Supplementary Information

Facile Synthesis of Gold Nanoparticles with Alginate and Its Catalytic Activity for Reduction of 4-Nitrophenol and H_2O_2 Detection

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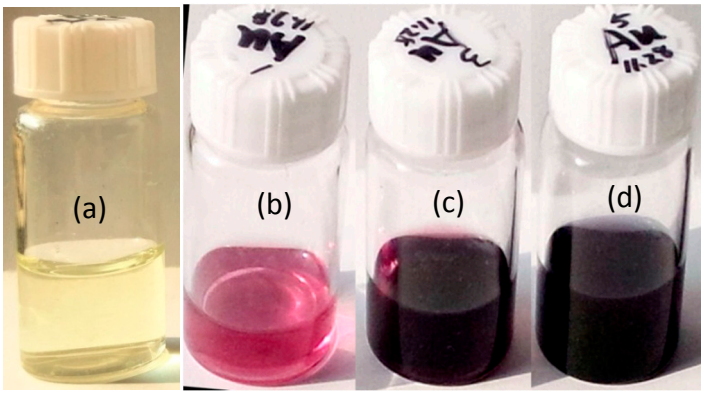

Figure S1. Digital photograph of sodium alginate solution (1.0%) mixed HAuCl4 before reaction (**a**) and after reaction 60 min at 90 °C with 0.25, 1.0, 3.5 mM of $HAuCl_4$ 50, respectively (**b-c**).

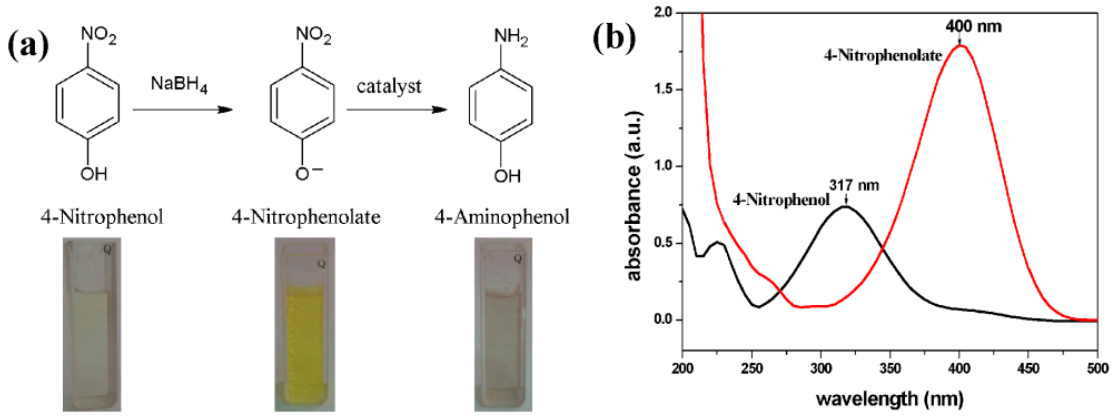

Figure S2. (**a**) The reduction reaction for the conversion of 4-NP to 4-AP; (**b**) UV-vis absorption spectra of 4-NP before and after addition of $NaBH_4$.

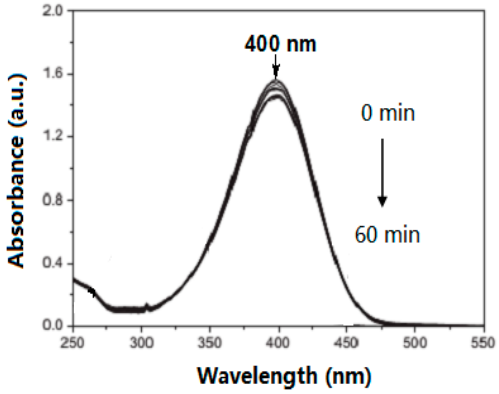

Figure S3. Time-dependent absorption spectra of the reaction solution of 4-NP to 4-AP in absence of catalyst.