Electronic Supplementary Material (ESI) for New Journal of Chemistry. This journal is © The Royal Society of Chemistry and the Centre National de la Recherche Scientifique 2017

## A nitroolefin functionalized DPP fluorescent probe for selective detection of

## hydrogen sulfide

Lingyun Wang \*, Xianggen Chen, Derong Cao

Key Laboratory of Functional Molecular Engineering of Guangdong Province, School of

Chemistry and Chemical Engineering, South China University of Technology, Guangzhou, China,

510641

\*Corresponding author: Tel. +86 20 87110245; fax: +86 20 87110245. E-mail:

lingyun@scut.edu.cn



Figure S1. <sup>1</sup>H NMR spectrum of probe **DPP-NO<sub>2</sub>** (CDCl<sub>3</sub>, 400 MHz).



Figure S2. <sup>13</sup>C NMR spectrum of probe **DPP-NO<sub>2</sub>** (CDCl<sub>3</sub>, 100 MHz)).



Figure S3. HRMS-ESI spectrum of probe DPP-NO<sub>2</sub>.

## Synthesis of DPP-NH<sub>2</sub>

65.4 mg (0.1 mmol) **DPP-NO<sub>2</sub>** was dissolved in 30 mL THF, then 112.8 mg (0.5 mmol) stannous chloride and 2 mL hydrochloric acid was added into the reaction

mixture and the reaction mixture was reacted at room temperature for 30 min. Then 30 mL ethyl acetate was added and the mixture were washed with sodium bicarbonate solution to pH=7.0. Then the organic organic layer was separated and dried over Na<sub>2</sub>SO<sub>4</sub>. After concentration under reduced pressure, the crude product was purified by chromatography with a mixture of CH<sub>3</sub>OH and CH<sub>2</sub>Cl<sub>2</sub> (1:20, v:v) to afford the orange solid product **DPP-NH<sub>2</sub>** 15.6 mg in 26.3% yield.



Figure S4. The partial <sup>1</sup>H NMR spectrum of **DPP-NH<sub>2</sub>** (CDCl<sub>3</sub>, 400 MHz).



Figure S5. The fluorescence emission spectra comparison between **DPP-NH<sub>2</sub>** (10  $\mu$ M) in CH<sub>3</sub>CN and **DPP-NO<sub>2</sub>** (10  $\mu$ M) + H<sub>2</sub>S in CH<sub>3</sub>CN.



Figure S6. The absorption spectra comparison between **DPP-NH<sub>2</sub>** (10  $\mu$ M) in CH<sub>3</sub>CN and **DPP-NO<sub>2</sub>** (10  $\mu$ M) + H<sub>2</sub>S in CH<sub>3</sub>CN.