



1H NMR spectrum (400 MHz, CDCl<sub>3</sub>) of compound 1b072. The x-axis represents Chemical Shift (ppm) from 10 to -0.1. The spectrum shows a multiplet between 7.0 and 7.7 ppm, a broad peak at ~4.1 ppm, and a sharp peak at ~1.5 ppm. Integration values are 2.00, 1.95, 0.98, 2.21, and 9.63. A list of peak shifts is provided at the top: 7.65, 7.64, 7.52, 7.52, 7.31, 7.11, 7.09, 7.26, 7.12, 7.11, 7.10, and 4.06.

S2

**Fig. S5**  $^1\text{H}$  NMR spectrum of compound **5**.

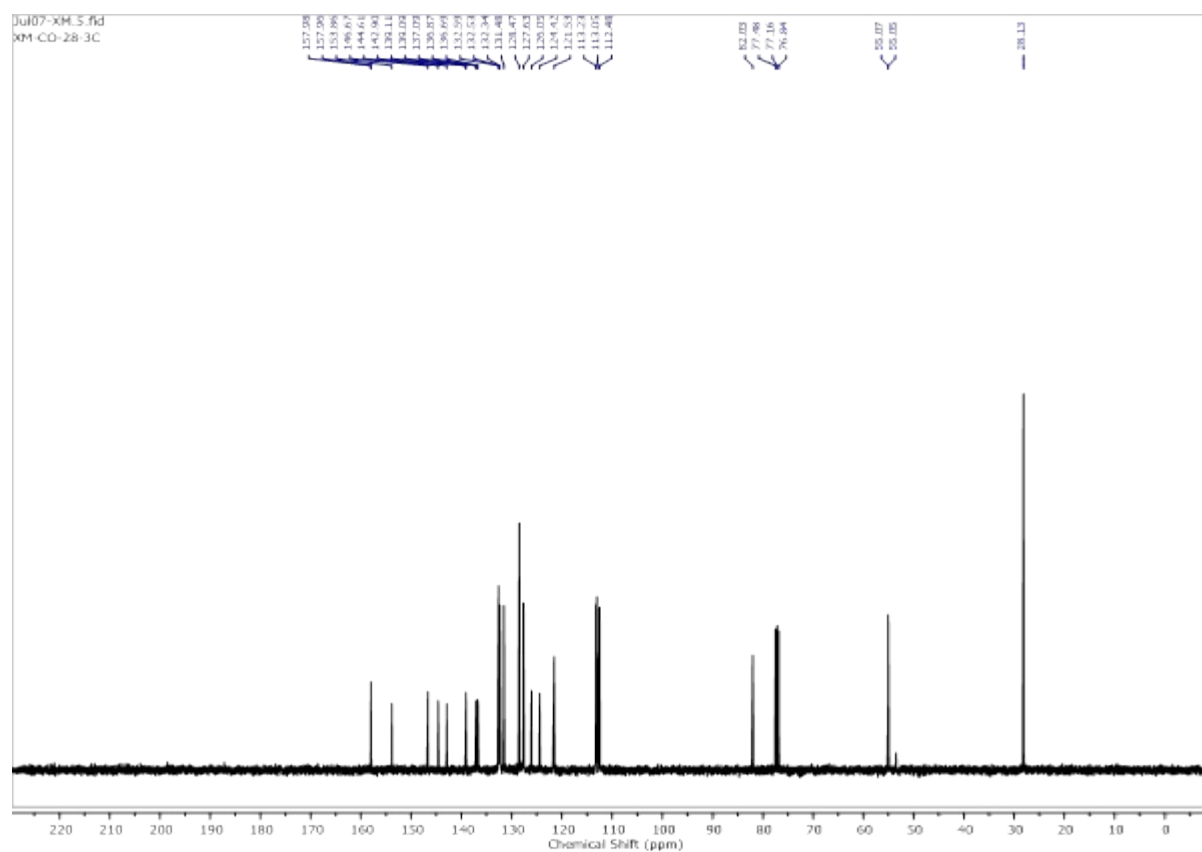


Fig. S6  $^{13}\text{C}$  NMR spectrum of compound 5.

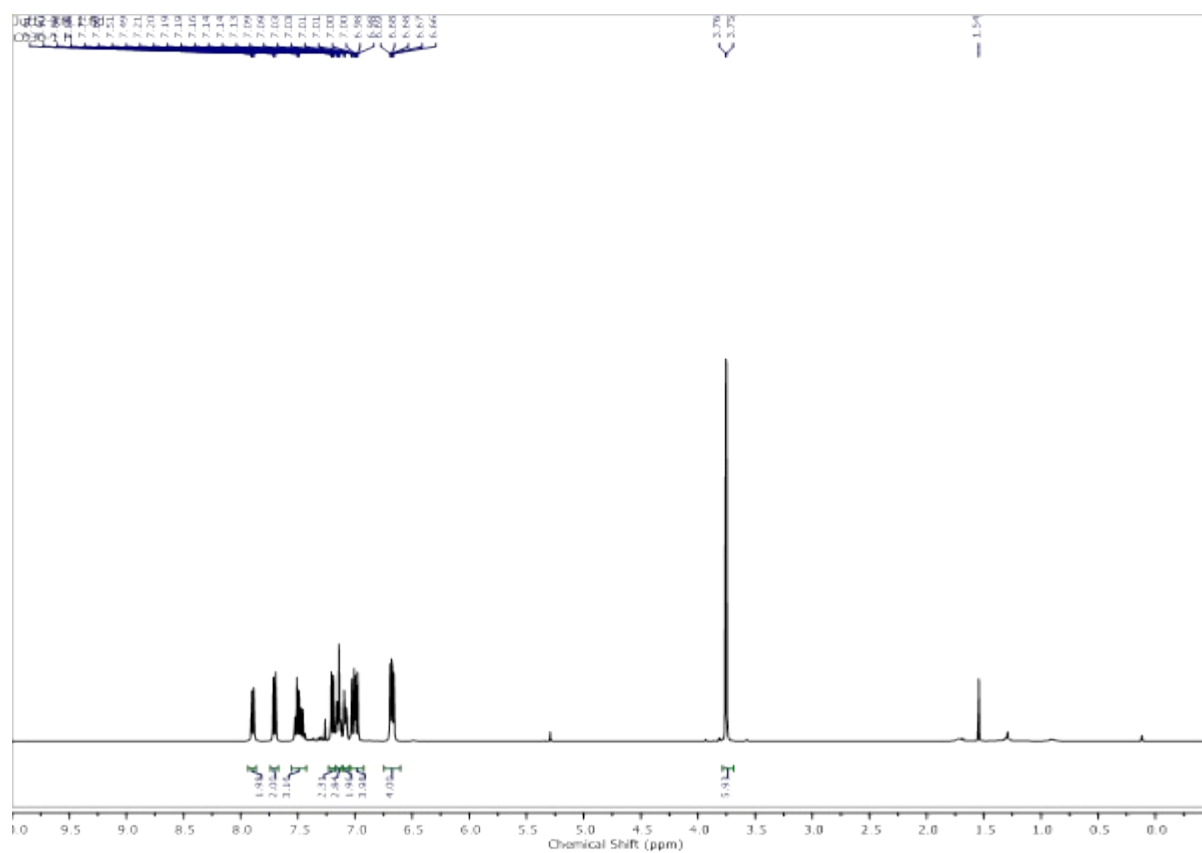


Fig. S7  $^1\text{H}$  NMR spectrum of compound 6.

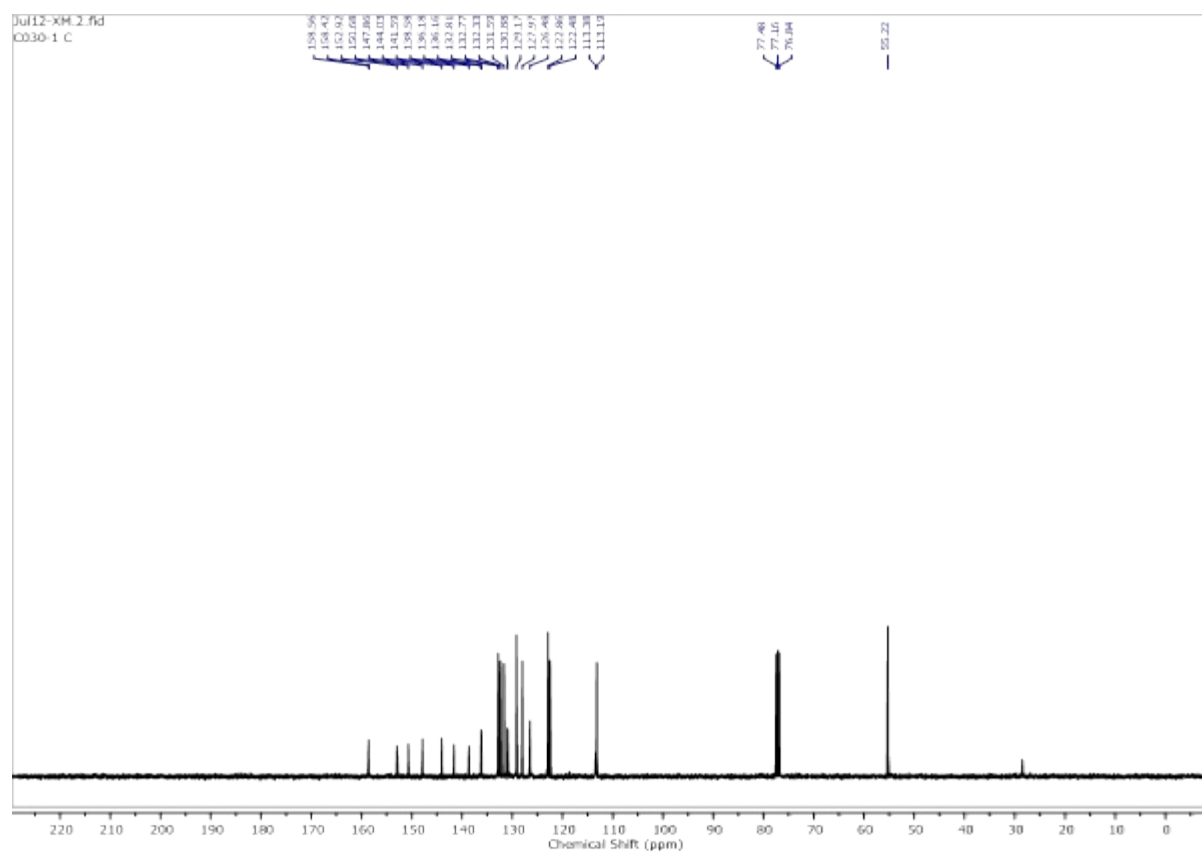


Fig. S8  $^{13}\text{C}$  NMR spectrum of compound 6.

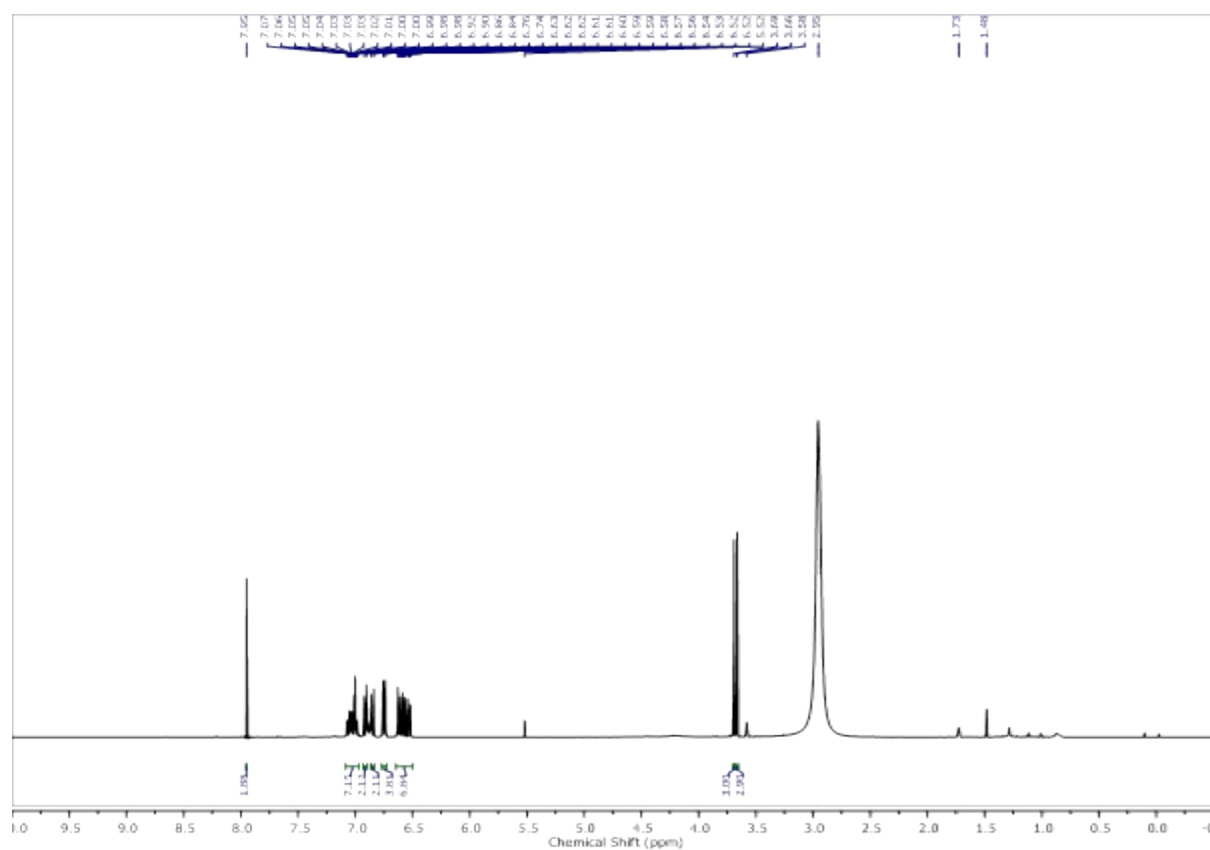
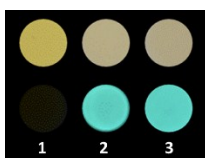


Fig. S9  $^1\text{H}$  NMR spectrum of compound 7.



**Fig. S10** The photograph of TLC plates pre-stained with probe **6** (1) and incubated with various cations ( $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Mg}^{2+}$  and  $\text{Ca}^{2+}$ , 10 mM), anions ( $\text{SO}_3^{2-}$ ,  $\text{S}_2\text{O}_3^{2-}$ ,  $\text{SO}_4^{2-}$  and  $\text{NO}_3^-$ , 10 mM), amino acids (glycine, aspartic acid, lysine and cysteine, 10 mM), GSH (10 mM), D-glucose (10 mM), BSA (1 mg/mL) and aqueous hydrazine solution (10 mM) (2) and incubated with aqueous hydrazine solution (10 mM) alone. Top: under white light illumination; bottom: under 365 nm UV light illumination.