Electronic Supplementary Information (ESI)

Hydrothermal synthesis of porous α-Fe_2O_3 nanostructures for highly efficient Cr(VI) removal

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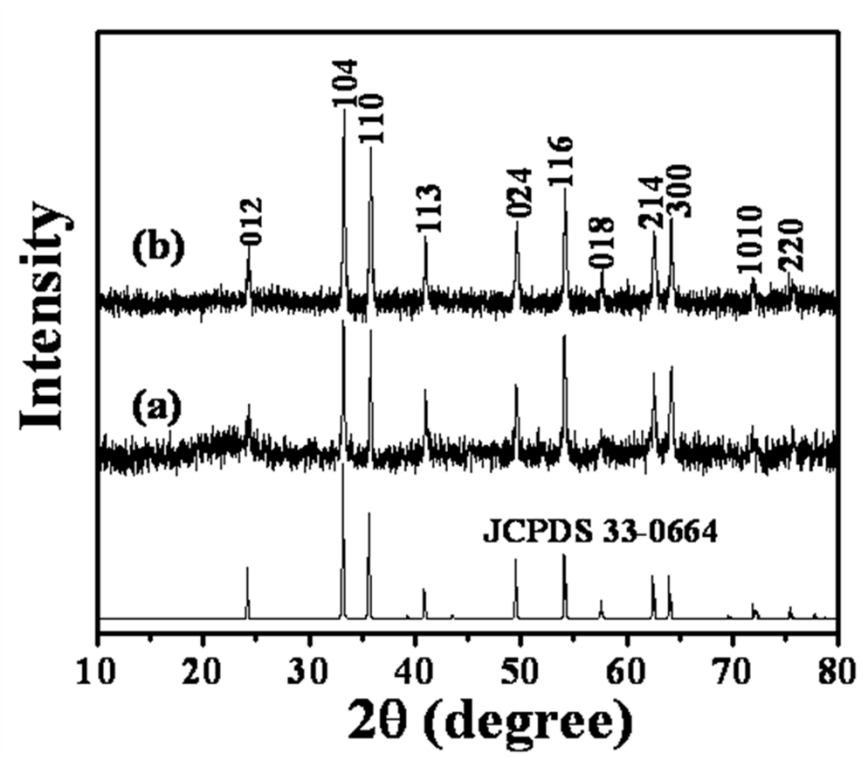

Fig. S1 XRD patterns of α-Fe_2O_3: (a) **S2**; (b) **S3**.

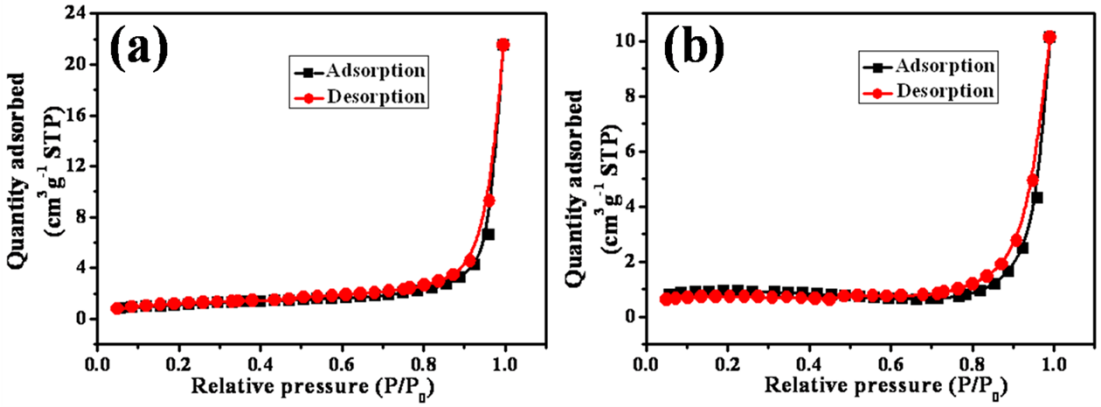

Fig. S2 Nitrogen adsorption–desorption isotherms of α-Fe_2O_3 nanostructures: (a) **S2**; (b) **S3**.

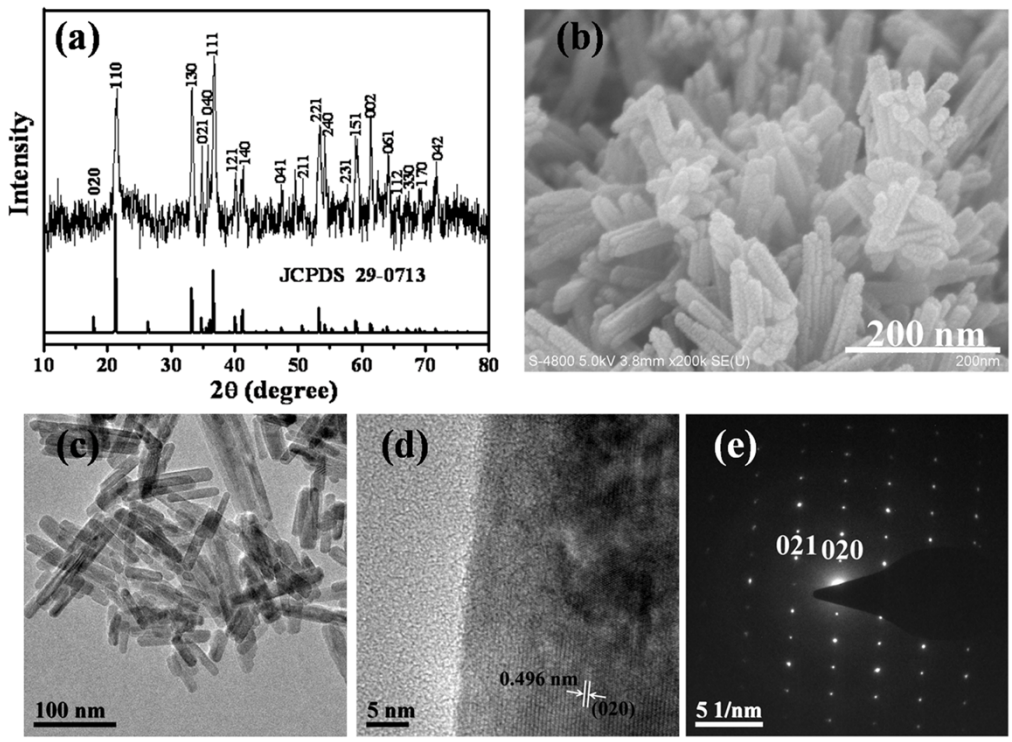

Fig. S3 (a) XRD pattern, (b) SEM image, (c) TEM image (d) HR-TEM image and (e) SAED pattern of α-FeOOH sample (**S1** before calcinations).

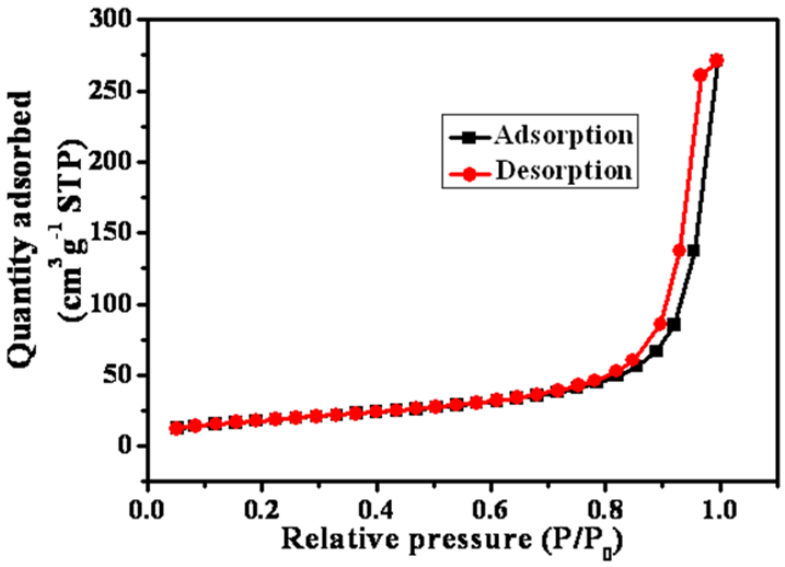

Fig. S4 Nitrogen adsorption–desorption isotherm of α-FeOOH nanorods.

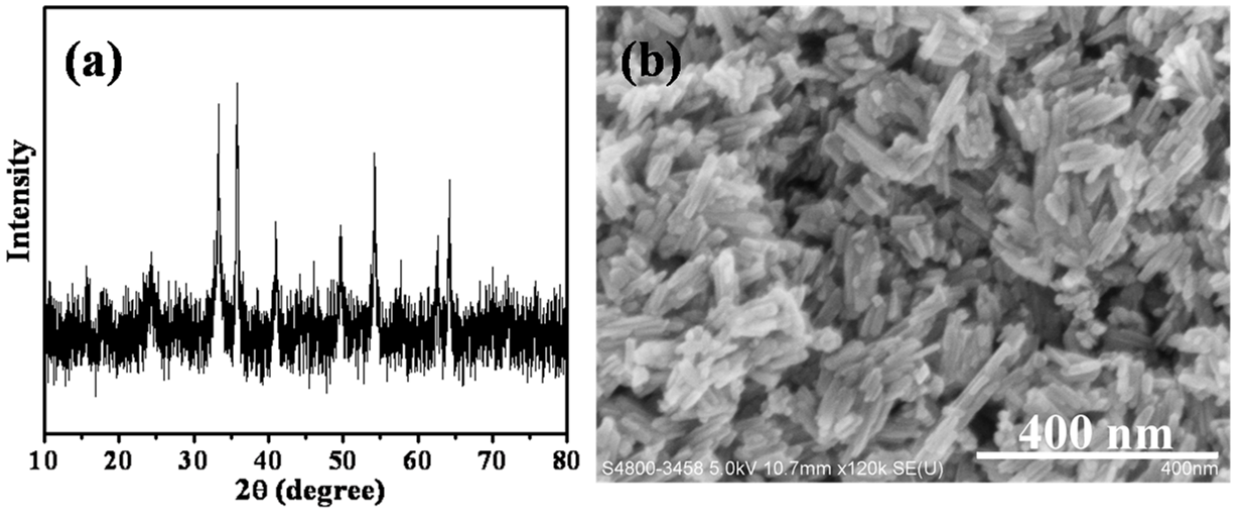

Fig. S5 XRD pattern (a) and SEM image (b) of porous α-Fe_2O_3 nanorods after four cycles.

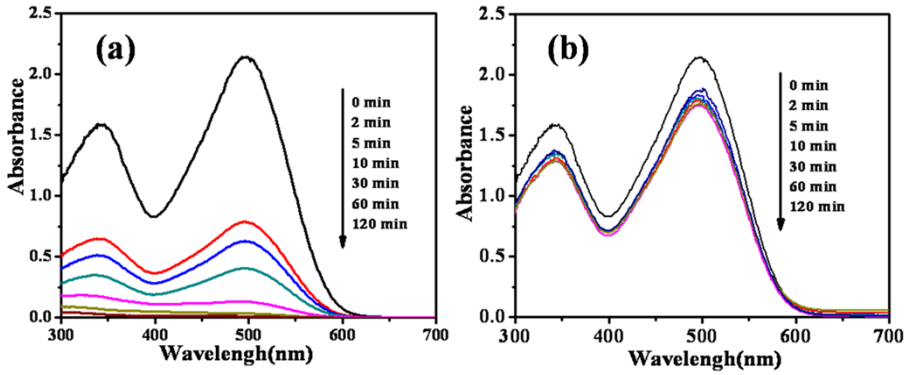

Fig. S6 Time-dependent optical absorption spectra of Congo red solution with an initial concentration of 100 mg L^{-1} in the presence of 30 mg of porous α-Fe_2O_3 nanorod (a), and commercial α-Fe_2O_3 (b), respectively.