

Electronic Supplementary Information

Colorimetric Detection of Hg^{2+} Using Thioctic acid Functionalized Gold Nanoparticles

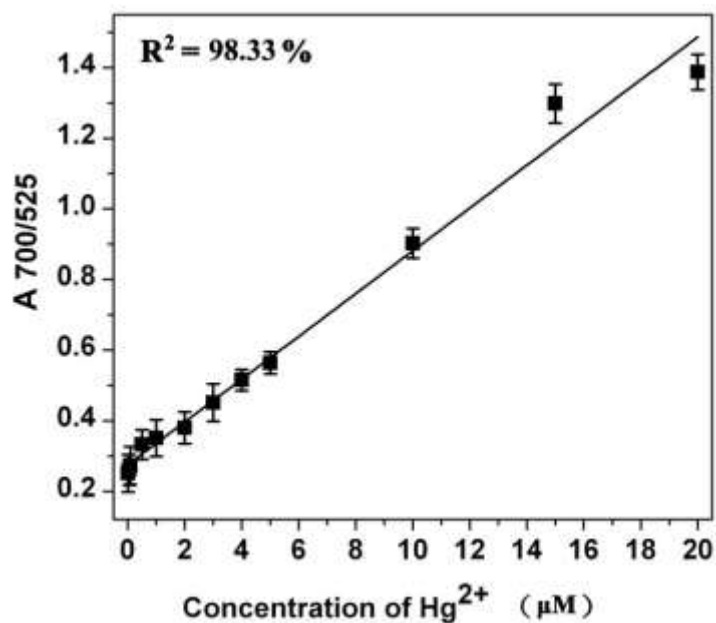


Fig. S1. Plot of $A_{700/525}$ versus the concentrations of Hg^{2+} in the range of 0.01-20 μM . The error bars represent standard deviations based on three independent measurements.

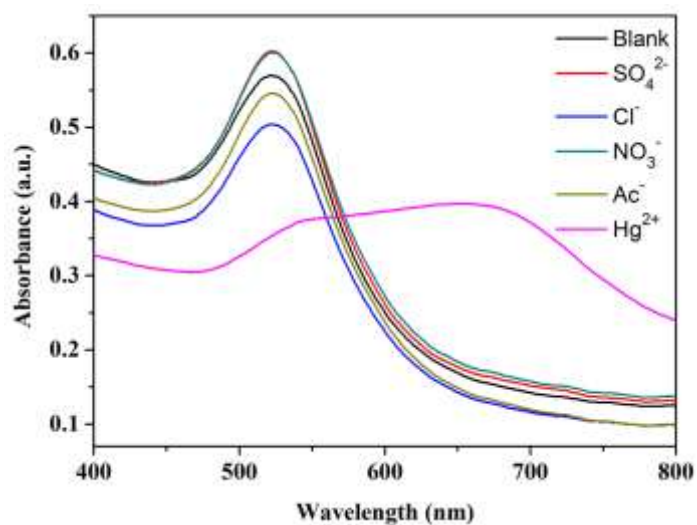


Fig. S2. UV-Vis spectra of TA-GNPs containing 50 μM anions compared with Hg^{2+} 20 μM .

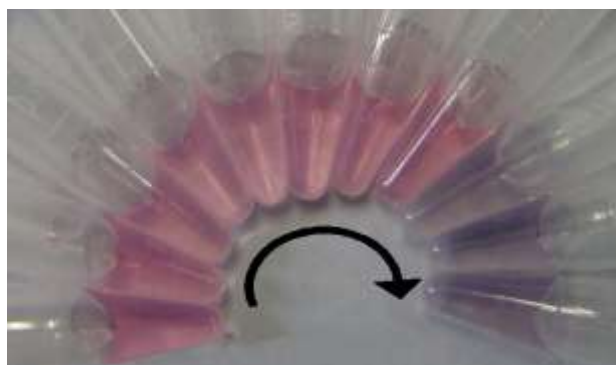


Fig. S3. Photo images of samples of TA-GNPs containing different concentrations of Hg^{2+} in lake water (orientation of the arrowhead: 10nM, 50nM, 100nM, 500nM, 1 μM , 2 μM , 3 μM , 5 μM , 10 μM , 15 μM and 20 μM .)

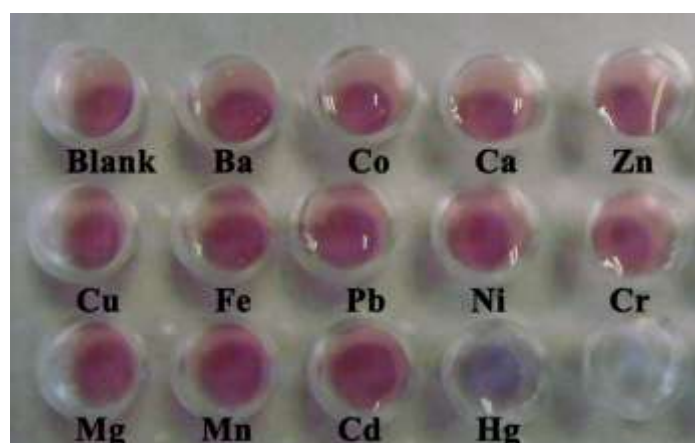


Fig. S4. Photo images of samples of TA-GNPs containing 50 μM other metal ions (Ba^{2+} , Co^{2+} , Ca^{2+} , Zn^{2+} , Cu^{2+} , Fe^{2+} , Pb^{2+} , Ni^{2+} , Cr^{3+} , Mg^{2+} , Mn^{2+} , Cd^{2+}) compared with Hg^{2+} 15 μM in lake water.