

Electronic Supplementary Material

Regiospecific formation of sugar-derived ketonitrone towards unconventional C-branched pyrrolizidines and indolizidines.

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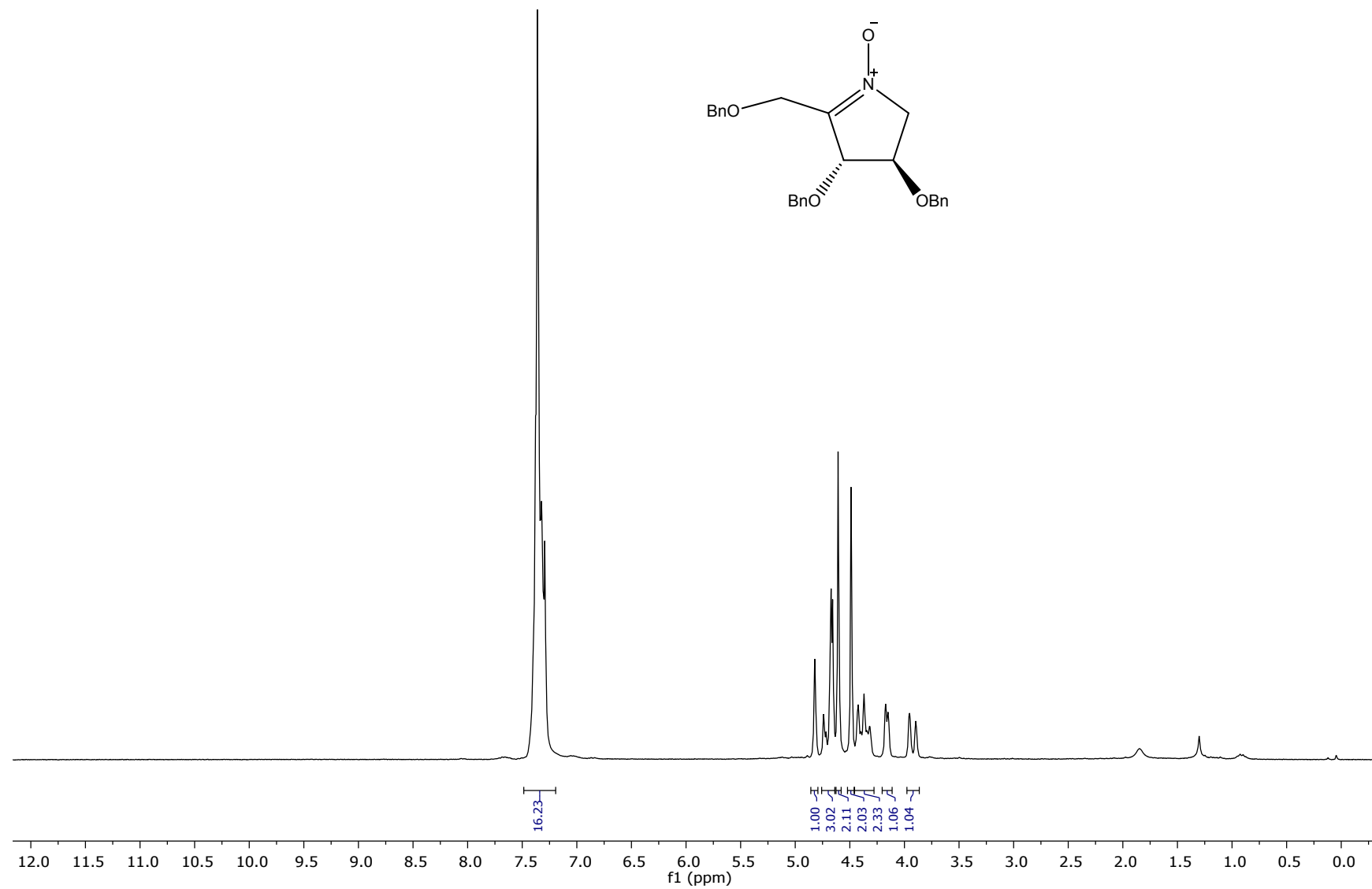
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^b Univ. Grenoble Alpes, DCM, F-38000 Grenoble, France CNRS, DCM, F-38000 Grenoble, France.
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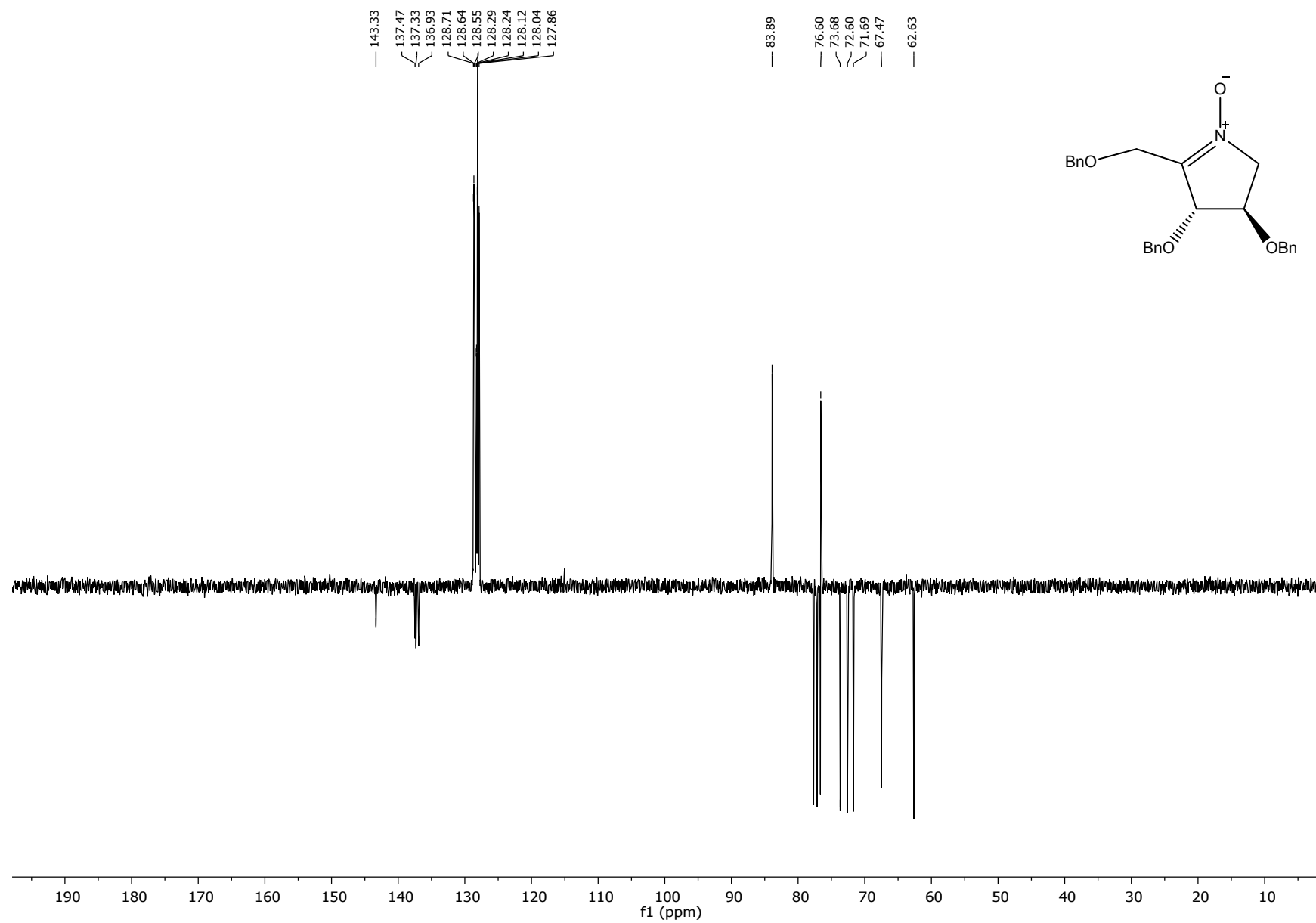
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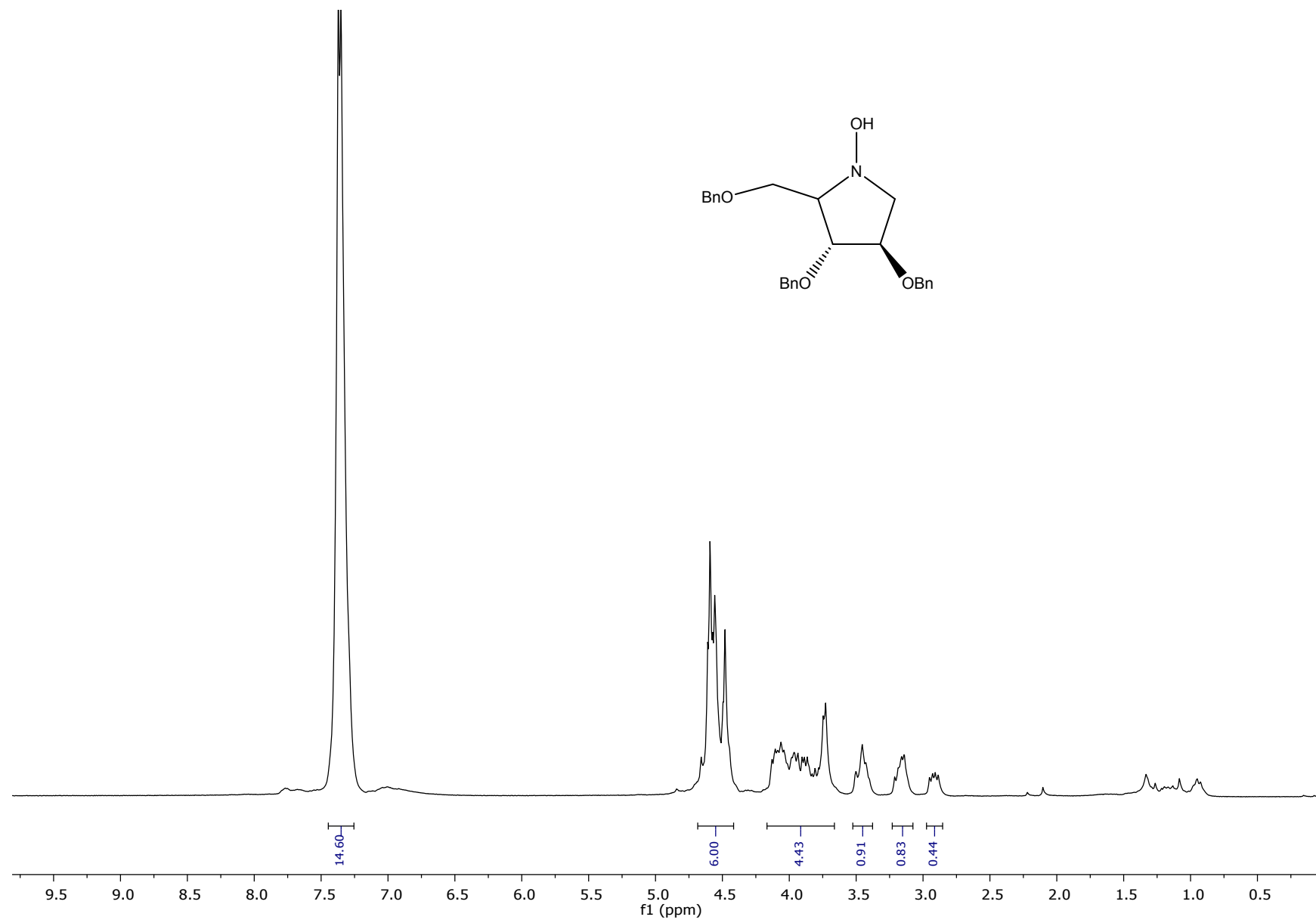
¹H-NMR spectrum of 10 (CDCl₃)



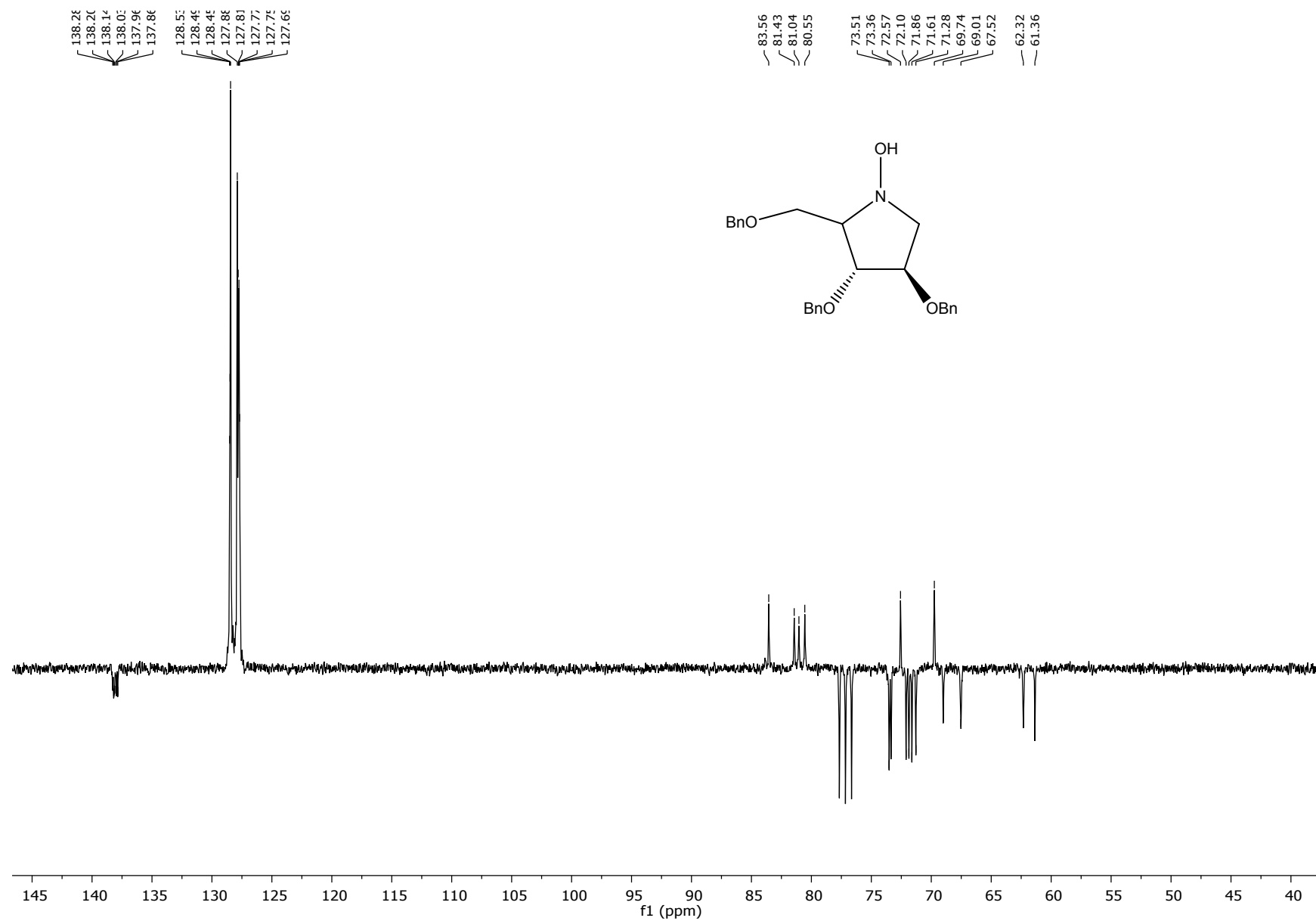
JMOD ¹³C-NMR spectrum of 10 (CDCl₃)



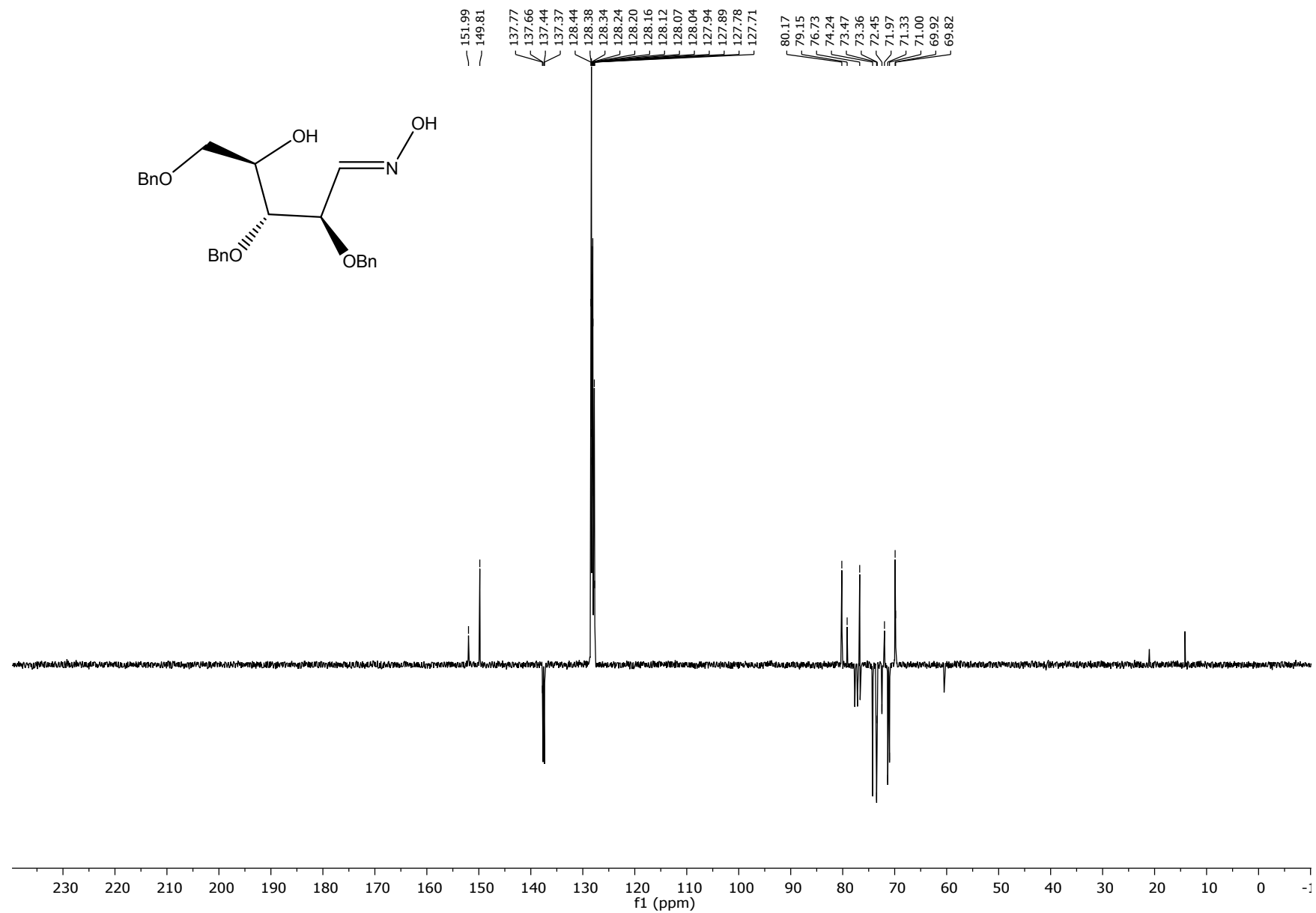
¹H-NMR spectrum of mixture of 11a and 11b (CDCl₃)



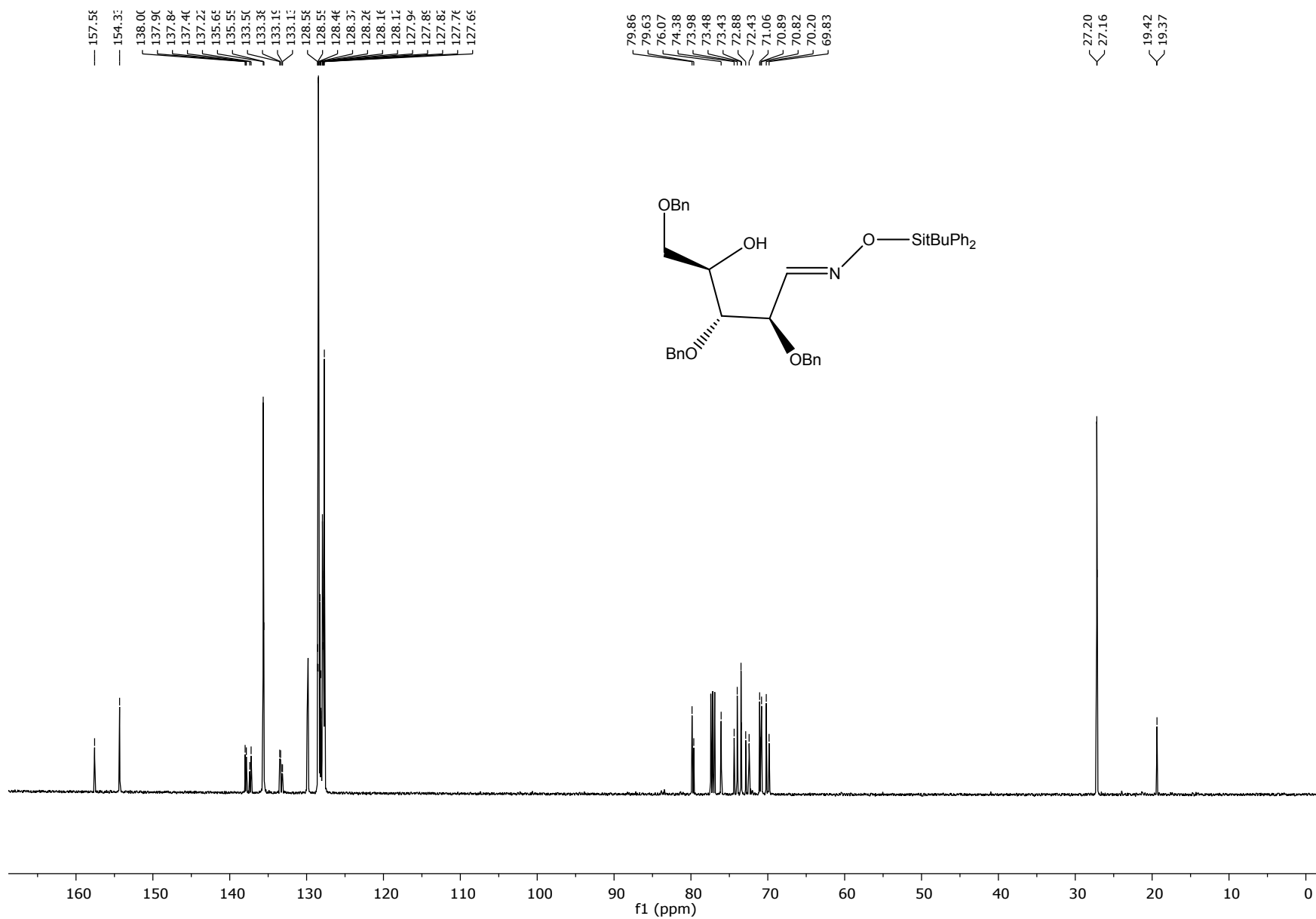
JMOD ¹³C-NMR spectrum of mixture of 11a and 11b (CDCl₃)



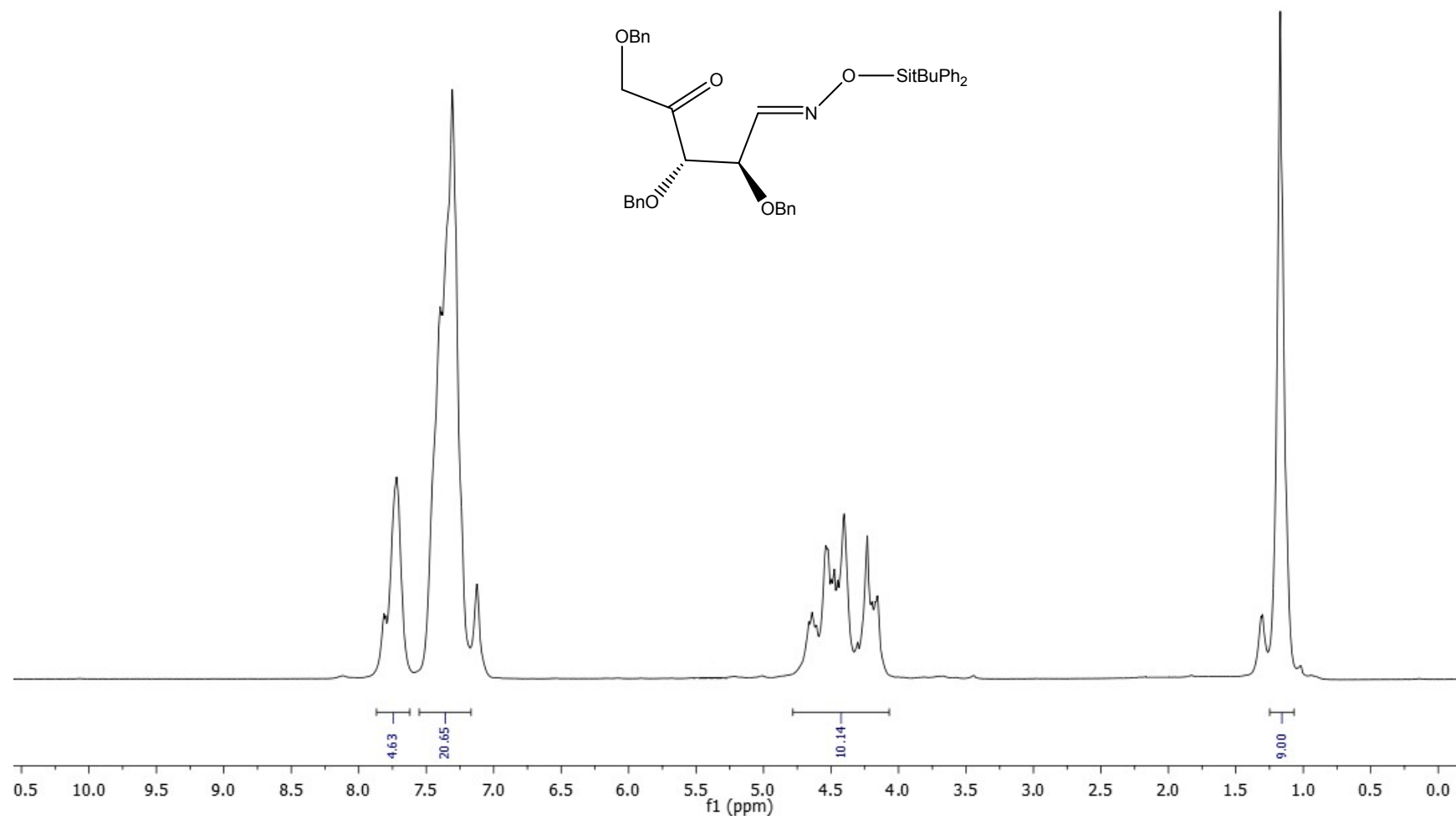
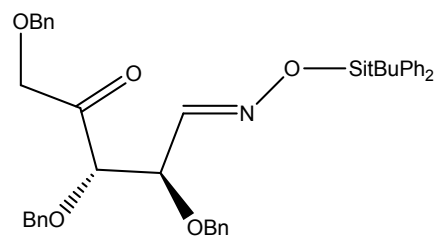
JMOD ¹³C-NMR spectrum of the intermediate oxime 14 (R=H) (CDCl₃)



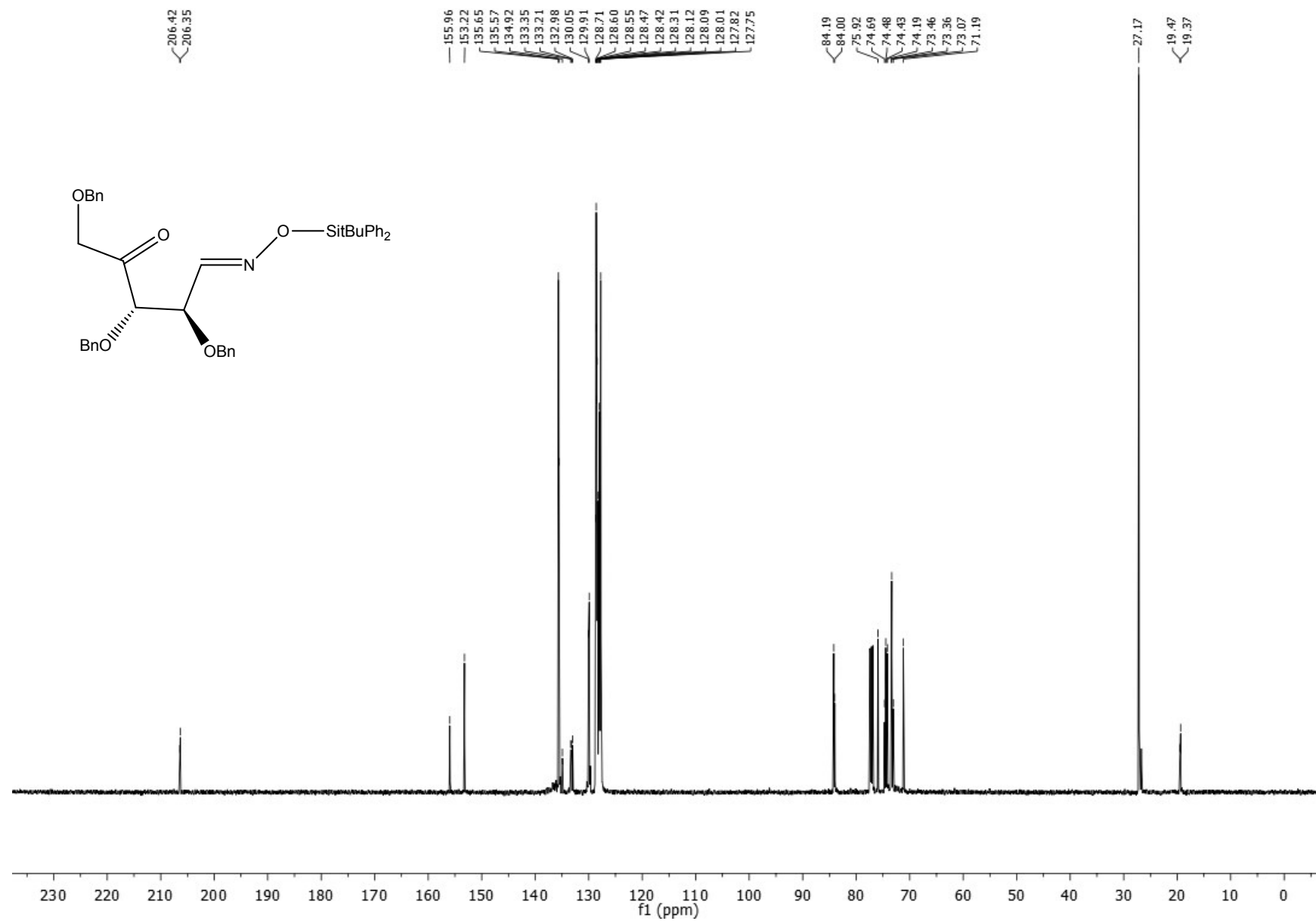
¹³C-NMR spectrum of 15 (CDCl₃)



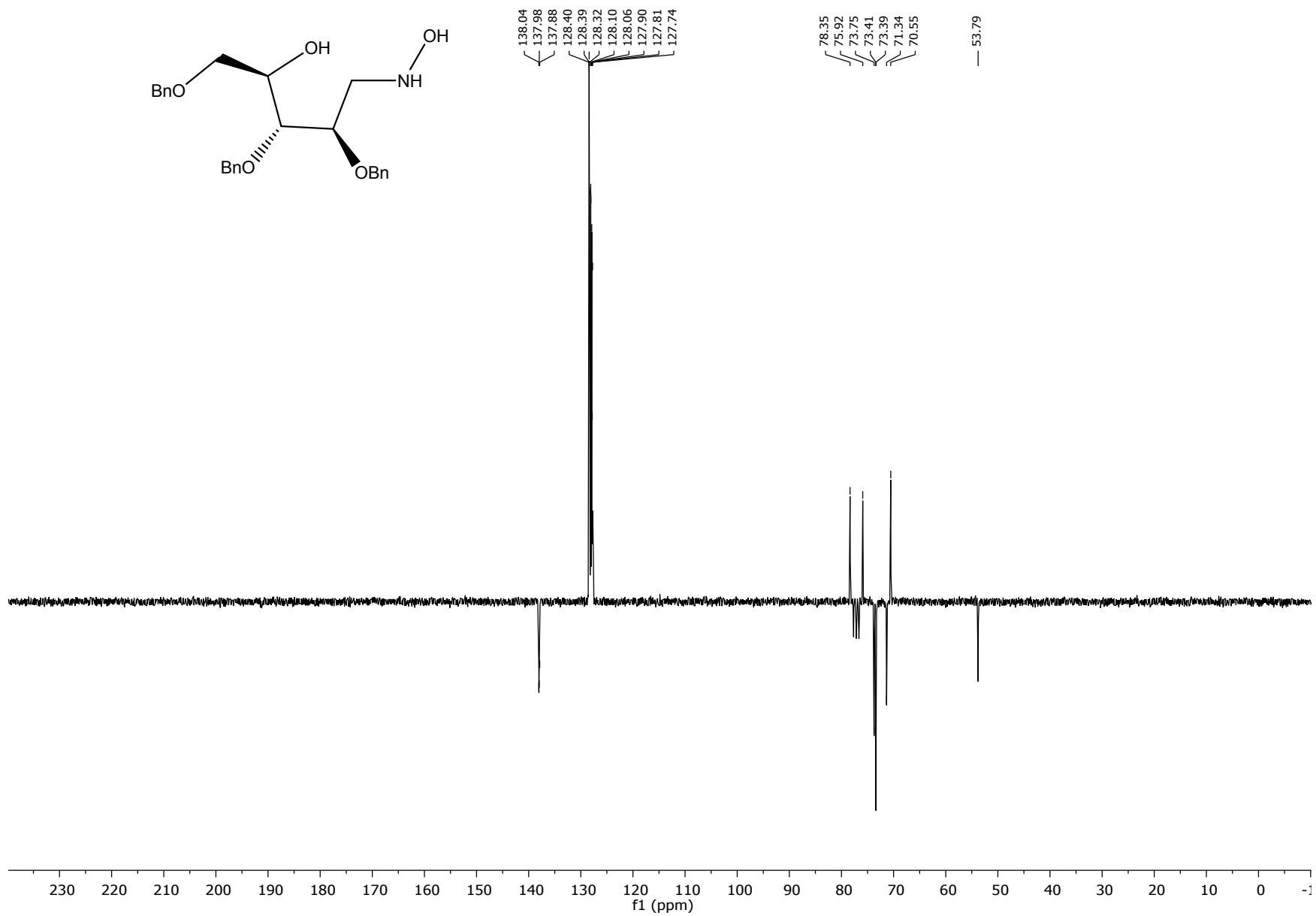
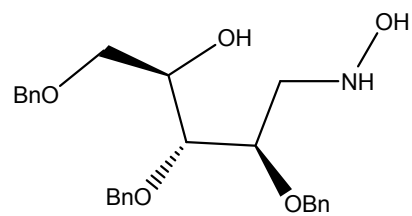
¹H-NMR spectrum of 16 (CDCl₃)



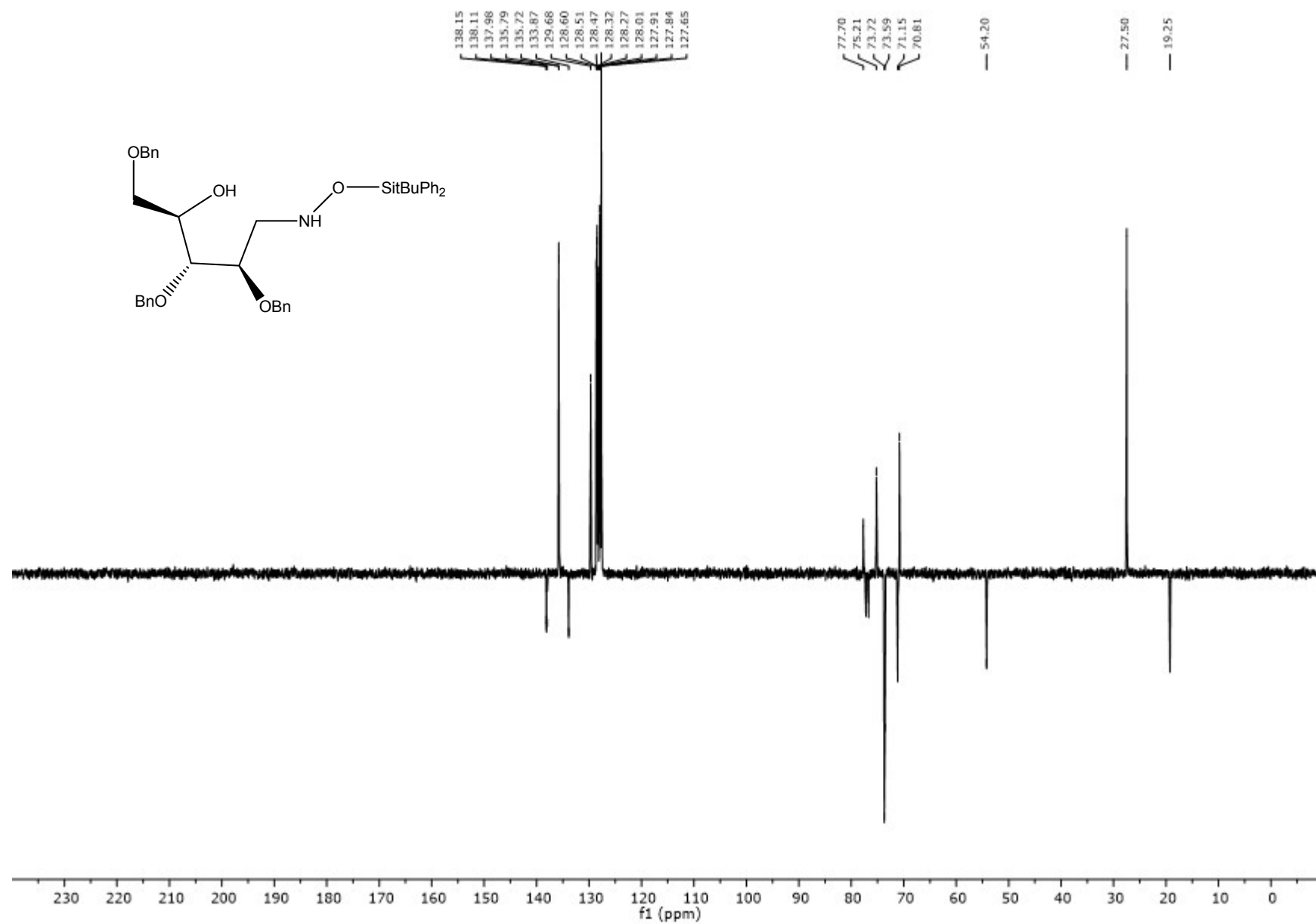
¹³C-NMR spectrum of 16 (CDCl₃)



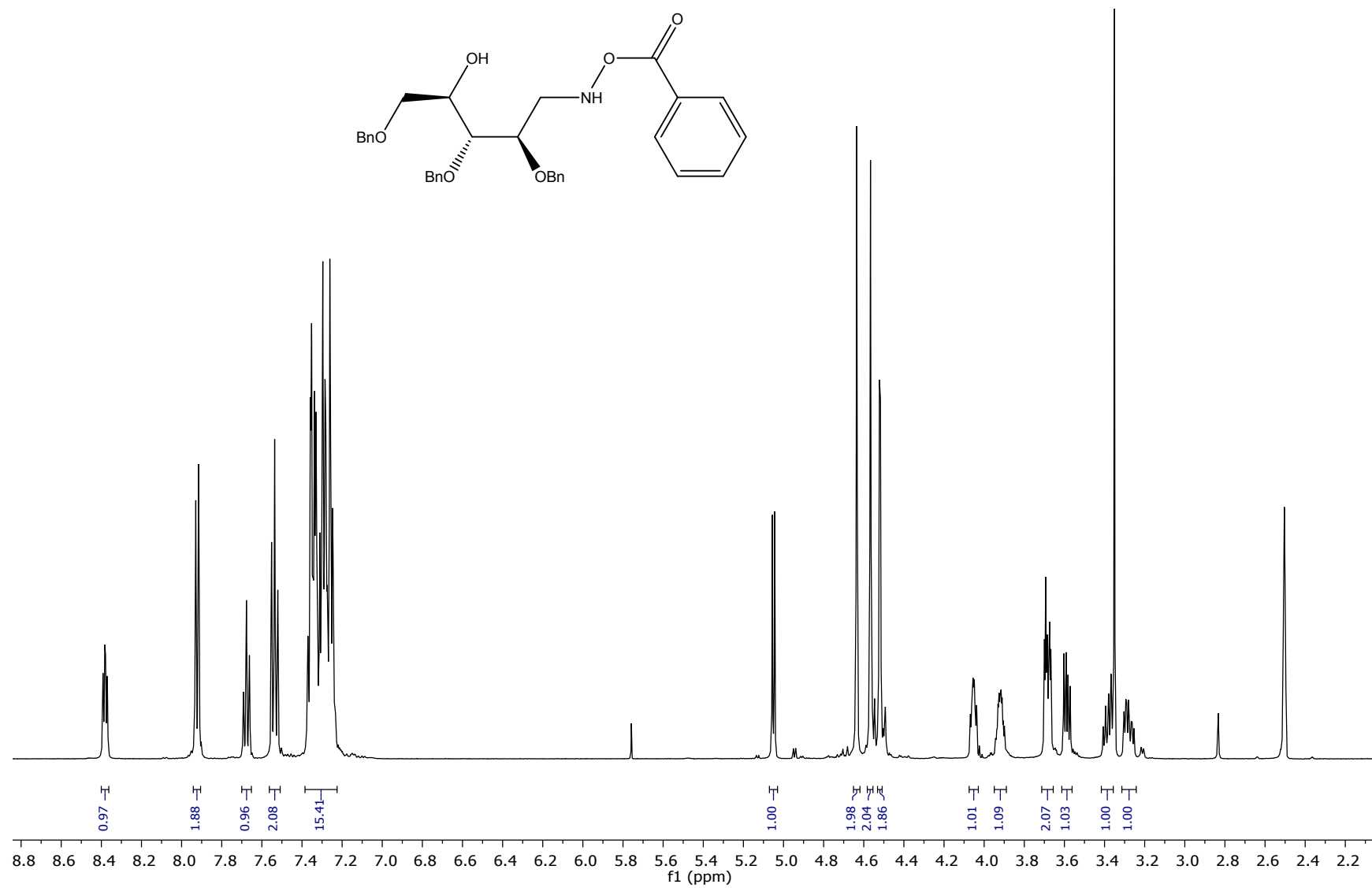
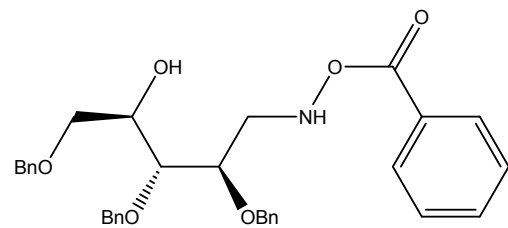
JMOD ^{13}C -NMR spectrum of 17 (CDCl_3)



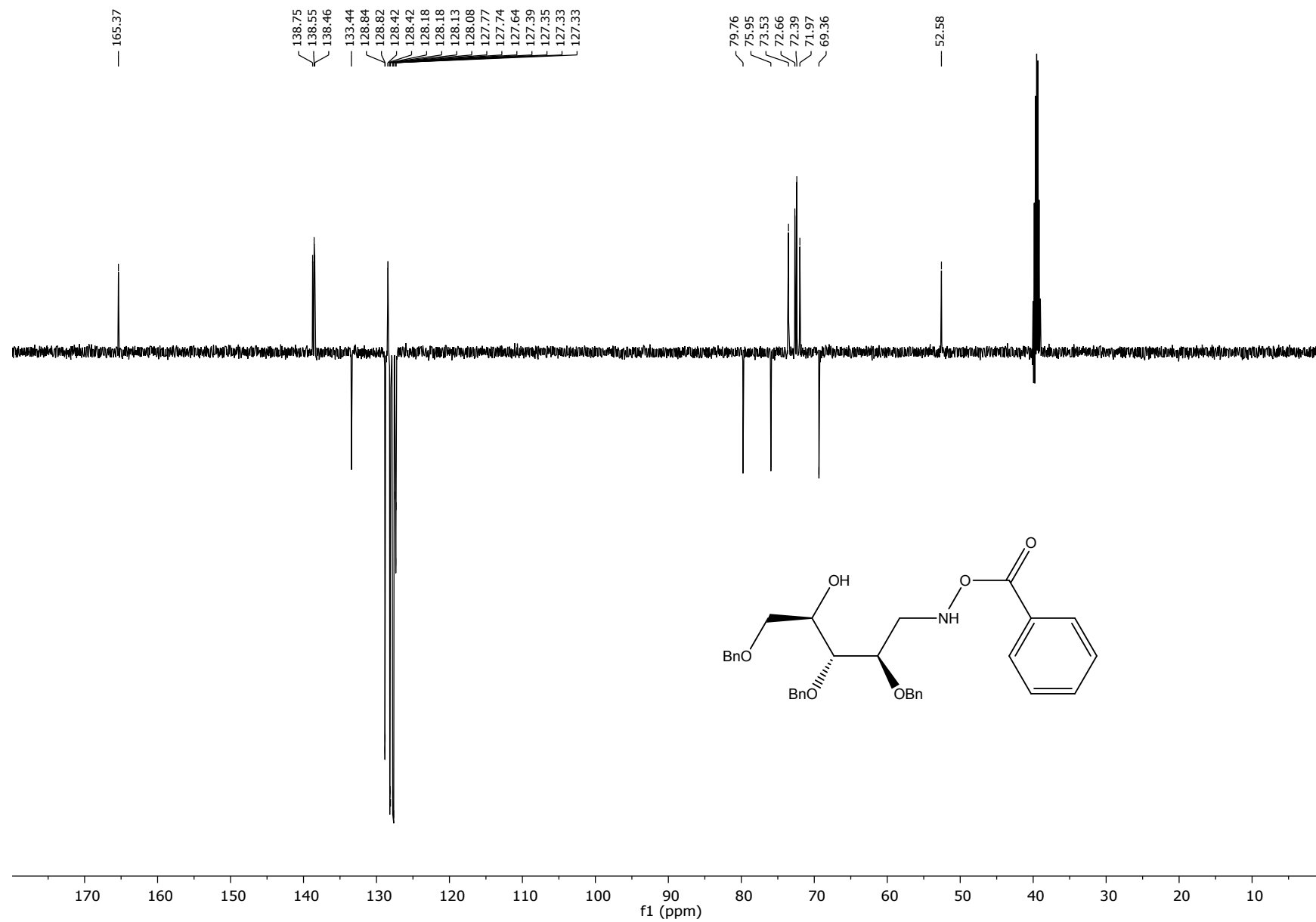
JMOD ¹³C-NMR spectrum of 18 (CDCl₃)



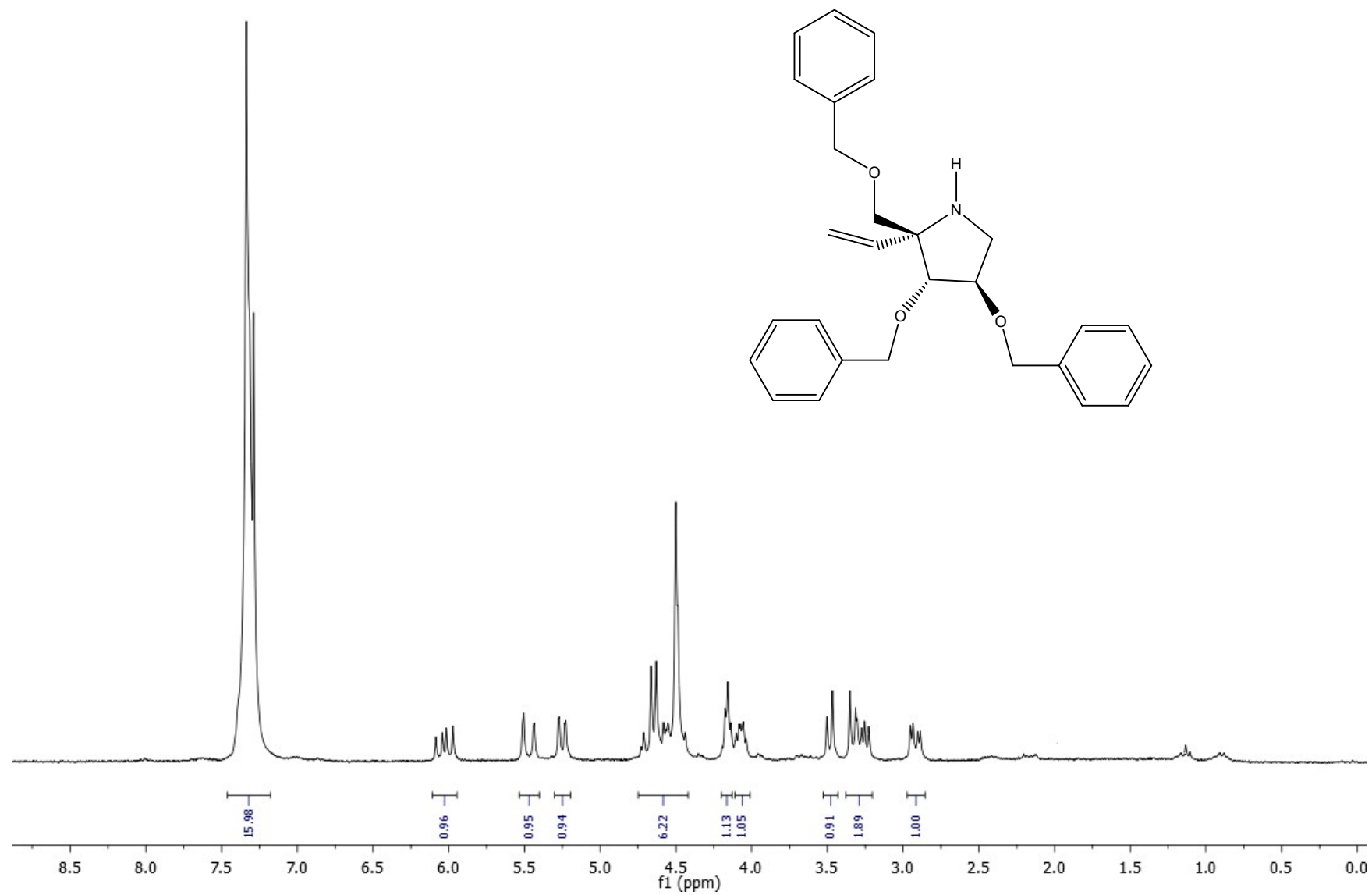
¹H-NMR spectrum of 19 (DMSO-d₆)



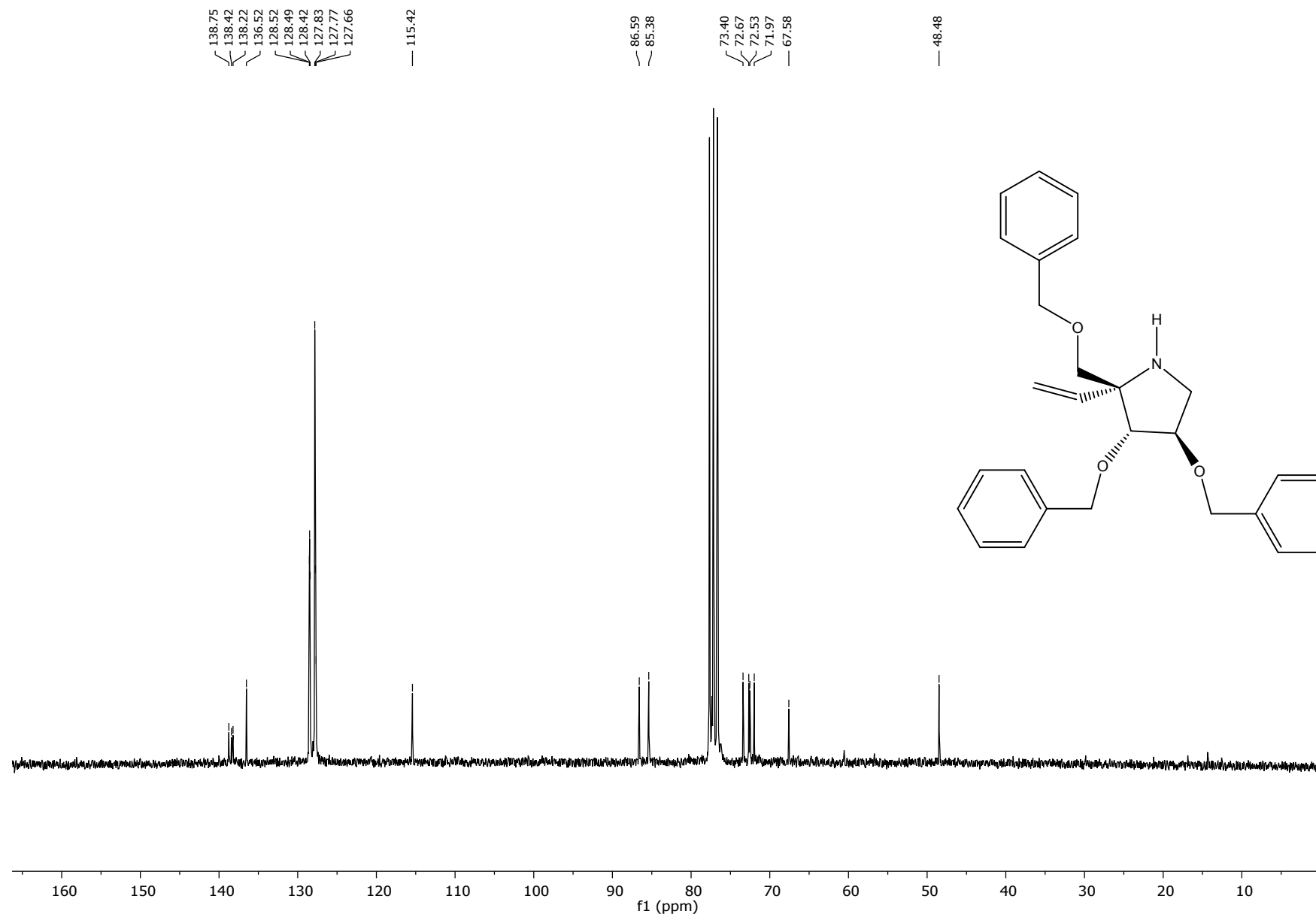
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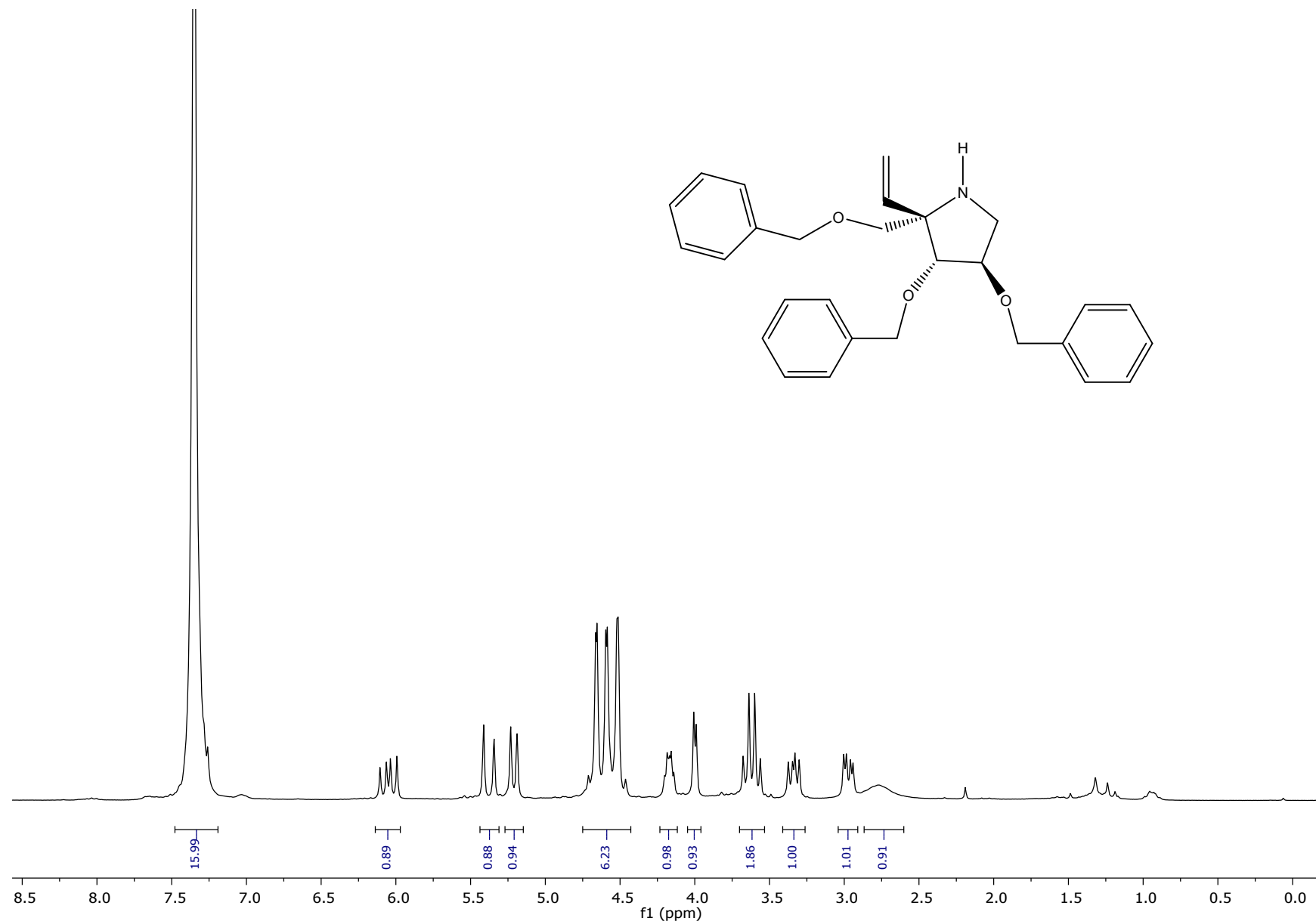
¹H-NMR spectrum of 20a (CDCl₃)



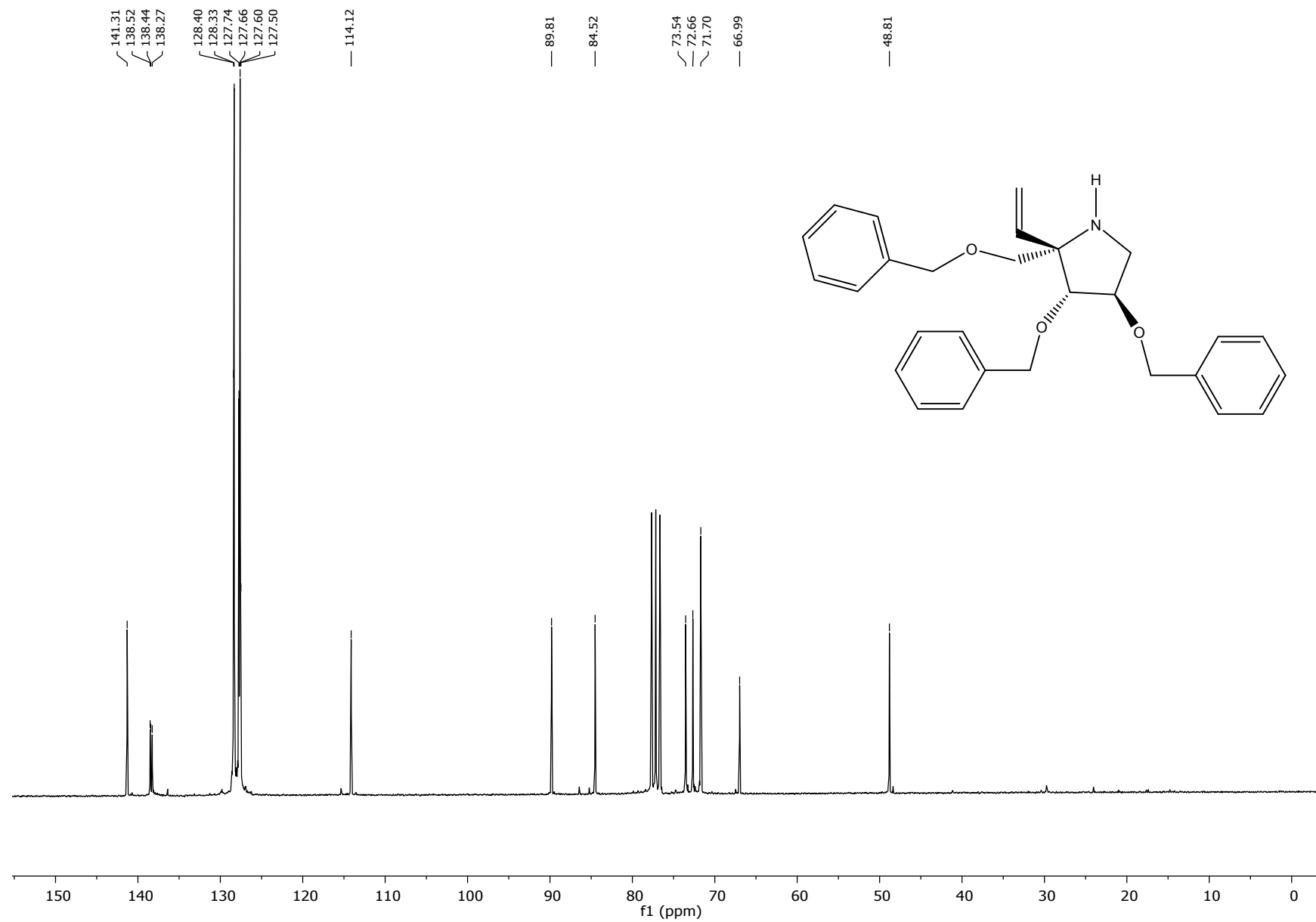
¹³C-NMR spectrum of 20a (CDCl₃)



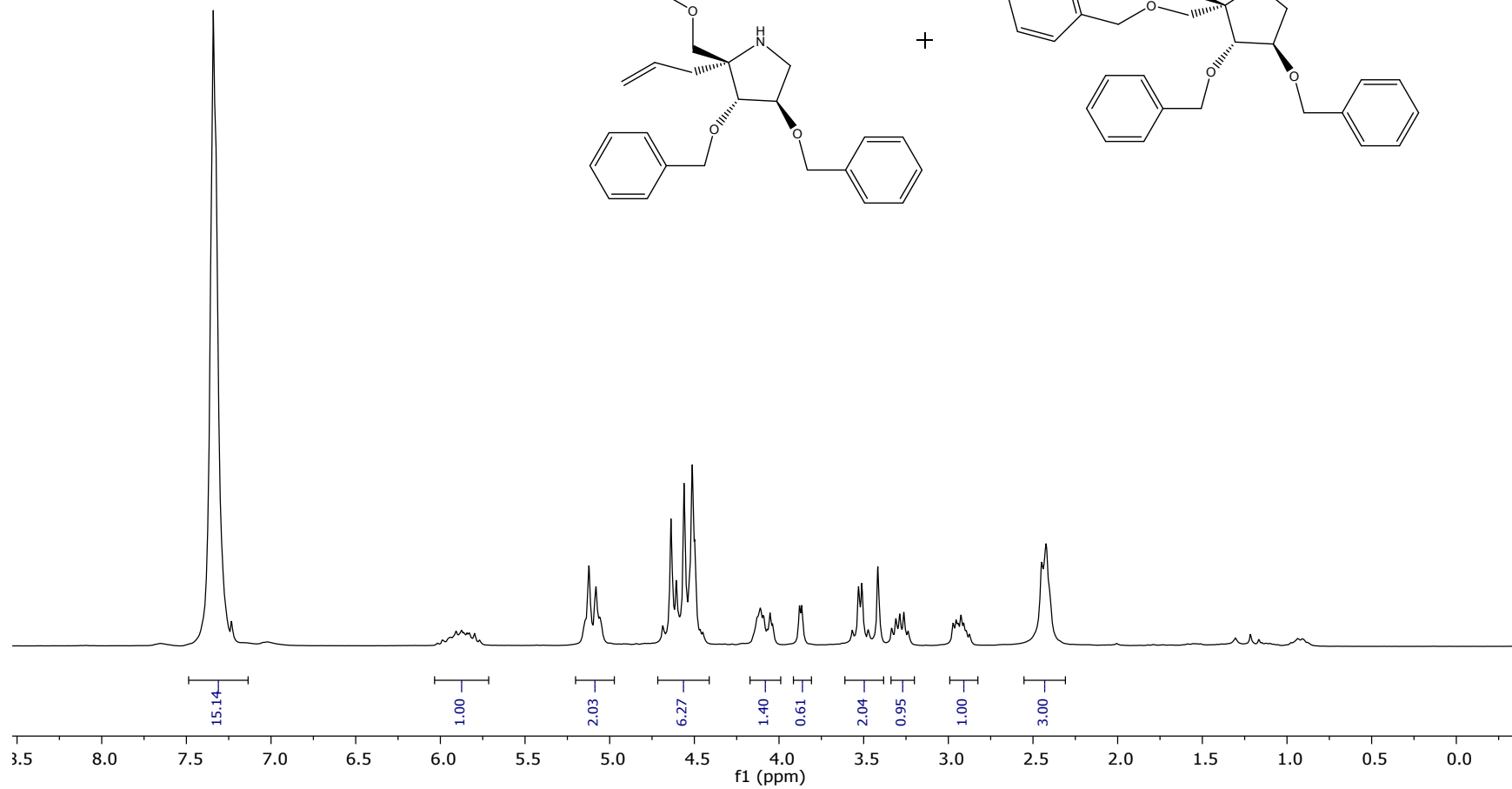
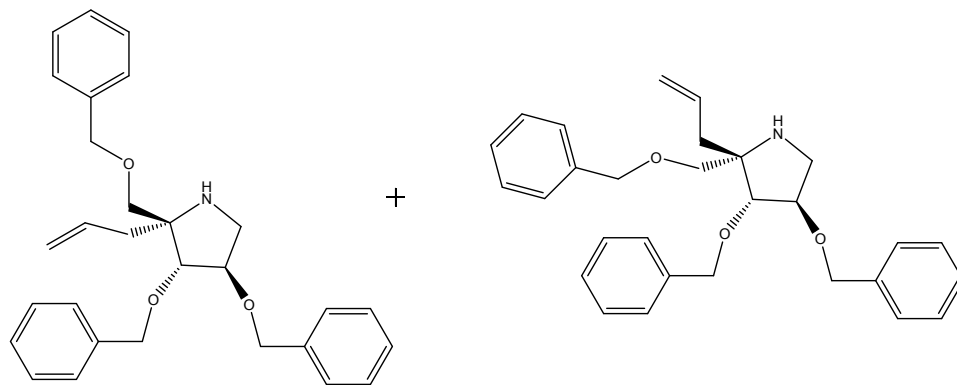
¹H-NMR spectrum of 20b (CDCl₃)



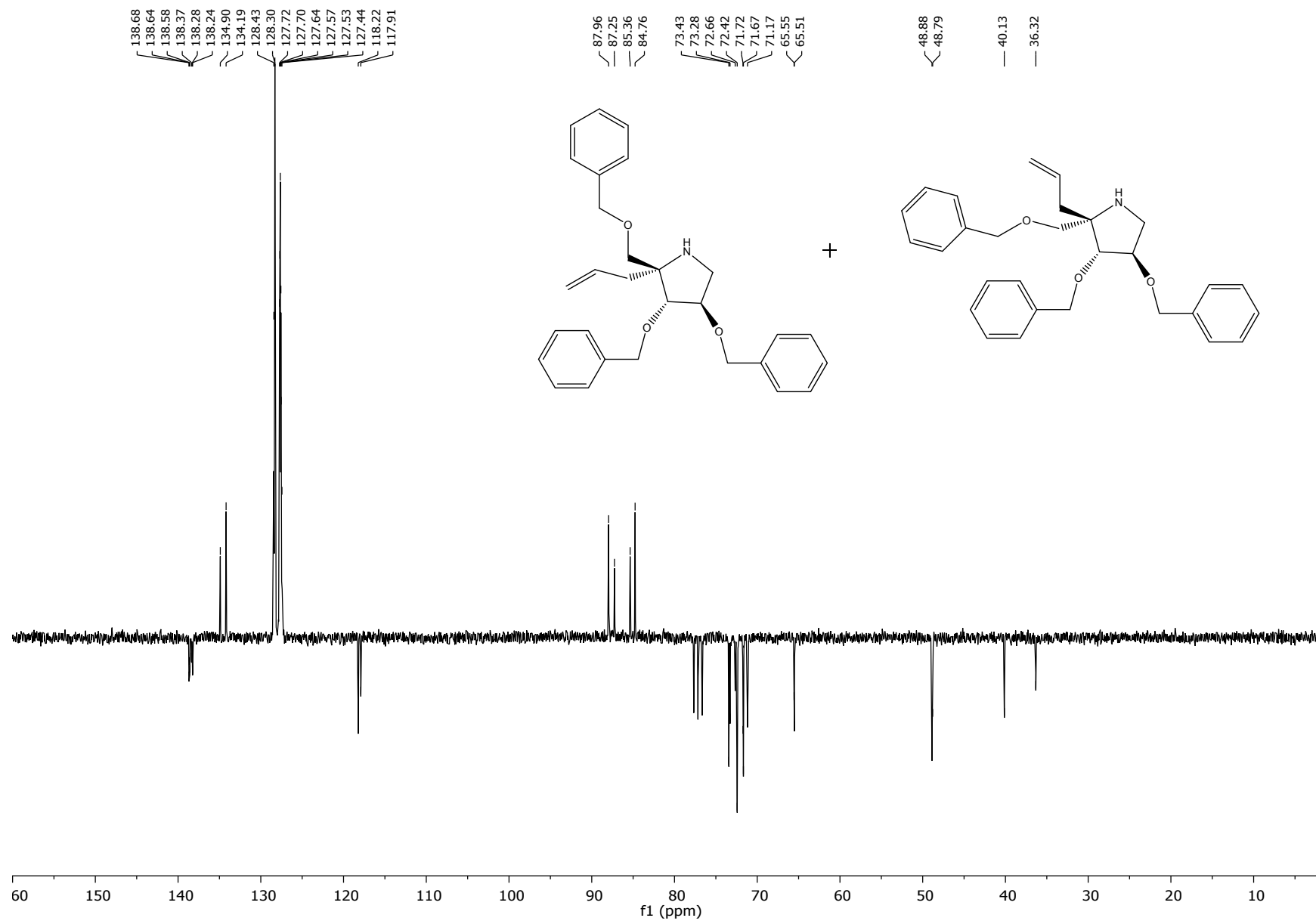
¹³C-NMR spectrum of 20b (CDCl₃)



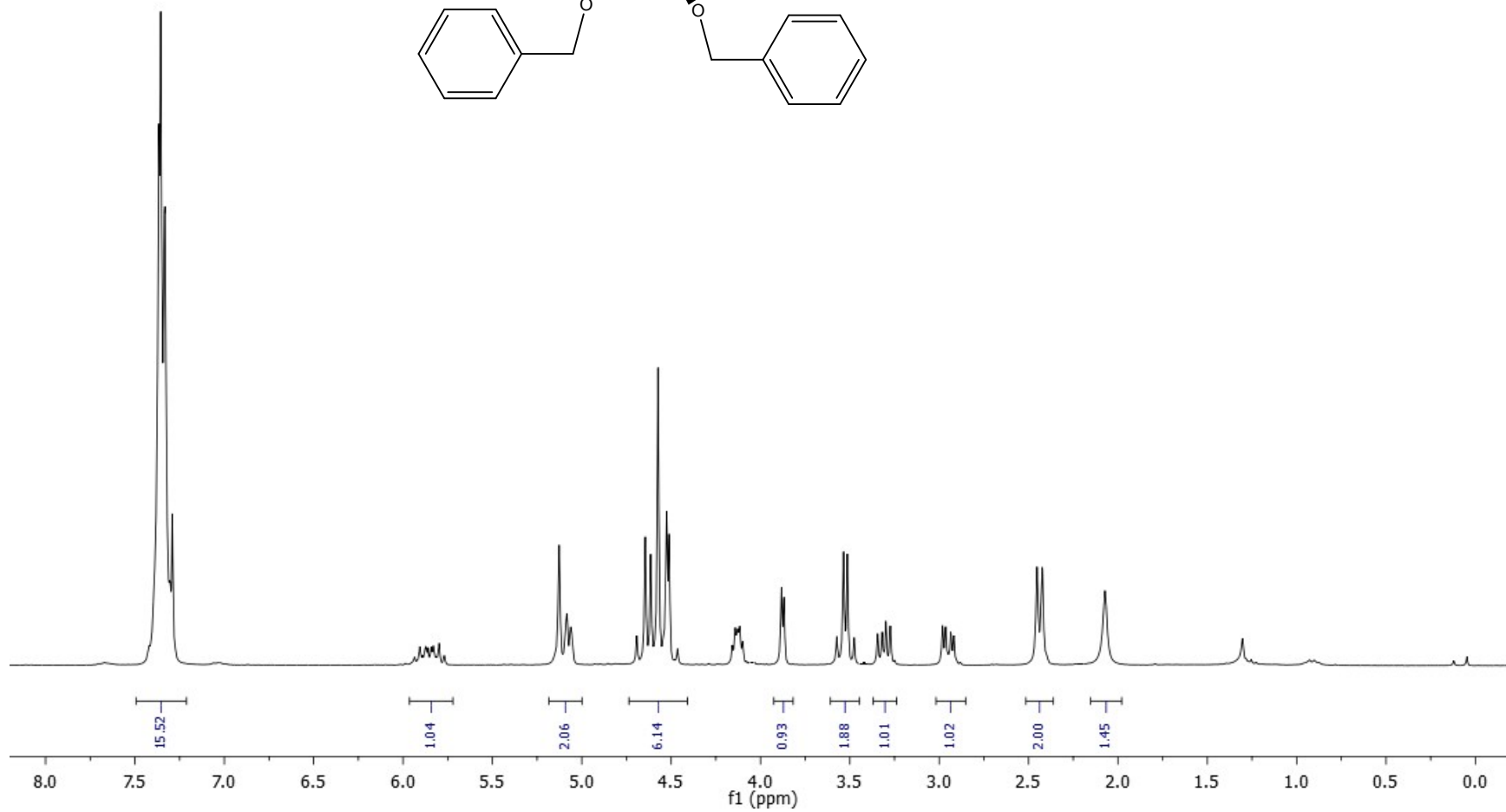
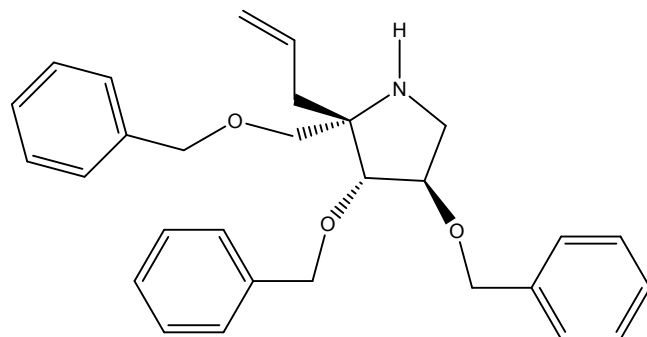
1H-NMR spectrum of 21a and 21b (CDCl₃)



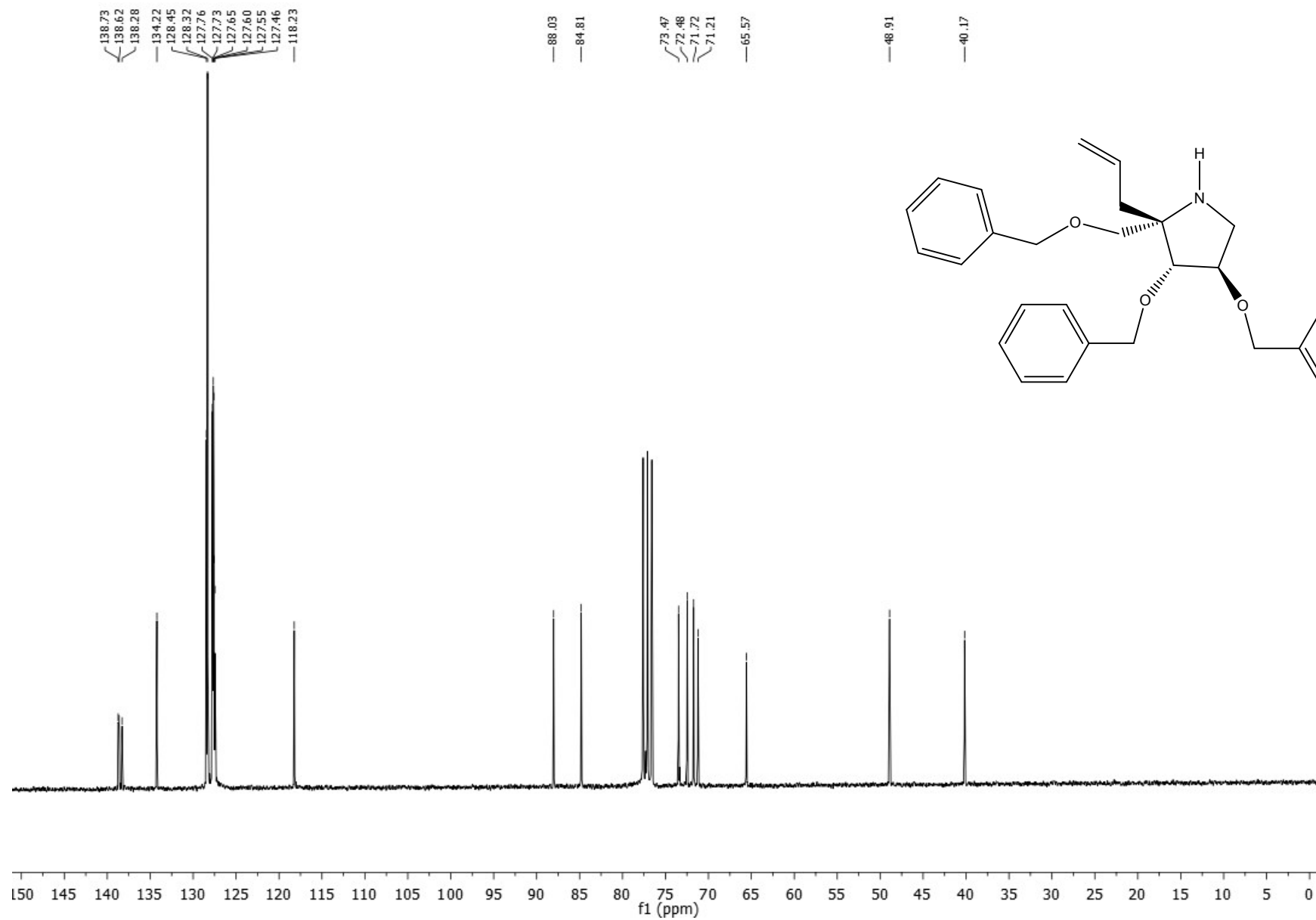
JMOD ¹³C-NMR spectrum of 21a and 21b (CDCl₃)



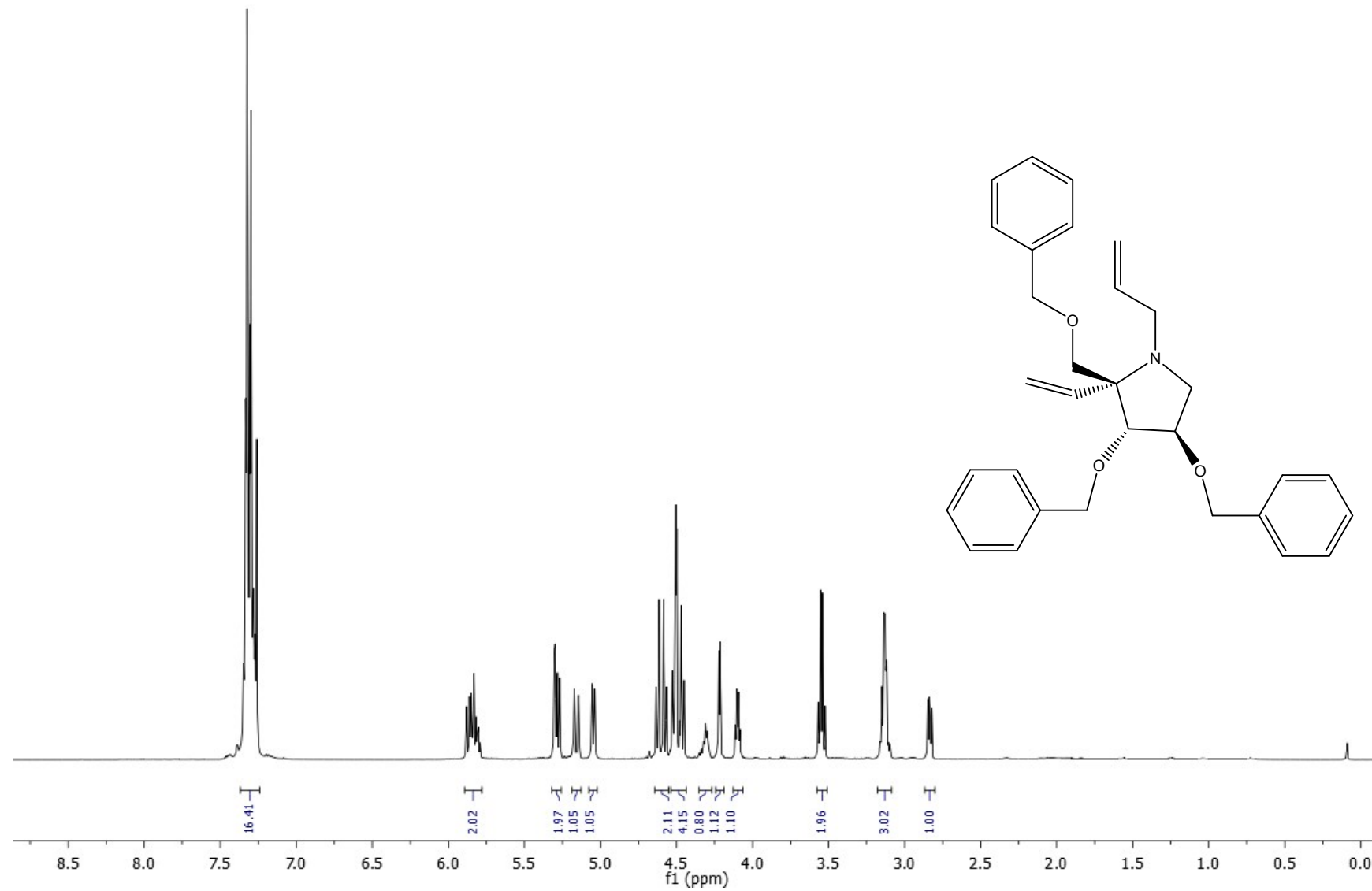
¹H-NMR spectrum of 21b (CDCl₃)



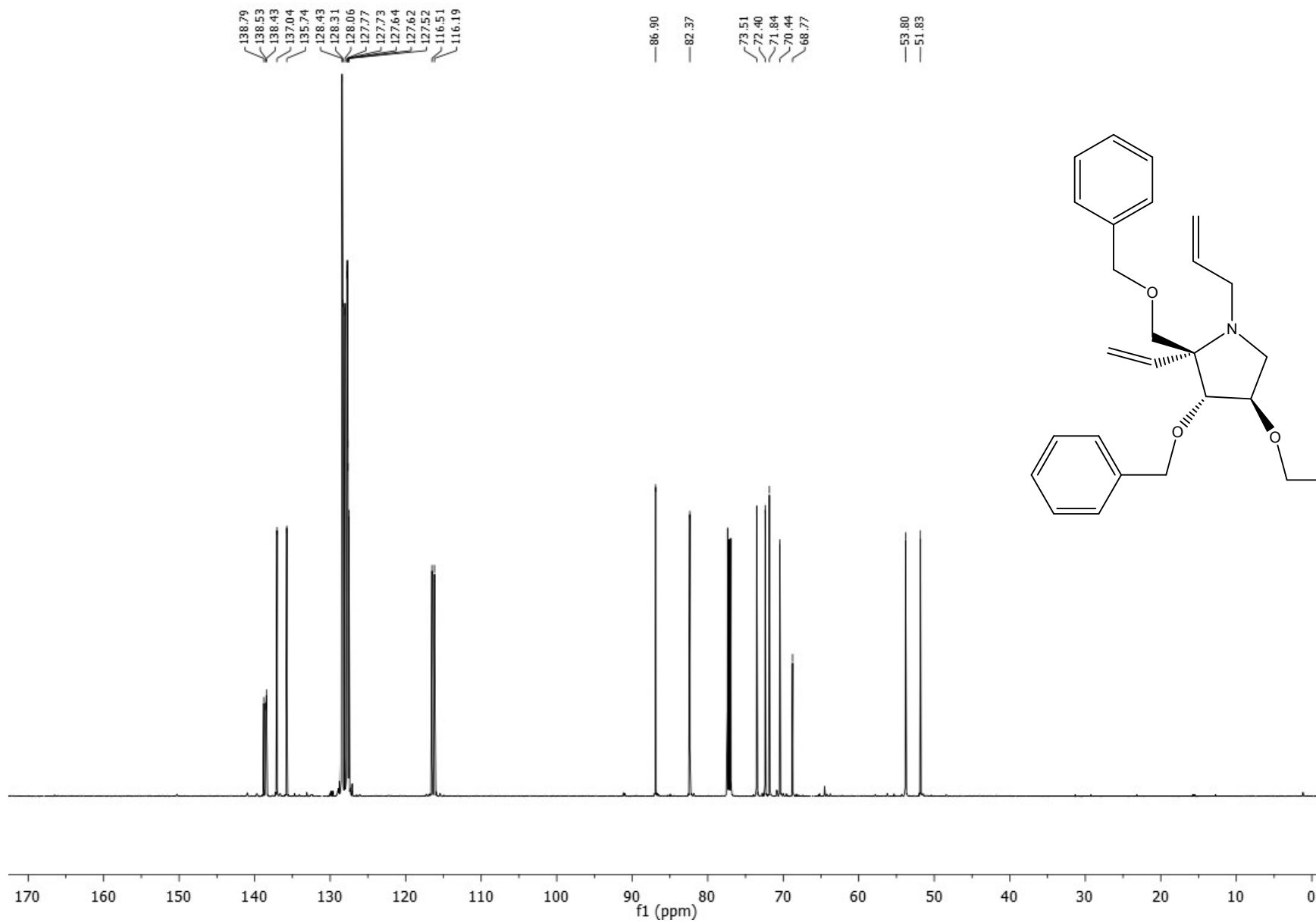
¹³C-NMR spectrum of 21b (CDCl₃)



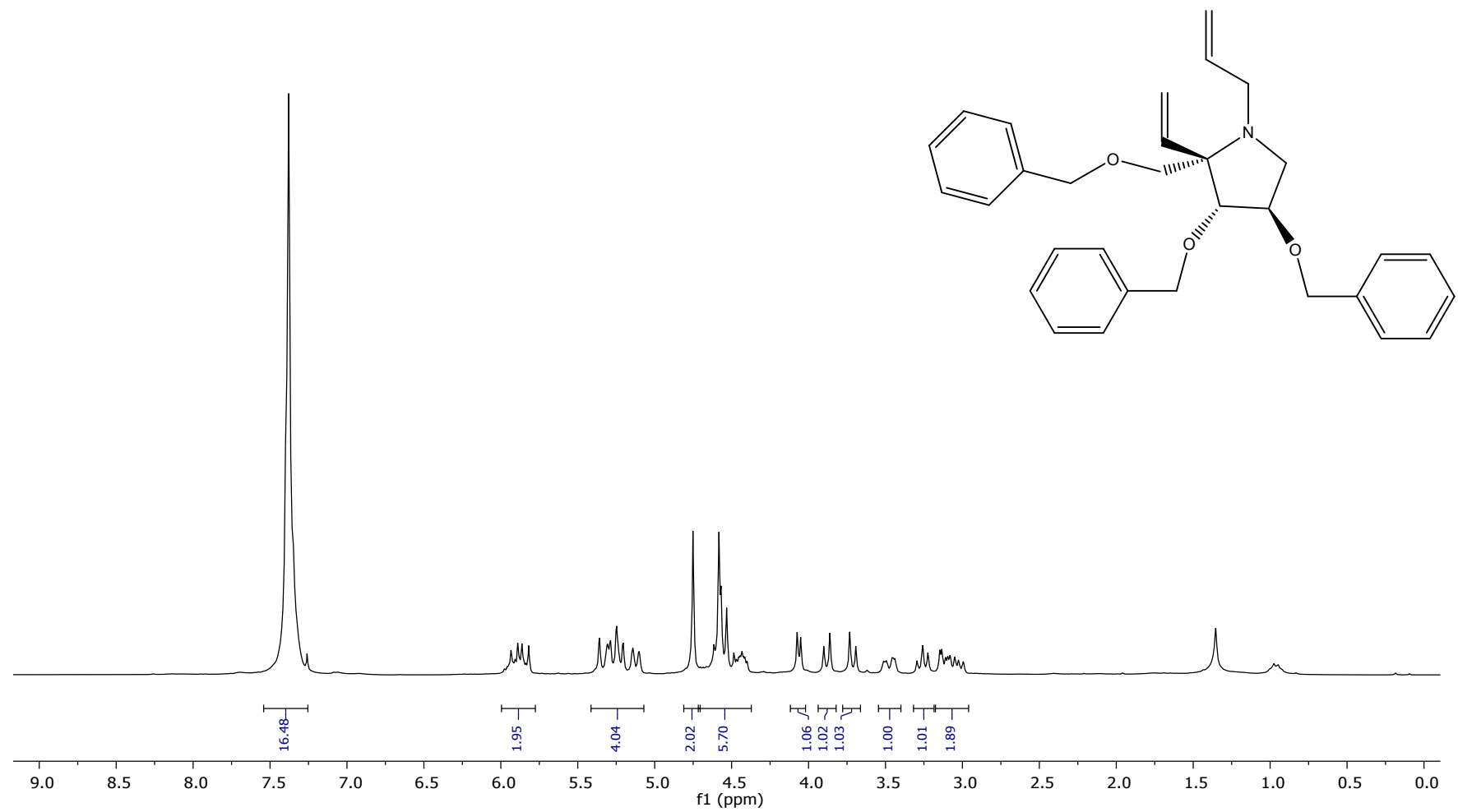
¹H-NMR spectrum of 22a (CDCl₃)



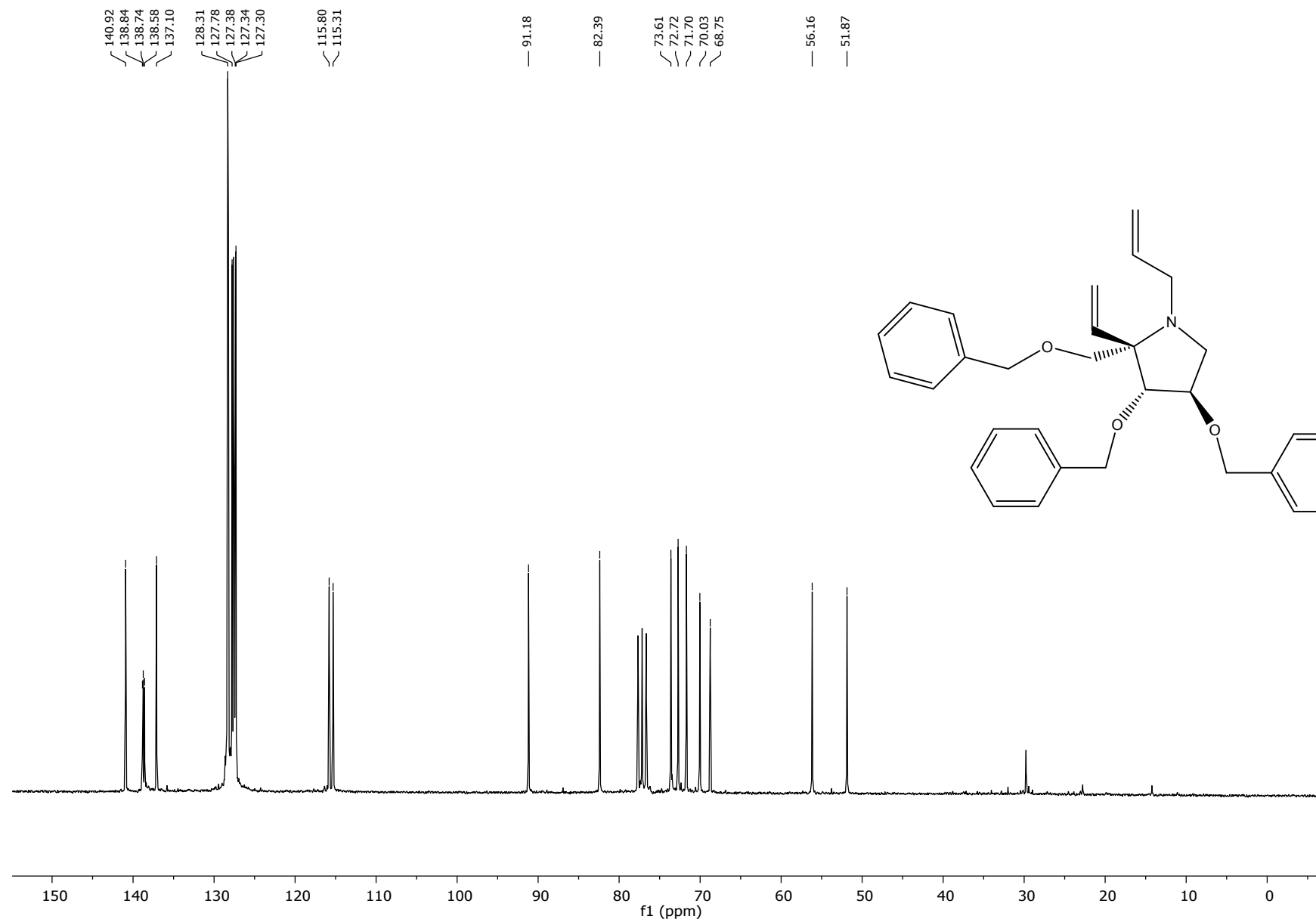
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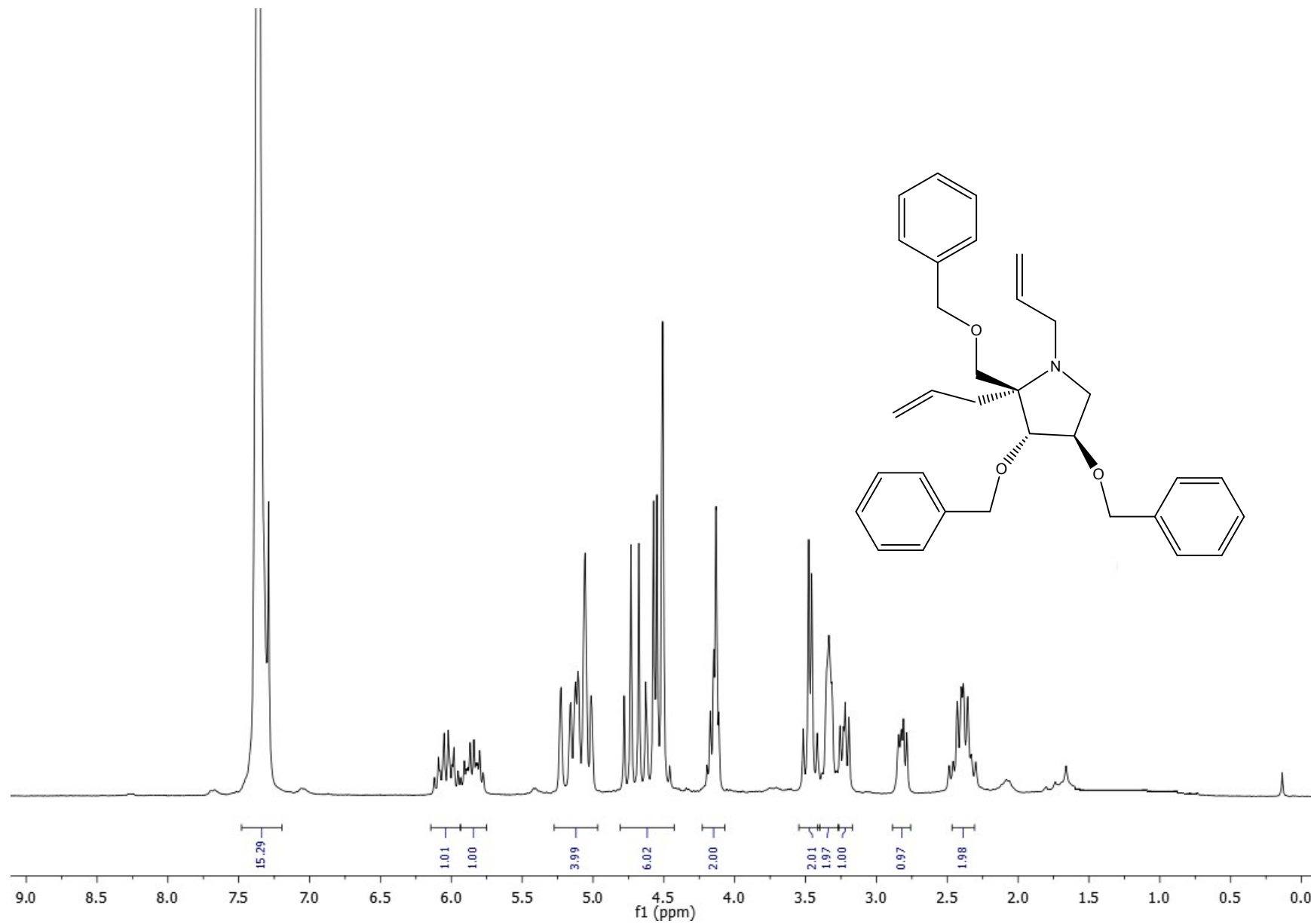
¹H-NMR spectrum of 22b (CDCl₃)



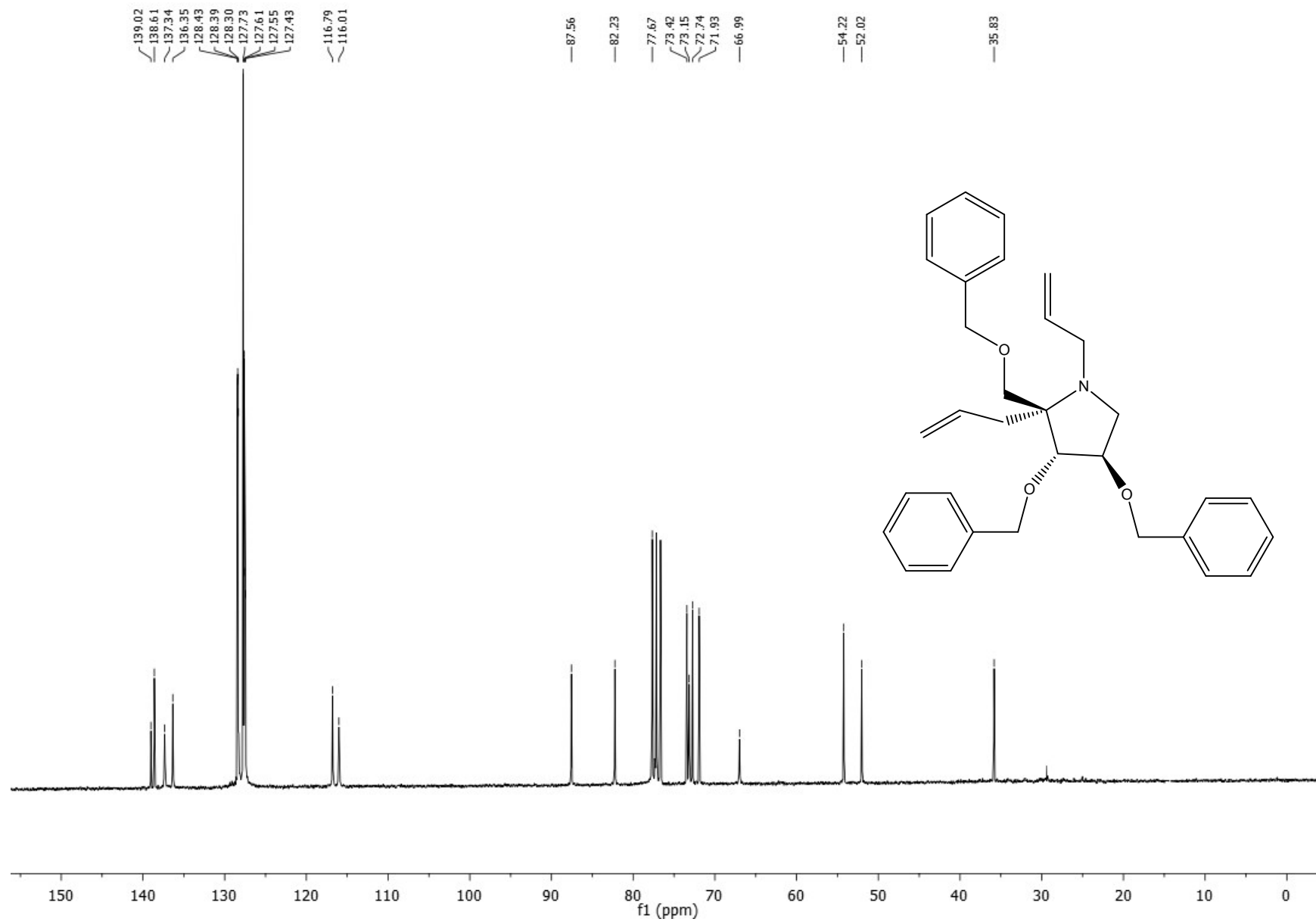
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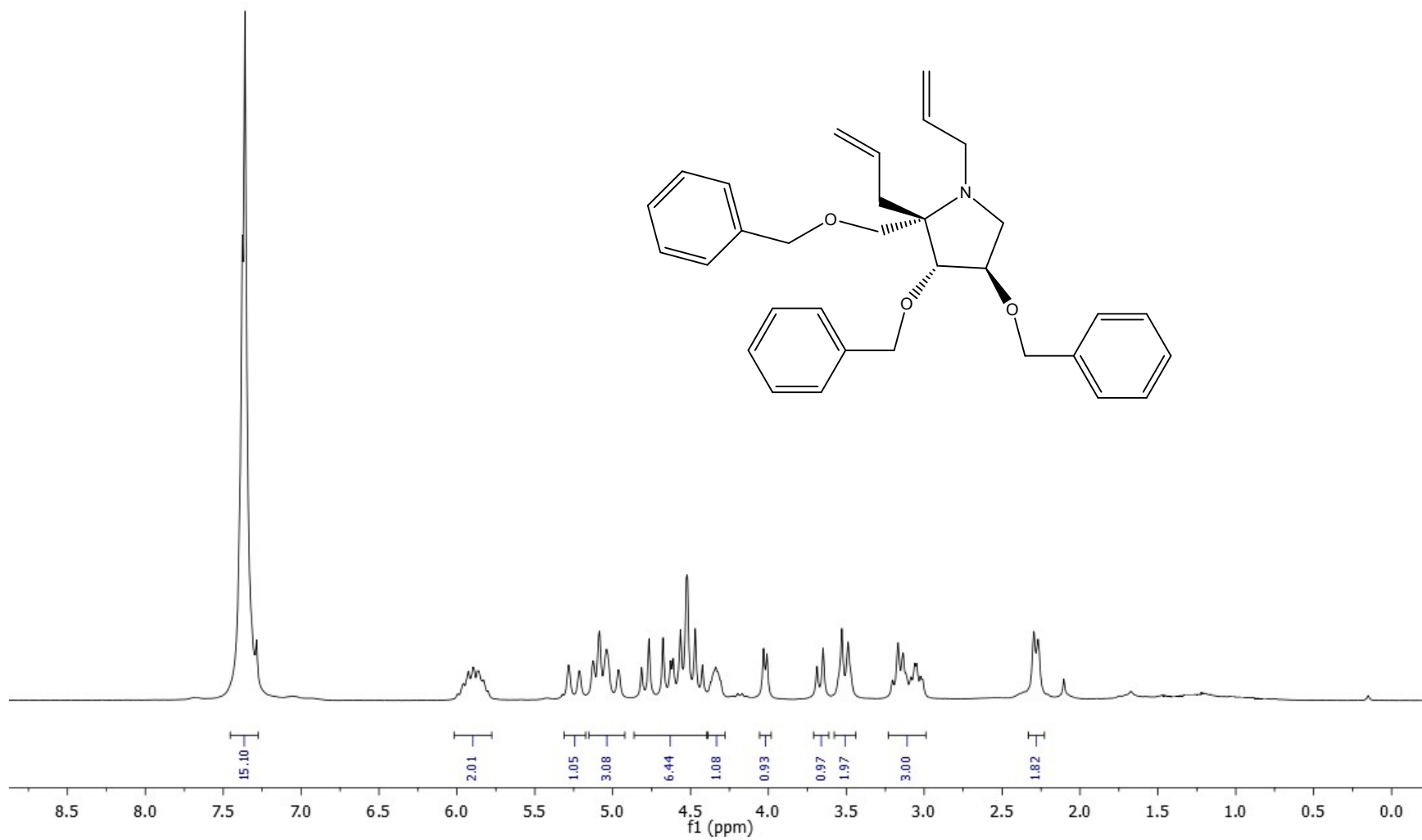
¹H-NMR spectrum of 23a (CDCl₃)



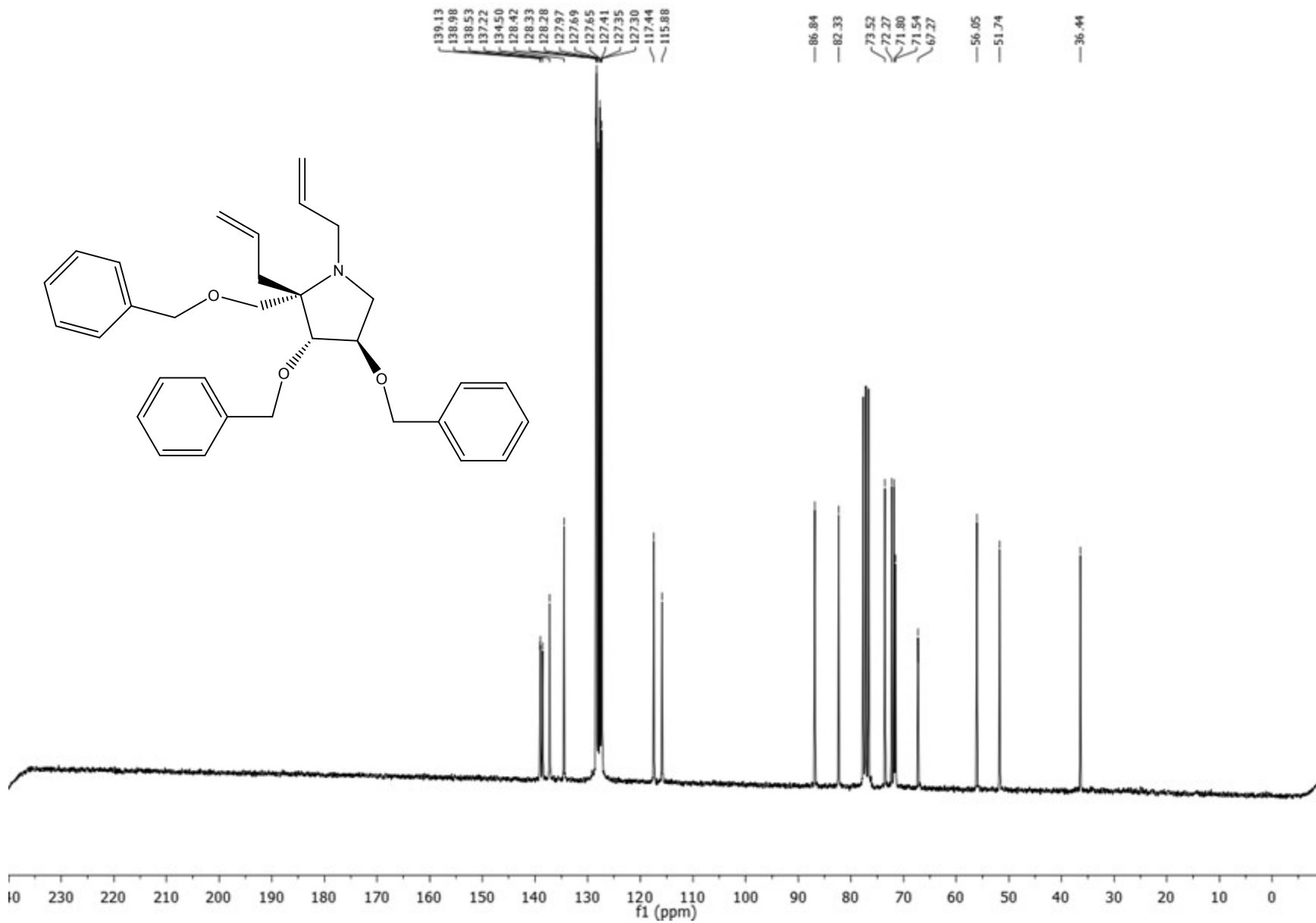
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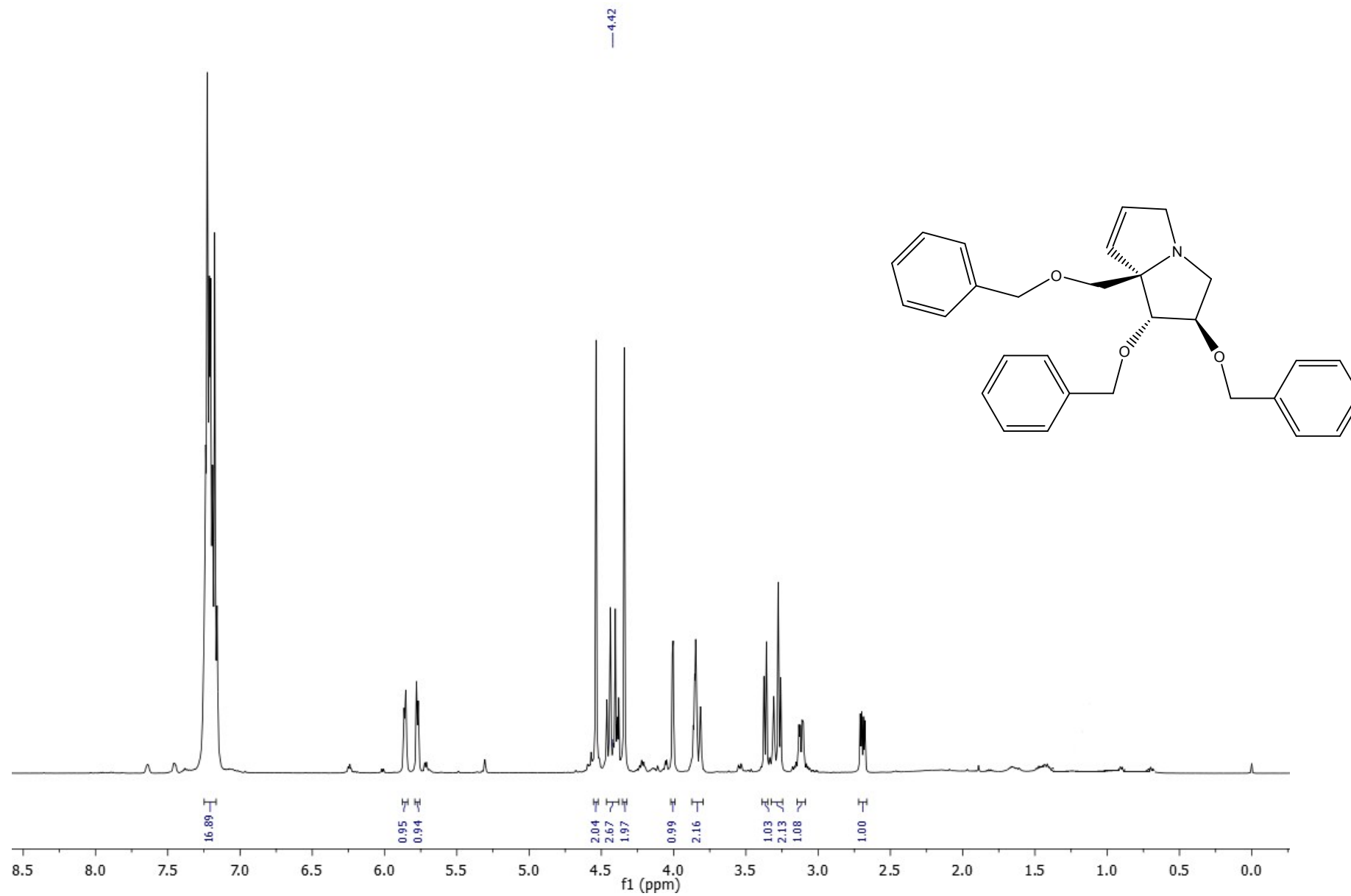
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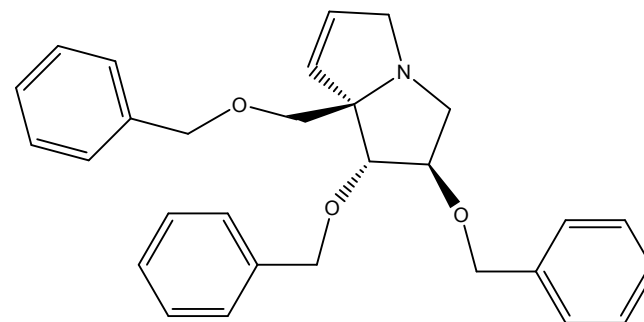
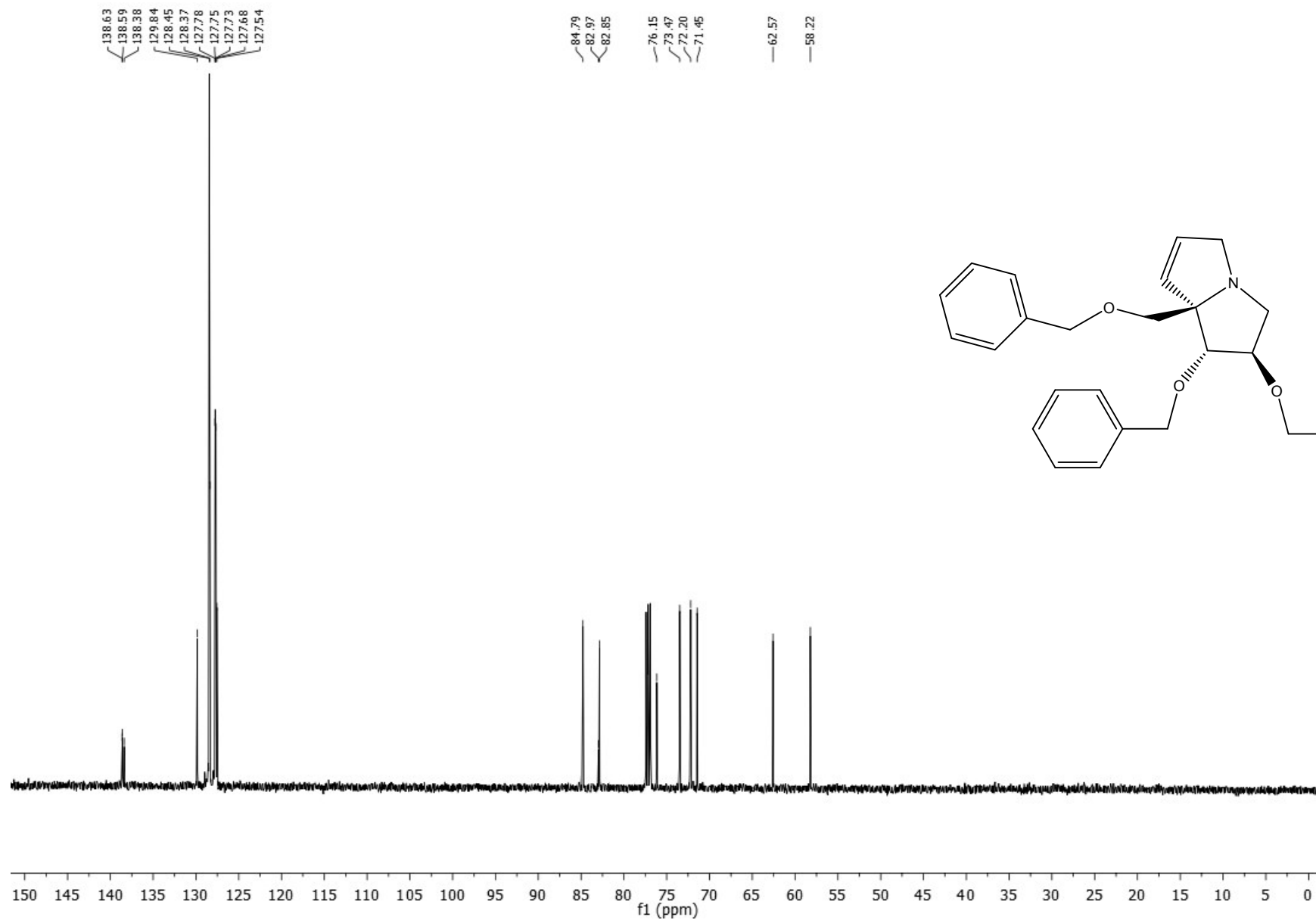
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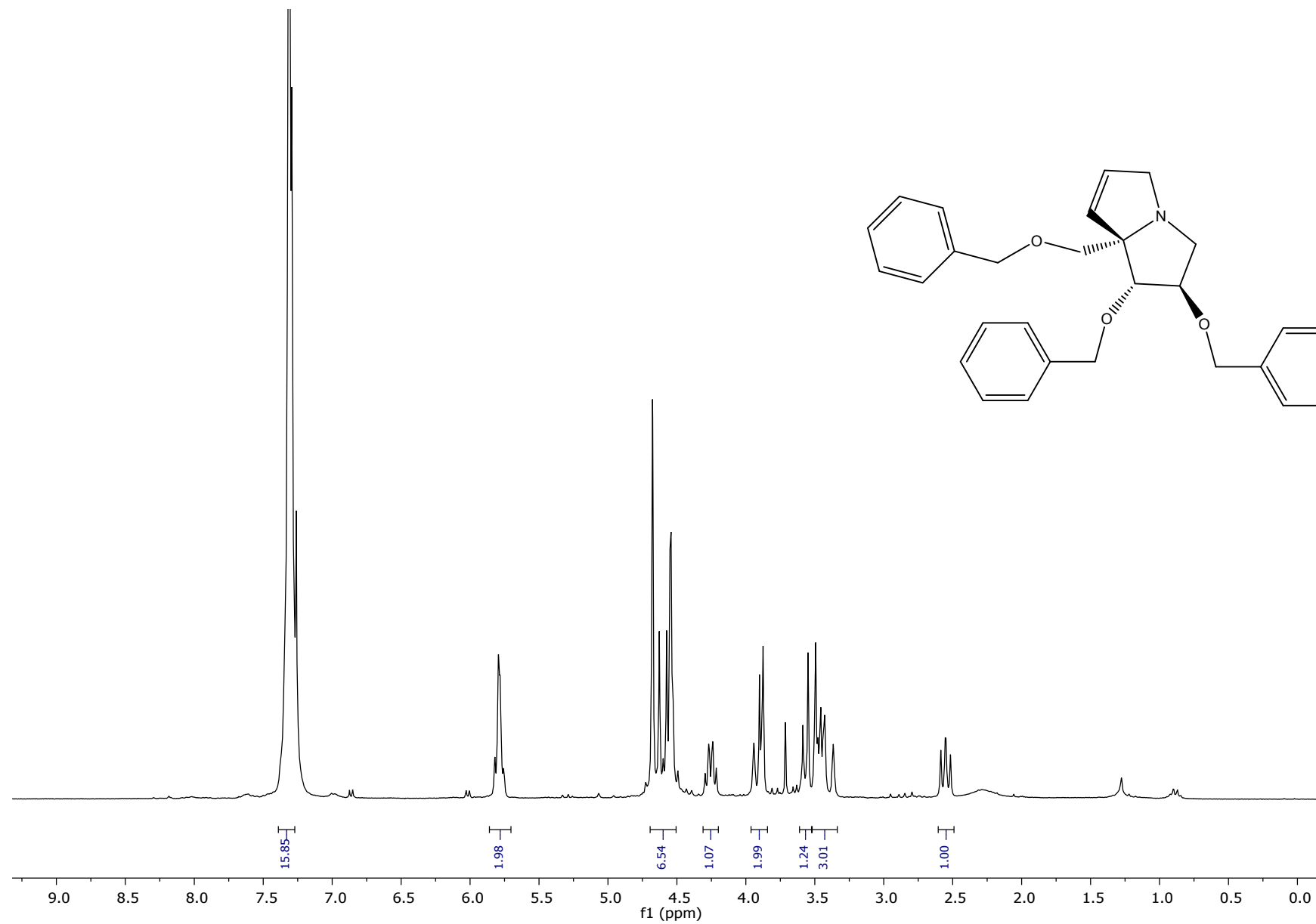
¹H-NMR spectrum of 24a (CDCl₃)



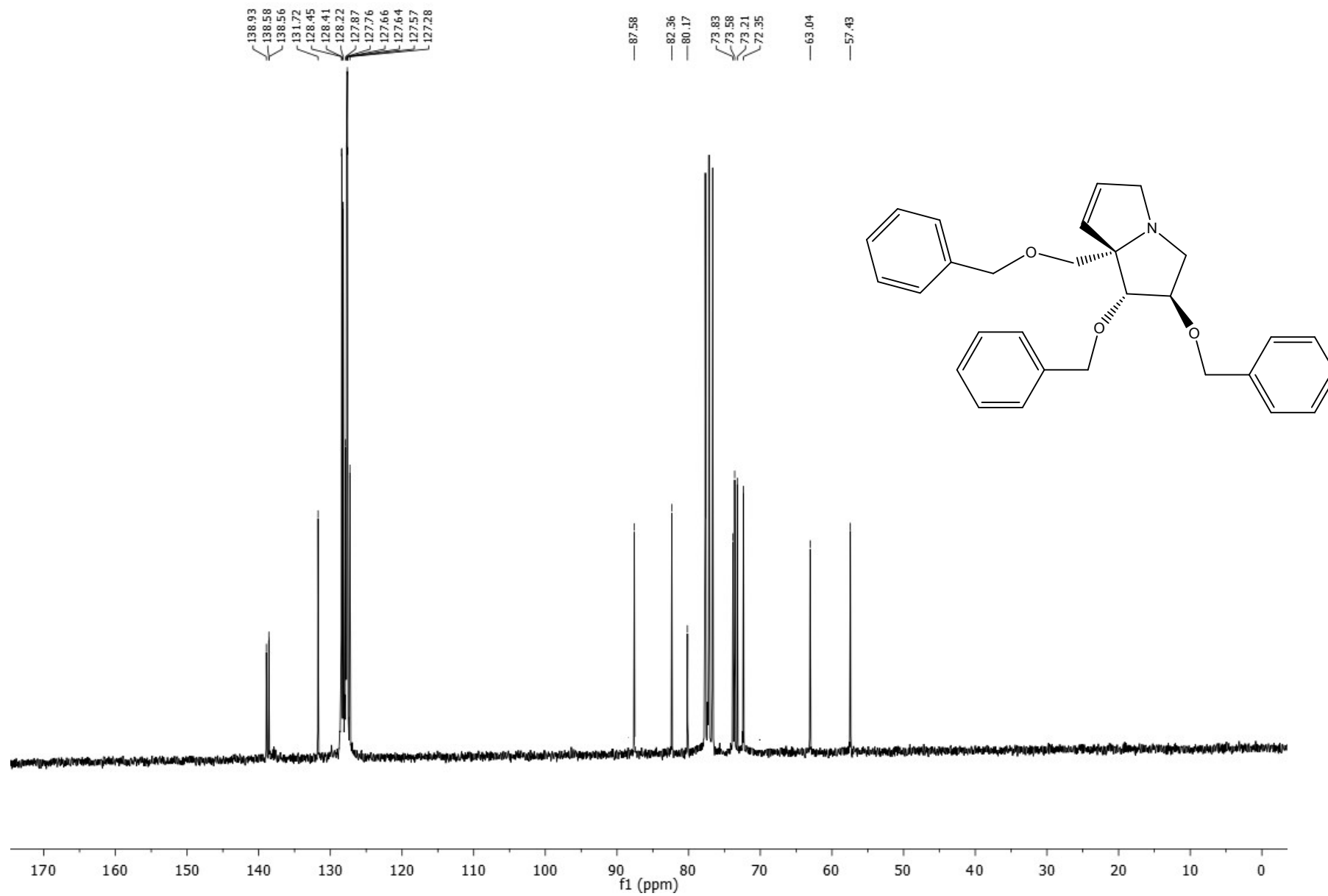
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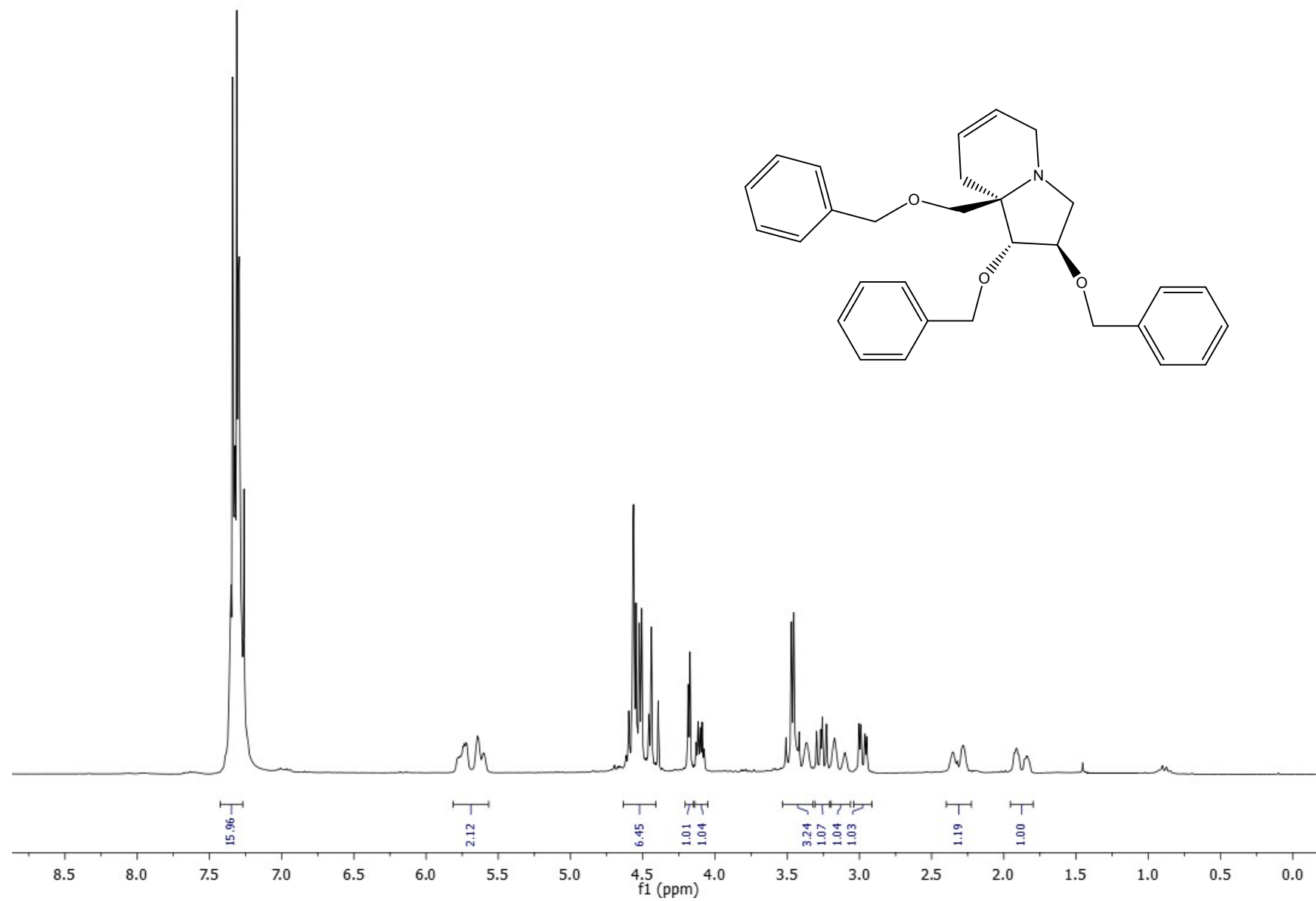
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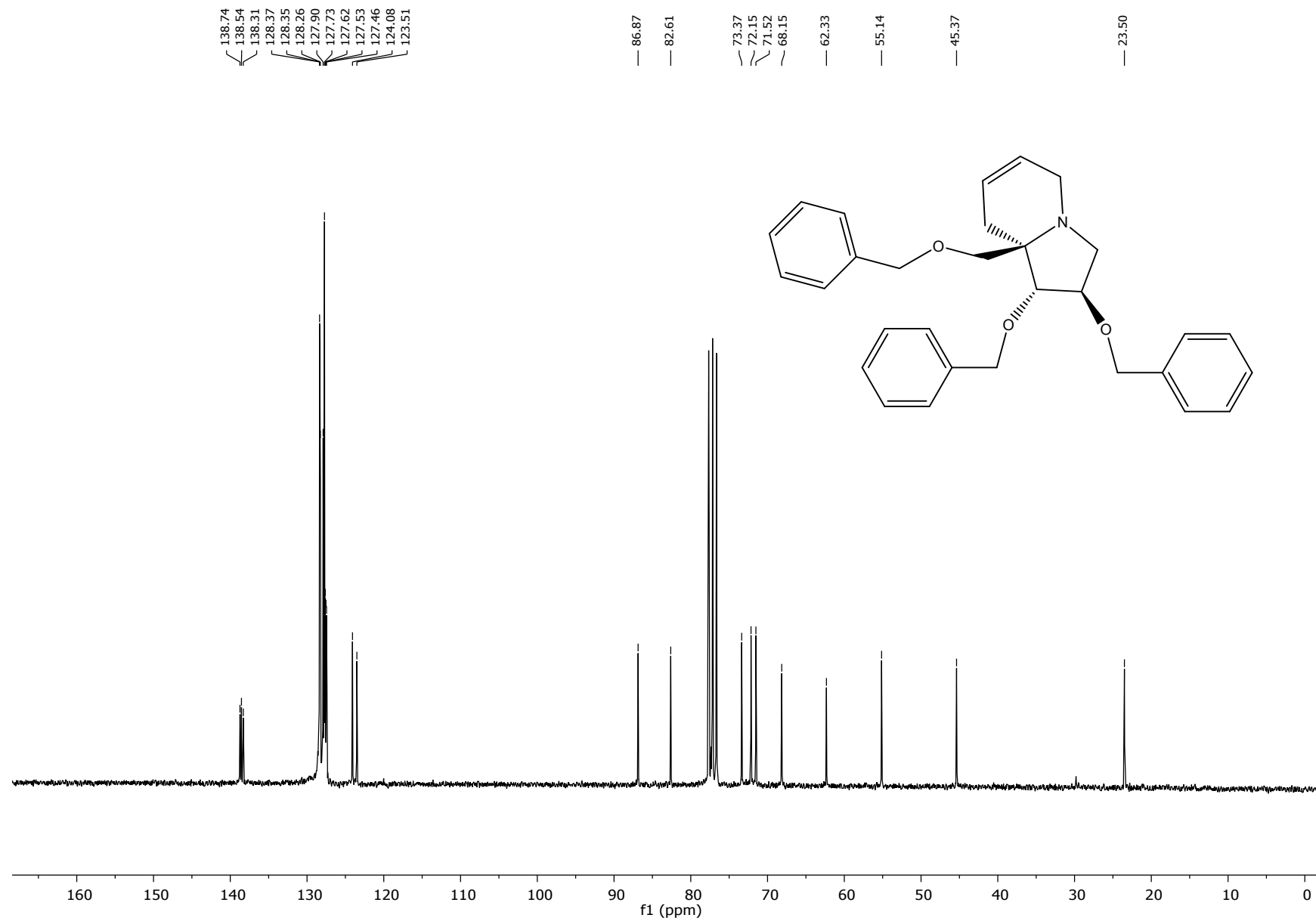
¹³C-NMR spectrum of 24b (CDCl₃)



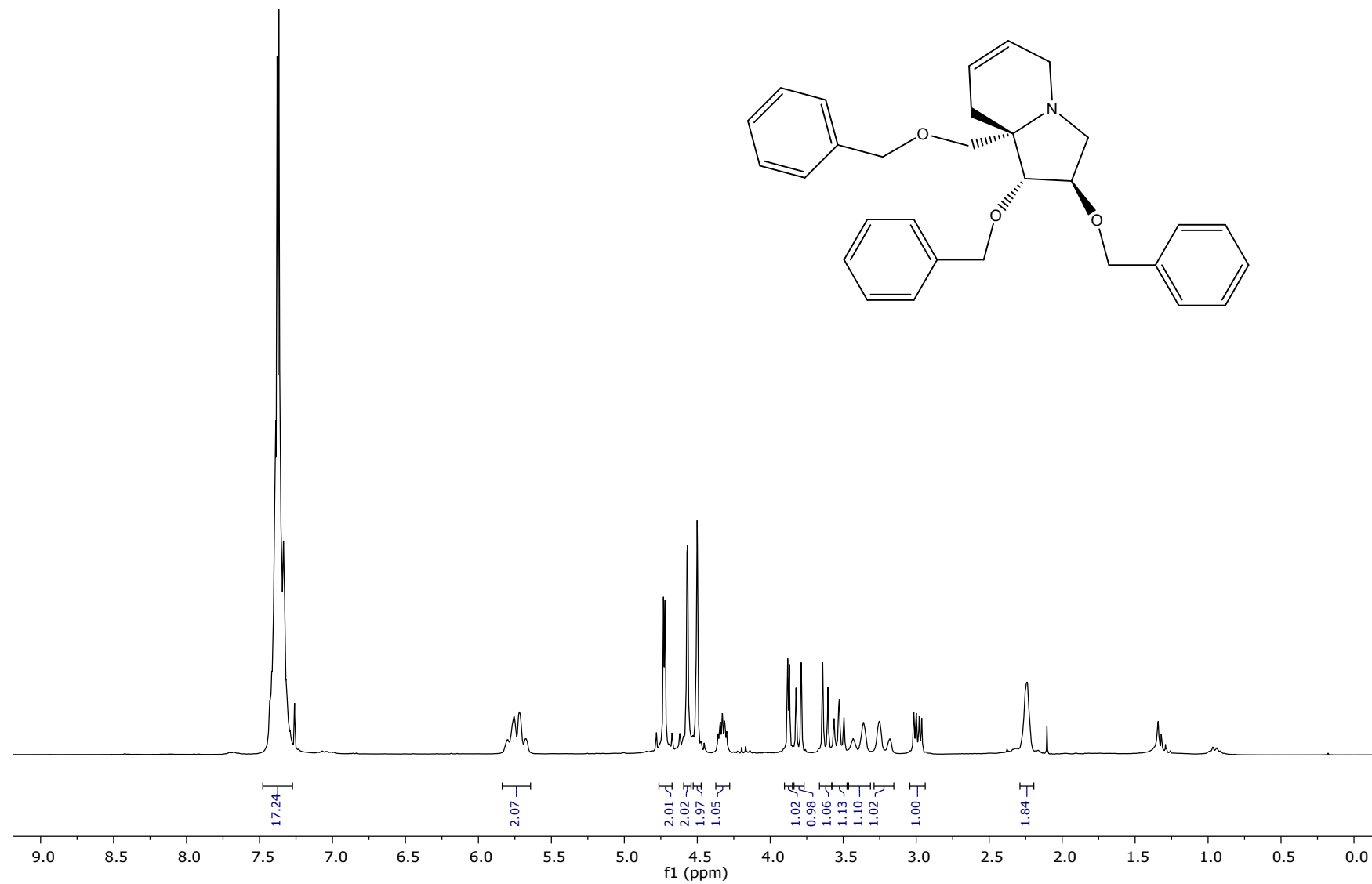
¹H-NMR spectrum of 25a (CDCl₃)



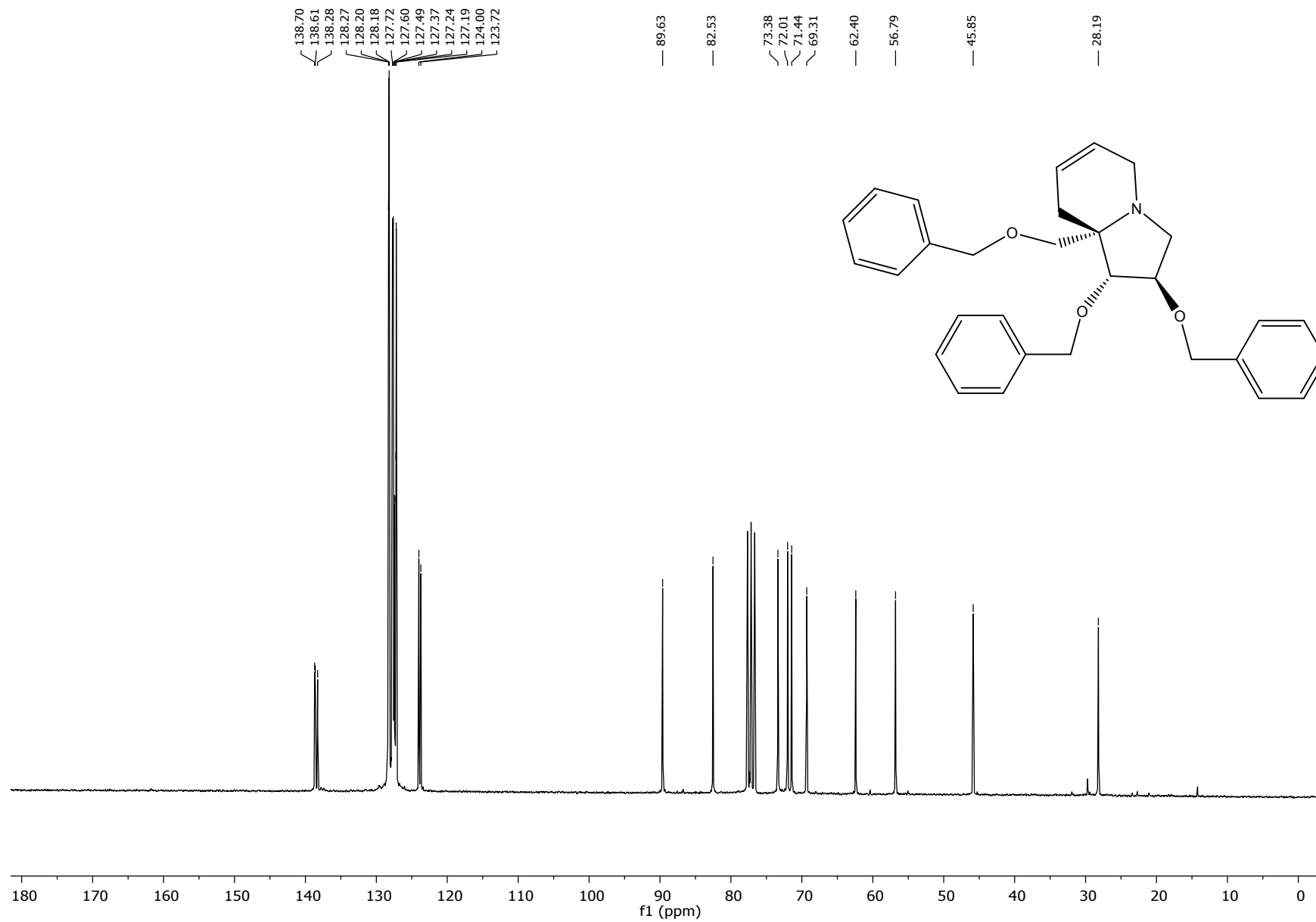
¹³C-NMR spectrum of 25a (CDCl₃)



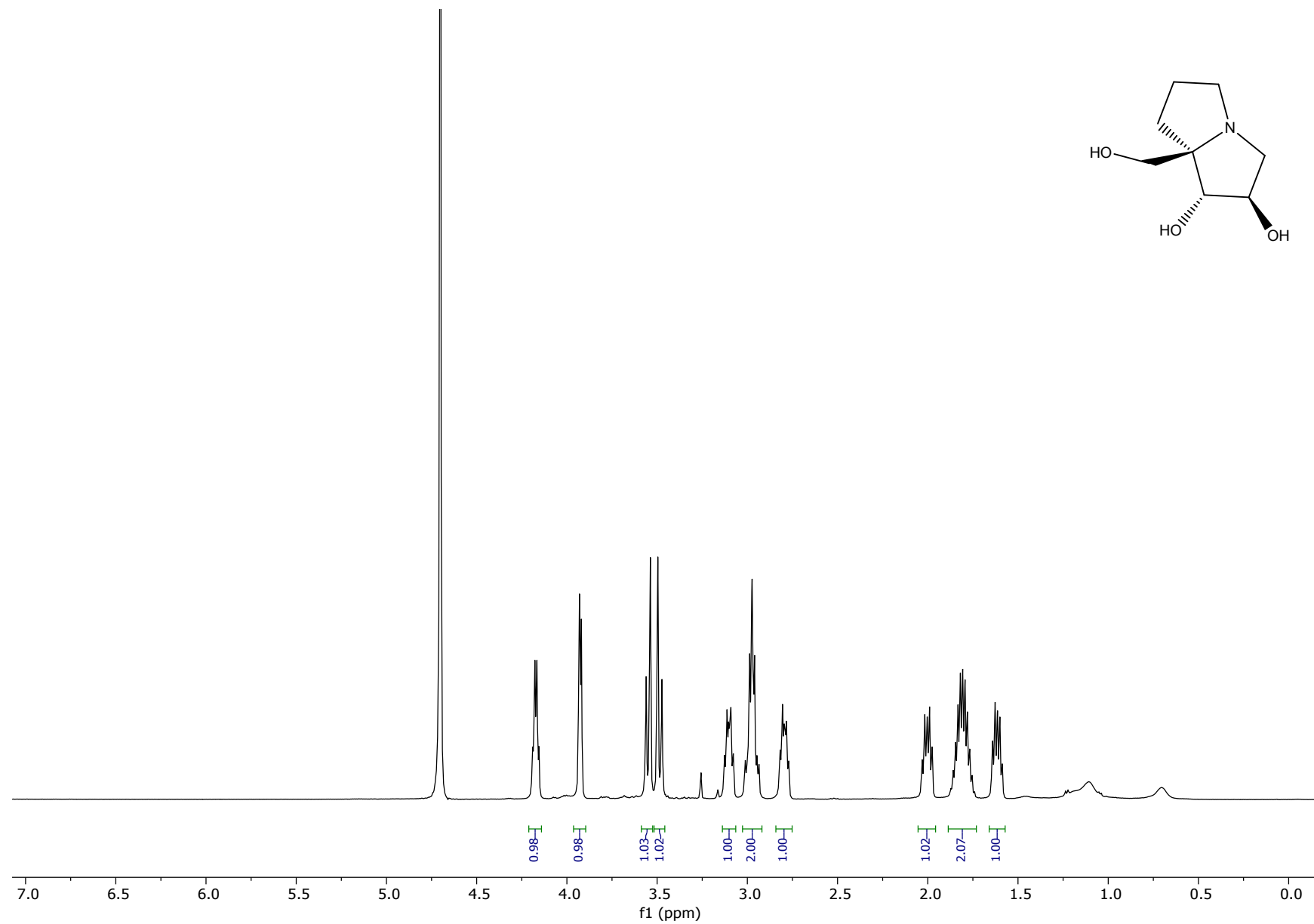
¹H-NMR spectrum of 25b (CDCl₃)



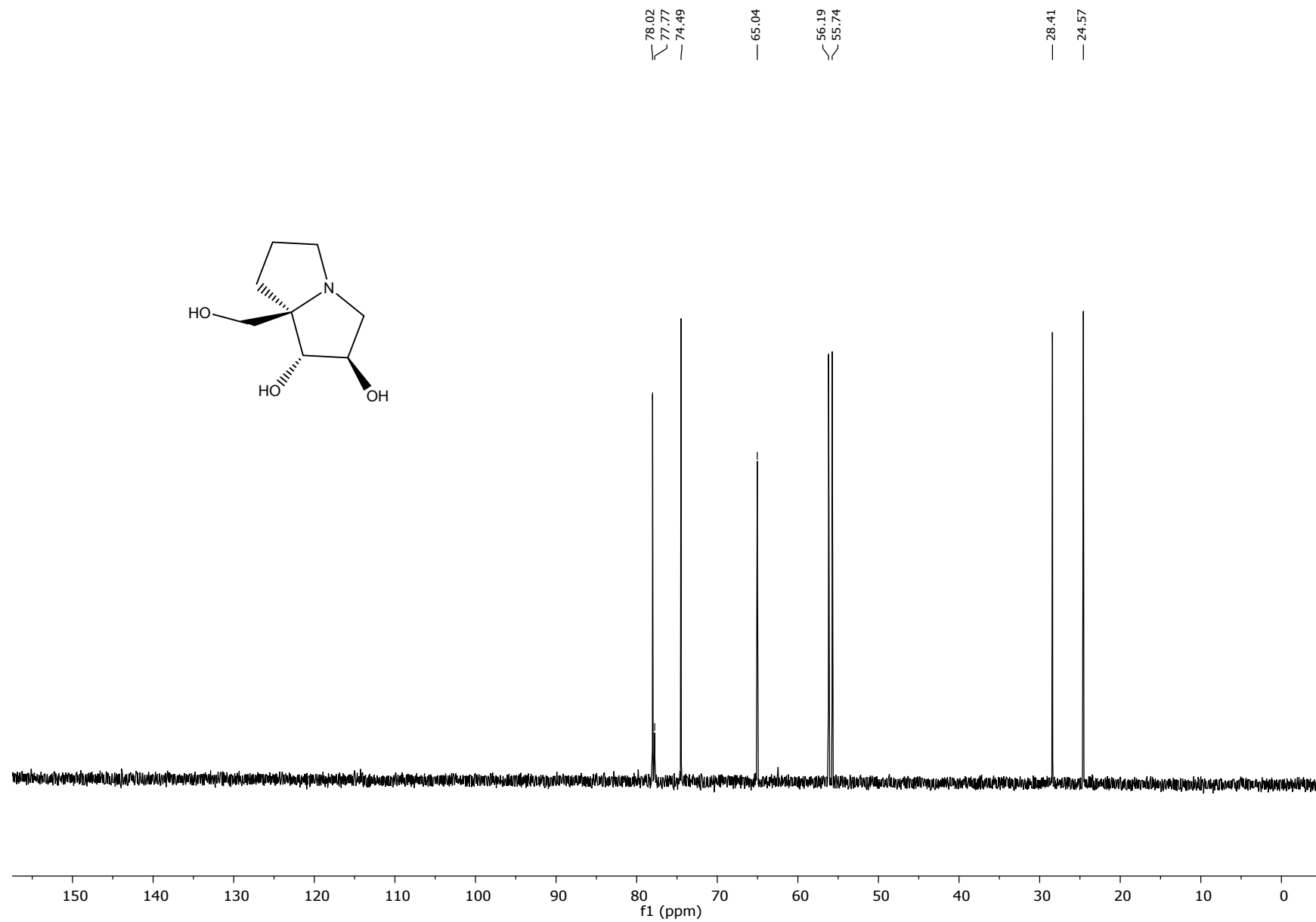
¹³C-NMR spectrum of 25b (CDCl₃)



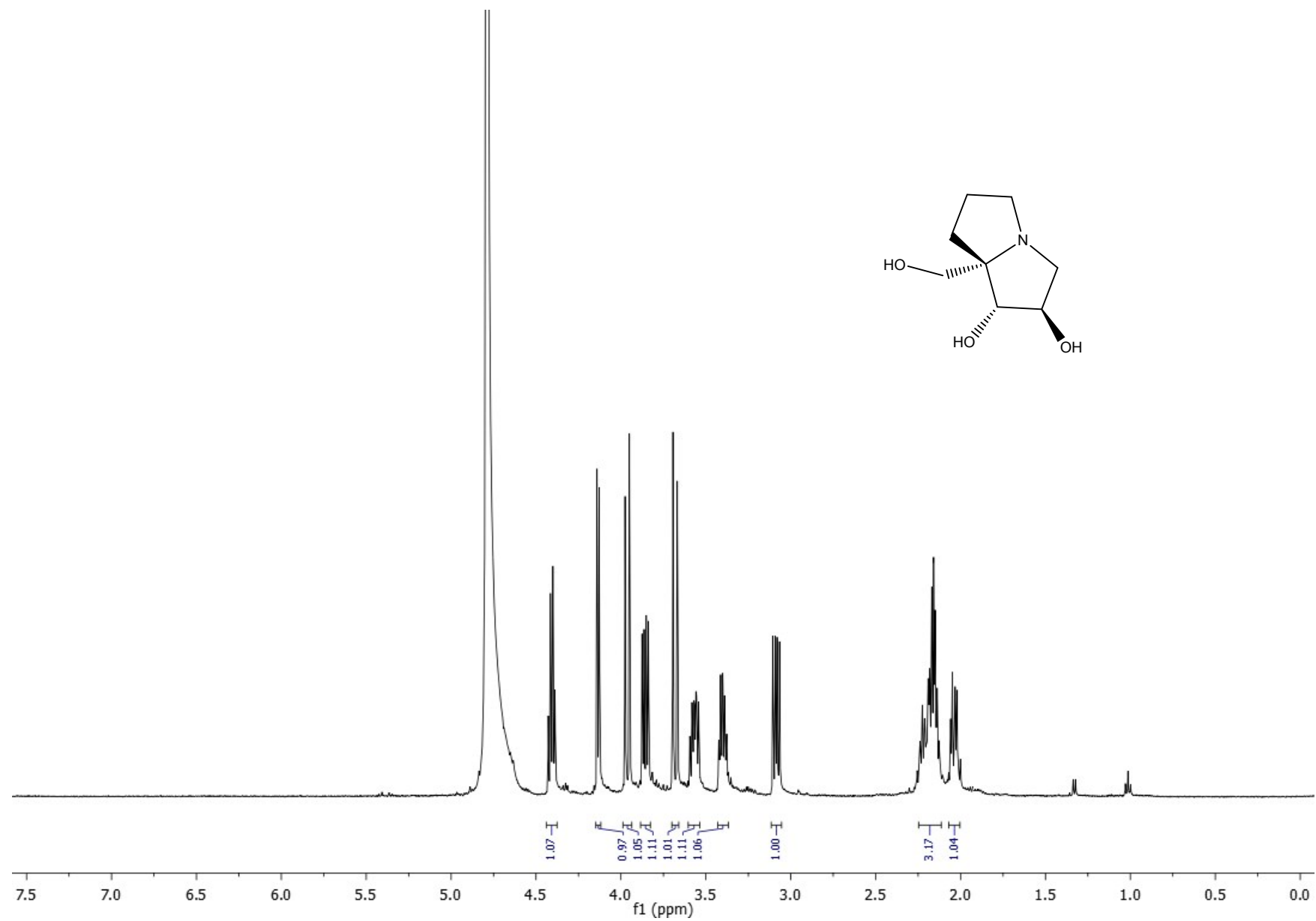
¹H-NMR spectrum of 5a (D₂O)



¹³C-NMR spectrum of 5a (D₂O)

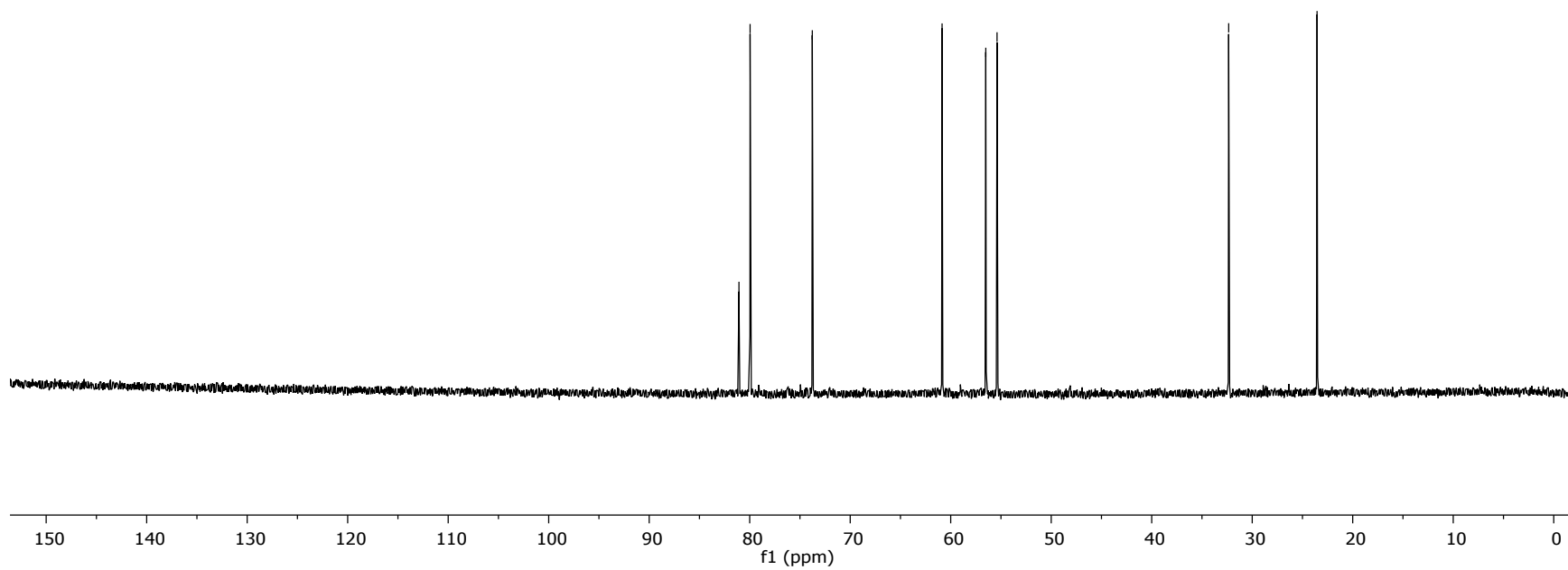
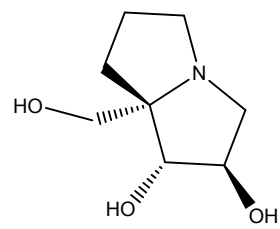


$^1\text{H-NMR}$ spectrum of 5b (D_2O)

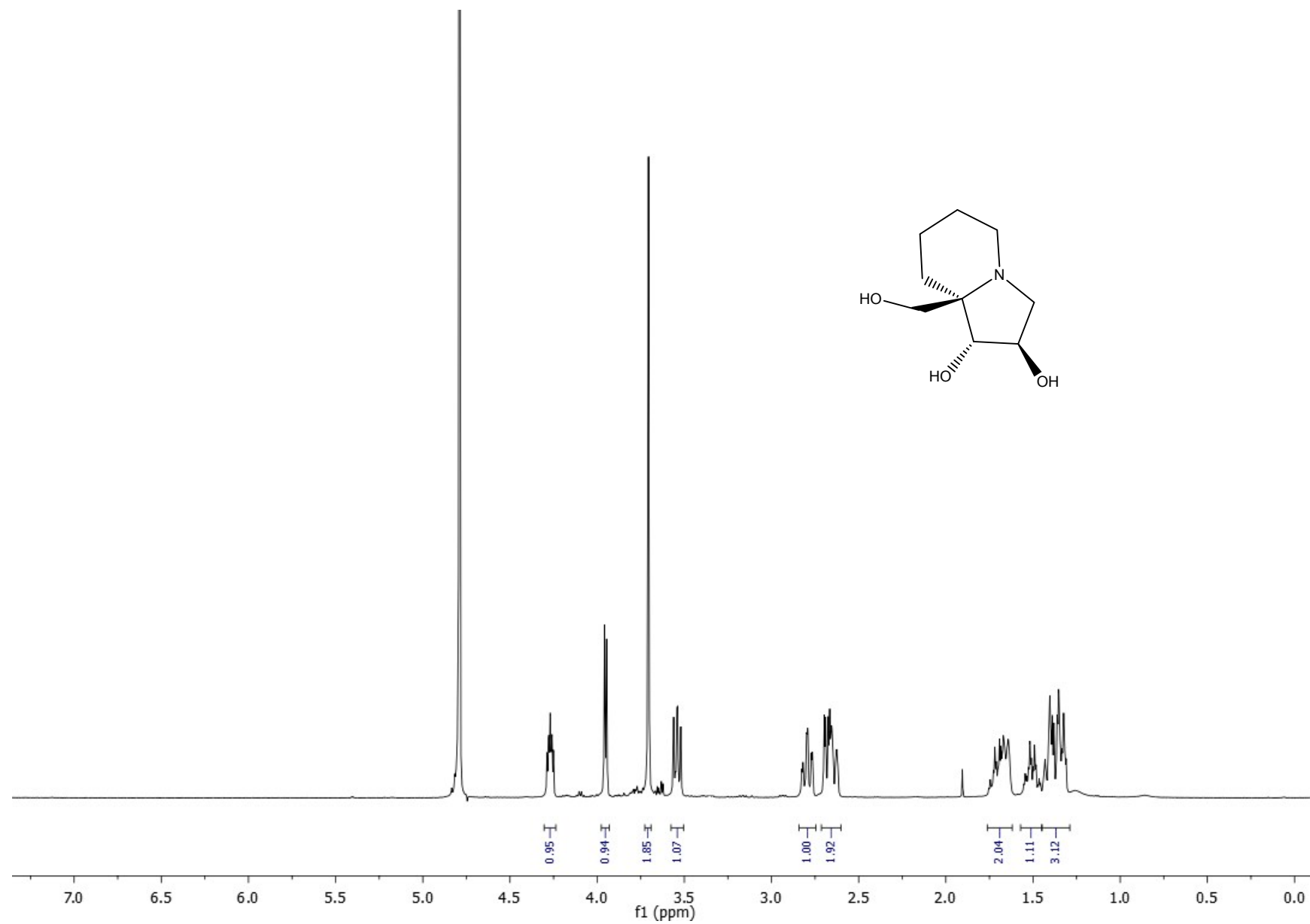


¹³C-NMR spectrum of 5b (D₂O)

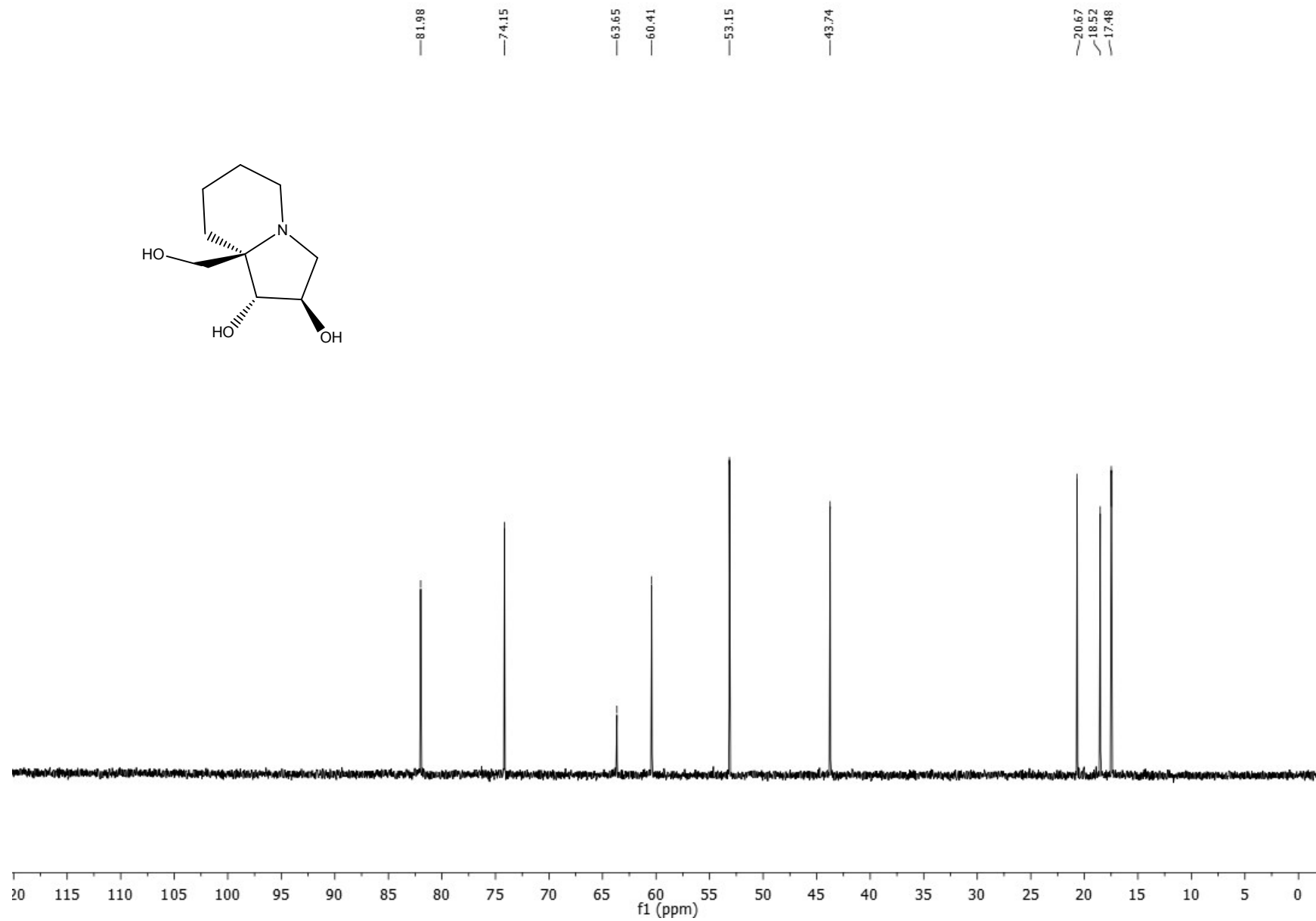
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32.34
23.55



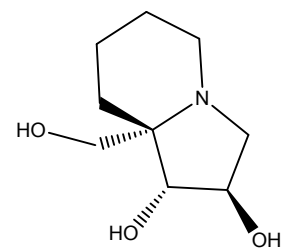
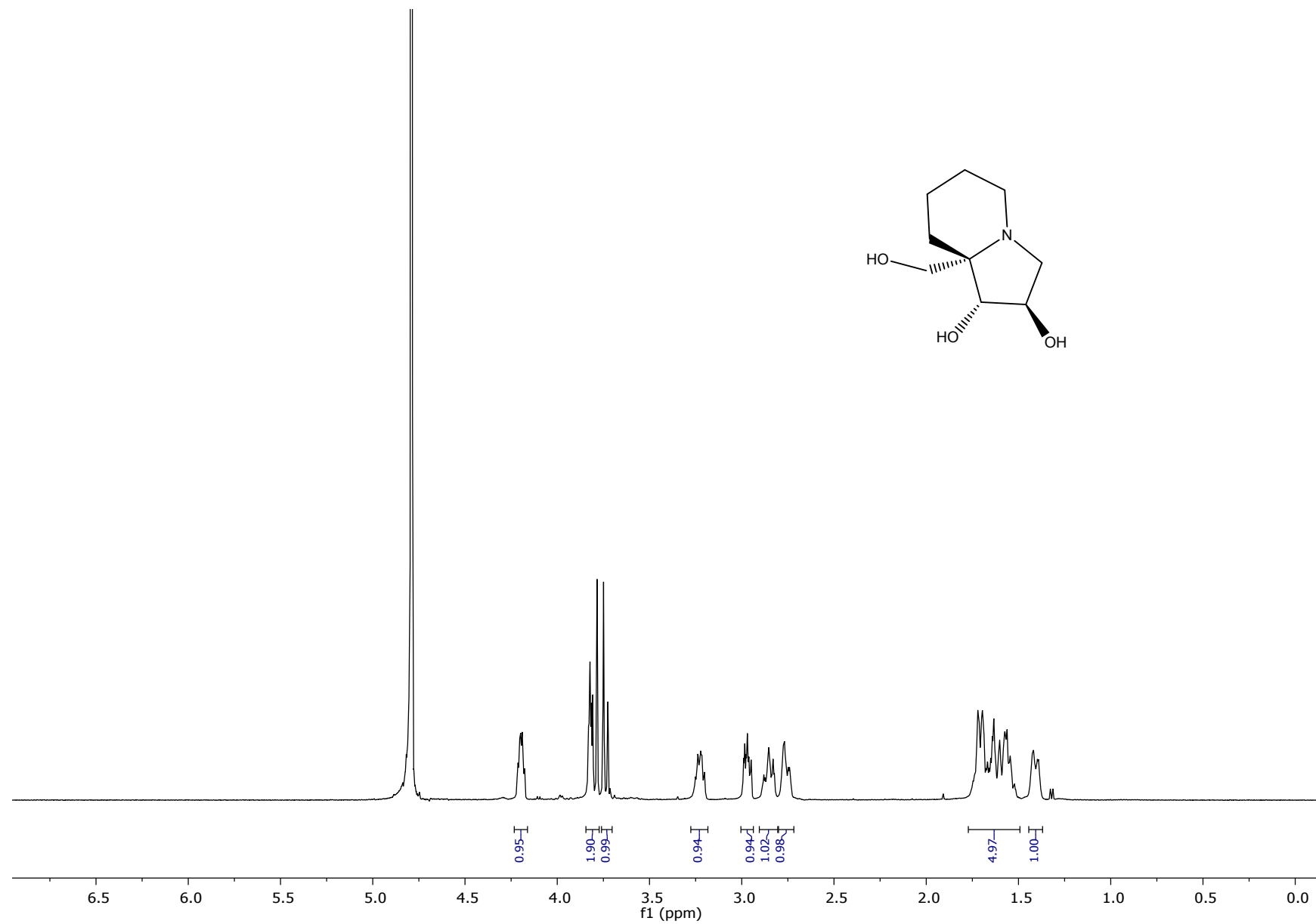
¹H-NMR spectrum of 6a (D₂O)



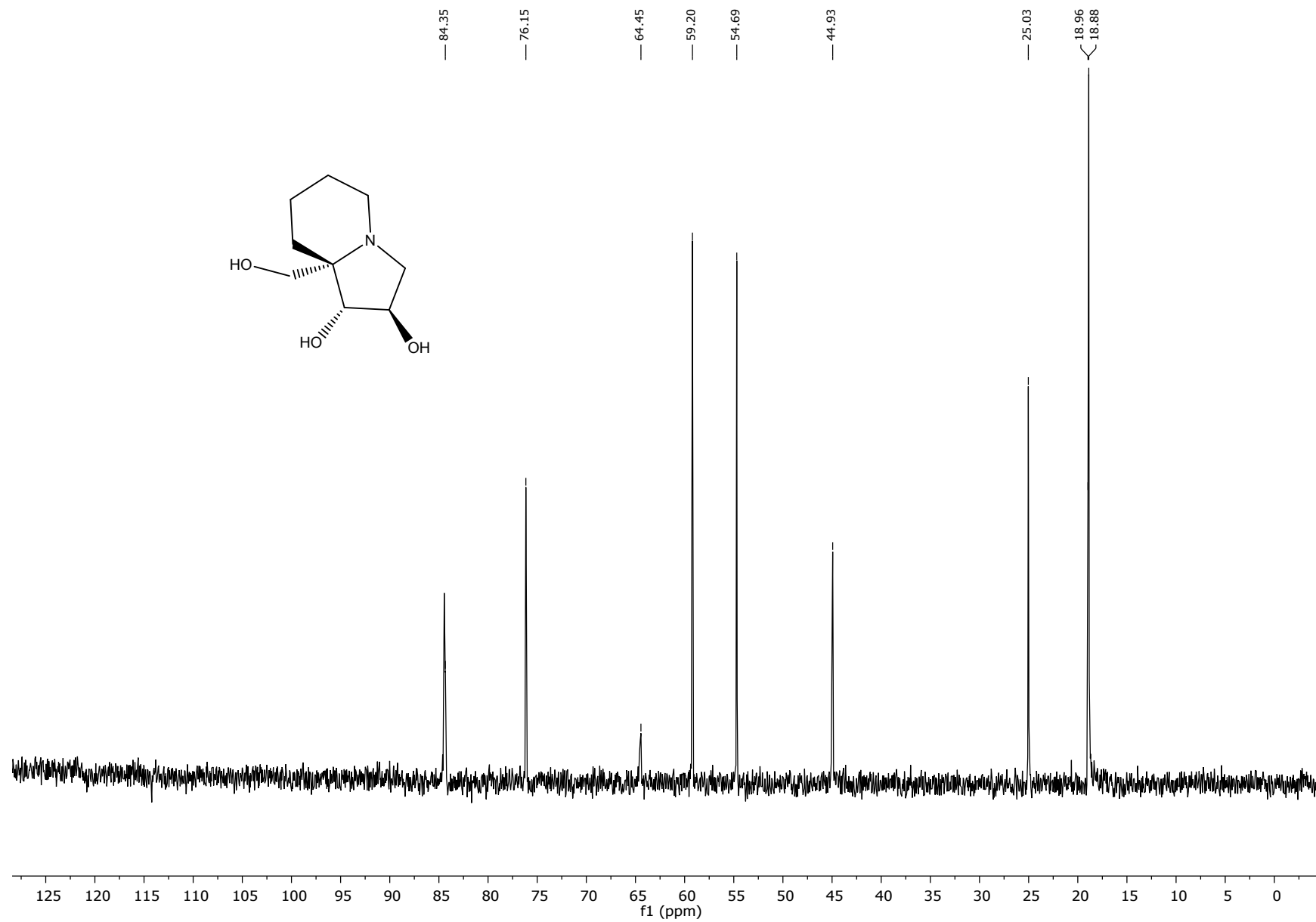
¹³C-NMR spectrum of 6a (D₂O)



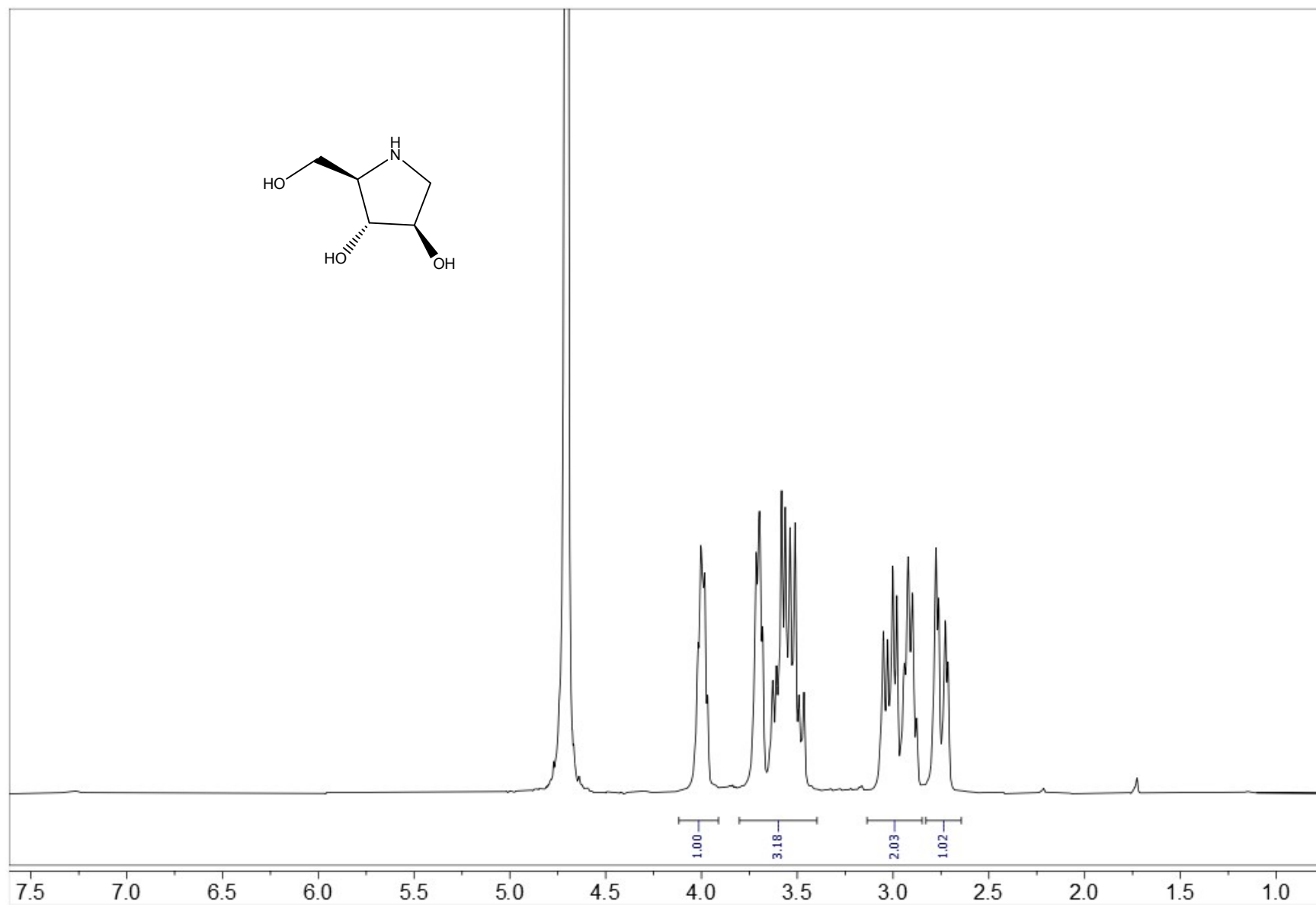
¹H-NMR spectrum of 6b (D₂O)



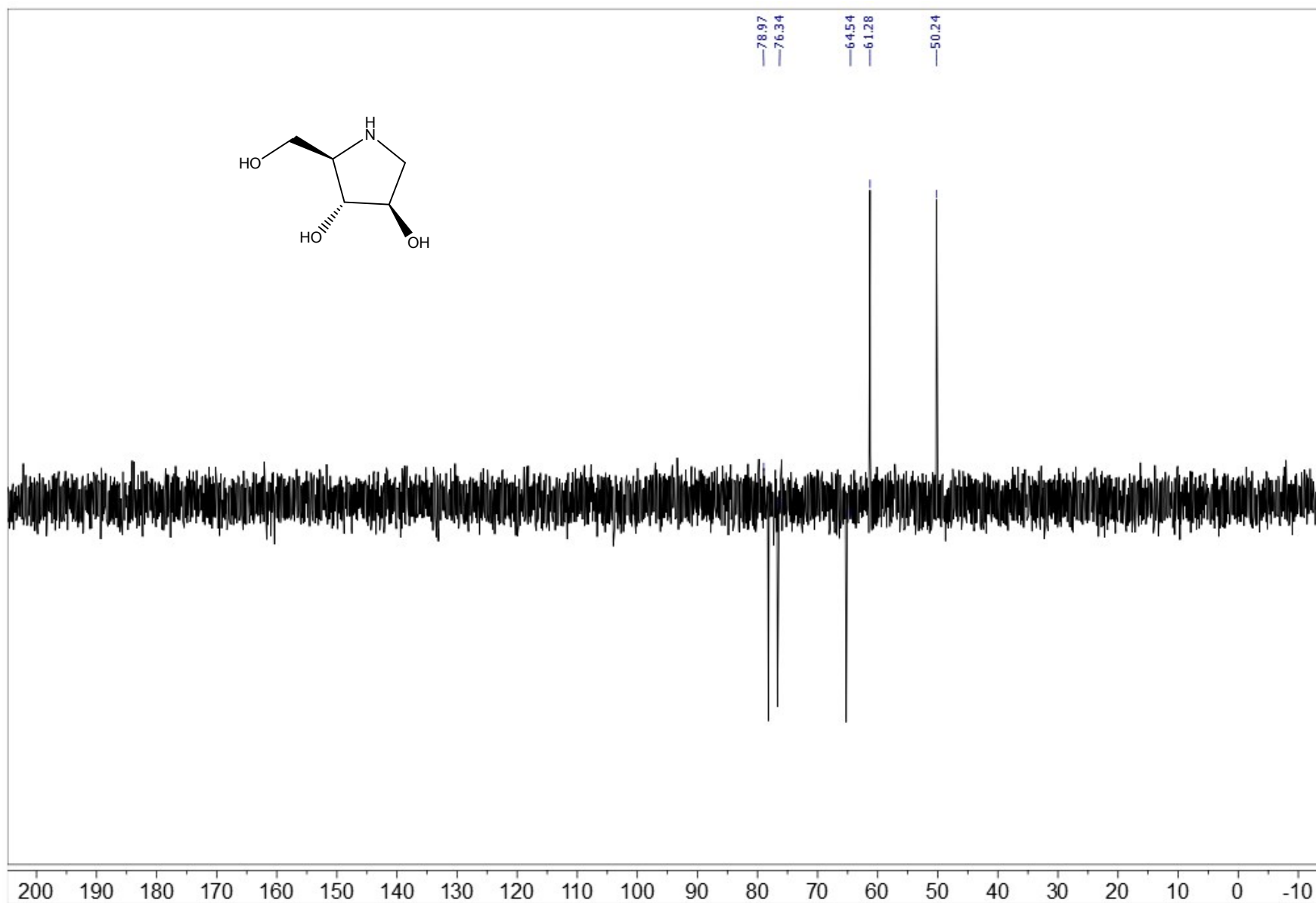
¹³C-NMR spectrum of 6b (D₂O)



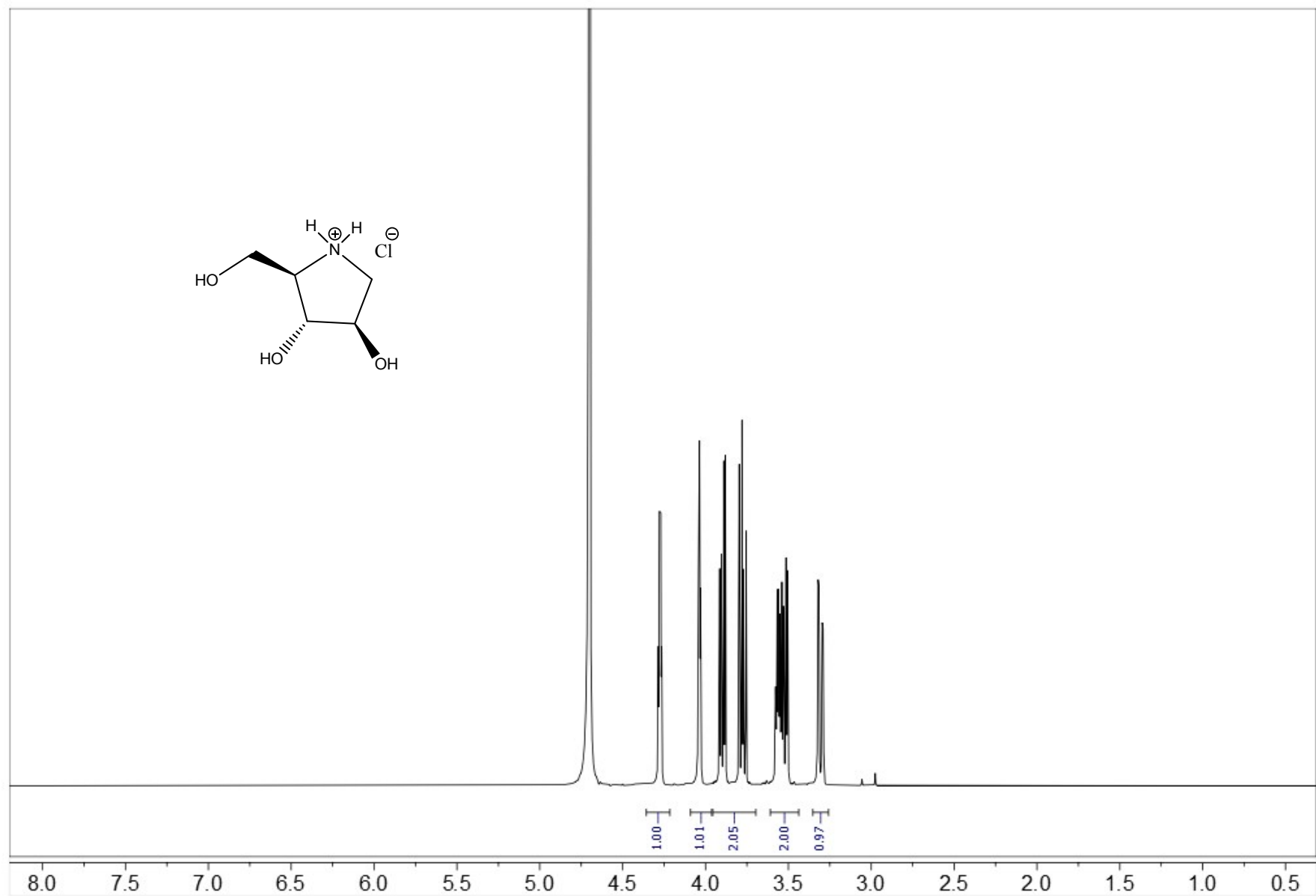
¹H-NMR spectrum of DAB 7 (D₂O)



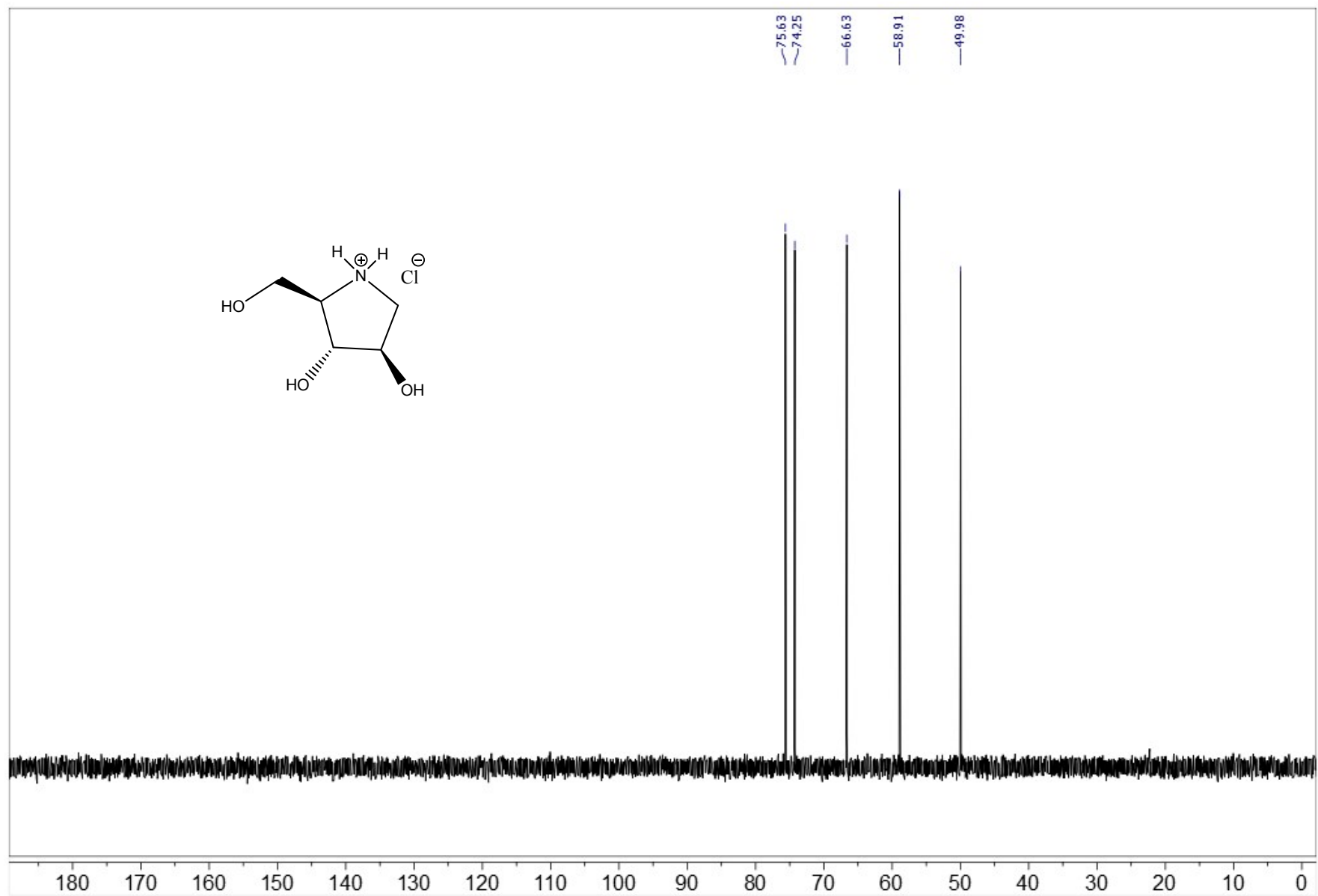
¹³C-NMR (DEPT) spectrum of DAB 7 (D₂O)



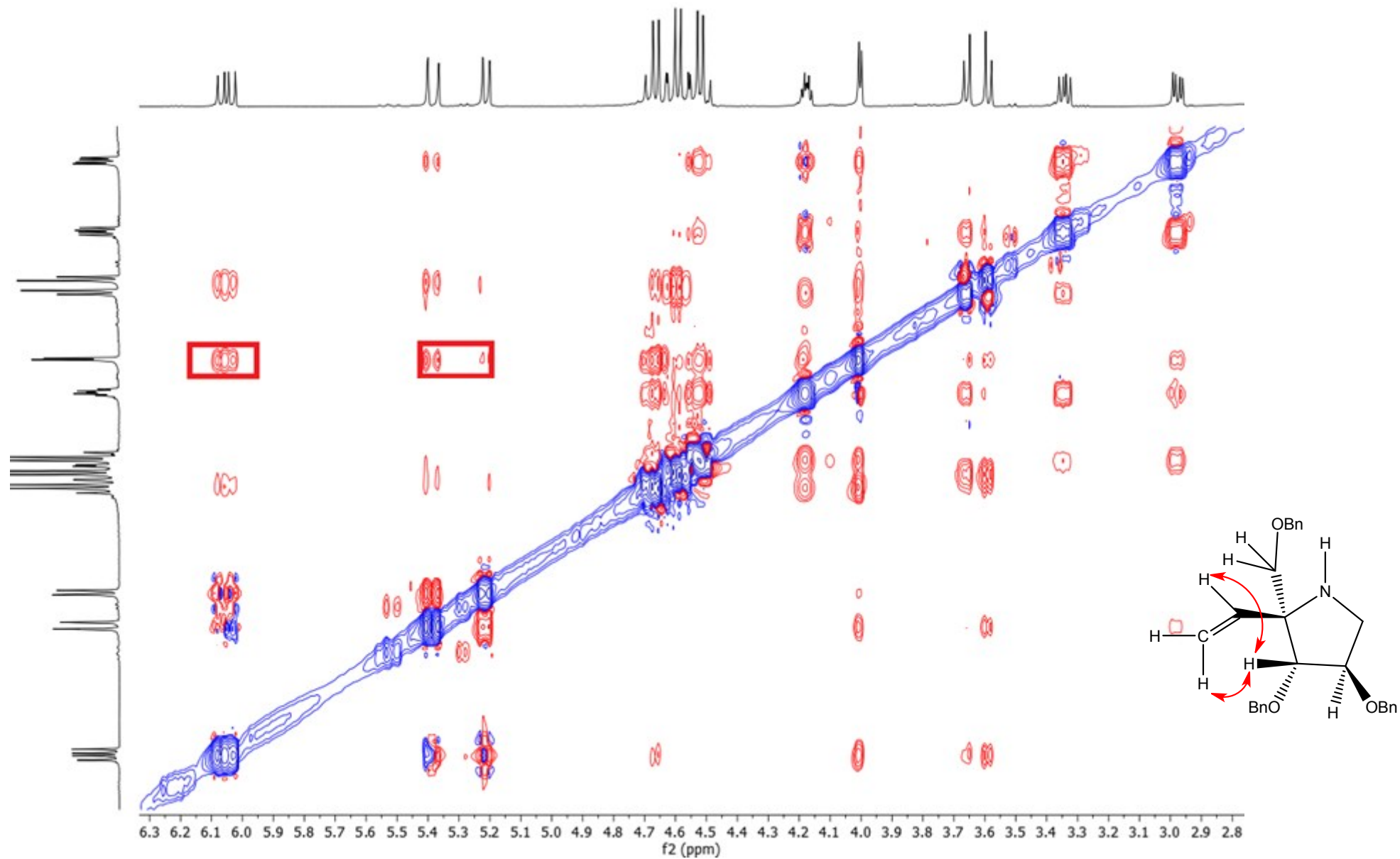
$^1\text{H-NMR}$ spectrum of DAB,HCl (D_2O)



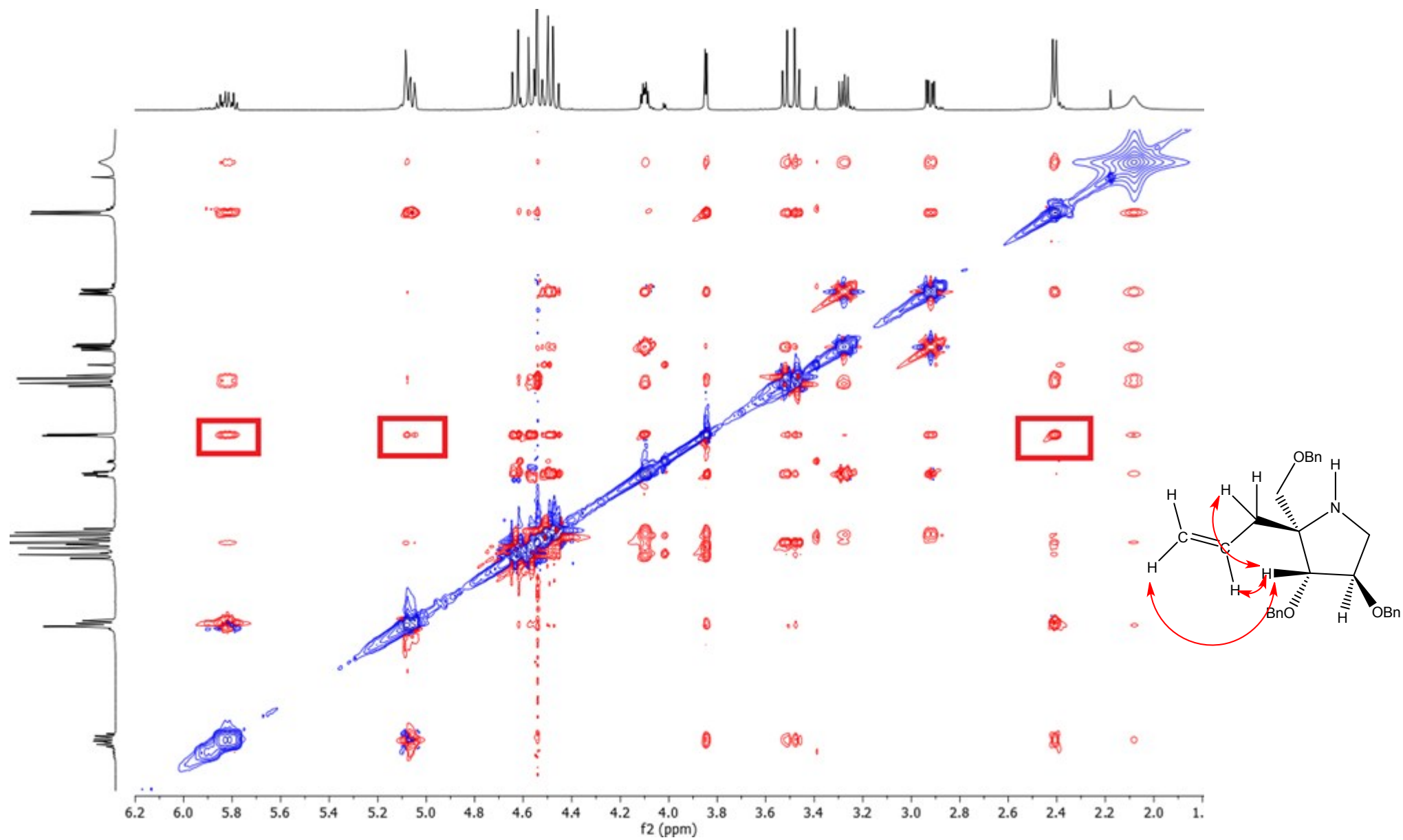
^{13}C -NMR spectrum of DAB,HCl (D_2O)



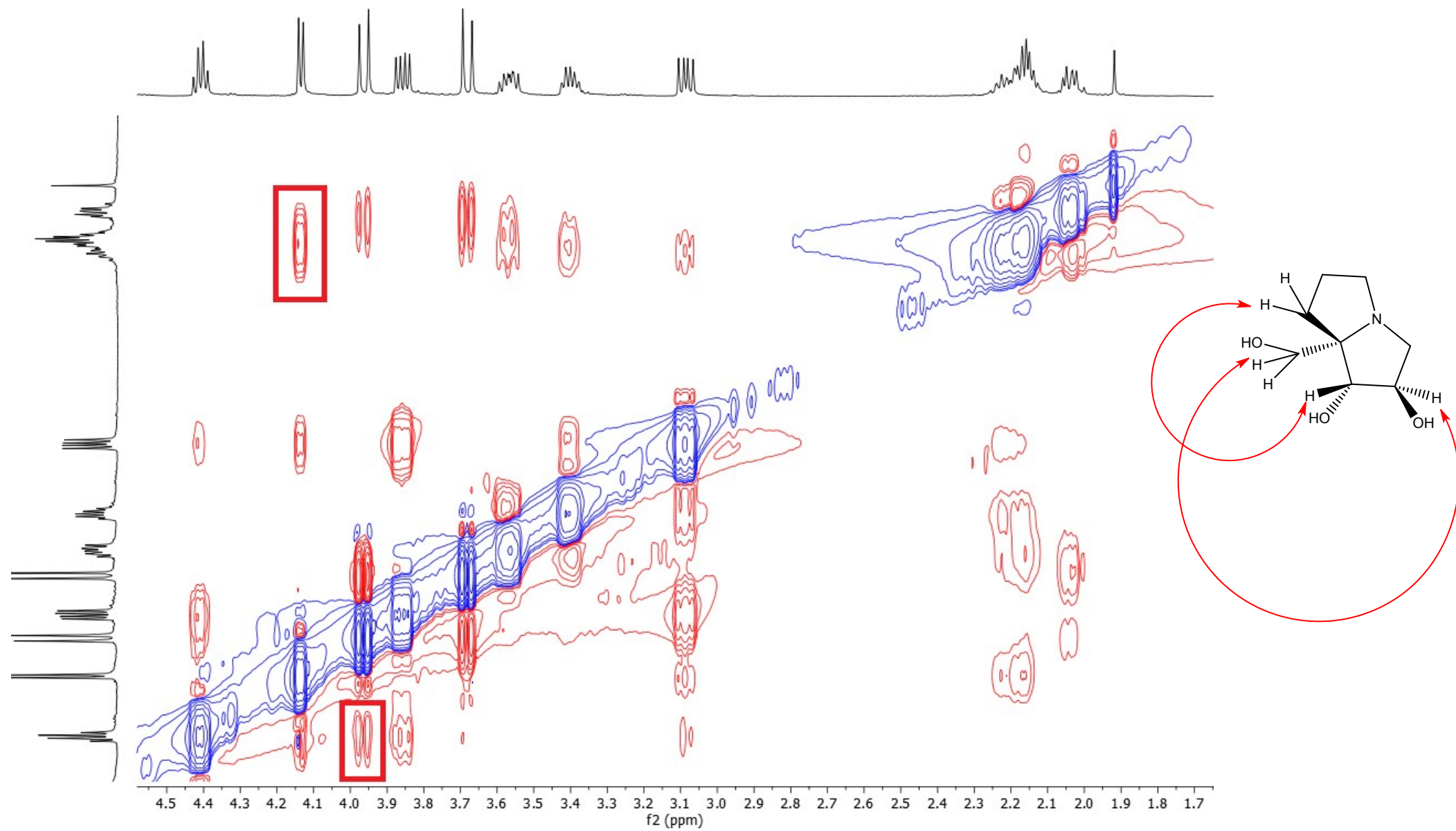
NOESY spectrum of 20b (CDCl₃)



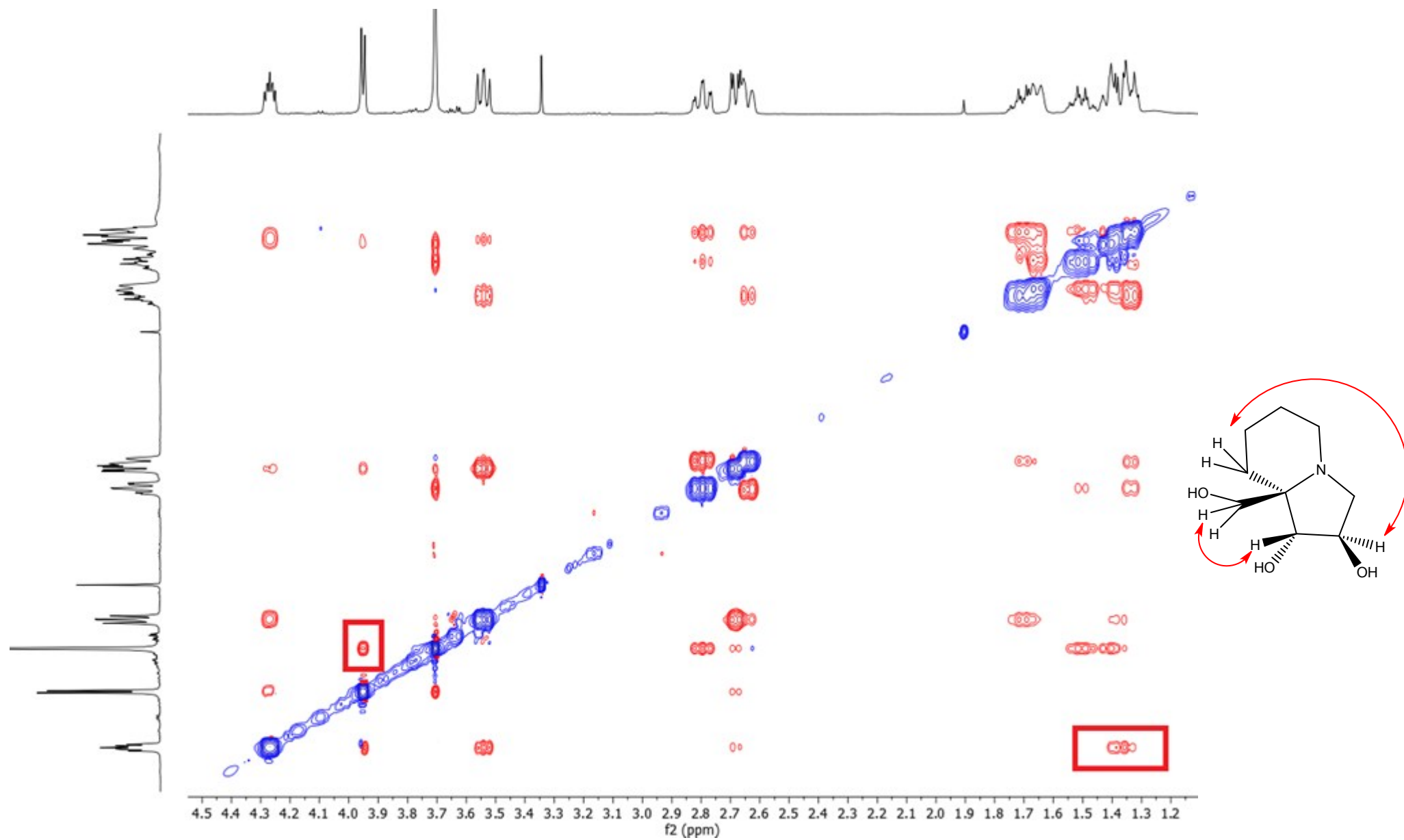
NOESY spectrum of 21b (CDCl₃)



NOESY spectrum of 5b (D₂O)



NOESY spectrum of 6a (D₂O)



NOESY spectrum of 6b (D₂O)

