

Supplementary data

A ratiometric and colorimetric hemicyanine fluorescent probe for detection of SO₂ derivatives and its applications in bioimaging

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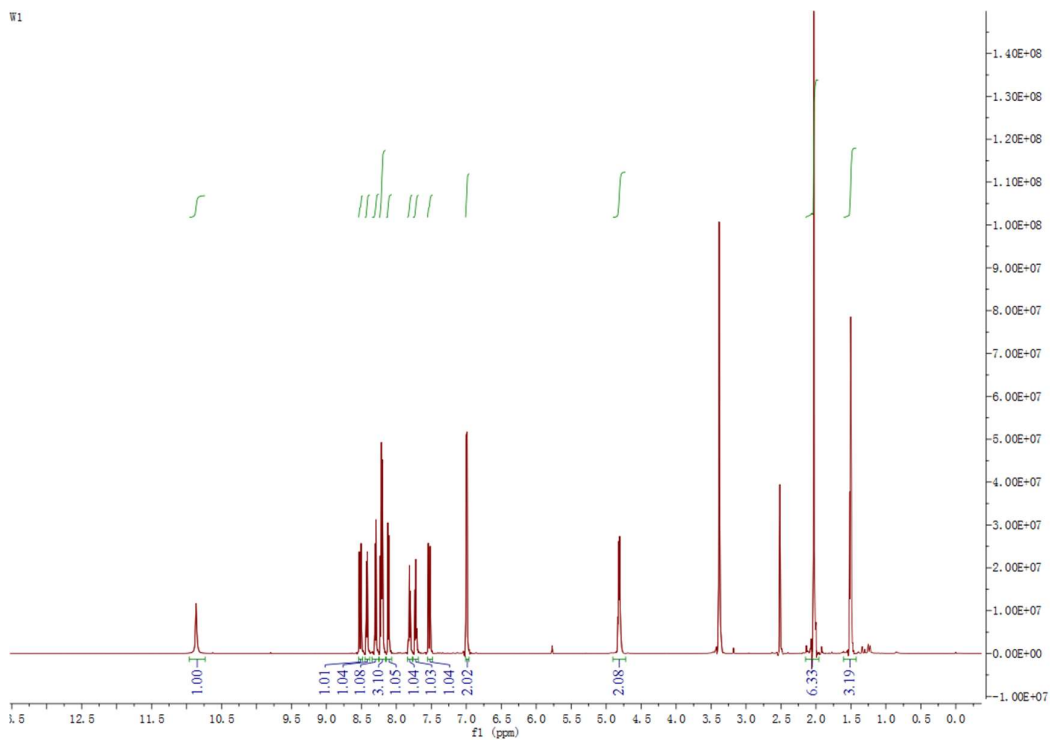


Fig. S1. ^1H -NMR spectrum of the probe in DMSO-d_6

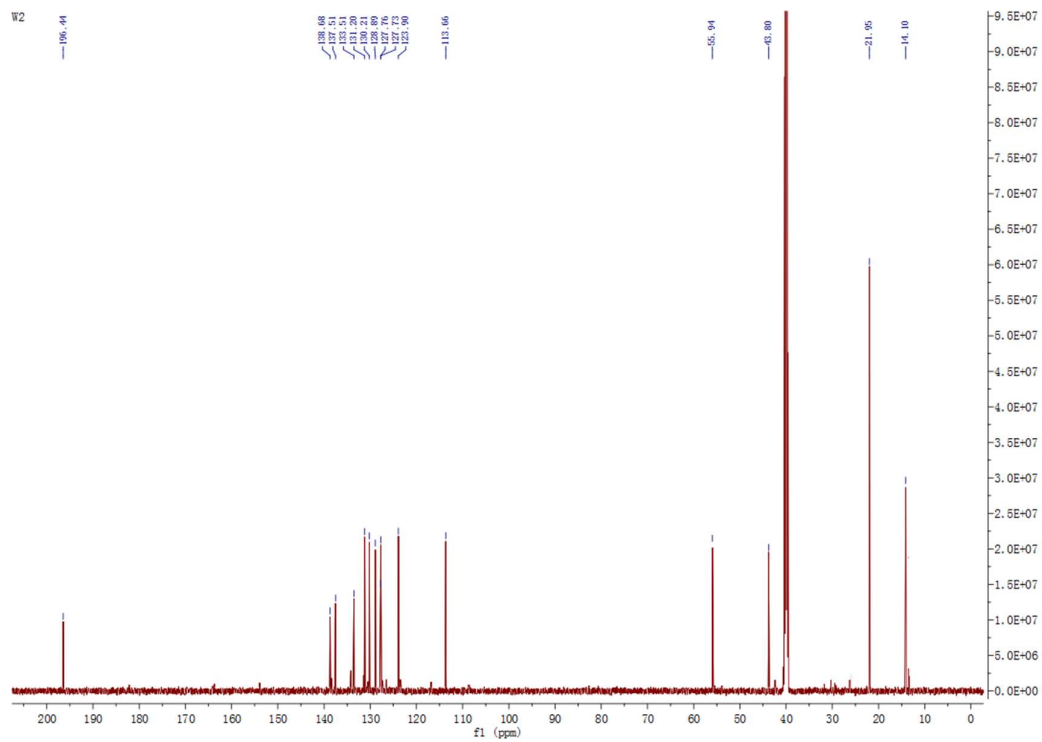


Fig. S2. ¹³C-NMR spectrum of compound the probe in DMSO-d₆

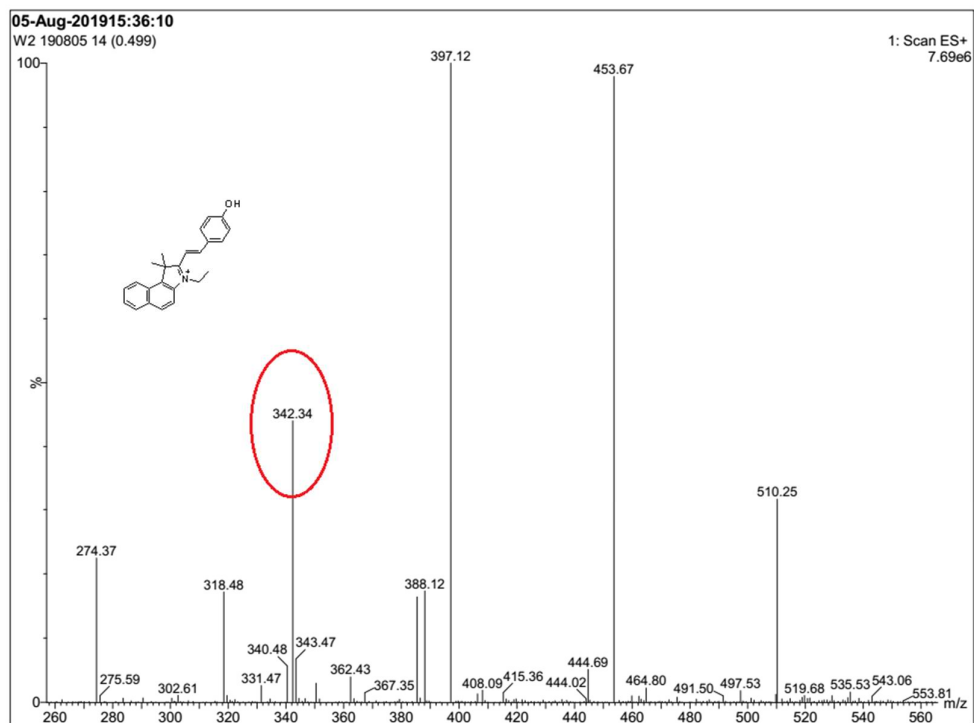
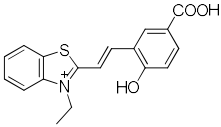
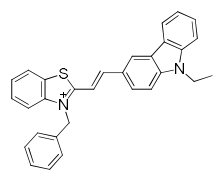
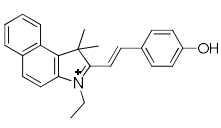


Fig. S3. Mass spectrum of compound the probe.

Table S1. Comparison of the probes for the detection of $\text{SO}_3^{2-}/\text{HSO}_3^-$.

Ref.	Probe	ratiometric probe	Response time	A linear range	Detection limit	Applied
S1		yes	90 s	0-10 μM	5.6 nM	real samples
S2		no	360 s	25-57 μM	71.4 nM	real samples
S3		no	240 s	0-50 μM	270 nM	HeLa cells

S4		no	-	-	450 nM	293T cells
S5		yes	35 s	0-14 μ M	161 nM	MCF-7 cells/Daphnia magna
This work		yes	60 s	0-60 μ M	28 nM	real samples and HepG2 cells

References:

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