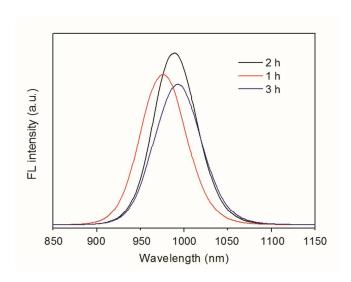
## Conjugating S-nitrosothiols with glutathiose stabilized silver sulfide quantum dots for controlled nitric oxide release and near-infrared fluorescence imaging

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## **Supplementary Information**

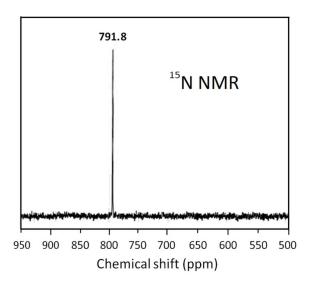


**Fig. 1s.** Evolution of the fluorescence spectra of GSH stabilized Ag<sub>2</sub>S QDs synthesized for varied reaction times.

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 $\textbf{Fig. 2s.}~^{15} N~NMR~spectrum~of~Ag_2S\text{-}GSH\text{-}SNO~nanoparticles}.$ 

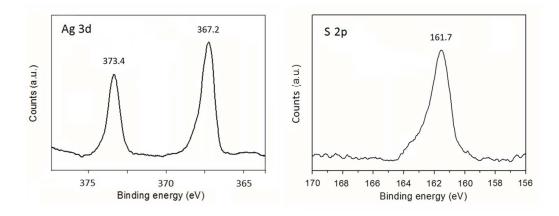
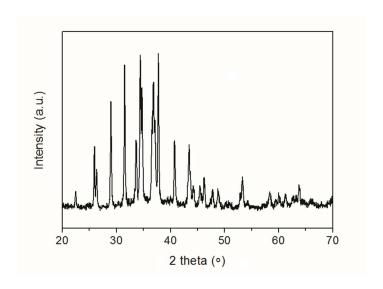


Fig. 3s. High-resolution XPS spectra of  $Ag_2S$ -GSH-SNO nanoparticles:  $Ag\ 3d$  signals (left) and S 2p signals (right).



 $\textbf{Fig. 4s} \ XRD \ pattern \ of \ bulk \ monoclinic \ Ag_2S \ crystals.$ 

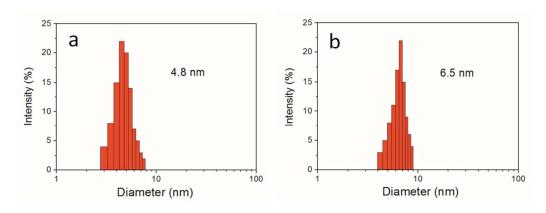
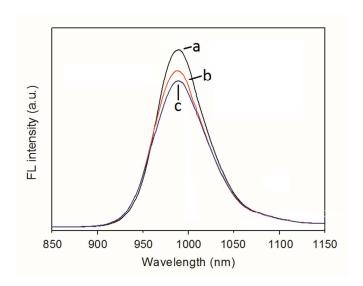


Fig. 5s. Size distribution of  $Ag_2S$ -GSH-SNO nanoparticles fabricated at the molar ratio of  $AgNO_3$  to GSH equal to (a) 2 : 1 and (b) 1 : 2.



**Fig. 6s**. (a) Fluorescence emission of  $Ag_2S$ -GSH-SNO nanoparticles in PBS buffer (pH = 7.4) without pre-irradiation of 488 nm laser. Fluorescence emission of  $Ag_2S$ -GSH nanoparticles (b) and  $Ag_2S$ -GSH-SNO nanoparticles (c) in PBS buffer after 488 nm irradiation for 20 min. The excitation wavelength for the emission spectra was 808 nm.