



Supporting Information

for

Isolation and biosynthesis of an unsaturated fatty acid with unusual methylation pattern from a coral-associated bacterium *Microbulbifer* sp.

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1D and 2D NMR spectra of 1; ^{13}C NMR spectra of ^{13}C -labeled 1

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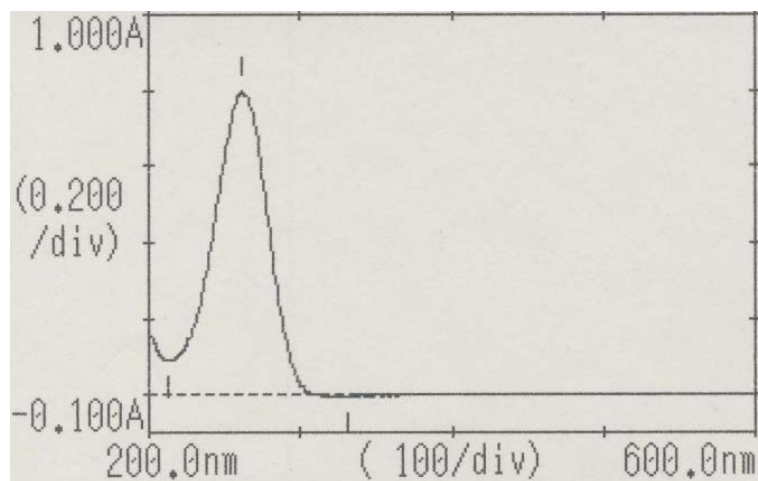


Figure S1. UV spectrum of (2Z,4E)-3-methyl-2,4-decadienoic acid (**1**)

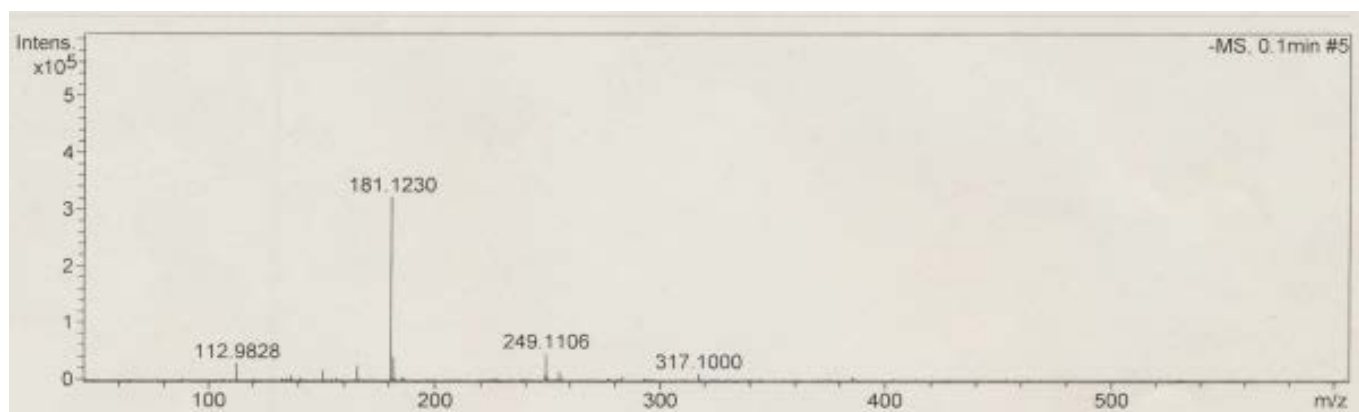


Figure S2. High resolution ESI-TOF mass spectrum of **1**

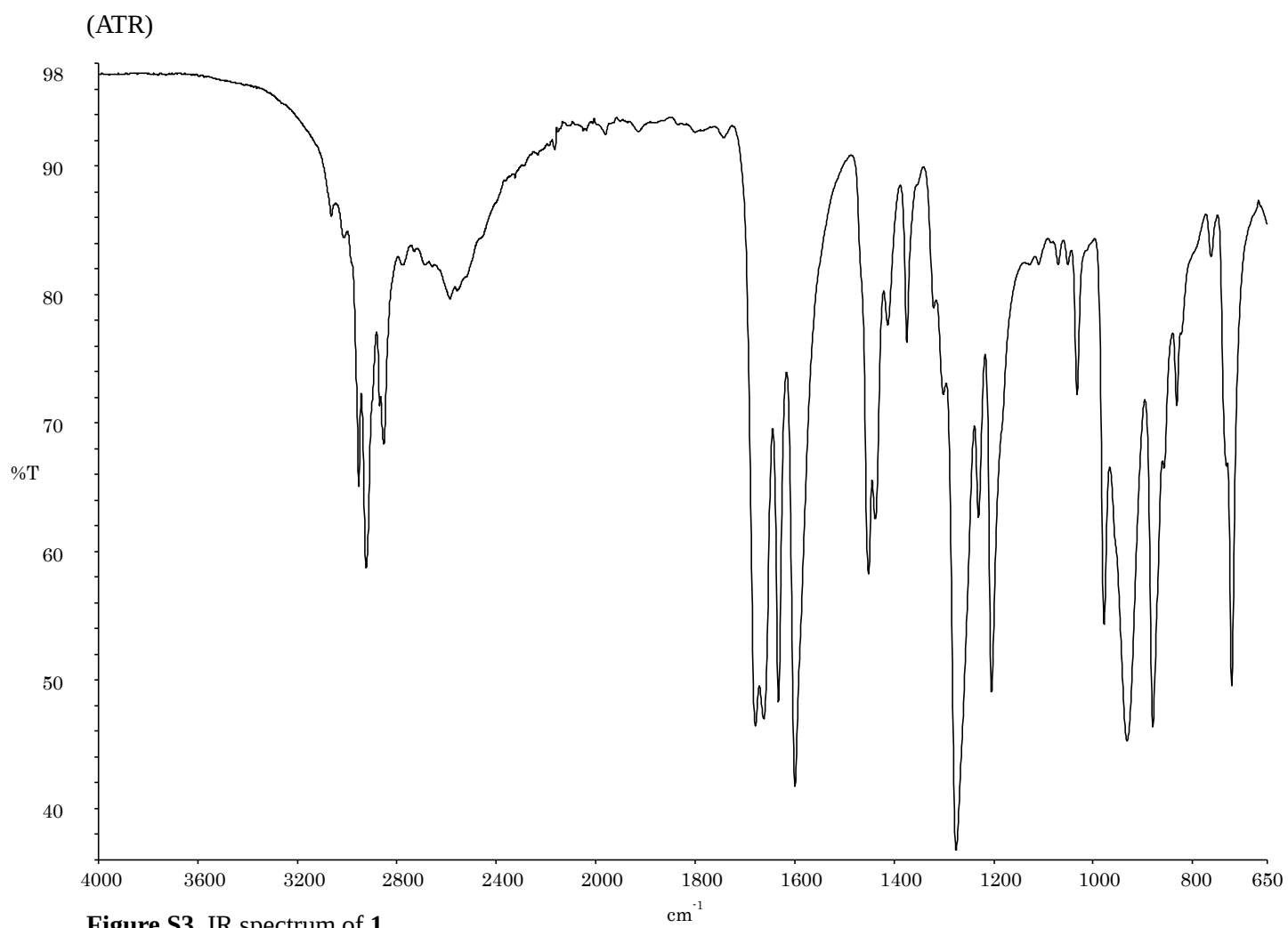


Figure S3. IR spectrum of **1**

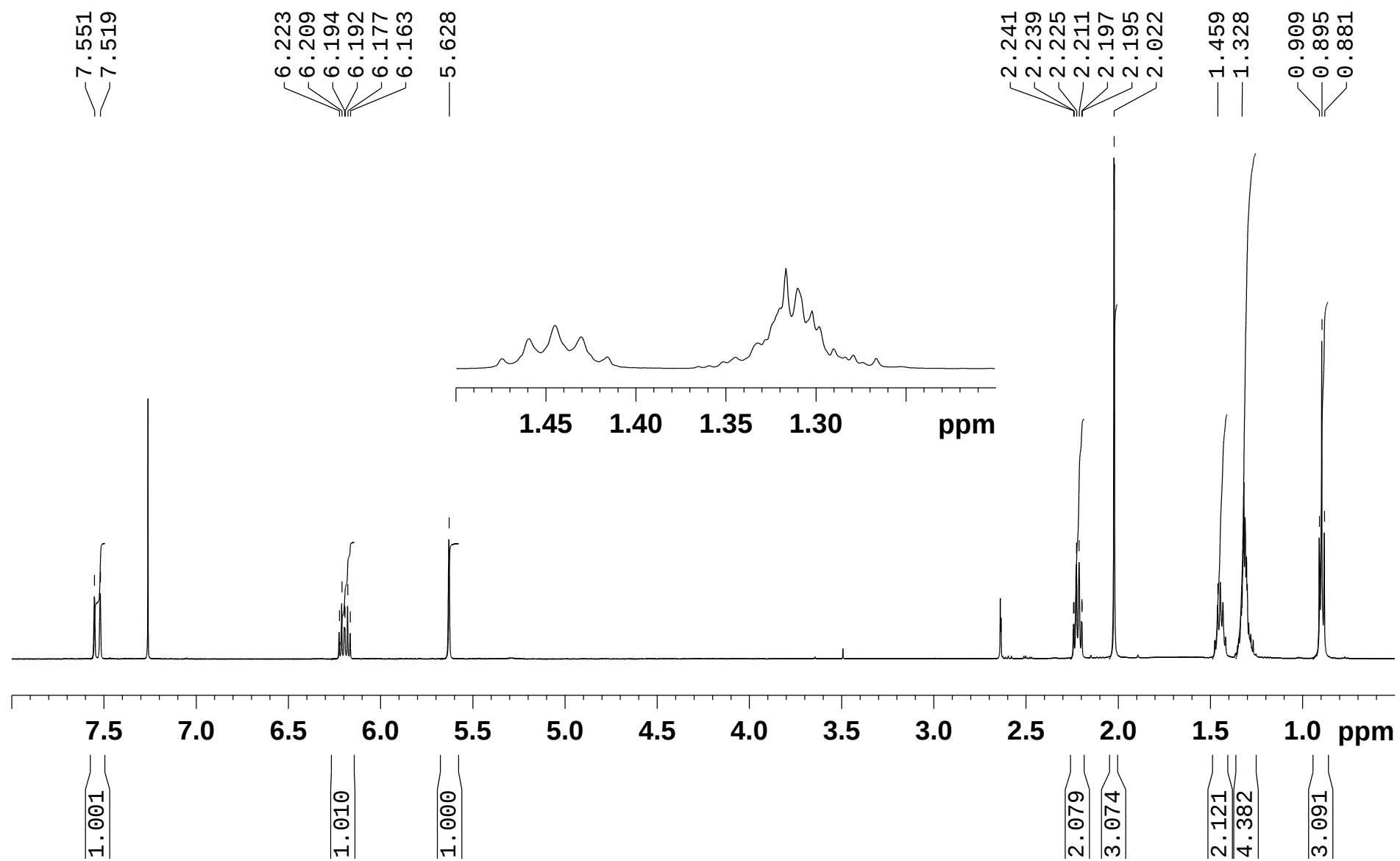


Figure S4. ^1H NMR spectrum of **1** (500 MHz, CDCl_3)

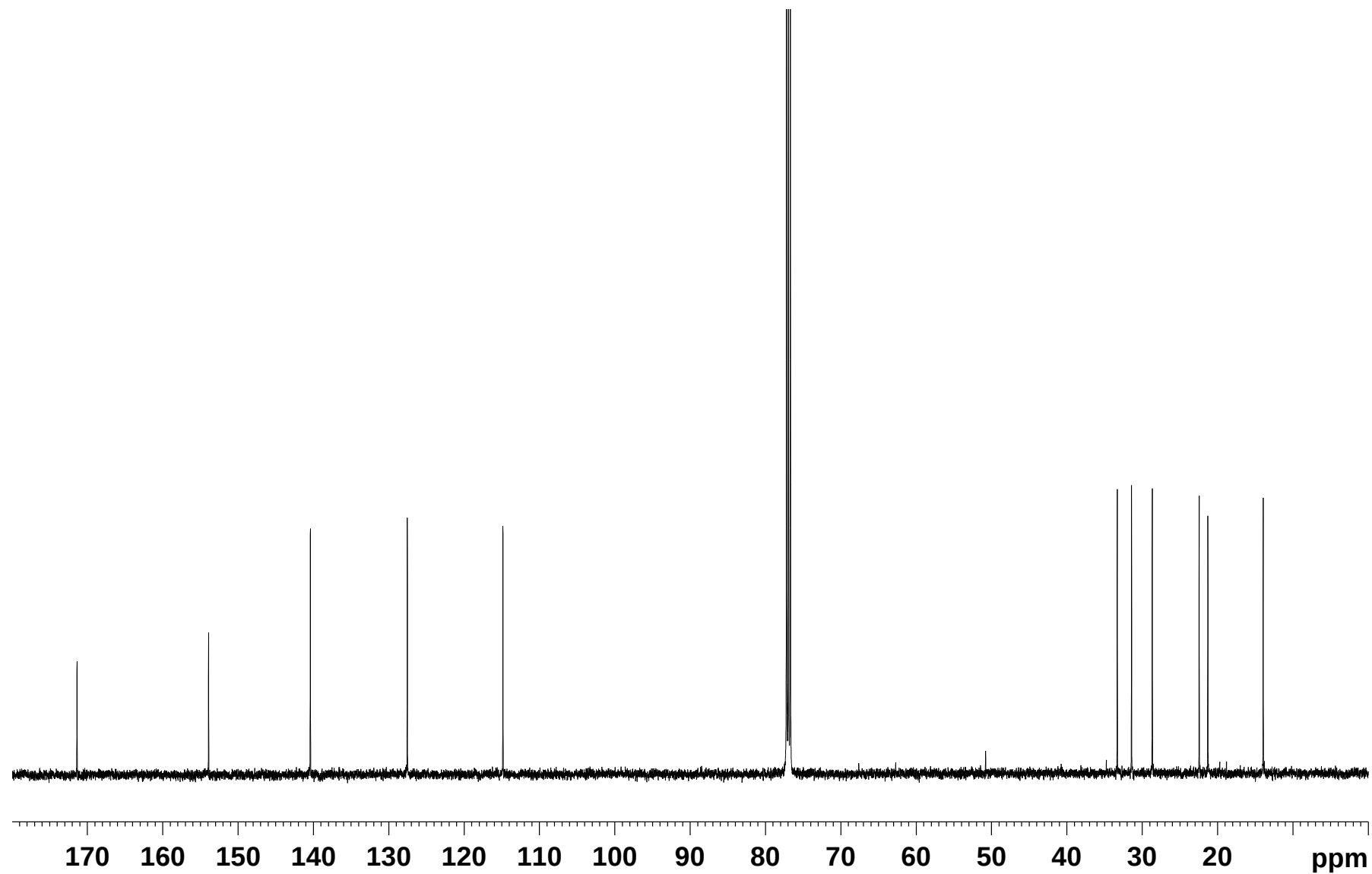


Figure S5. ¹³C NMR spectrum of 1 (125 MHz, CDCl₃)

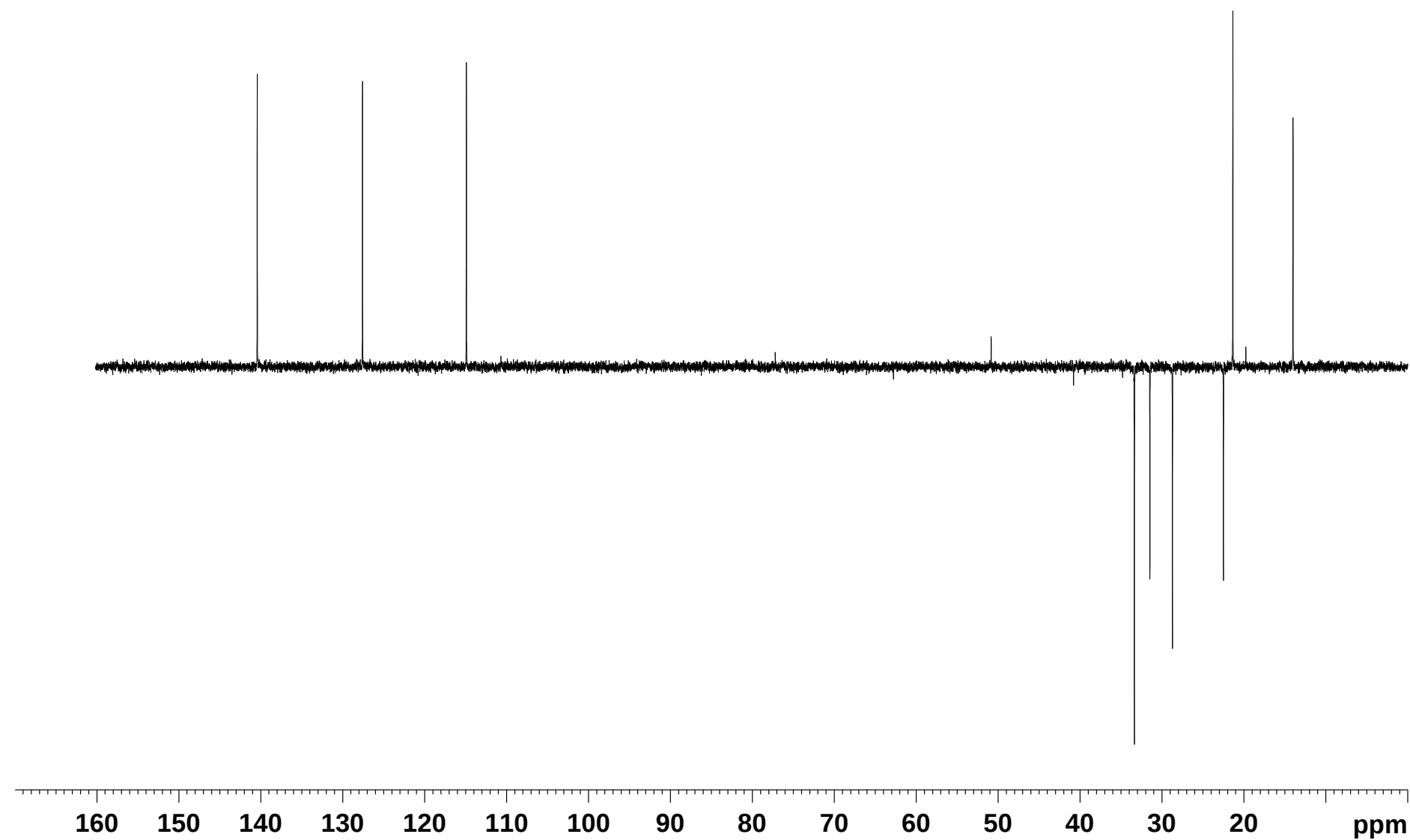


Figure S6. DEPT135 spectrum of **1** (125 MHz, CDCl₃)

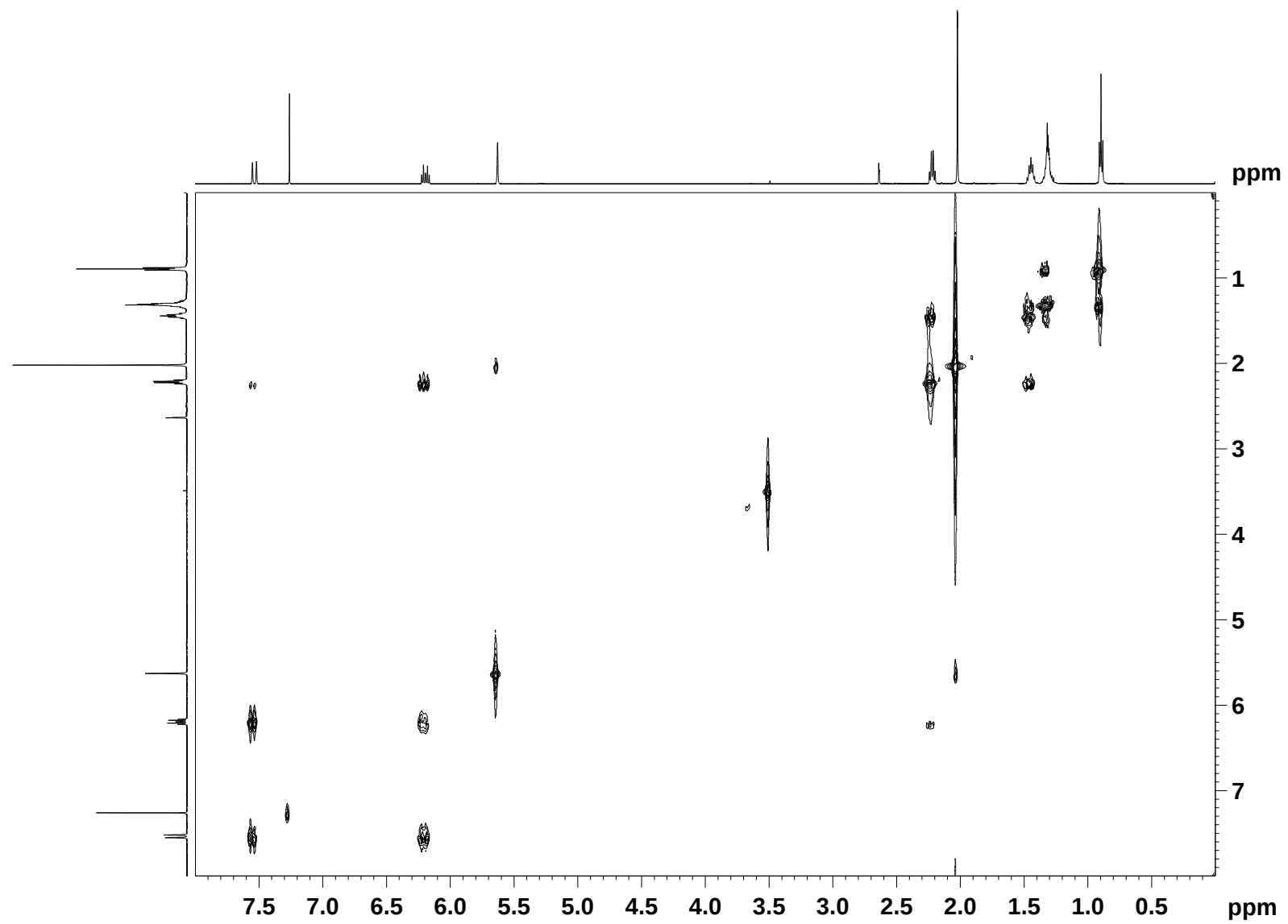


Figure S7. COSY spectrum of **1** (500 MHz, CDCl₃)

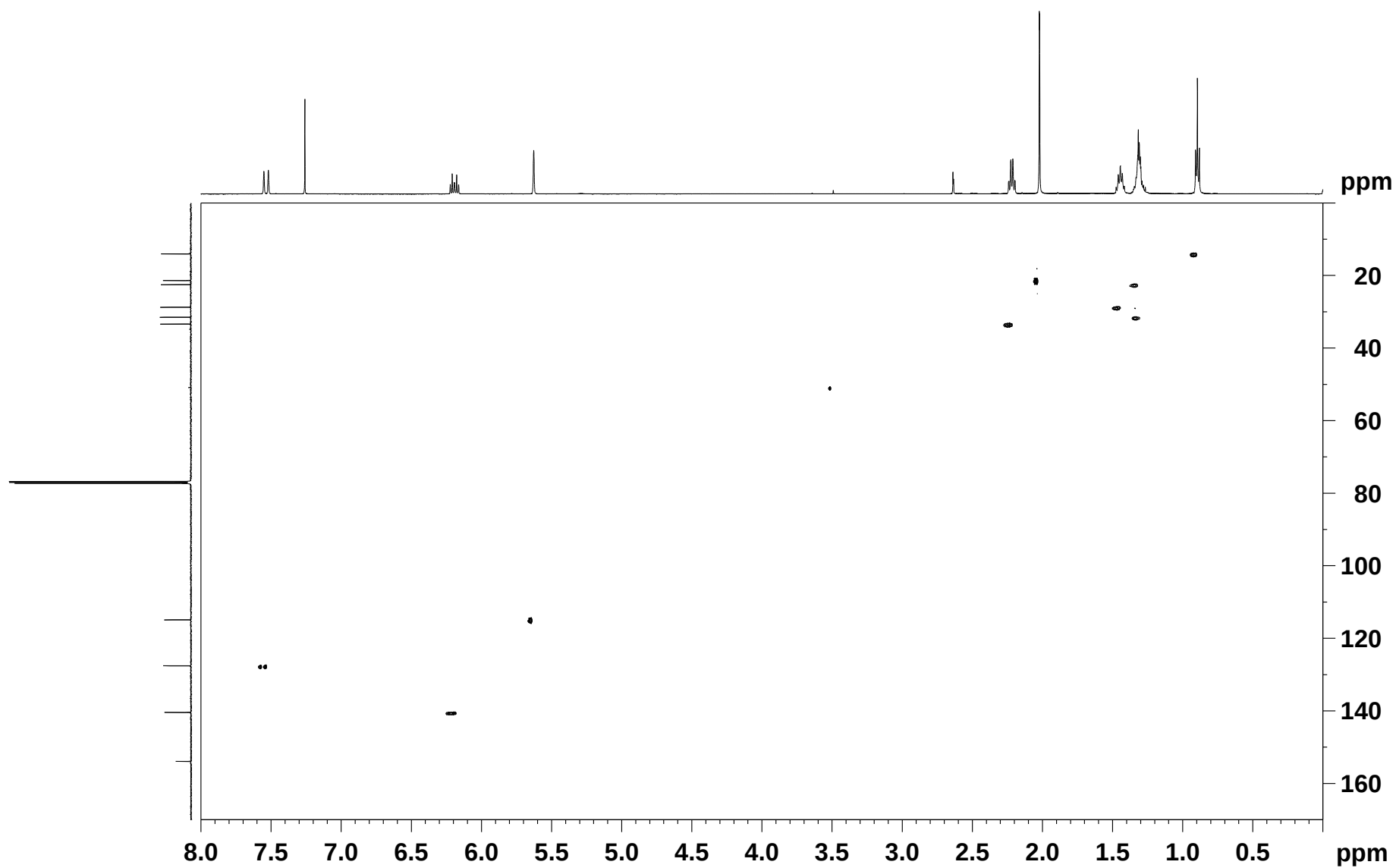


Figure S8. HSQC spectrum of **1** (500 MHz, CDCl_3)

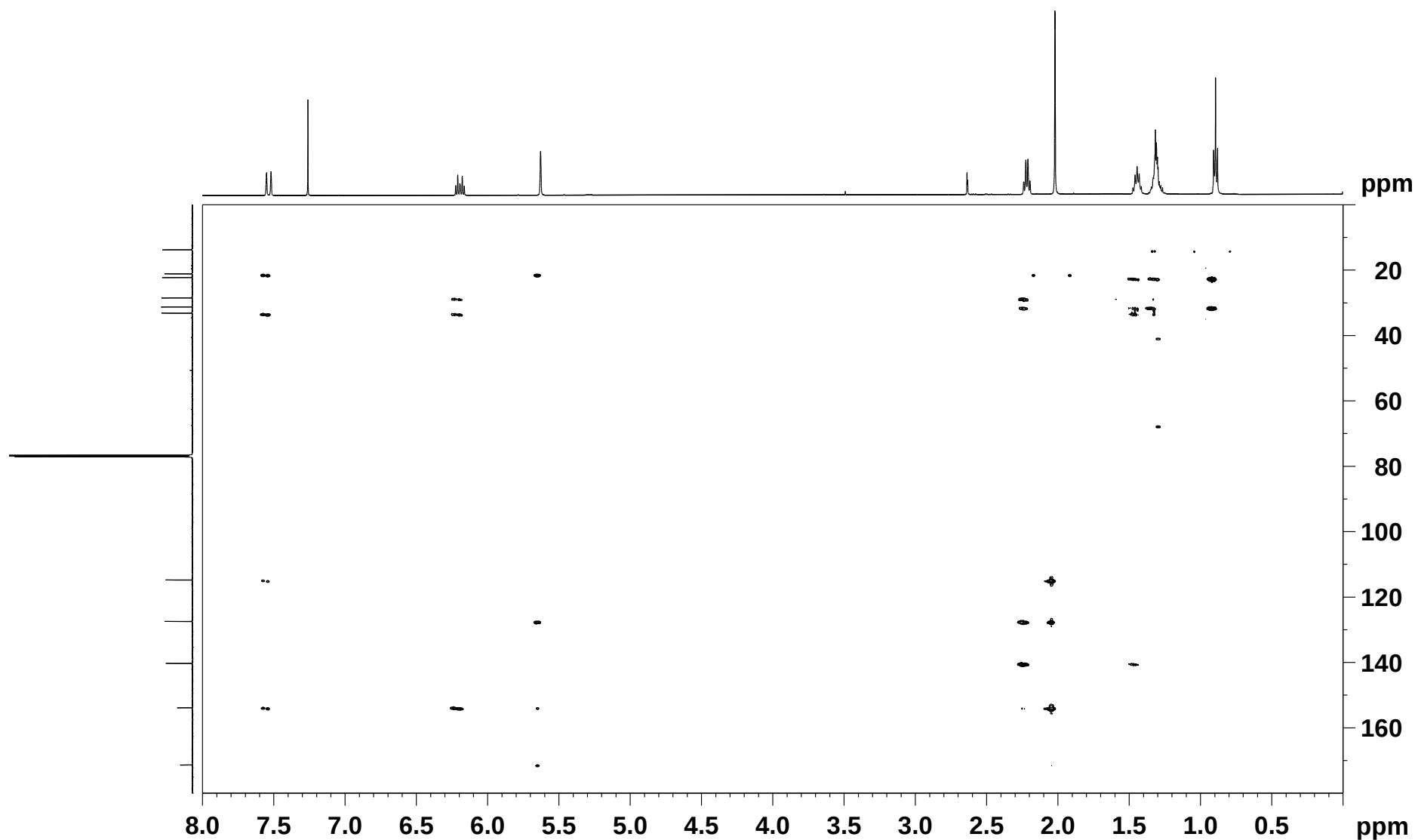


Figure S9. HMBC spectrum of **1** (500 MHz, CDCl₃)

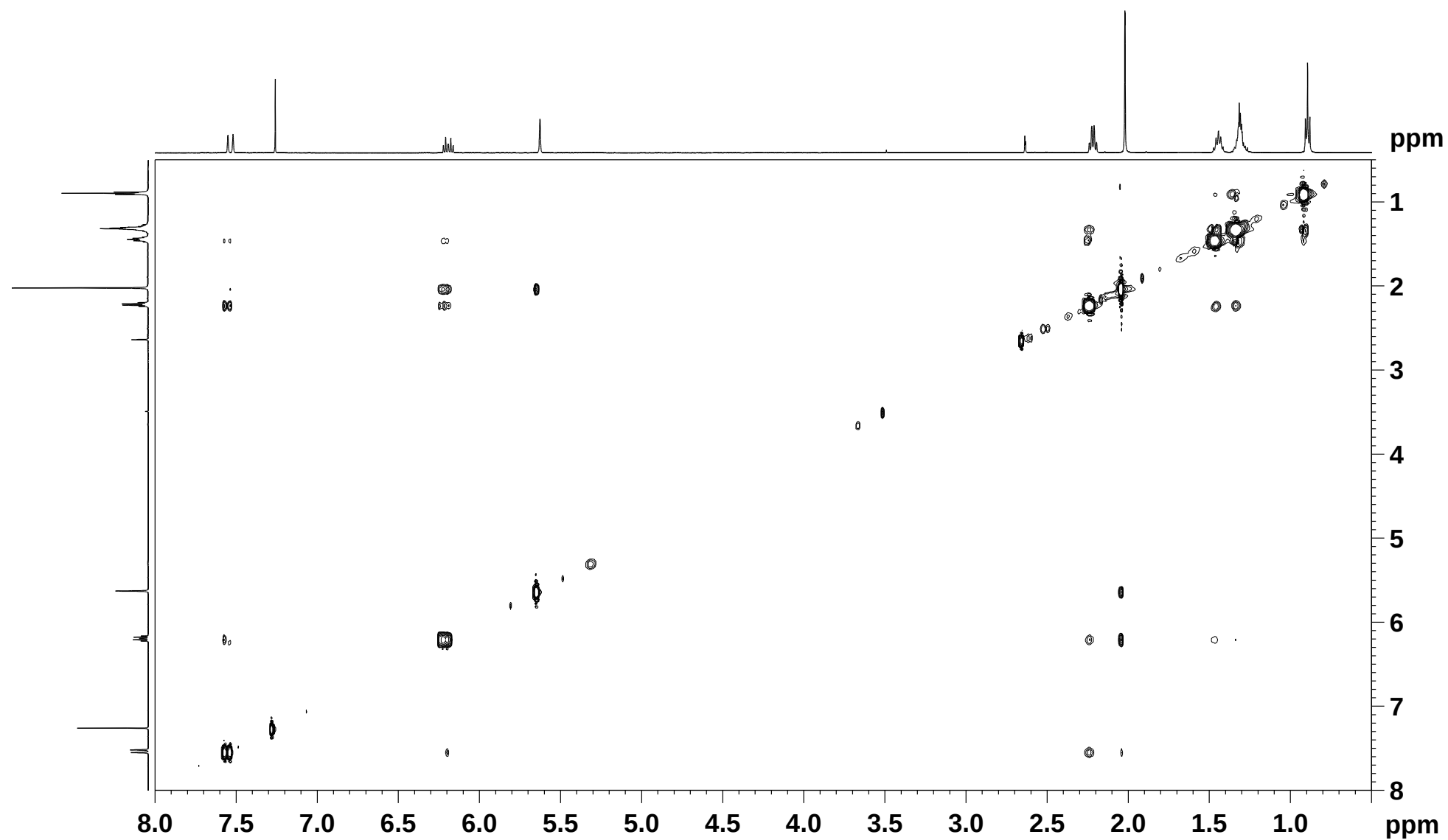


Figure S10. NOESY spectrum of **1** (500 MHz, CDCl₃)

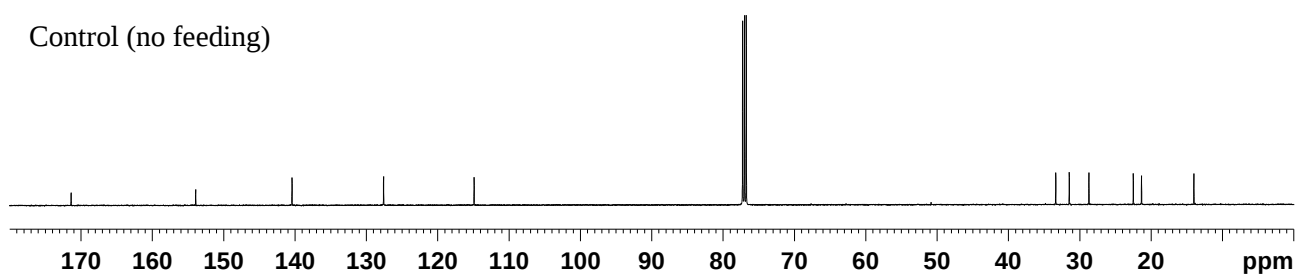
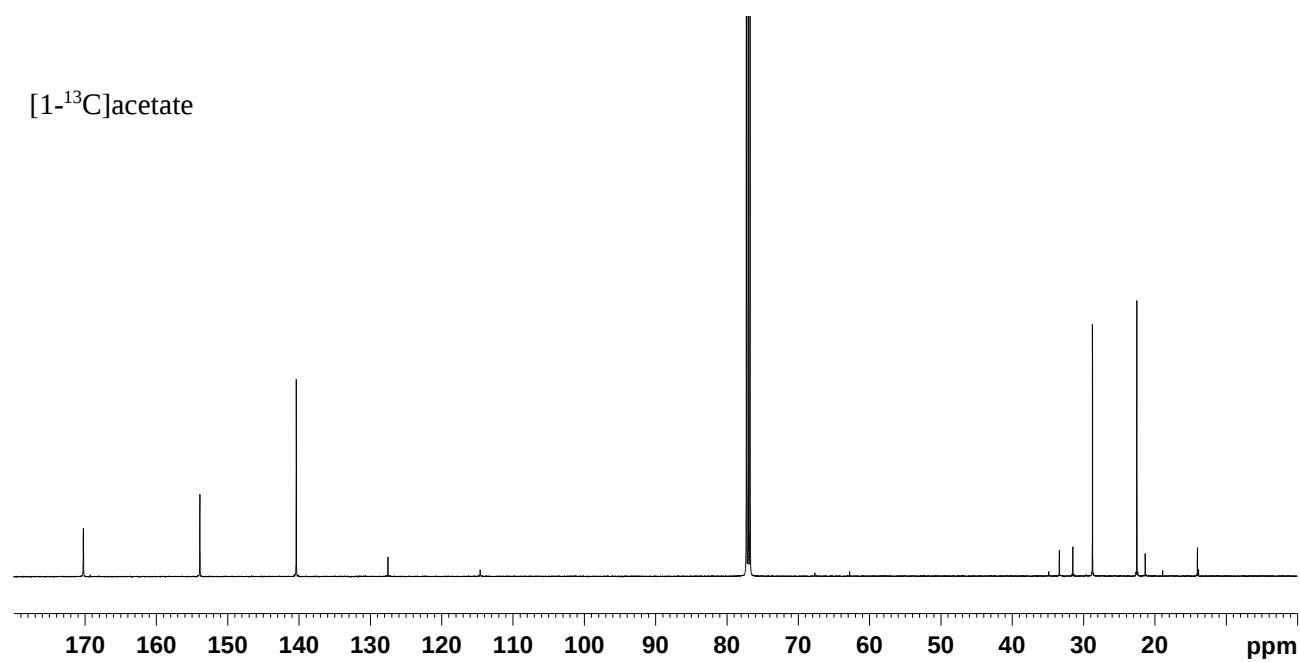
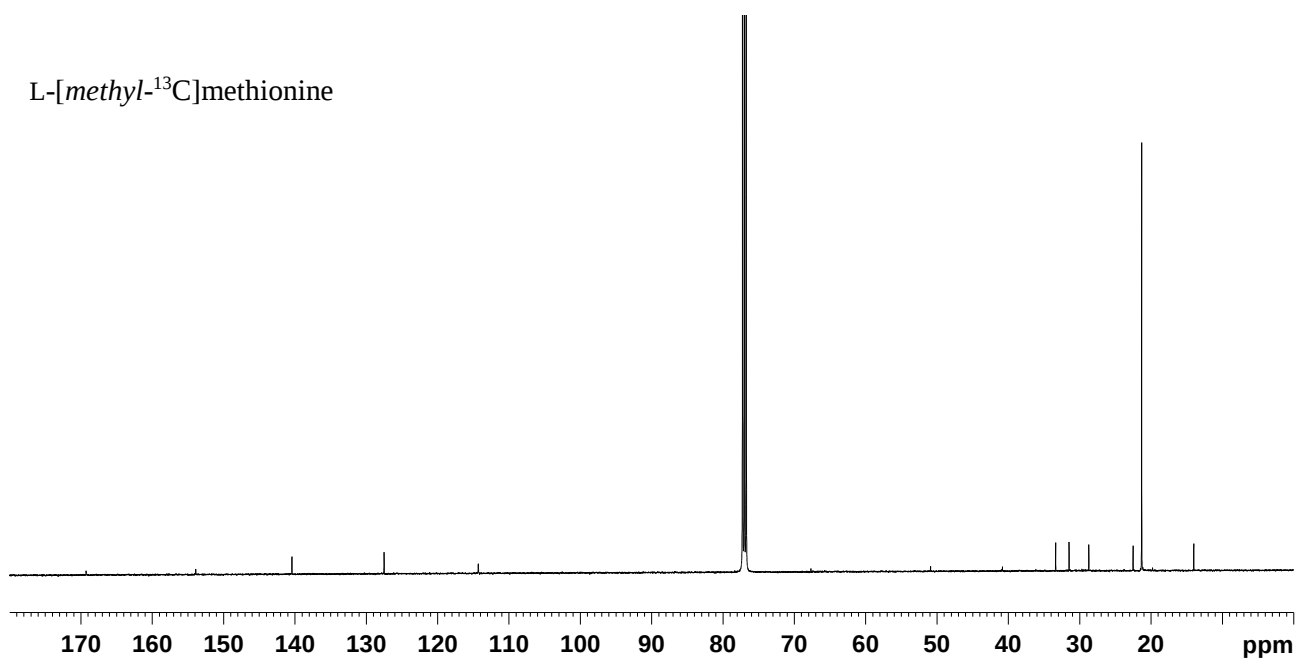


Figure S11. ^{13}C NMR spectra of **1** labeled with [1- ^{13}C]acetate and L-[*methyl*- ^{13}C]methionine (125 MHz, CDCl_3)