

Supporting Information

A noval malonic acid assisted synthesized porous Fe_2O_3 microspheres for ultra-fast response and recovery toward TEA

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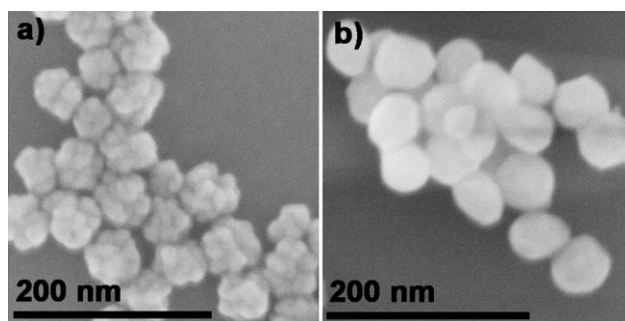


Fig. S1 The SEM image of the (a) unannealed and (b) annealed Fe_2O_3 nanoparticles.

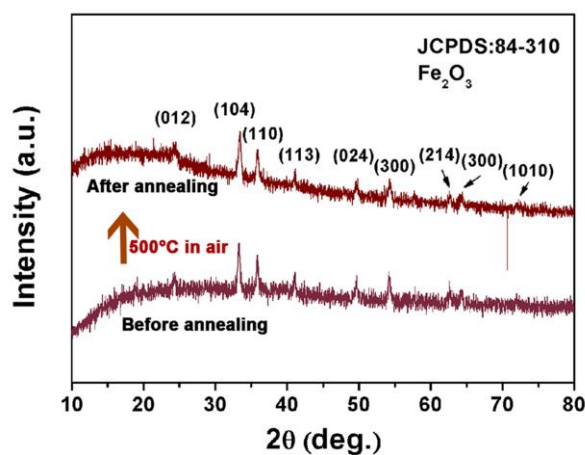


Fig. S2 The XRD patterns of the nanoparticles before and after annealing.

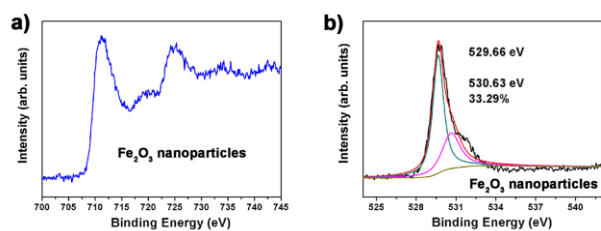


Fig. S3 (a) The Fe 2p spectra and (b) the O 1s spectra of the Fe_2O_3 nanoparticles.

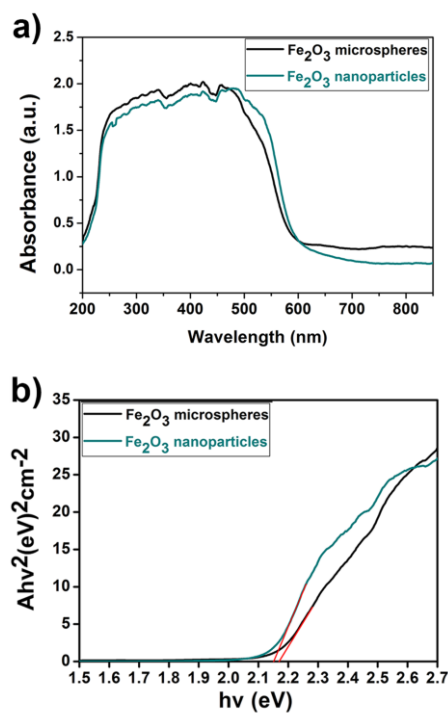


Fig. S4 (a) The UV-vis absorbance spectrum for the porous Fe_2O_3 microspheres and annealed Fe_2O_3 nanoparticles, (b) The corresponding calculated results of band gap energies.