

Supplementary Information for

Synthesis and self-assembly of a D_{3h} symmetric polycyclic aromatic hydrocarbon into a rigid 2D honeycomb network

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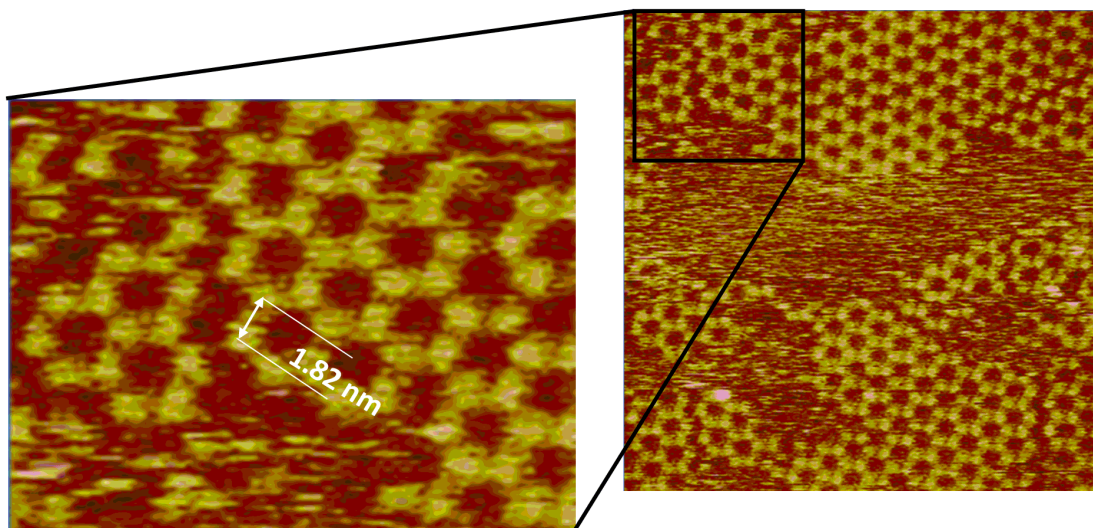
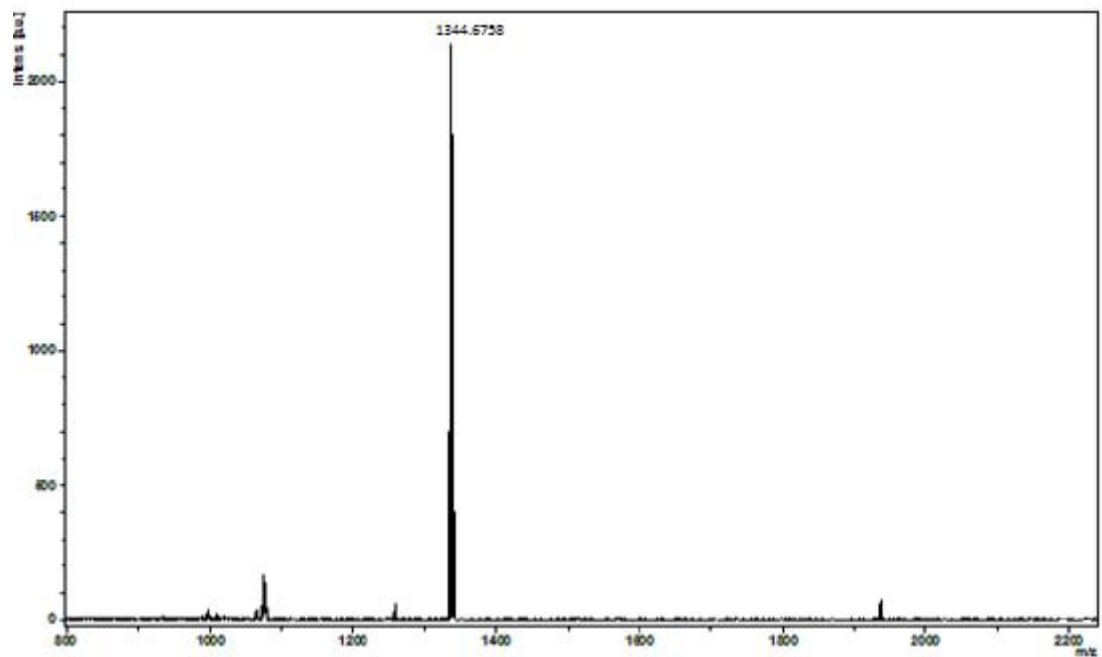


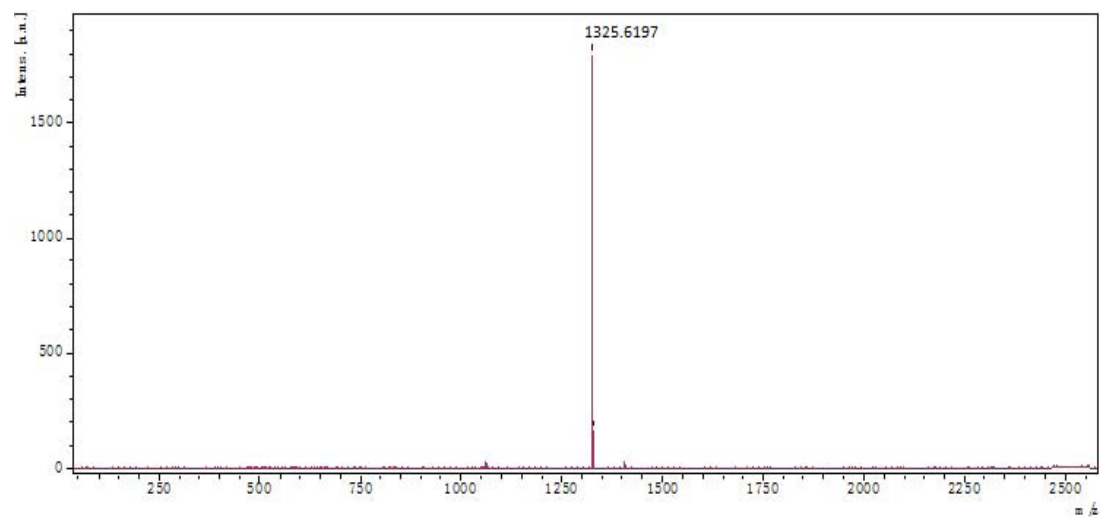
Fig. S1 A STM image after adsorption of 4,4'-bipyridine guests within the supramolecular honeycomb network at the liquid (1-phenyloctane) – solid (HOPG) interface: ($60 \times 60 \text{ nm}^2$, $I_{\text{set}} = 145 \text{ pA}$, $V_{\text{set}} = -1100 \text{ mV}$).

Mass spectra, ^1H NMR and ^{13}C NMR spectra for the synthesized compounds:

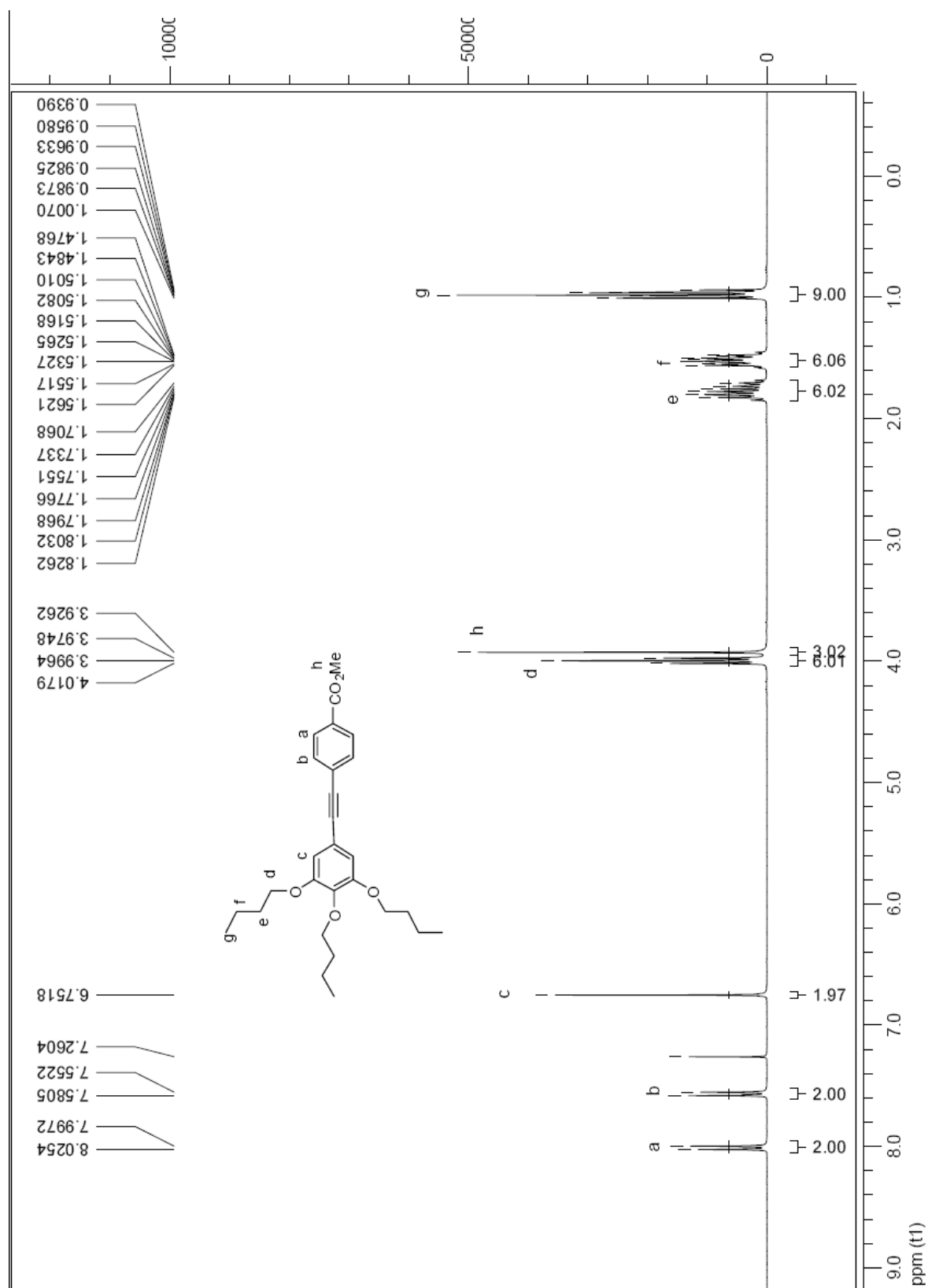
Mass spectrum(MALDI-TOF) $[\text{M}]^-$ spectrum of compound **4**.



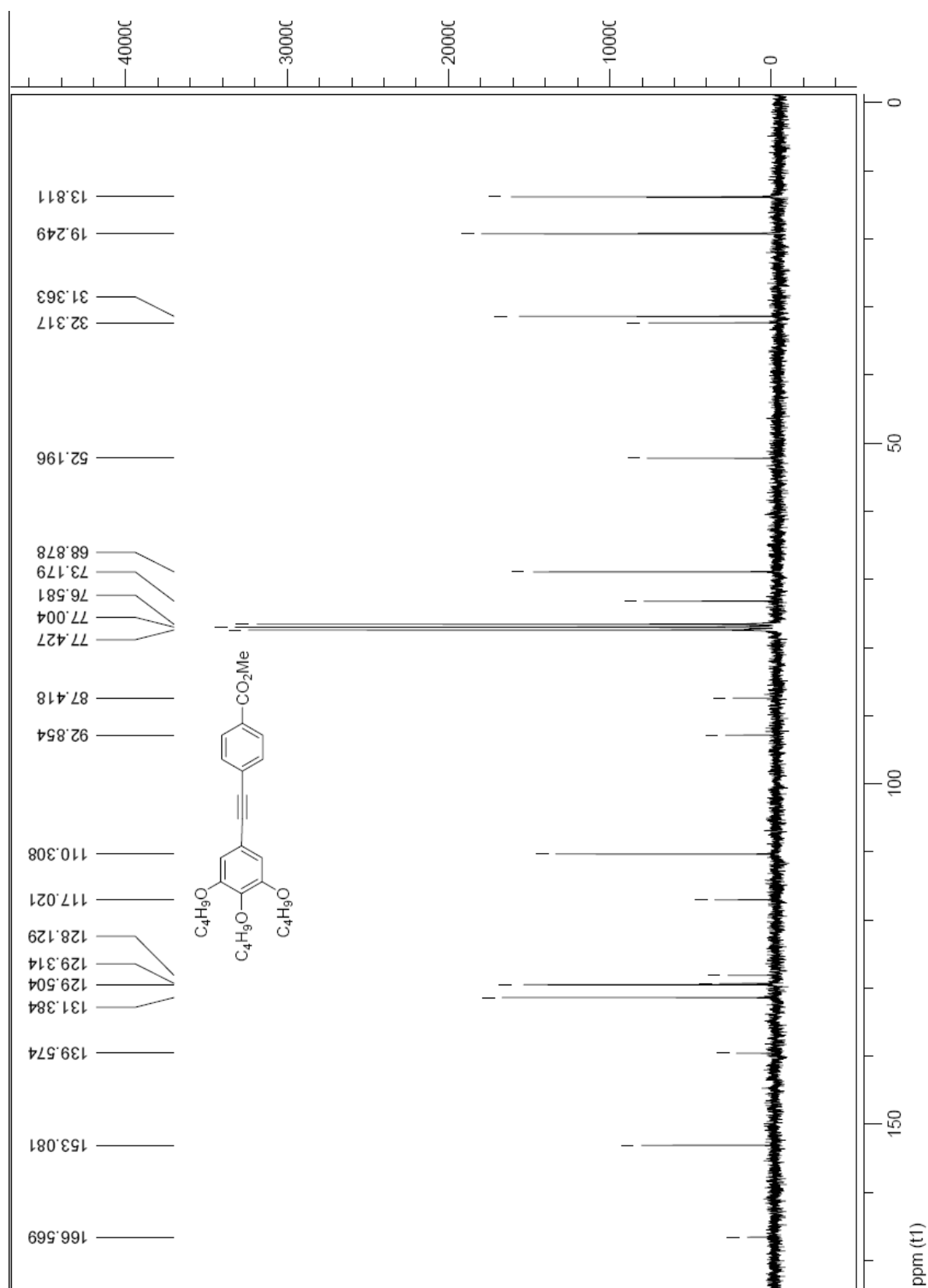
Mass spectrum(MALDI-TOF) $[\text{M}+\text{Na}]^+$ spectrum of compound **HBC-COOH**.



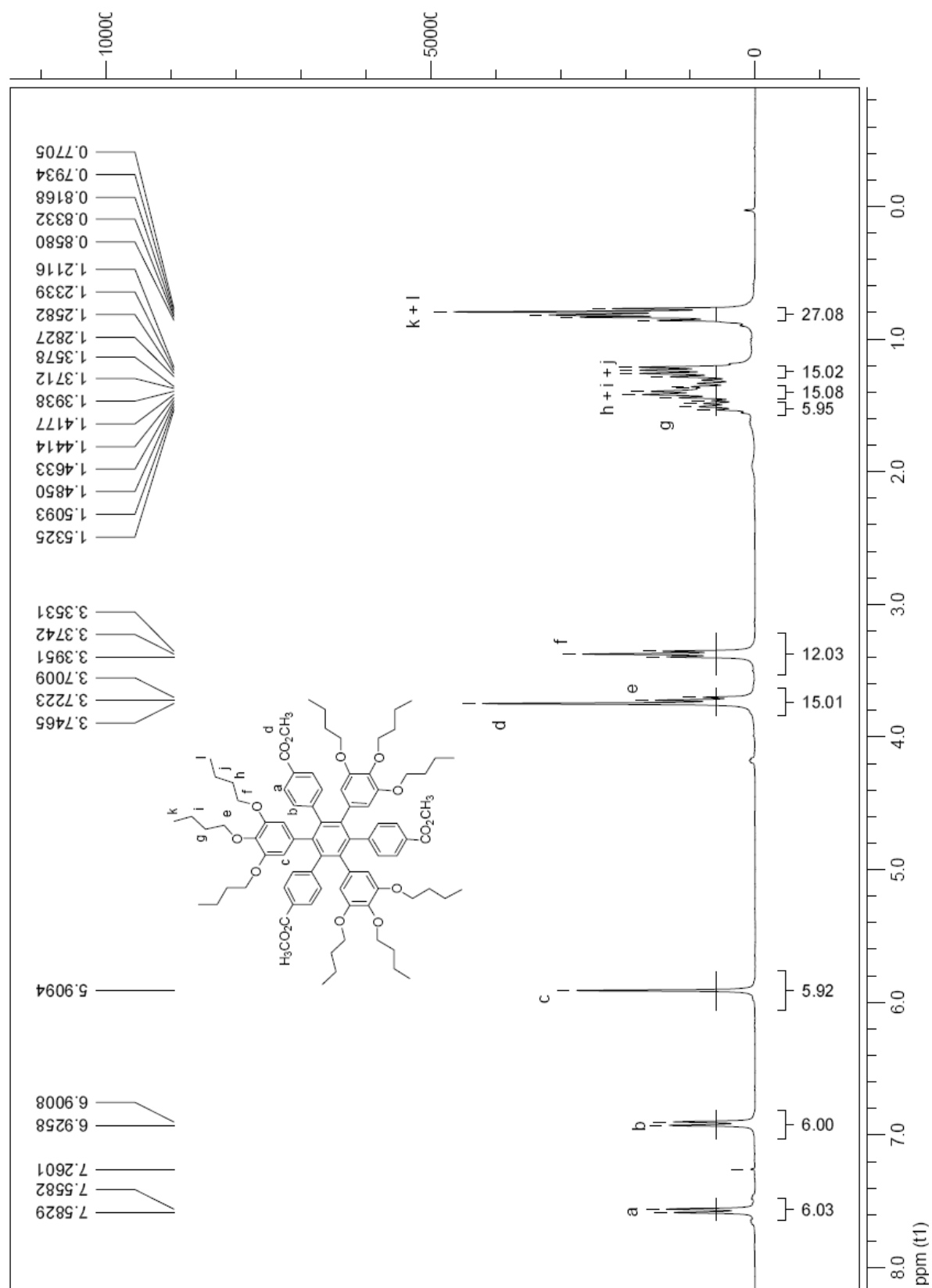
¹H NMR spectrum of **Compound 1** (CDCl₃, 300 MHz, RT)



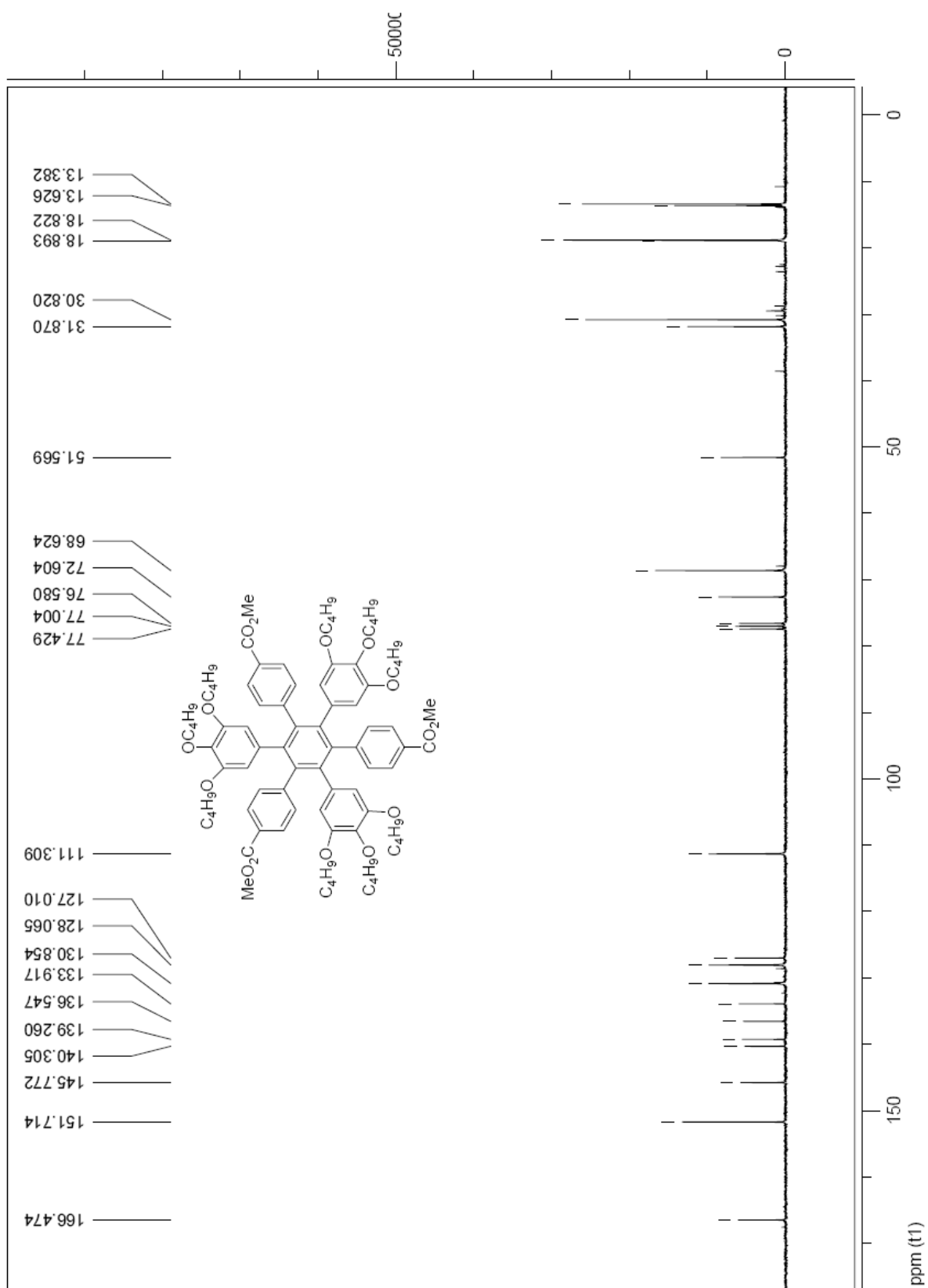
^{13}C NMR spectrum of **Compound 1** (CDCl_3 , 75 MHz, RT)



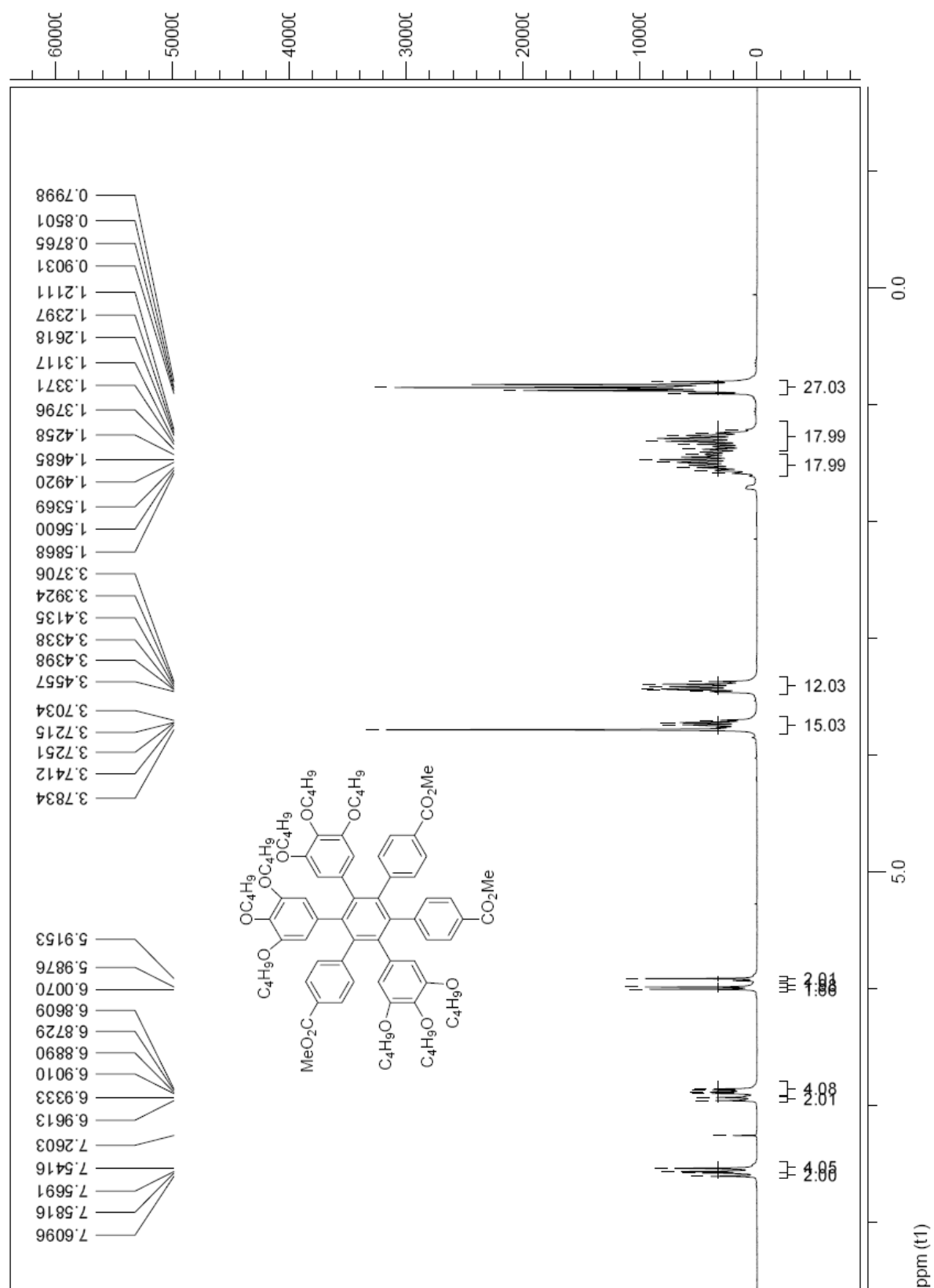
^1H NMR spectrum of **Compound 2** (CDCl_3 , 300 MHz, RT)



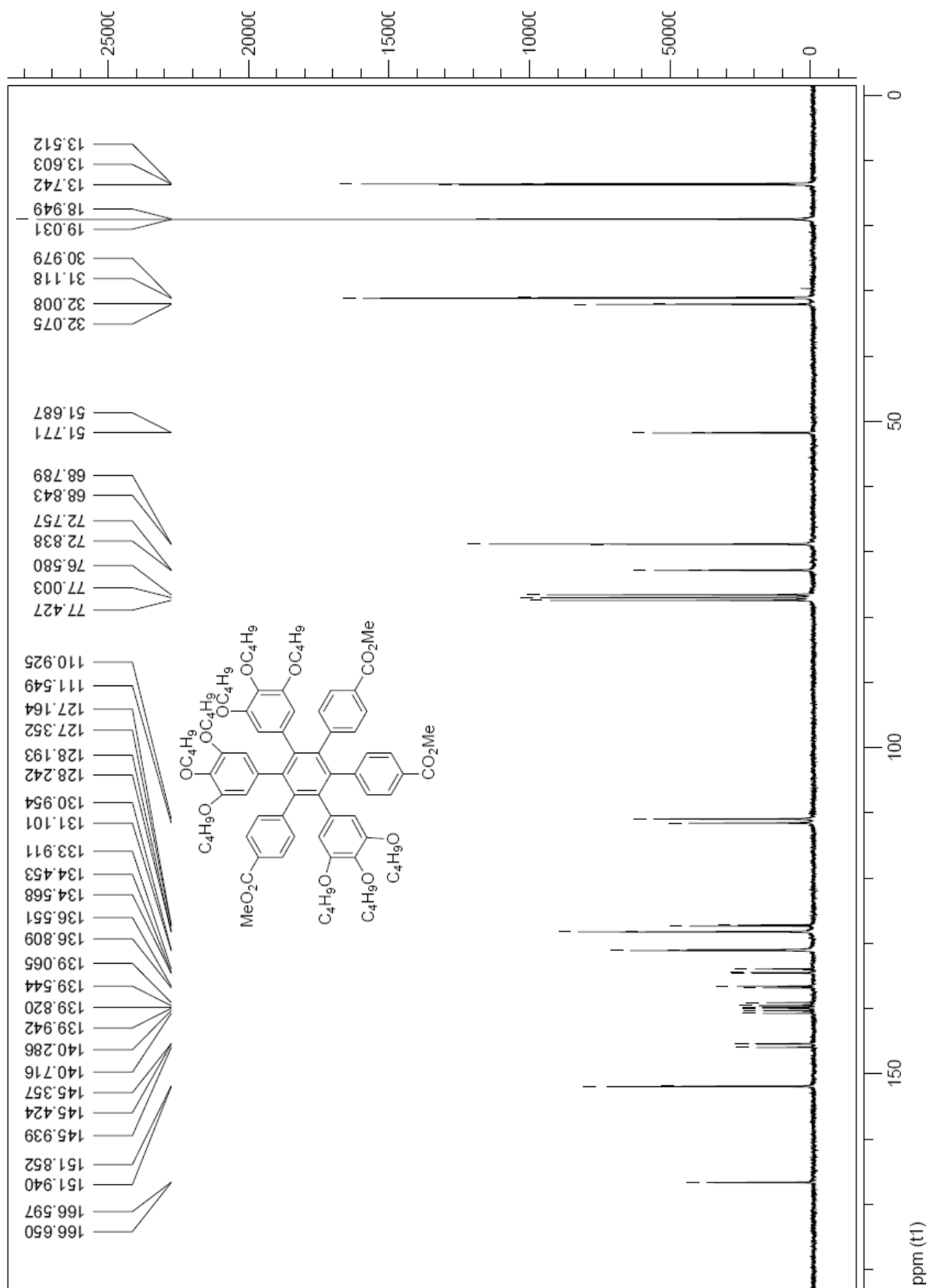
^{13}C NMR spectrum of **Compound 2** (CDCl_3 , 75 MHz, RT)



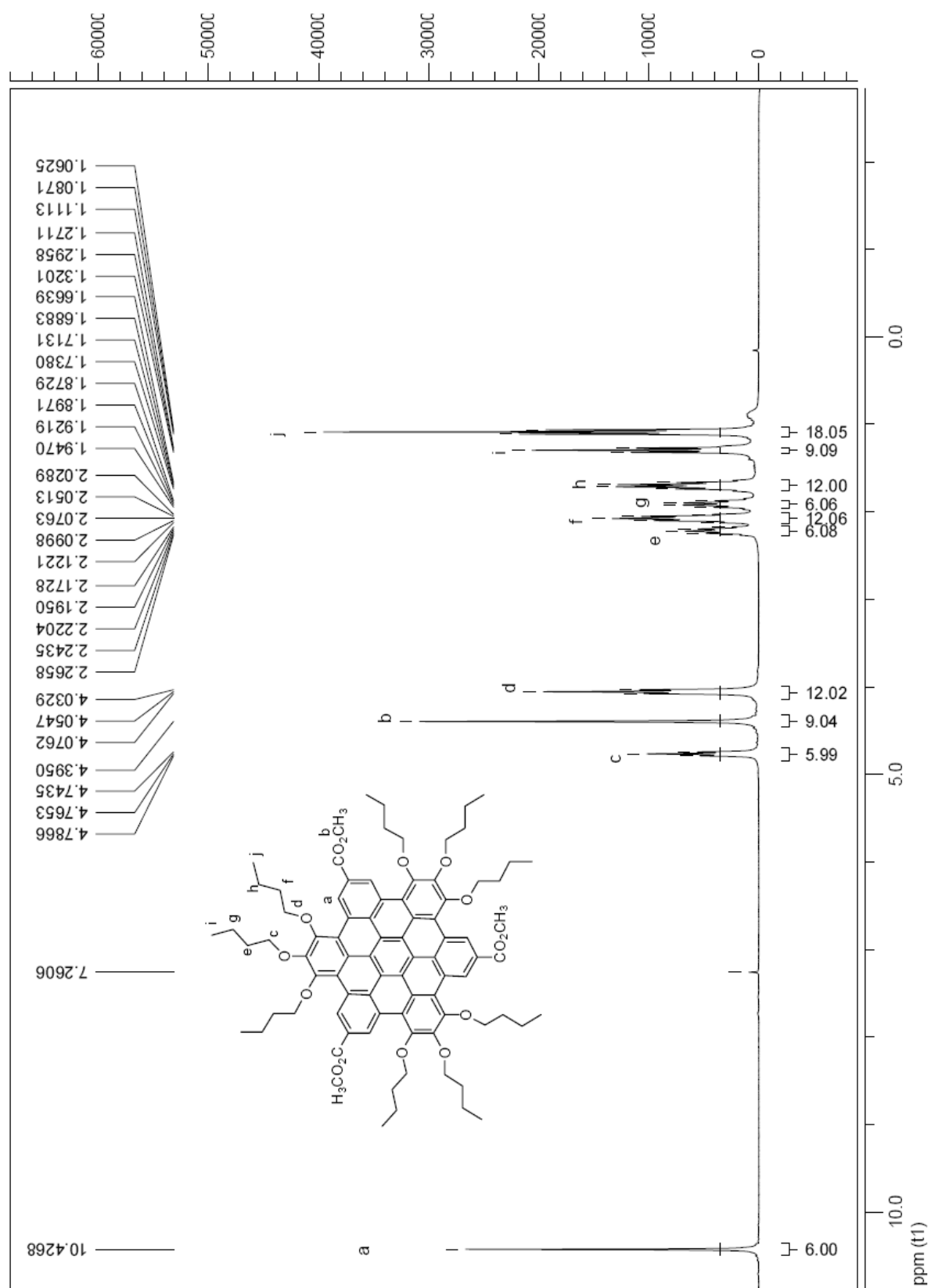
^1H NMR spectrum of **Compound 3** (CDCl_3 , 300 MHz, RT)



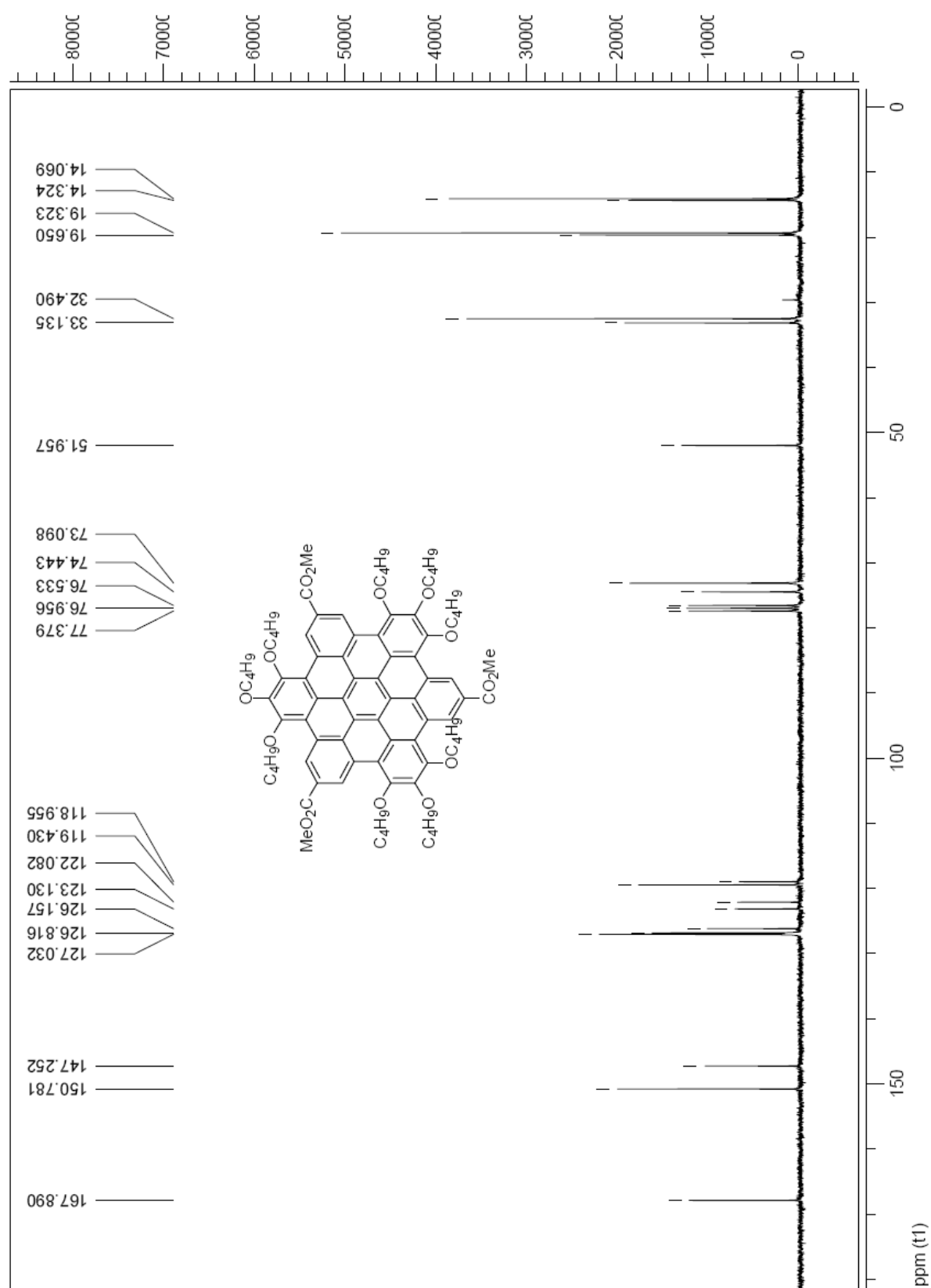
^{13}C NMR spectrum of **Compound 3** (CDCl_3 , 75 MHz, RT)



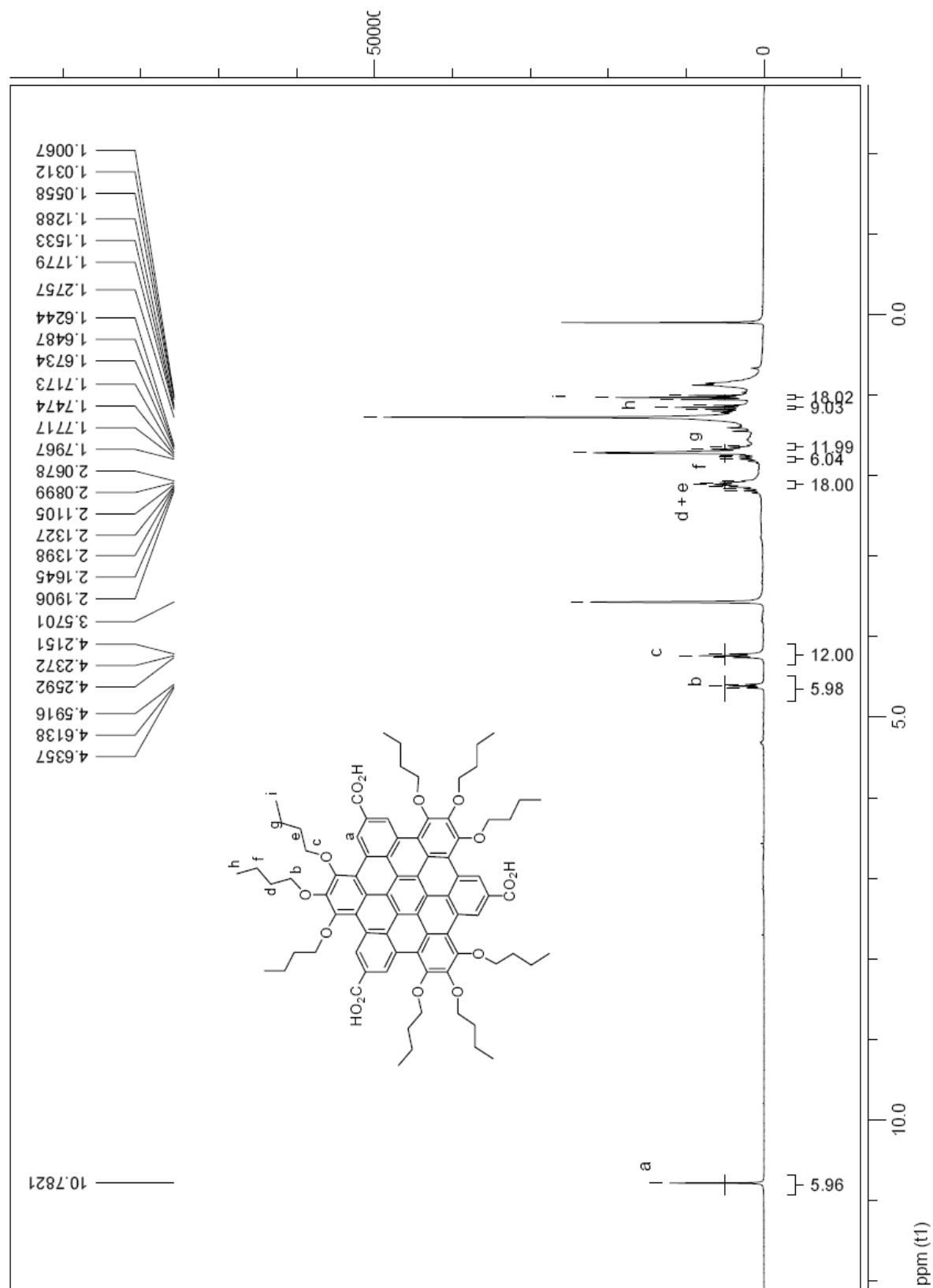
^1H NMR spectrum of **Compound 4** (CDCl_3 , 300 MHz, RT)



^{13}C NMR spectrum of **Compound 4** (CDCl_3 , 75 MHz, RT)



^1H NMR spectrum of **HBC-COOH** (THF- d_8 , 300 MHz, RT)



^{13}C NMR spectrum of **HBC-COOH** (THF- d_8 , 75 MHz, RT)

