

Supplementary Information

Co-assembly of Fmoc-tripeptide and gold nanoparticles as a facile approach to immobilize nanocatalysts

Yifei Zhang,^{†,a} Xiaojing Liu,^{†,a} Mengfan Wang,^{*,a,b} Yanan Zhao,^a Wei Qi,^{*,a,b,c}
Rongxin Su^{a,b,c} and Zhimin He^a

^a State Key Laboratory of Chemical Engineering, School of Chemical Engineering and Technology, Tianjin University, Tianjin 300072, P. R. China

E-mail: mawang@tju.edu.cn, qiwei@tju.edu.cn

^b Tianjin Key Laboratory of Membrane Science and Desalination Technology, Tianjin 300072, P. R. China

^c The Co-Innovation Centre of Chemistry and Chemical Engineering of Tianjin, Tianjin 300072, P. R. China

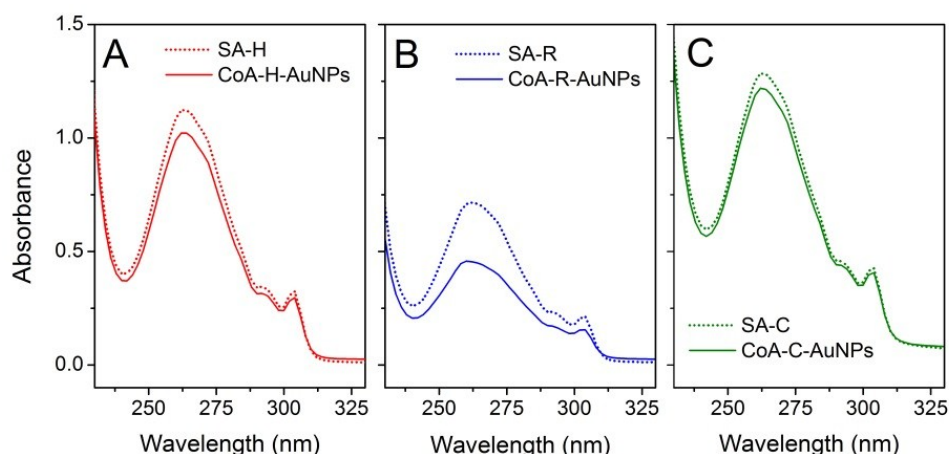


Figure S1. UV spectra of SA-H/CoA-H-AuNPs (A), SA-R/CoA-R-AuNPs (B) and SA-C/CoA-C-AuNPs (C) in the range of 250~310 nm

Congo red reduction reaction

Congo red (209.0 mg) and NaBH_4 (56.7 mg) were dissolved in ultrapure water (100 and 5 mL, respectively). 1000 μL of Congo red solution, 7 mL of ultrapure water and 100 μL of CoA-X-AuNPs were pre-heated at 37°C for 3 min. Then, 1 mL of fresh NaBH_4 solution was added to the mixture and stirred continuously. The reaction progress was monitored through determining the concentration of Congo red on a SpectraMAX 190 spectrophotometer in the wavelength range of 200 ~ 500 nm.

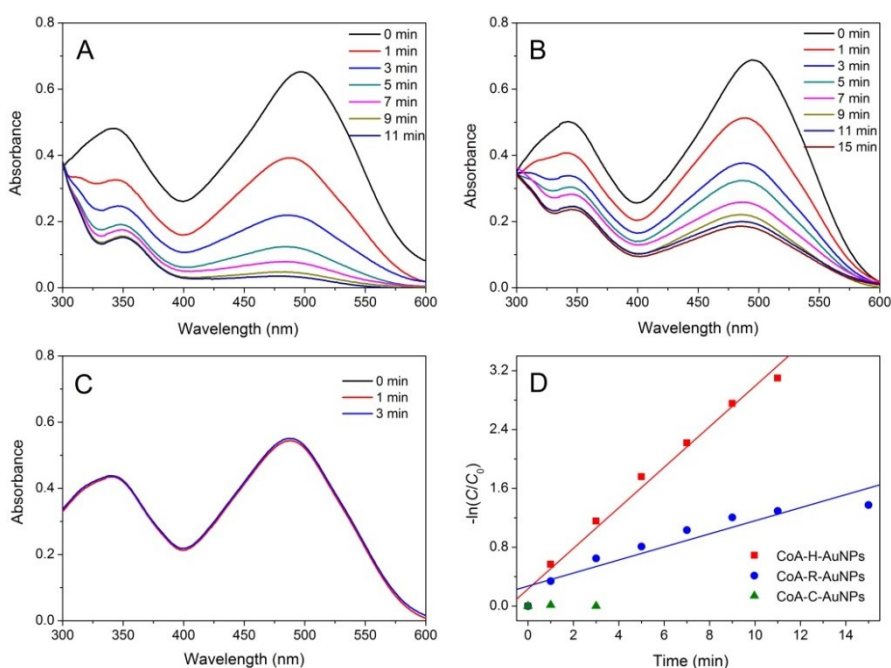


Figure S2. Time-dependent UV-Vis spectra for the reduction of Congo red catalyzed by CoA-H-AuNPs (A), CoA-R-AuNPs (B), and CoA-C-AuNPs (C) and their corresponding $-\ln(C/C_0)$ vs time plots (D)

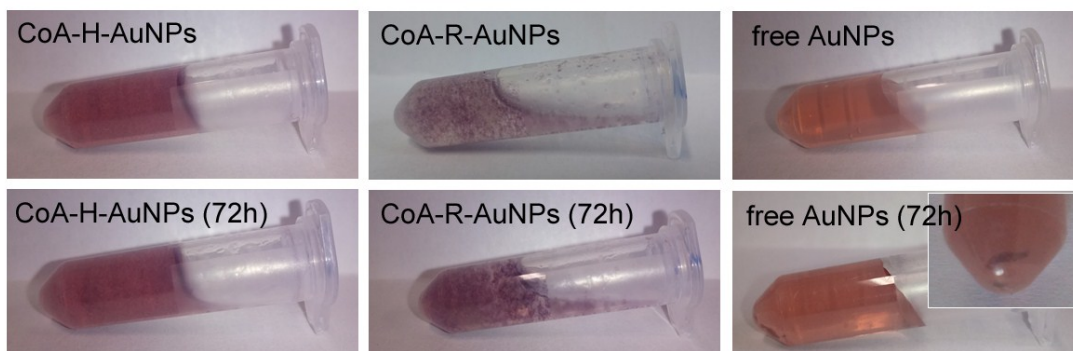


Figure S3. Images of CoA-H-AuNPs, CoA-R-AuNPs and free AuNPs before and after 72-h incubation