

Supporting Information for

**Versatile Core–Shell Nanoparticle@Metal–Organic Framework Nanohybrids:  
Exploiting Mussel-Inspired Polydopamine for Tailored Structural Integration**

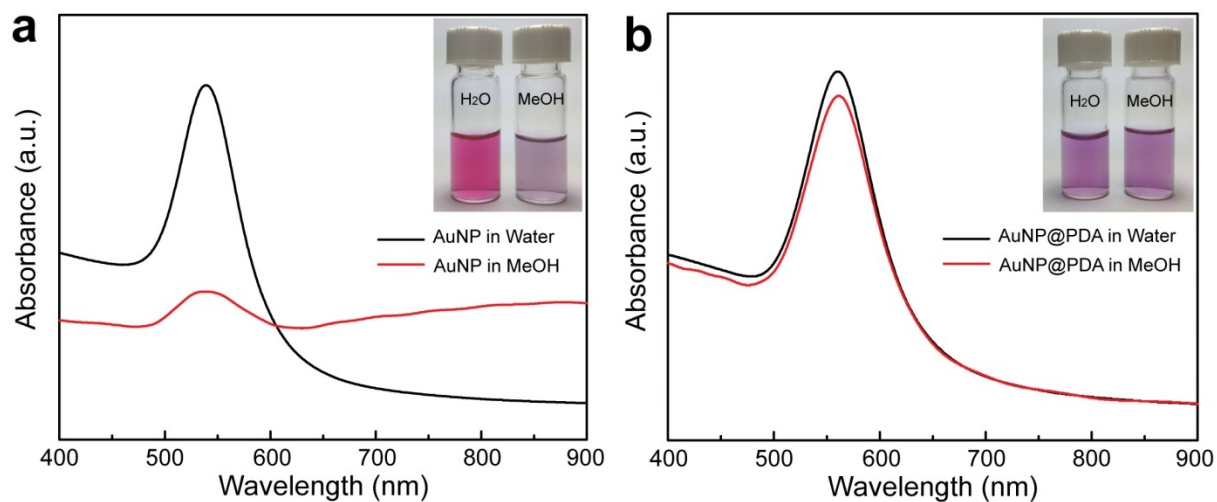
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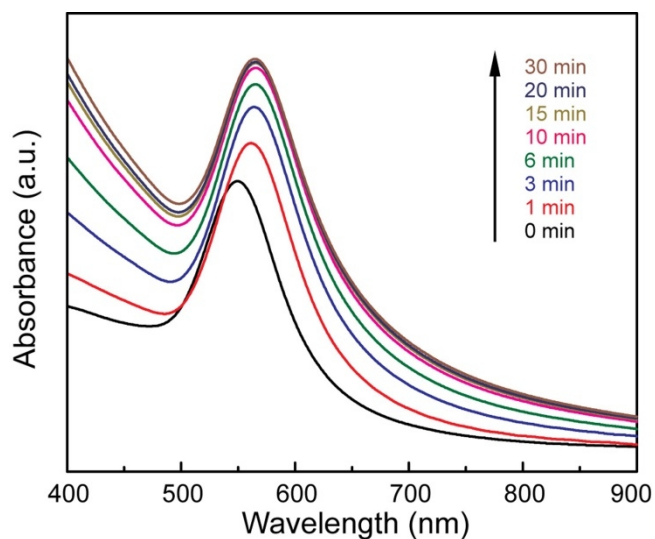
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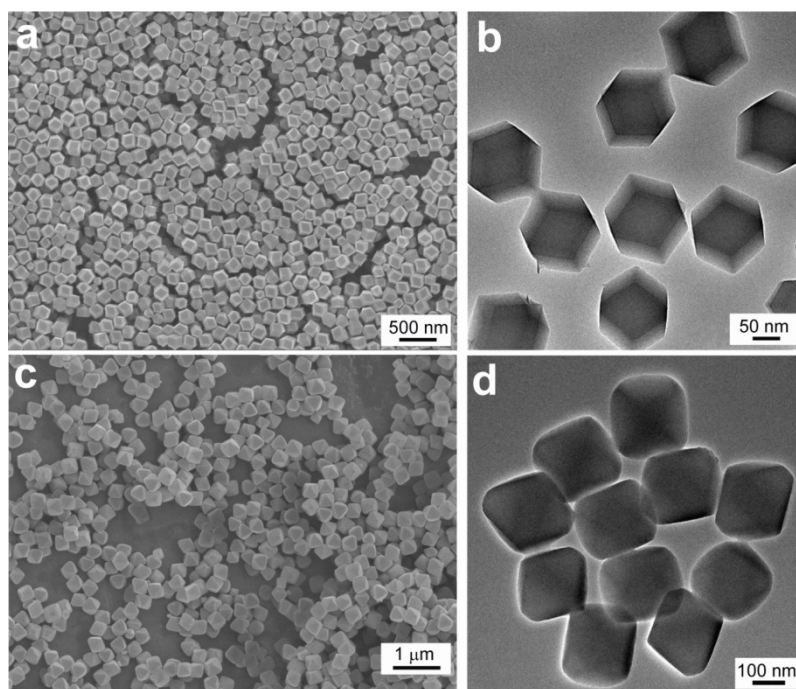
Email: hduan@ntu.edu.sg



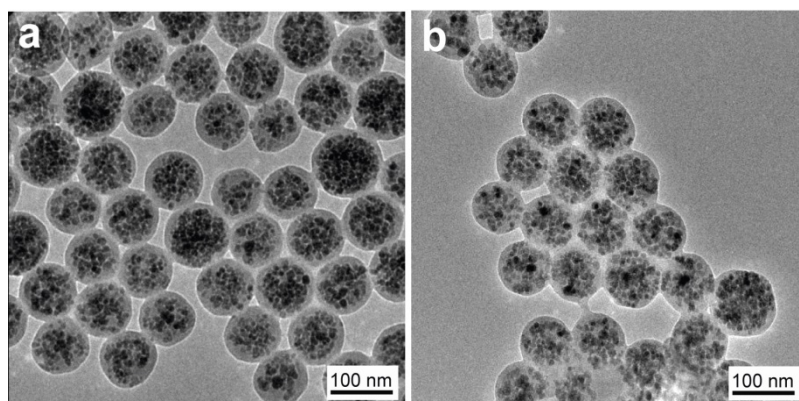
**Figure S1.** UV-vis spectra of (a) AuNP and (b) AuNP@PDA dispersed in water and methanol, respectively. Inset of photographs show color change of solution.



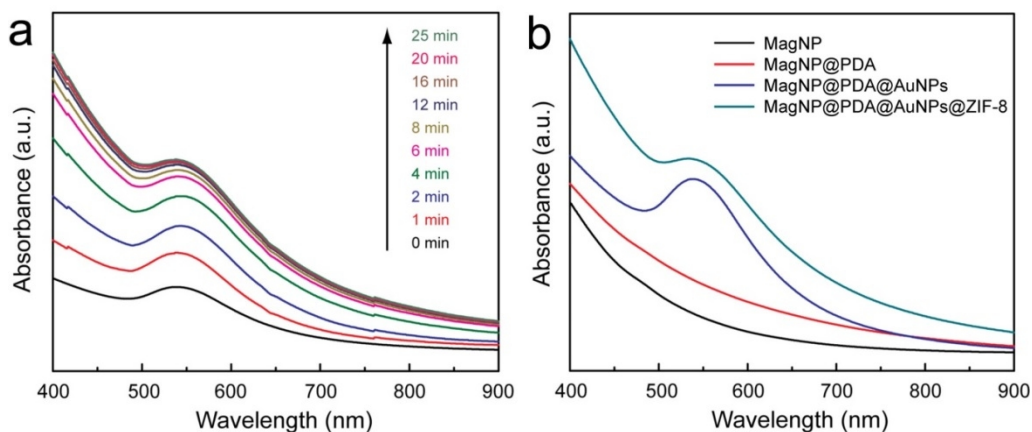
**Figure S2.** UV-vis spectra of the AuNP@PDA@ZIF-8 reaction solution recorded in the initial 30 min.



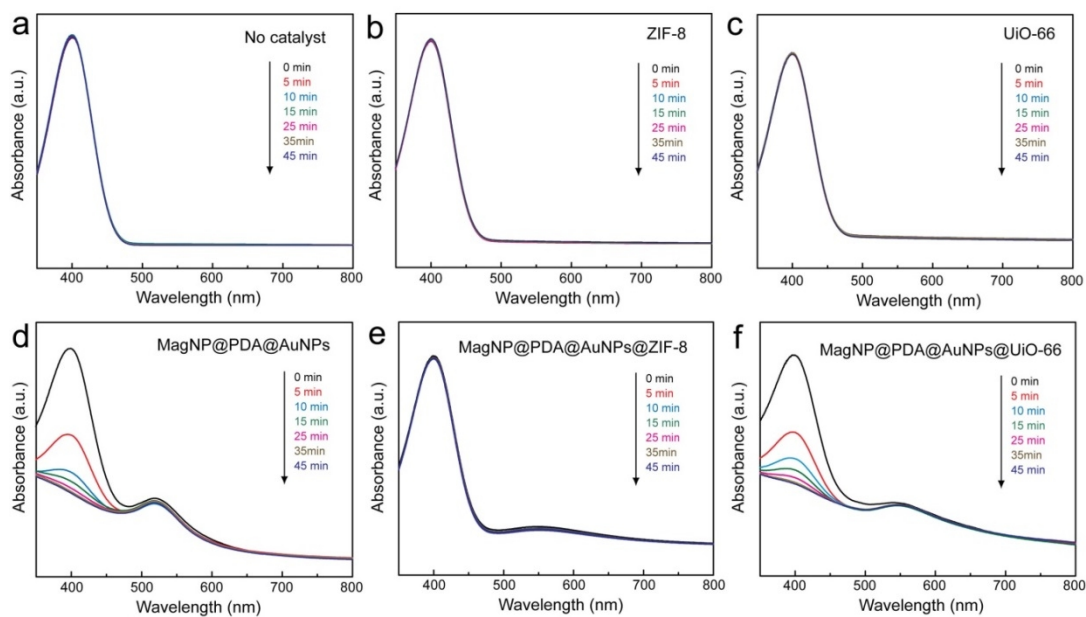
**Figure S3.** SEM and TEM images of a,b) ZIF-8 and c,d) UiO-66 at different magnifications.



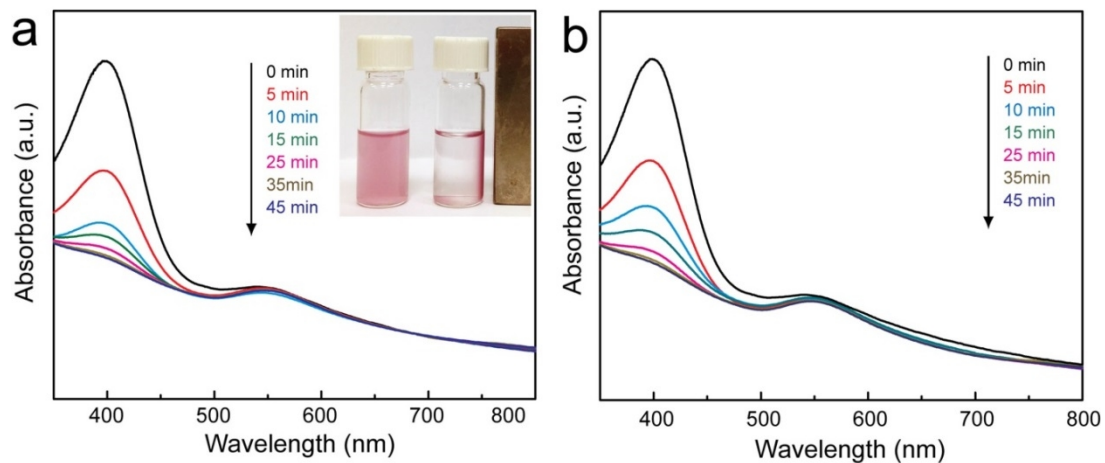
**Figure S4.** TEM images of (a) MagNPs, (b) MagNP after reacting with Au precursor.



**Figure S5.** (a) UV-vis spectra of the MagNP@PDA@AuNPs@ZIF-8 reaction solution recorded in the initial 25 minutes. (b) UV-vis spectra of the products at different stages.



**Figure S6.** UV-vis spectra of the reduction of 4-NP catalyzed by various materials.



**Figure S7.** UV-vis spectra of the reduction of 4-NP catalyzed by  $\text{MagNP@PDA@AuNPs@UiO-66}$  in two consecutive cycles (a) and (b). Inset of S6a: photograph shows the magnetic separation of  $\text{MagNP@PDA@AuNPs@UiO-66}$ .