

Preparation of Hollow Magnetic Porous Zirconia Fibers as Effective Catalyst Carriers for Fenton Reaction

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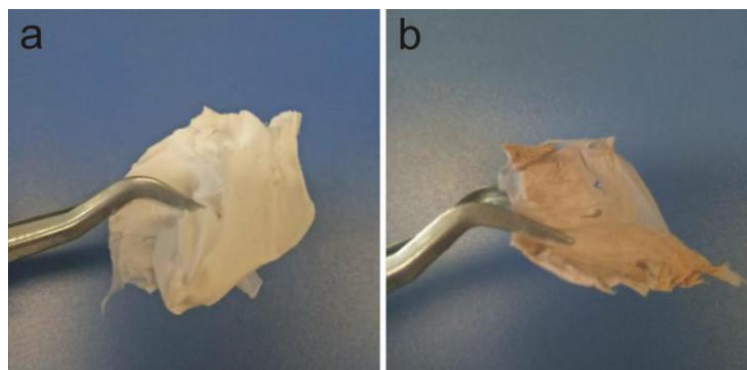


Fig. S1 Photographs of as made fiber samples. (a) hollow ZrO₂ fibers; (b) hollow magnetic M@ZrO₂ fibers.

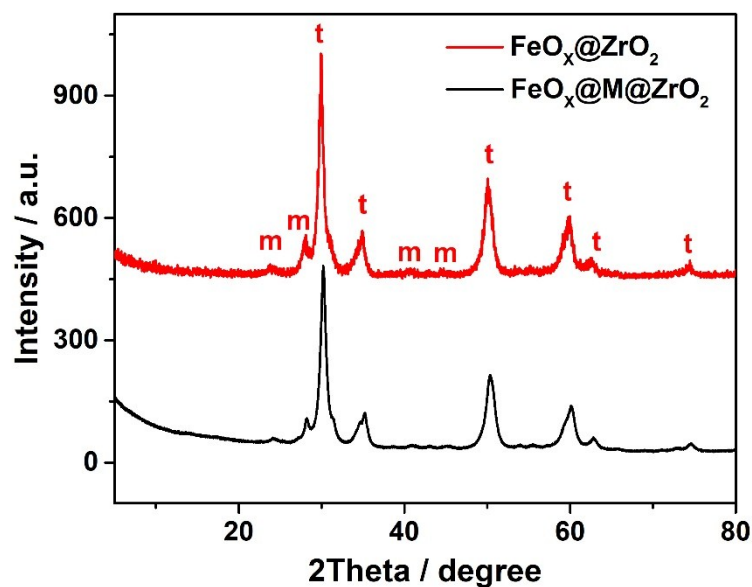


Fig. S2. the XRD patterns of hollow FeO_x@ZrO₂ fibers and hollow FeO_x@M@ZrO₂ fibers

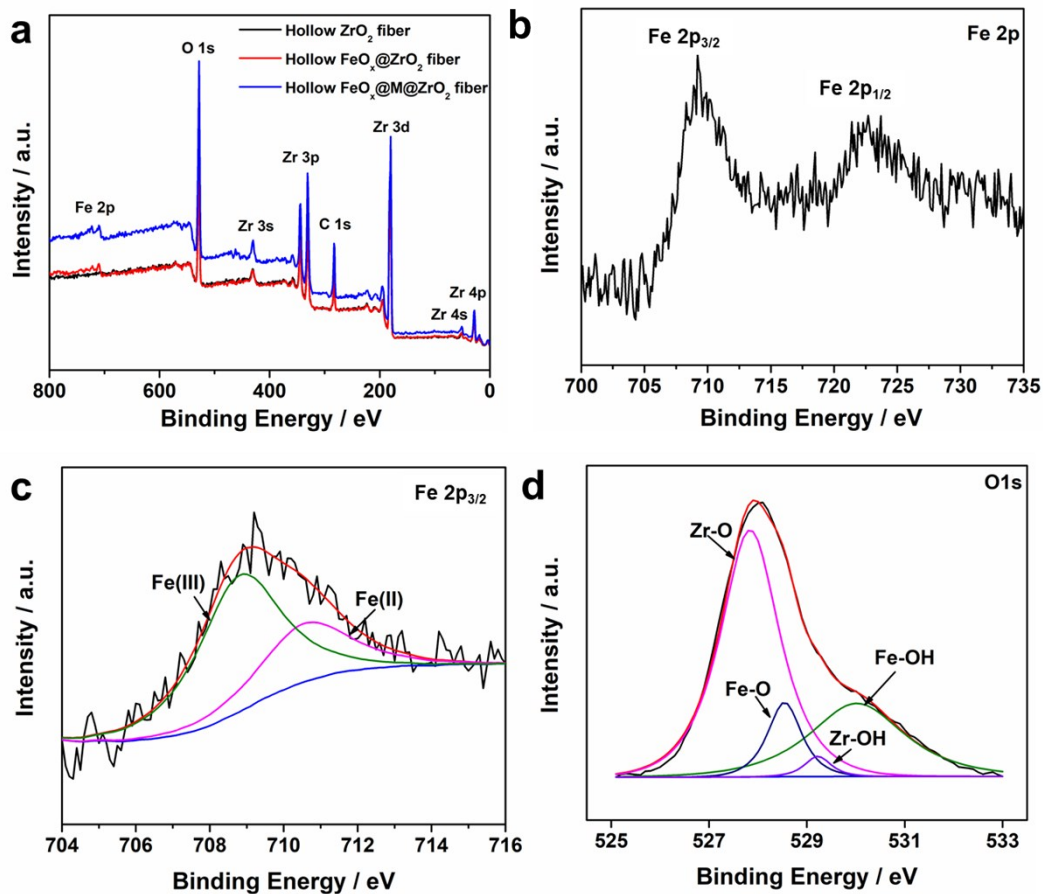


Fig. S3 XPS survey spectra (a) and Fe 2p (b), Fe 2p_{3/2} (c), O 1s (d) core excitation XPS spectra

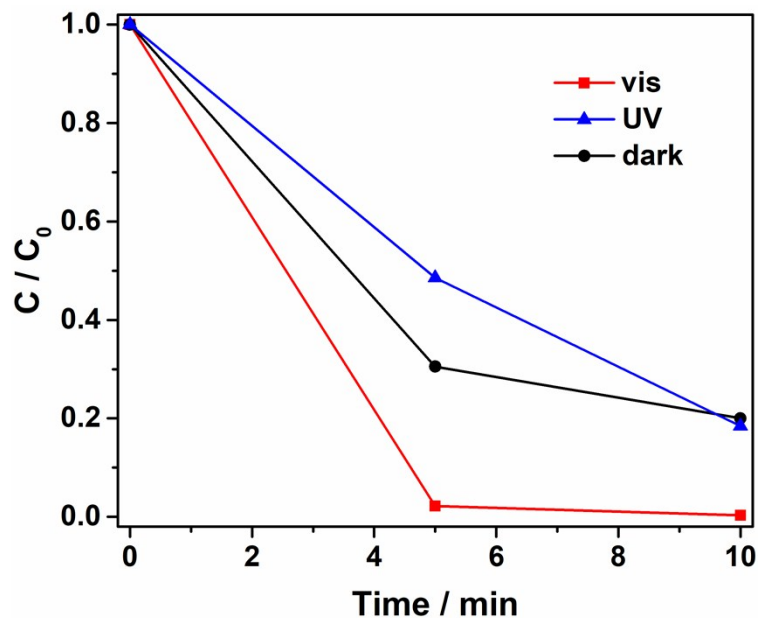


Fig. S4 the degradation of 50 ppm methylene blue solution in present of 15 mg catalyst 0.75M-Fe₂O₃@M@ZrO₂, 40μl H₂O₂, 25mg NH₂OH·HCl under visible light, UV light or no irradiation.

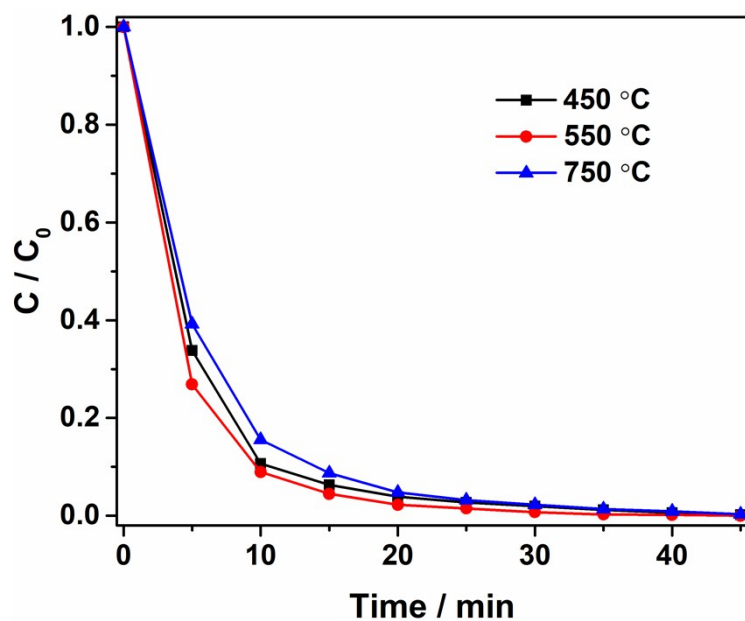


Fig. S5 the degradation of 100 ppm methylene blue solution in the presence of 15 mg catalyst (ZrO_2 carriers are calcined at 450 °C, 550 °C and 750 °C, respectively), 40 μl H_2O_2 , 25 mg $NH_2OH \cdot HCl$ under visible light.

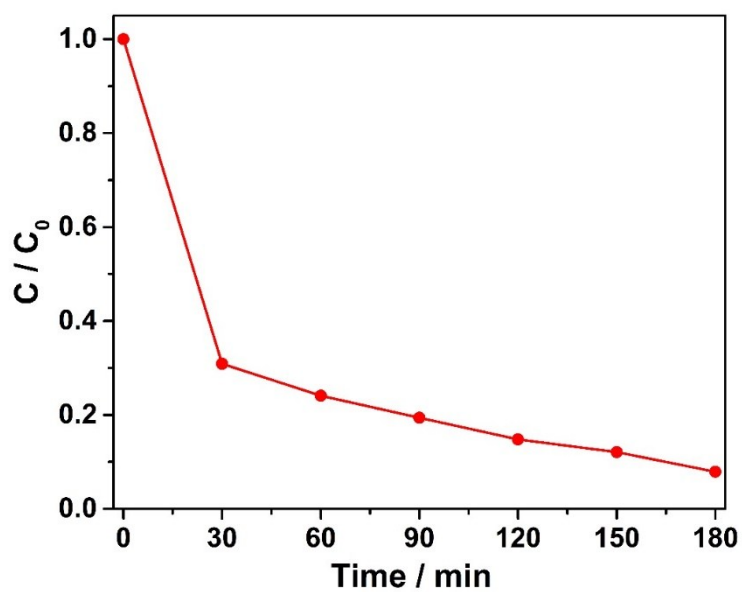


Fig. S6. The degradation of 100 ppm phenol in present of 15 mg catalyst $0.75M-Fe_2O_3@M@ZrO_2$, 40 μl H_2O_2 , 25mg $NH_2OH \cdot HCl$.

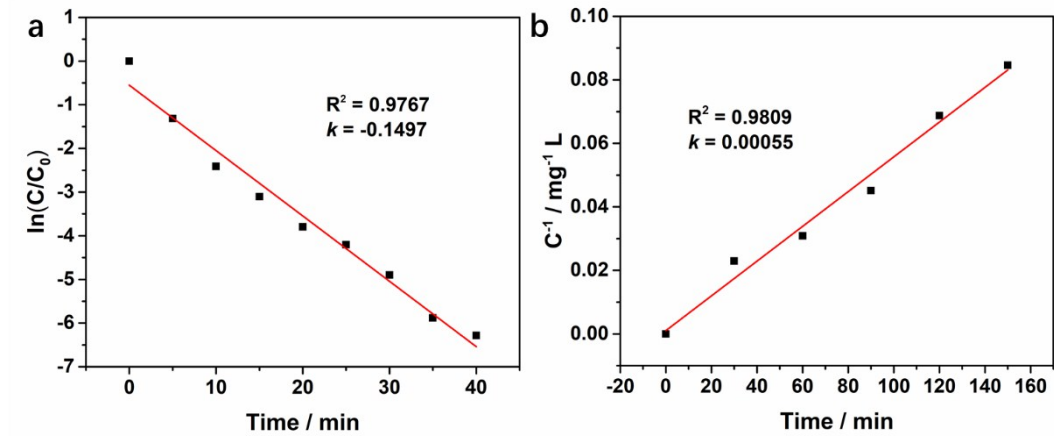


Fig. S7. (a) plotting of the $\ln(C/C_0)$ versus time for degradation of methylene blue; (b) plotting of the $1/C$ versus time for degradation of phenol.