

## **Supplementary Information**

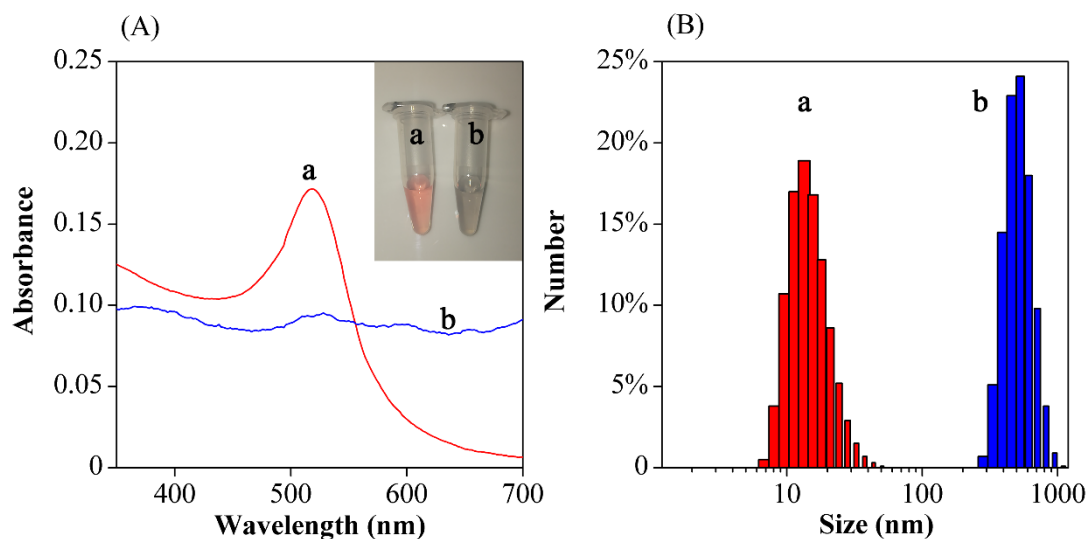
### **Chemiluminescence method for determination of mercury (II) ions by tuning the catalytic activity of gold nanoparticles with ethylenediamine**

Meiling Wang, Yafang Kong, Ying Li, Yongxin Huang, and Aiping Fan\*

School of Pharmaceutical Science and Technology, and Collaborative Innovation  
Center of Chemical Science and Engineering (Tianjin), Tianjin University, Tianjin  
300072, PR China

\*Correspondent author: Aiping Fan

Email address: fanap@tju.edu.cn



**Fig. S1** (A) UV-vis absorption spectrum of the Au NPs in the absence of ethylenediamine (a) and in the presence of ethylenediamine (b). The inset shows the corresponding images. (B) DLS results of Au NPs in the absence of ethylenediamine (a) and in the presence of ethylenediamine (b). Experiment conditions: ethylenediamine, 7.2  $\mu\text{M}$ ; Au NPs, 1 nM.