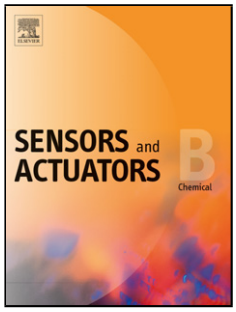

Title: Fast response and highly selective detection of hydrogen sulfide with a ratiometric two-photon fluorescent probe and its application for bioimaging

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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.

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Research Highlights

- It will combine the advantages of ratiometric and two-photon excited fluorescent probes for H_2S.
- The probe exhibited a high sensitivity to H_2S with a detection limit of 0.24 μM as well as relatively quick response time and highly selective for H_2S.
- The probe was successfully applied in TP imaging for detecting H_2S in the living cells.

Abstract:

H_2S 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 H_2S is desired. Herein, we reported a ratiometric two-photon fluorescent probe for detecting H_2S. 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

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