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Authors: Guangxin Yang, Jing Zhang, Shaojun Zhu, Yan Wang, Xiaowen Feng, Mei Yan, Jinghua Yu

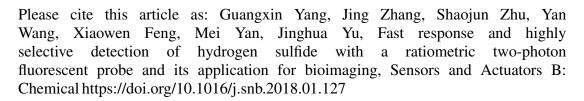
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Fast response and highly selective detection of hydrogen sulfide with a ratiometric

two-photon fluorescent probe and its application for bioimaging.

Guangxin Yang^a, Jing Zhang^a, Shaojun Zhu^a, Yan Wang^a, Xiaowen Feng^a, Mei Yan^{a,*},

Jinghua Yua,b

^aSchool of Chemistry and Chemical Engineering, University of Jinan, Jinan 250022, China

^bInstitute for Advanced Interdisciplinary Research, University of Jinan, Jinan 250022, China

Research Highlights

It will combine the advantages of ratiometric and two-photon excited fluorescent probes

for H₂S.

The probe exhibited a high sensitivity to H₂S with a detection limit of 0.24 µM as well as

relatively quick response time and highly selective for H₂S.

The probe was successfully applied in TP imaging for detecting H₂S in the living cells.

Abstract:

H₂S can be endogenously produced by enzymes and play critical roles in the functioning of

living organisms. In order to better understanding its physiological and pathological functions, the

development of efficient methods for monitoring H₂S is desired. Herein, we reported a ratiometric

two-photon fluorescent probe for detecting H₂S. A typical ICT-based fluorescent dye, 4-hydroxy-1,

8-naphthalimide was considered as fluorophore of the probe on account of its two-photon absorption

* Corresponding author.

E-mail address: chm_yanm@126.com, (M. Yan).

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