

Supplementary materials

Magnetically recoverable fluorescence chemosensor for the adsorption and selective detection of Hg^{2+} in water

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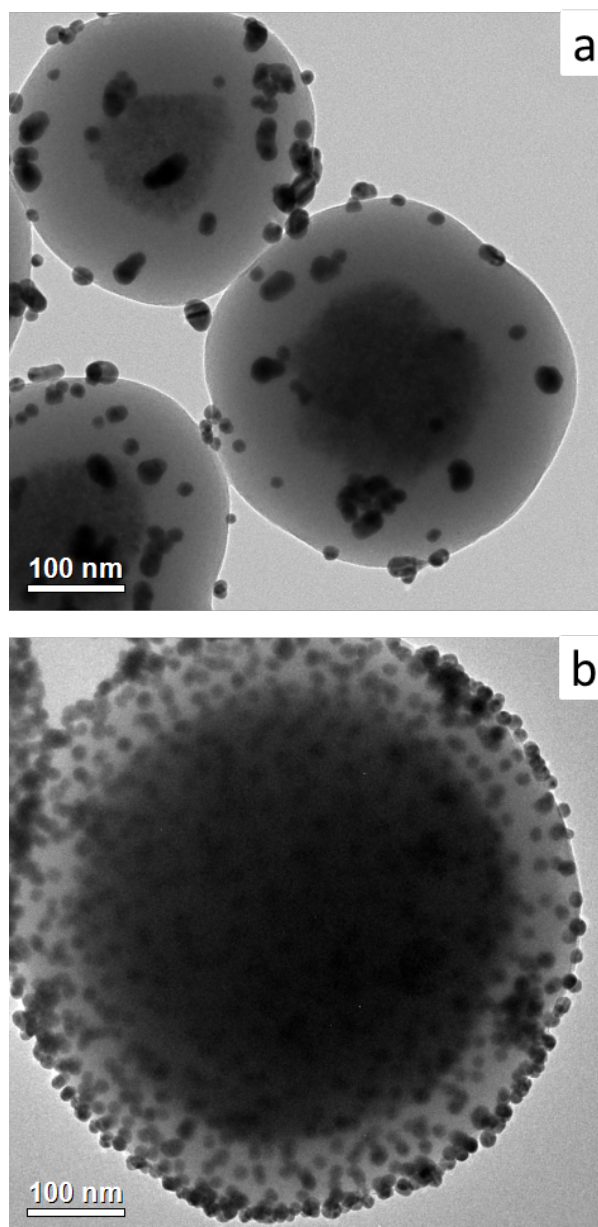


Fig. S1 Au particles on the surface of the $\text{Fe}_3\text{O}_4@\text{SiO}_2$ were tuned by varying the amount of linker APTS.

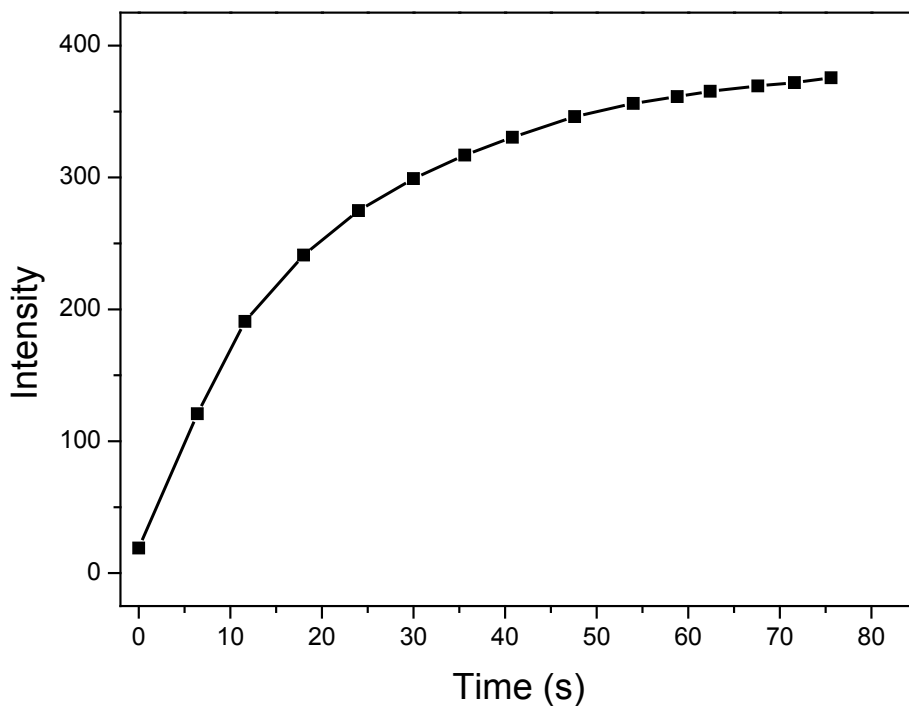


Fig. S2 Response time of $\text{Fe}_3\text{O}_4@\text{SiO}_2\text{-Au-RhB-Tren@PSiO}_2$ with Hg^{2+} solution (1.25×10^{-5} M).

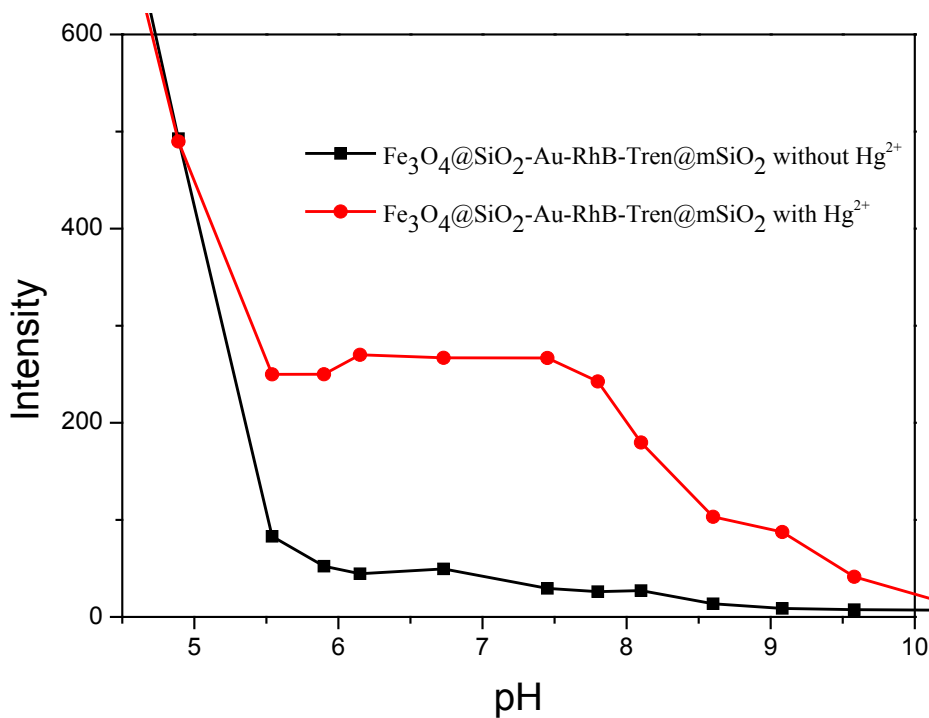


Fig. S3 Effect of pH on fluorescent intensity of $\text{Fe}_3\text{O}_4@\text{SiO}_2\text{-Au-RhB-Tren@PSiO}_2$ without or with Hg^{2+} (9×10^{-6} M).

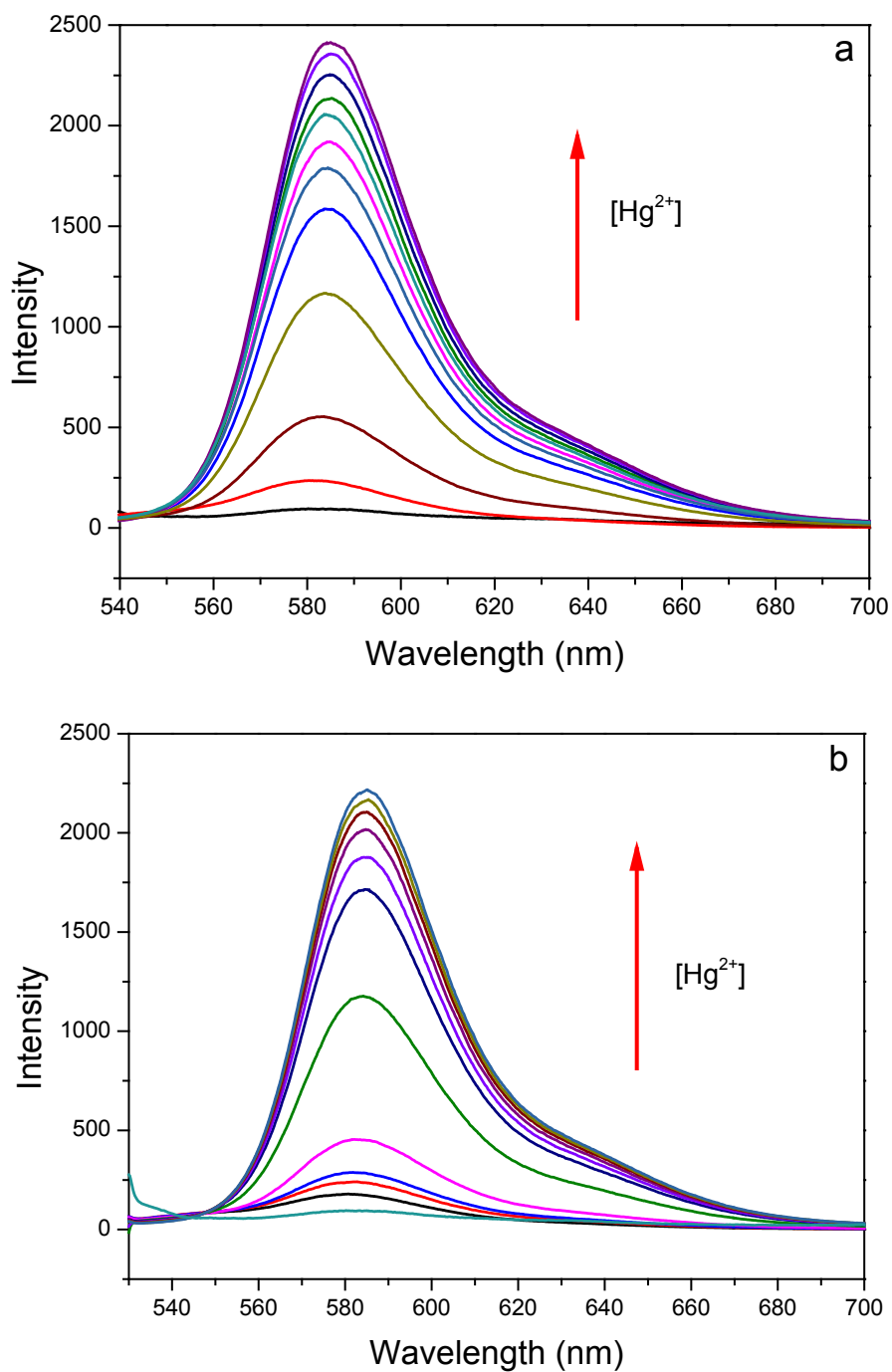


Fig. S4 Fluorescence spectra of $\text{Fe}_3\text{O}_4@\text{SiO}_2\text{-Au-RhB-Tren}@PSiO_2$ in (a) rainwater and (b) drinking water consisting of HEPES buffer medium upon the increasing of Hg^{2+} concentrations ($0 \sim 7.5 \times 10^{-5}$ M).