

Supporting Information

Magnetically Recyclable Catalytic Activity of Spiky Magnetoplasmonic Nanoparticles

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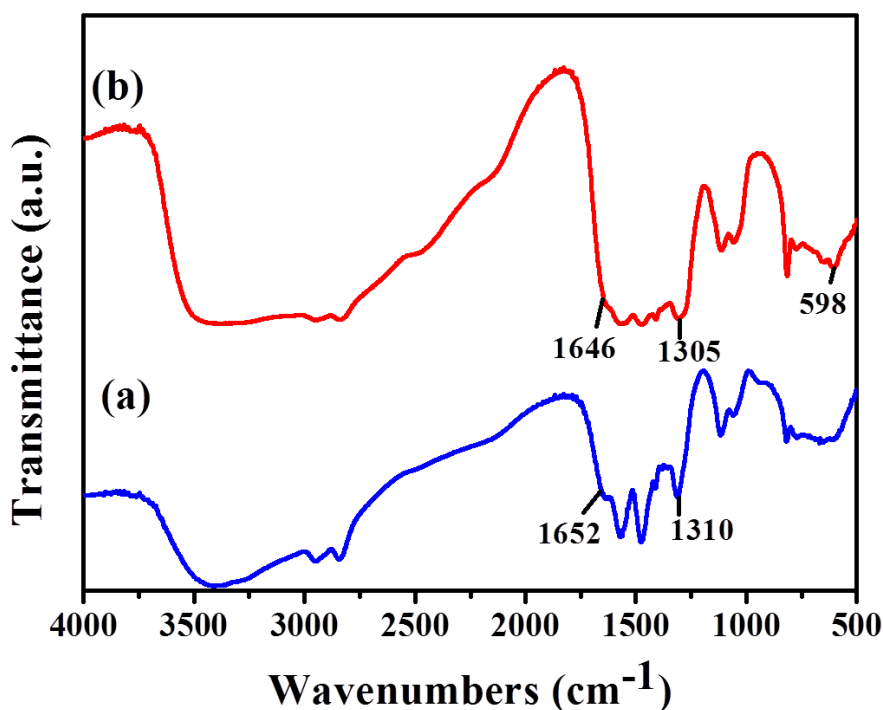


Figure S1. FT-IR spectra of pure PEI (a) and Fe₃O₄@PEI NPs (b)

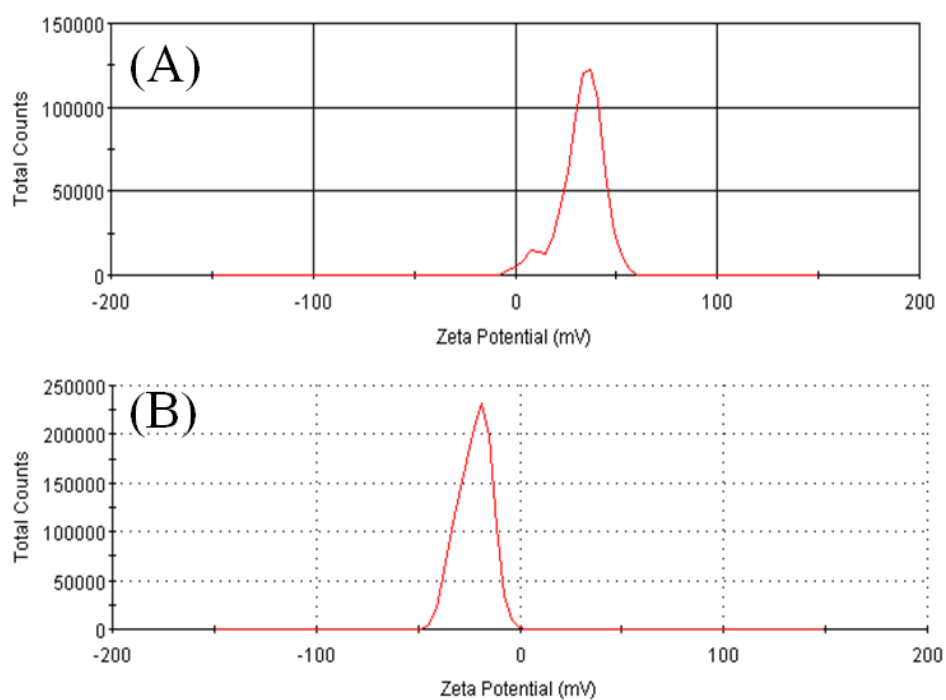


Figure S2. Zeta potential distribution of (A) Fe₃O₄ NPs and (B) Au NPs

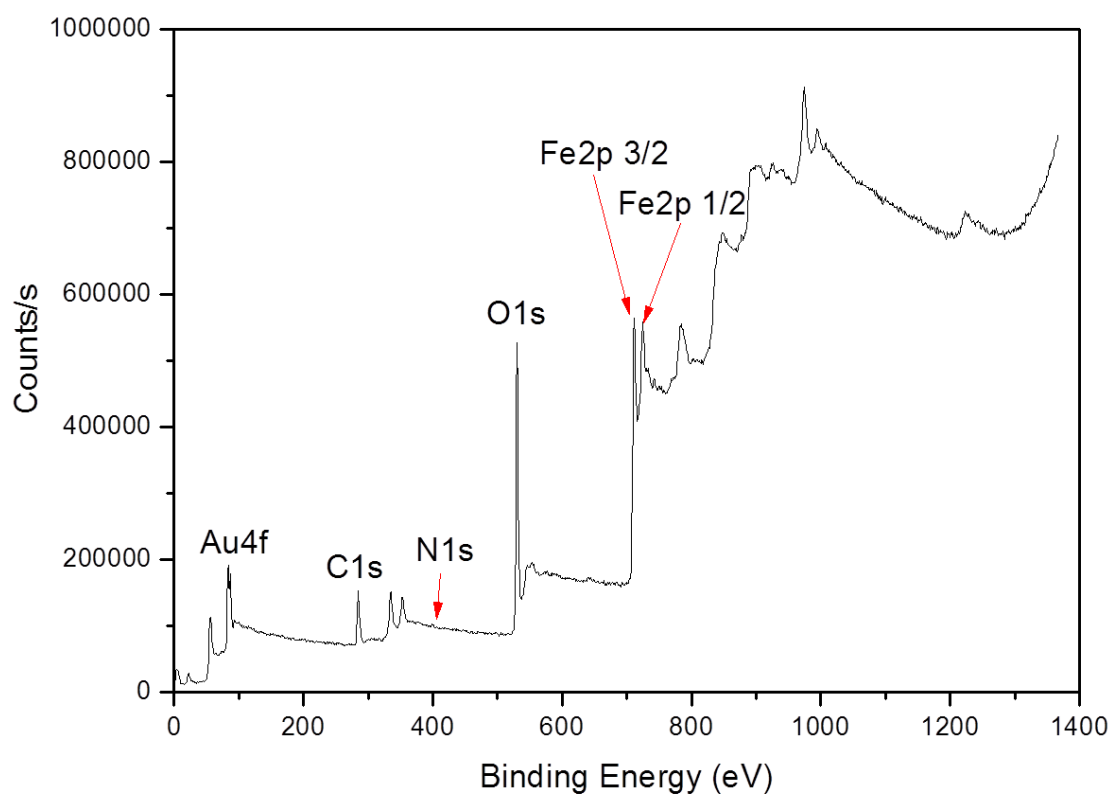


Figure S3. XPS spectra of spiky Fe₃O₄@Au NPs

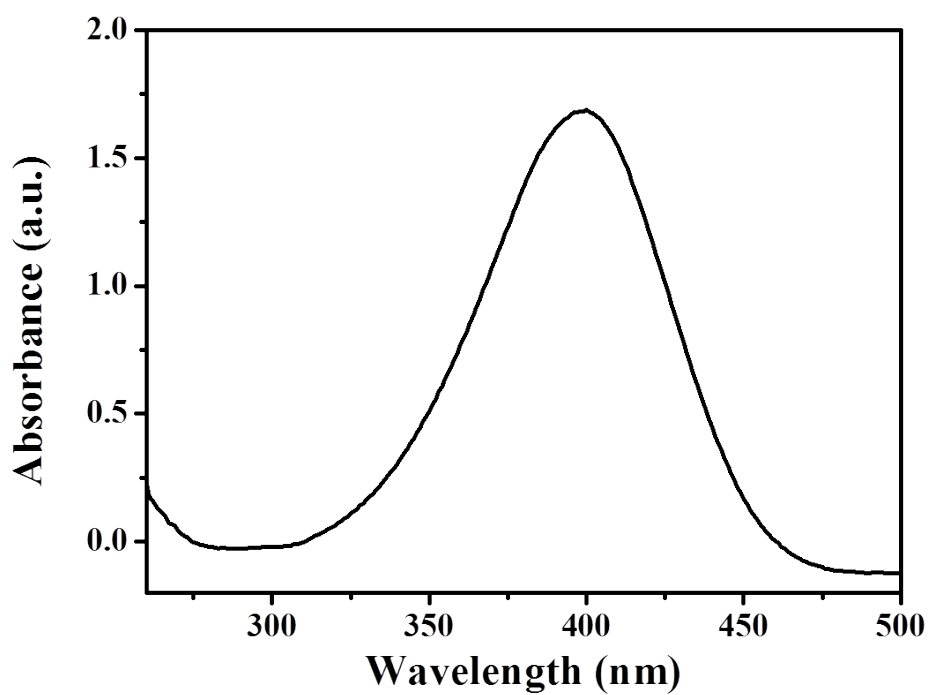


Figure S4. UV-Vis spectral changes in 4-nitrophenol catalyzed by Fe_3O_4 NPs in presence of NaBH_4

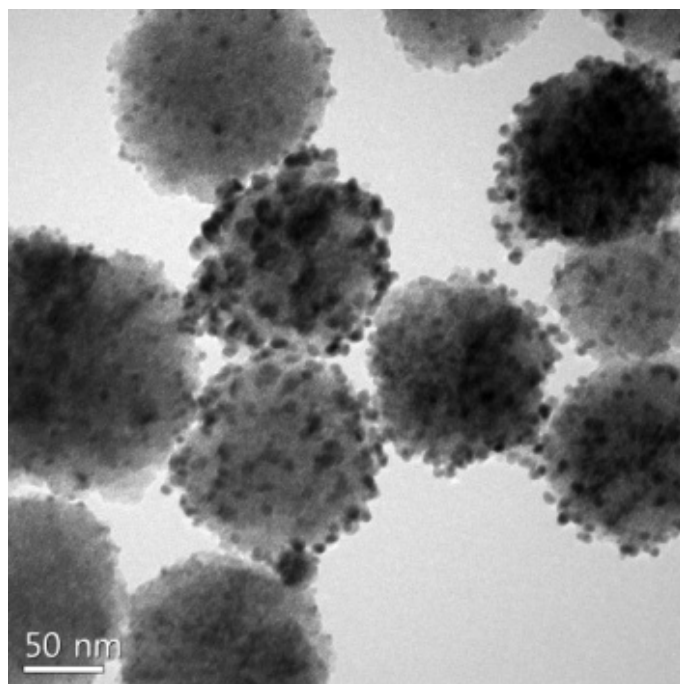


Figure S5. The TEM image of spiky $\text{Fe}_3\text{O}_4@Au$ NPs after four successive cycles of catalytic reaction of 4-nitrophenol

Table S1. The loading amount of gold (wt% Au content) of core-satellite Fe₃O₄@Au NPs and spiky Fe₃O₄@Au NPs by Inductively Coupled Plasma (ICP)

Sample Name	Au content (wt %)	Fe content (wt %)
Core-satellite Fe ₃ O ₄ @Au NPs	2.58 ppm	21.57 ppm
Spiky Fe ₃ O ₄ @Au NPs	6.98 ppm	20.94 ppm