

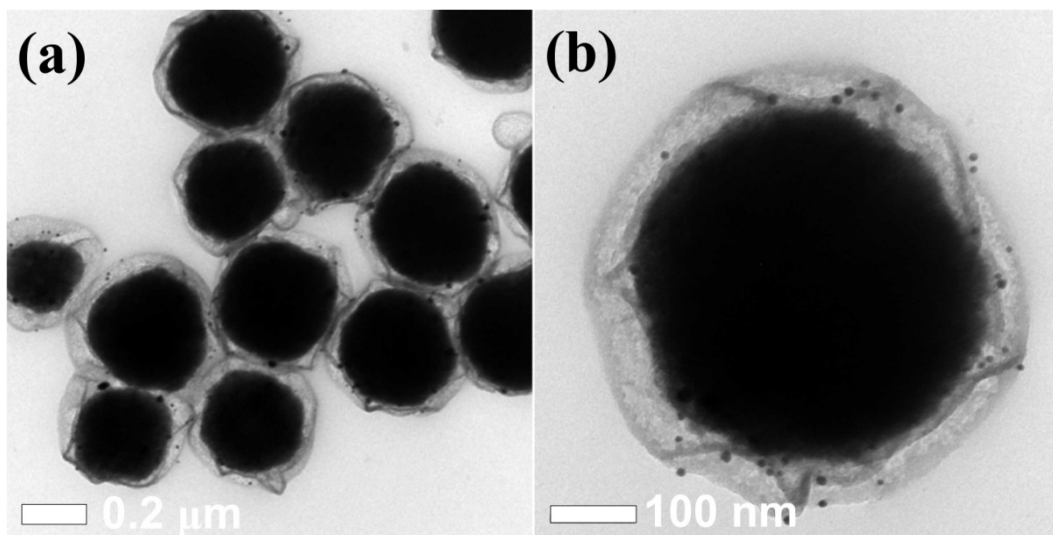
Supporting Information

$\text{Fe}_3\text{O}_4/\text{PANI}/m\text{-SiO}_2$  as Robust Reactive Catalyst Supports for Noble Metal Nanoparticles with  
Improved Recyclability and Stability

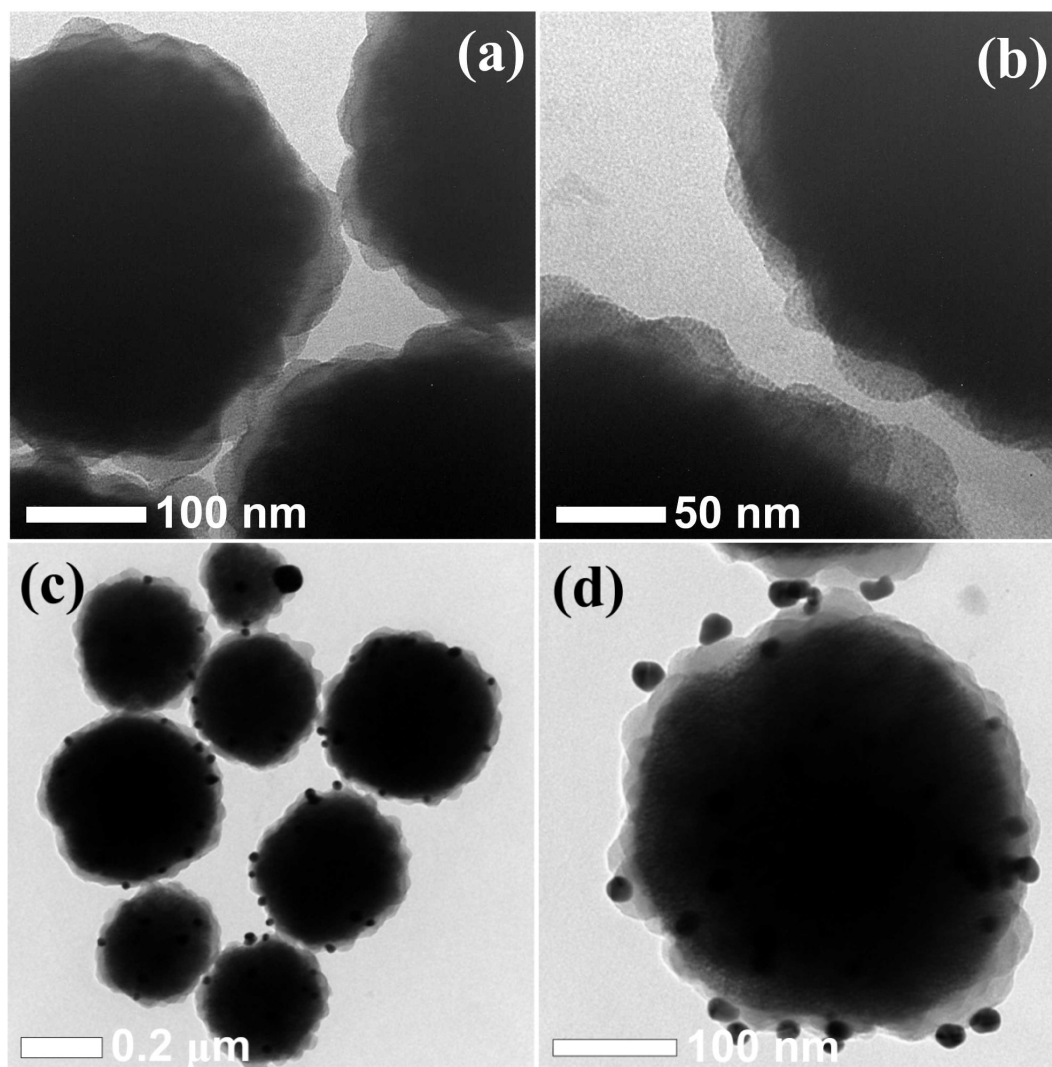
Jie Han\*, Song Lu, Chenjing Jin, Mingguai Wang and Rong Guo\*

School of Chemistry and Chemical Engineering, Yangzhou University, Yangzhou, 225002, Jiangsu, P.  
R. China

\*Corresponding author. E-mail: hanjie@yzu.edu.cn; guorong@yzu.edu.cn



*Figure S1* TEM images of  $\text{Fe}_3\text{O}_4/\text{PANI}/\text{Au}/m\text{-SiO}_2$  core/shell spheres after stored for more than four months.



*Figure S2* TEM images of  $\text{Fe}_3\text{O}_4/\text{PANI}/\text{Au}$  core/shell spheres of (a, b) freshly prepared and (c, d) stored for one week.

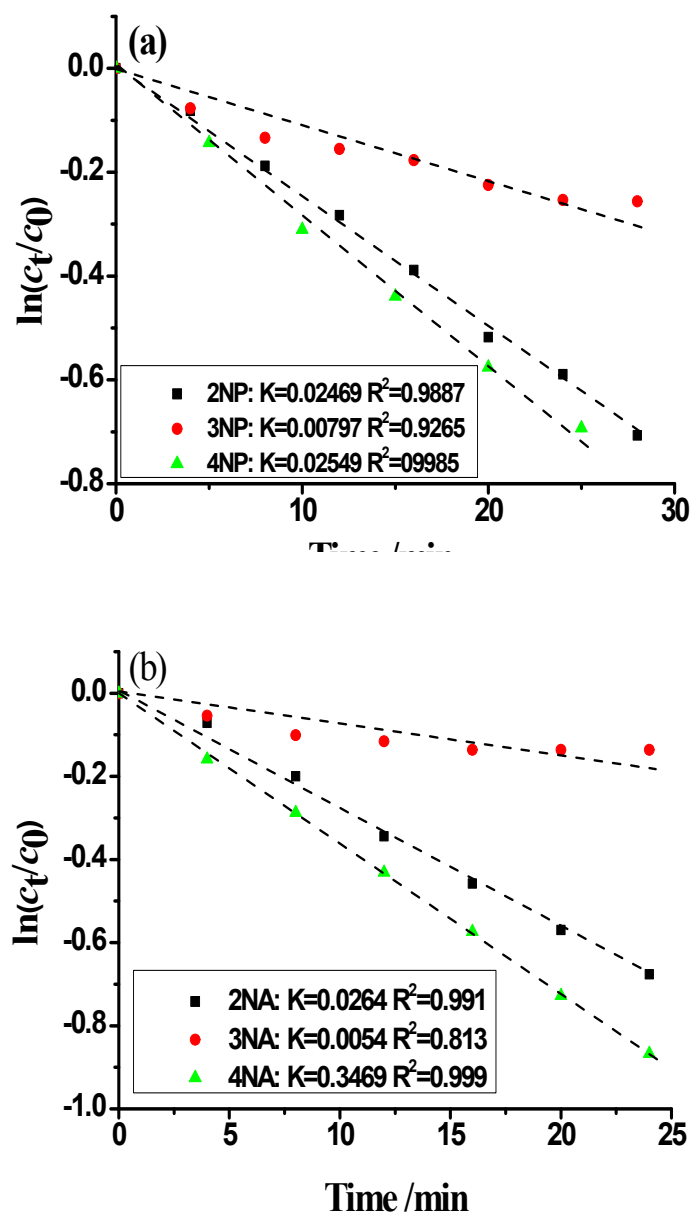
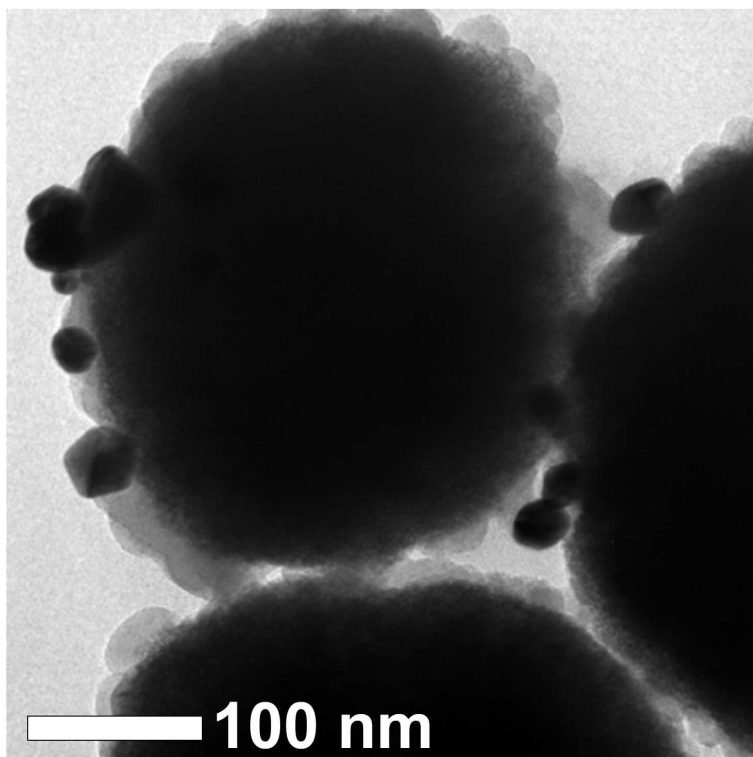
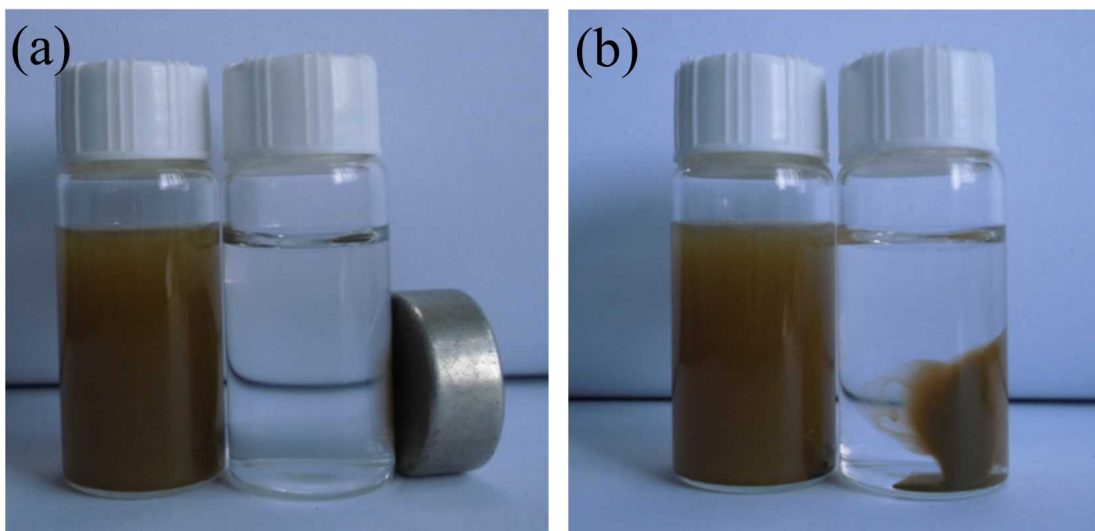


Figure S3 Plot of  $\ln(c_t/c_0)$  of (a) NP and (b) AP against time using  $\text{Fe}_3\text{O}_4/\text{PANI}/\text{Au}/m\text{-SiO}_2$  core/shell catalysts.



*Figure S4* TEM image of Fe<sub>3</sub>O<sub>4</sub>/PANI/Au core/shell spheres after five runs of catalytic reactions.



*Figure S5* Optical images of  $\text{Fe}_3\text{O}_4/\text{PANI}/\text{Au}/m\text{-SiO}_2$  core/shell spheres (a) before and (b) after removal of magnet.