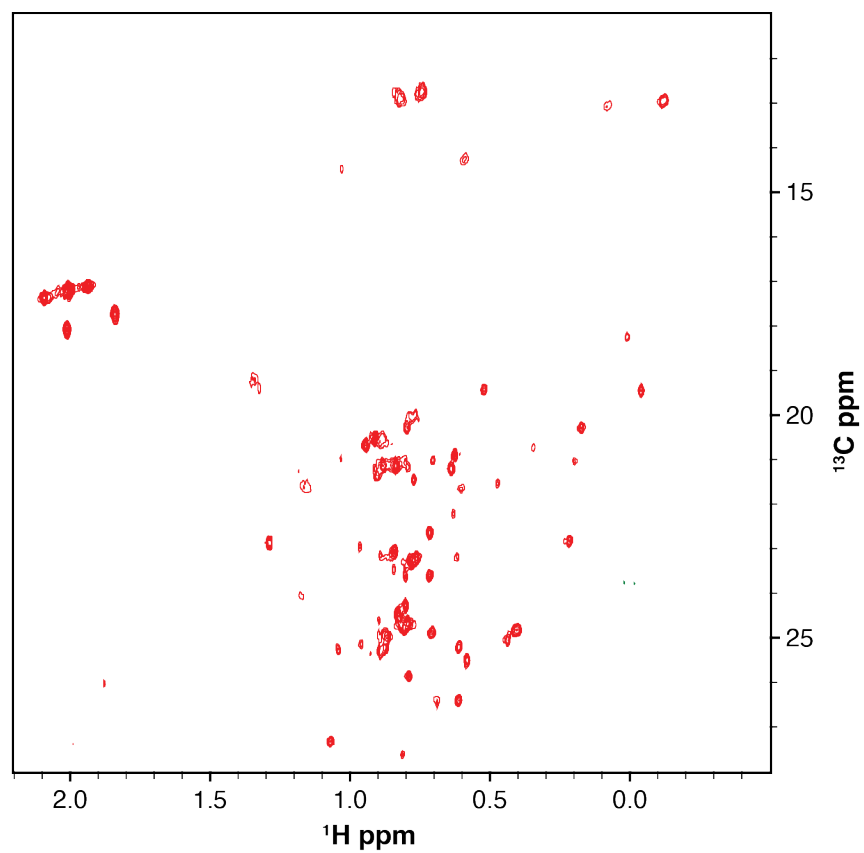
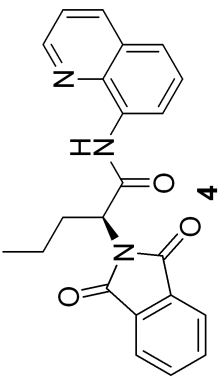
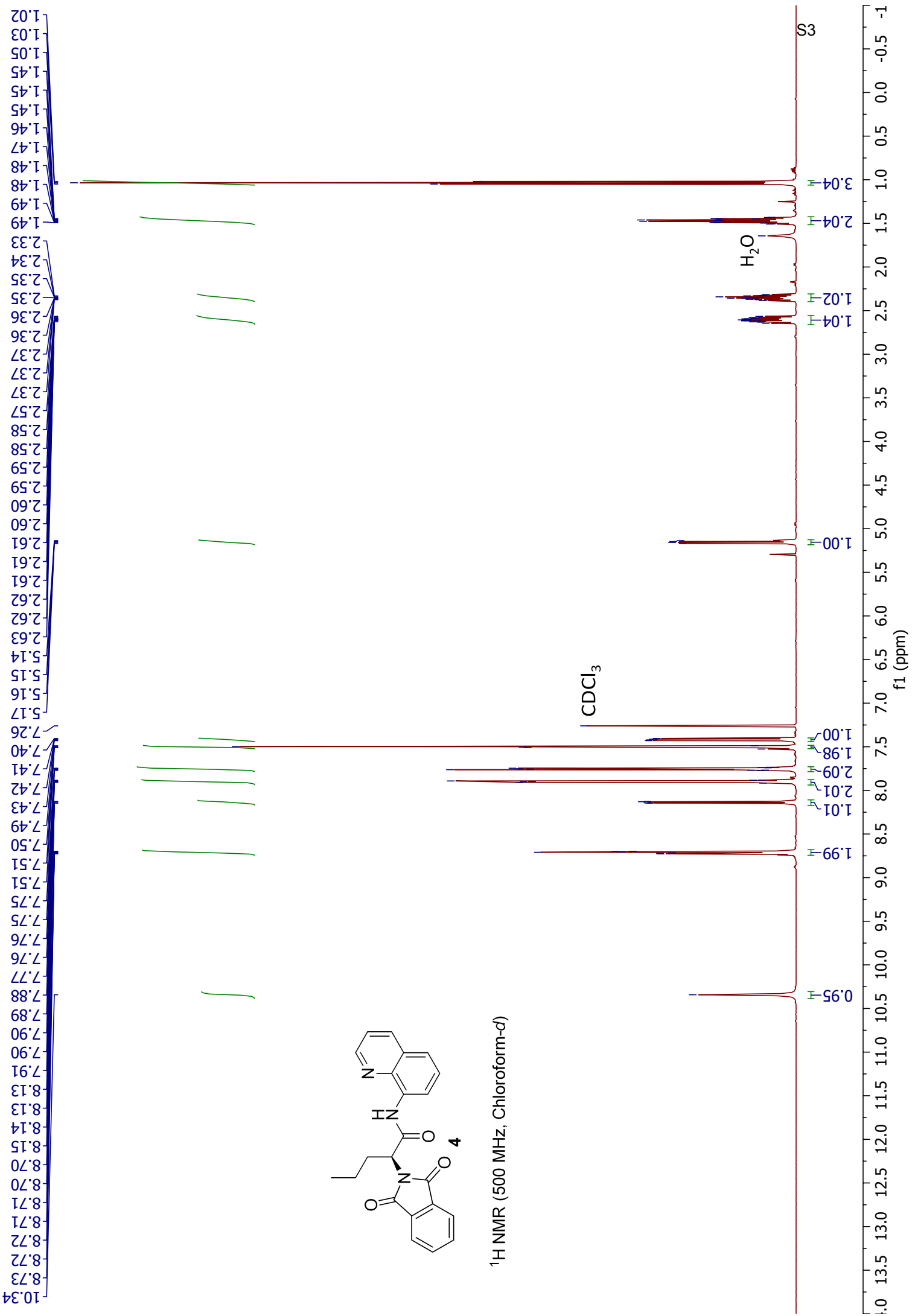
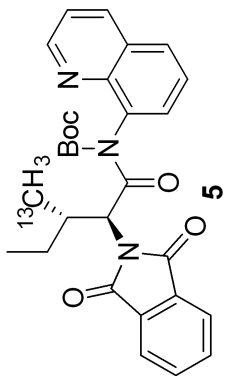


Figure 1S. BG_{ZPC} ILVM ^1H - ^{13}C HSQC spectrum. Sample was produced in *E. coli* and spectrum was recorded at 900 MHz with a sweep width of 4075 Hz and 113 complex points in the ^{13}C -dimension.



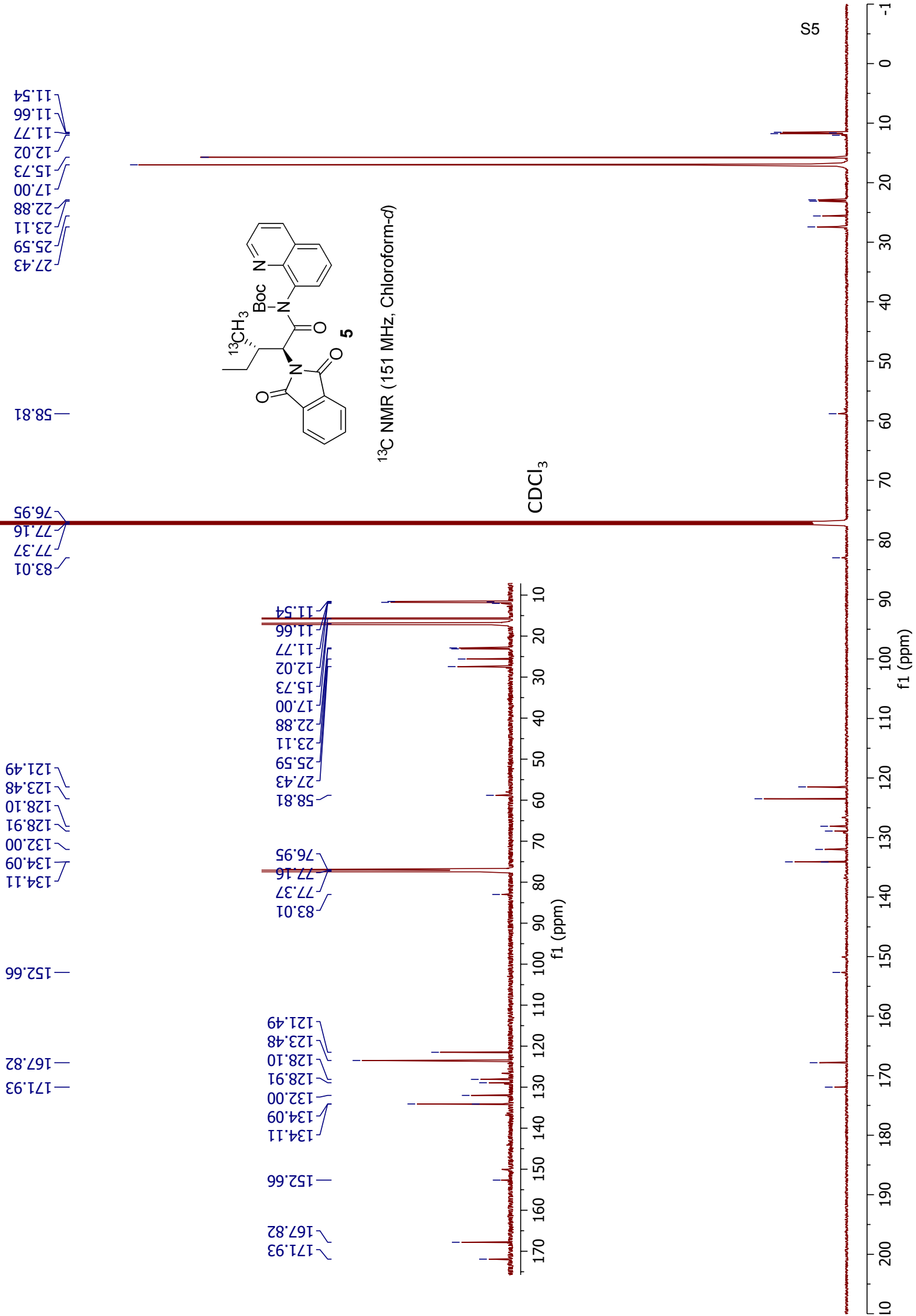
¹H NMR (500 MHz, Chloroform-d)

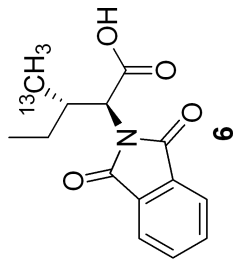




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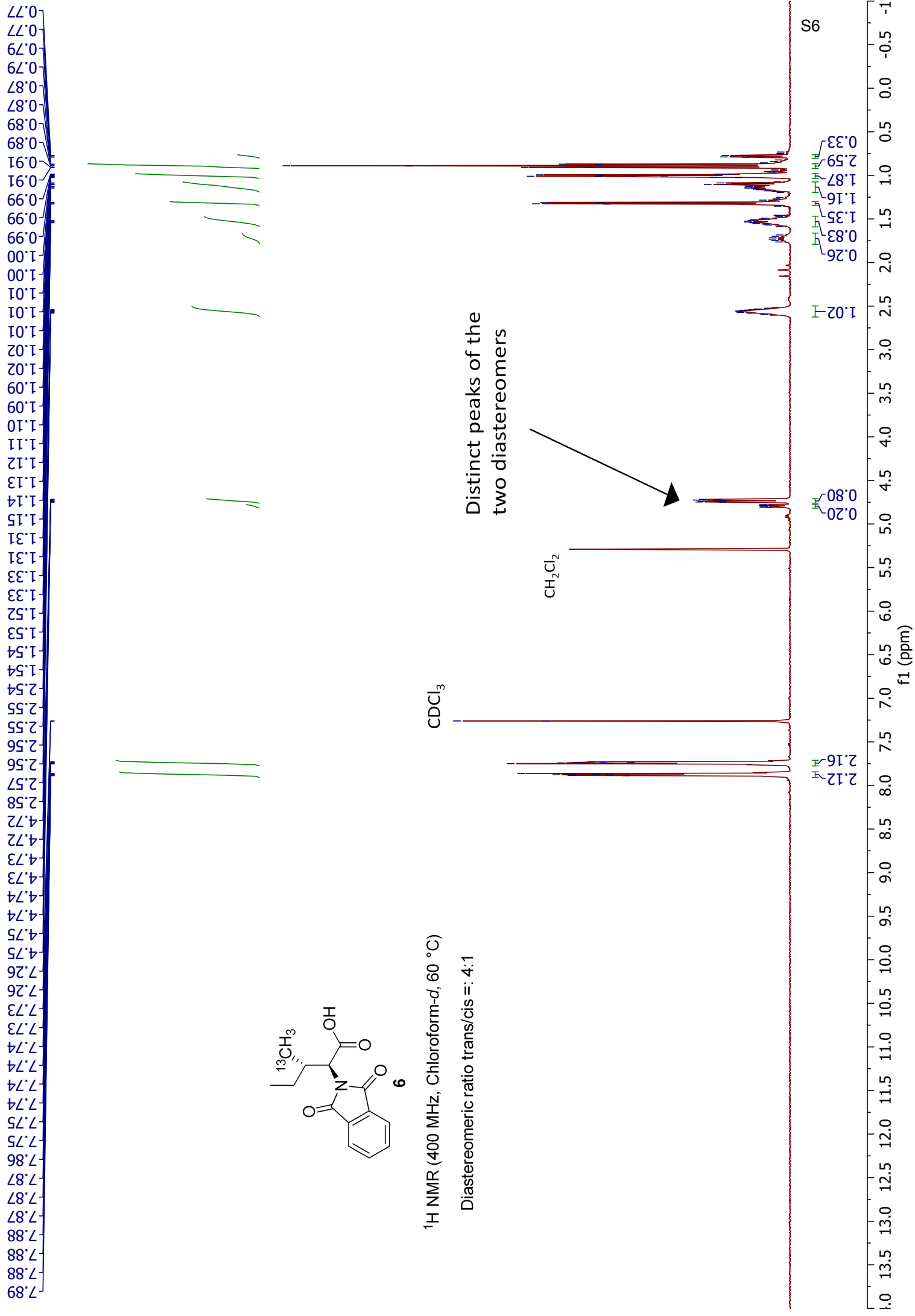
¹³C NMR (151 MHz, Chloroform-d)

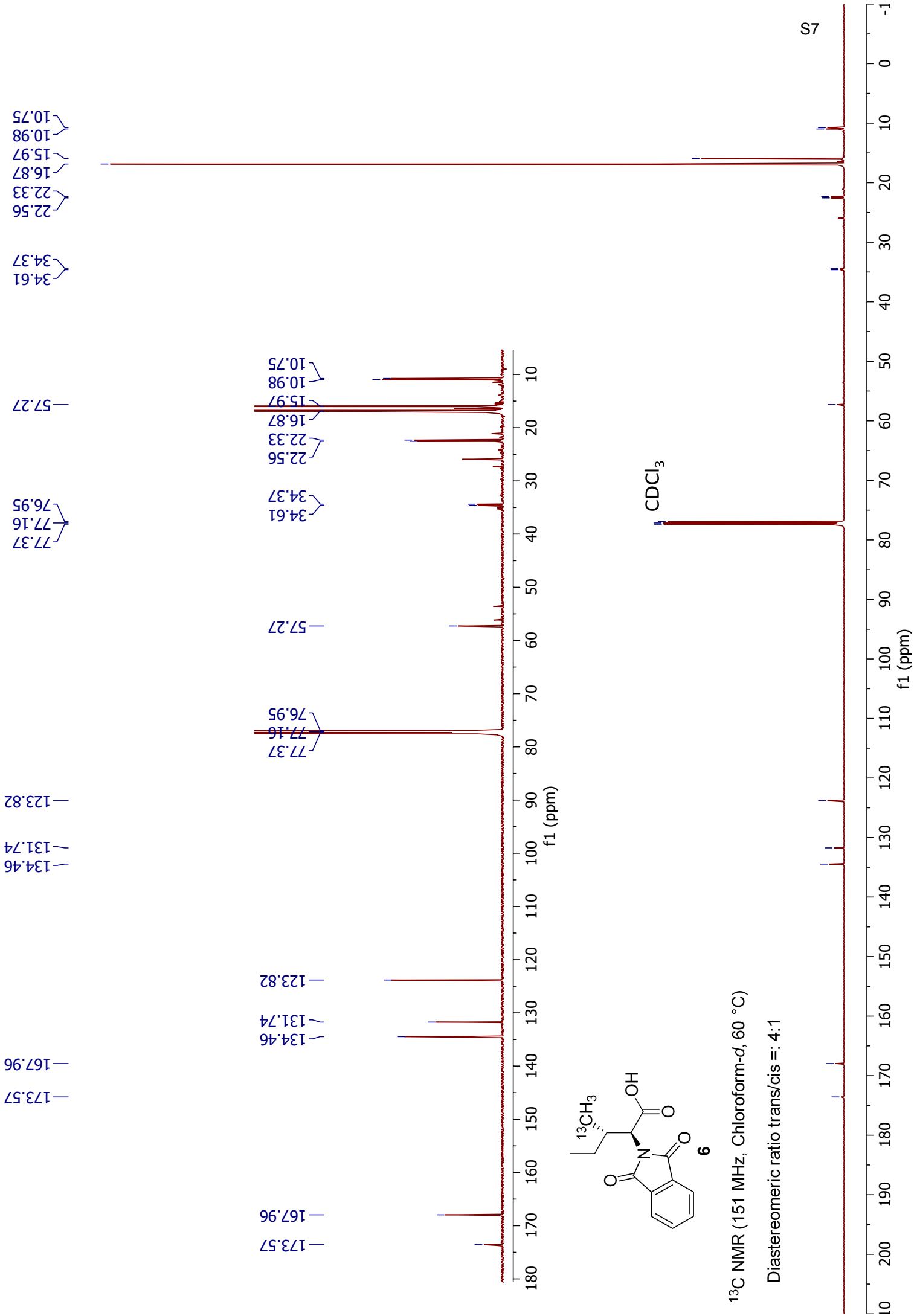


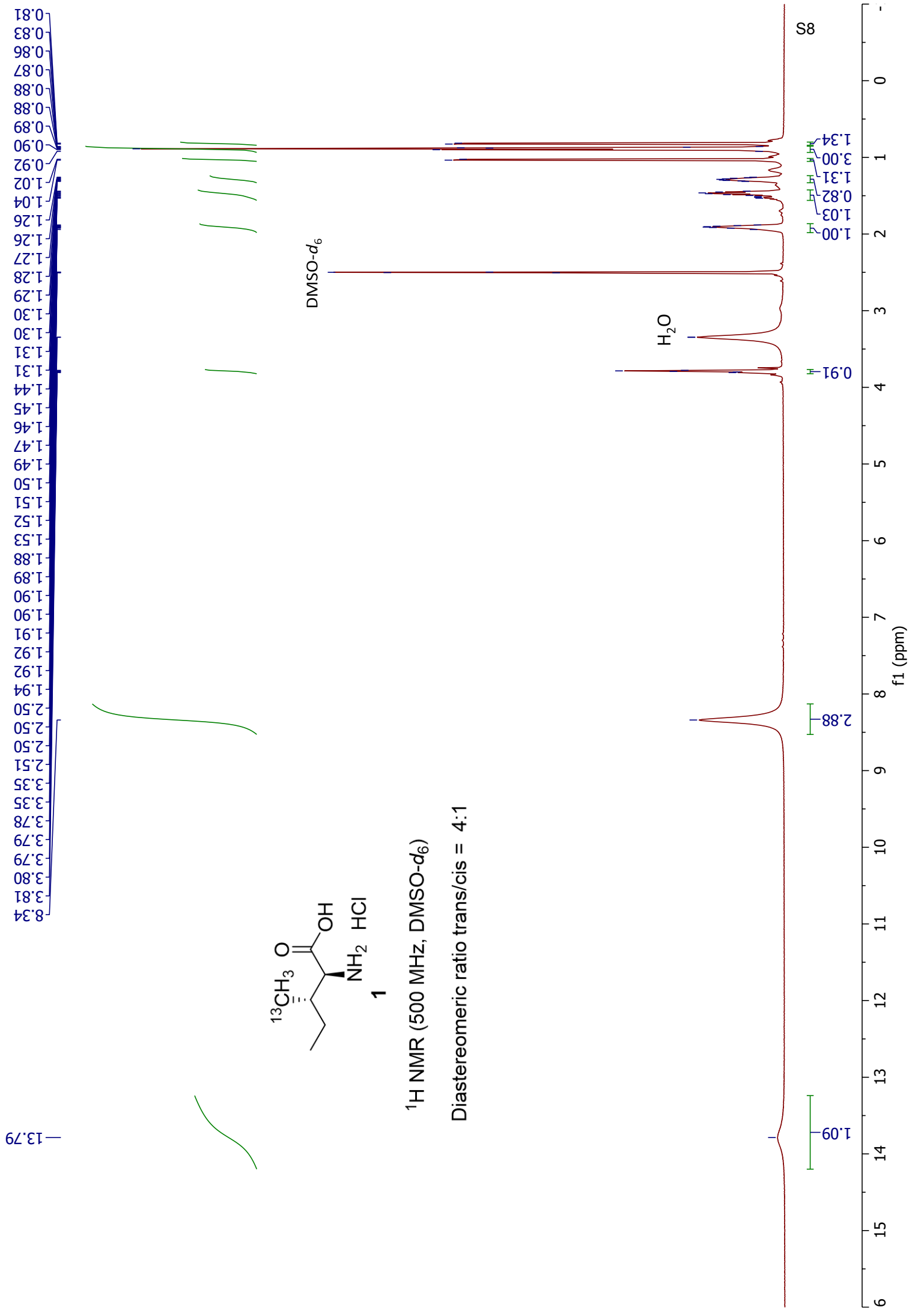


^1H NMR (400 MHz, Chloroform-*d*, 60 °C)

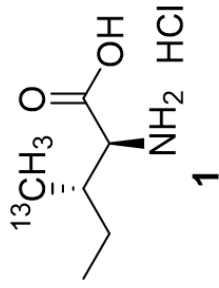
Diastereomeric ratio trans/cis = 4:1







170.60
170.14



170.60
170.14

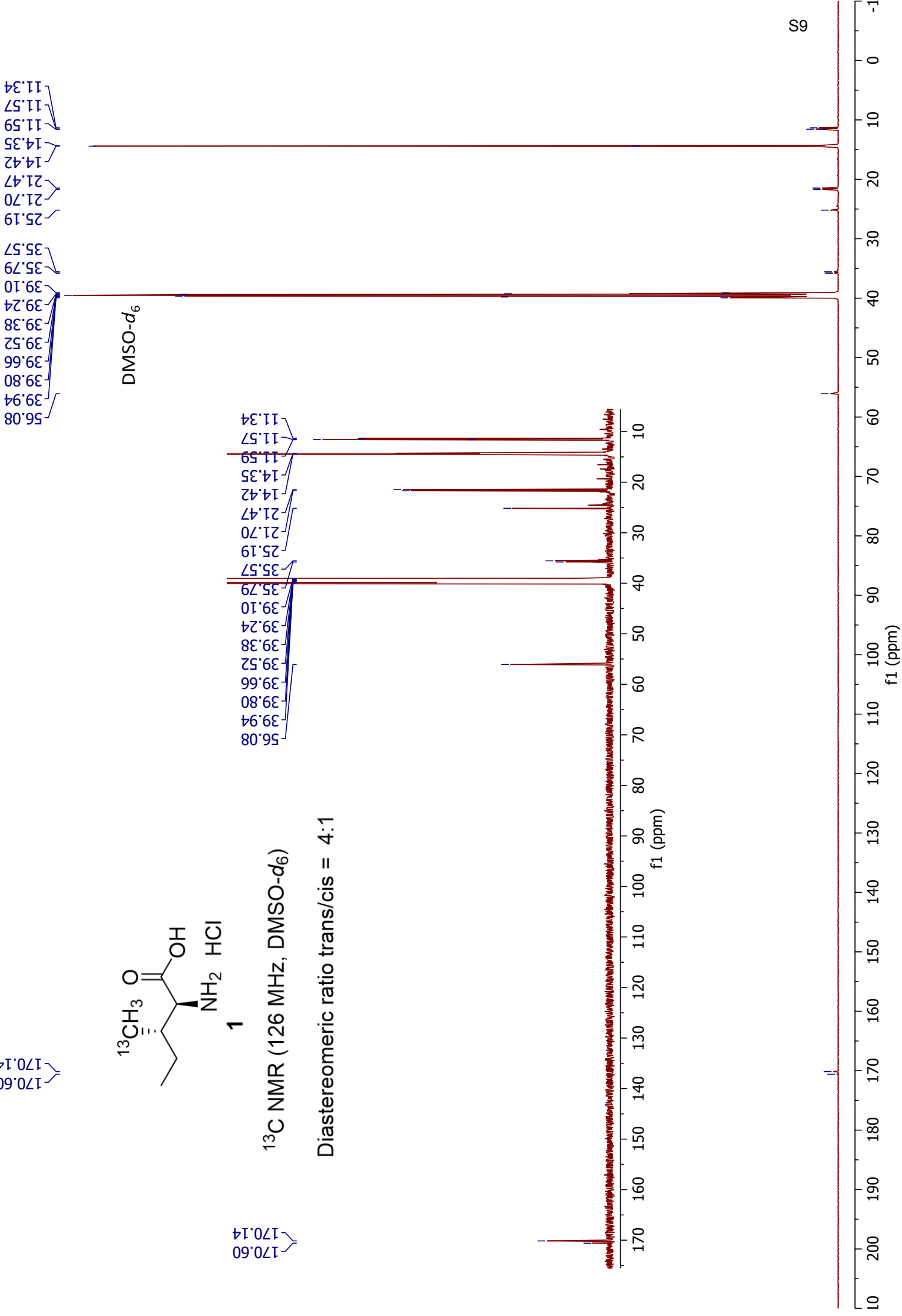
¹³C NMR (126 MHz, DMSO-d₆)

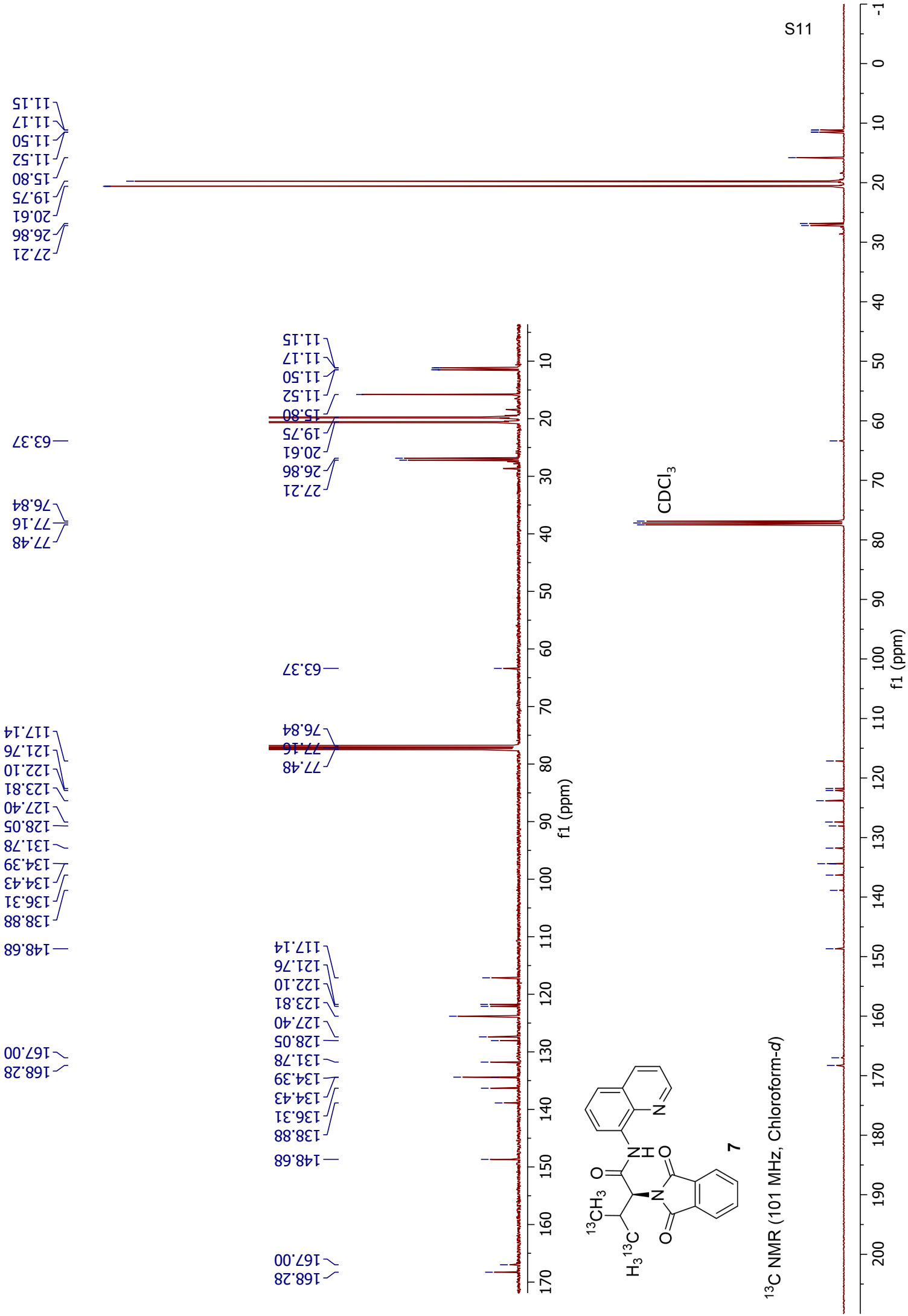
Diastereomeric ratio trans/cis = 4:1

56.08
39.94
39.80
39.66
39.52
39.38
39.24
39.10
35.79
35.57
25.19
21.70
21.47
14.42
14.35
11.59
11.57
11.34

DMSO-d₆

56.08
39.94
39.80
39.66
39.52
39.38
39.24
39.10
35.79
35.57
25.19
21.70
21.47
14.42
14.35
11.59
11.57
11.34





11.08
11.10
11.36
11.38
15.59
15.60
19.26
20.90
26.74
27.02
39.02
39.19
39.35
39.52
39.69
39.85
40.02
58.48

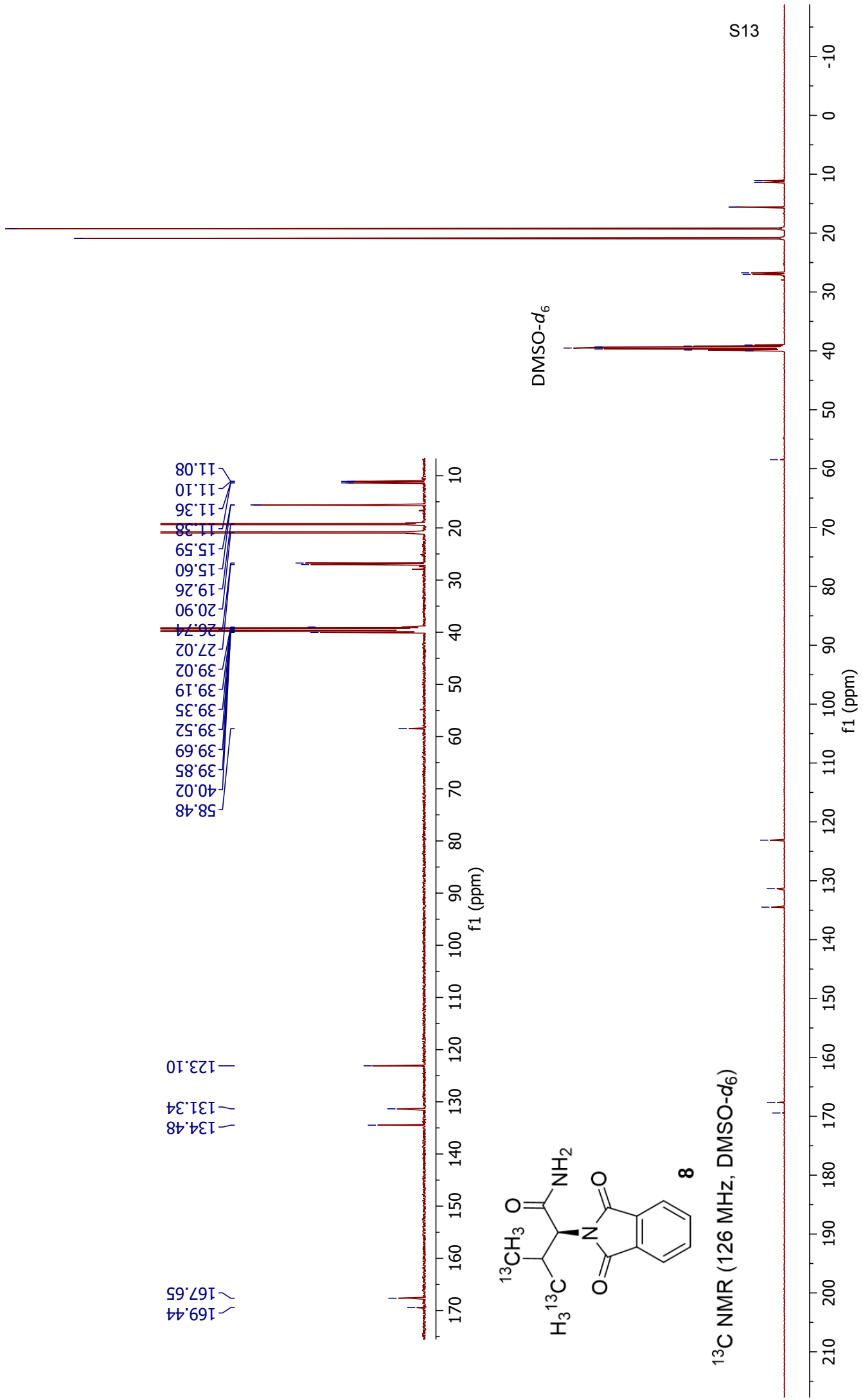
123.10
131.34
134.48

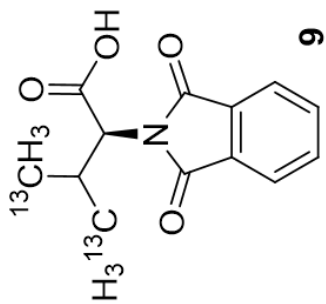
169.44
167.65

11.08
11.10
11.36
11.38
15.59
15.60
19.26
20.90
26.74
27.02
39.02
39.19
39.35
39.52
39.69
39.85
40.02
58.48

123.10
131.34
134.48

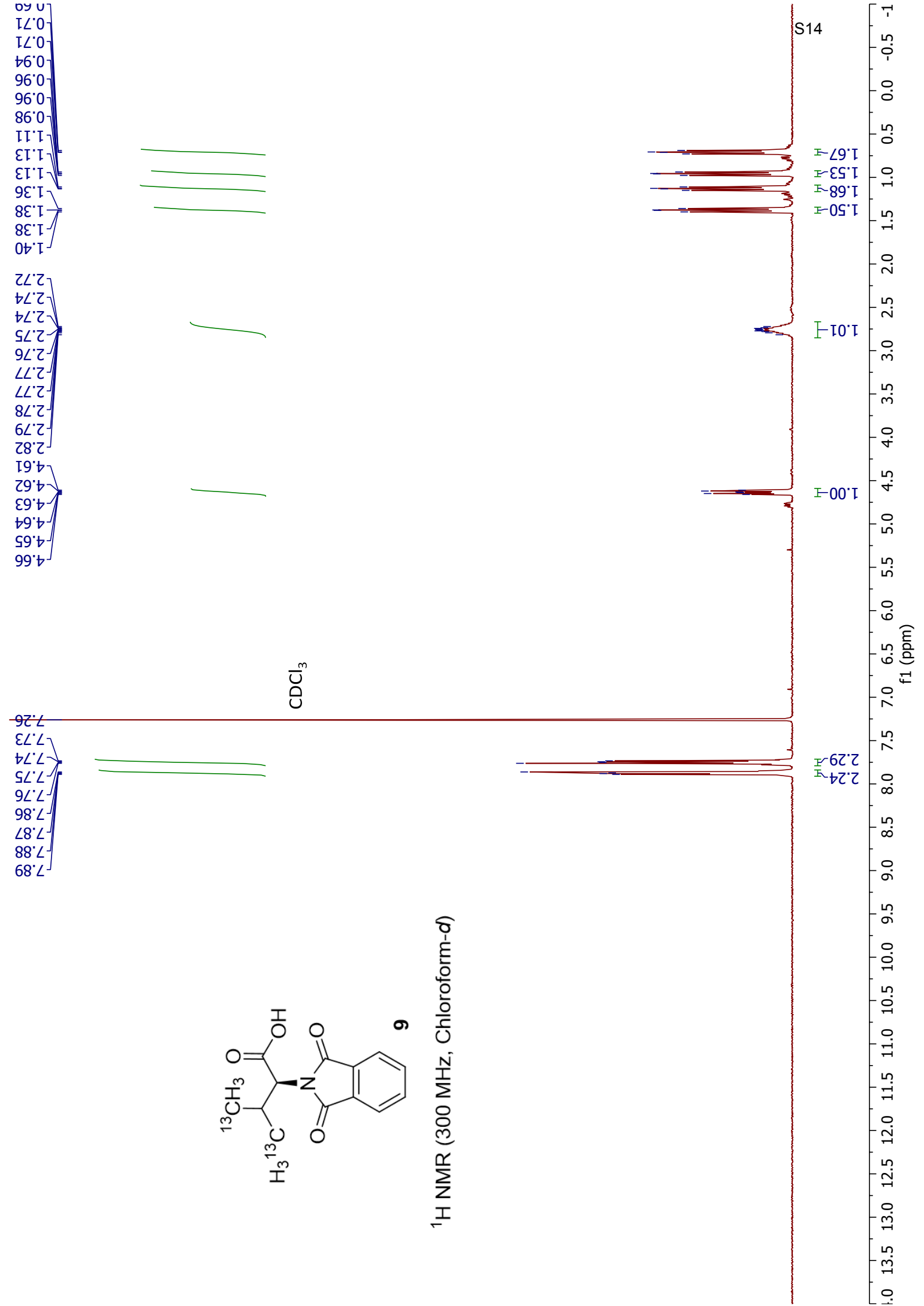
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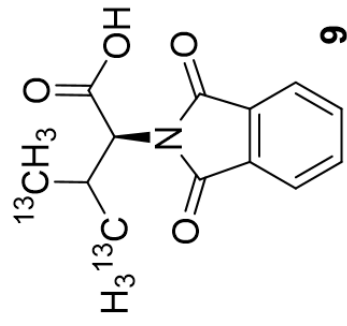




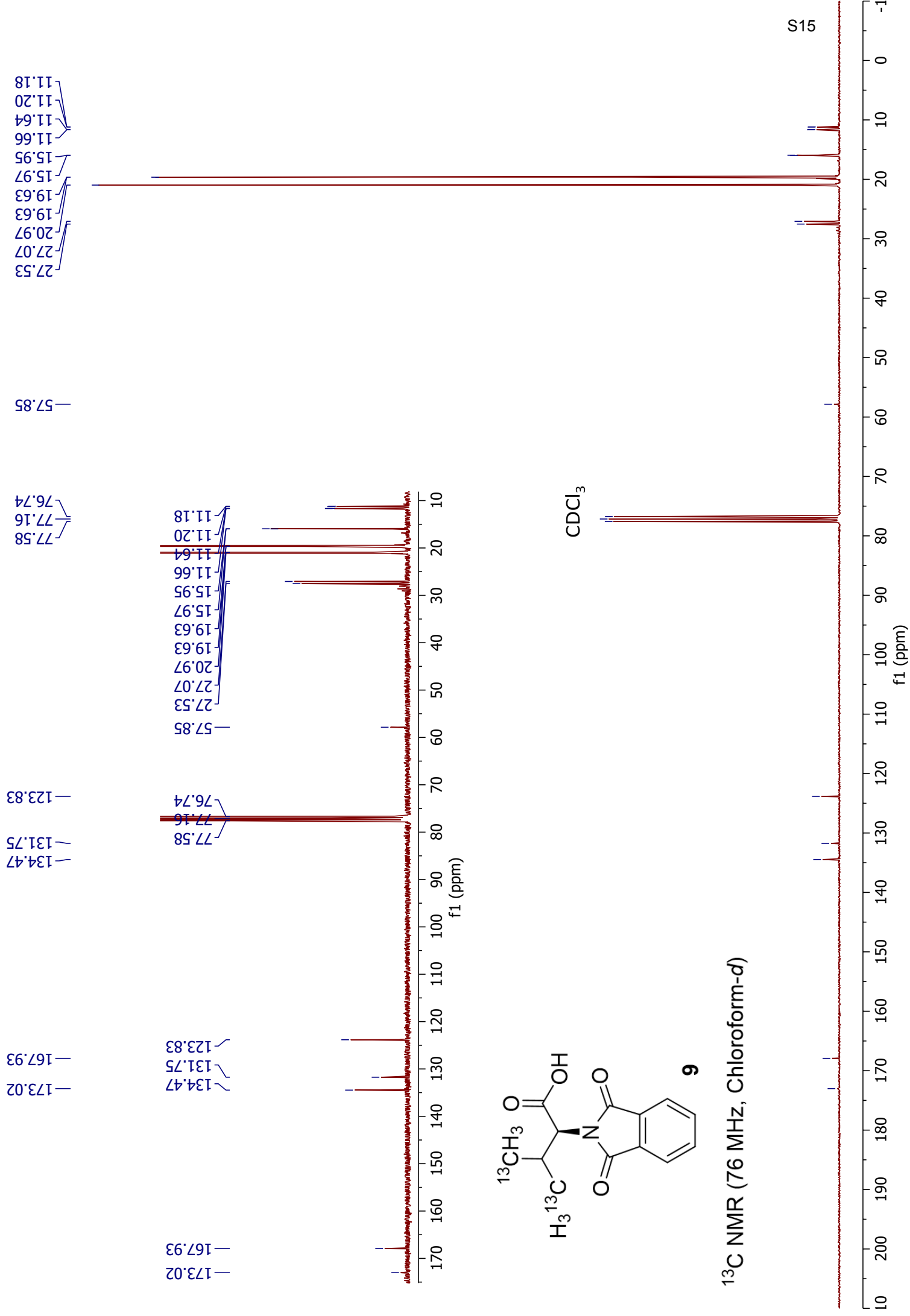
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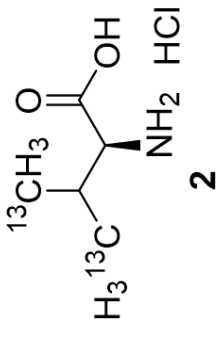
¹H NMR (300 MHz, Chloroform-*d*)



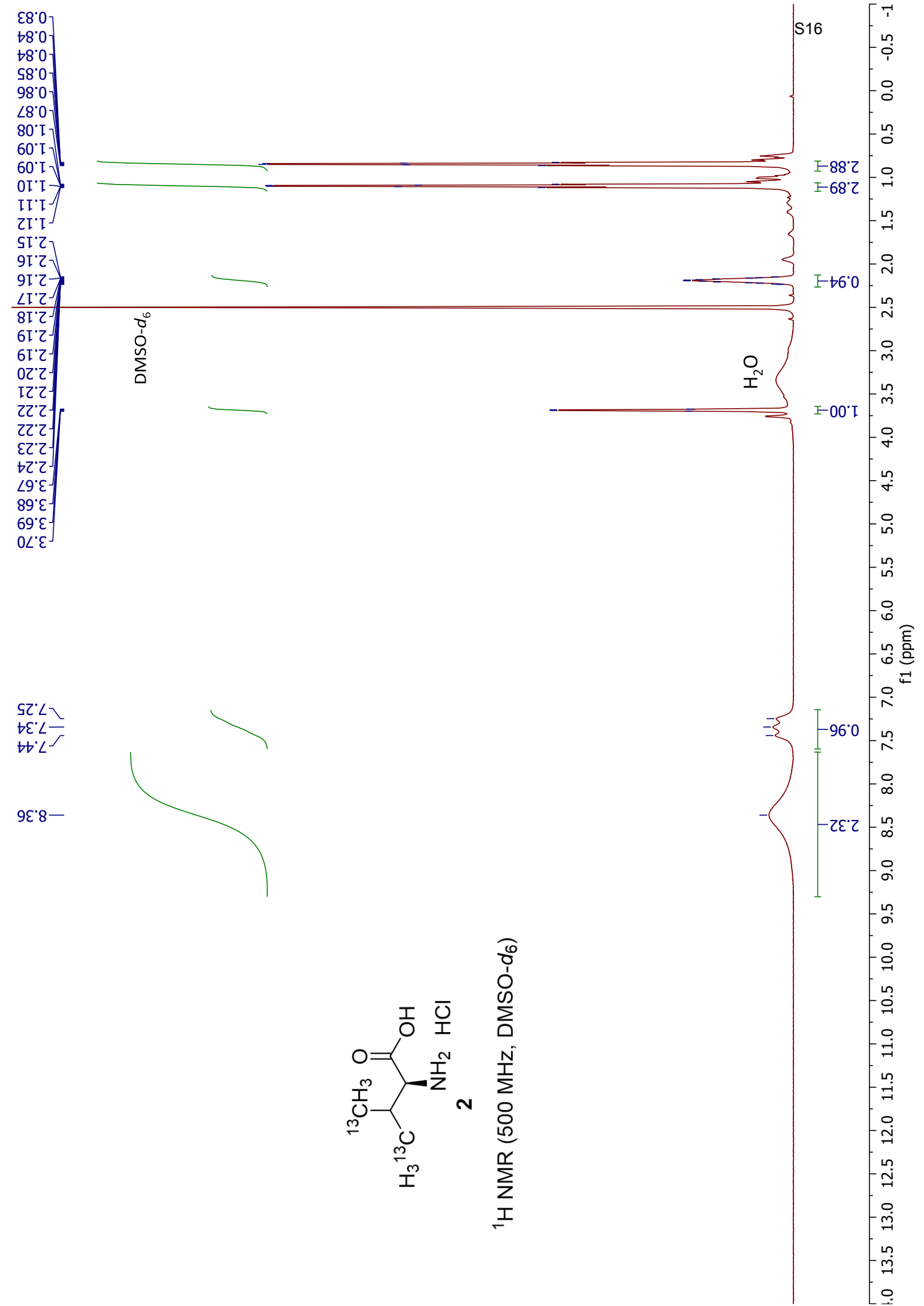


^{13}C NMR (76 MHz, Chloroform-*d*)





¹H NMR (500 MHz, DMSO-d₆)

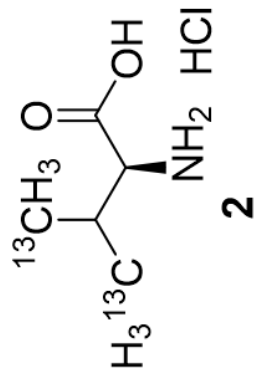


—170.13

11.30
11.31
11.57
11.59
14.31
14.33
17.72
18.10
24.37
24.64
39.02
39.19
39.35
39.52
39.69
39.85
40.02
57.37

—170.13

11.30
11.31
11.57
11.59
14.31
14.33
17.72
18.10
24.37
24.64
39.02
39.19
39.35
39.52
39.69
39.85
40.02
57.37



¹³C NMR (126 MHz, DMSO-d₆)

