

# Melamine Assisted One-Pot Synthesis of Au Nanoflowers and Their Catalytic Activity towards *p*-Nitrophenol

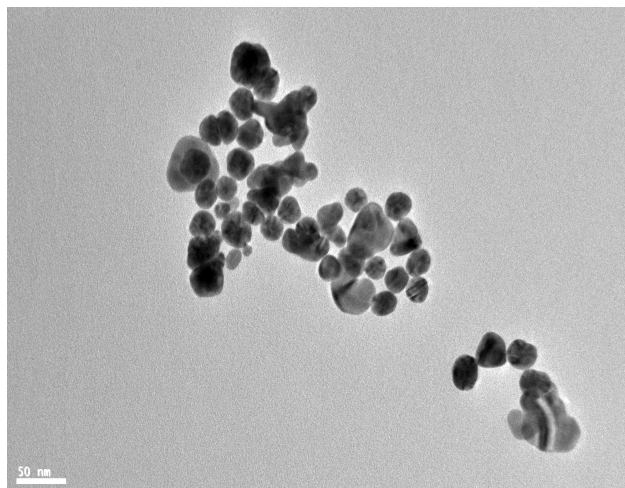
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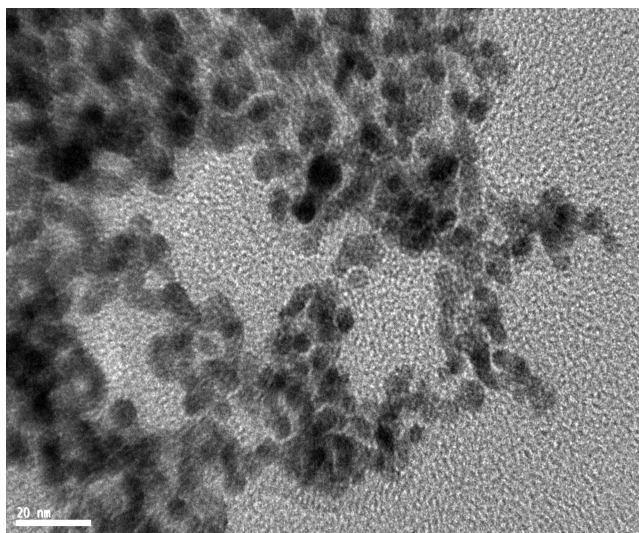
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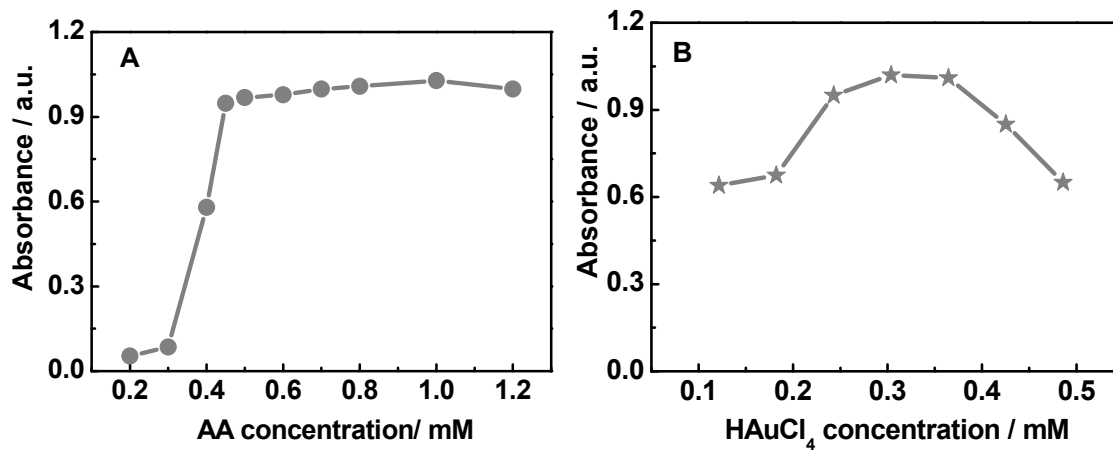
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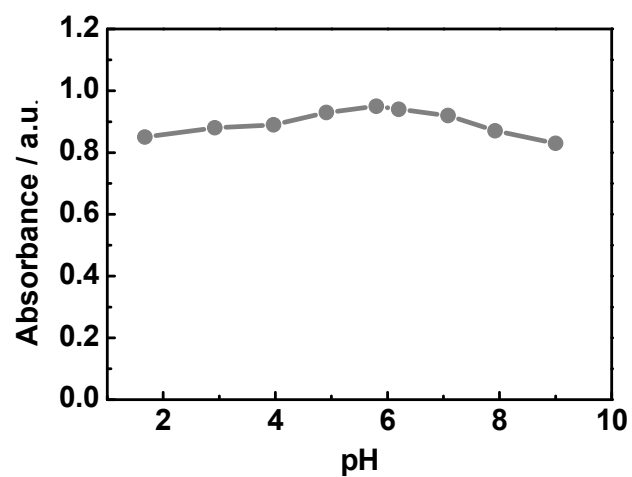
**Fig. S1** TEM image of the gold nanoparticles reduced by freshly prepared AA solution, in the absence of melamine.



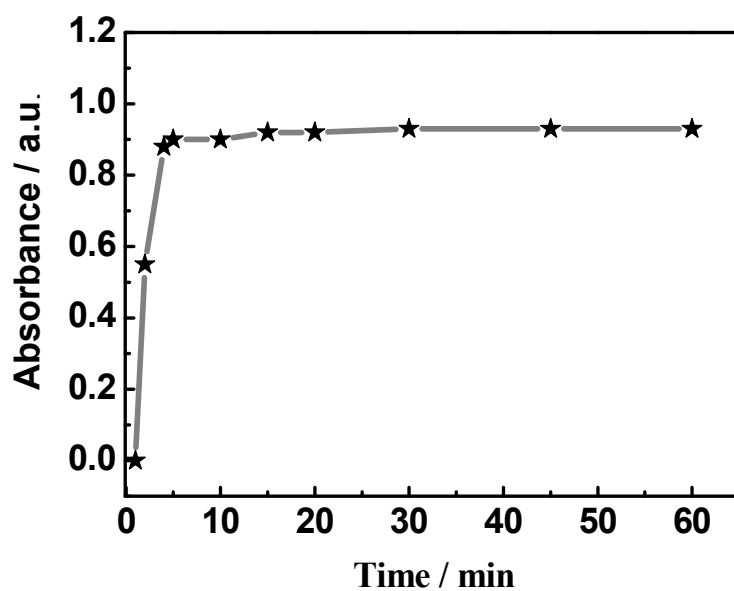
**Fig. S2** TEM image of the gold nanoparticles reduced by ice-cold  $\text{NaBH}_4$  solution, in the presence of 0.5 mM melamine.



**Fig. S3** The plots of the UV-vis absorbance with different concentrations of AA (A) or HAuCl<sub>4</sub> (B), while other conditions kept constant.



**Fig. S4** Effect of the pH on the absorbance intensity of the gold nanoflowers in the reaction system.



**Fig. S5** Effect of the reaction time on the absorbance intensity of the gold nanoflowers in the reaction system.