Electronic Supplementary Material (ESI) for Analytical Methods.

Supplementary Information

for

Plasmon resonance light scattering assay of glucose based-on the formation of gold nanoparticles

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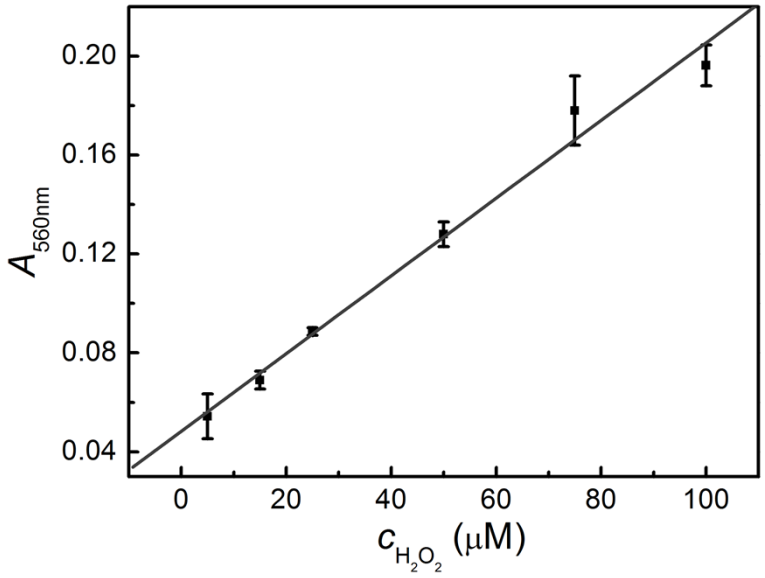

Figure S1 Linear plots of the absorbance at 560 nm versus the concentration of H_2O_2. The linear range is from 5×10^{-6} M to 1×10^{-4} M.

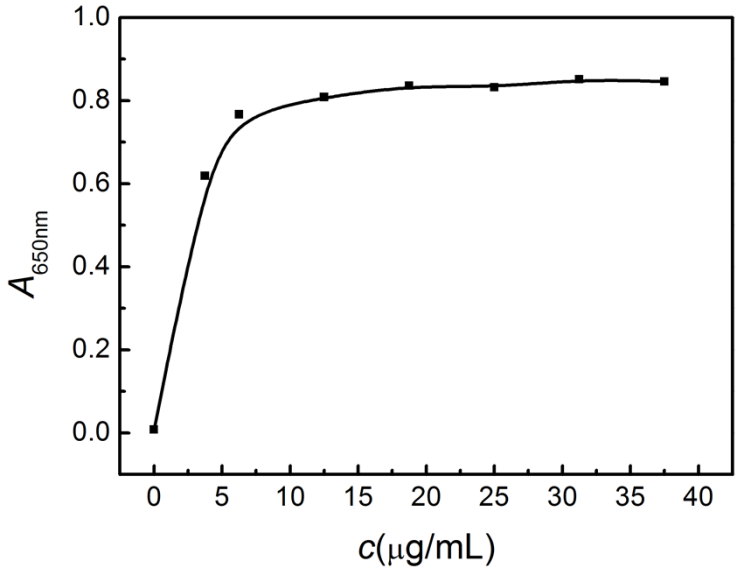

Figure S2 Optimization of the concentration of GOx. Different concentrations of GOx were incubated with 150 μM glucose in the presence of 10 mM PB buffer (pH 7.4) and 0.5 mM MES at 37 ^{0}C for 30 minutes. Then 10 mM TMB and 0.01mg/mL horseradish peroxidase were added to the above reaction solution. After reaction for 10 minutes, the mixed solution was finally used to perform absorption measurements.

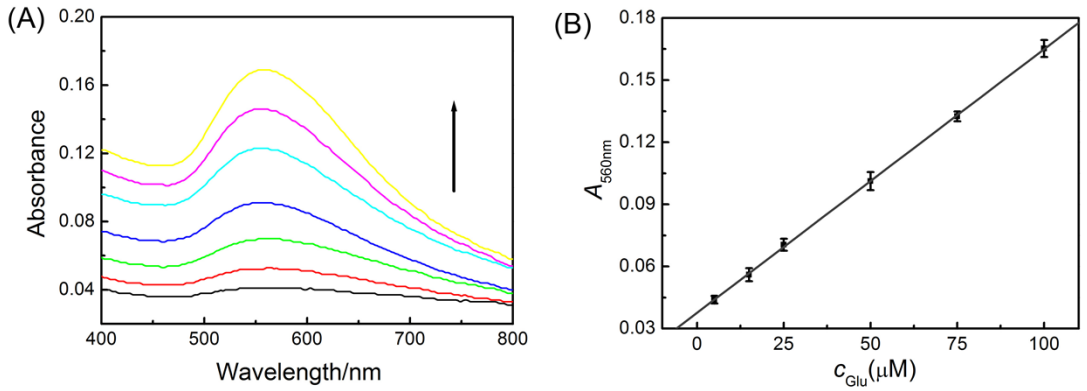

Figure S3 (A) UV-vis absorption spectra of AuNPs generated by the reduction of $HAuCl_4$. $c_{glucose}$ (from bottom to up): 0, 5, 15, 25 ,50, 75, 100μM; c_{GOx}, 25μg mL^{-1}; c_{HAuCl4}, 0.1 mM; c_{MES}, 0.5 mM; c_{PB}, 10 mM, pH 7.4. (B) The linear relationship between the absorbance of at 560 nm and the concentration of glucose within the range of 5–100 μM. The error bars represent the standard deviation of three measurements.