

## Supplementary Information

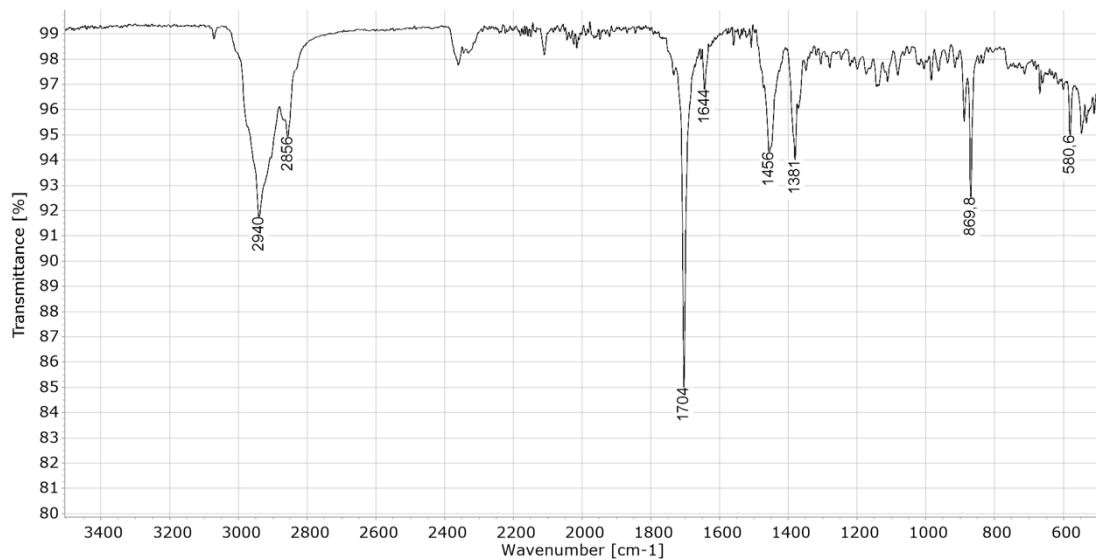
### **Manganese Porphyrin-Catalyzed One-pot Oxidation of Lupeol: Efficient Conversion of its Terminal Alkene into Carboxylic Acids**

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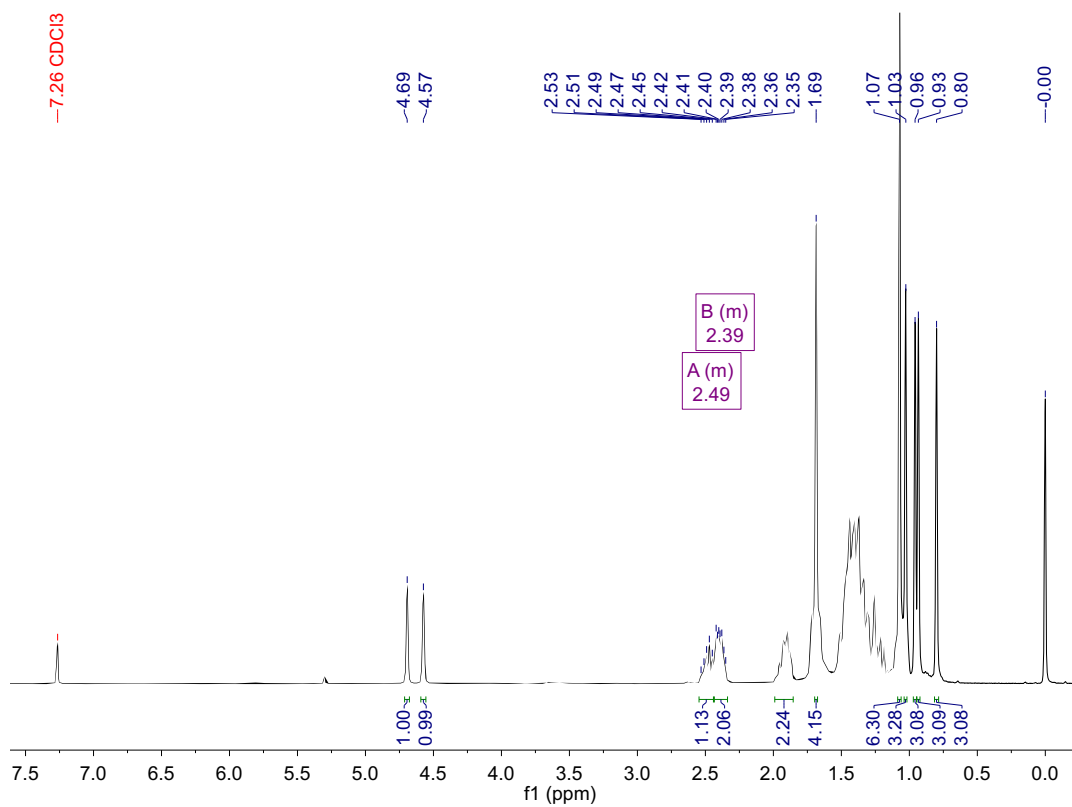
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**Figure S1.** FTIR (ATR) spectrum of P1.



**Figure S2.** <sup>1</sup>H NMR spectrum (400 MHz, CDCl<sub>3</sub>) of P1.

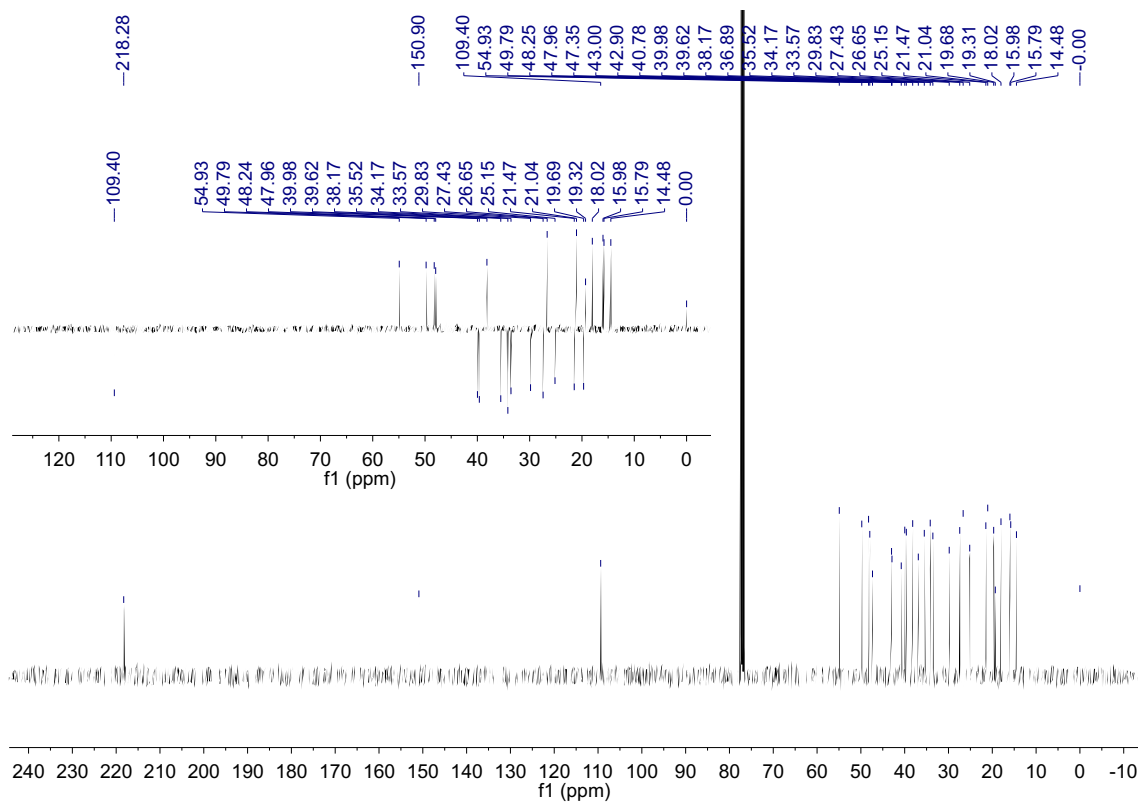


Figure S3.  $^{13}\text{C}$  NMR and DEPT-135 spectra (100 MHz,  $\text{CDCl}_3$ ) of P1.

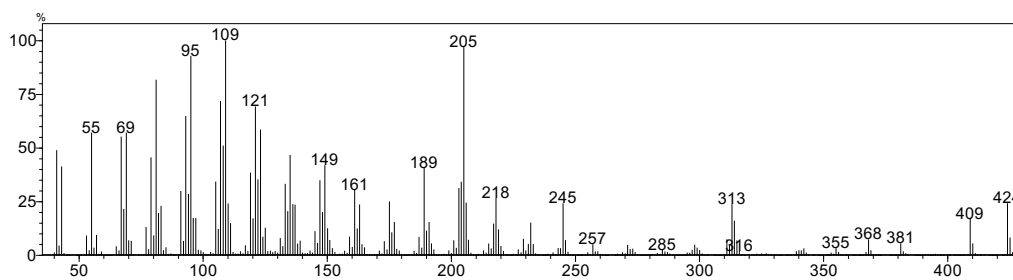


Figure S4. Mass spectrum (EI, 70eV) of P1.

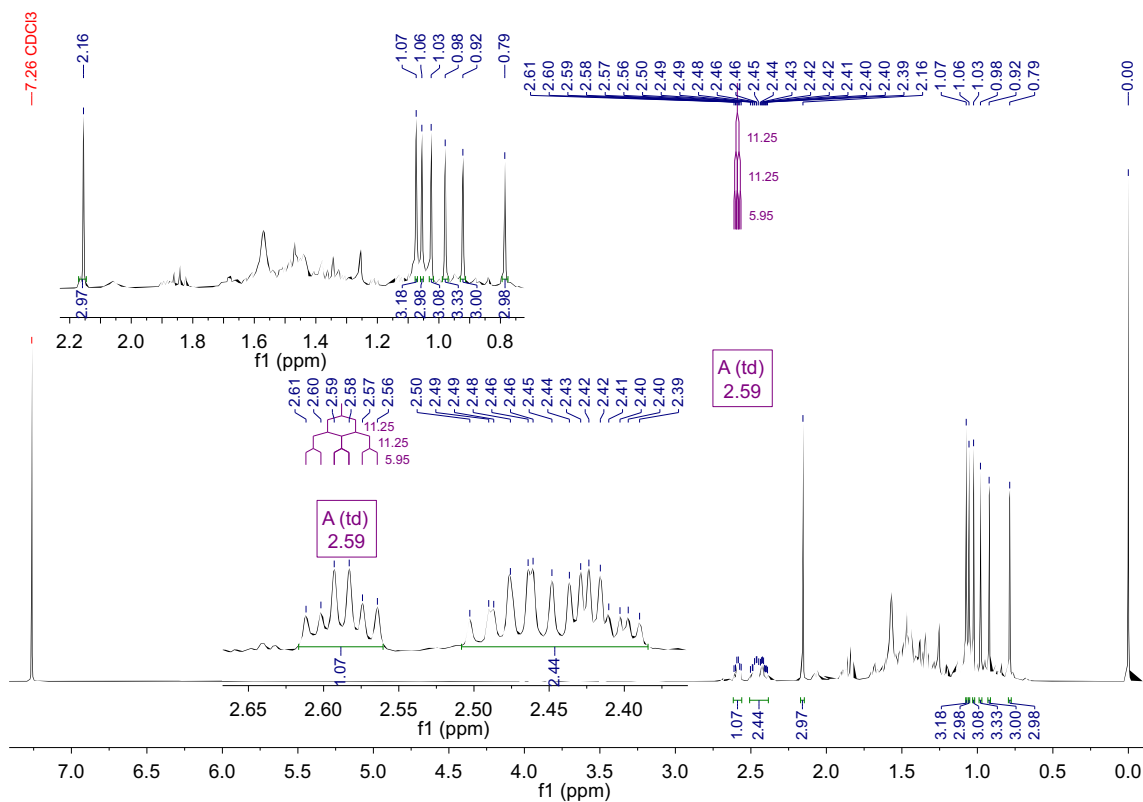


Figure S5.  $^1\text{H}$  NMR spectrum (600 MHz,  $\text{CDCl}_3$ ) of P2.

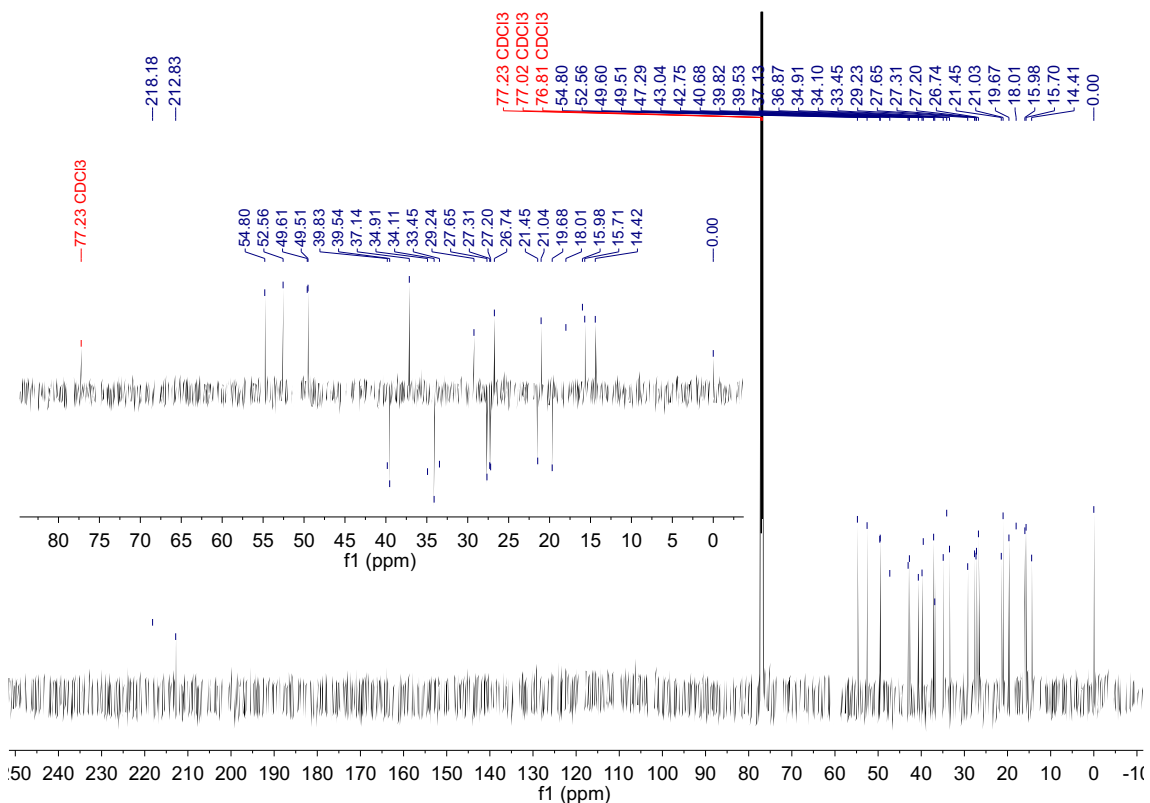
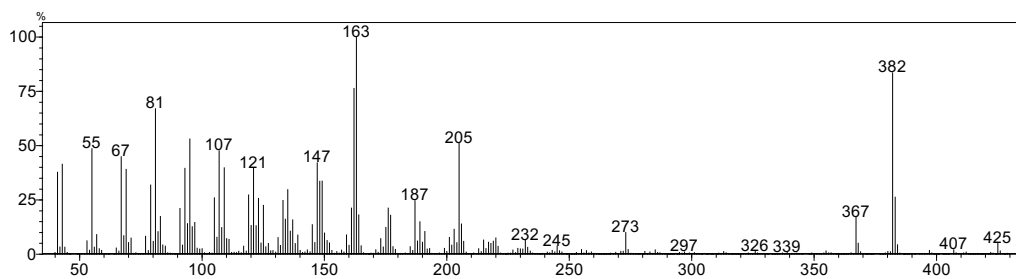
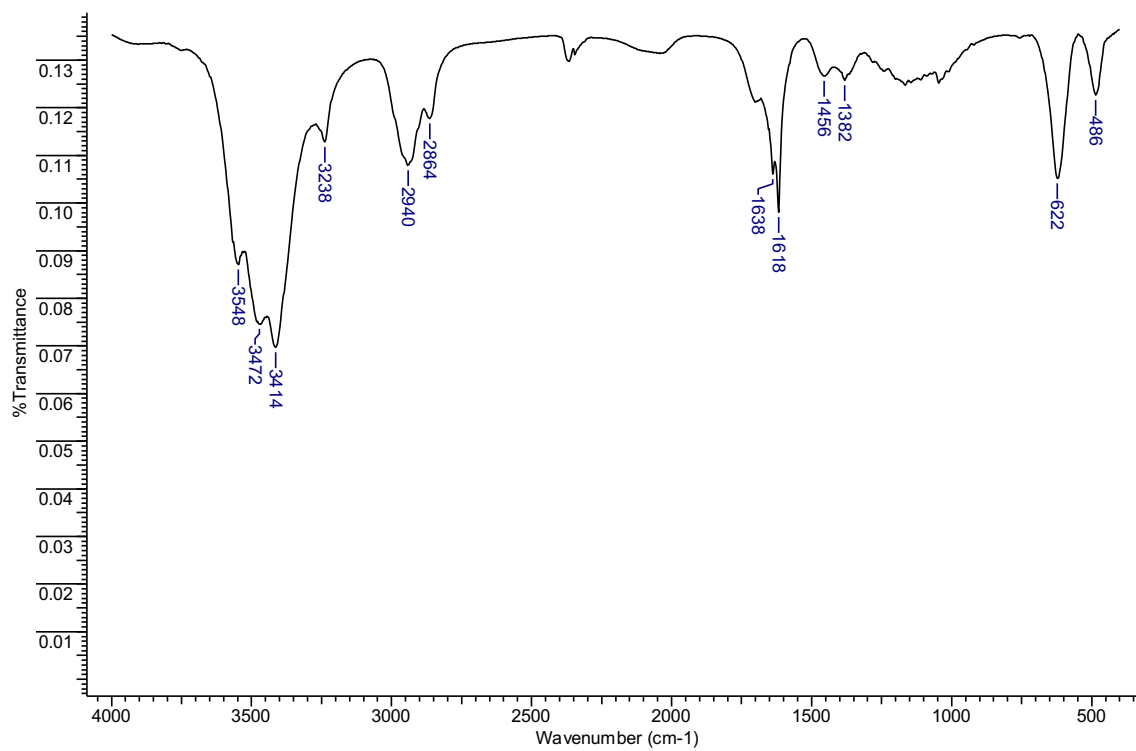


Figure S6.  $^{13}\text{C}$  NMR and DEPT-135 spectra (150 MHz,  $\text{CDCl}_3$ ) of P2.



**Figure S7.** Mass spectrum (EI, 70eV) of **P2**.



**Figure S8.** FTIR (KBr) spectrum of **P3**.

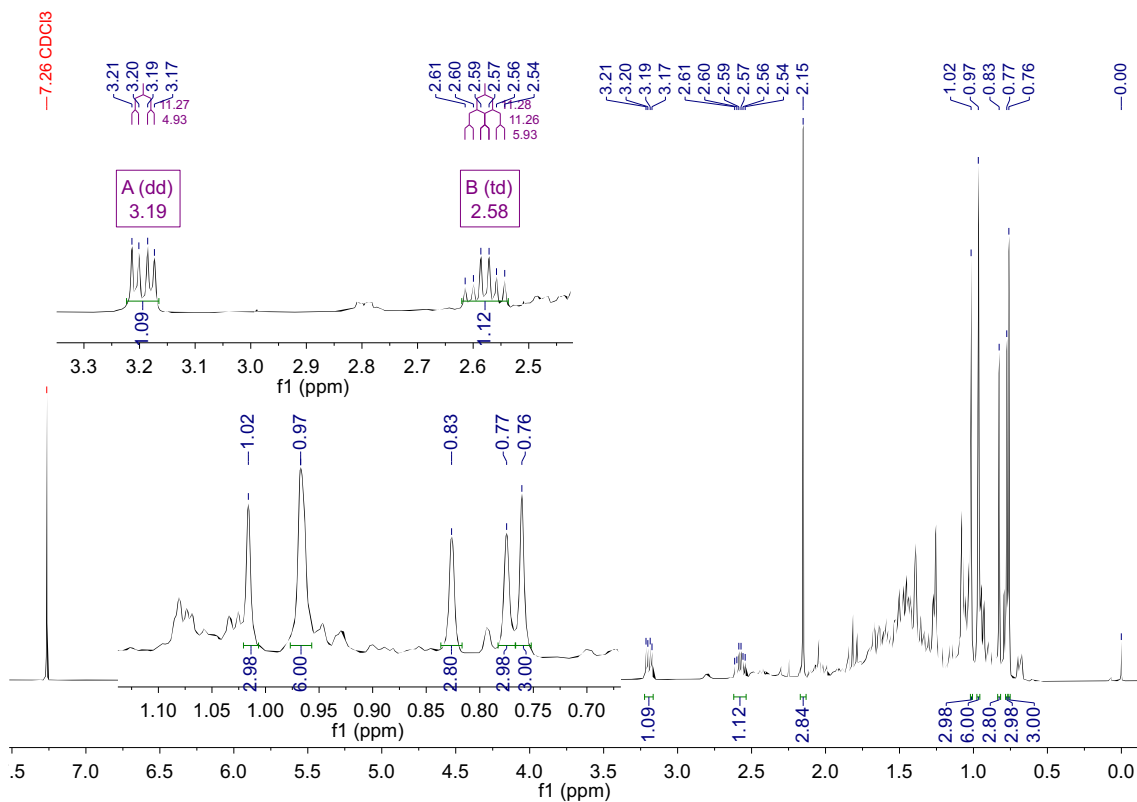


Figure S9.  $^1\text{H}$  NMR spectrum (400 MHz,  $\text{CDCl}_3$ ) of compound P3.

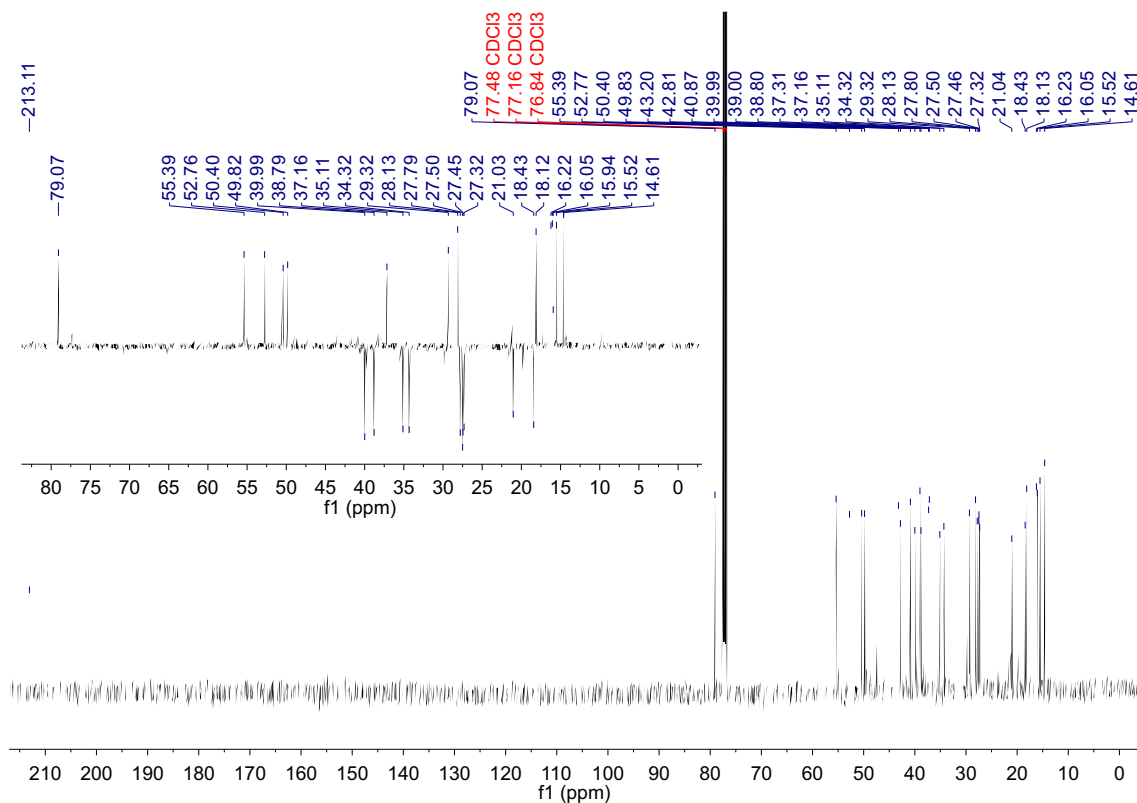


Figure S10.  $^{13}\text{C}$  NMR and DEPT-135 spectra (100 MHz,  $\text{CDCl}_3$ ) of P3.

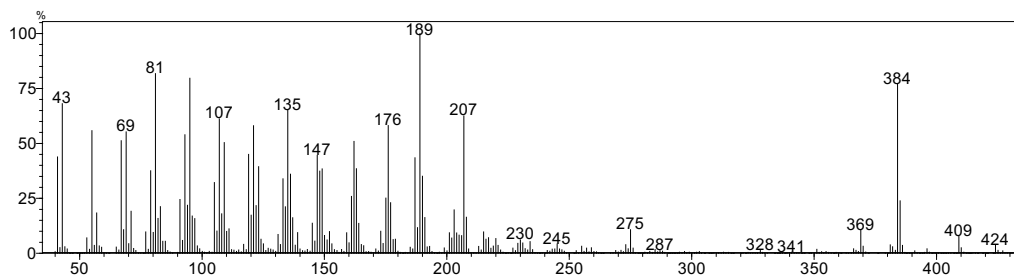


Figure S11. Mass spectrum (EI, 70eV) of P3.

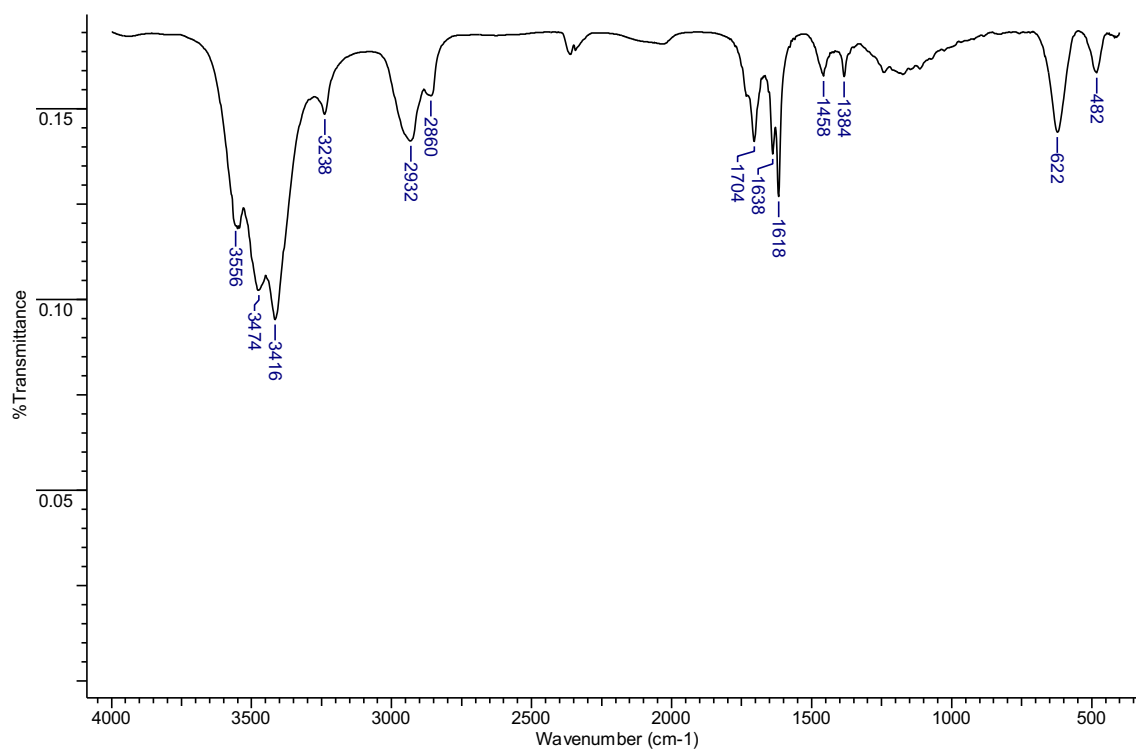


Figure S12. FTIR (KBr) spectrum of P4.

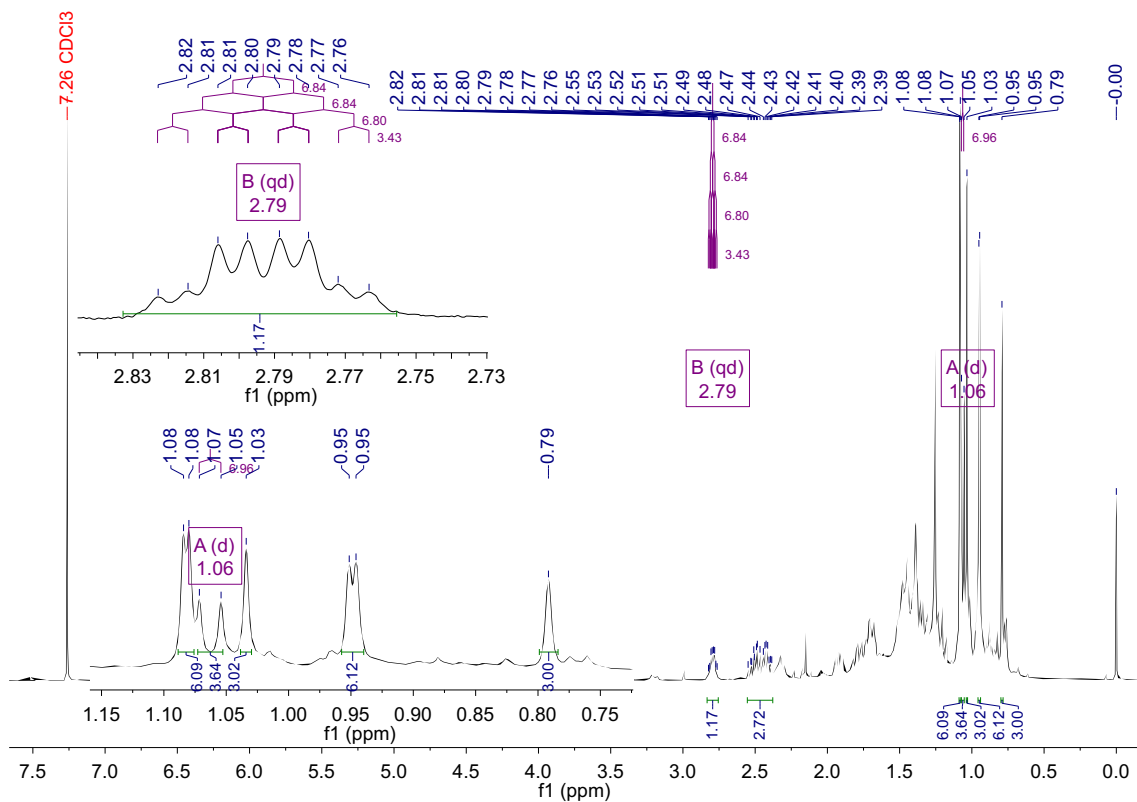


Figure S13.  $^1\text{H}$  NMR spectrum (400 MHz,  $\text{CDCl}_3$ ) of P4.

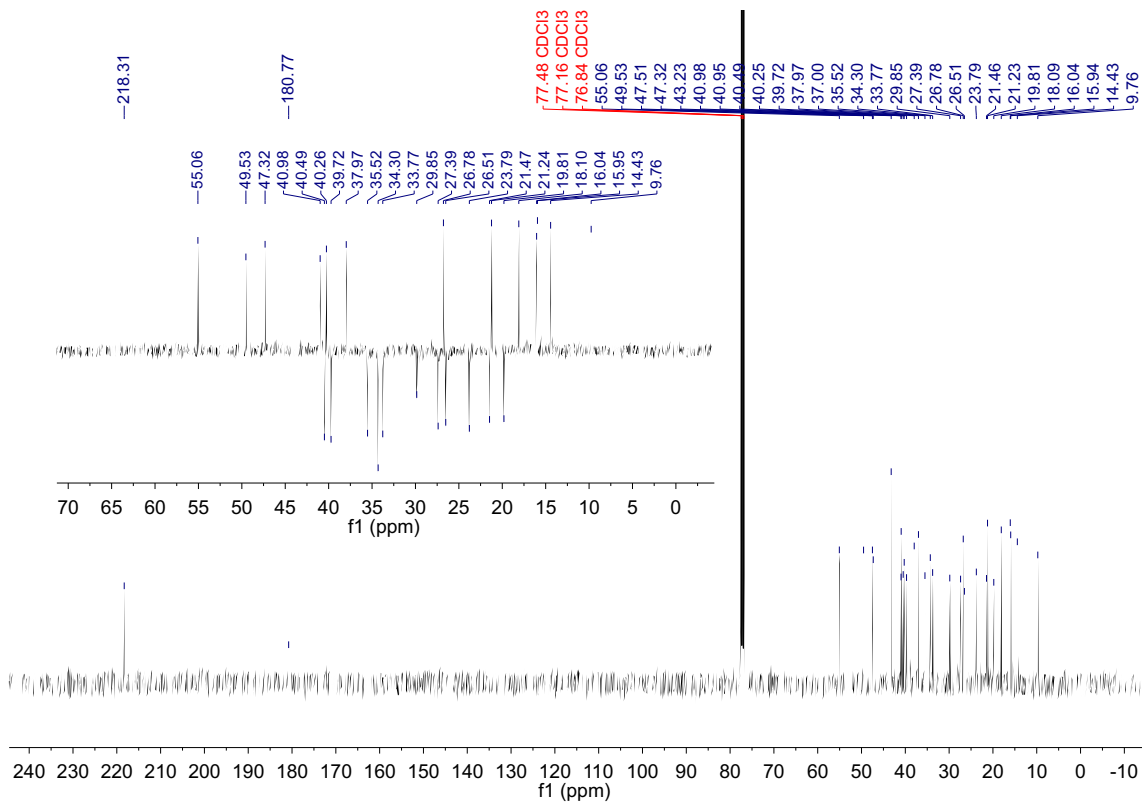
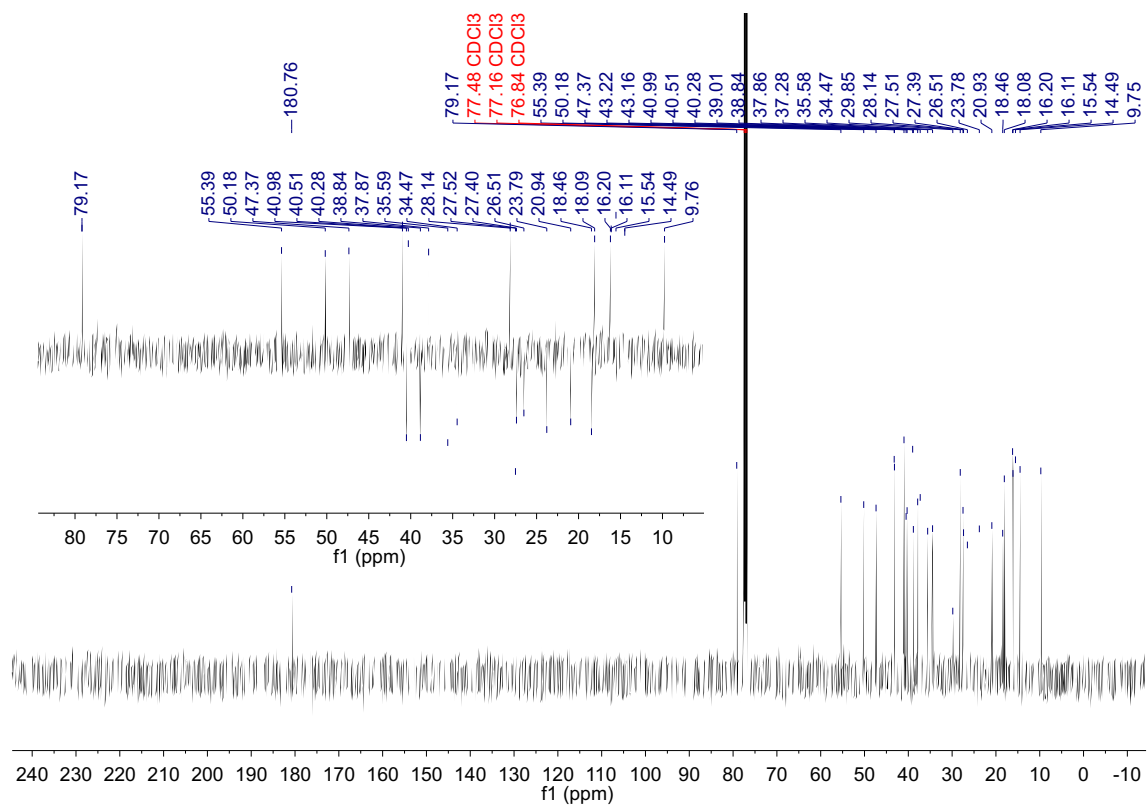
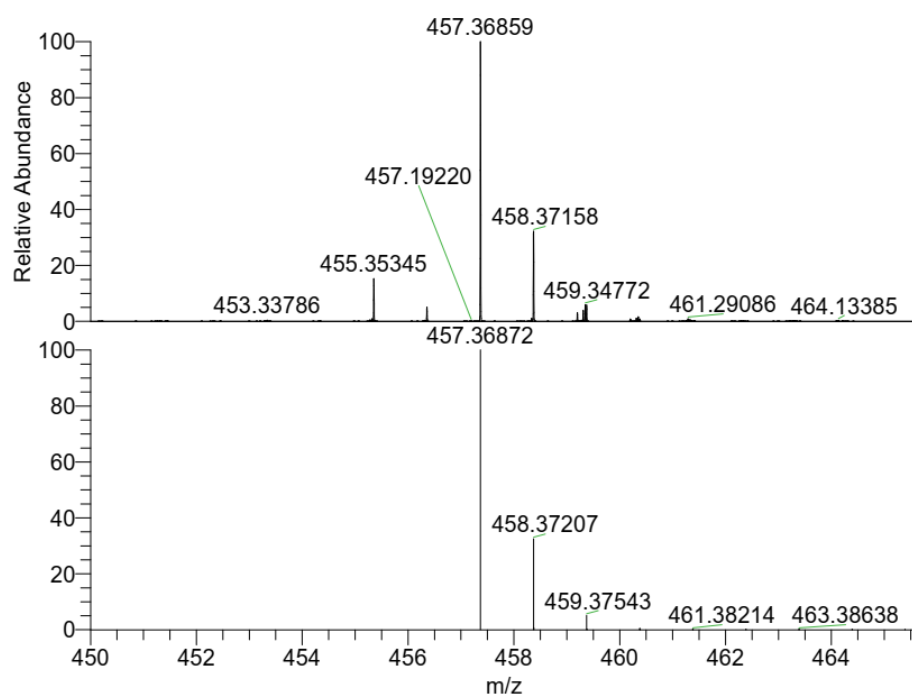


Figure S14.  $^{13}\text{C}$  NMR and DEPT-135 spectra (100 MHz,  $\text{CDCl}_3$ ) of compound 4.





**Figure S17.**  $^{13}\text{C}$  NMR and DEPT-135 spectra (100 MHz,  $\text{CDCl}_3$ ) of **P5**.



**Figure S18.** Mass spectrum (HR-H-ESI-MS) of **P5**.

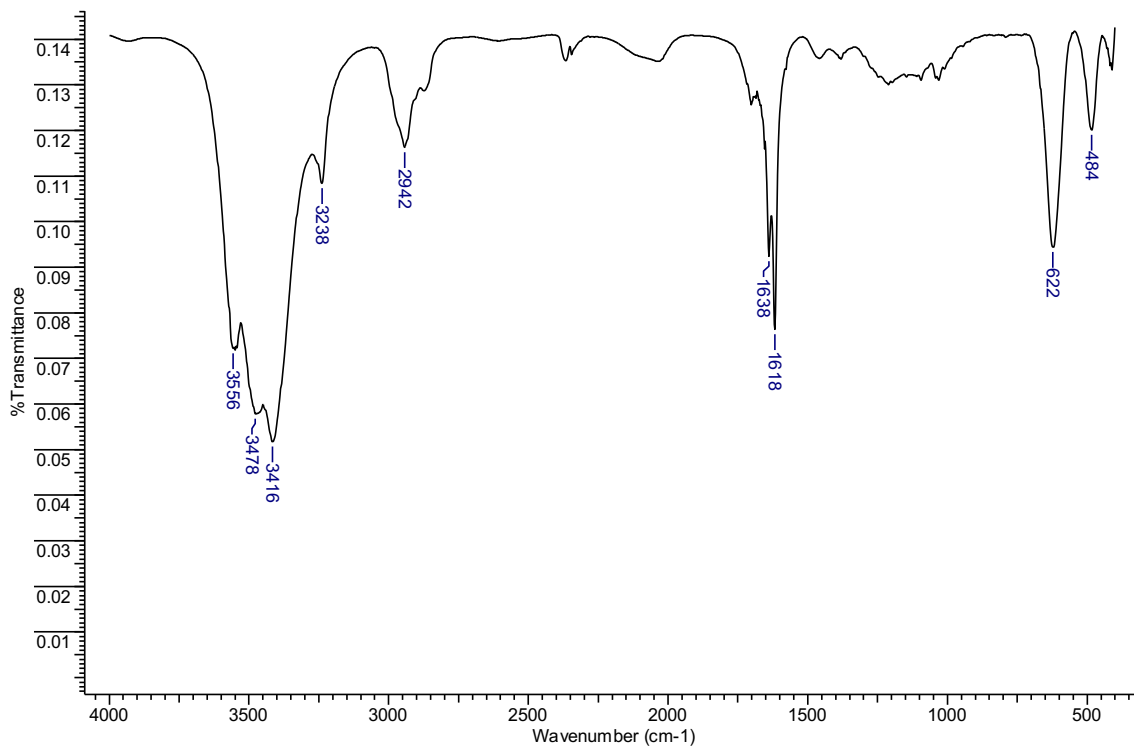


Figure S19. FTIR (KBr) spectrum of P6.

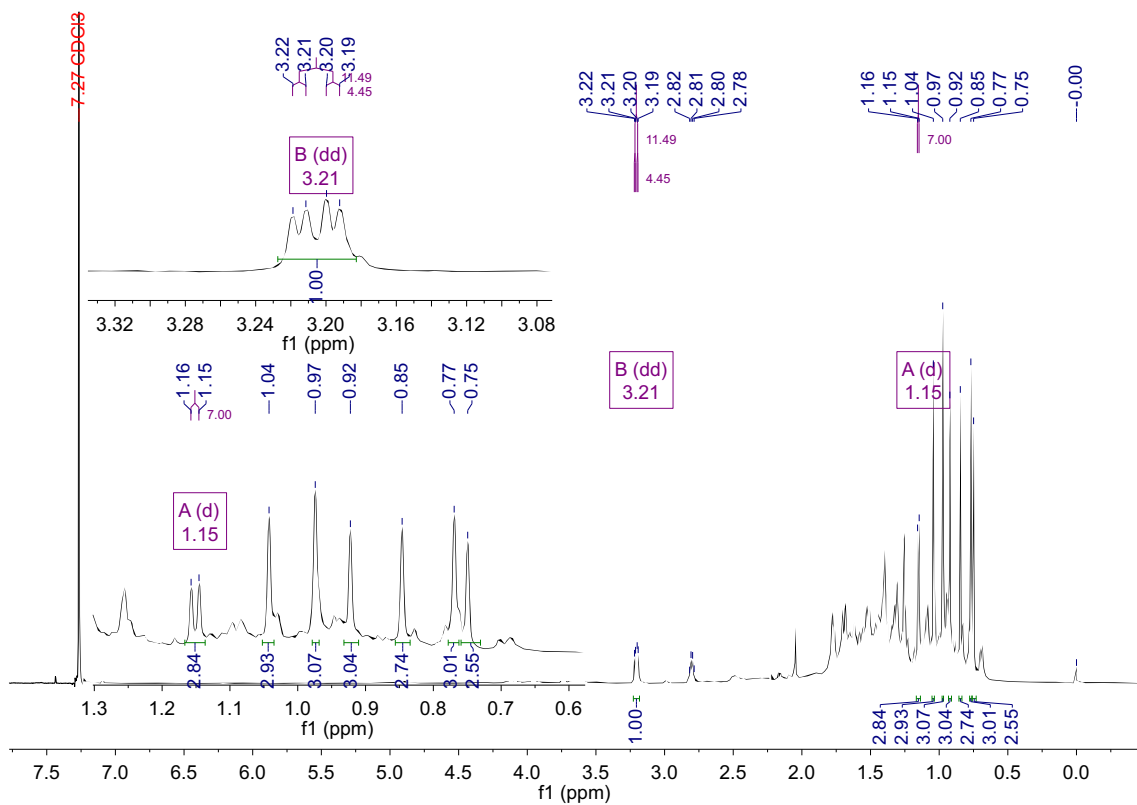


Figure S20. <sup>1</sup>H NMR spectrum (600 MHz, CDCl<sub>3</sub>) of P6.

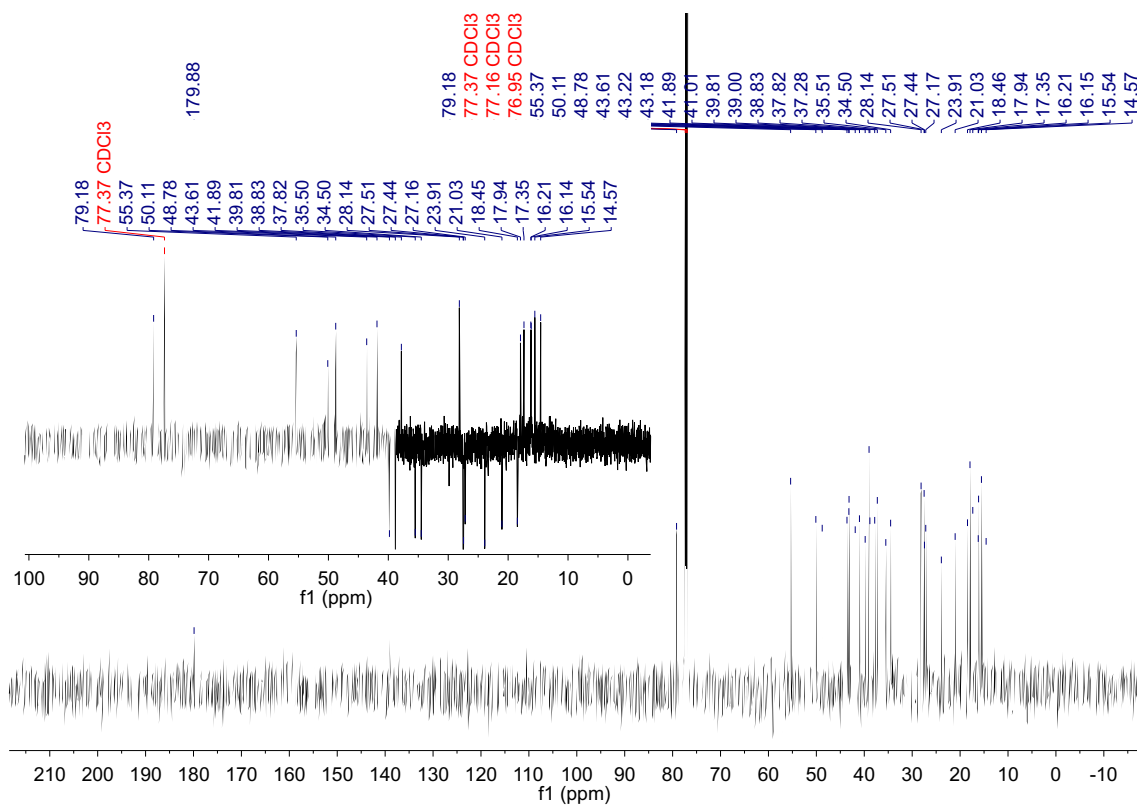


Figure S21.  $^{13}\text{C}$  NMR and DEPT-135 spectra (150 MHz,  $\text{CDCl}_3$ ) of P6.

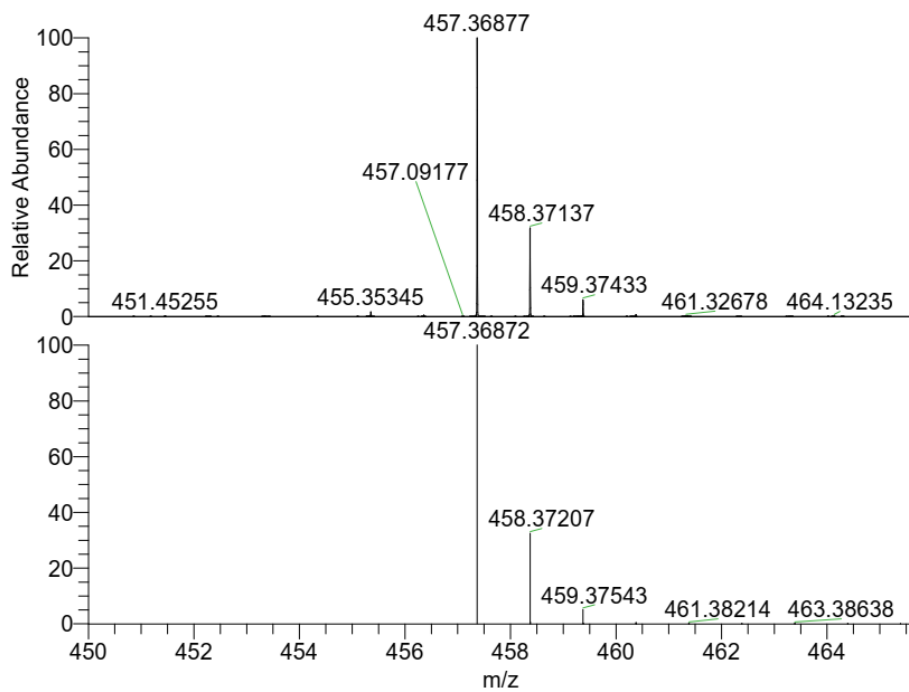
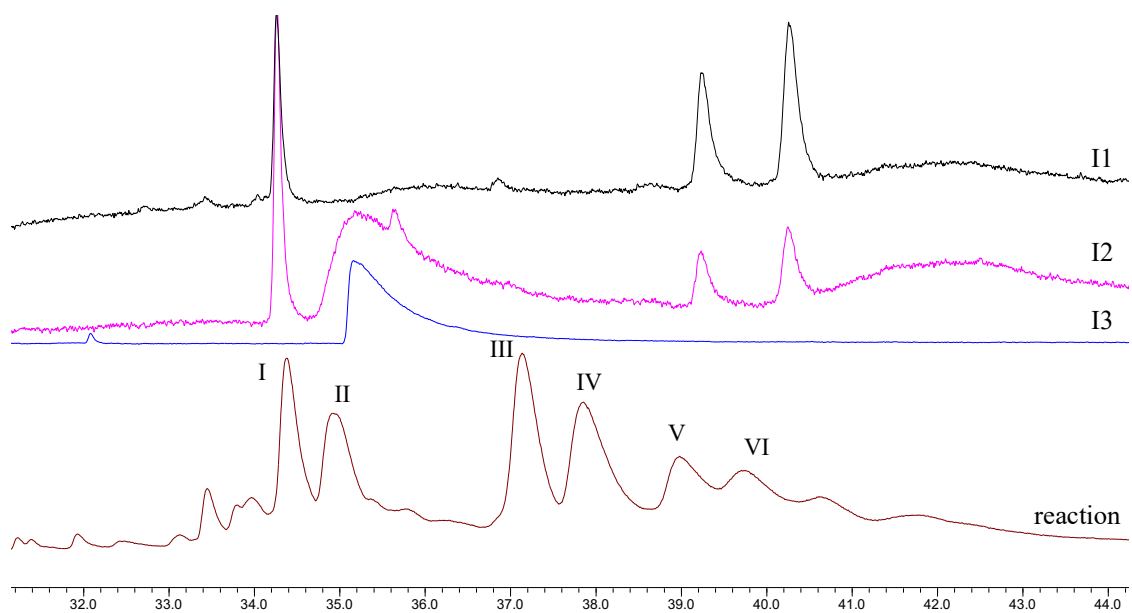


Figure S22. Mass spectrum (HR-H-ESI-MS) of P6.



**Figure S23.** GC profile comparison of the reactions made with mannitol (**I1**), NaN<sub>3</sub> (**I2**), BHT (**I3**), and the initial reaction.

**Table S1.** Retention indexes calculated for peaks I to VI of the reaction chromatogram – column RTX-5

Compound/peak	Retention index
Lupenone (I)	3405
Lupeol (II)	3441
29-norlupan-3,20-dione (III)	3592
3 $\beta$ -hydroxy-29-norlupan-20-one (IV)	3641
P7 (V)	3718
P8 (VI)	3769