

## Supporting information

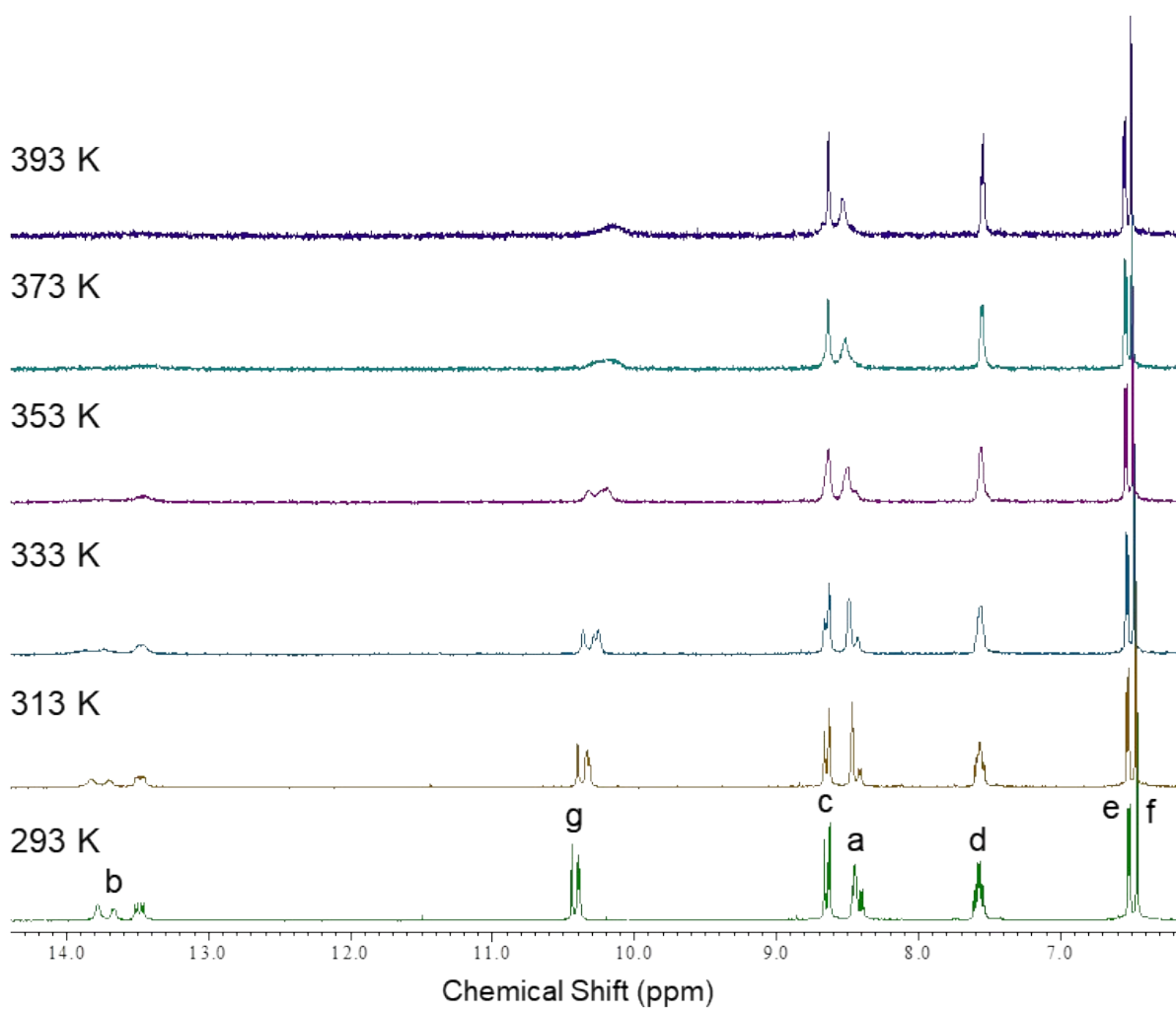
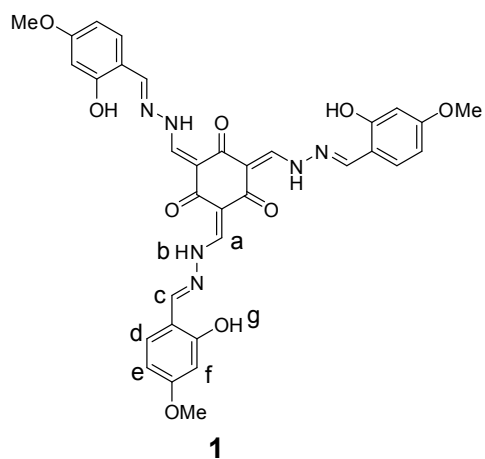
### Base-induced multi-state fluorescence of a trefoil-shaped salicylaldehyde azine derivative

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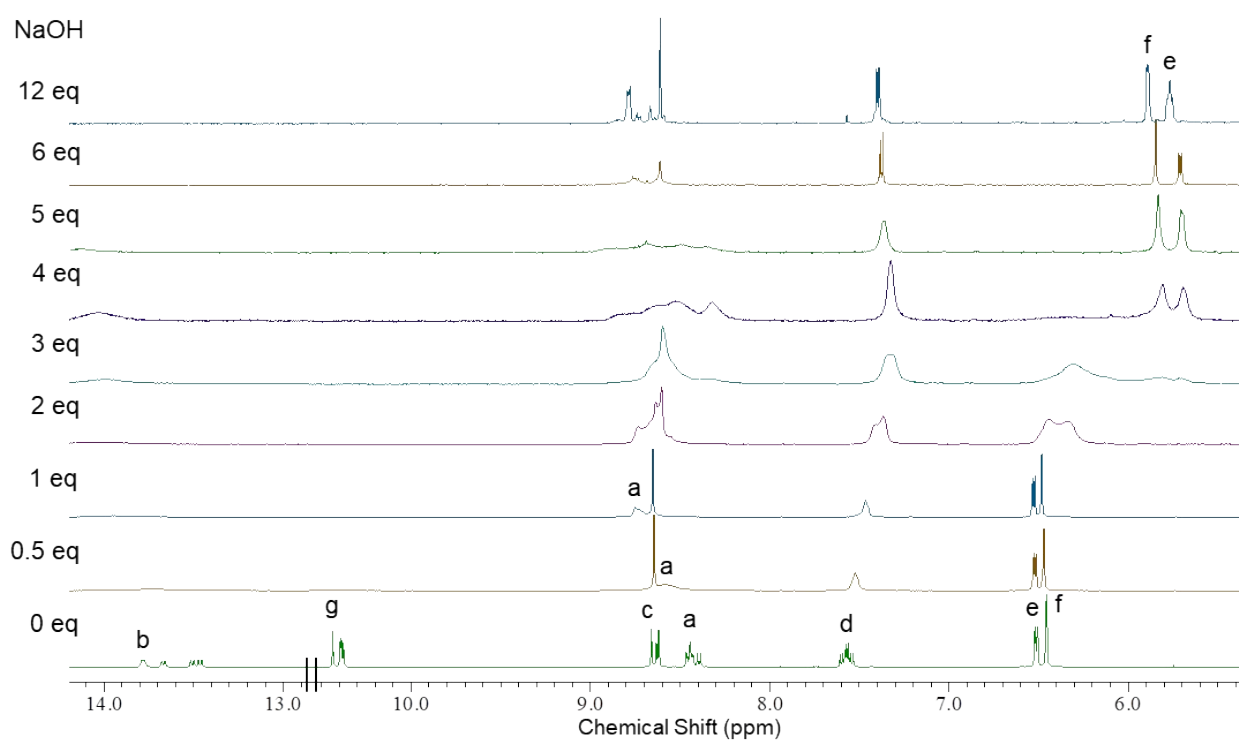
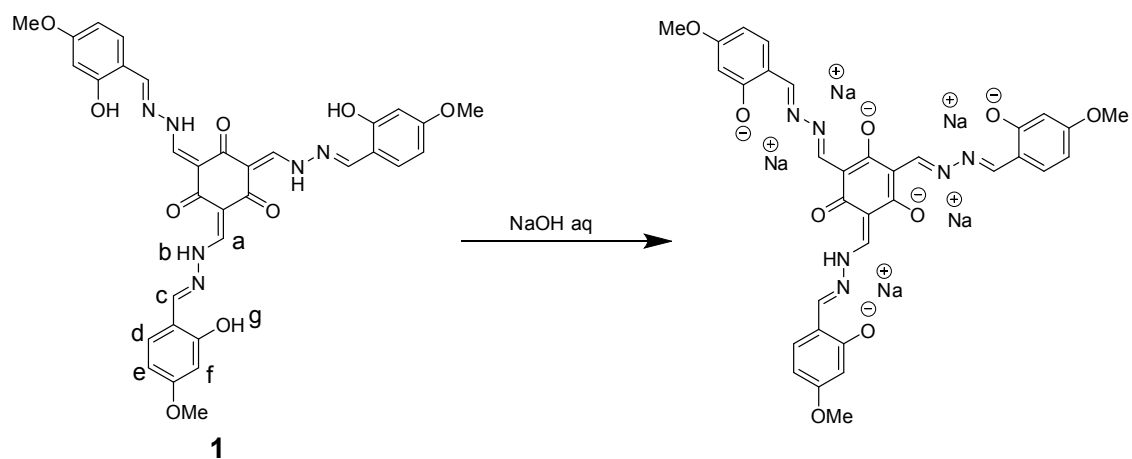
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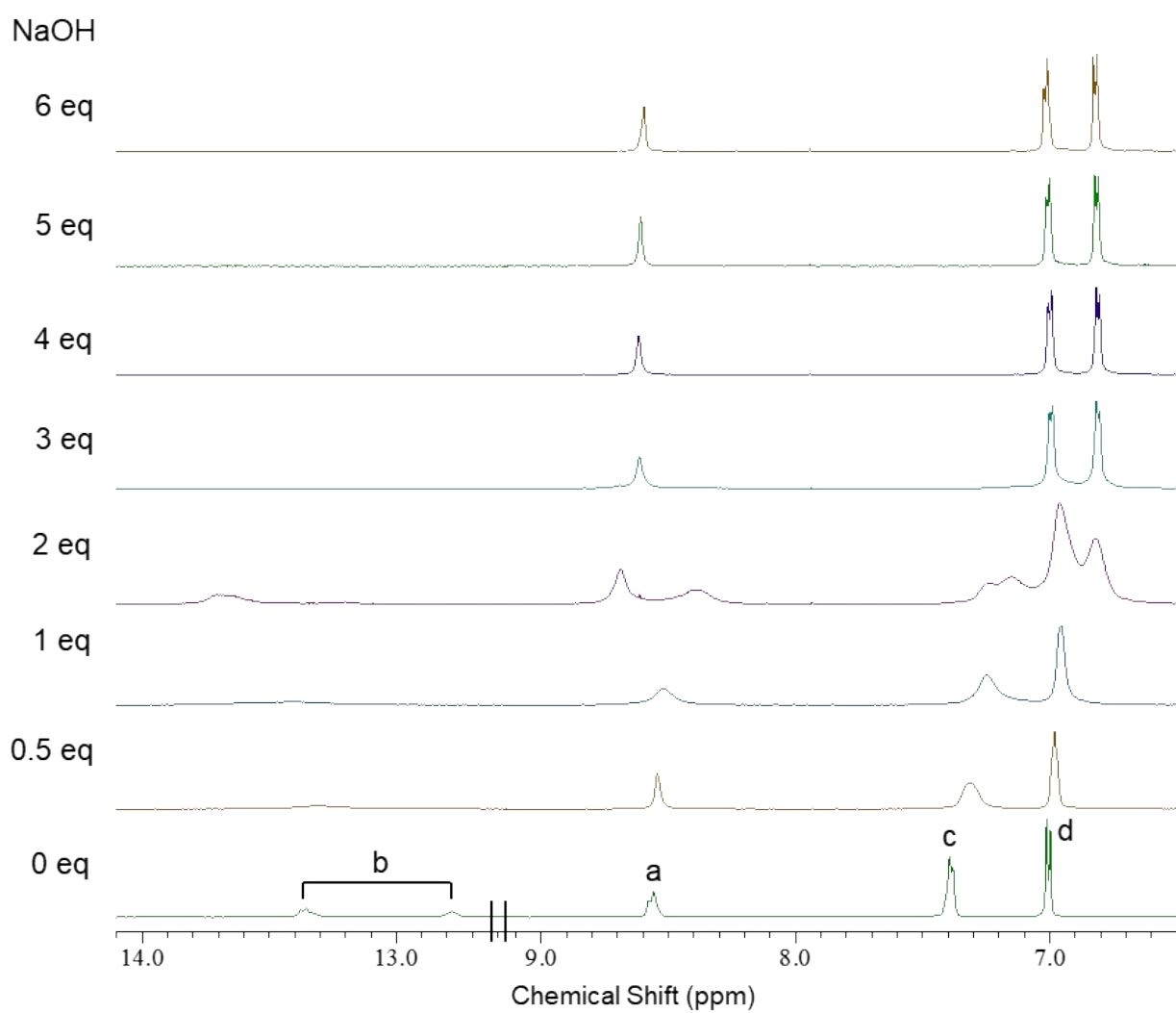
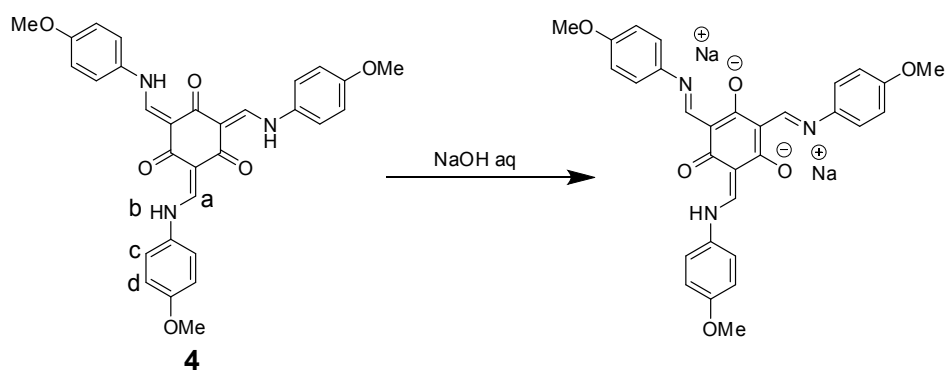
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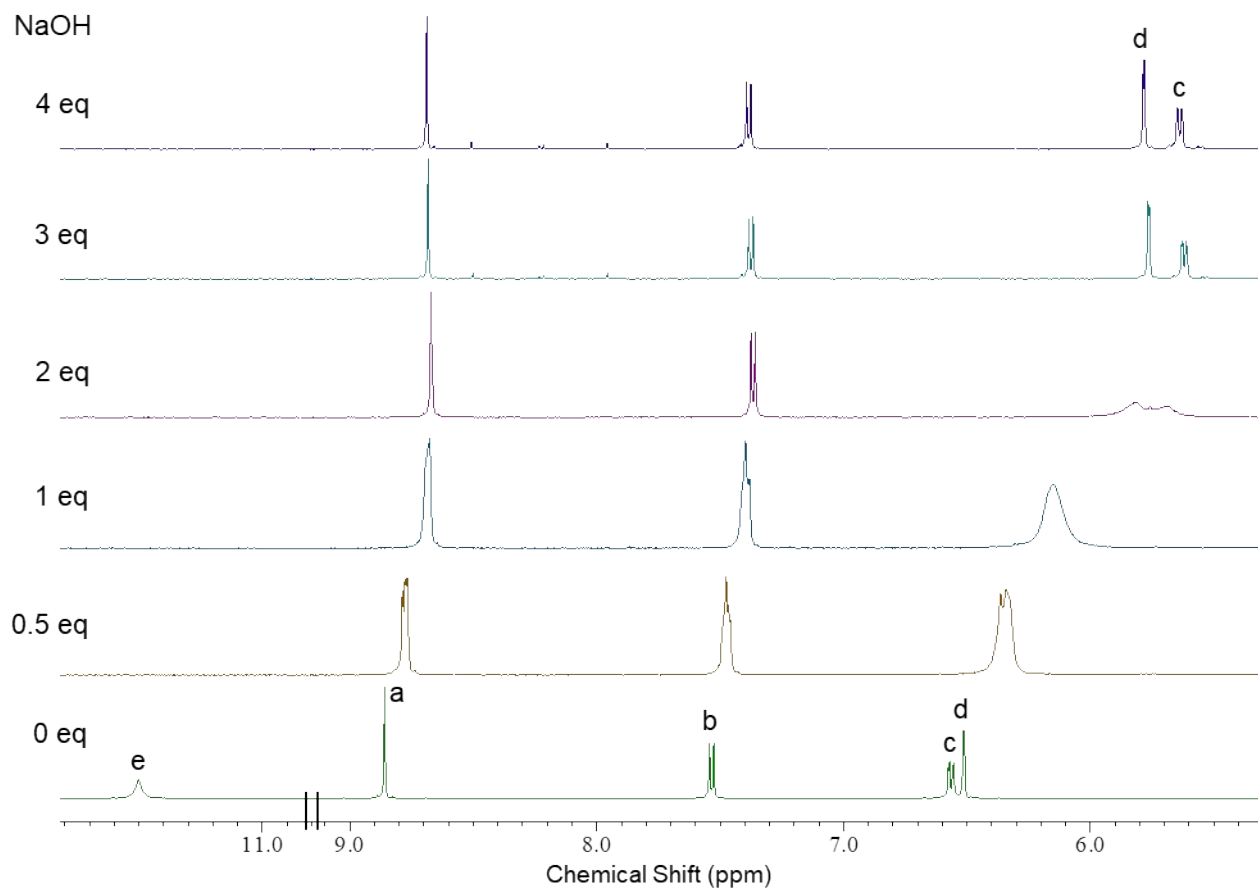
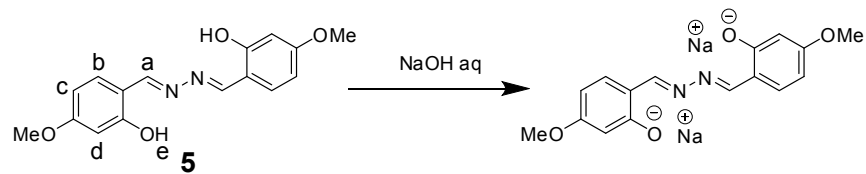
**Fig. S1** Variable-temperature  $^1\text{H}$  NMR spectra (600 MHz,  $\text{DMSO}-d_6$ ) of **1**.



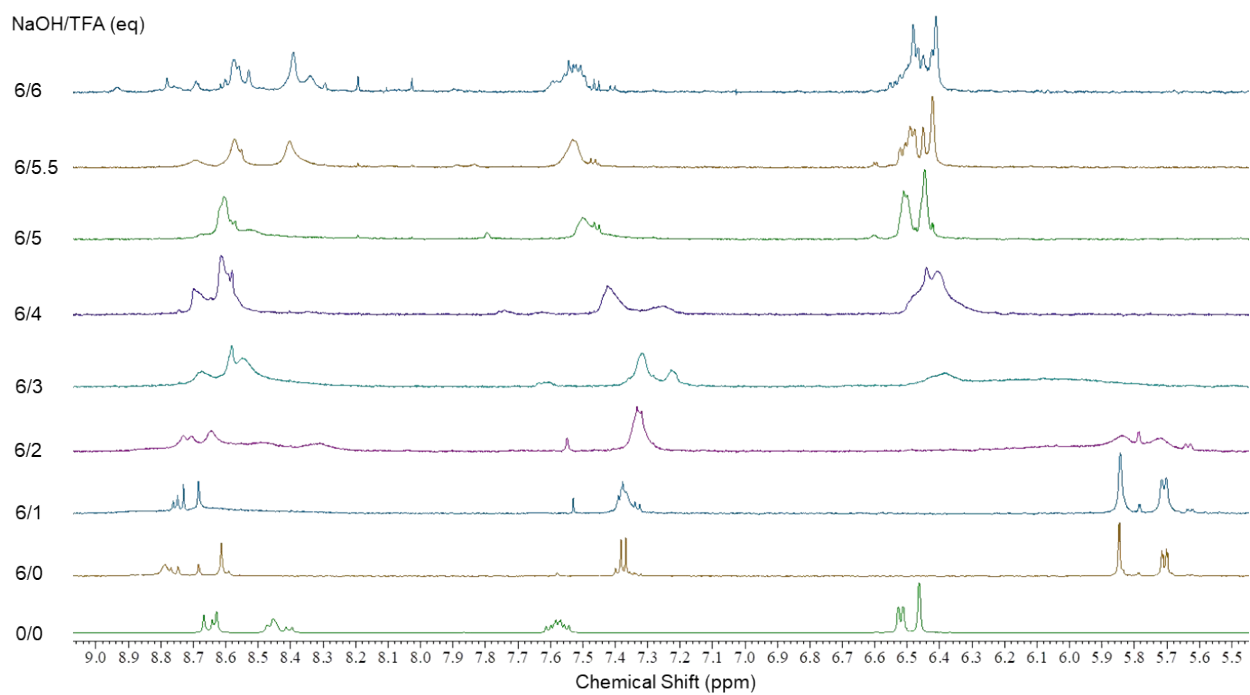
**Fig. S2**  $^1\text{H}$  NMR spectra (600 MHz,  $\text{DMSO-}d_6$ , 295 K) of **1** (5.0 mM) upon successive addition of NaOH (0–12 eq). The partial spectra are presented in Fig. 3.



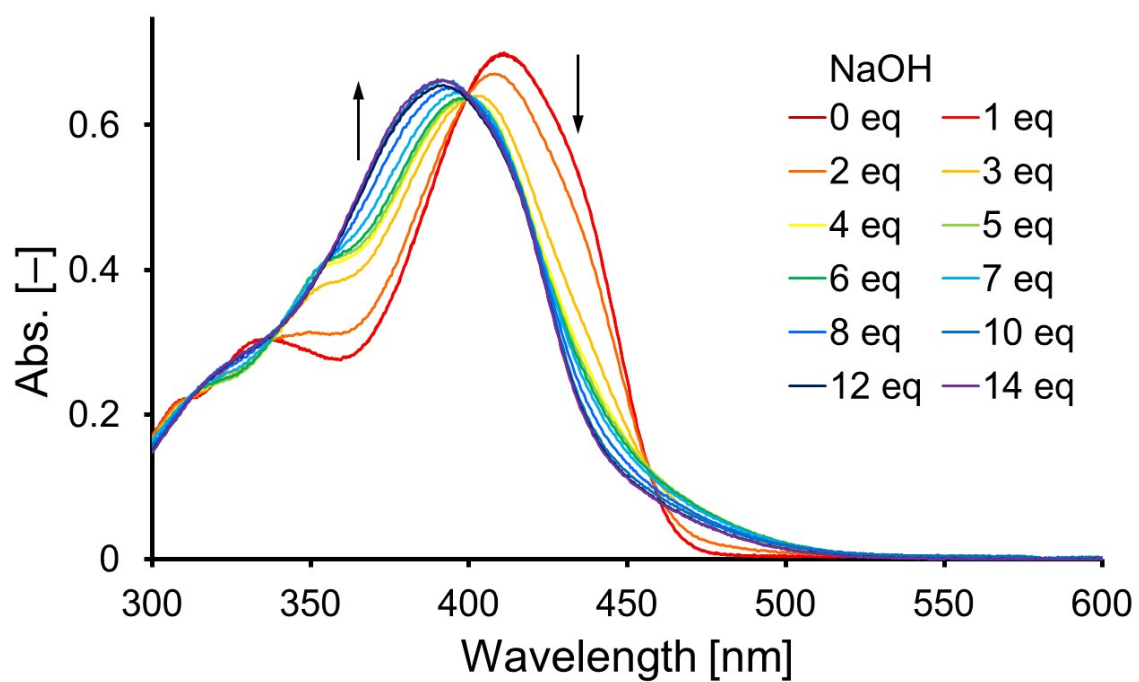
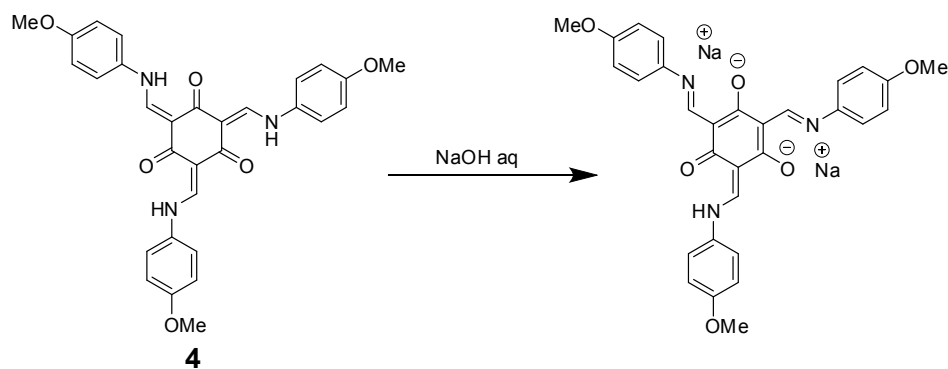
**Fig. S3**  $^1\text{H}$  NMR spectra (600 MHz,  $\text{DMSO-}d_6$ , 295 K) of **4** (5.0 mM) upon successive addition of NaOH (0–6 eq).



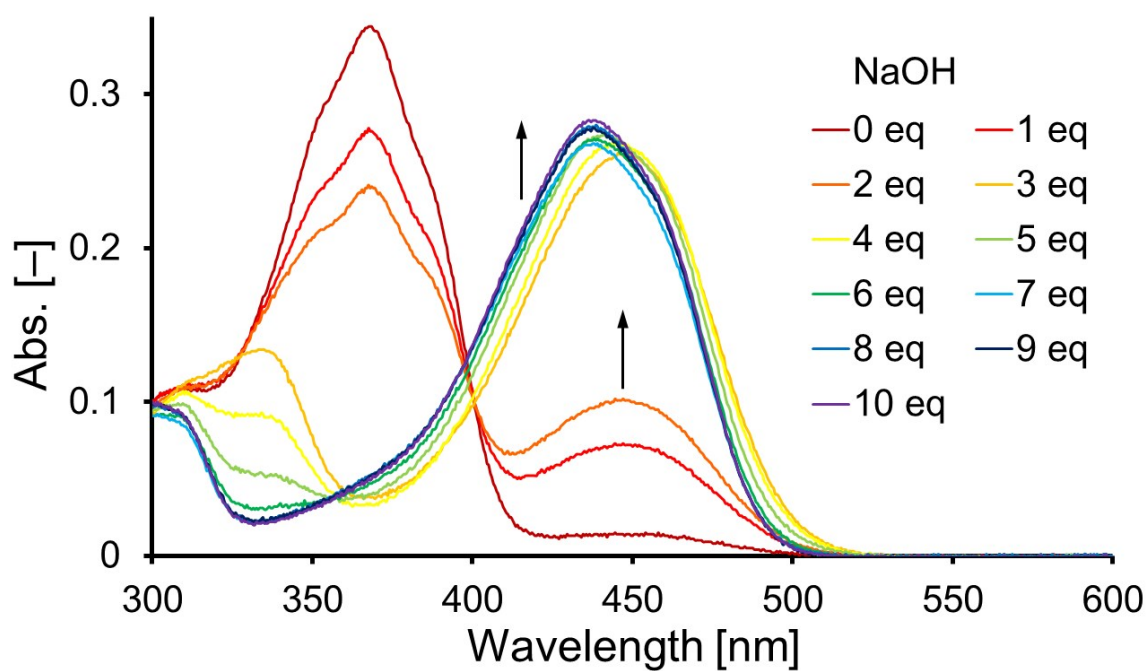
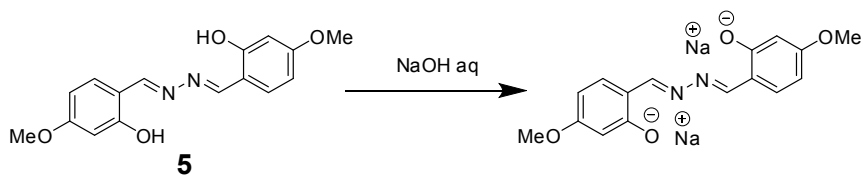
**Fig. S4**  $^1\text{H}$  NMR spectra (600 MHz,  $\text{DMSO-}d_6$ , 295 K) of **5** (5.0 mM) upon successive addition of NaOH (0–4 eq).



**Fig. S5** <sup>1</sup>H NMR spectra (600 MHz, 295 K) of a mixture of **1** (5.0 mM) and NaOH (6 eq) in DMSO-*d*<sub>6</sub> upon successive addition of TFA (0–6 eq).

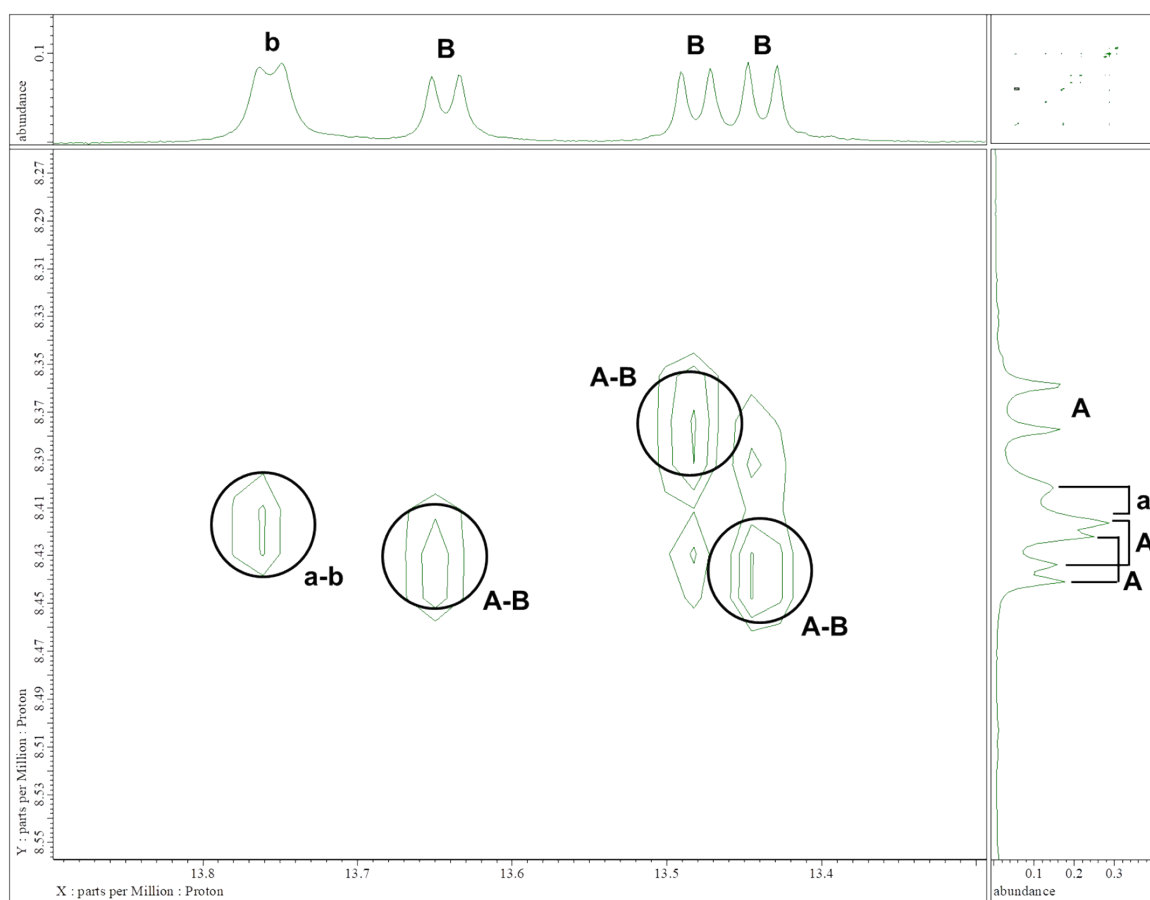
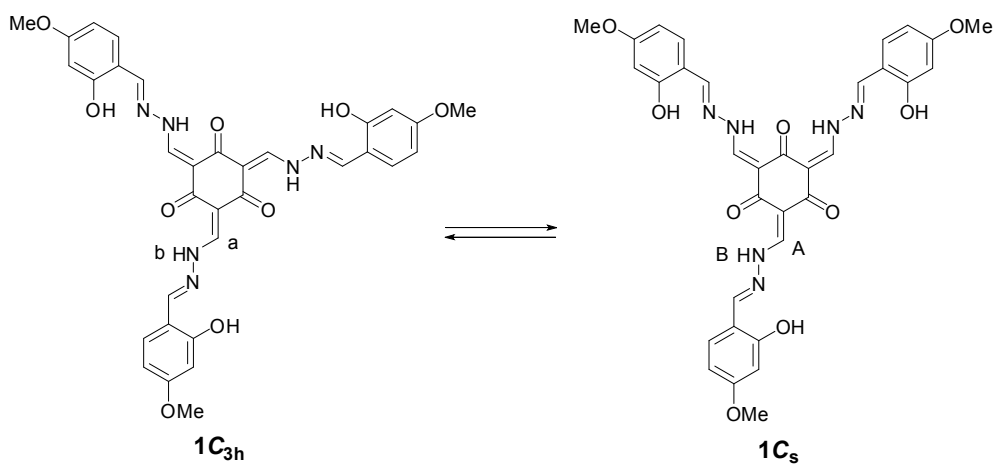


**Fig. S6** UV-Vis absorption spectra of **4** ( $1.0 \times 10^{-1}$  mM) in the presence of NaOH (0–14 eq) [DMSO/H<sub>2</sub>O = 20:1 (v/v);  $d = 1$  mm].

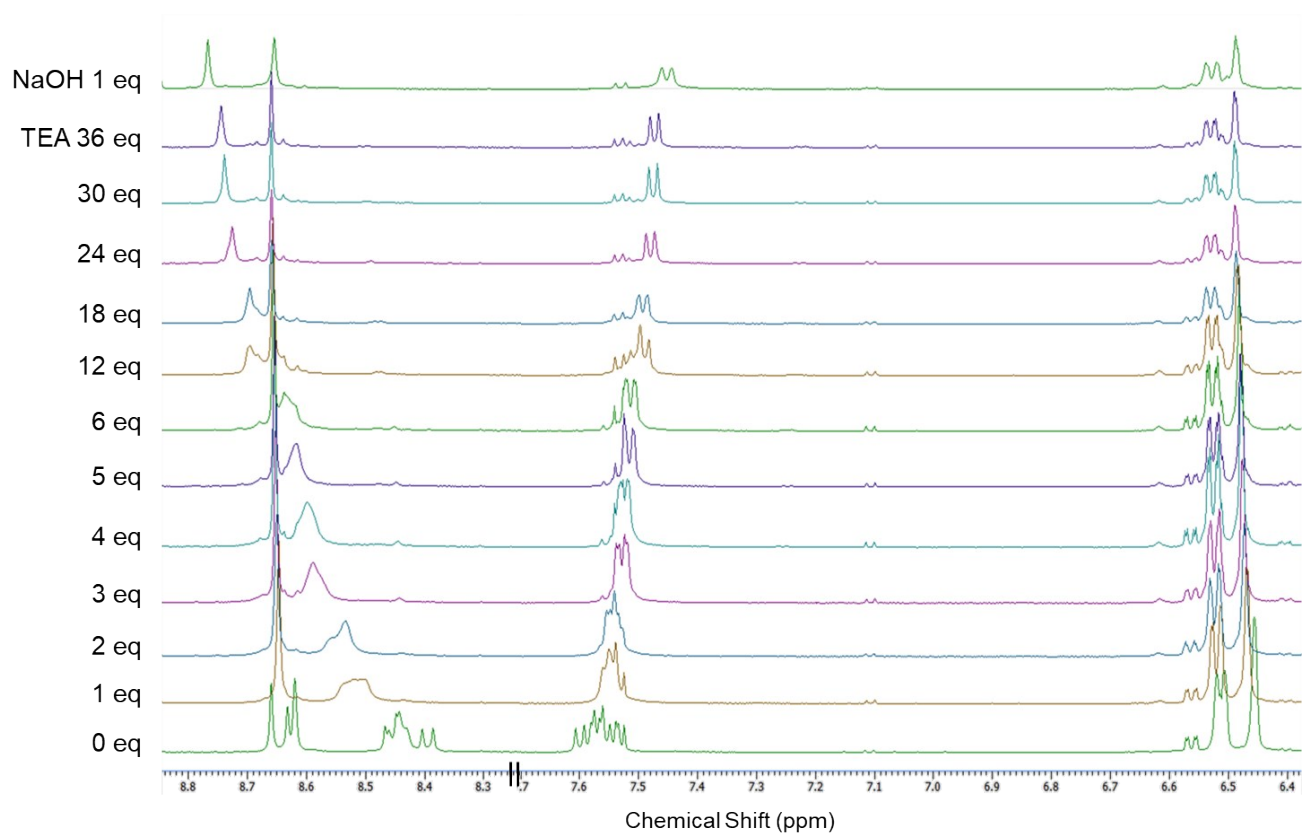


**Fig. S7** UV-Vis absorption spectra of **5** ( $1.0 \times 10^{-1}$  mM) in the presence of NaOH (0–10 eq) [DMSO/H<sub>2</sub>O = 20:1 (v/v);  $d = 1$  mm].

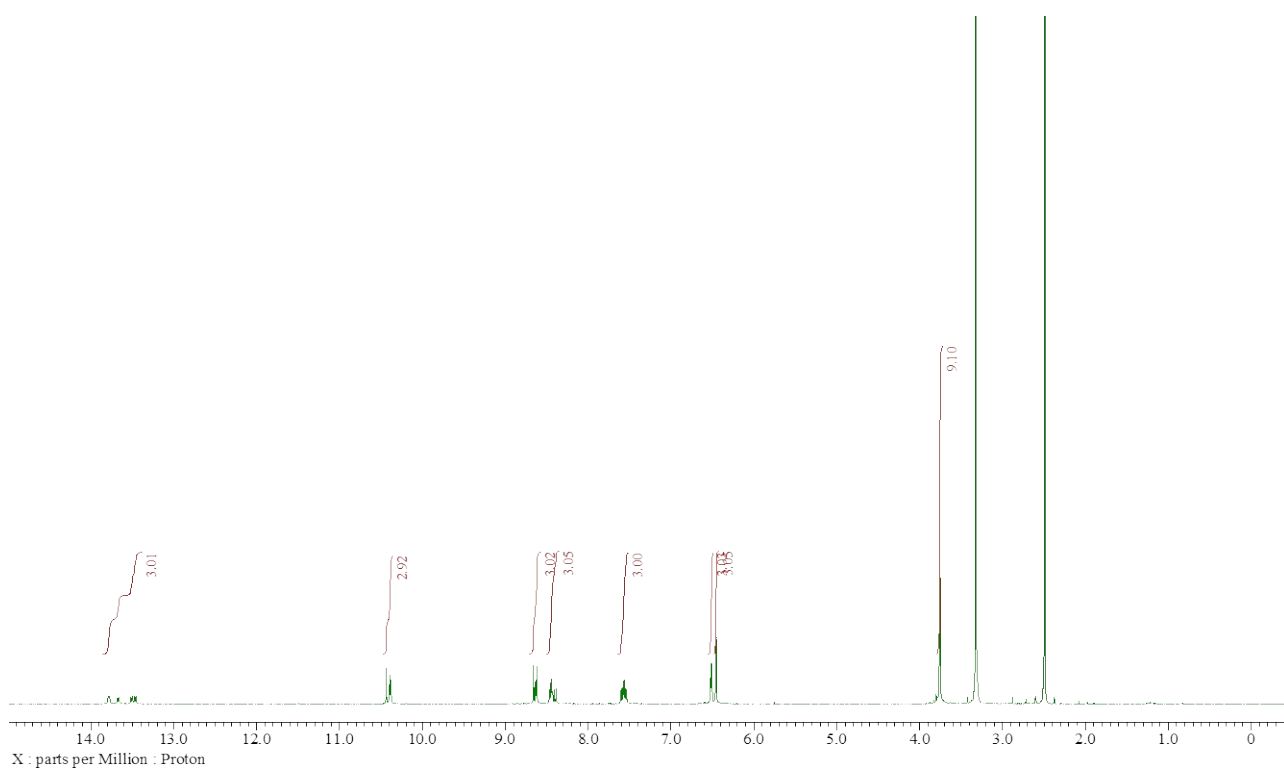




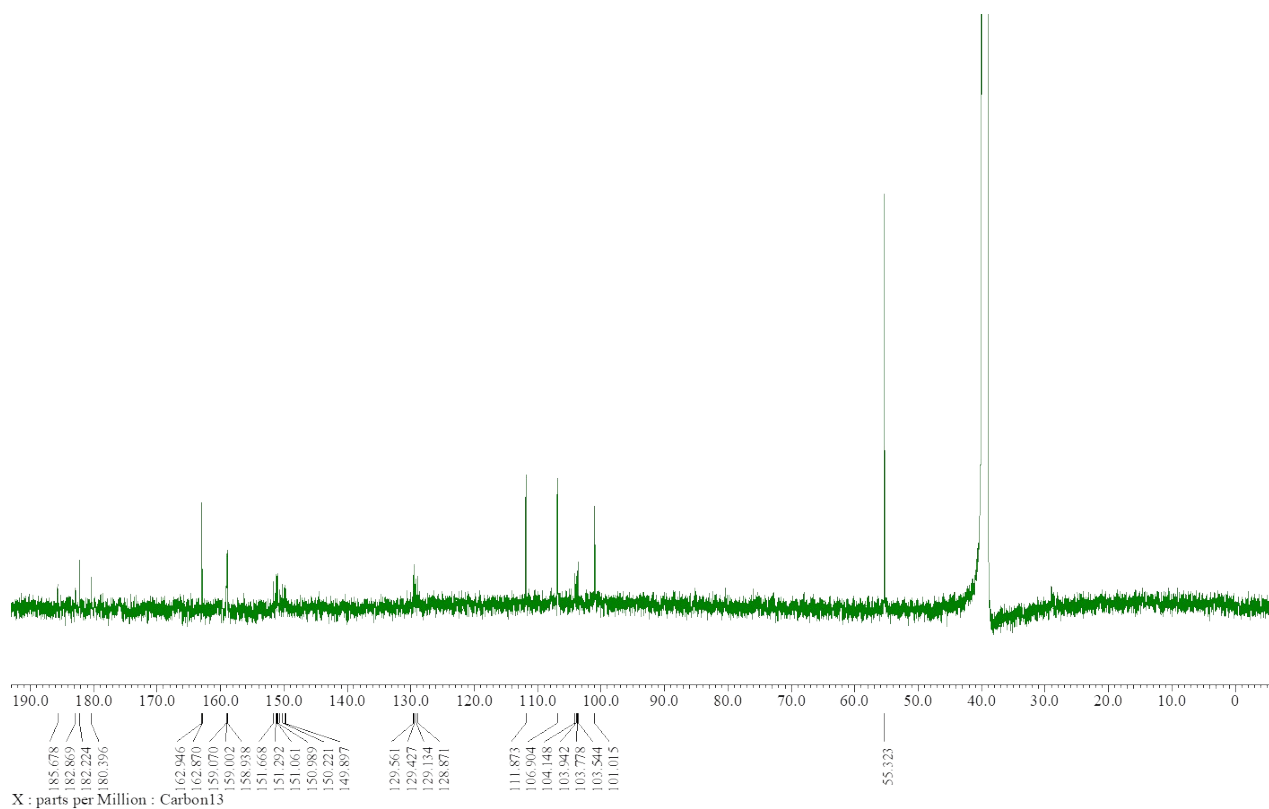
**Fig. S8**  $^1\text{H}$ - $^1\text{H}$  COSY NMR spectrum (600 MHz,  $\text{DMSO-}d_6$ , 295 K) of **1**.



**Fig. S9** <sup>1</sup>H NMR spectra (600 MHz, DMSO-*d*<sub>6</sub>, 295 K) of **1** (5.0 mM) upon successive addition of triethylamine (0–36 eq) and NaOH (1 eq).



**Fig. S10**  $^1\text{H}$  NMR spectrum (600 MHz,  $\text{DMSO-}d_6$ , 295 K) of **1**.



**Fig. S11**  $^{13}\text{C}$  NMR spectrum (150 MHz,  $\text{DMSO-}d_6$ , 295 K) of **1**.