Electronic Supplementary Material (ESI) for RSC Advances.

Supplementary Information

Chiral Mono- and Dicarbamates Derived from (*S*)-Ethyl Lactate: Convenient Chiral Solvating Agents for the Direct and Efficient Enantiodiscrimination of Amino Acids Derivatives by ^{1}H NMR Spectroscopy

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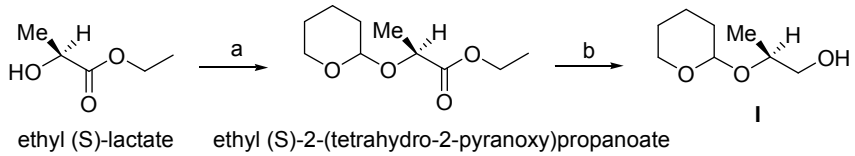

Scheme S1. Synthesis of **I**:[21] a) dihydropyran, HCl (12 N), RT, 16 h; b) $LiAlH_4$, Et_2O, 0 °C.

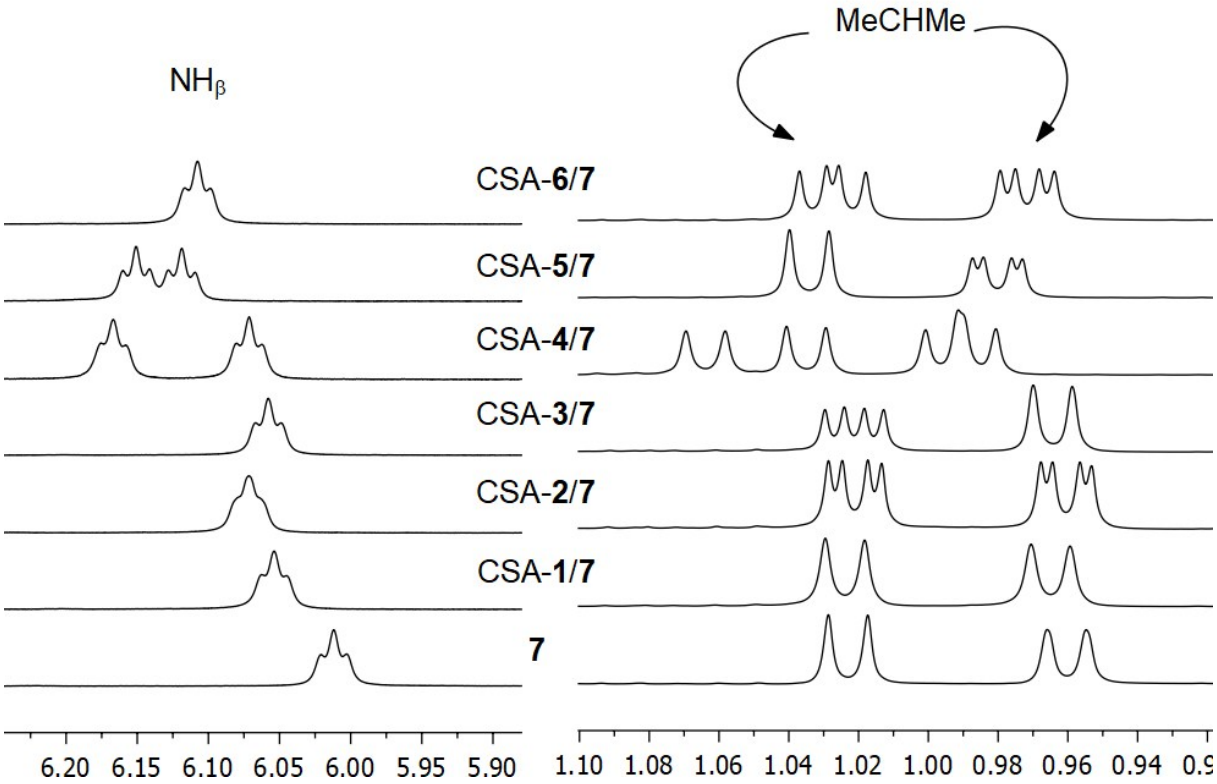

Figure S1. ^{1}H NMR (600 MHz, $CDCl_3$, 25 °C) spectral regions corresponding to NH_β and methyl protons of **7** (10 mM) in the presence of one equivalent of CSA

Table S1. ^{1}H NMR (600 MHz, $CDCl_3$, 25 °C) non-equivalences ($\Delta\Delta\delta=|\Delta\delta_S- \Delta\delta_R|$, ppm) data of **7** (30 mM) in the presence of one equivalent of CSA (30 mM)

substrate	proton	CSA-1	CSA-2	CSA-3	CSA-4	CSA-5	CSA-6
7	NH_α	0.006	0.034	0.021	0.200	0.073	0.016
	NH_β	-	0.005	-	0.101	0.039	-
	CH*	0.002	0.006	0.004	0.036	0.015	0.004
	H_{ortho}	-	0.010	0.004	0.029	-	-
	H_{para}	0.004	0.004	0.003	0.067	0.021	0.003

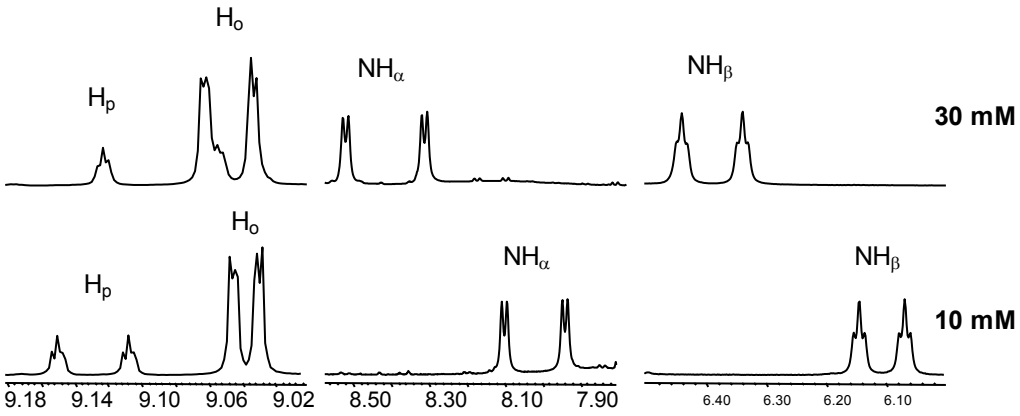

Figure S2. ^{1}H NMR (600 MHz, $CDCl_3$, 25 °C) spectral regions corresponding to DNB protons and amide (NH_α and NH_β) protons of **7** (10 mM and 30 mM) in the presence of one equivalent of CSA

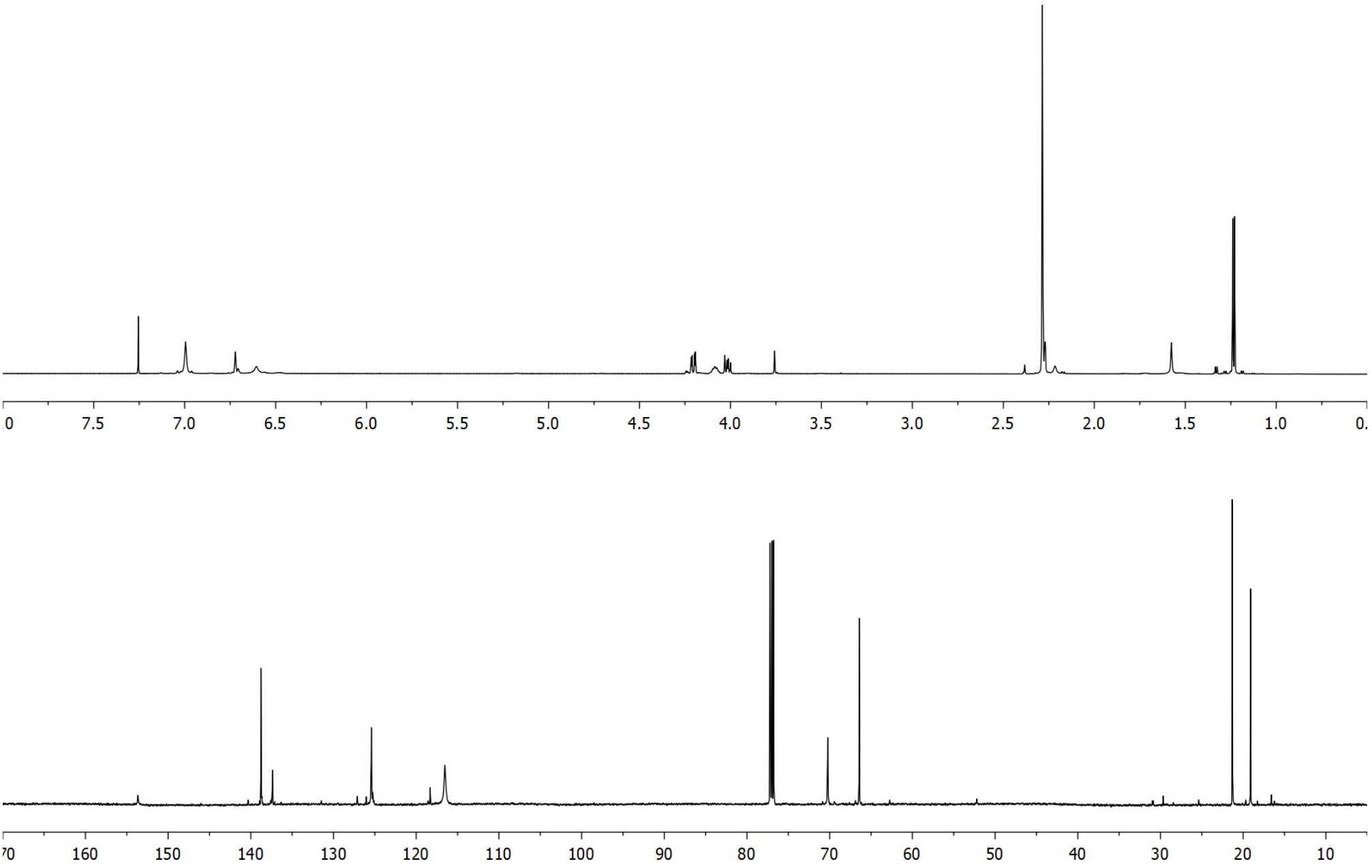

Figure S3. ^{1}H (600 MHz, $CDCl_3$, 25 °C) and ^{13}C (150 MHz, $CDCl_3$, 25 °C) NMR spectra of CSA-**1**

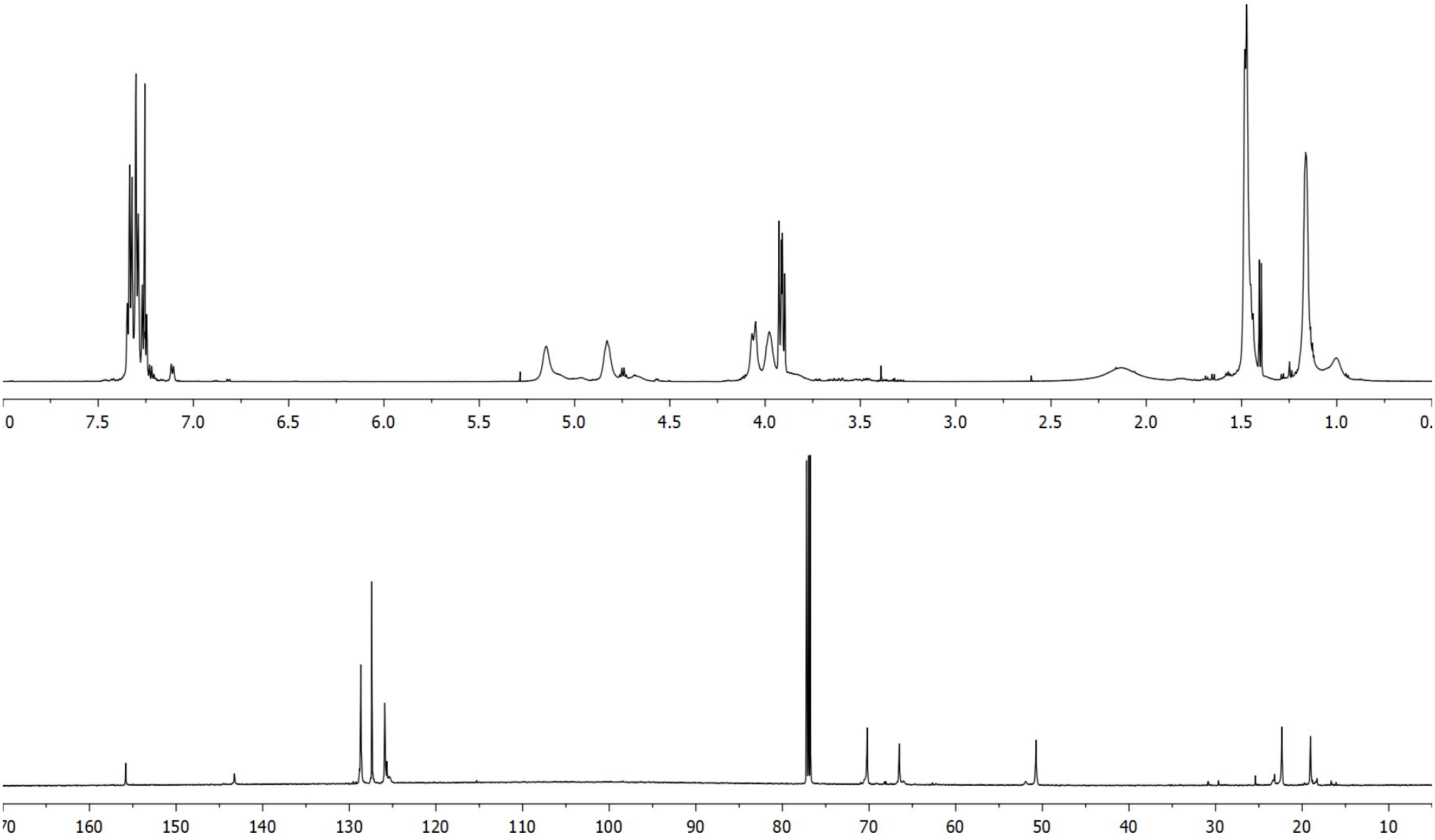

Figure S4. ^{1}H (600 MHz, $CDCl_3$, 25 °C) and ^{13}C (150 MHz, $CDCl_3$, 25 °C) NMR spectra of CSA-**2**

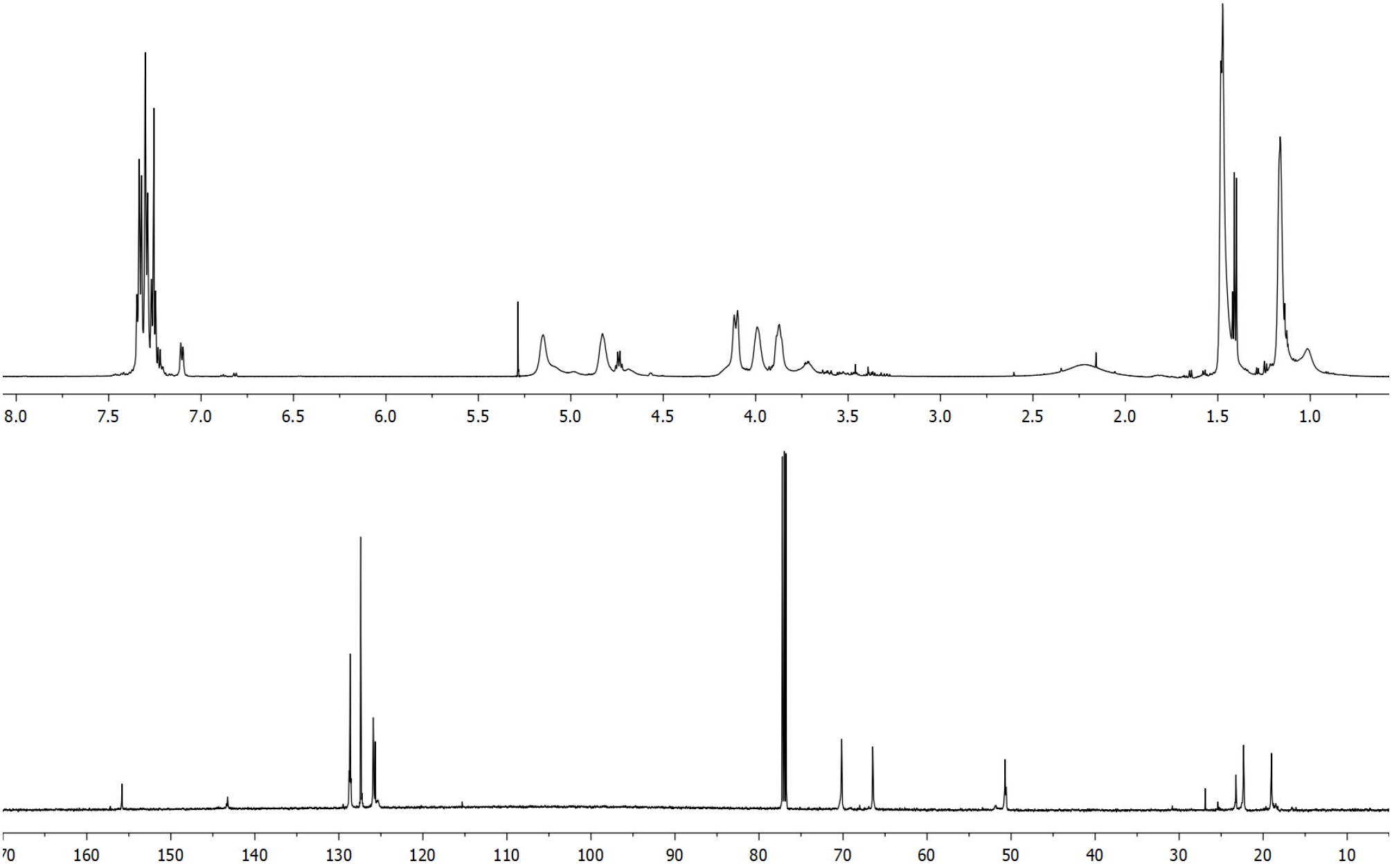

Figure S5. ^{1}H (600 MHz, $CDCl_3$, 25 °C) and ^{13}C (150 MHz, $CDCl_3$, 25 °C) NMR spectra of CSA-**3**

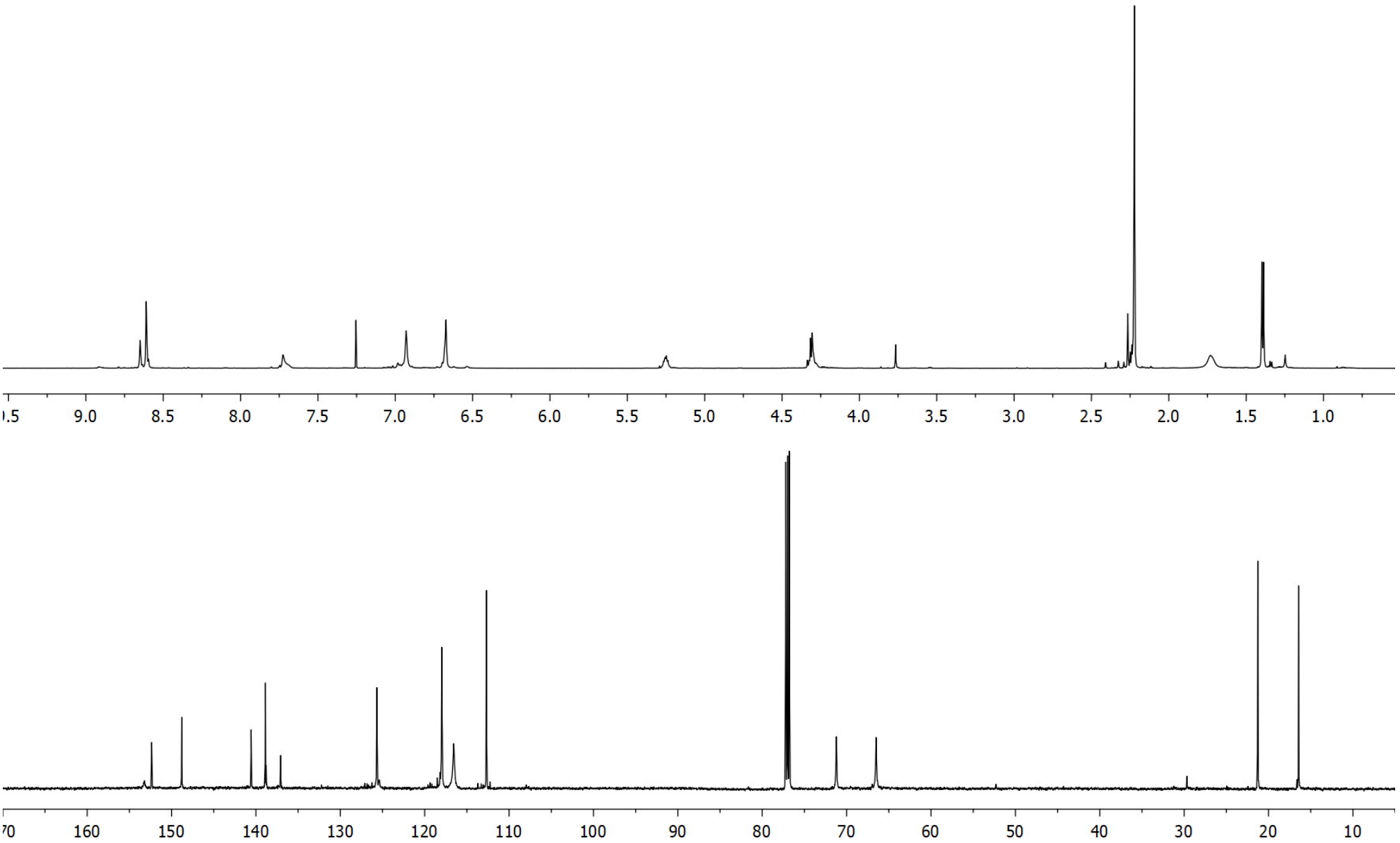

Figure S6. ^{1}H (600 MHz, $CDCl_3$, 25 °C) and ^{13}C (150 MHz, $CDCl_3$, 25 °C) NMR spectra of CSA-**4**

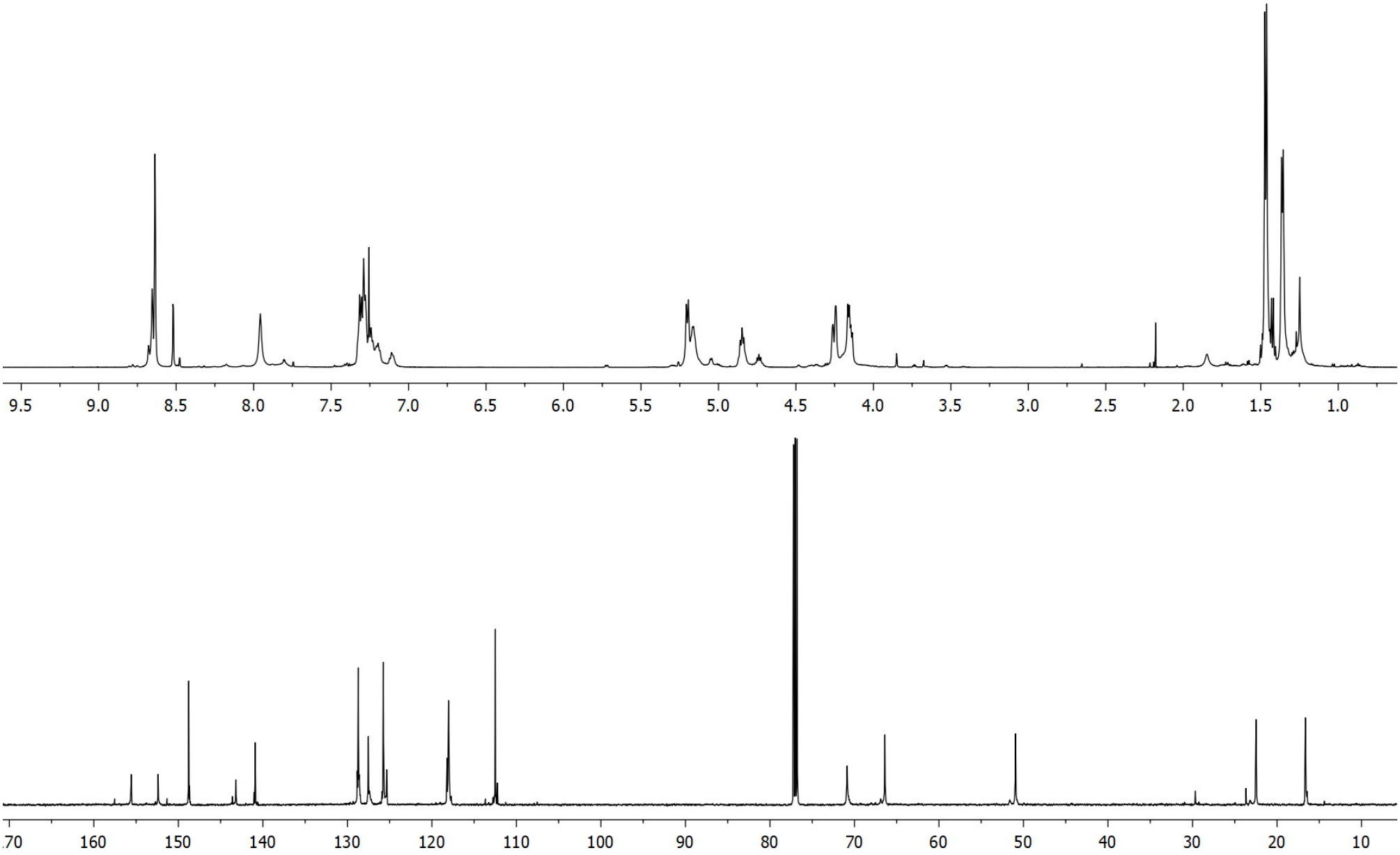

Figure S7. ^{1}H (600 MHz, $CDCl_3$, 25 °C) and ^{13}C (150 MHz, $CDCl_3$, 25 °C) NMR spectra of CSA-**5**

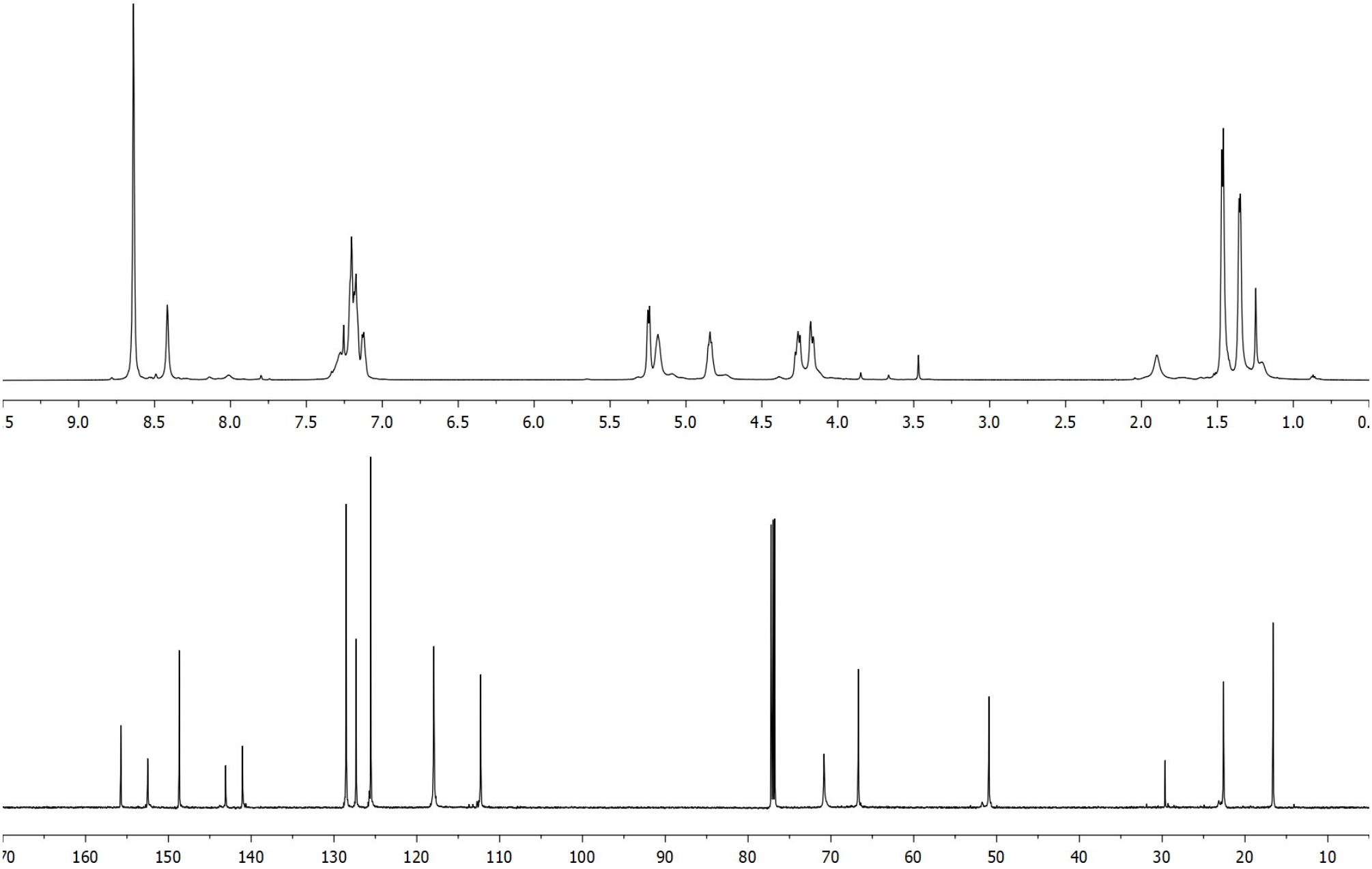

Figure S8. ^{1}H (600 MHz, $CDCl_3$, 25 °C) and ^{13}C (150 MHz, $CDCl_3$, 25 °C) NMR spectra of CSA-**6**