

Supporting Information

Surface-initiated polymerization for the preparation of magnetic polymer composites (with tunable diameter)

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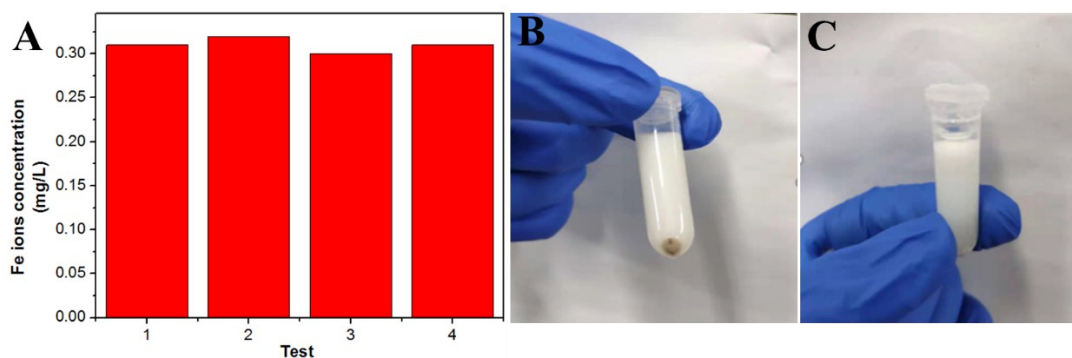


Fig. S1. (A) ICP-MS testing of Fe ions concentration after acetic acid was added in the microemulsion; (B) The picture of $\text{Fe}_3\text{O}_4@PS$ composites; (C) Styrene was not polymerized at the same concentration of $\text{Fe}^{2+}/\text{Fe}^{3+}$ and H_2O_2 without Fe_3O_4 nanoparticles and the solution was divided into two layers.

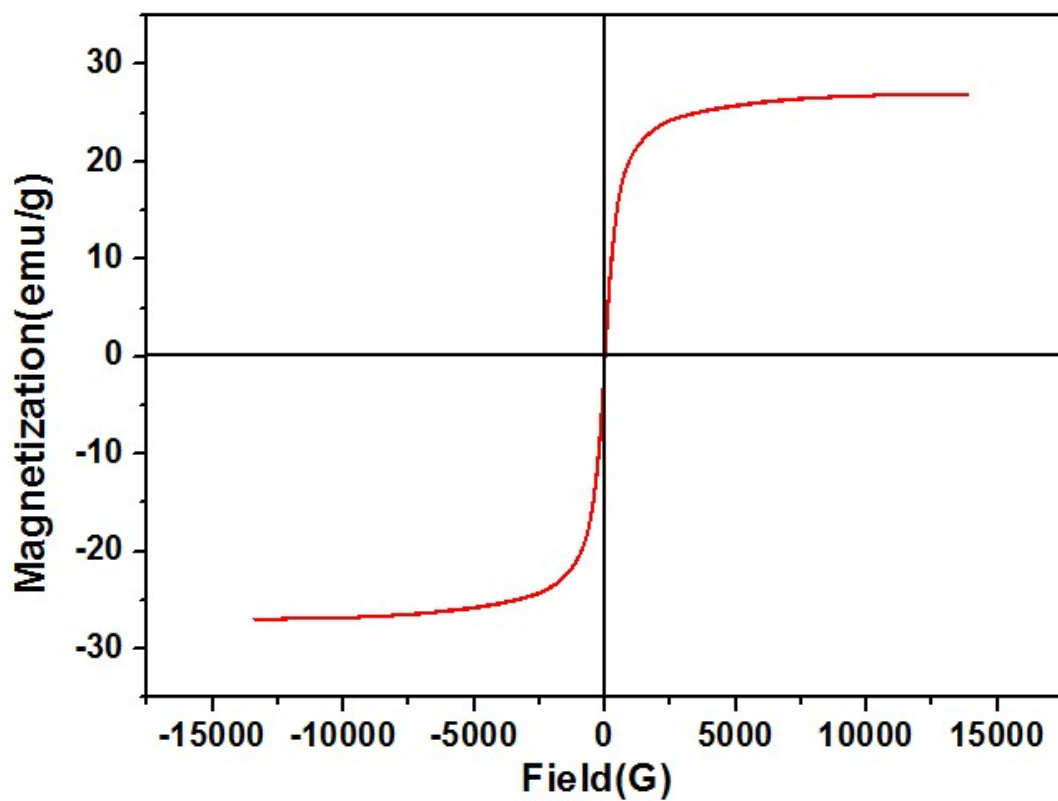


Fig. S2. Magnetization curves of $\text{Fe}_3\text{O}_4@PS$ microspheres. The concentration of Fe_3O_4 nanoparticles is 300 mg/L (Fig. 3D).

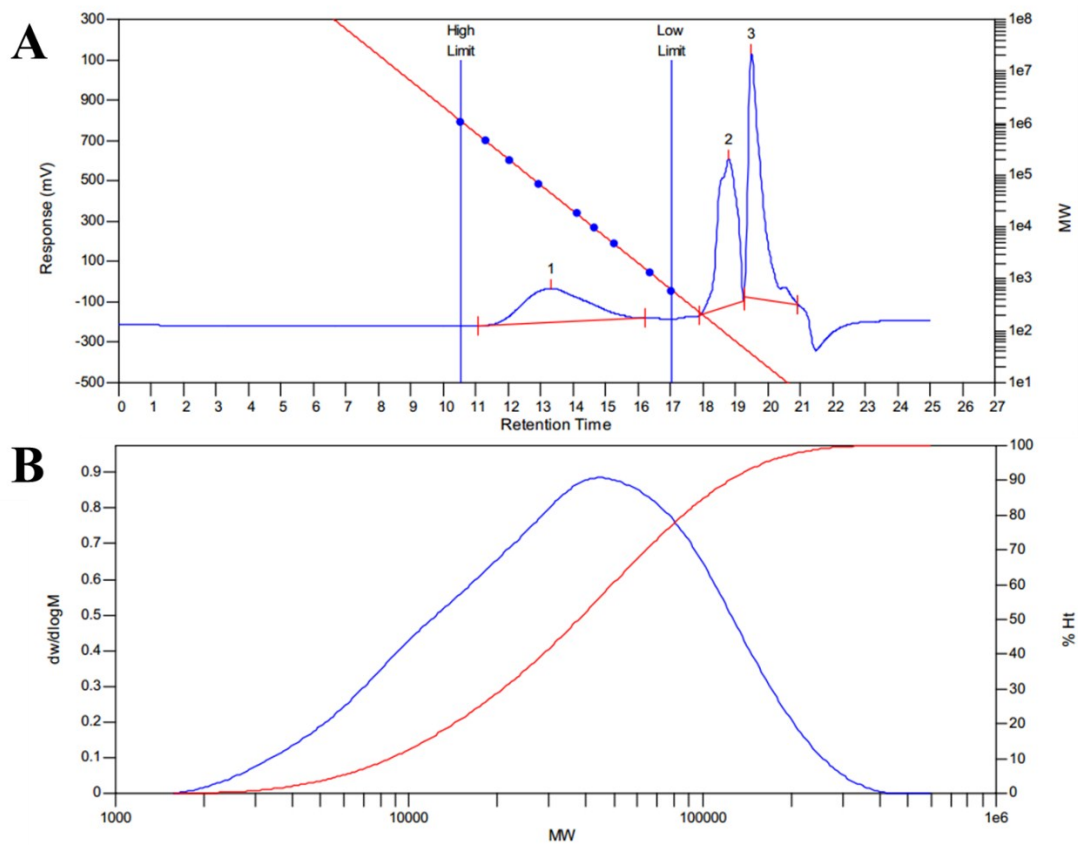


Fig. S3. (A) , (B) Gel permeation chromatography (GPC) curves of $\text{Fe}_3\text{O}_4@PS$ microspheres. The concentration of Fe_3O_4 nanoparticles is 300 mg/L (Fig. 3D).

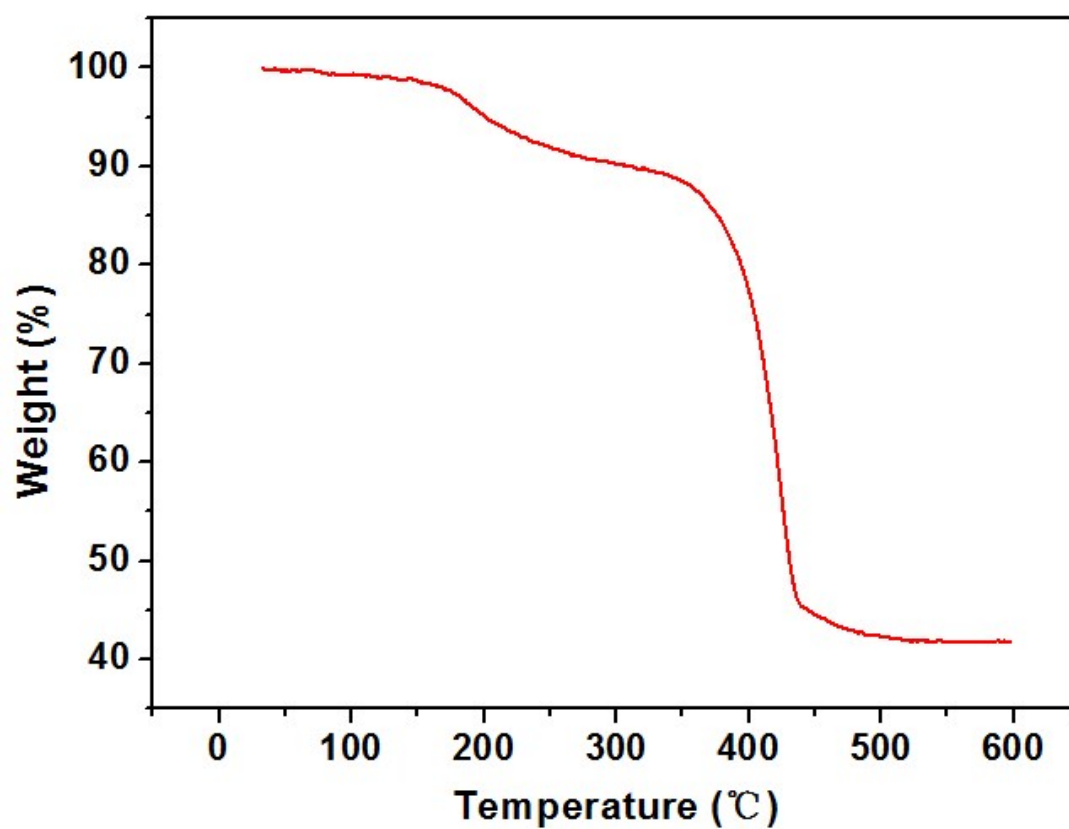


Fig. S4. TGA curve of Fe₃O₄@PS microspheres. The concentration of Fe₃O₄ nanoparticles is 300 mg/L (Fig. 3D).