Electronic Supplementary Information (ESI)

for

Aggregation-induced Superior Peroxidase-Like Activity of $Cu_{2-x}Se$ Nanoparticles for Melamine Detection

Sheng Qiang Deng,[a] Hong Yan Zou,[a] Jing Lan,[a] Cheng Zhi Huang*[a,b]

[a] Education Ministry Key Laboratory on Luminescence and Real-Time Analysis, College of Pharmaceutical Science, Southwest University, Chongqing 400715, China. E-mail: Chengzhi@swu.edu.cn, Tel:(+86) 23 68254659, Fax:(+86) 23 68367257.

[b] Chongqing Key Laboratory of Biomedical Analysis (Southwest University), Chongqing Science & Technology Commission, College of Chemistry and Chemical Engineering, Southwest University, Chongqing 400716,China.

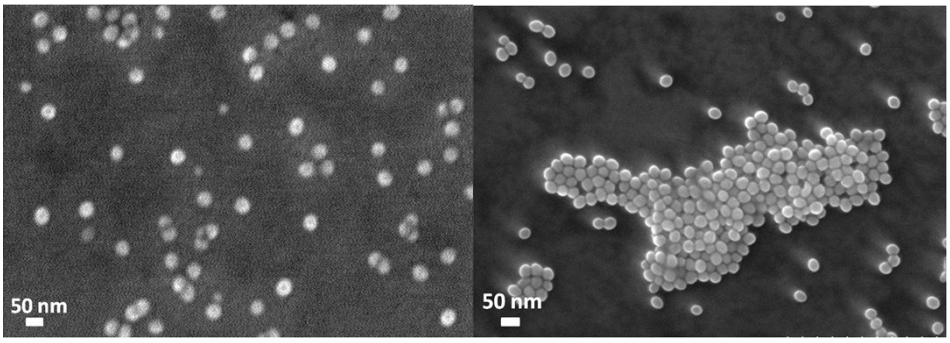

Fig. S1. SEM images of the $Cu_{2-x}Se$@PSS NPs (a) and $Cu_{2-x}Se$@PSS NPs in the presence of 10 μM melamine (b).

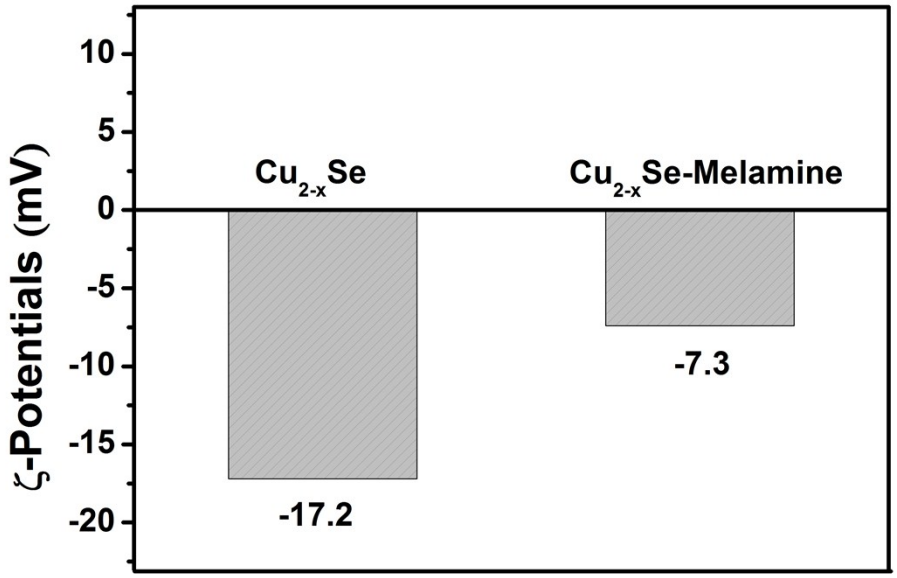

Fig. S2. Zeta-potential of $Cu_{2-x}Se$@PSS NPs before and after added melamine.

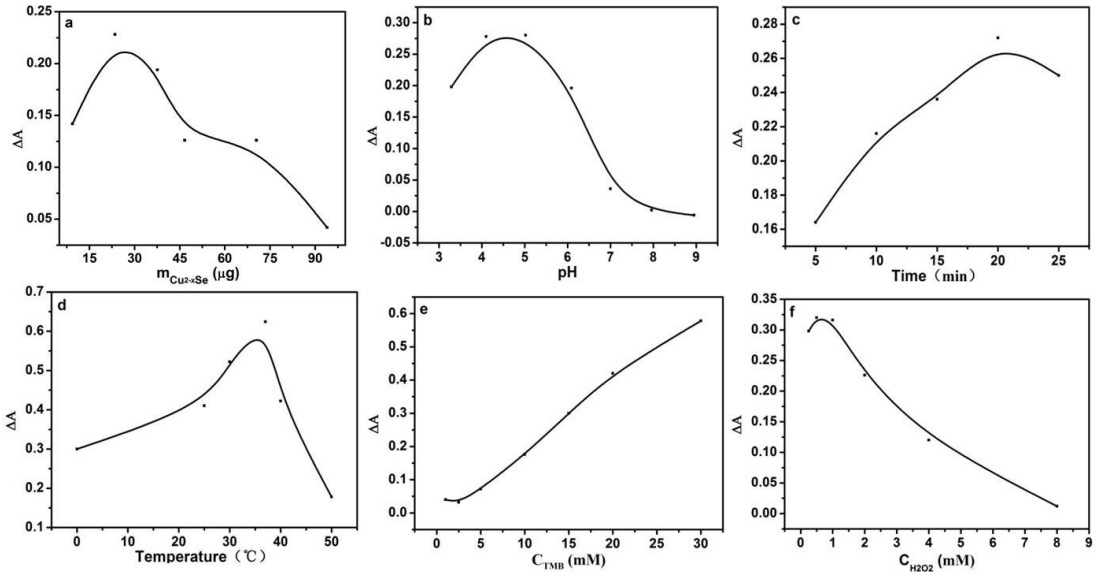

Fig. S3. The △A of the absorbance of the effect of the concentration of $Cu_{2-x}Se$@PSS NPs (a), pH (b), reaction time (c), incubation temperature (d), the concentration of TMB (e) and H_2O_2 (f) on the $Cu_{2-x}Se$@PSS NPs/TMB/H_2O_2.