

## Electronic Supporting Information

### Aerobic Oxidation of 5-Hydroxymethylfurfural to 5-Hydroxymethyl-2-furancarboxylic Acid and Derivatives by Heterogeneous NHC-Catalysis

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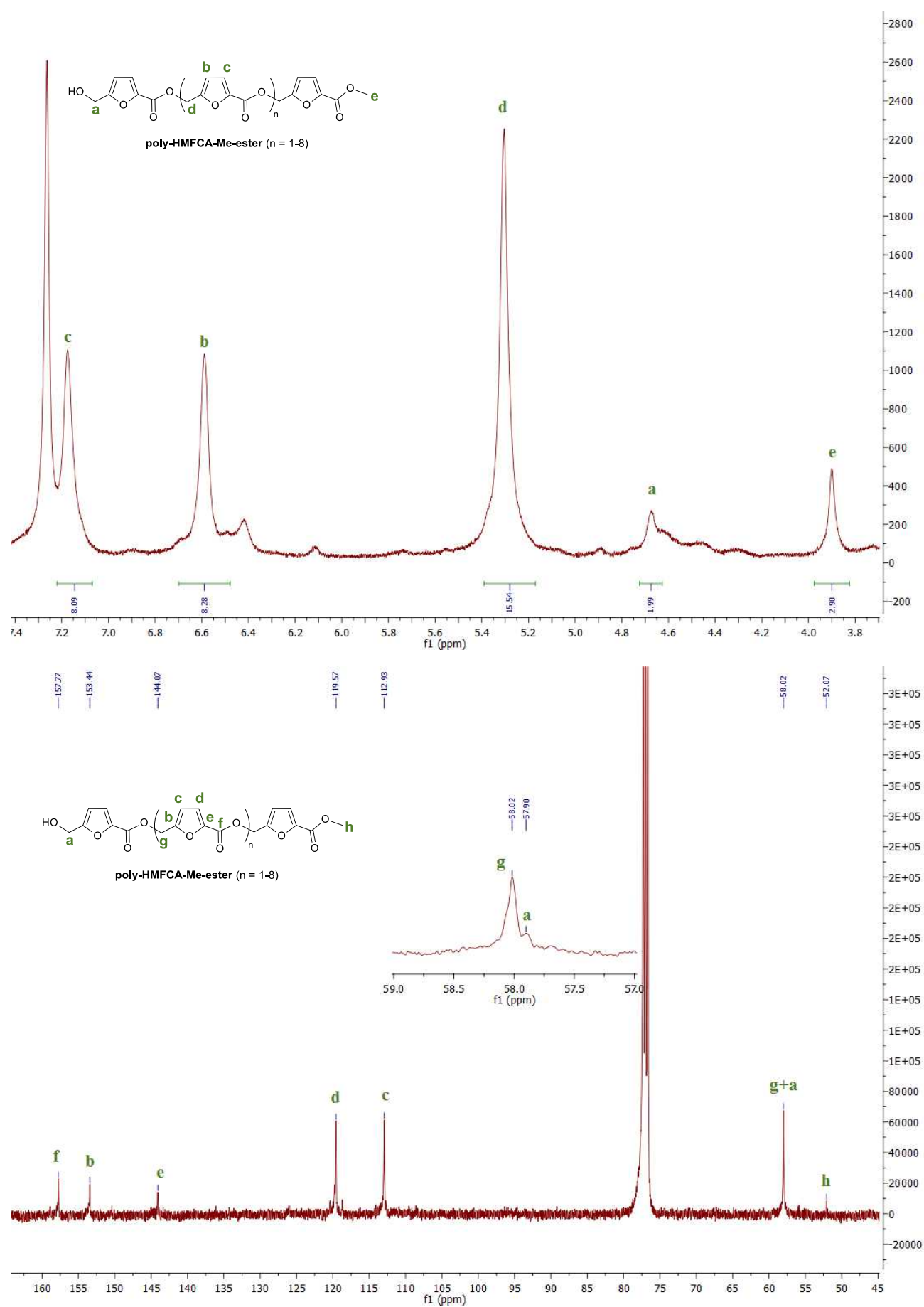
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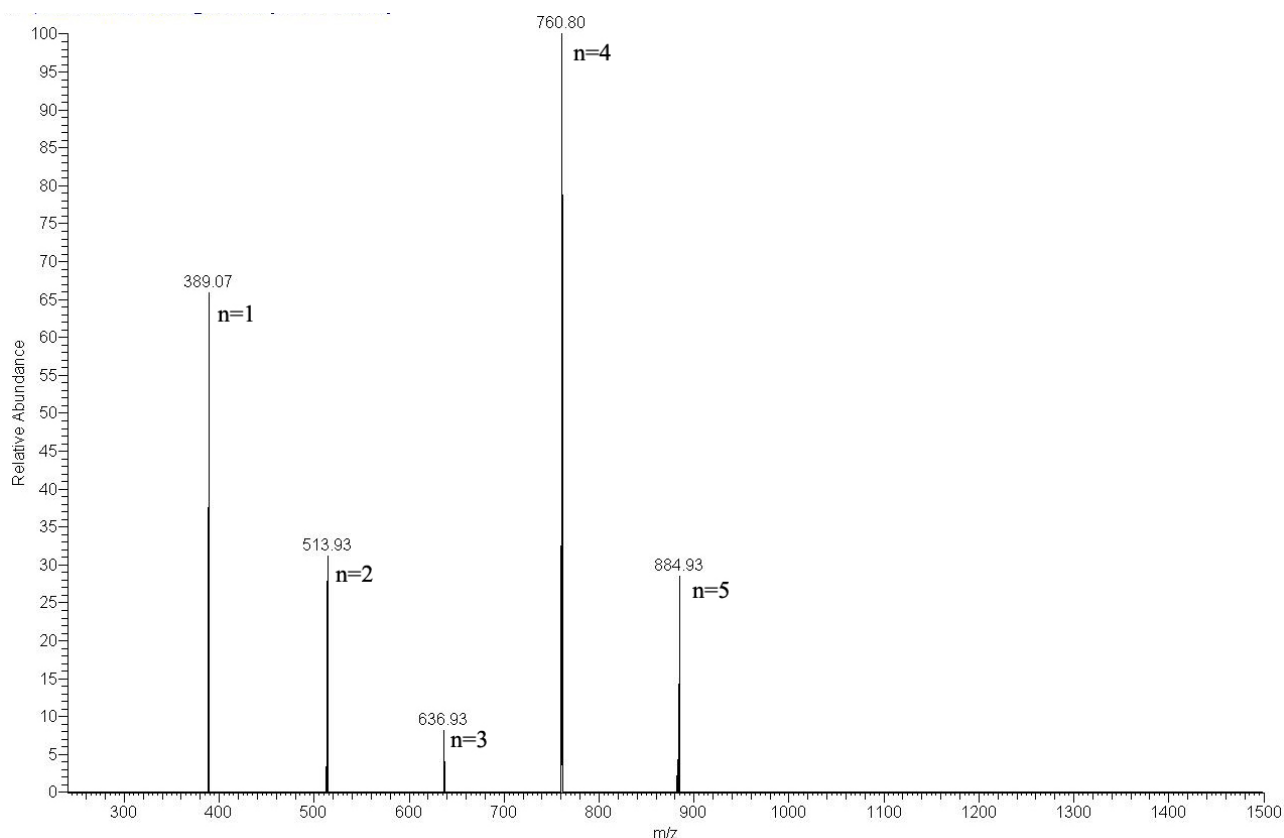
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**Figure S1.**  $^1\text{H}$  (300 MHz) and  $^{13}\text{C}$  (101 MHz) spectra ( $\text{CDCl}_3$ ) of **poly-HMFCA-Me-ester**

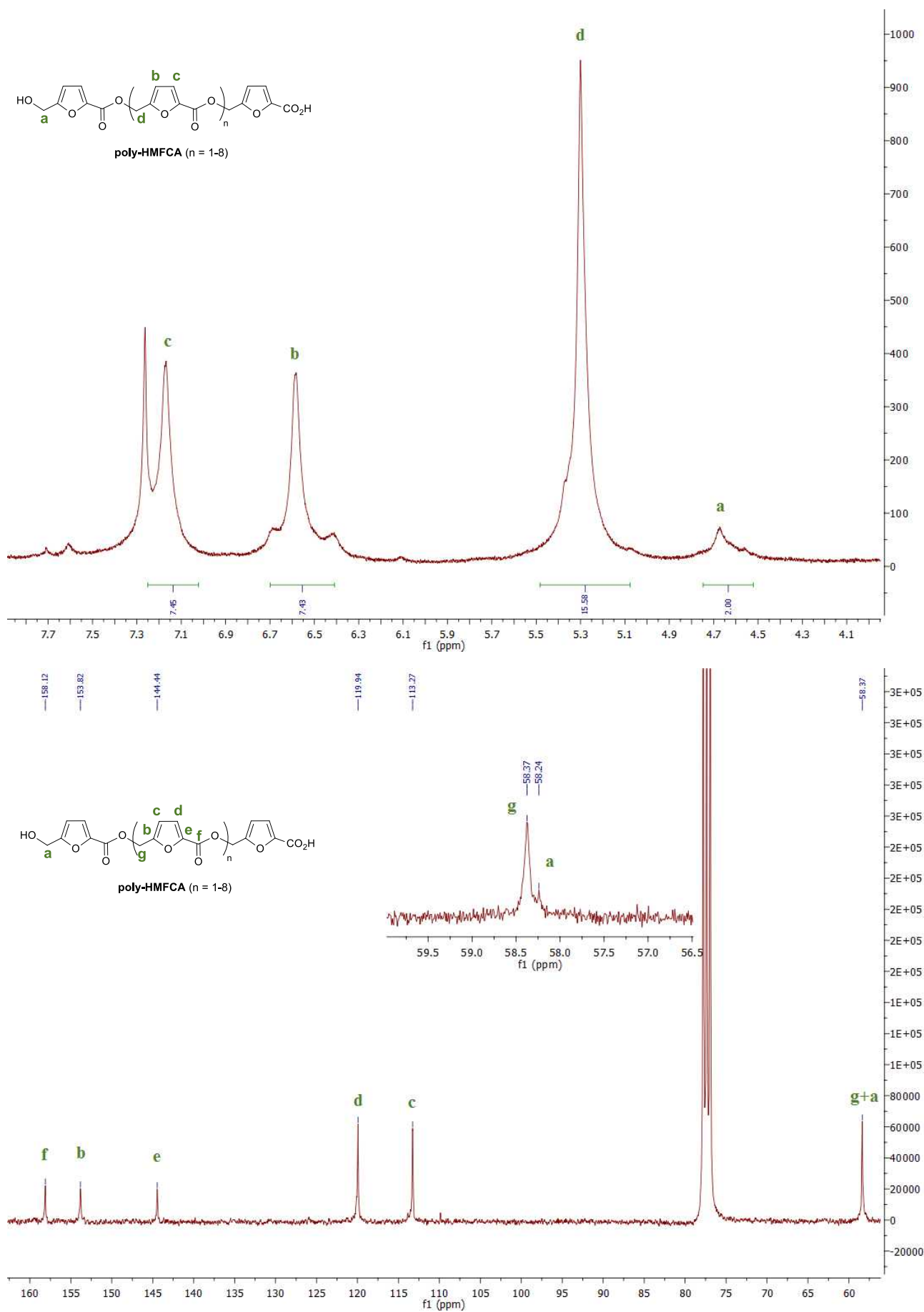


**Figure S2. Poly-HMFCA MS/MS mass spectrum of selected ion at  $m/z$  885.**

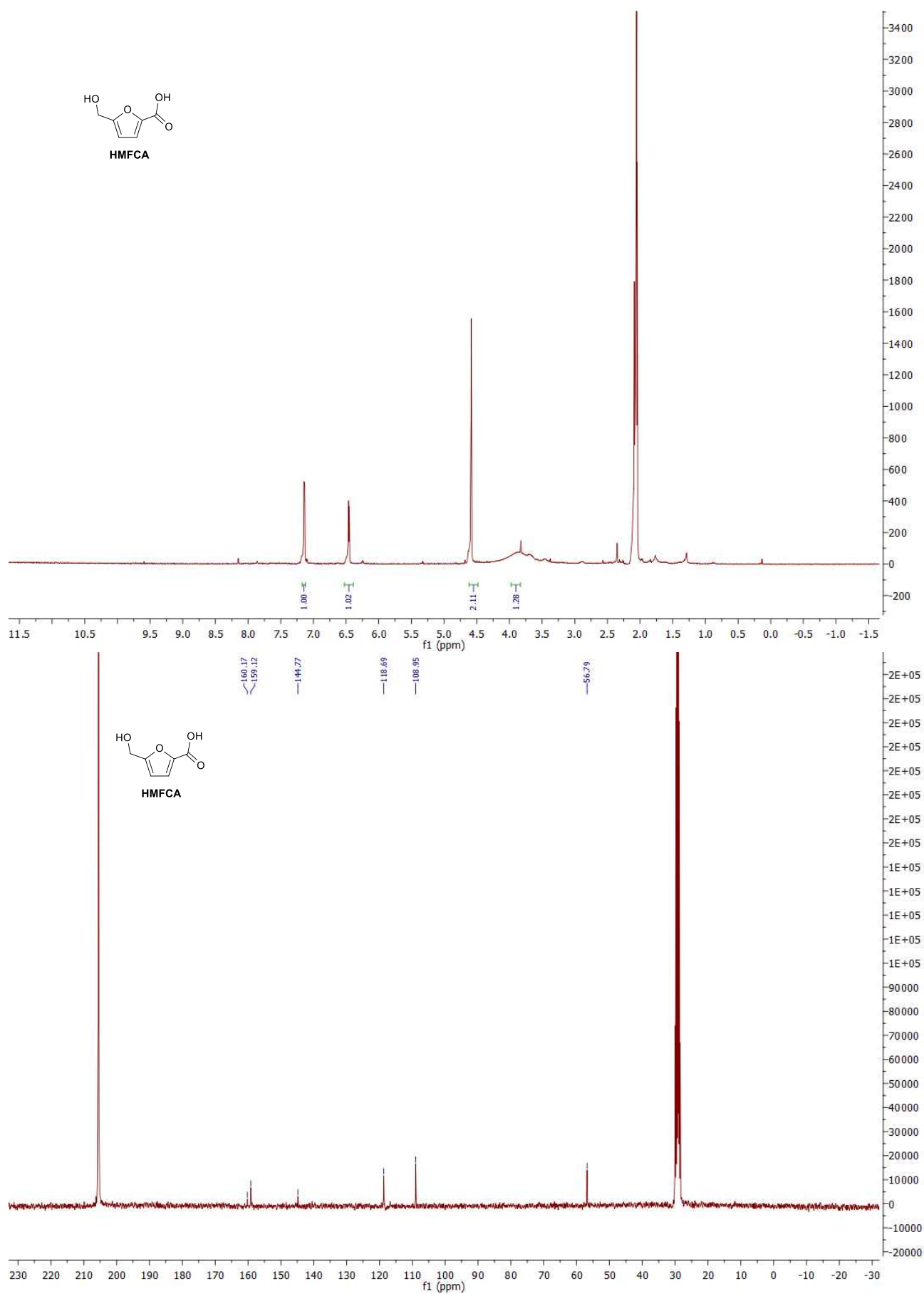


(Mass Spectrometry analyses were performed on ESI–LCQ Duo (Electrospray ionization source and Ion Trap detector, Thermo Scientific, Waltham (MS), USA) equipped with a syringe pump delivery by directly infusion. The sample was dried under nitrogen flow and was made it up in methanol for mass analysis. The acquisitions were studied with 20  $\mu\text{L}/\text{sec}$  flow rate in negative mode, scanned from 500 nm to 2000 nm with following experimental conditions: ESI capillary voltage was 4,5 V, capillary temperature was 200  $^{\circ}\text{C}$  and capillary voltage -10 V.)

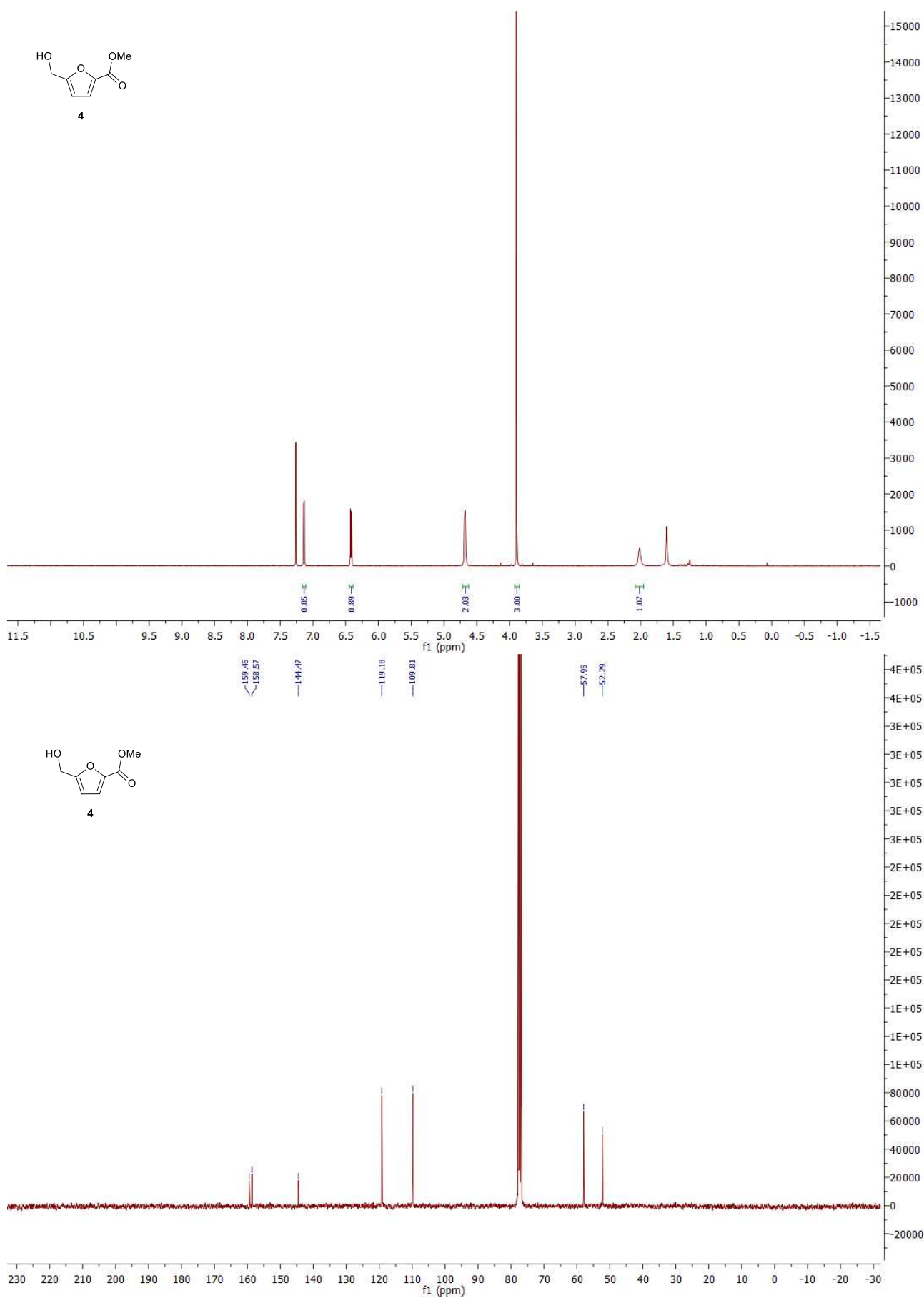
# <sup>1</sup>H (300 MHz) and <sup>13</sup>C (101 MHz) spectra (CDCl<sub>3</sub>) of poly-HMFCA



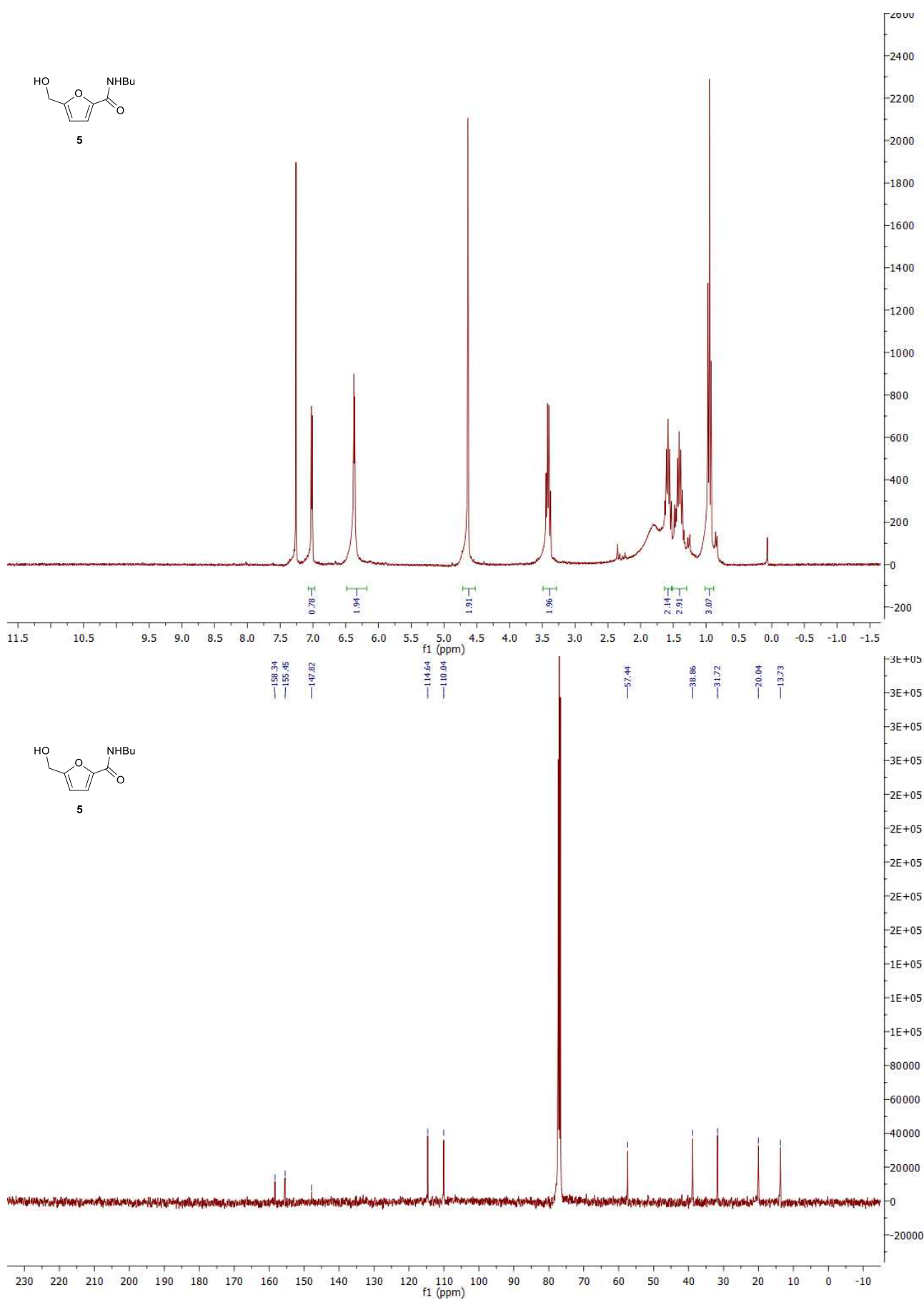
**$^1\text{H}$  (300 MHz) and  $^{13}\text{C}$  (101 MHz) spectra (acetone- $d_6$ ) of HMFCA**



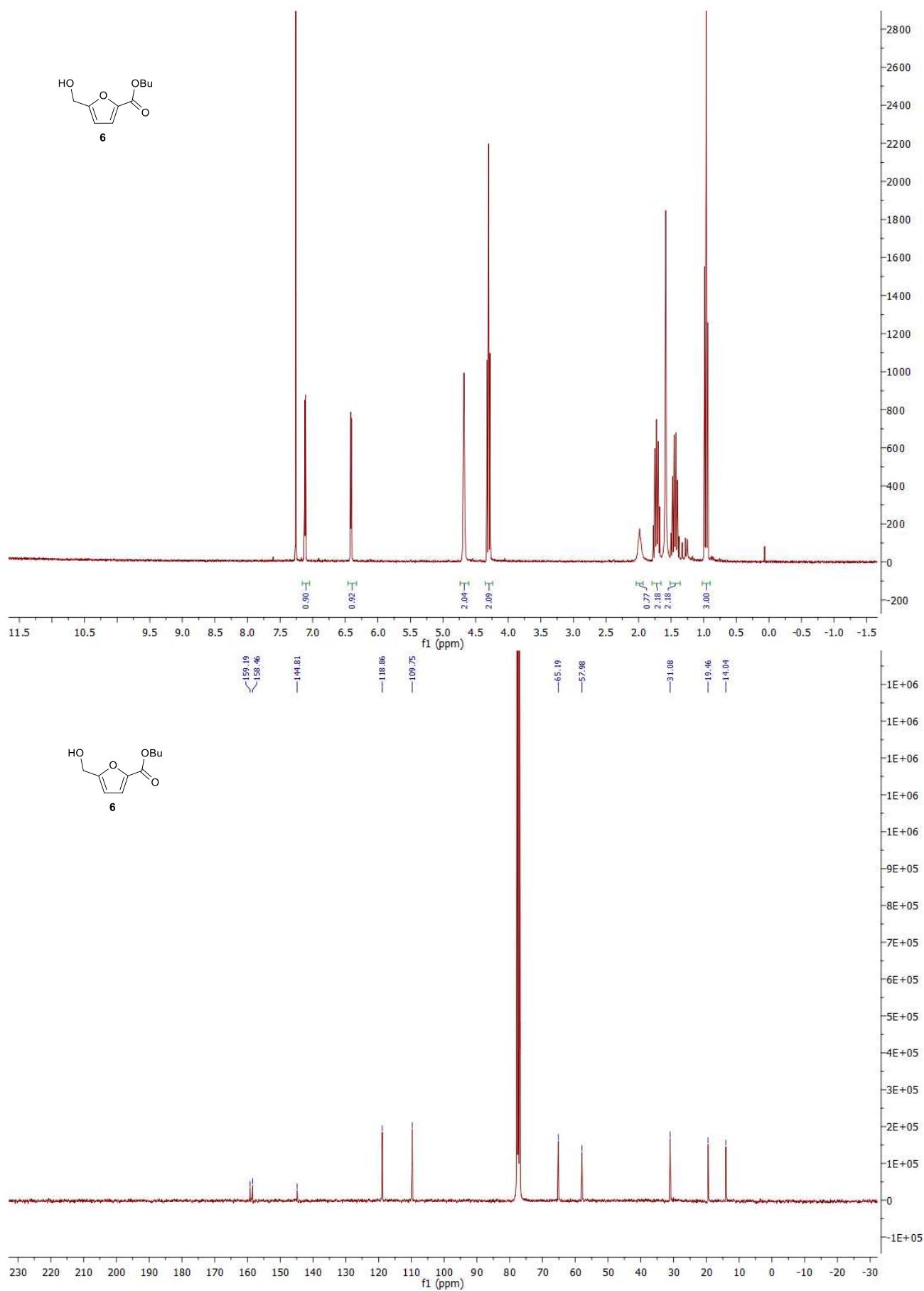
**$^1\text{H}$  (300 MHz) and  $^{13}\text{C}$  (101 MHz) spectra ( $\text{CDCl}_3$ ) of 4**



**$^1\text{H}$  (300 MHz) and  $^{13}\text{C}$  (101 MHz) spectra ( $\text{CDCl}_3$ ) of **5****

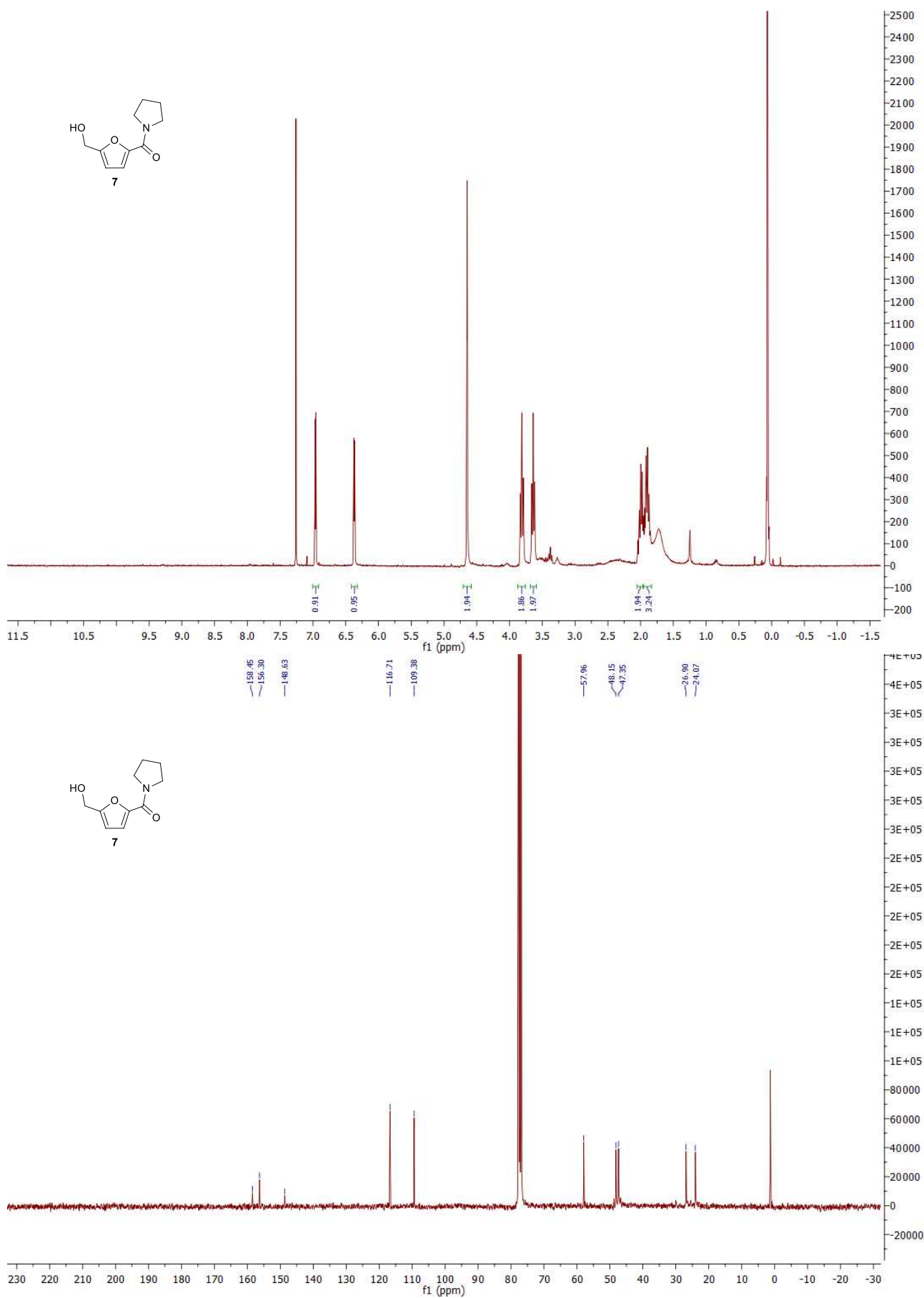


**$^1\text{H}$  (300 MHz) and  $^{13}\text{C}$  (101 MHz) spectra ( $\text{CDCl}_3$ ) of 6**

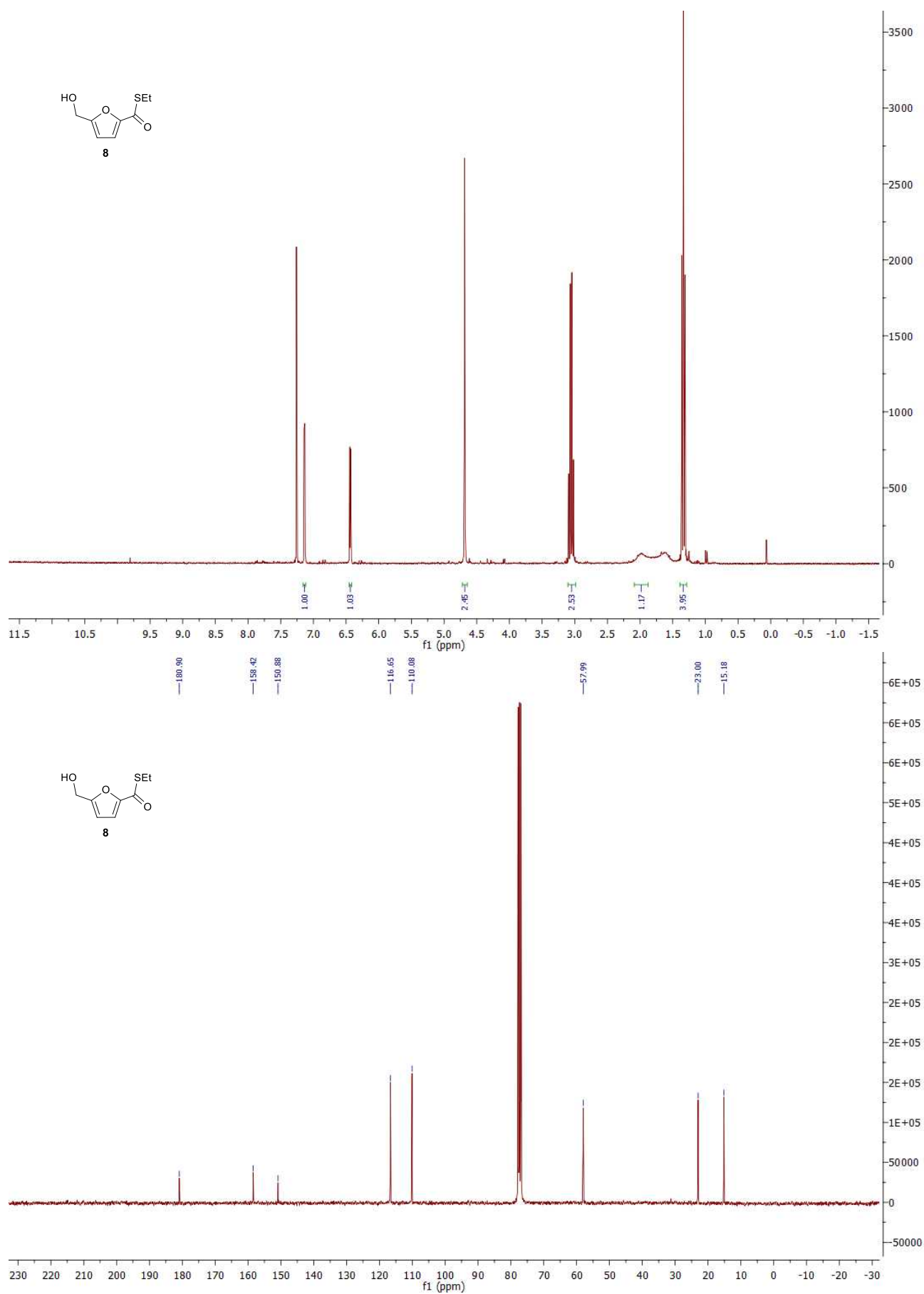




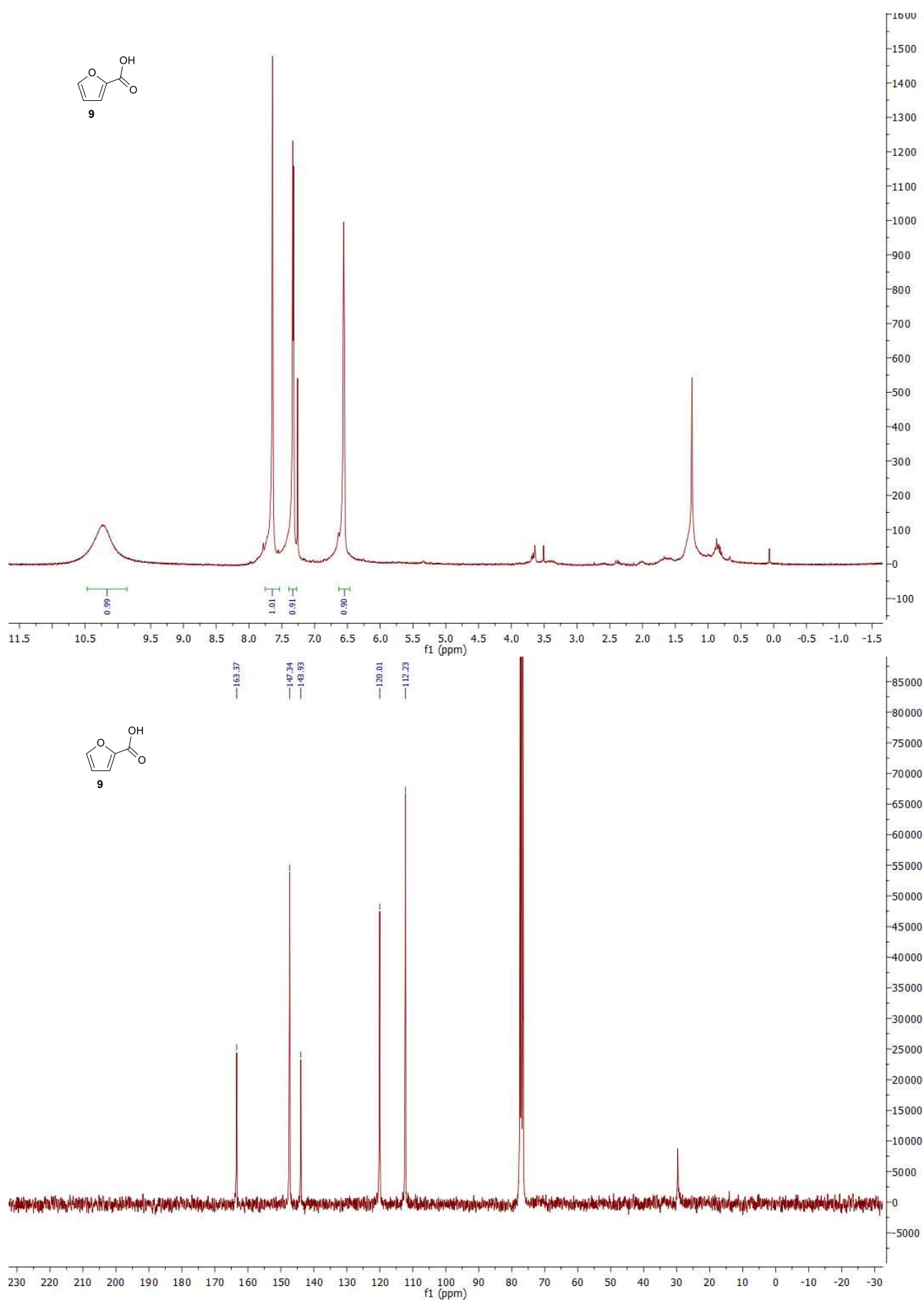
**$^1\text{H}$  (300 MHz) and  $^{13}\text{C}$  (101 MHz) spectra ( $\text{CDCl}_3$ ) of 7**



**$^1\text{H}$  (300 MHz) and  $^{13}\text{C}$  (101 MHz) spectra ( $\text{CDCl}_3$ ) of 8**

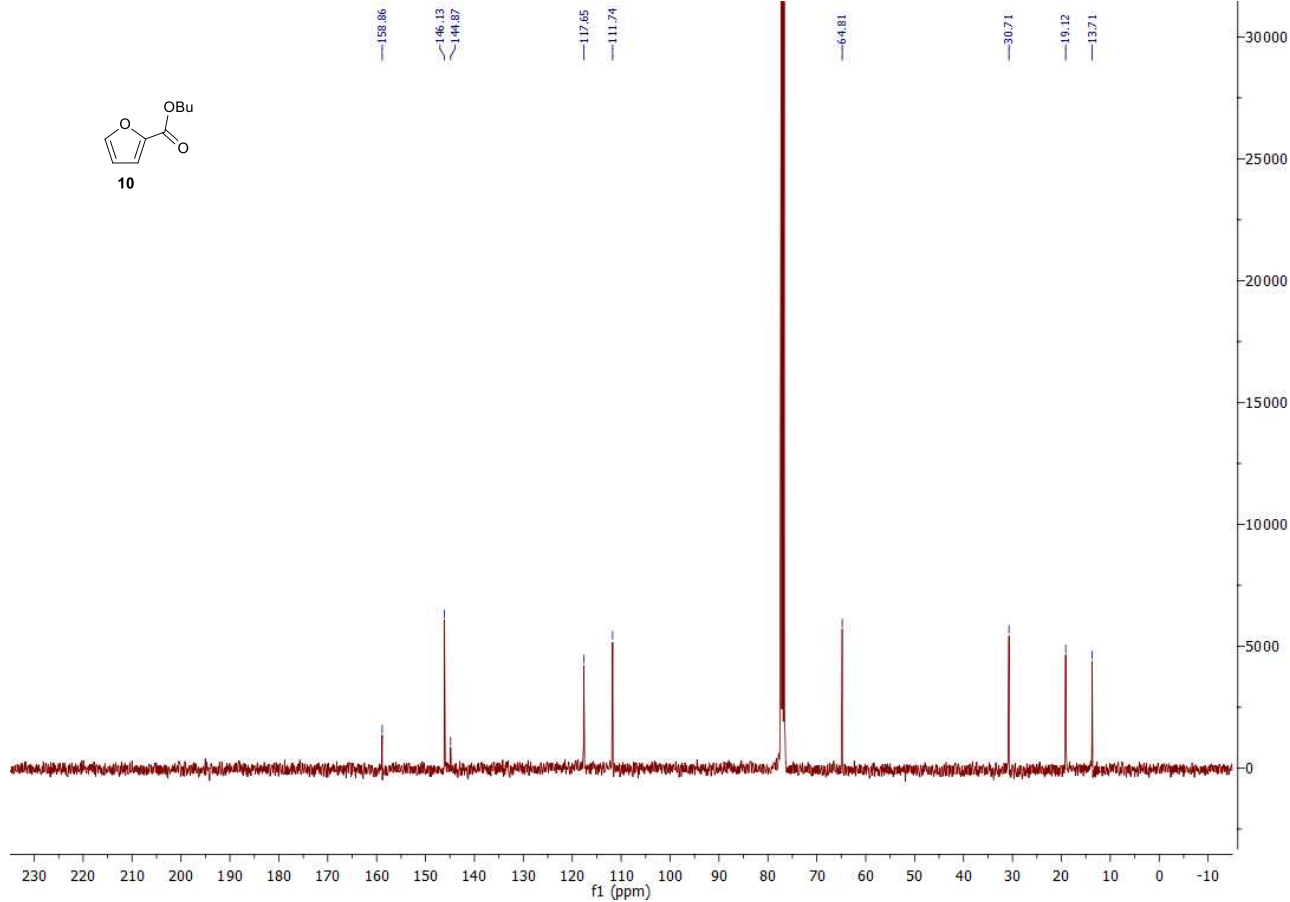


**$^1\text{H}$  (300 MHz) and  $^{13}\text{C}$  (101 MHz) spectra ( $\text{CDCl}_3$ ) of **9****

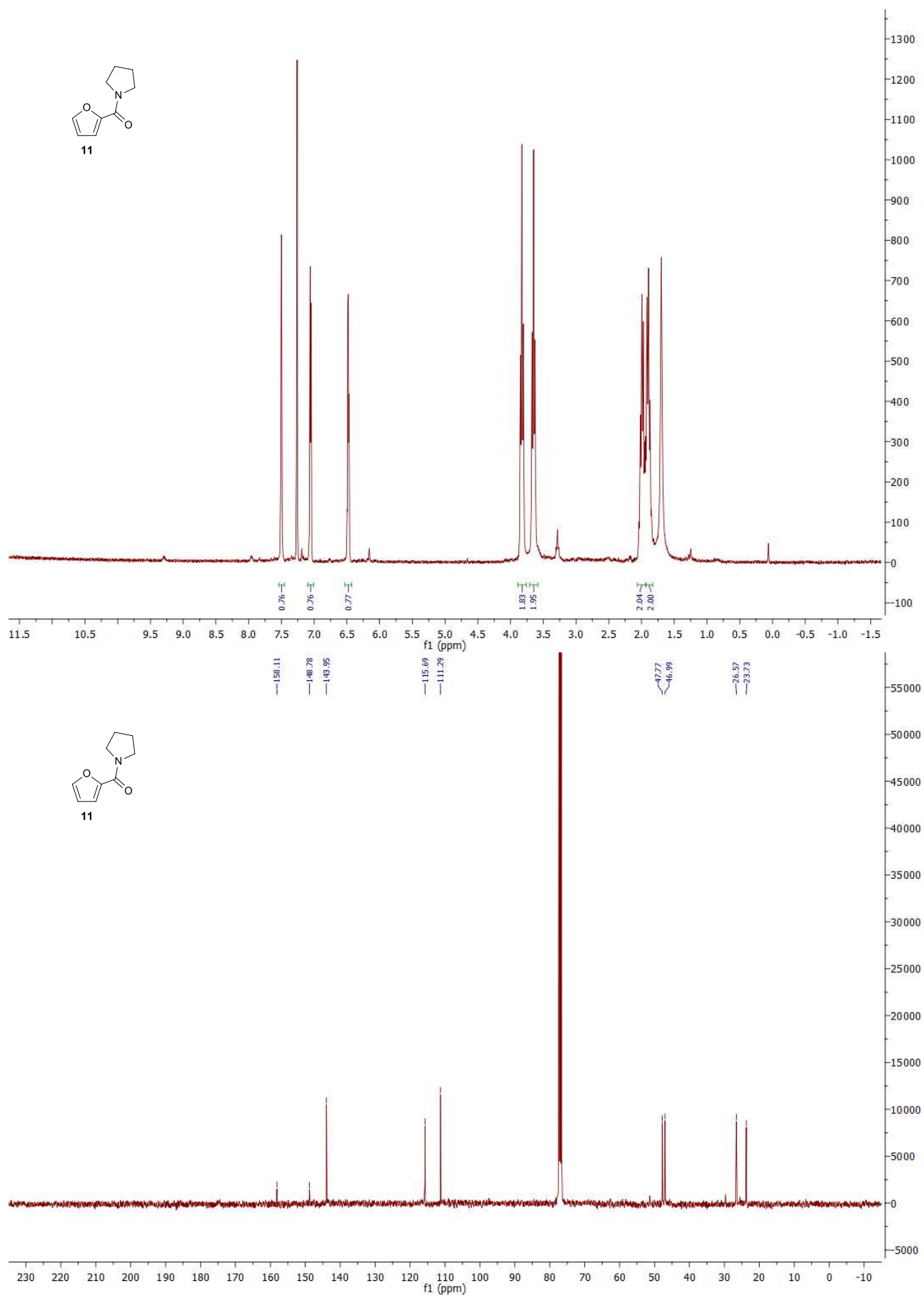


**10**

<sup>1</sup>H NMR spectrum (400 MHz, CDCl<sub>3</sub>) of compound **10**. The spectrum shows peaks at approximately 7.2 ppm (0.80), 7.1 ppm (0.79), 6.5 ppm (0.82), 4.3 ppm (2.00), 1.6 ppm (2.05), 1.5 ppm (2.09), and 1.1 ppm (2.98).



**$^1\text{H}$  (300 MHz) and  $^{13}\text{C}$  (101 MHz) spectra ( $\text{CDCl}_3$ ) of 11**



**$^1\text{H}$  (300 MHz) and  $^{13}\text{C}$  (101 MHz) spectra ( $\text{CDCl}_3$ ) of 12**

