

Supporting Information for:

Analogues of Pawhuskin A: A κ -selective, non-
nitrogenous opioid receptor antagonist[†]

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Jeffrey D. Neighbors^{†,*}*

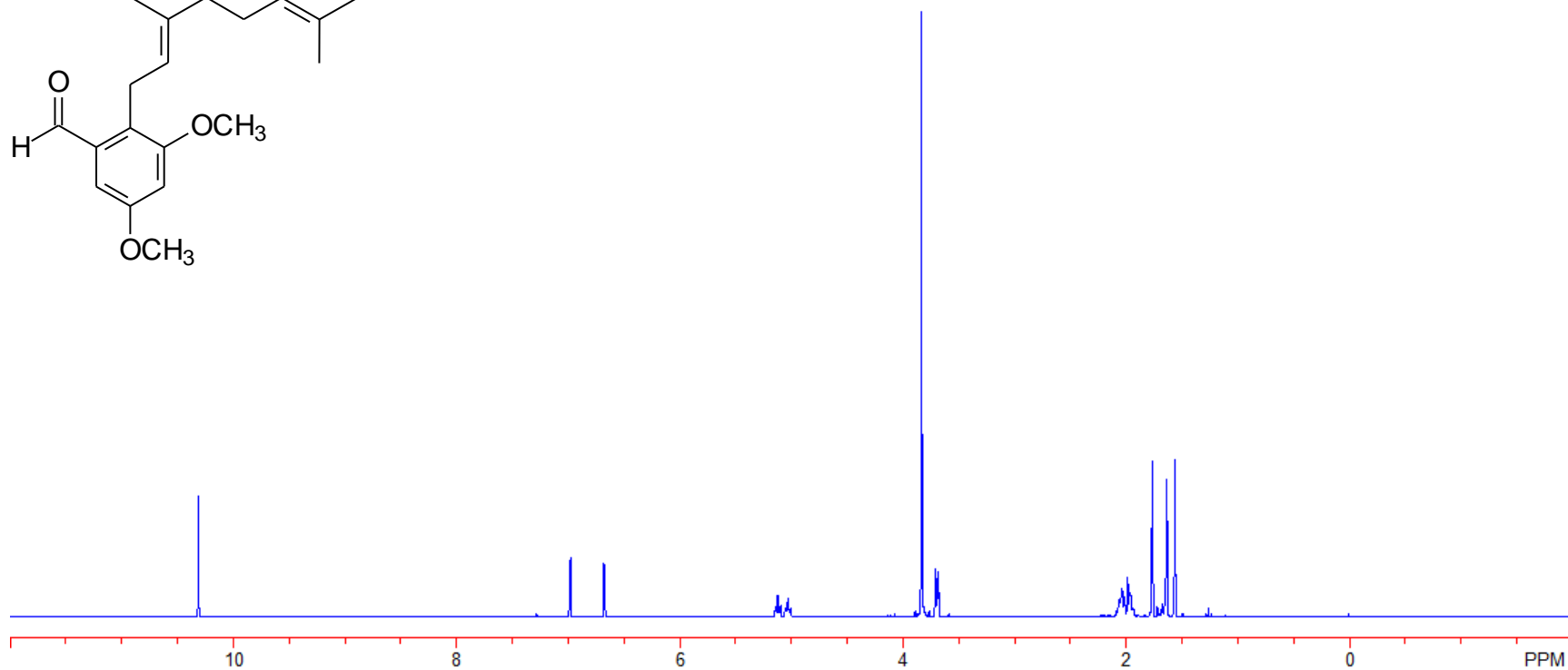
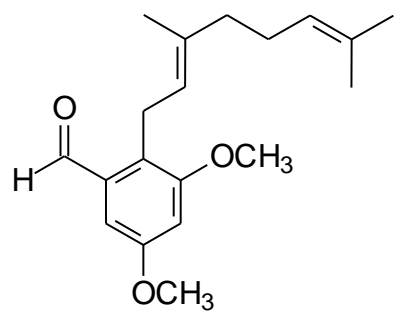
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[‡]Molecular Targets Laboratory, Center for Cancer Research, National Cancer Institute, Frederick, MD
21702, USA

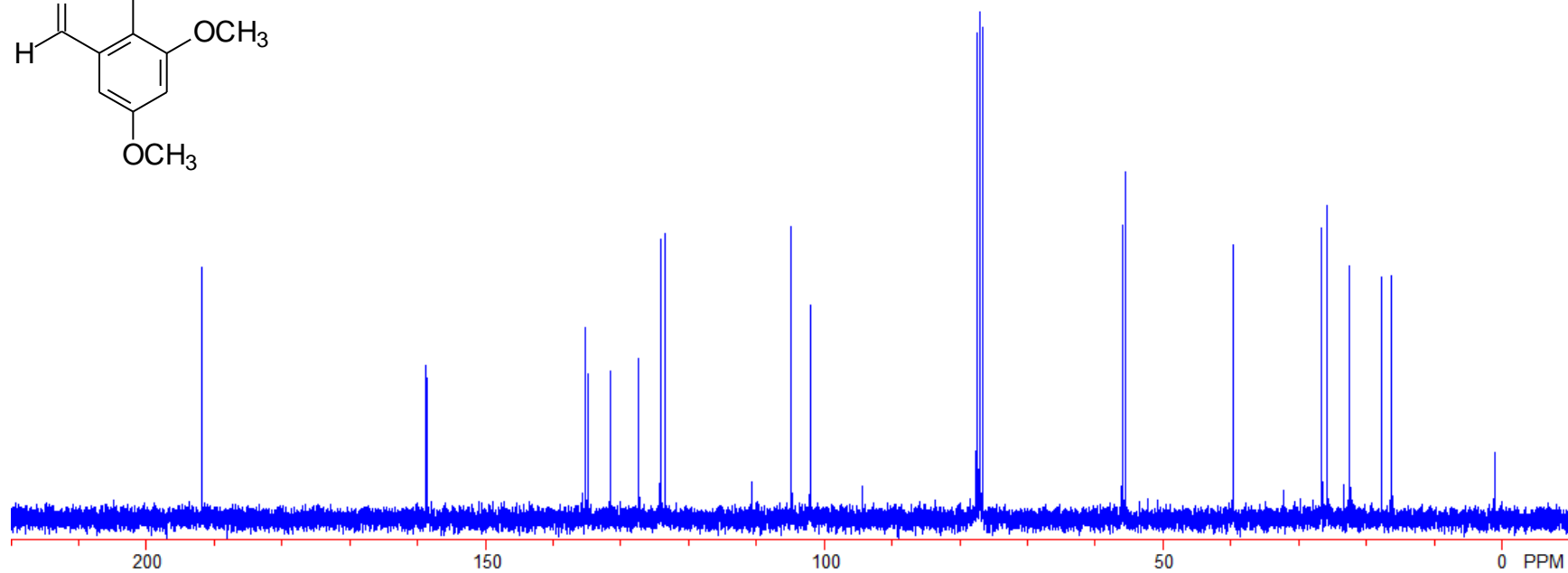
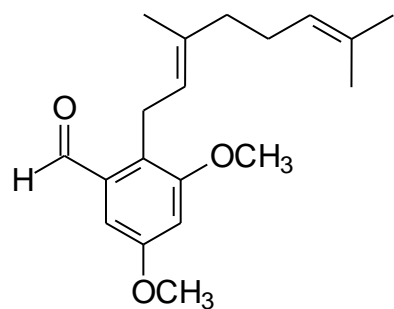
[§]Discovery Sciences, RTI International, Research Triangle Park, NC 27709

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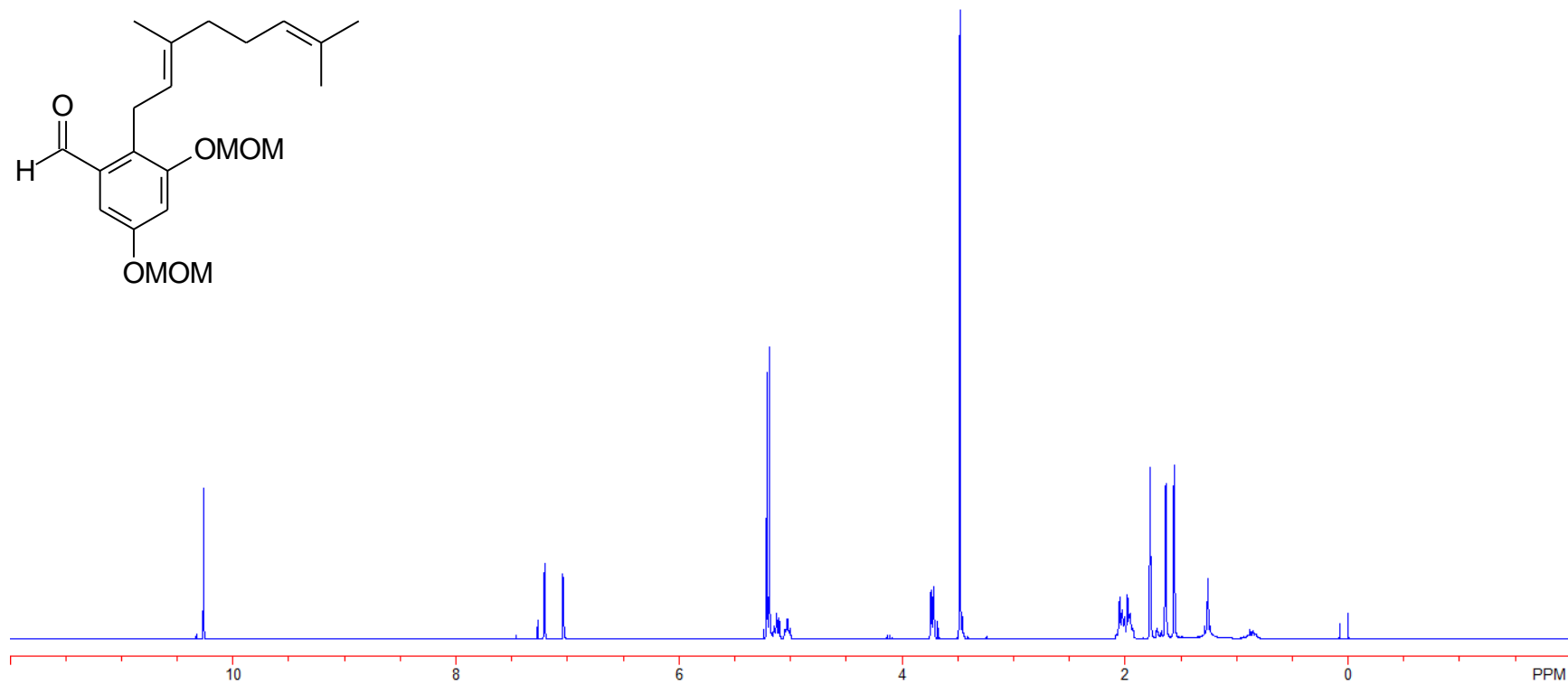
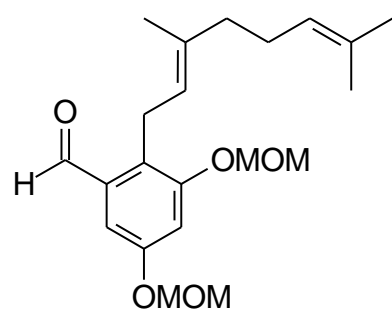
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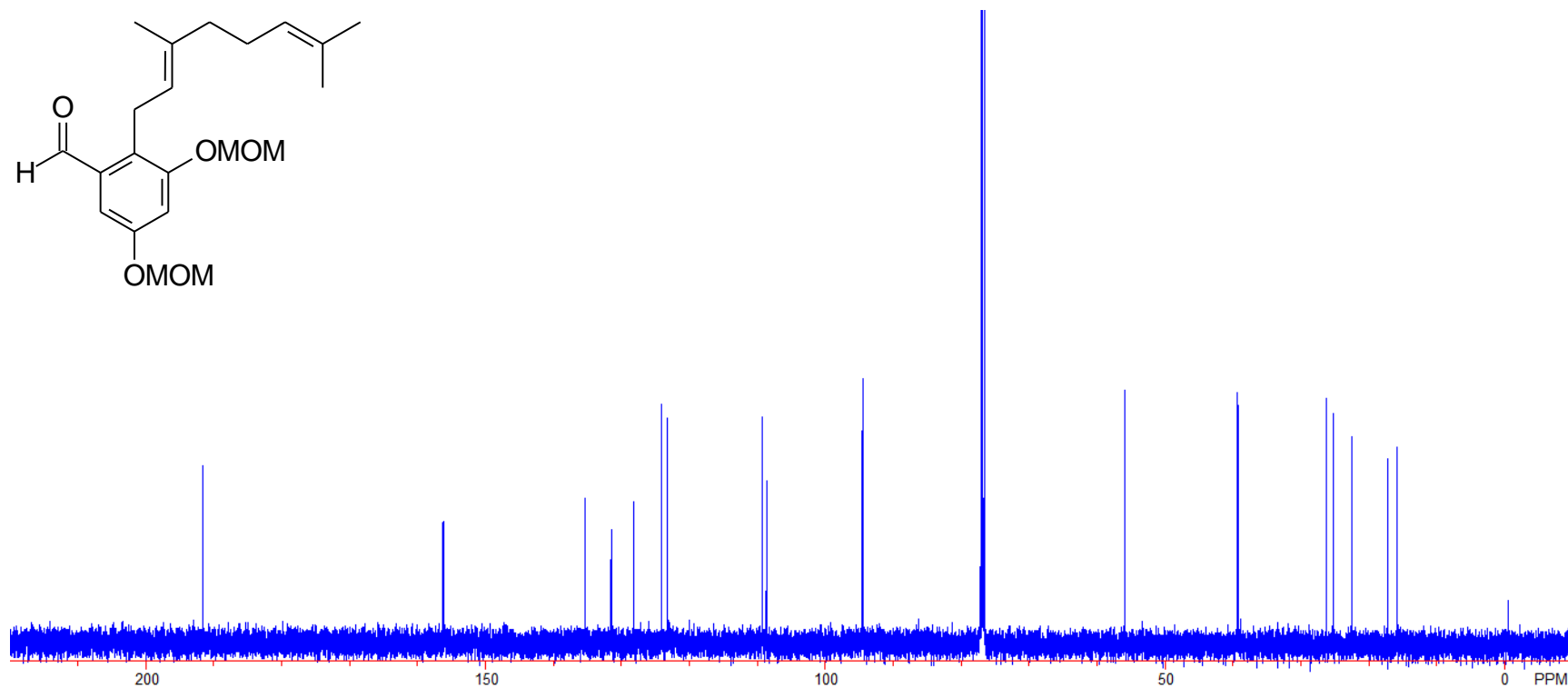
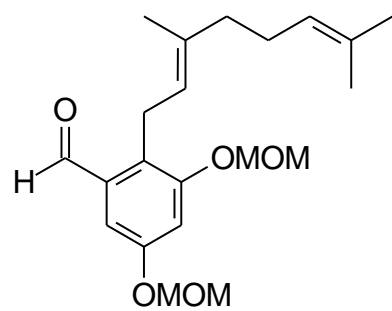
¹H NMR (300 MHz, CDCl₃) spectrum of the new compound **14**.



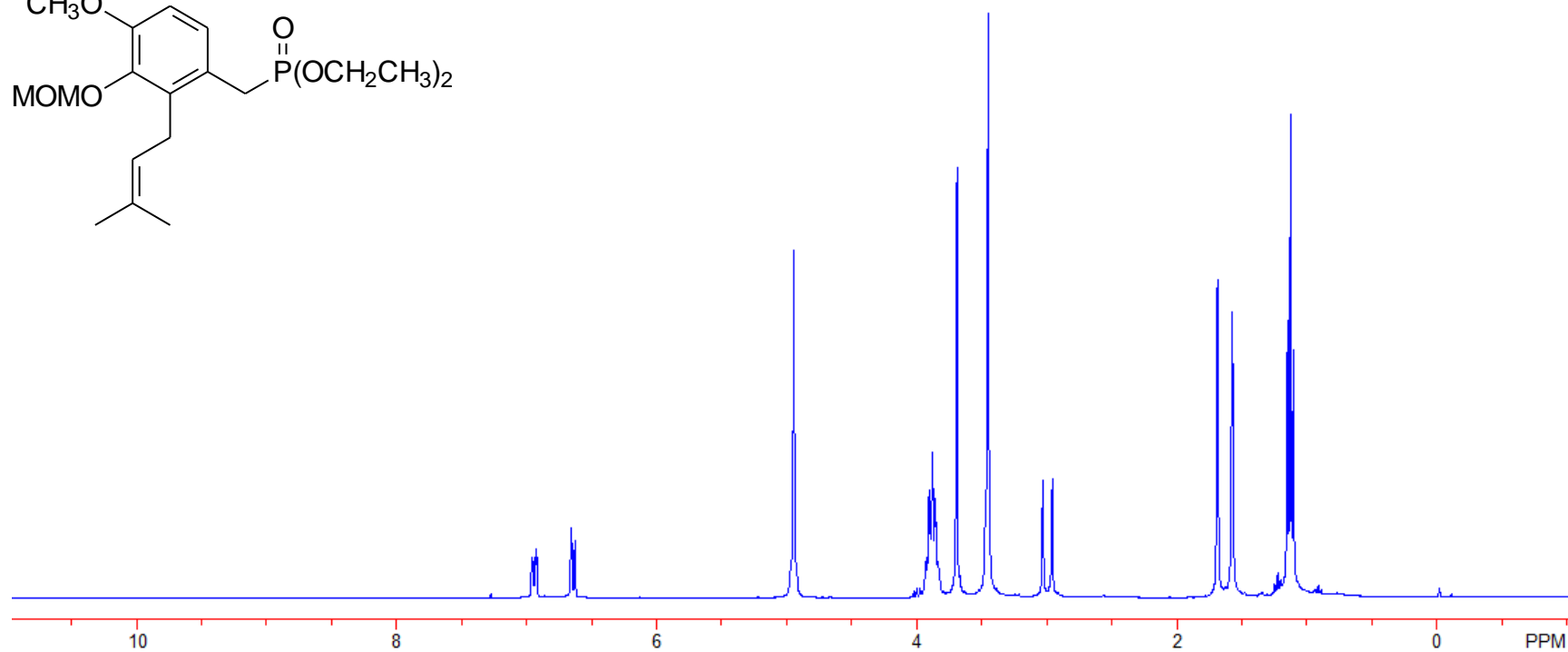
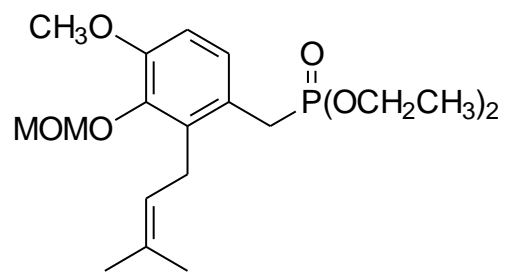
¹³C NMR (75 MHz, CDCl₃) spectrum of the new compound **14**.



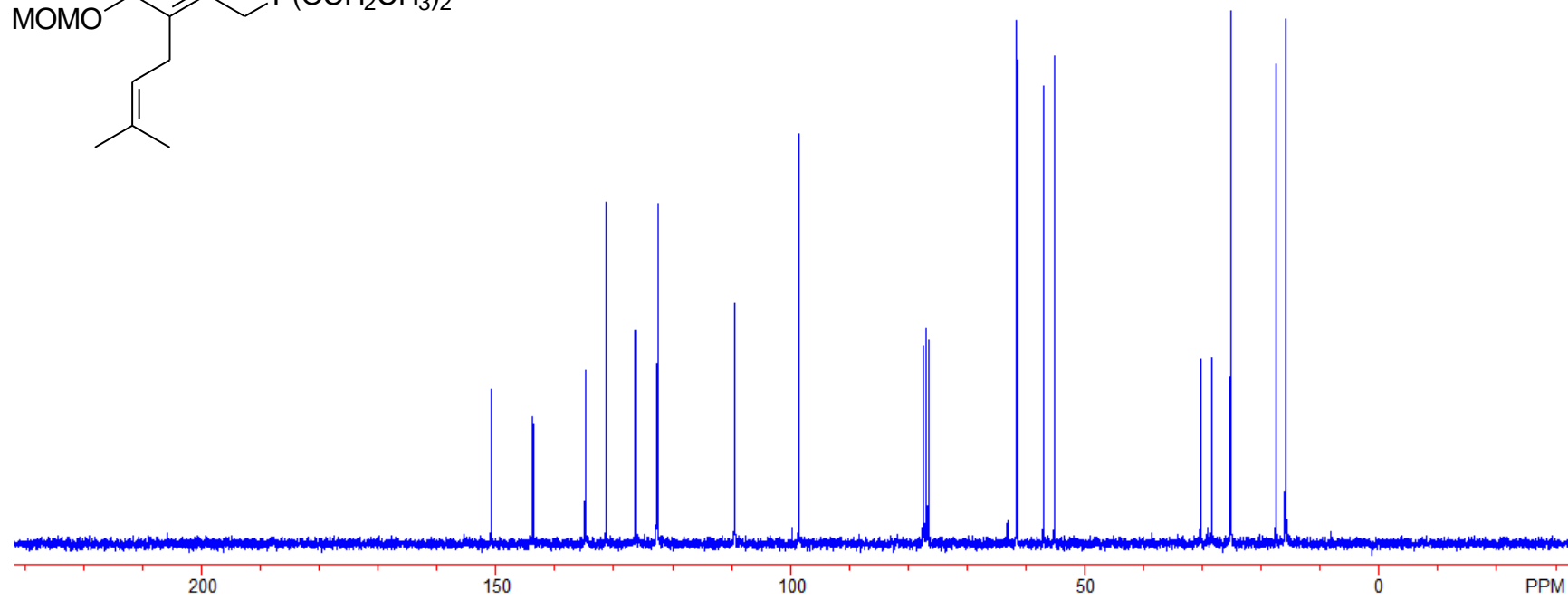
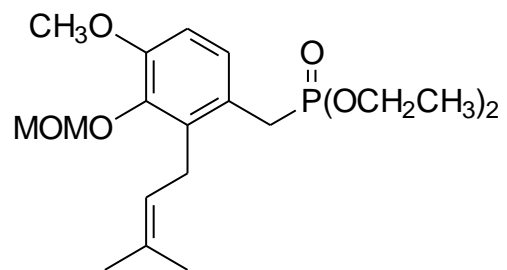
^1H NMR (300 MHz, CDCl_3) spectrum of the new compound **16**.



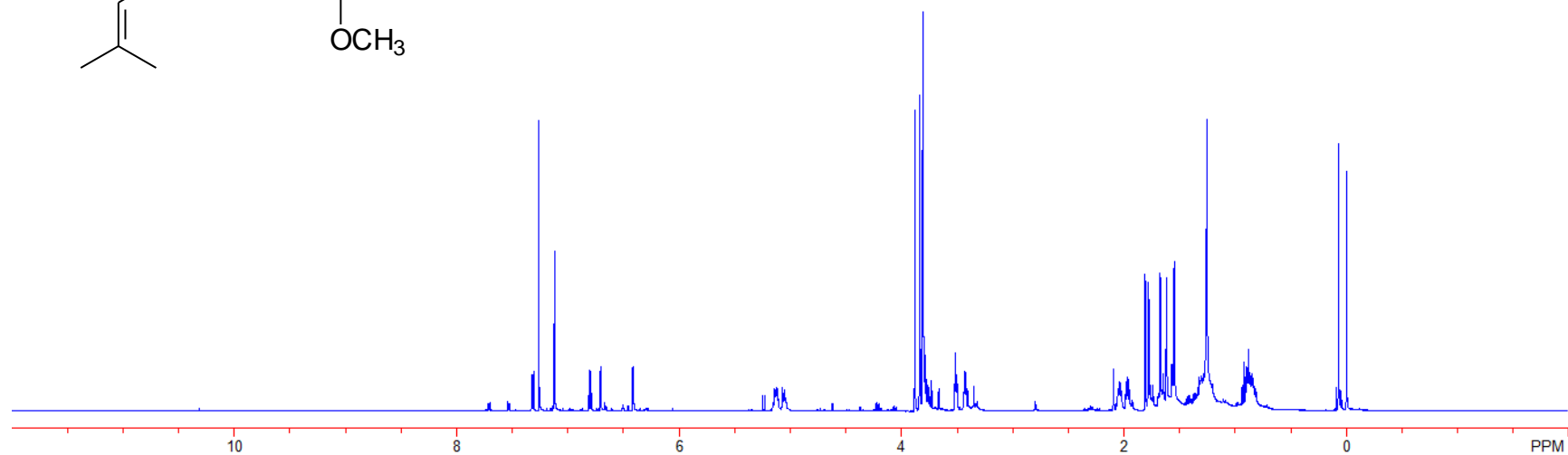
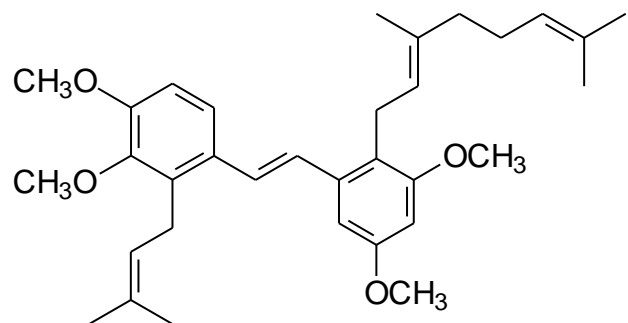
^{13}C NMR (125 MHz, CDCl_3) spectrum of the new compound **16**.



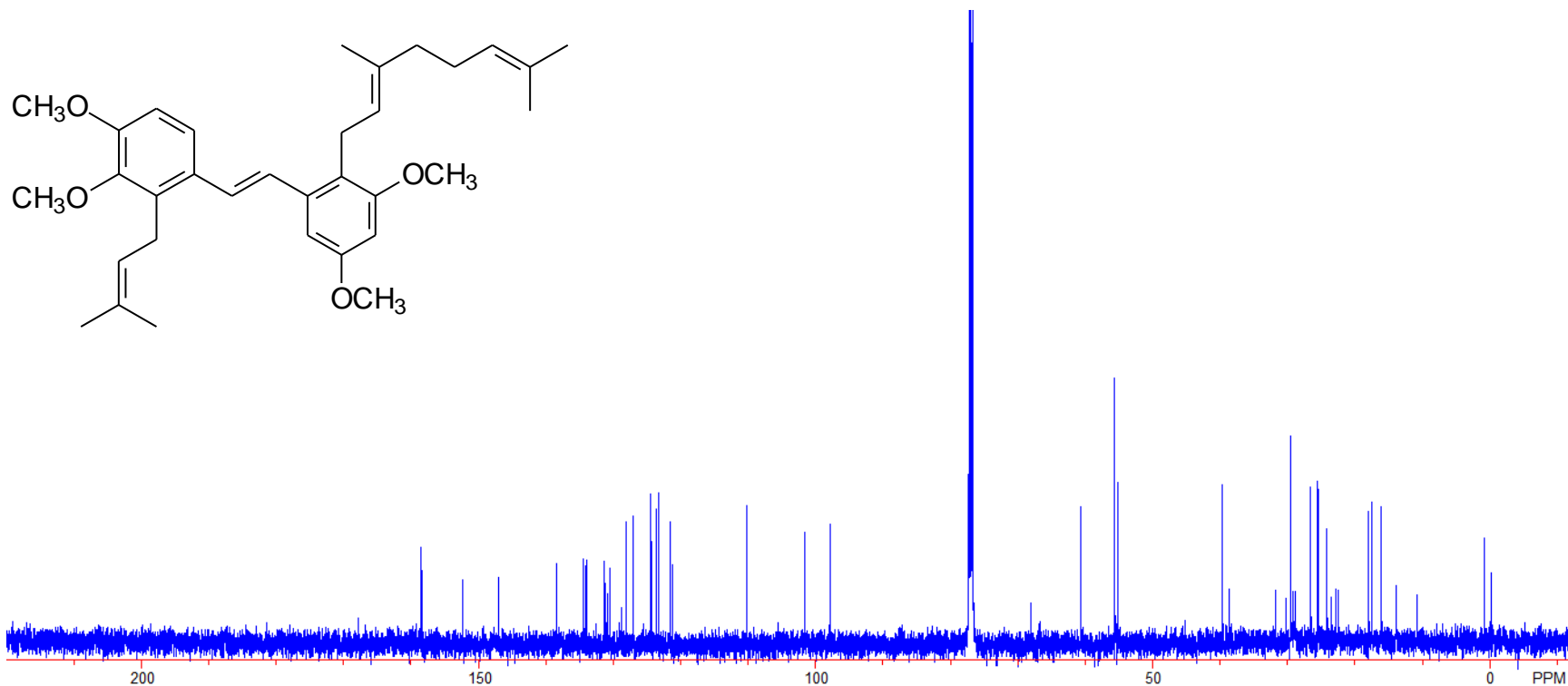
^1H NMR (300 MHz, CDCl_3) spectrum of the new compound **18**.



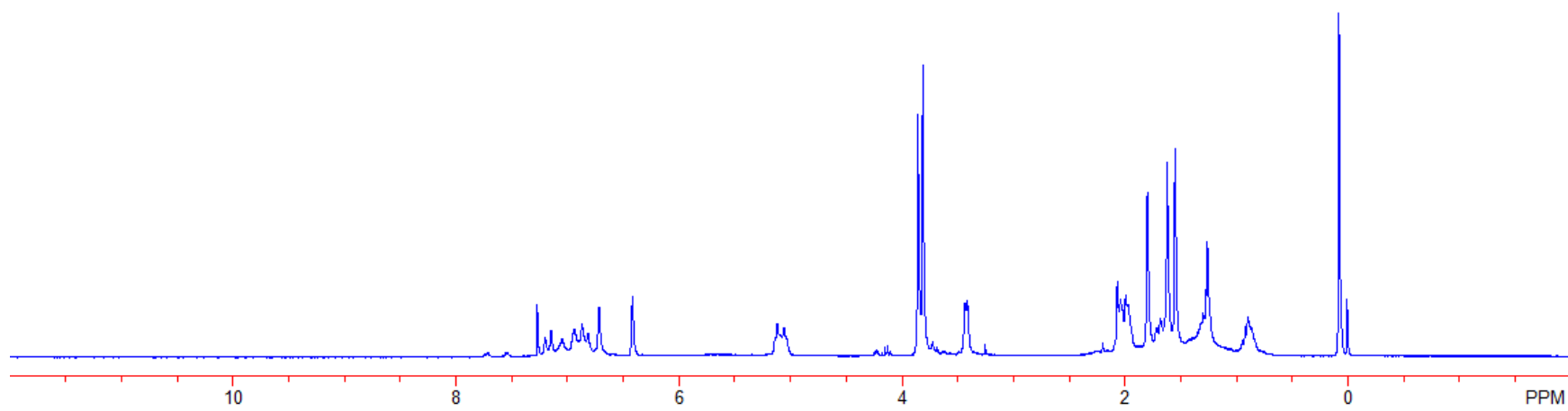
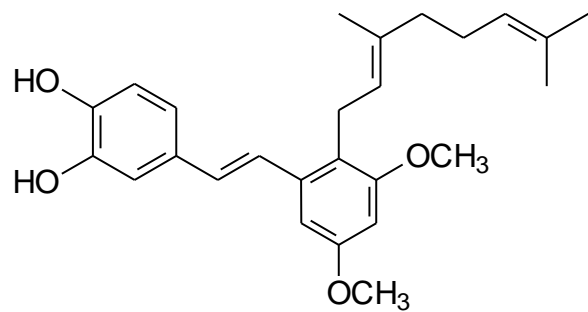
¹³C NMR (75 MHz, CDCl₃) spectrum of the new compound **18**.



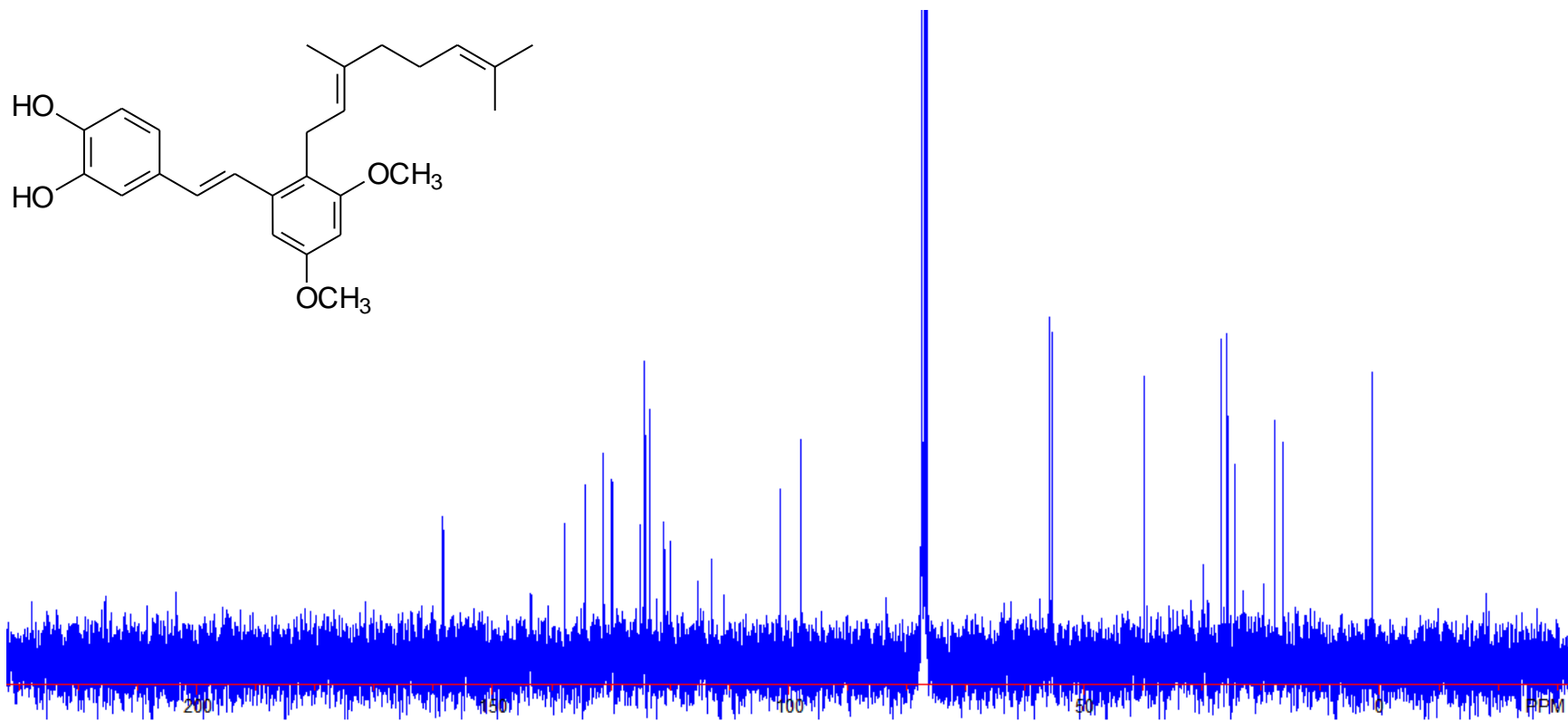
¹H NMR (500 MHz, CDCl₃) spectrum of the new compound **20**.



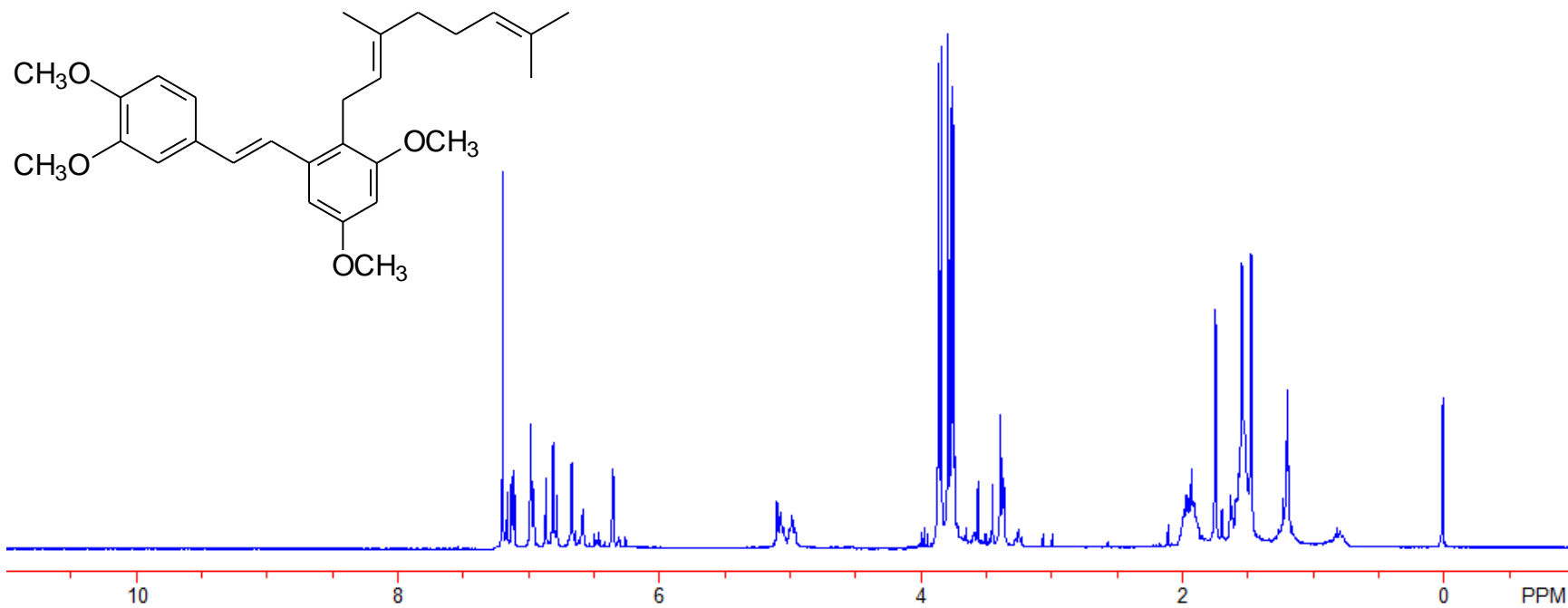
^{13}C NMR (125 MHz, CDCl_3) spectrum of the new compound **20**.
Please note, the resonance at 29.7 ppm is indicative of silica oil.



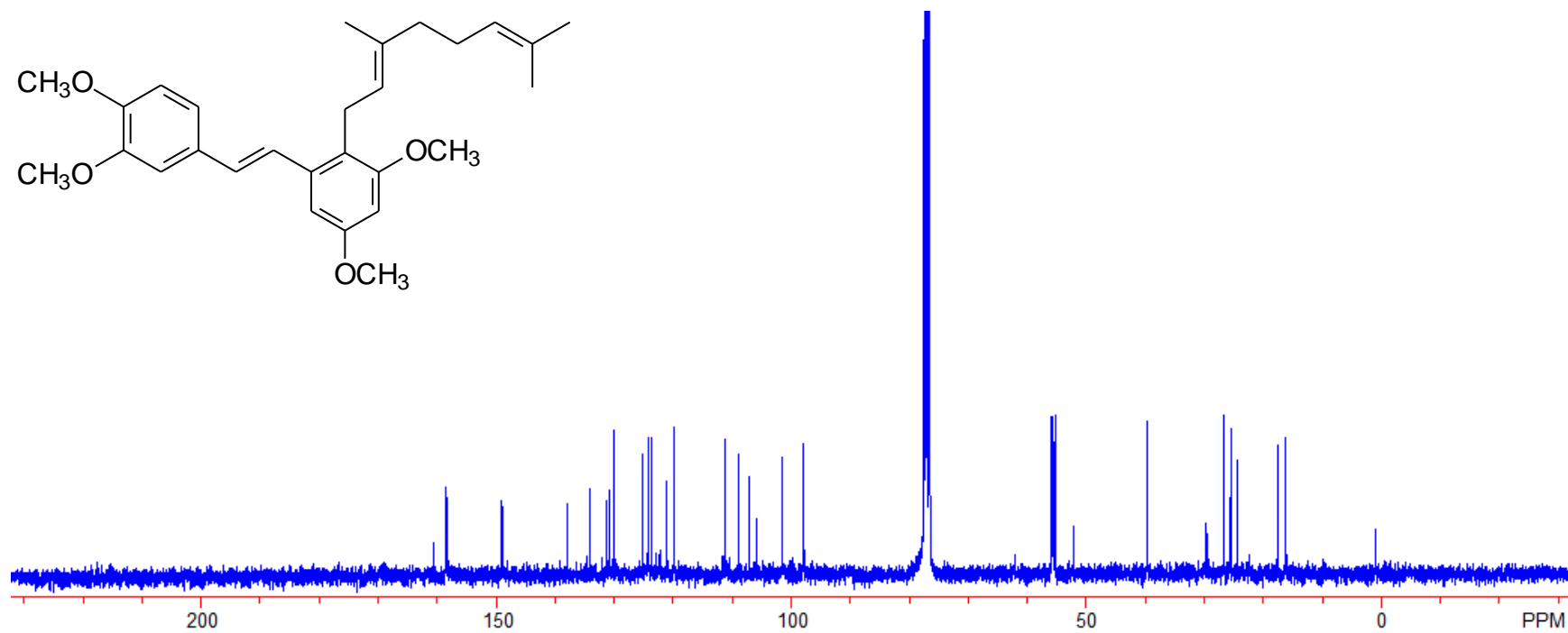
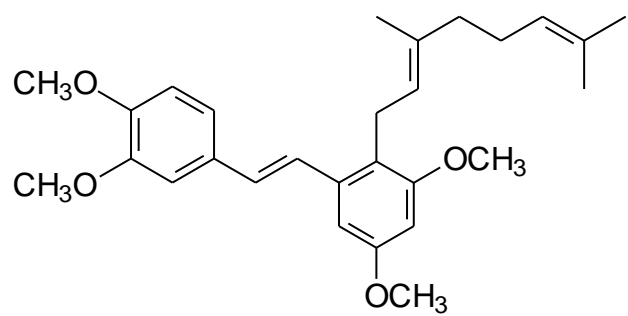
¹H NMR (300 MHz, CDCl₃) spectrum of the new compound **23**.



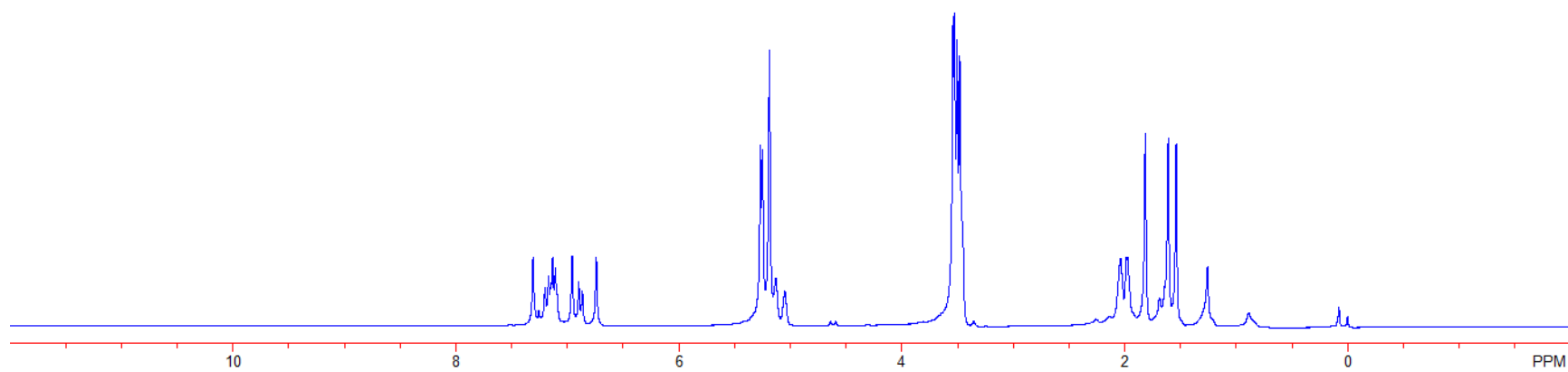
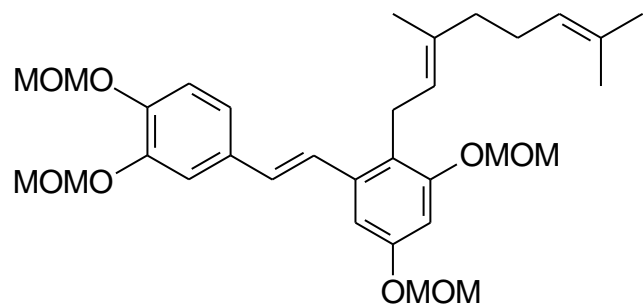
^{13}C NMR (75 MHz, CDCl_3) spectrum of the new compound **23**.



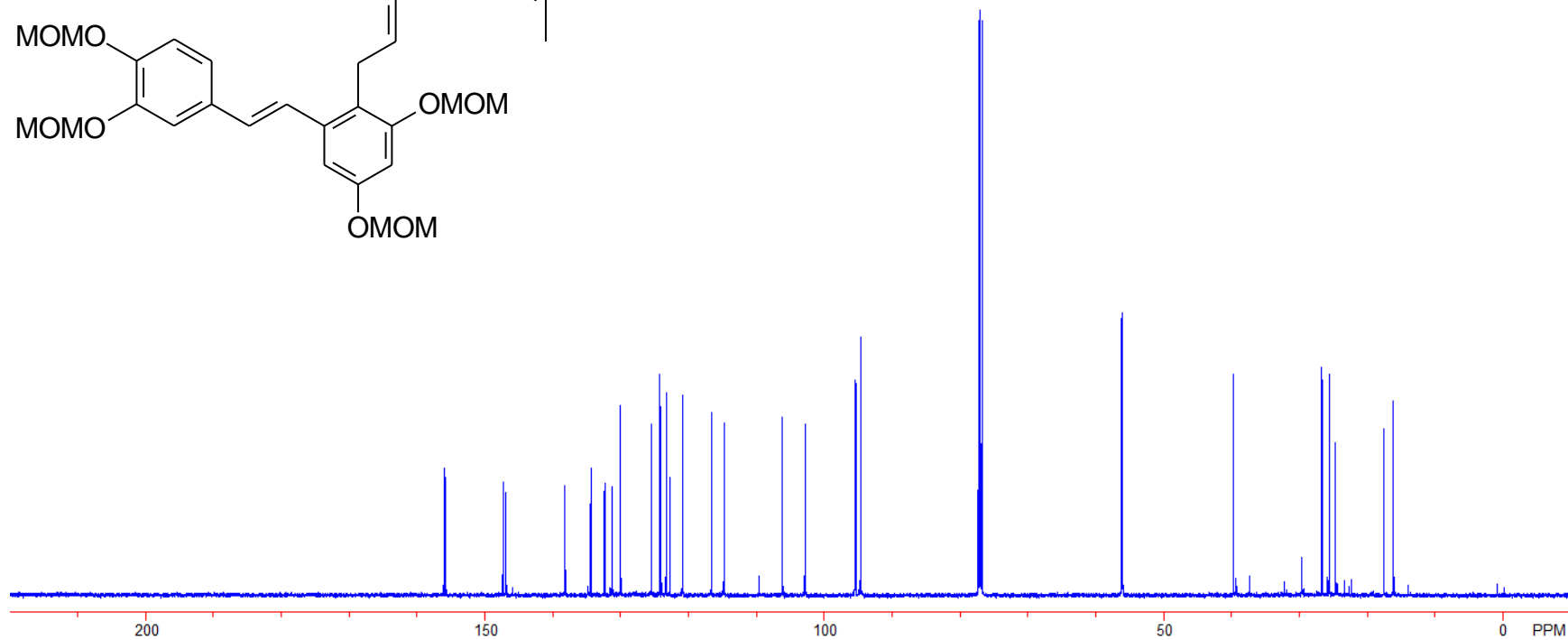
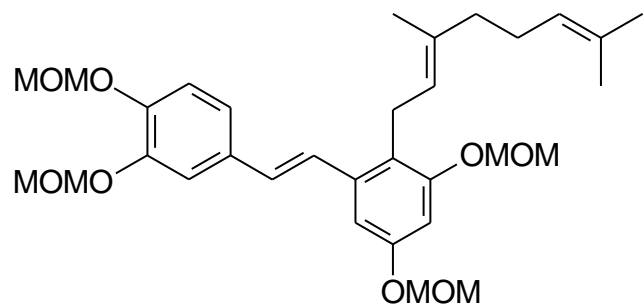
^1H NMR (300 MHz, CDCl_3) spectrum of the new compound **24**.



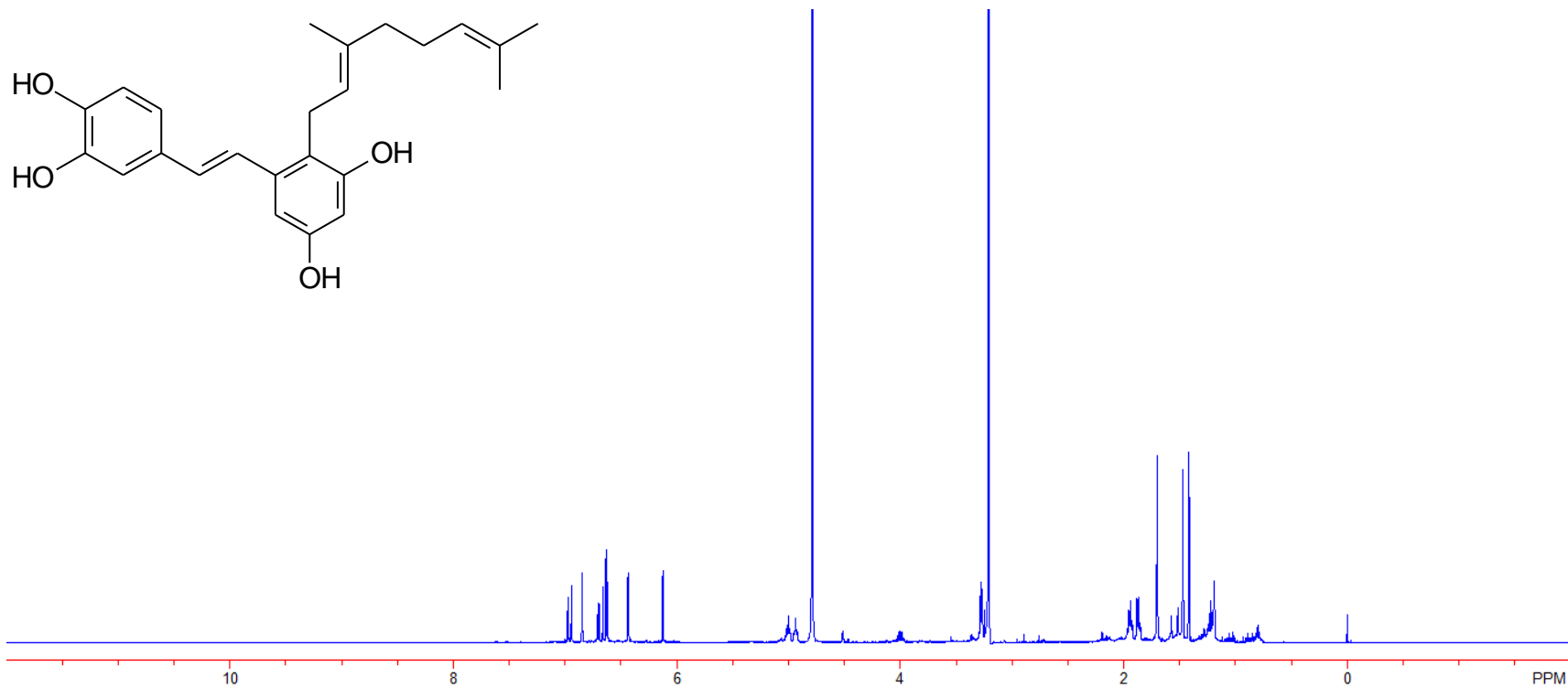
^{13}C NMR (75 MHz, CDCl_3) spectrum of the new compound **24**.



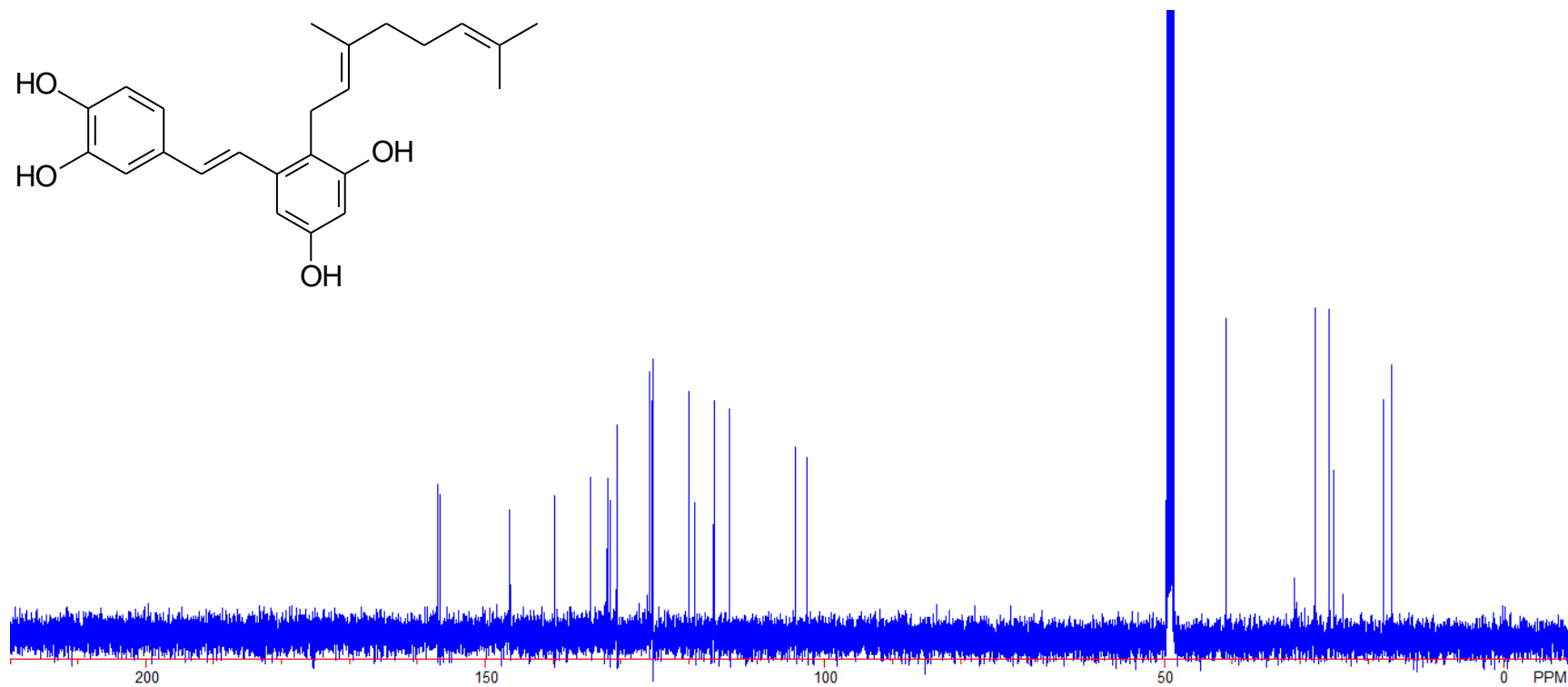
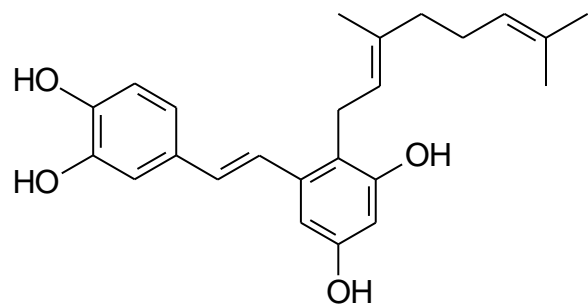
^1H NMR (500 MHz, CDCl_3) spectrum of the new compound **25**.



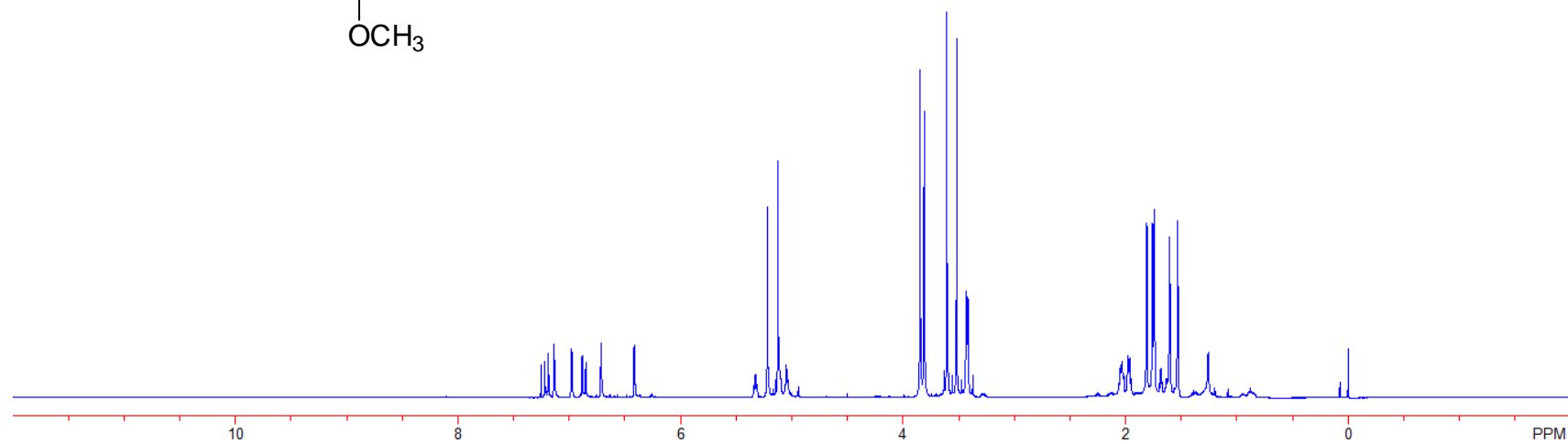
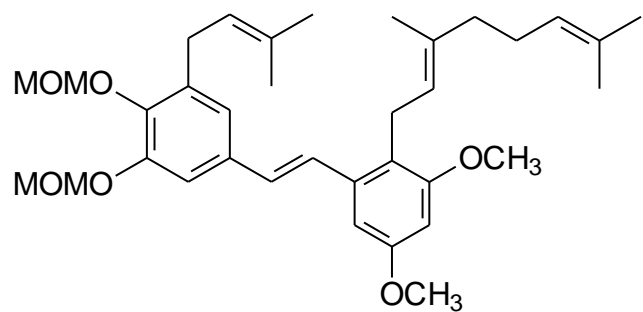
^{13}C NMR (125 MHz, CDCl_3) spectrum of the new compound **25**.



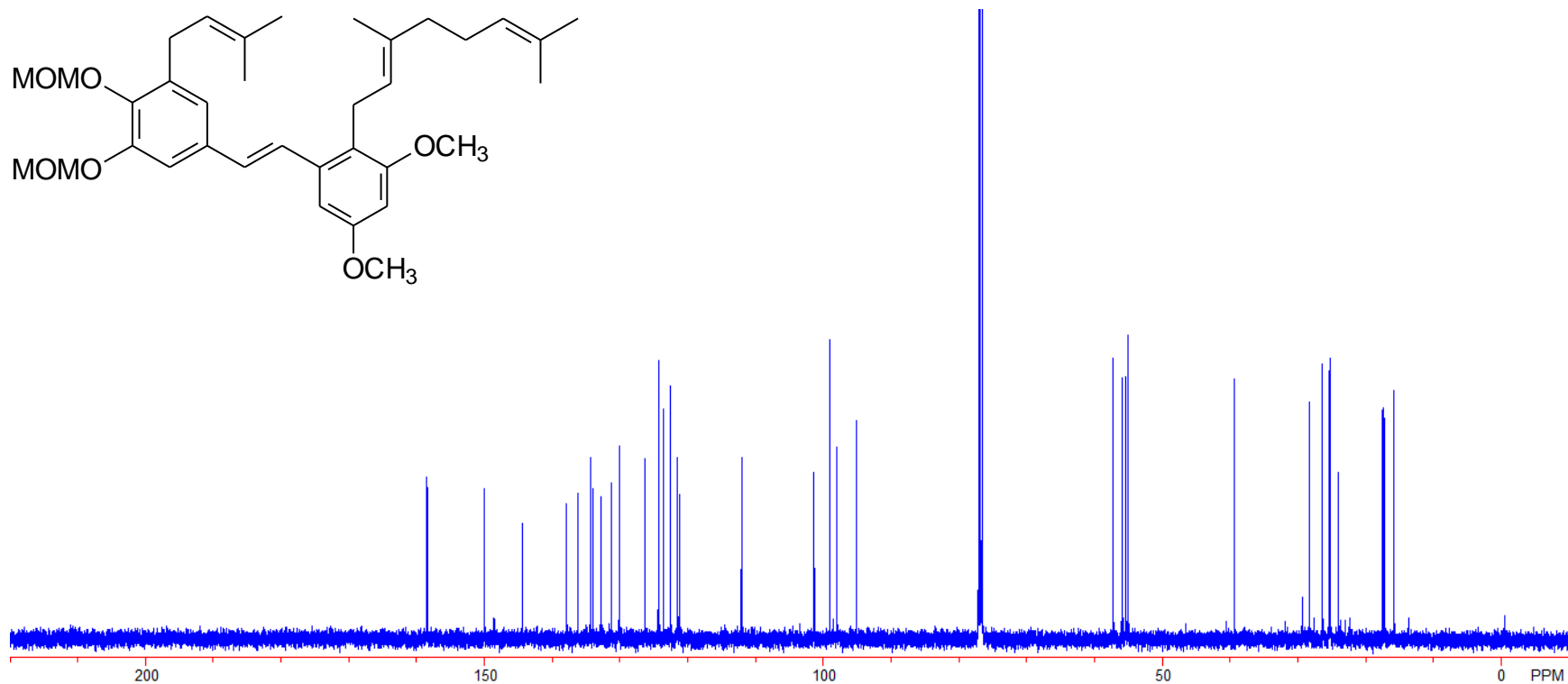
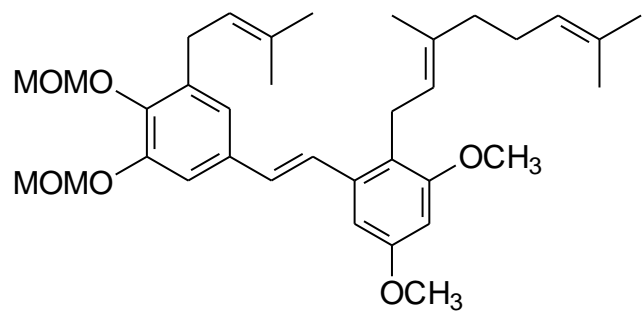
^1H NMR (500 MHz, CD_3OD) spectrum of the new compound **26**.



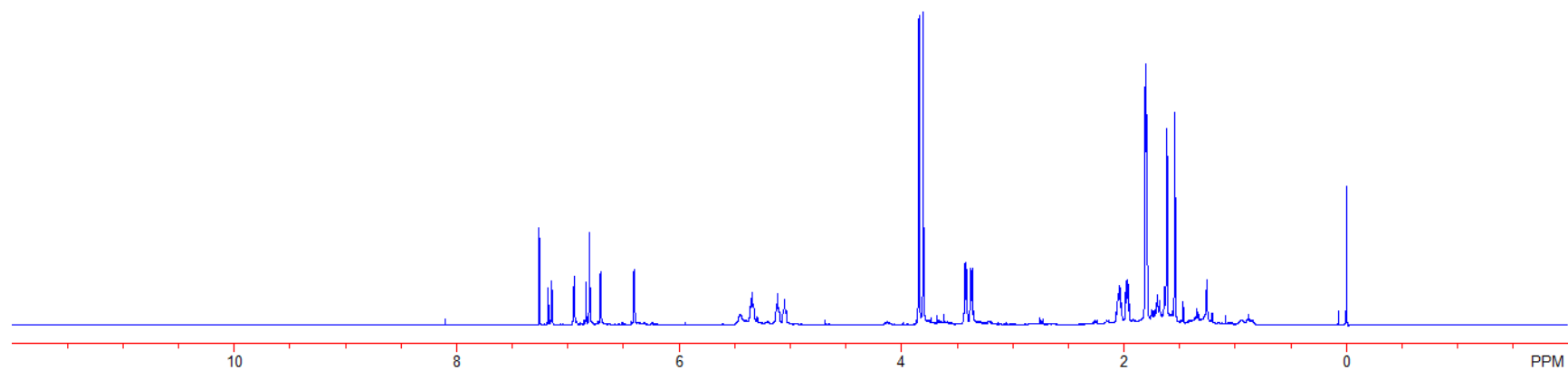
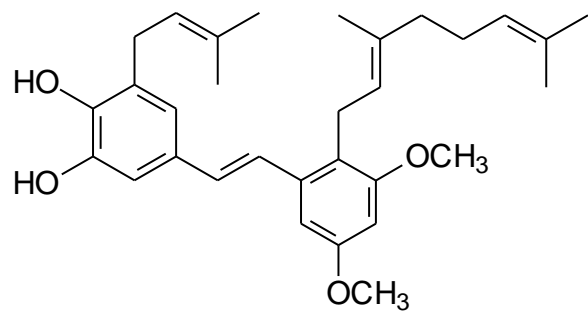
^{13}C NMR (125 MHz, CD_3OD) spectrum of the new compound **26**.



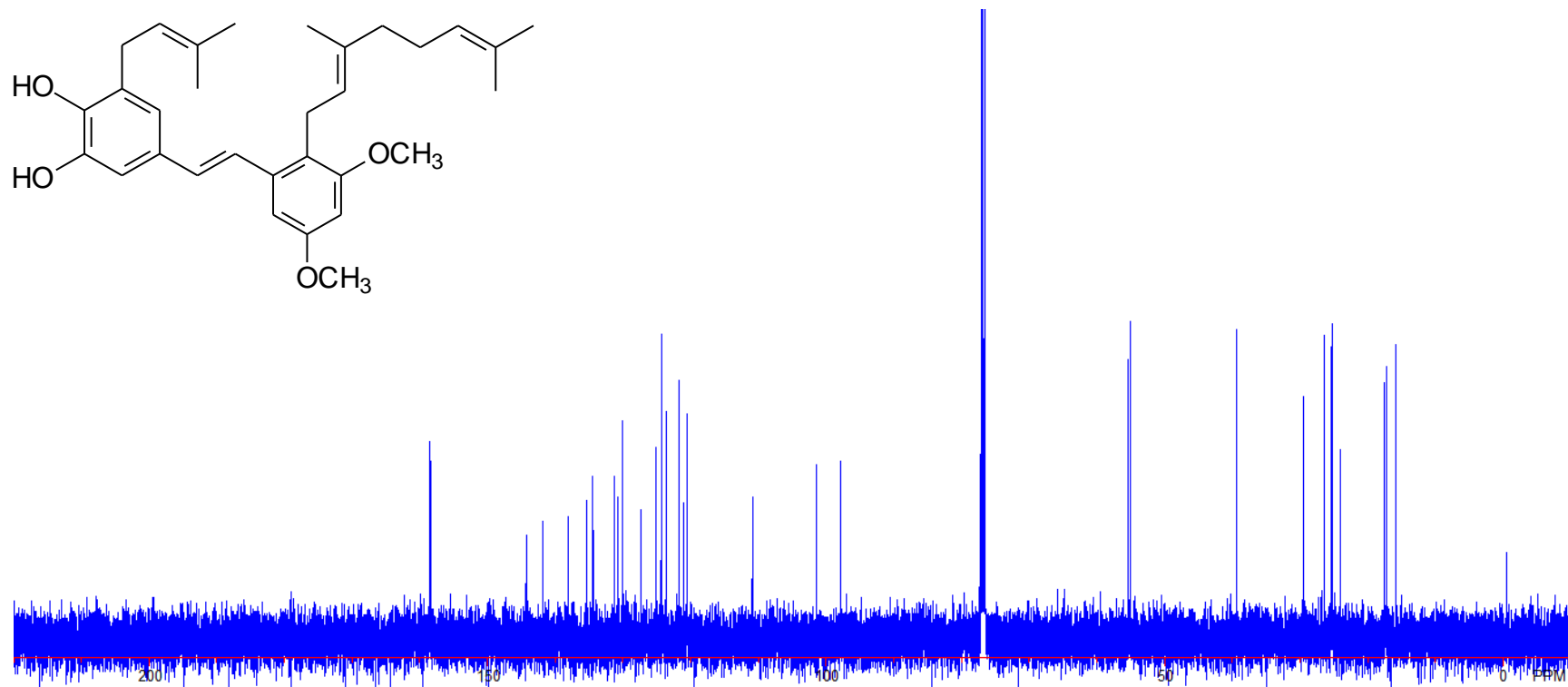
¹H NMR (500 MHz, CDCl₃) spectrum of the new compound **28**.



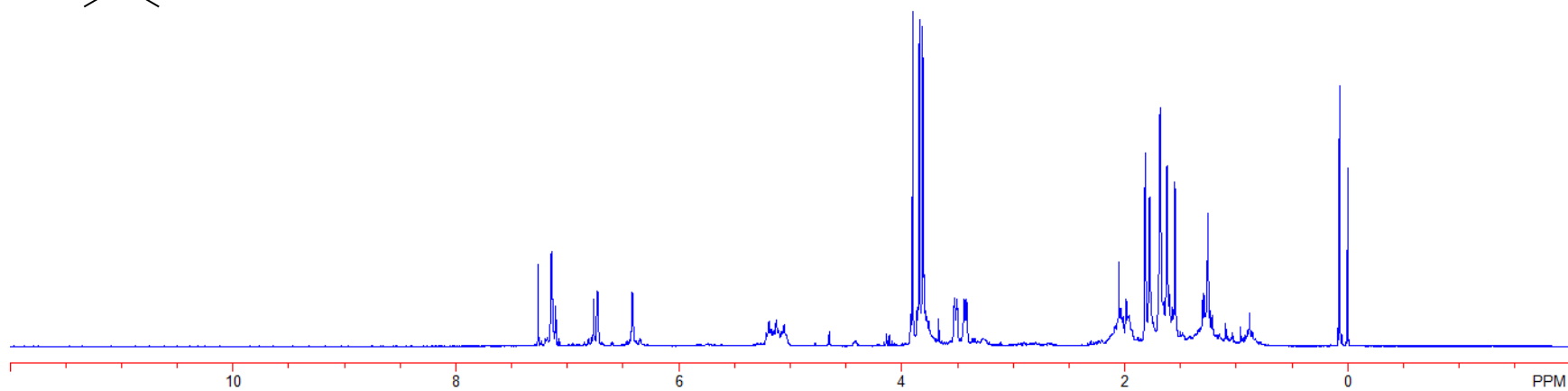
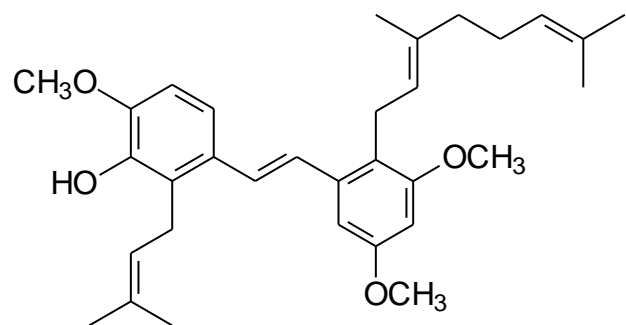
¹³C NMR (125 MHz, CDCl₃) spectrum of the new compound **28**.



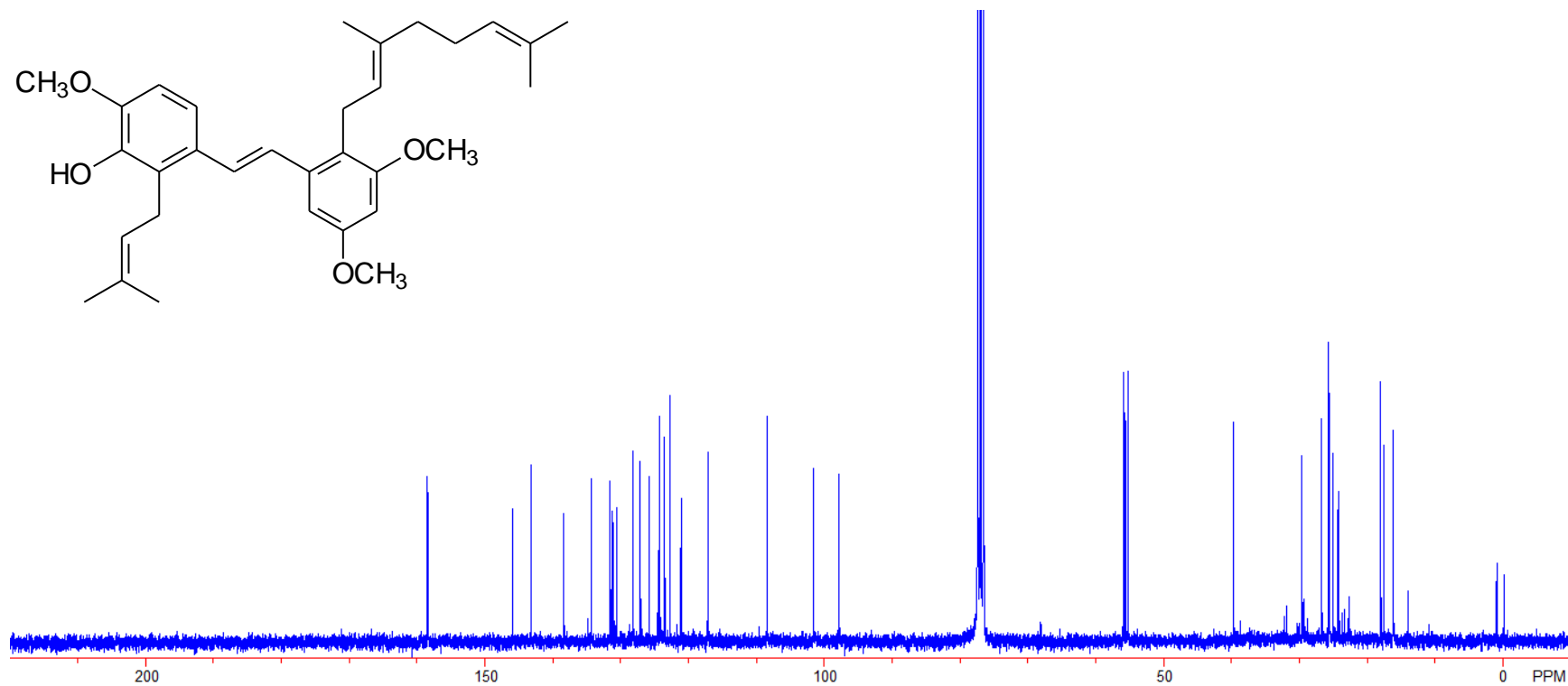
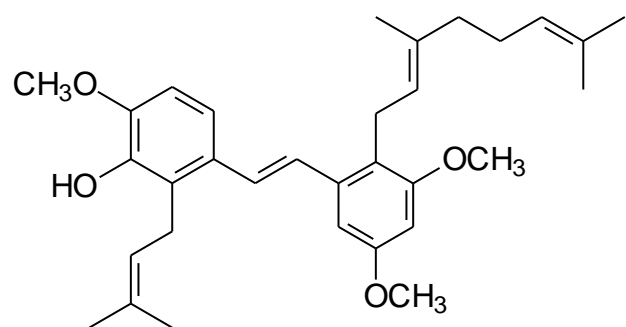
^1H NMR (500 MHz, CDCl_3) spectrum of the new compound **29**.



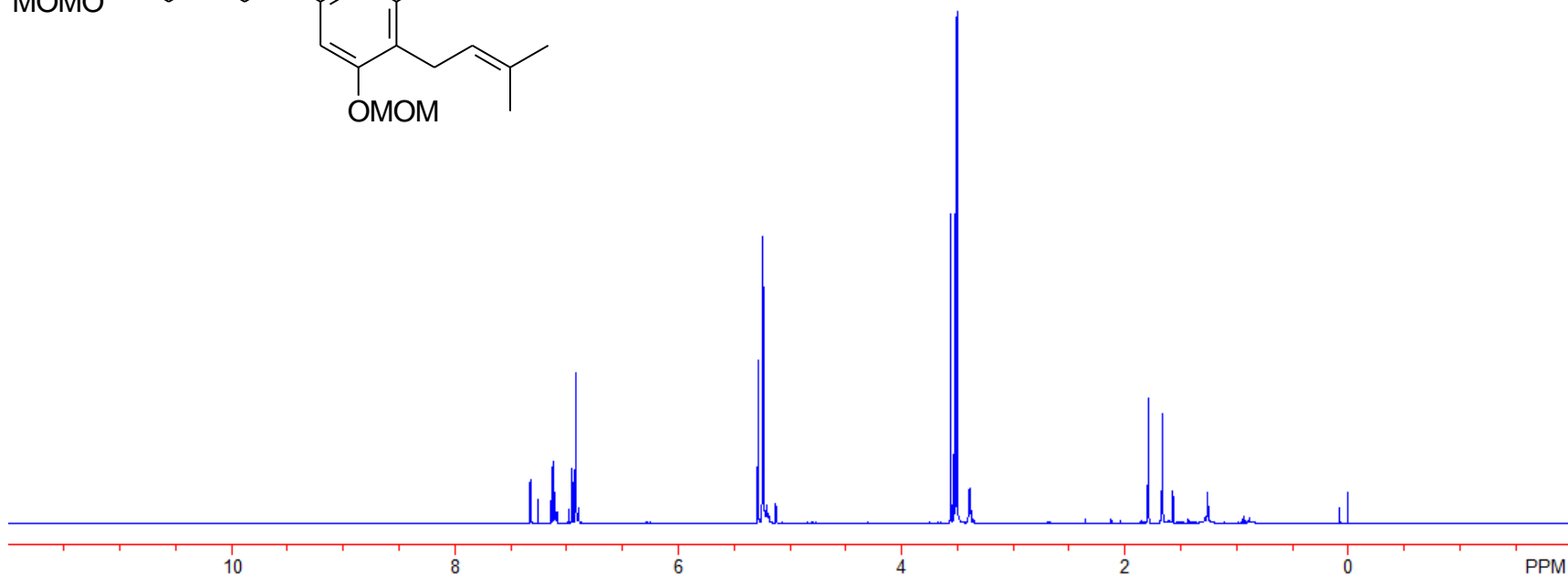
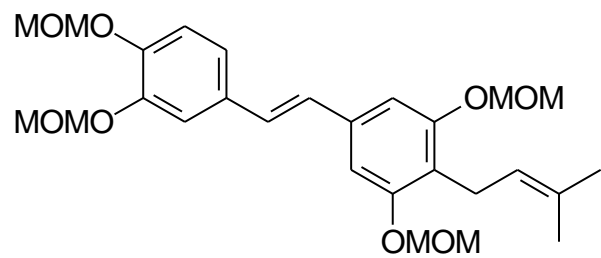
^{13}C NMR (125 MHz, CDCl_3) spectrum of the new compound **29**.



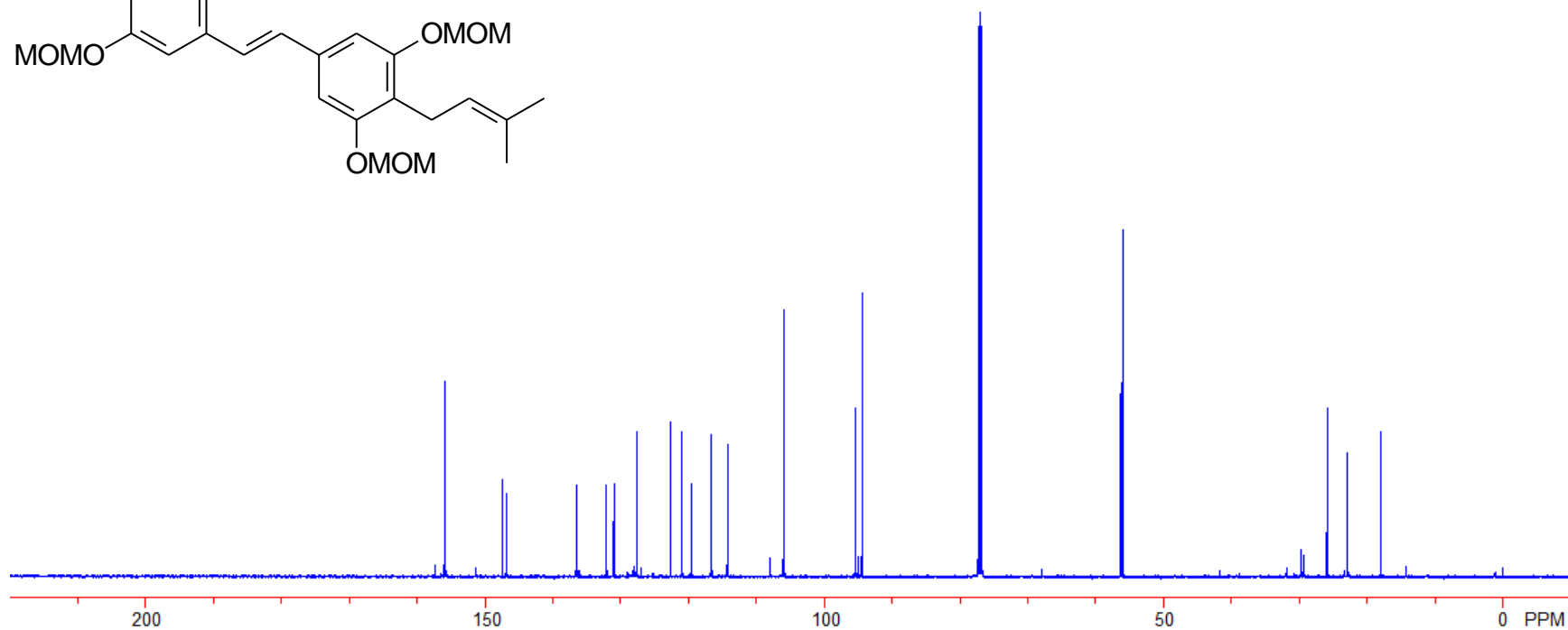
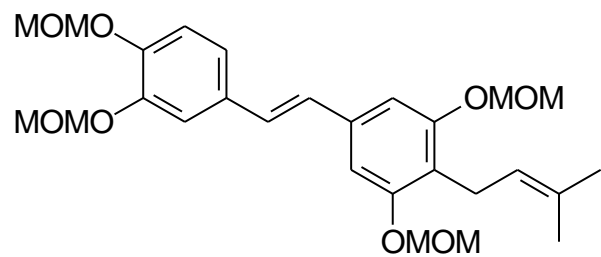
¹H NMR (300 MHz, CDCl₃) spectrum of the new compound **31**.



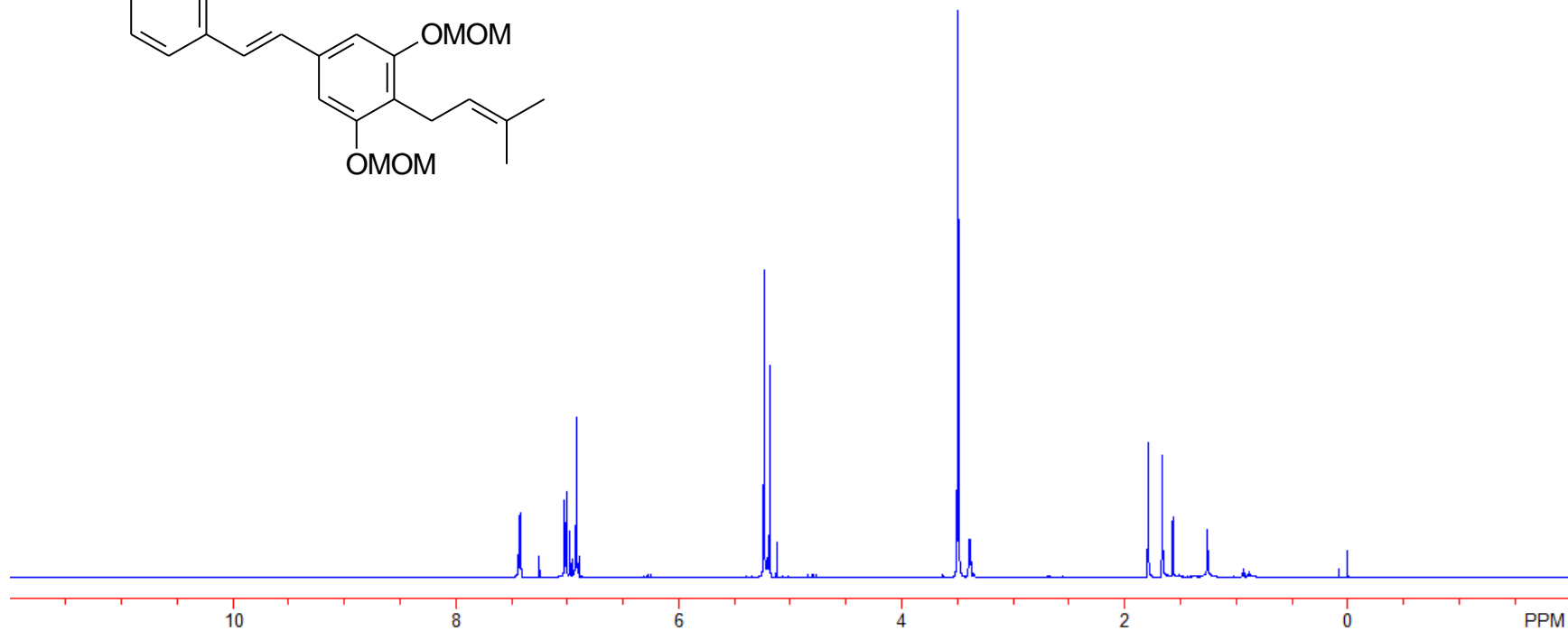
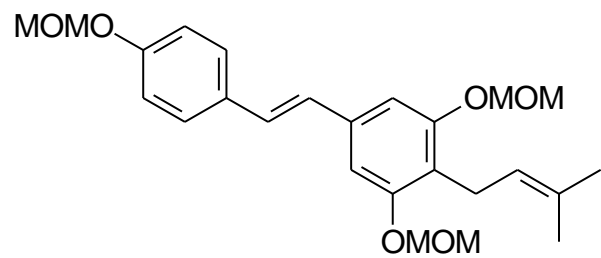
¹³C NMR (75 MHz, CDCl₃) spectrum of the new compound **31**.
Please note, the resonance at 29.7 ppm is indicative of silica oil.



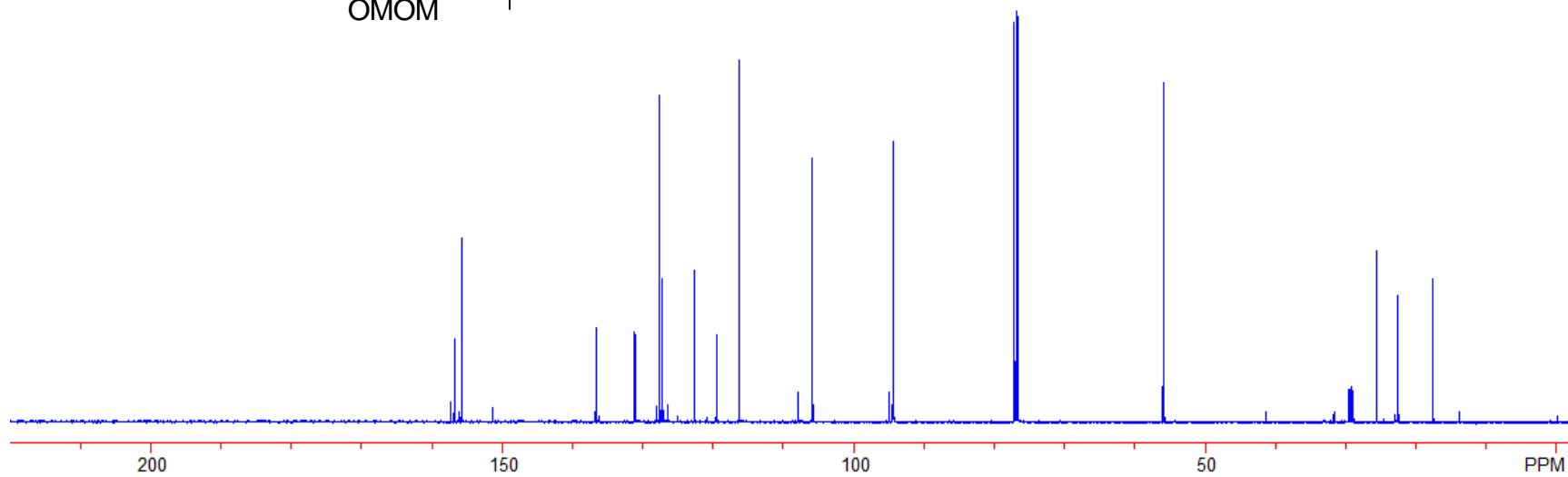
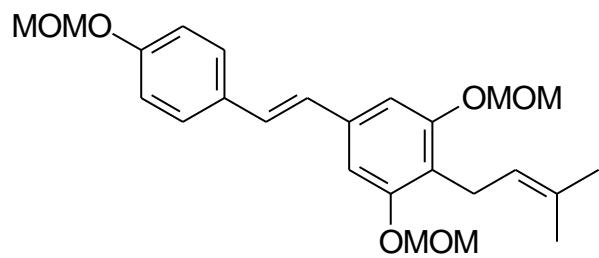
^1H NMR (500 MHz, CDCl_3) spectrum of the new compound **36**.



^{13}C NMR (125 MHz, CDCl_3) spectrum of the new compound **36**.



^1H NMR (500 MHz, CDCl_3) spectrum of the new compound **38**.



^{13}C NMR (125 MHz, CDCl_3) spectrum of the new compound **38**.