

Electronic Supplementary Information:

Synthesis of porous magnetic ferrite nanowires containing Mn and their application in water treatment

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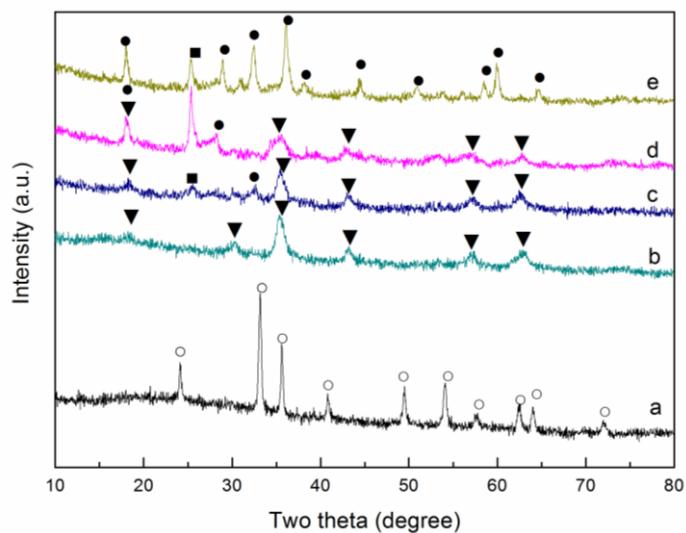


Fig. S1 XRD patterns of the calcined products with different Fe(II)/Mn(II) molar ratios: (a) Fe(II); (b) Fe(II)/Mn(II) = 1:1; (c) Fe(II)/Mn(II) = 1:2; (d) Fe(II)/Mn(II) = 1:3; (e) Mn(II)
(○ α-Fe₂O₃; ▼ manganese ferrite; ■ Mn₂O₃; ● Mn₃O₄)

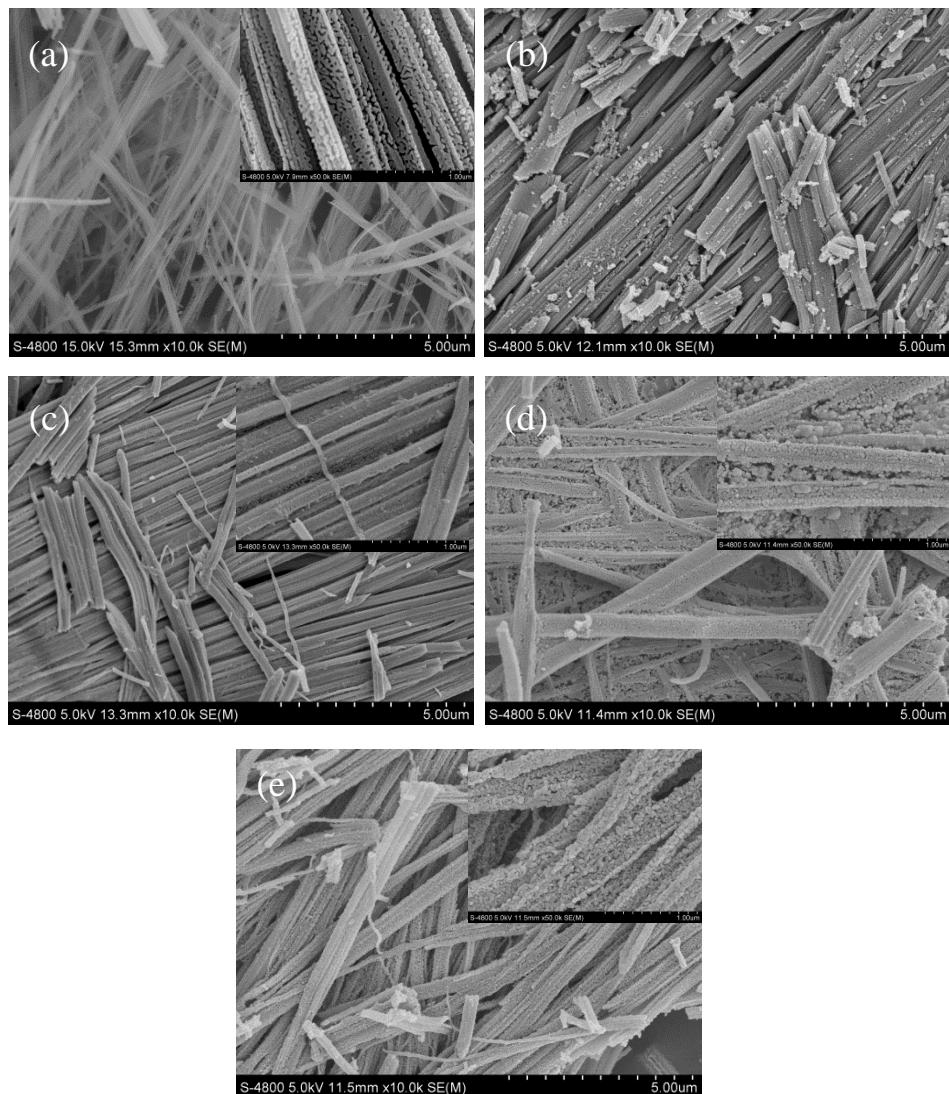


Fig. S2 SEM images of the calcined products with different Fe(II)/Mn(II) molar ratios: (a) Fe(II); (b) Fe(II)/Mn(II) = 1:1; (c) Fe(II)/Mn(II) = 1:2; (d) Fe(II)/Mn(II) = 1:3; (e) Mn(II)

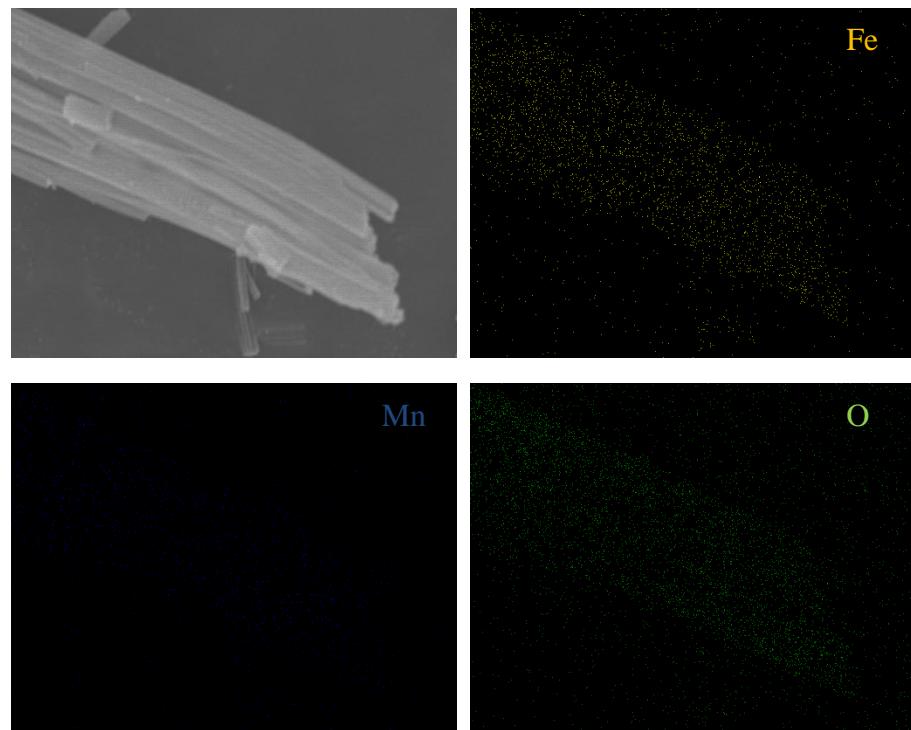


Fig. S3 Low-magnification SEM image of MnFe₂O₄ and scanning SEM elemental distribution mapping for Mn, Fe and O.

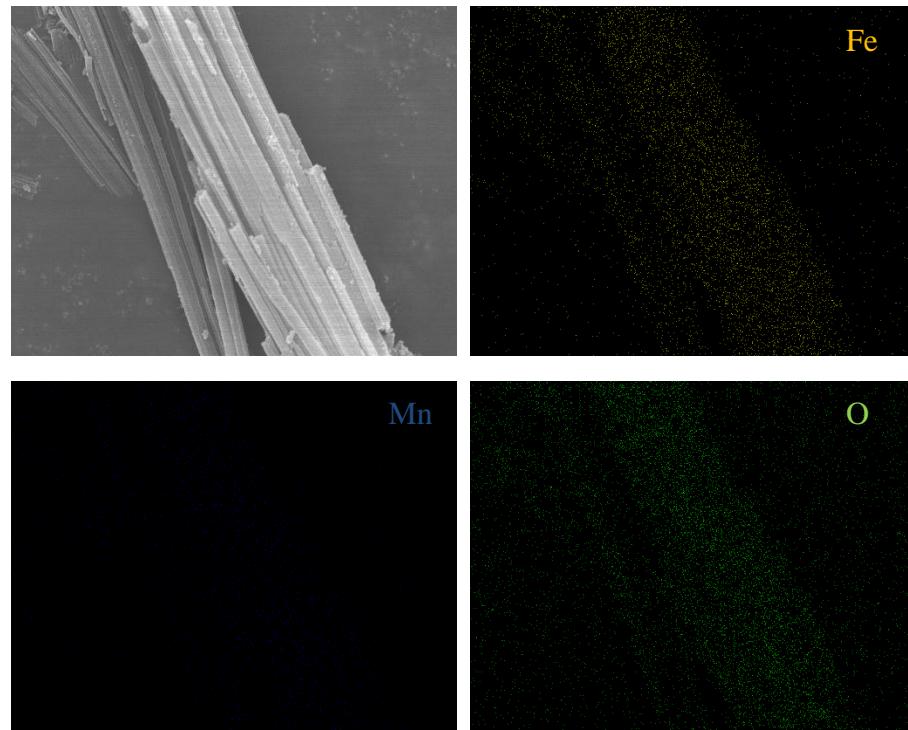


Fig. S4 Low-magnification SEM image of Mn doped Fe₃O₄ and scanning SEM elemental distribution mapping for Mn, Fe and O.

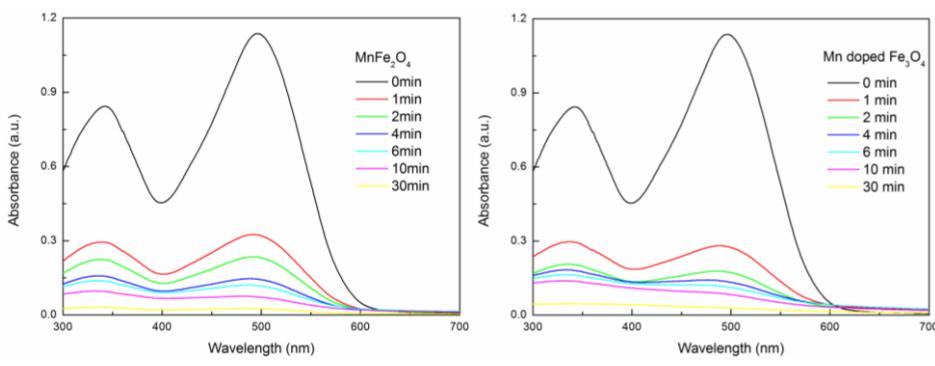


Fig. S5 UV-Vis absorption spectra of the solution of Congo red in the presence of the MnFe₂O₄ and Mn doped Fe₃O₄ at different time intervals.

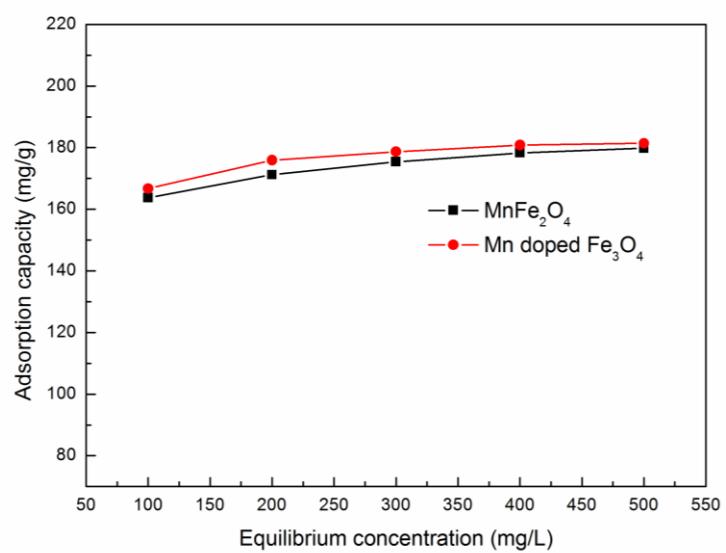


Fig. S6 Adsorption isotherms of Congo red using the porous MnFe₂O₄ and Mn doped Fe₃O₄ nanowires.