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## **Supporting information**

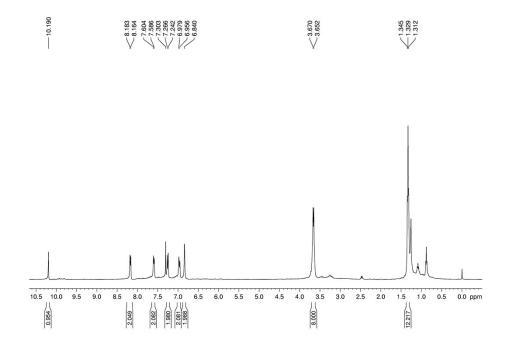
## A novel rosamine-based fluorescent probe for bisulfite in aqueous solution

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**Figure S1.** <sup>1</sup>H NMR chart of **RosCHO** (CDCl<sub>3</sub>, 400 MHz).

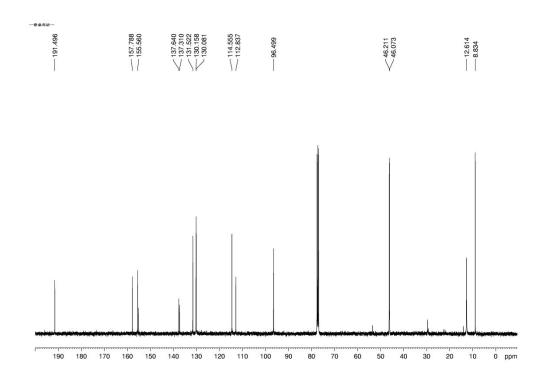


Figure S2. <sup>13</sup>C NMR chart of RosCHO (CDCl<sub>3</sub>, 100 MHz)

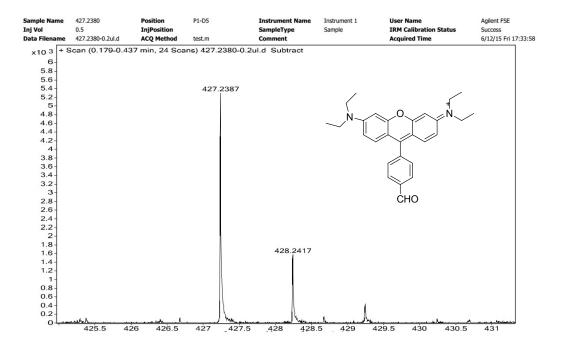
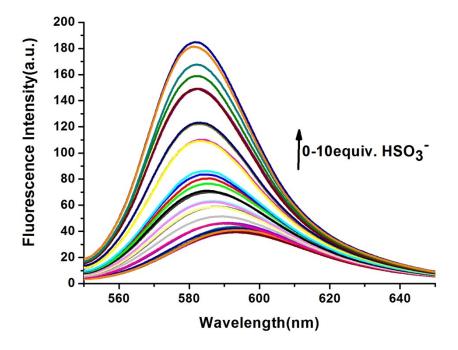
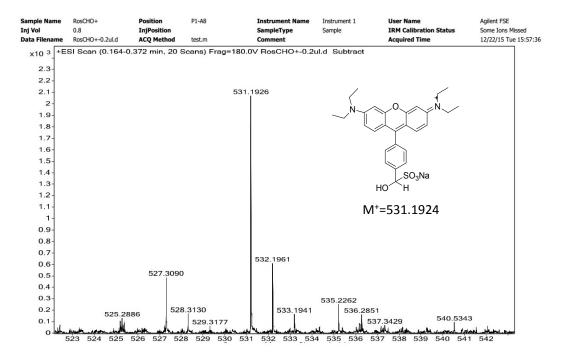


Figure S3. ESI-HRMS spectrum of RosCHO



**Figure S4.** Fluorescence emission changes of **RosCHO** (10  $\mu$ M) in the presence of different concentrations of NaHSO<sub>3</sub> (0-100  $\mu$ M) in Tris-HCl (10 mM, pH = 5) at room temperature. ( $\lambda_{ex}$  = 520 nm,  $\lambda_{ex}$  = 580 nm, Slits: 5.0 nm).



**Figure S5.** ESI-HRMS spectrum of **RosCHO** and NaHSO<sub>3</sub>