

## **Supporting Information**

### **Synthesis and Electrophysiological Testing of Carbonyl Pheromone Analogues for Carposinid Moths**

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## NMR Spectra of Synthesized Compounds:

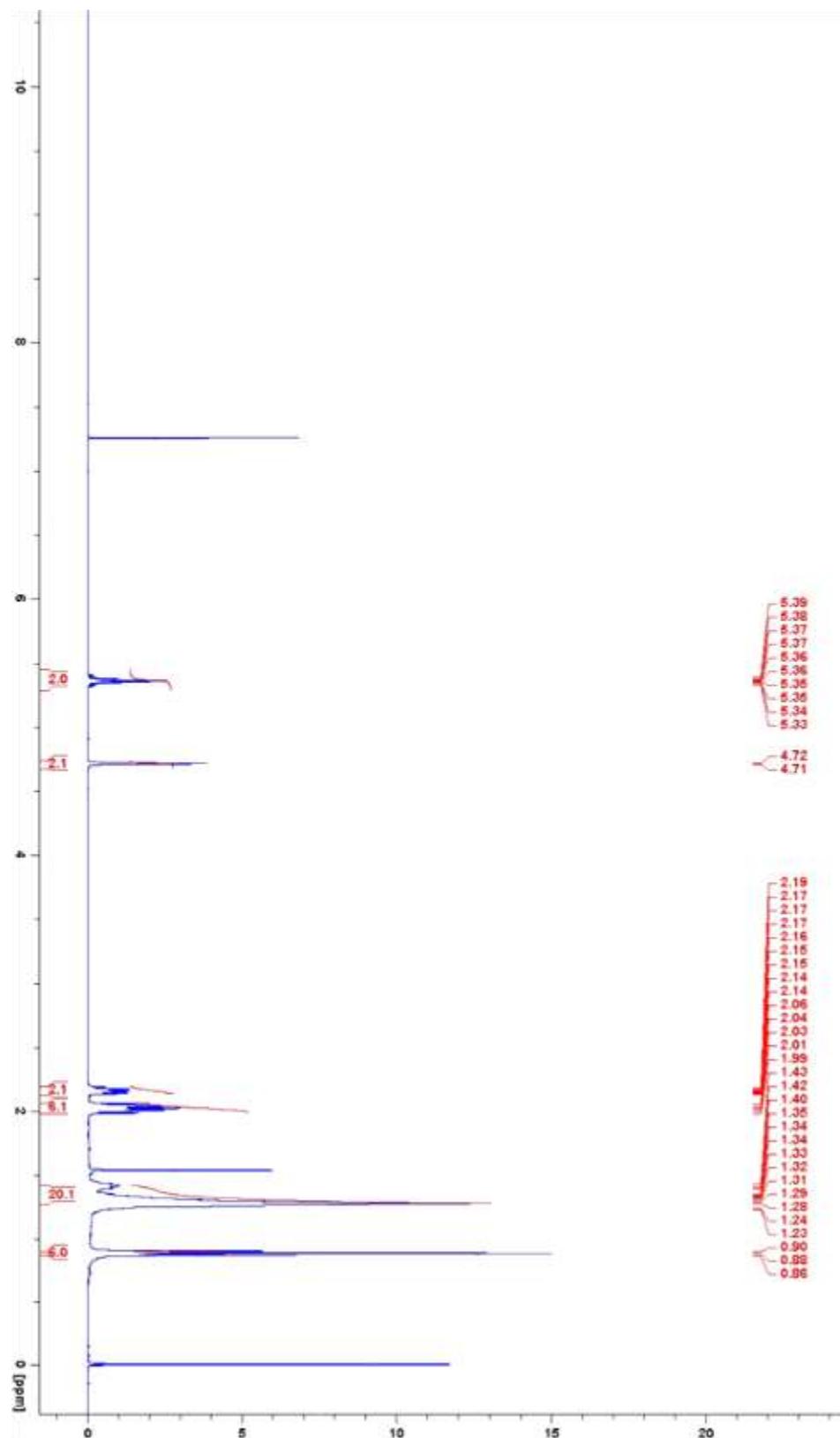
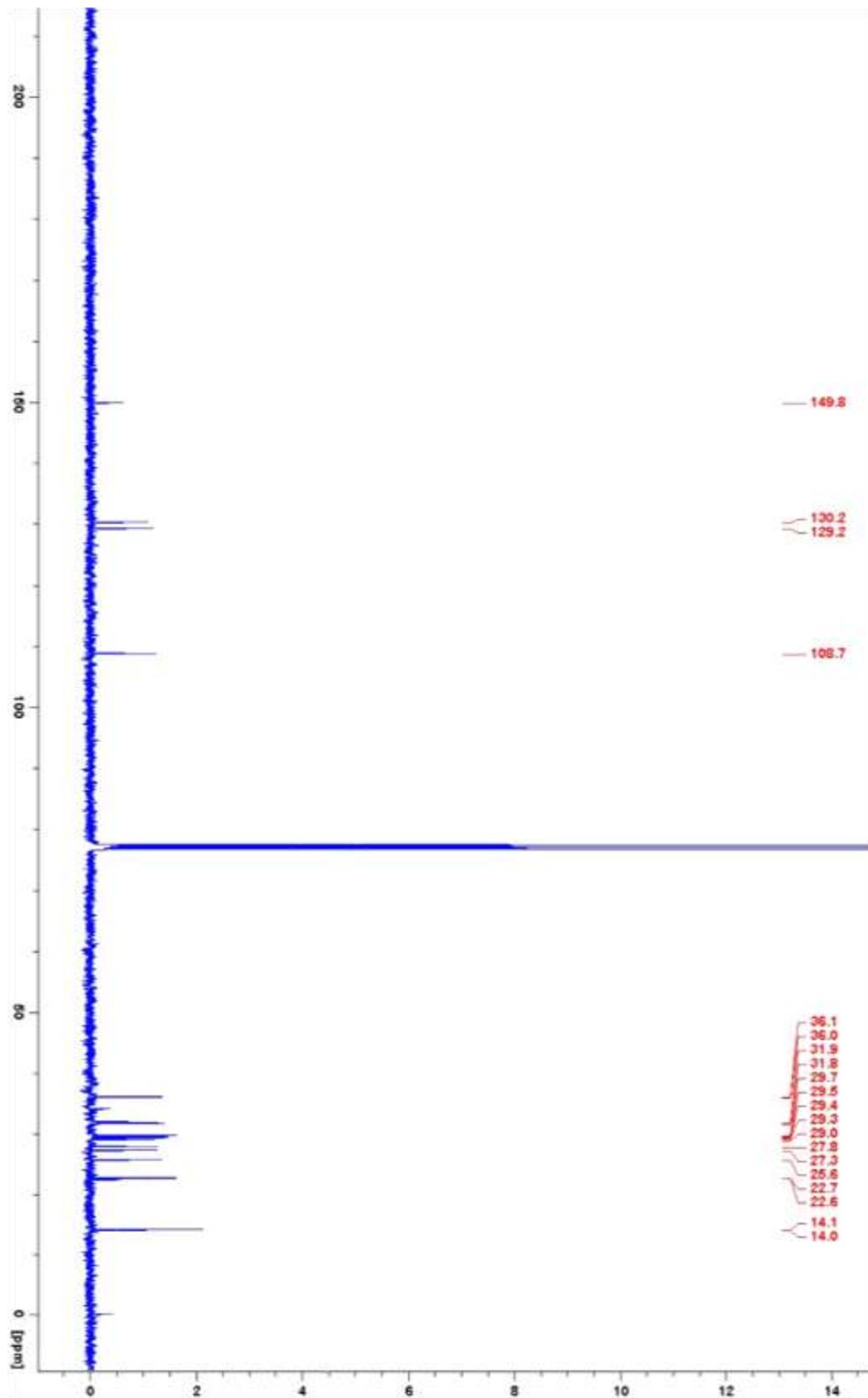
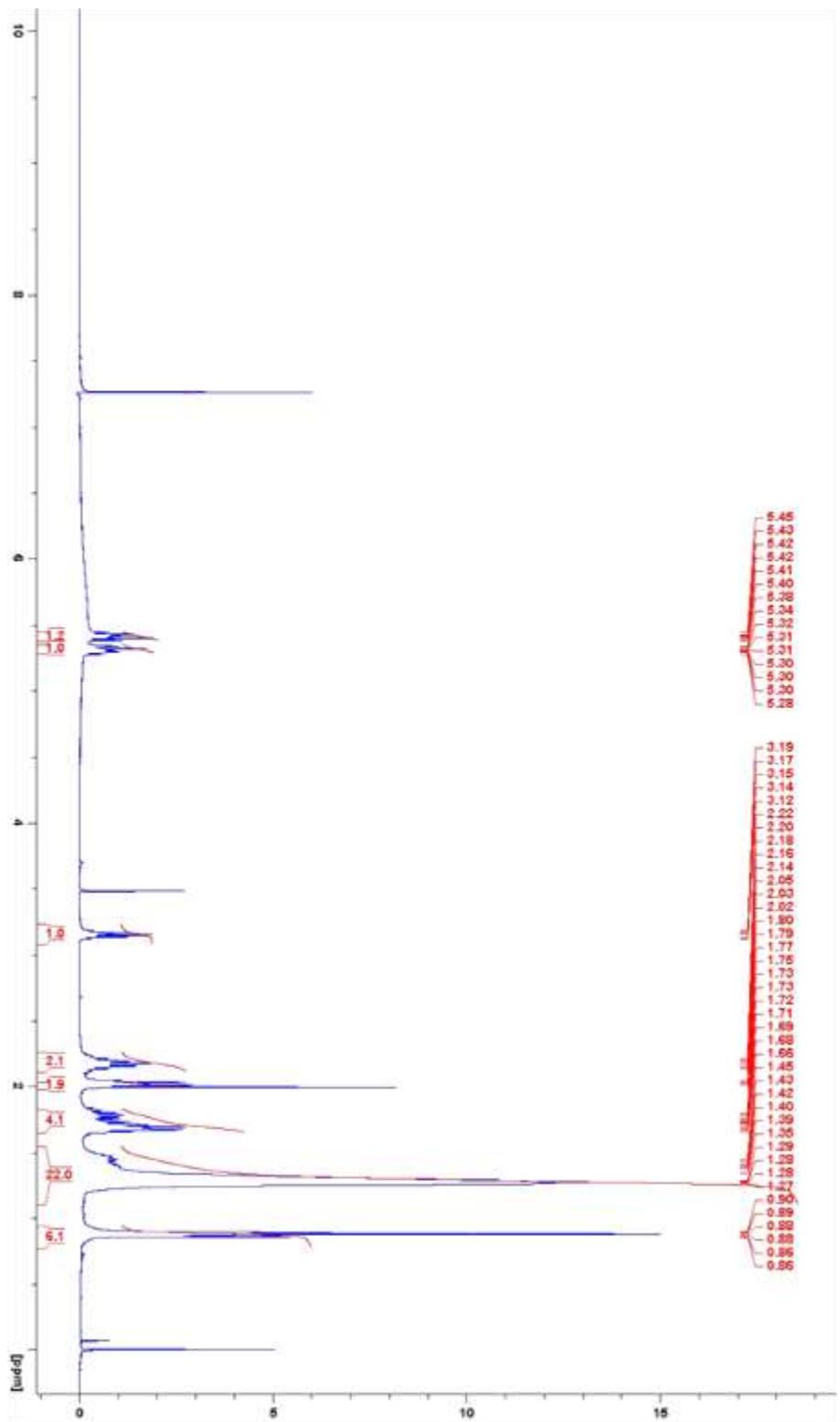


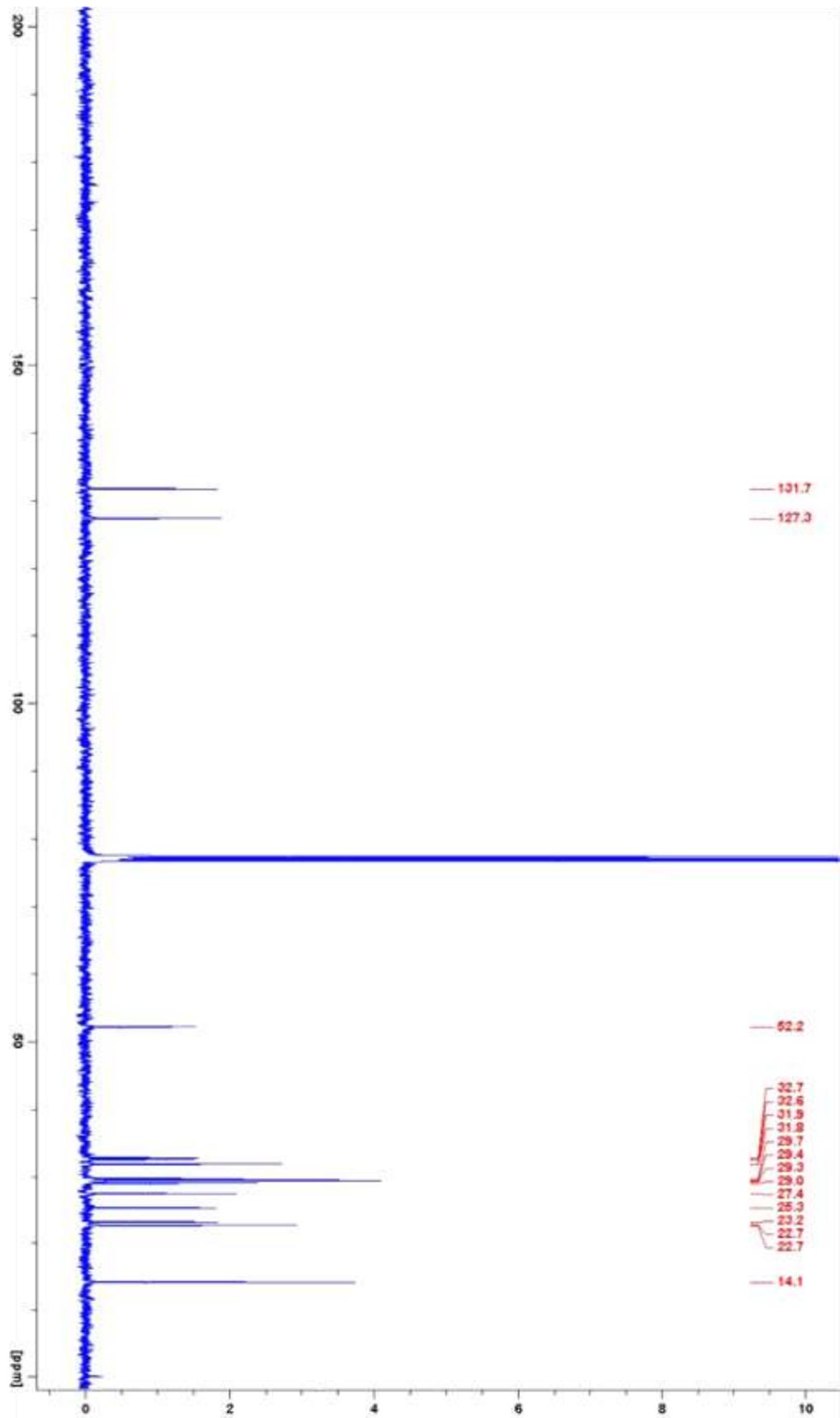
Figure S1:  $^1\text{H}$  NMR spectra of (Z)-11-methylenenonadec-7-ene (400 MHz;  $\text{CDCl}_3$ ).



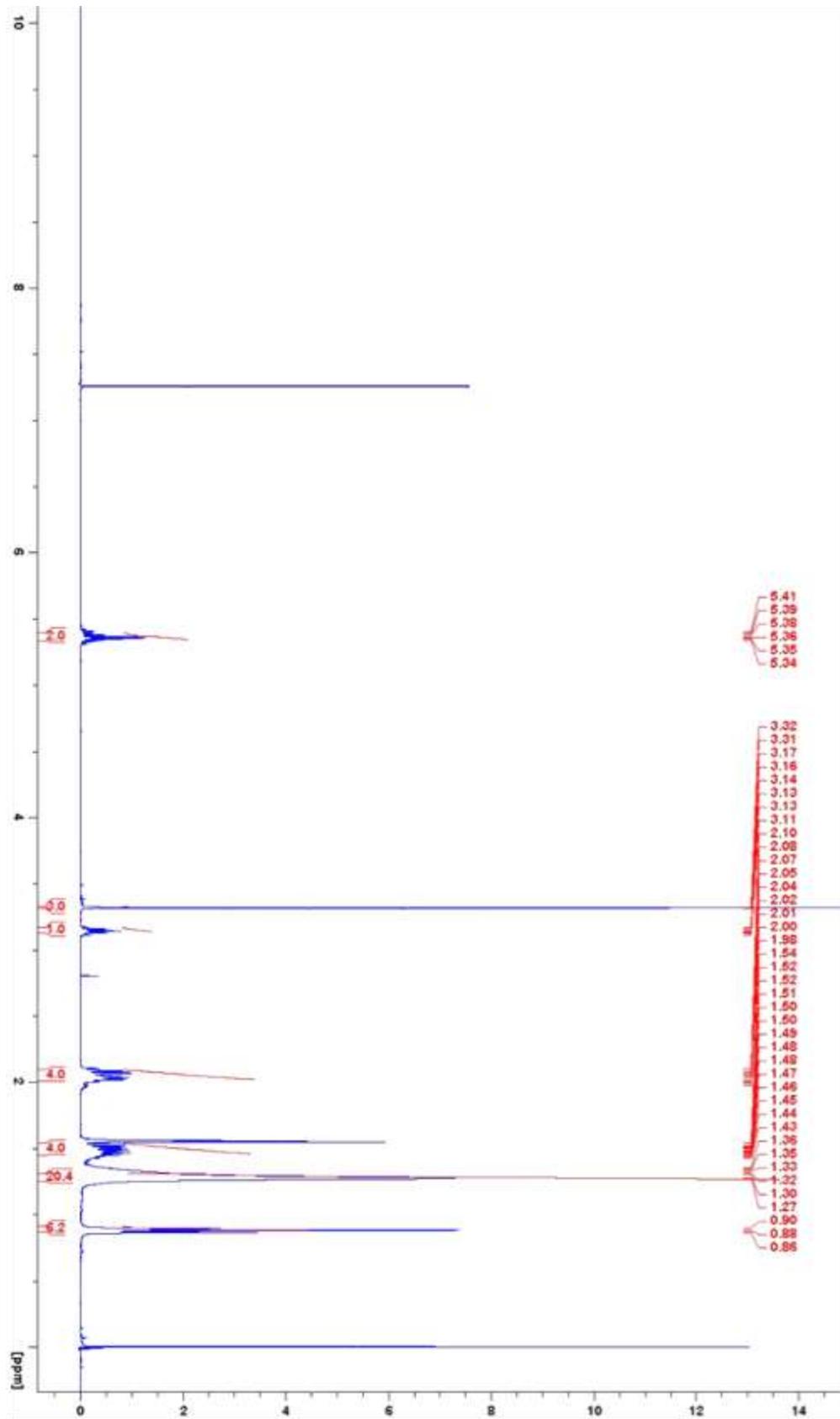
**Figure S2:**  $^{13}\text{C}$  NMR spectra of (Z)-11-methylenenonadec-7-ene (100 MHz;  $\text{CDCl}_3$ ).



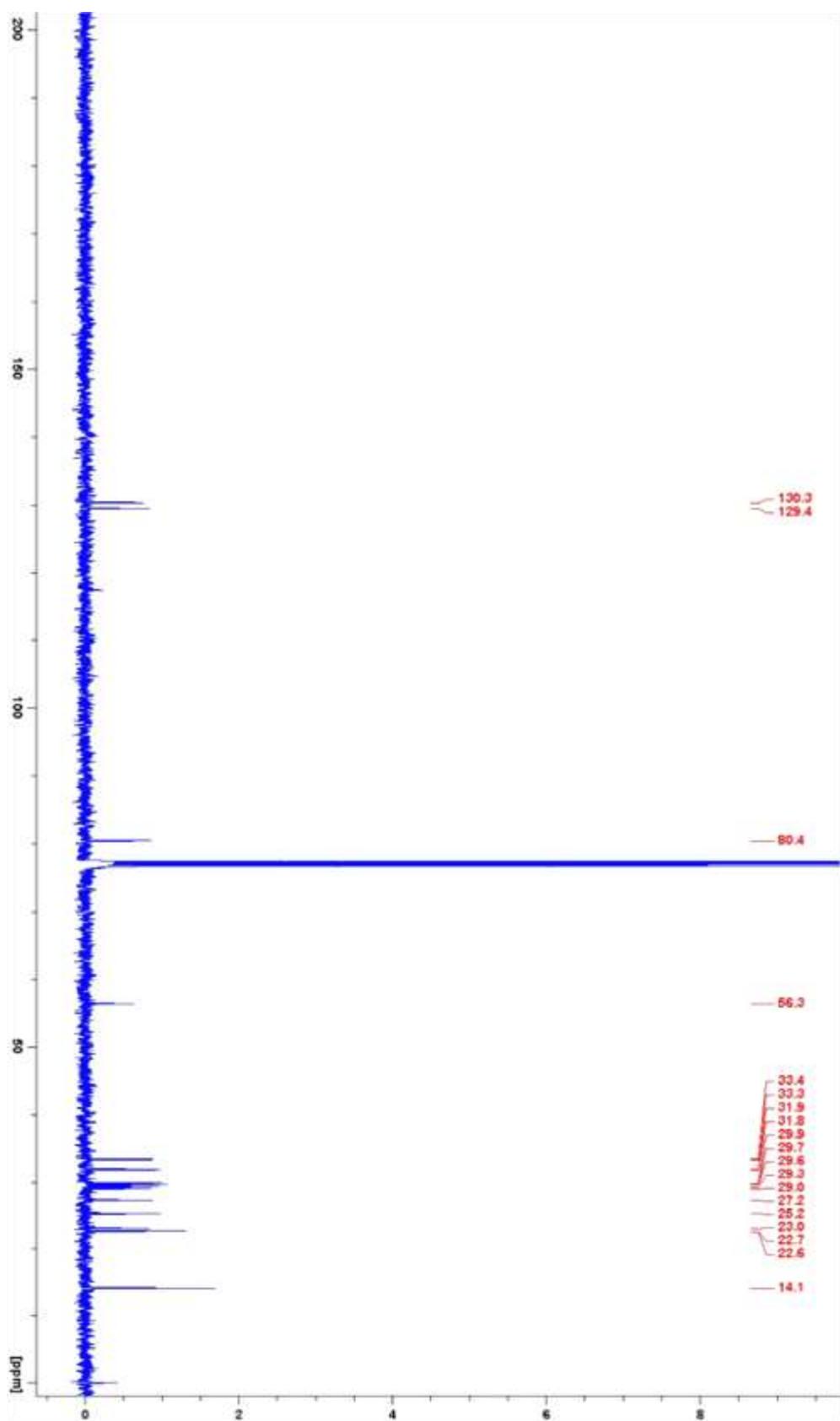
**Figure S3:** <sup>1</sup>H NMR spectra of (Z)-nonadec-12-en-9-amine (400 MHz; CDCl<sub>3</sub>).



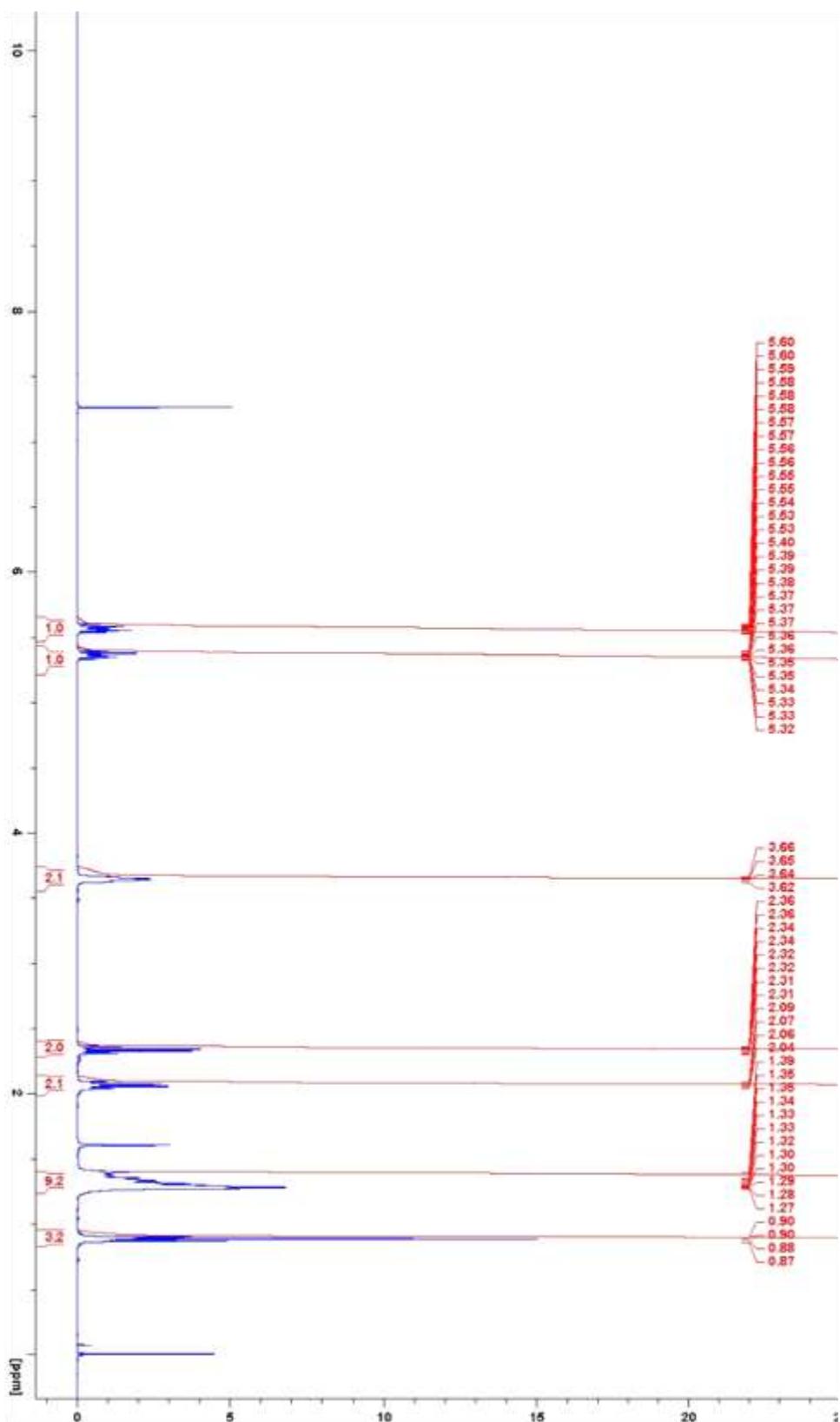
**Figure S4:**  $^{13}\text{C}$  NMR spectra of (Z)-nonadec-12-en-9-amine (100 MHz;  $\text{CDCl}_3$ ).



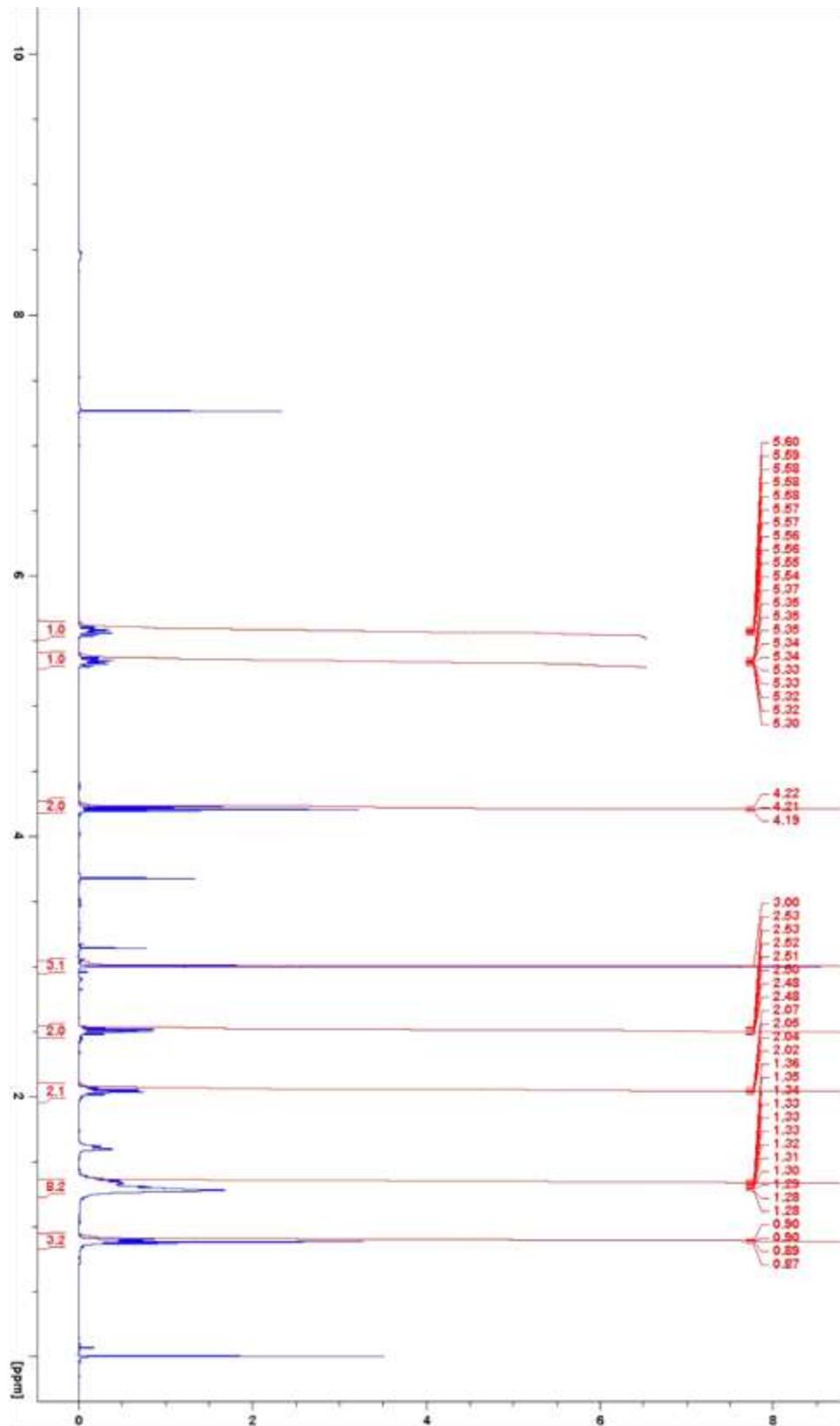
**Figure S5:**  $^1\text{H}$  NMR spectra of (Z)-11-methoxynonadec-7-ene (400 MHz;  $\text{CDCl}_3$ ).



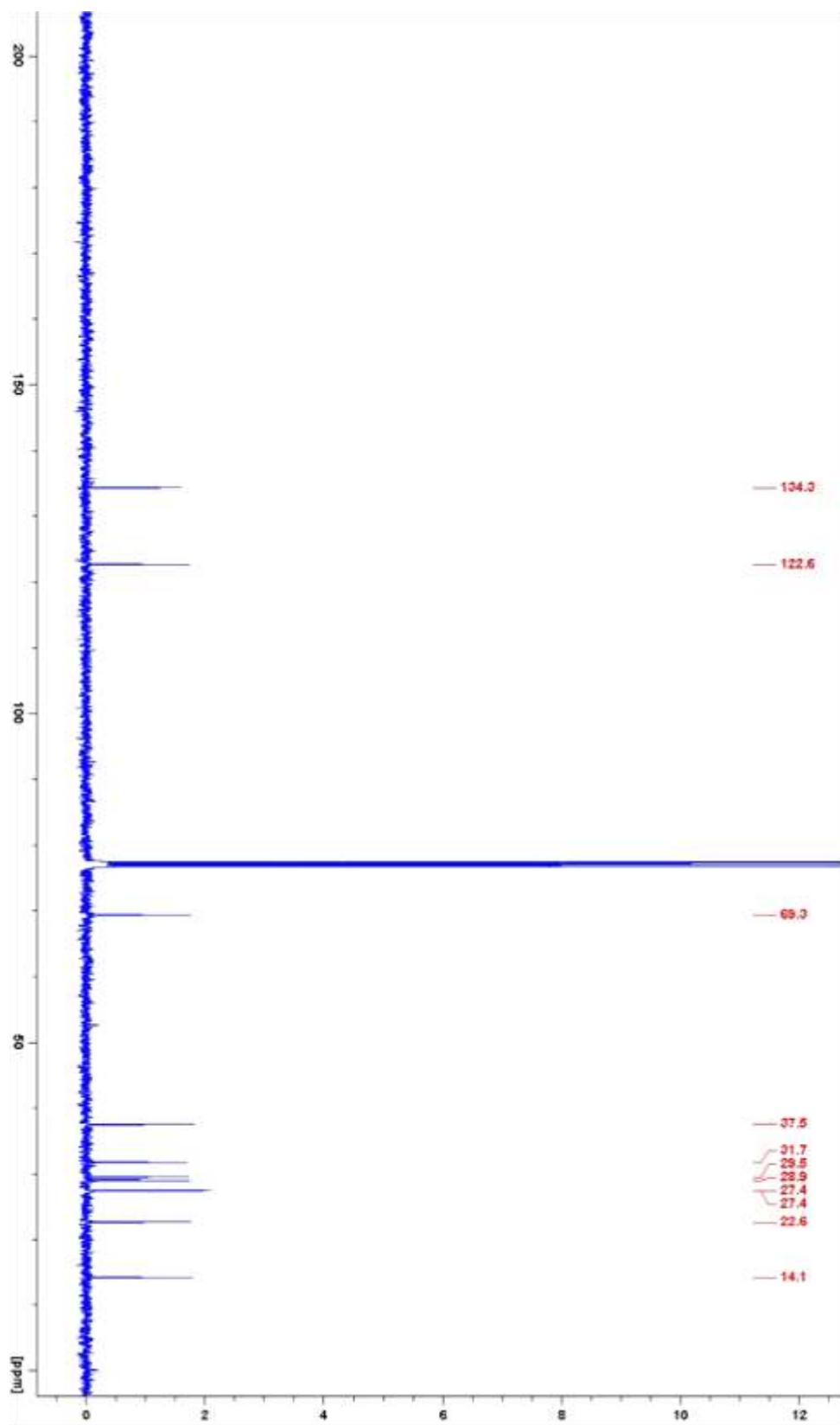
**Figure S6:**  $^{13}\text{C}$  NMR spectra of (Z)-11-methoxynonadec-7-ene (400 MHz;  $\text{CDCl}_3$ ).



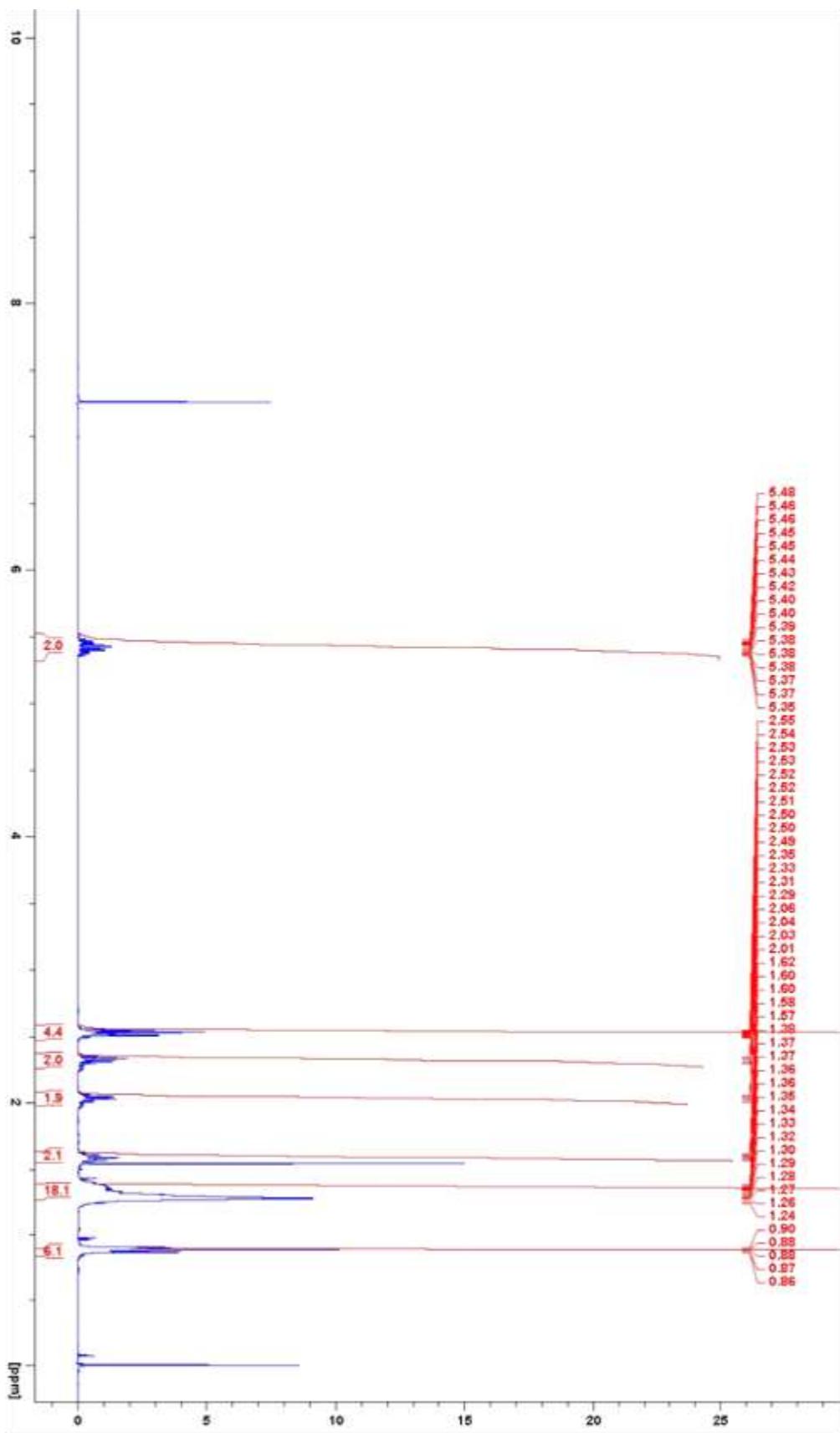
**Figure S7:**  ${}^1\text{H}$  NMR spectra of (Z)-dec-3-en-1-ol (400 MHz;  $\text{CDCl}_3$ ).



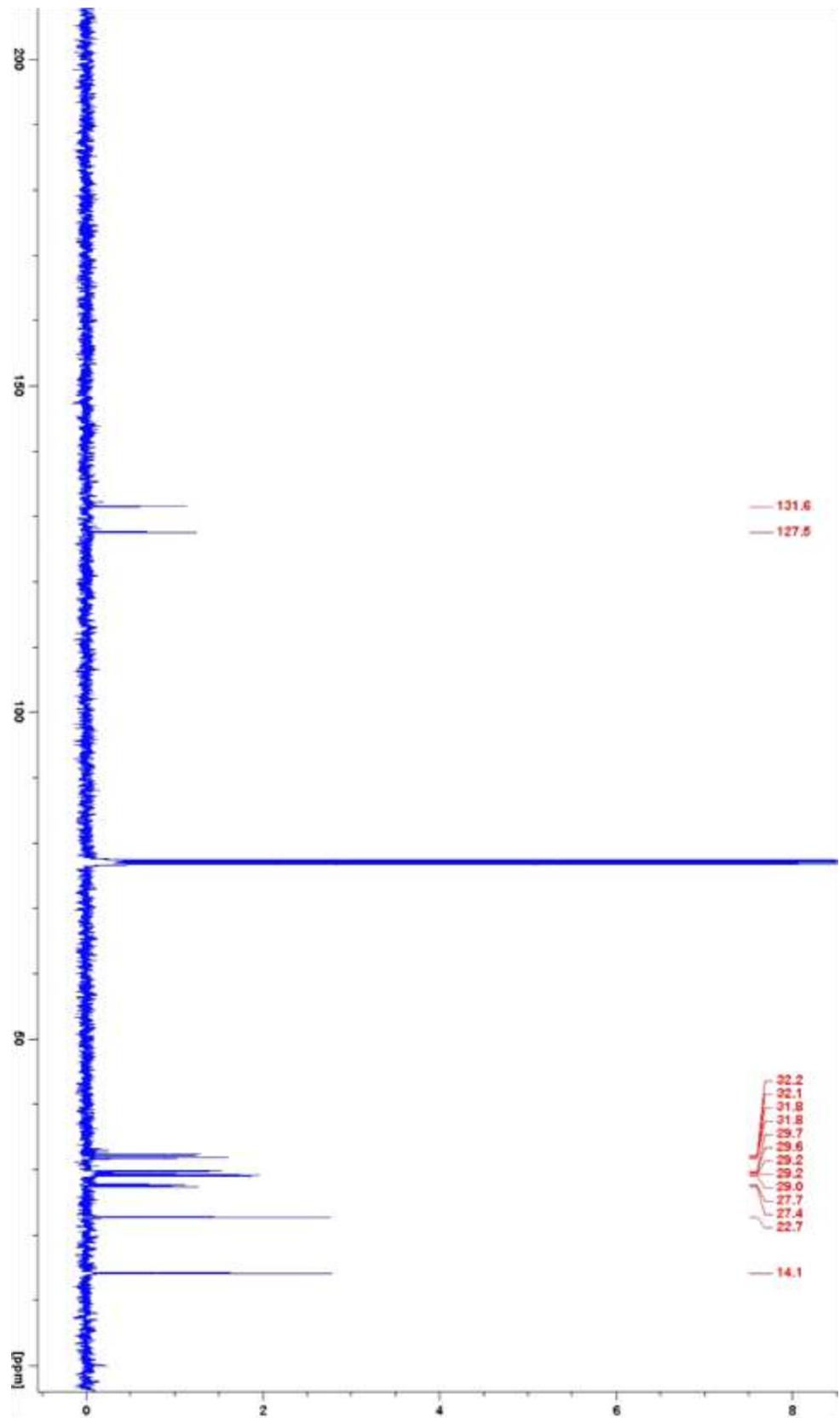
**Figure S8:**  ${}^1\text{H}$  NMR spectra of (Z)-dec-3-enyl methanesulfonate (400 MHz;  $\text{CDCl}_3$ ).



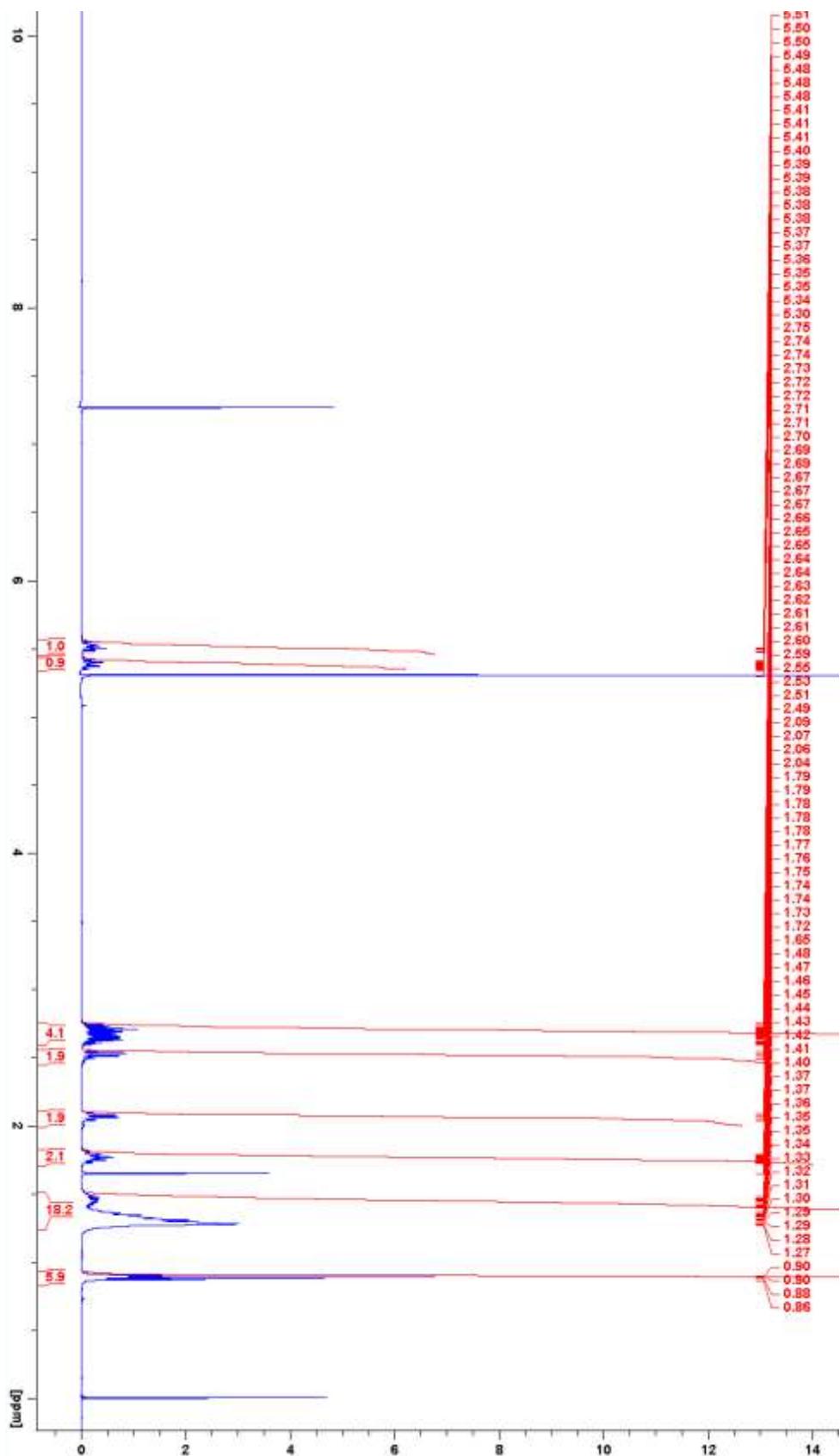
**Figure S9:**  $^{13}\text{C}$  NMR spectra of (Z)-dec-3-enyl methanesulfonate (100 MHz;  $\text{CDCl}_3$ ).



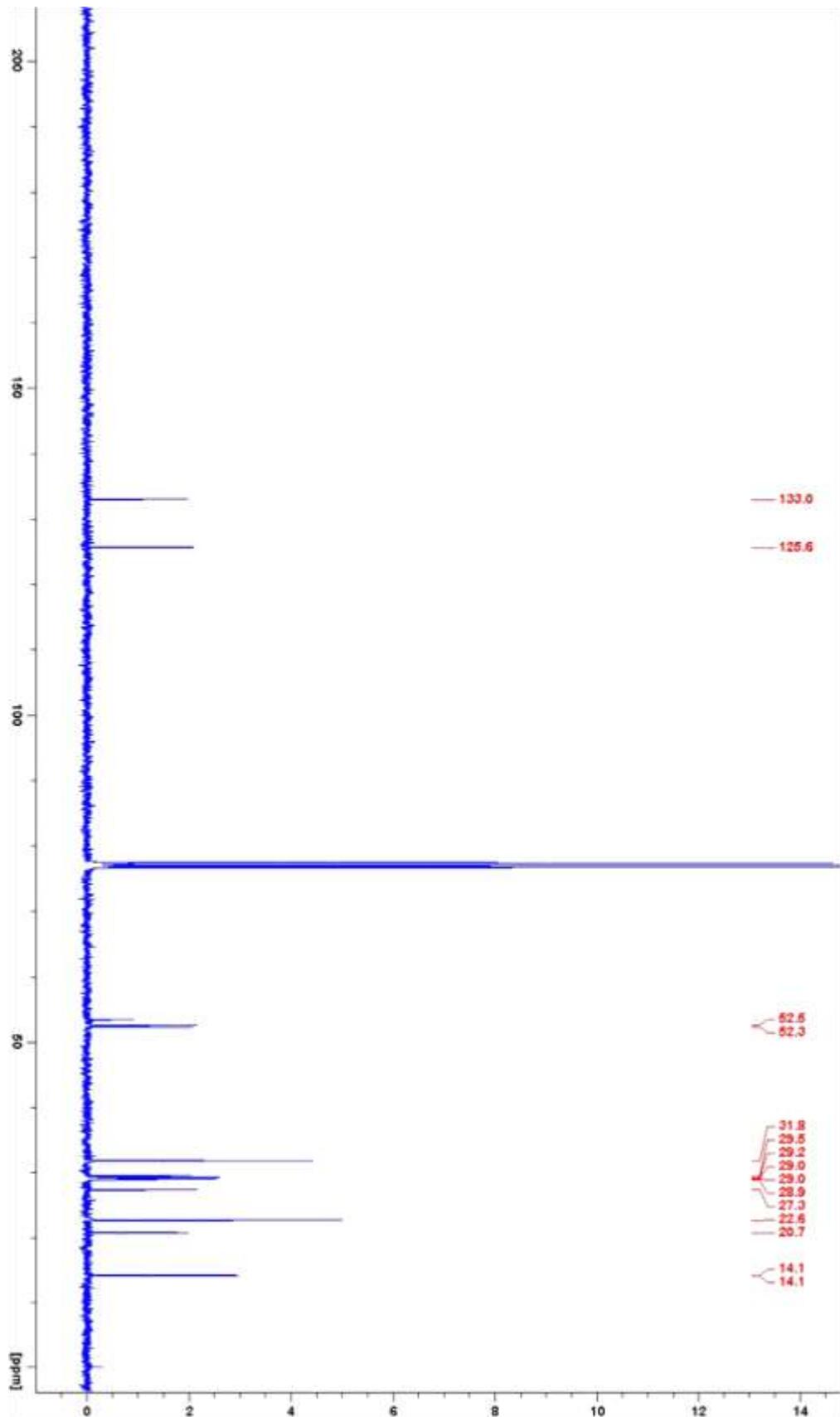
**Figure S10:**  $^1\text{H}$  NMR spectra of (Z)-dec-3-enyl(octyl)sulfane (400 MHz;  $\text{CDCl}_3$ ).



**Figure S11:**  $^{13}\text{C}$  NMR spectra of (Z)-dec-3-enyl(octyl)sulfane (100 MHz;  $\text{CDCl}_3$ ).



**Figure S12:** <sup>1</sup>H NMR spectra of (Z)-1-(octylsulfinyl)-dec-3-ene (400 MHz; CDCl<sub>3</sub>).



**Figure S13:**  $^{13}\text{C}$  NMR spectra of (Z)-1-(octylsulfinyl)-dec-3-ene (100 MHz;  $\text{CDCl}_3$ ).