

Facile Synthesis of silver nanocatalysts decorated $\text{Fe}_3\text{O}_4@\text{PDA}$ core-shell nanoparticles with enhanced catalytic property and selectivity

Yujie Liu^a, Haijun Zhou^{*a}, Jinling Wang^a, Ding Yu^a, Zhaolei Li^a, Rui Liu^{*b}

^aSchool of Materials Science and Engineering, Jiangsu University of Science and Technology, Zhenjiang, 212100, China

^bMinistry of Education Key Laboratory of Advanced Civil Engineering Materials, School of Materials Science and Engineering, Tongji University, Shanghai, 201804, China

*: to whom the correspondence should be addressed

zhouhaijun@just.edu.cn(H. Zhou), ruiliu@tongji.edu.cn(R. Liu)

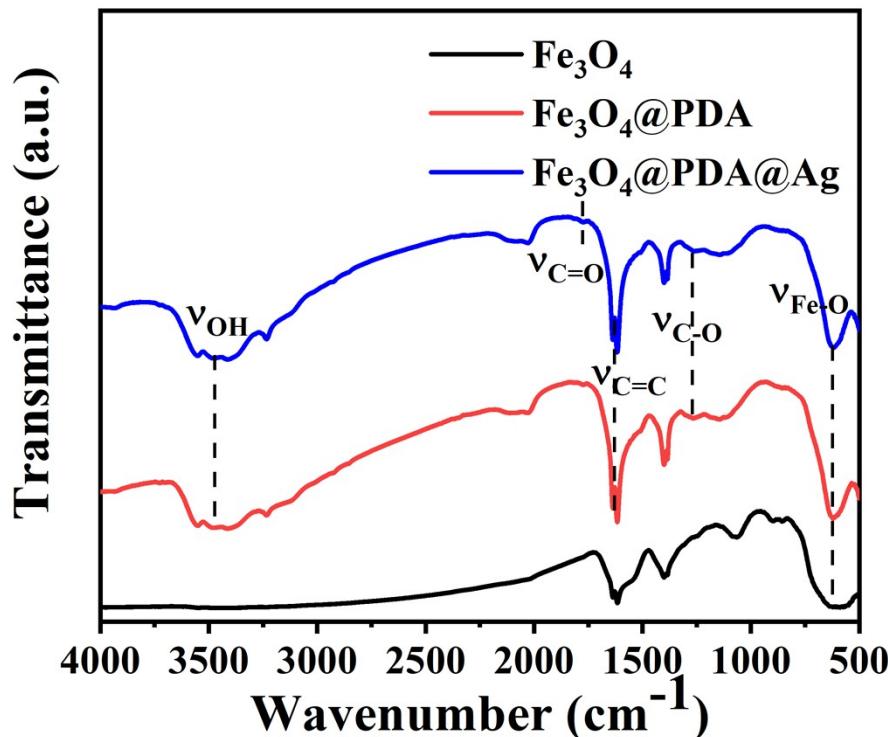


Fig. S1. FT-IR spectra of Fe_3O_4 , $\text{Fe}_3\text{O}_4@\text{PDA}$ and $\text{Fe}_3\text{O}_4@\text{PDA}@\text{Ag}$.

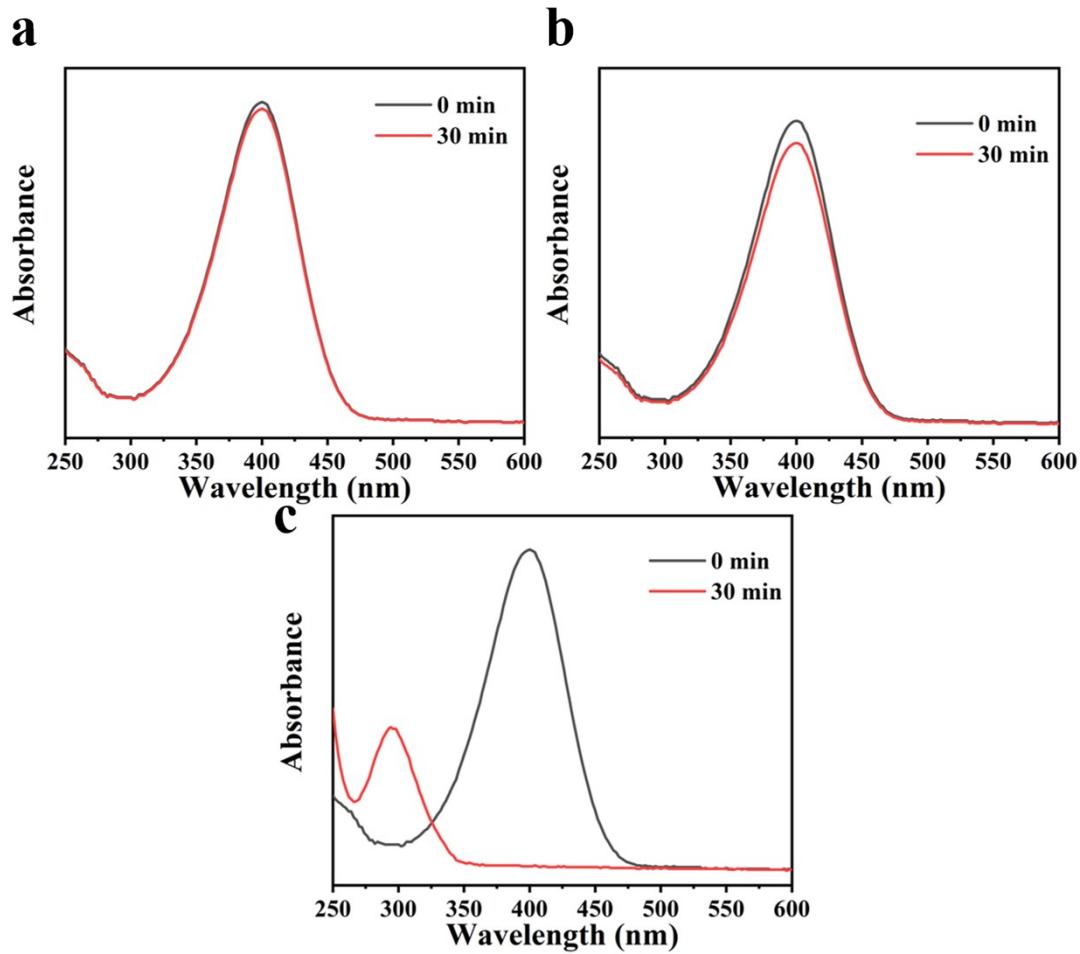


Fig. S2. UV-vis of reaction solution using a) Fe_3O_4 . b) $\text{Fe}_3\text{O}_4@\text{PDA}$. c) $\text{Fe}_3\text{O}_4@\text{PDA}@\text{Ag}$ as a catalyst

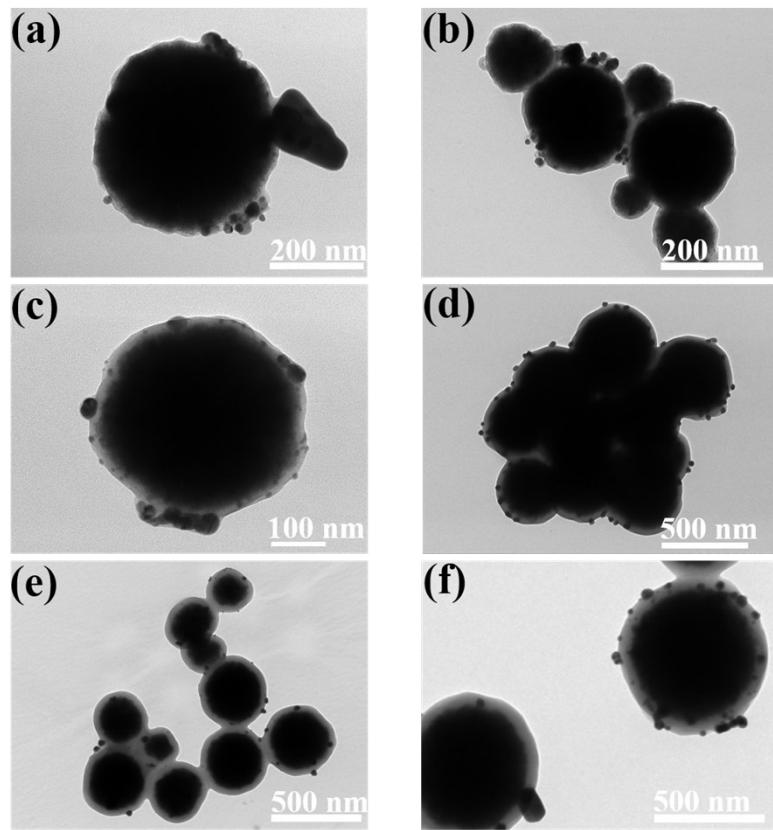


Fig. S3. TEM. a) $\text{Fe}_3\text{O}_4@\text{PDA}@\text{Ag}$ 1:1-0.5 mM b) $\text{Fe}_3\text{O}_4@\text{PDA}@\text{Ag}$ 1:1-1 mM c)
Fe₃O₄@PDA@Ag 1:2-0.5 mM d) Fe₃O₄@PDA@Ag 1:2-1 mM e) Fe₃O₄@PDA@Ag 1:3-0.5 mM a)
Fe₃O₄@PDA@Ag 1:3-1 mM.