

A Rationally Designed Reversible ‘Turn-Off’ Sensor for Glutathione

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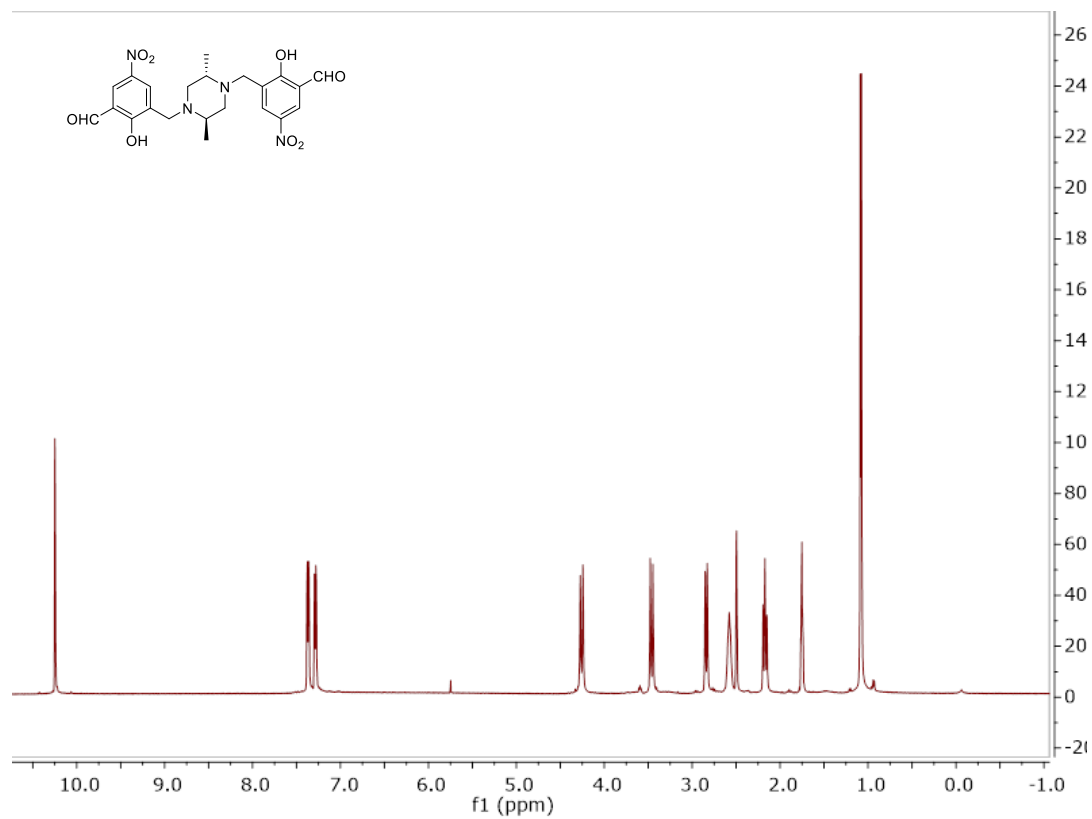
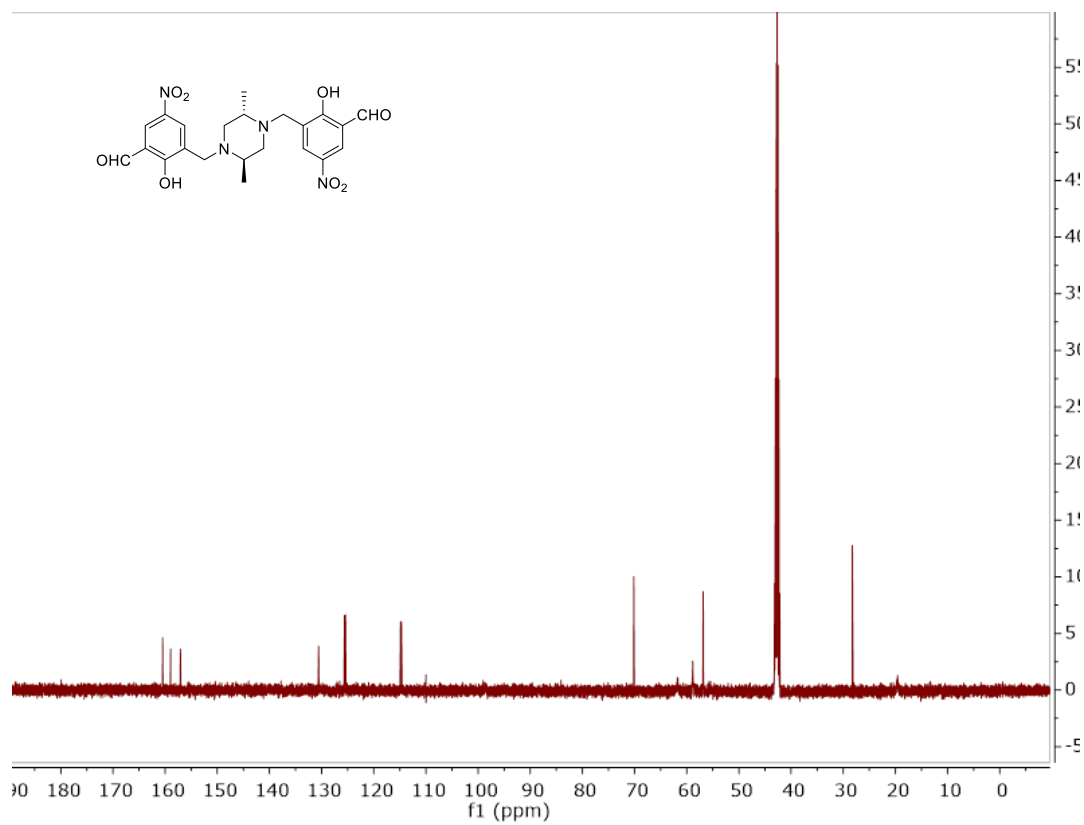
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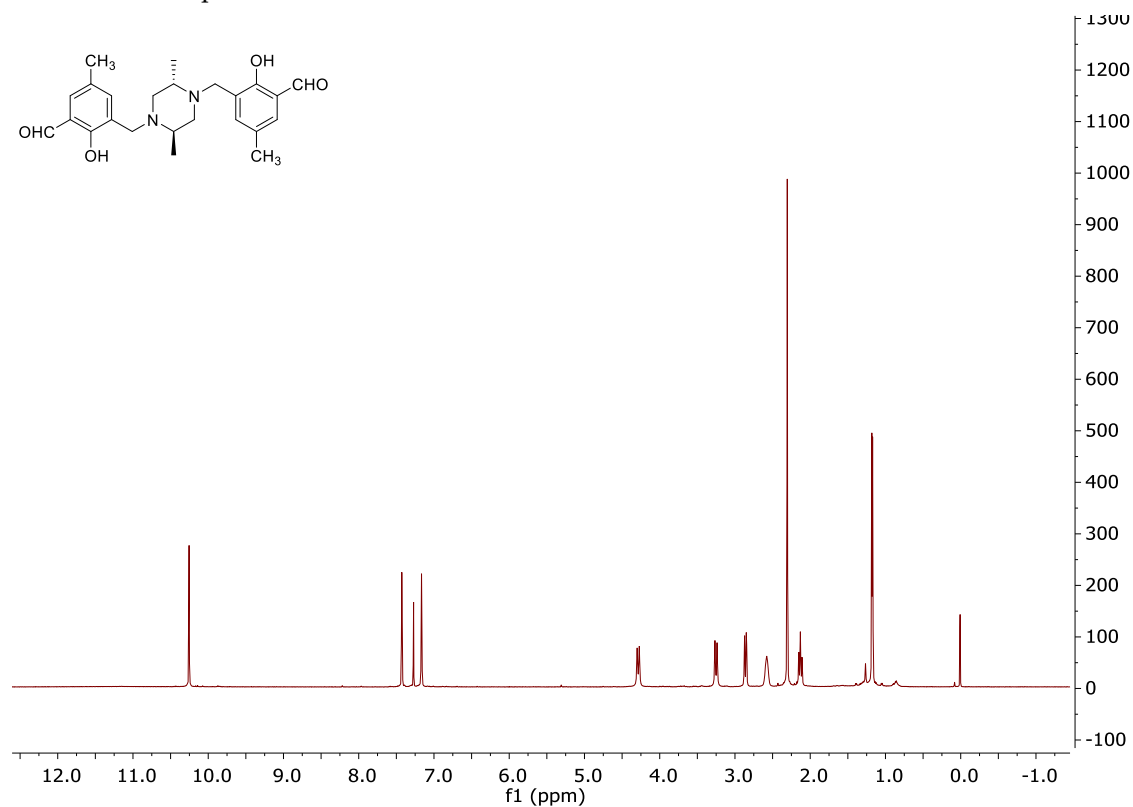
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NMR Spectra

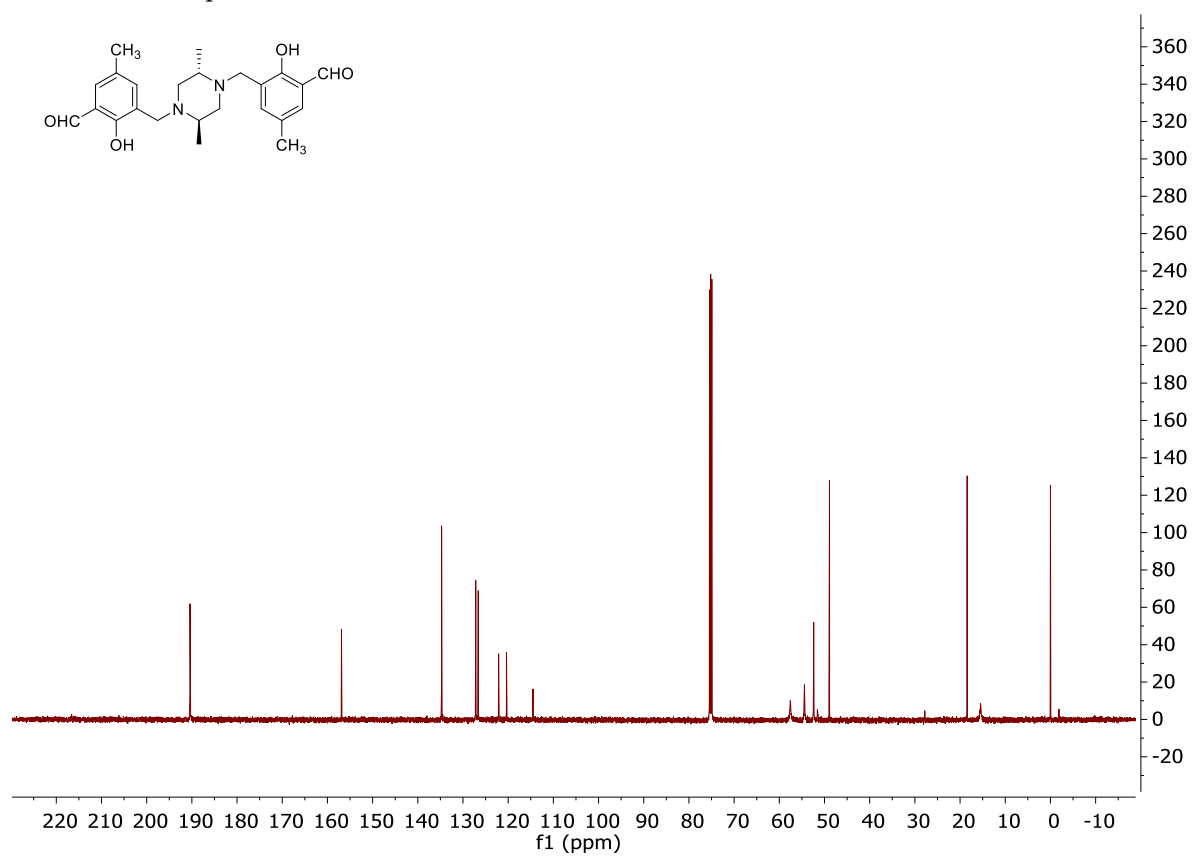
¹H NMR for compound **4a**.¹³C NMR for compound **4a**.

Electronic Supplementary Information

¹H NMR of compound **4b**.

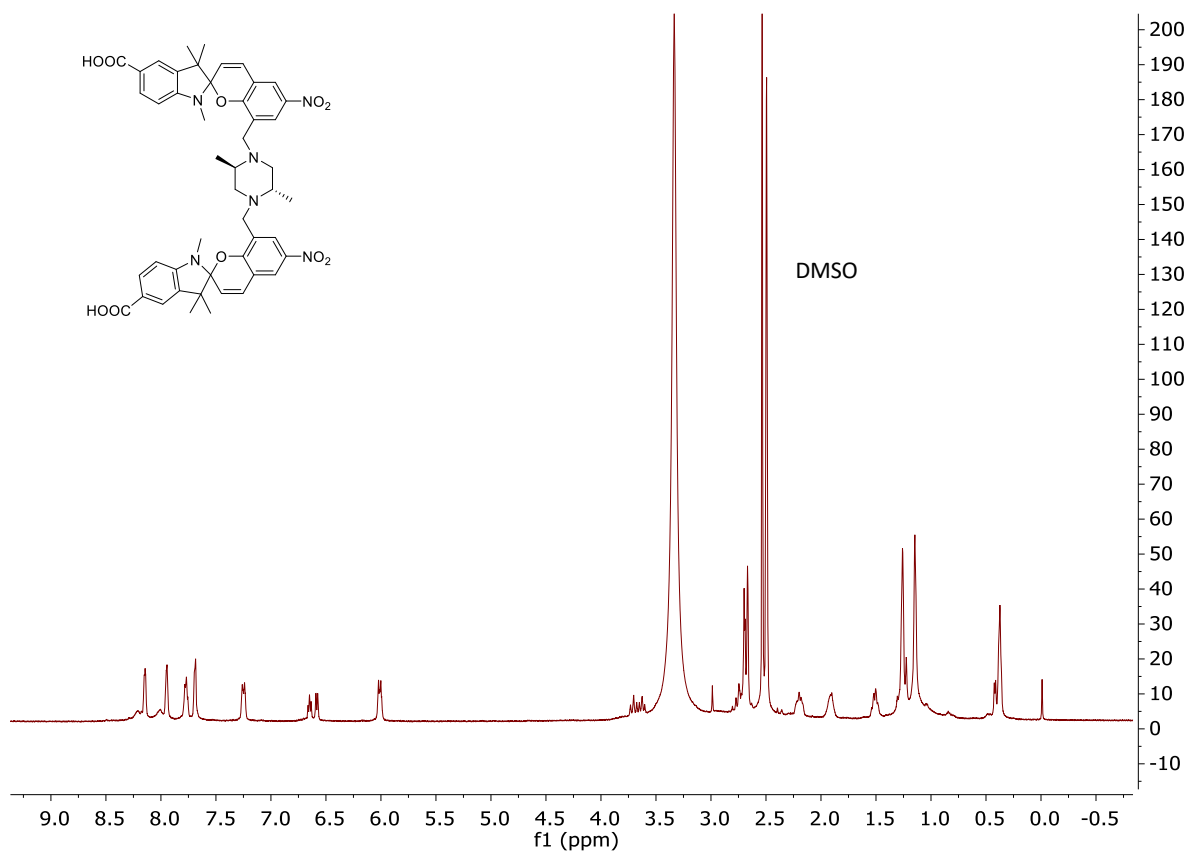


¹³C NMR of compound **4b**.

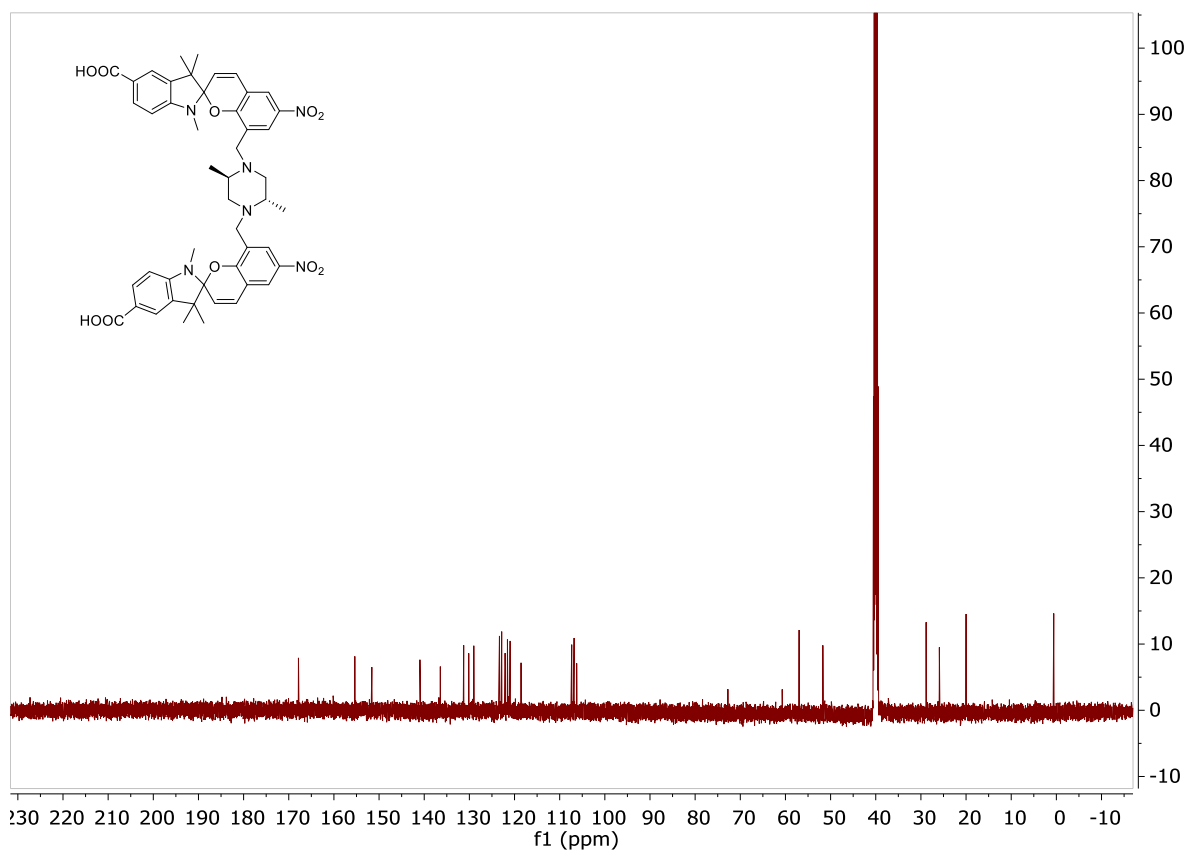


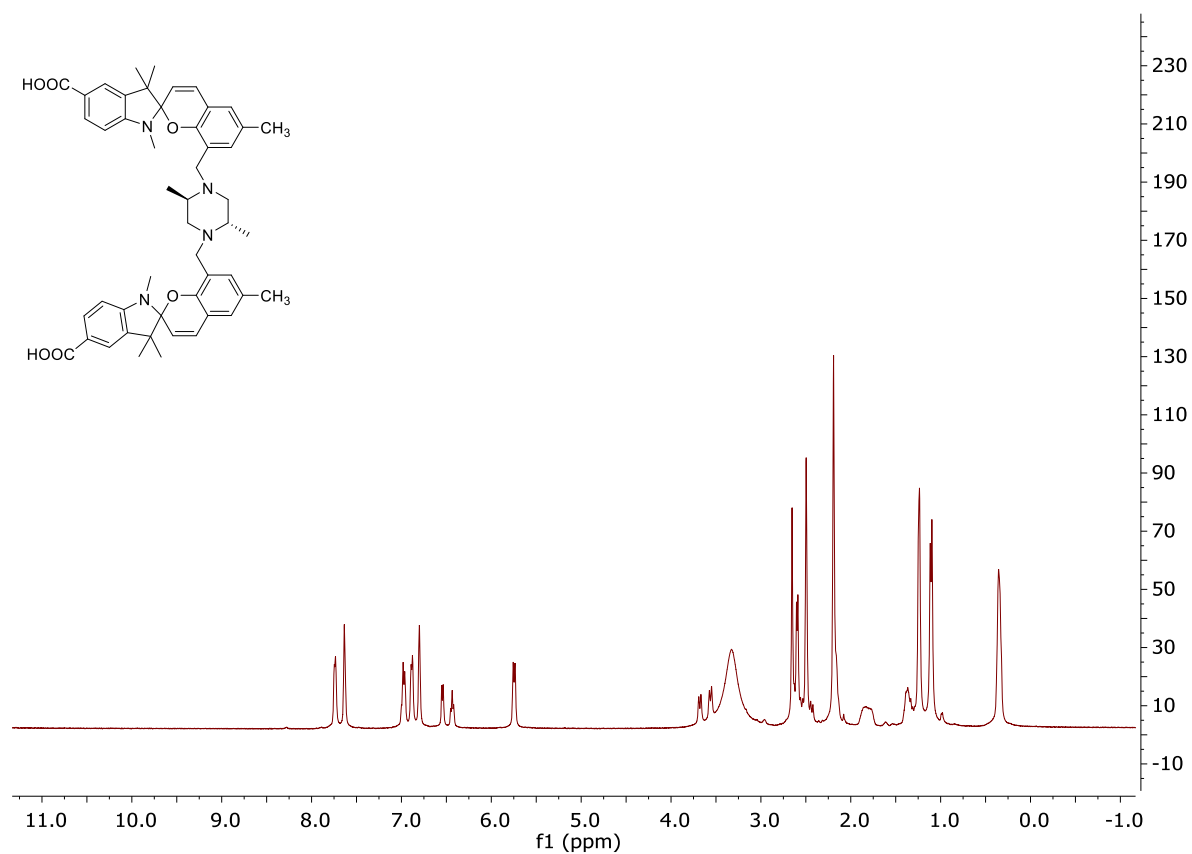
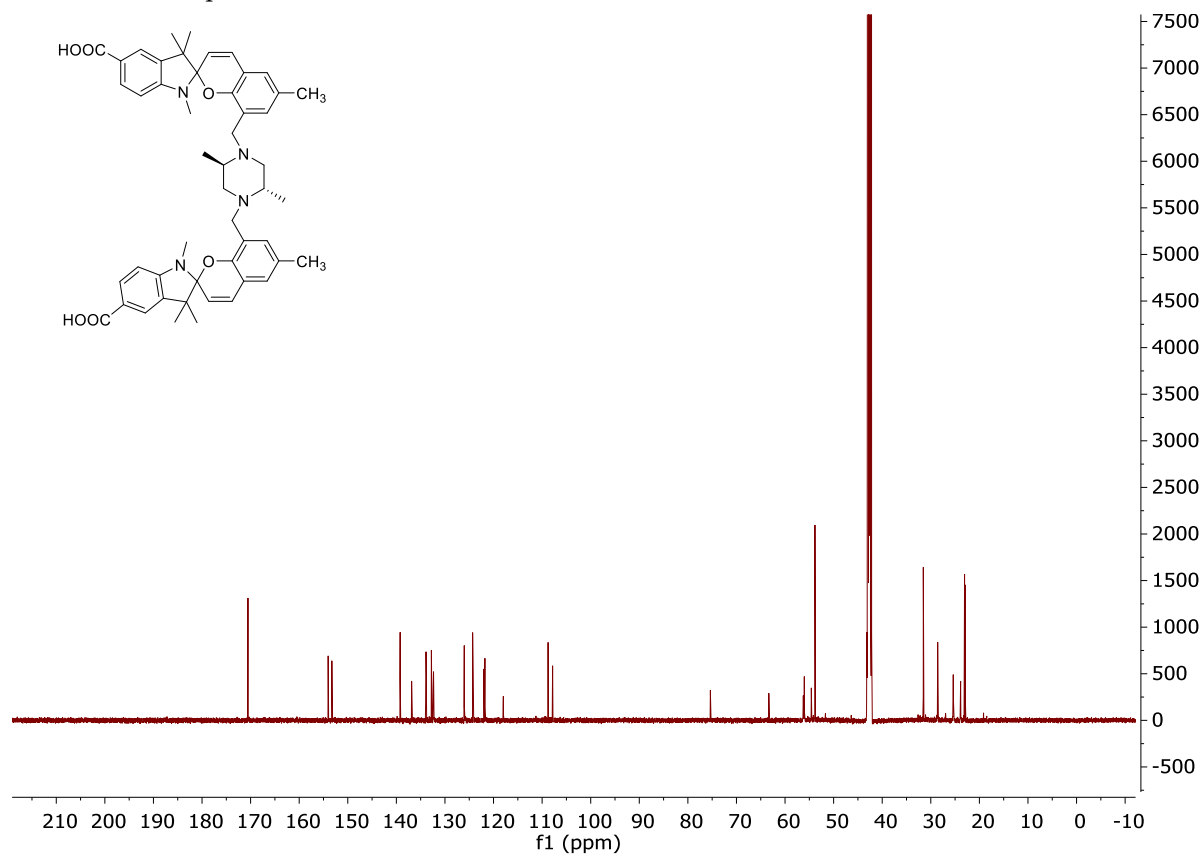
Electronic Supplementary Information

¹H NMR for compound 1.



¹³C NMR for compound 1.



¹H NMR of compound 6.¹³C NMR of compound 6.

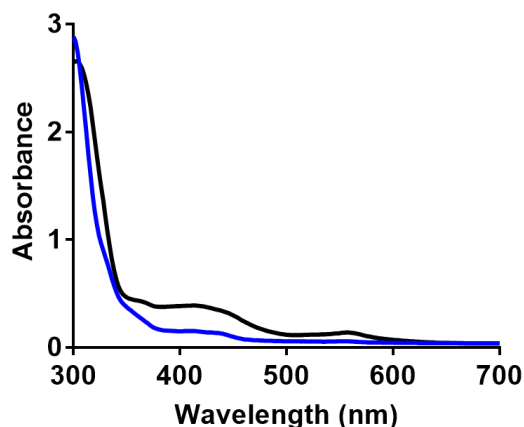


Figure. S1. Absorbance of sensor 6 (1 mM) in 2% DMSO in water (black) and acetonitrile (blue).

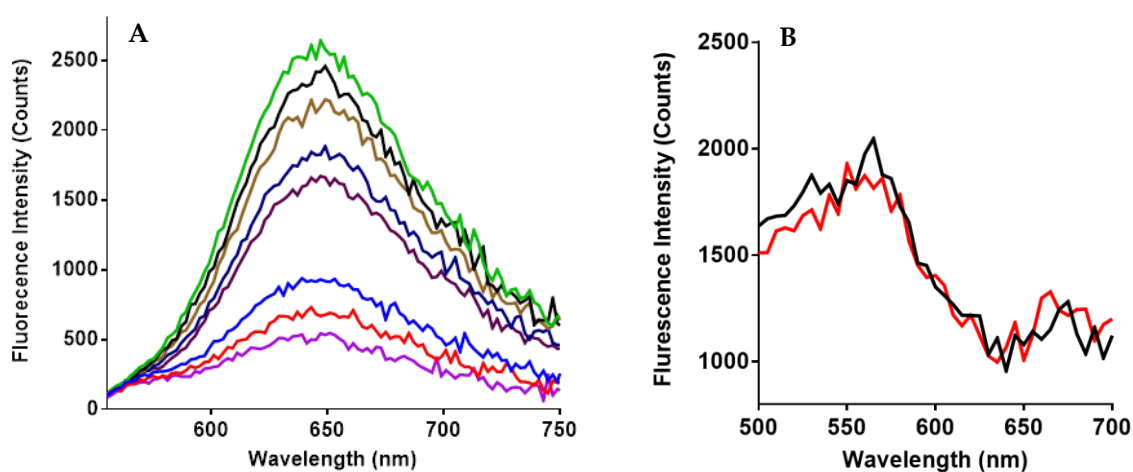


Figure. S2. A. Fluorescence spectra of sensor 1 (final concentration = 50 μ M) obtained after 30 min incubation with 0 —; 78 μ M —; 156 μ M —; 313 μ M —; 625 μ M —; 1.25 mM —; 2.5 mM —; and 5 mM — GSH in 0.1 % DMSO in water. λ_{ex} = 532 nm. B. Fluorescence spectra of 6 (final concentration = 50 μ M) obtained after 30 min incubation with 0 — and 5 mM — GSH.

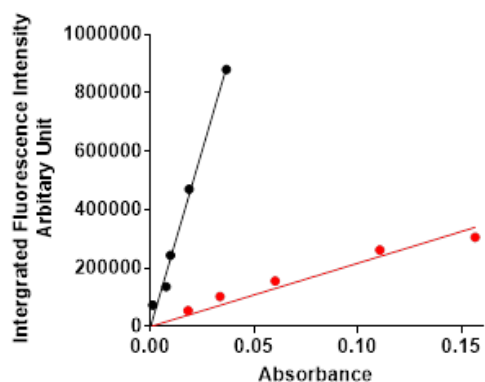


Figure. S3. Linear plots for rhodamine B (black) and sensor 1 (red) respectively. The gradient for each sample is proportional to that sample's fluorescence quantum yield.

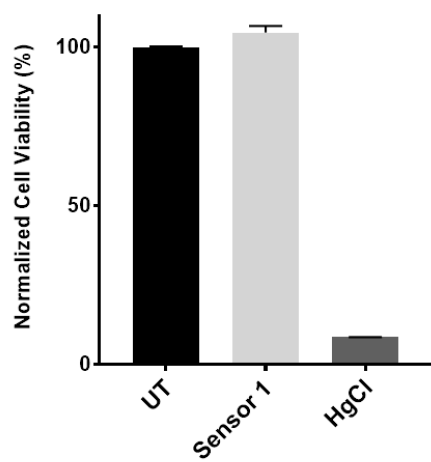


Figure. S4. Viability of untreated HEK293T cells (black), cells incubated with sensor 1 (light grey) for 21 h at 37 °C and cells incubated with HgCl for 21 h at 37 °C (dark grey).