

## Supporting Information

### A Novel Long-wavelength Fluorescent Probe for Selective Detection of Hydrogen Sulfide in Living Cells

Yu-ting Li, Xiong-jie Zhao, Yu-ren Jiang\*, Bing-qing Yang

Department of Pharmaceutical Engineering, College of Chemistry and Chemical

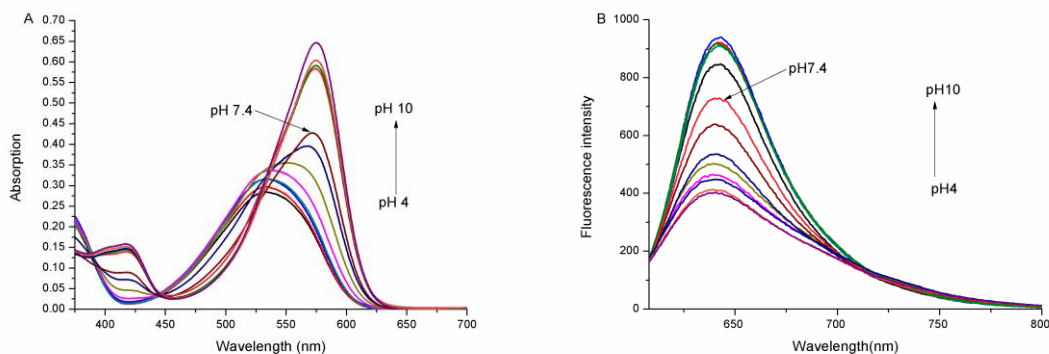
Engineering, Central South University, Changsha 410083, China

\*Corresponding author. [jiangyr@mail.csu.edu.cn](mailto:jiangyr@mail.csu.edu.cn)

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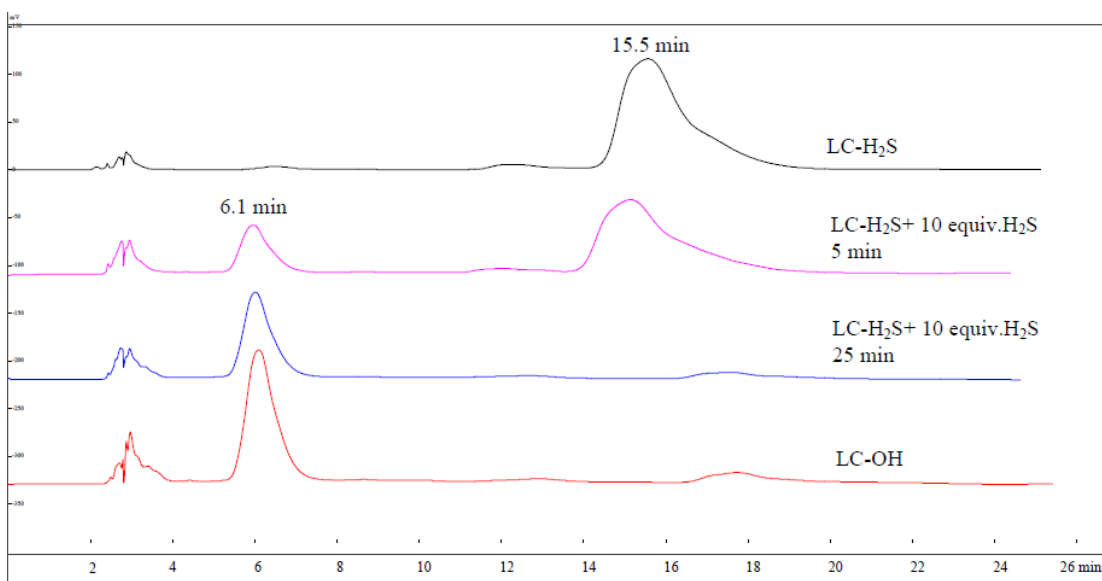
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## The pH stability of LC-OH



**Figure S1.** (A) UV absorption spectra of 10 μM LC-OH in PBS (10 mM, pH = 4-10, 1% DMSO). (B) Fluorescence emission spectra of 10 μM LC-OH in PBS (10 mM, pH = 4-10, 1% DMSO).

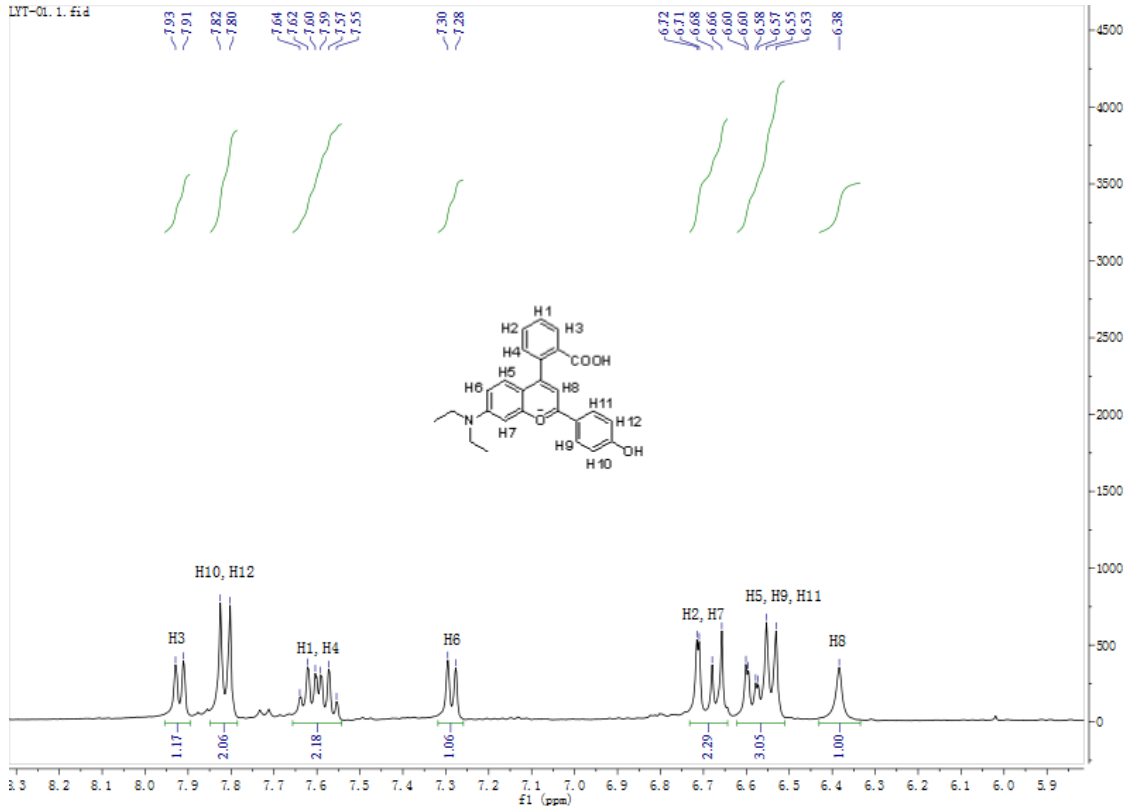
## Mechanism study of LC-H<sub>2</sub>S to H<sub>2</sub>S



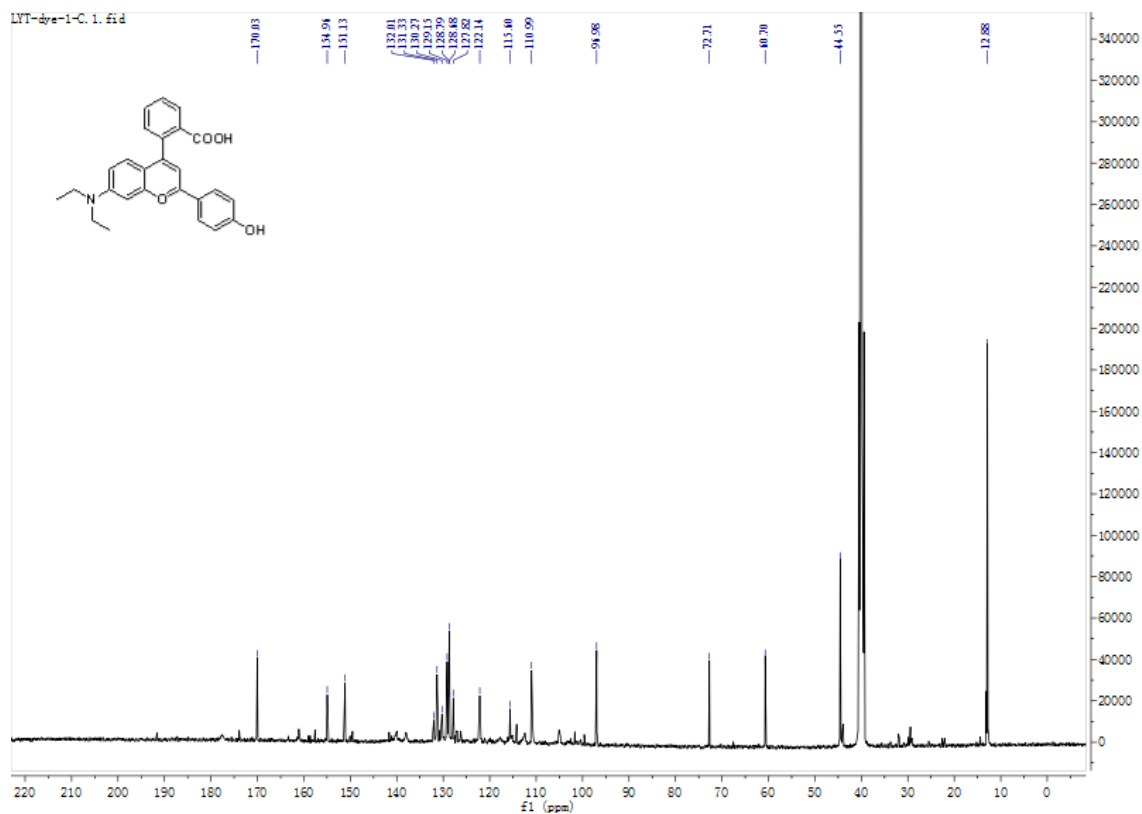
**Figure S2.** HPLC chromatograms: Black: LC-H<sub>2</sub>S; Pink: LC-H<sub>2</sub>S with 10 equiv. H<sub>2</sub>S measured after 5 min mixing; Blue: LC-H<sub>2</sub>S with 10 equiv. H<sub>2</sub>S measured after 25 min mixing; Red: LC-OH. The concentration of both LC-H<sub>2</sub>S and LC-OH are 10 μM. Condition: column, 5 μM C18, 250 × 4.6 mm;

eluent, MeOH/H<sub>2</sub>O (v/v, 7/3); flow rate, 1.0 mL/min; temperature, 25 °C; detection wavelength, 570 nm; injection volume, 5 µL.

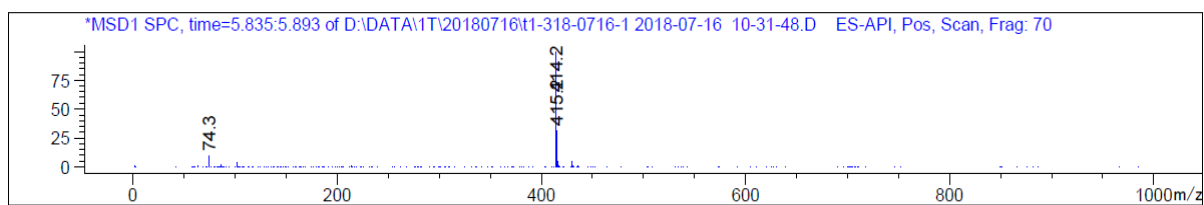
### <sup>1</sup>H-NMR Chart of LC-OH



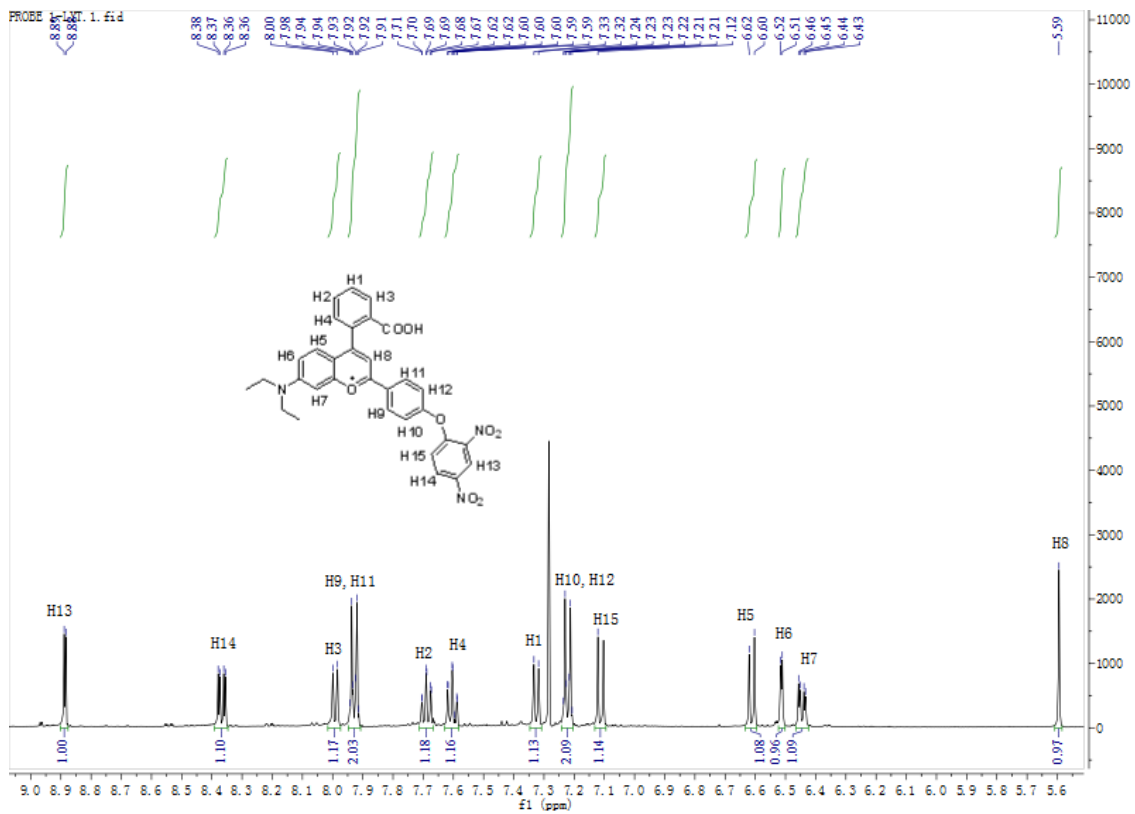
## <sup>13</sup>C-NMR Chart of LC-OH



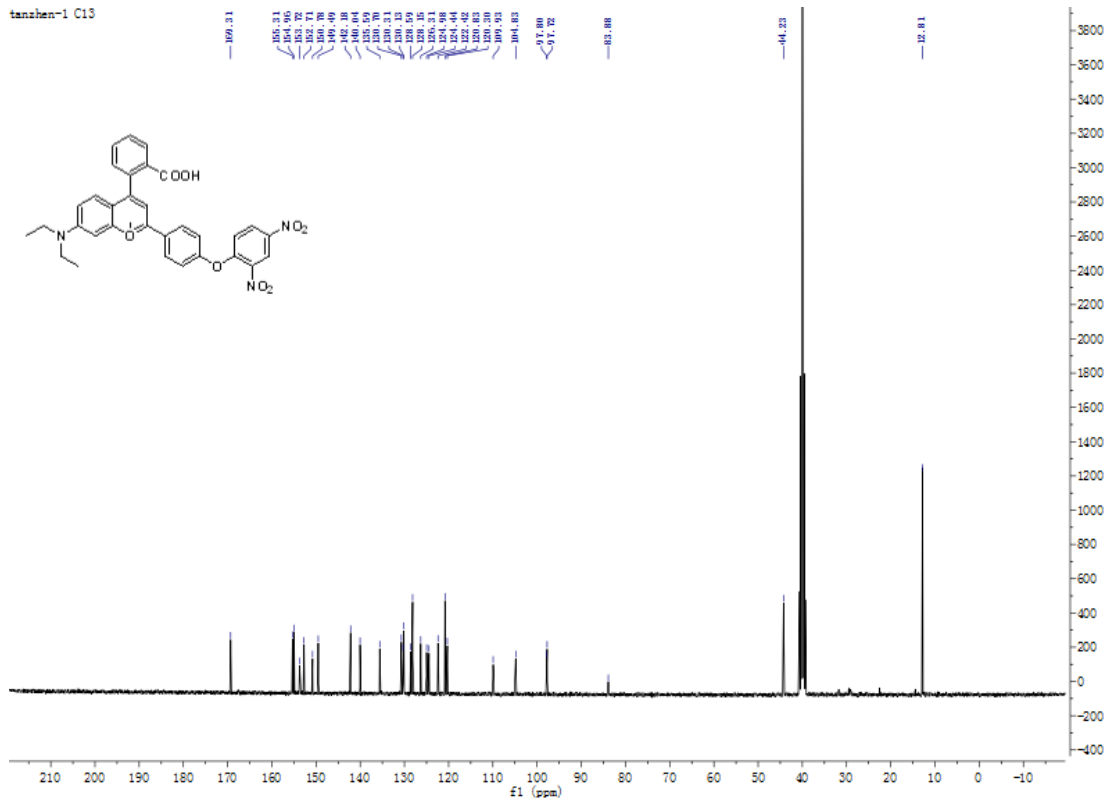
## LCMS Chart of LC-OH



# <sup>1</sup>H-NMR Chart of LC-H<sub>2</sub>S



## <sup>13</sup>C-NMR Chart of LC-H<sub>2</sub>S



## LCMS Chart of LC-H<sub>2</sub>S

