

Supporting Information

Preparation of magnetic zeolitic imidazolate framework-8 for magnetic solid-phase extraction of strobilurin fungicides from environmental water samples

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Synthesis of Fe₃O₄ nanoparticles

The magnetic Fe₃O₄ microspheres were synthesized using a reported chemical co-precipitation method.¹⁻³ Briefly, FeCl₃·6H₂O (2.35 g) and FeCl₂·6H₂O (0.9 g) were dissolved in ultrapure water (10 mL), respectively. FeCl₃ and FeCl₂ water solutions were added in 250 mL round-bottom flask containing 80 mL ultrapure water. The flask was stirred vigorously in a water bath at 70 °C. Subsequently, 10 mL 25% ammonia water was added in flask. The obtained black solution was stirred vigorously and maintained at 80 °C for 0.5 h, and allowed to cool to room temperature. Finally, the magnetic Fe₃O₄ microspheres were washed with ethanol and three times with the help of magnet, and then dried at 60 °C for 12 h.

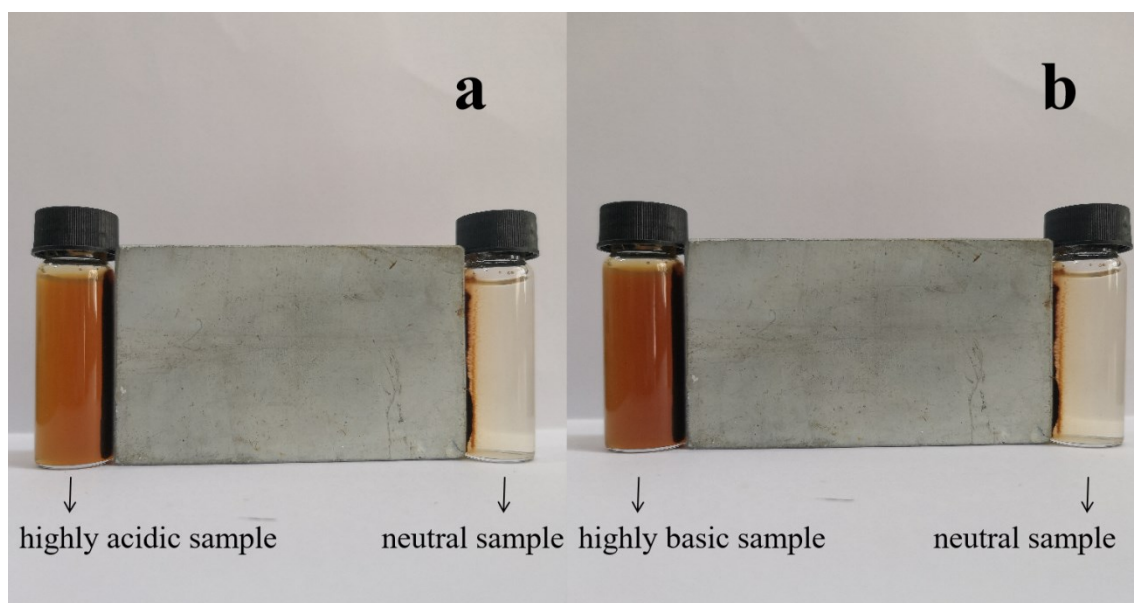


Fig. S1. The separation effect of $\text{Fe}_3\text{O}_4/\text{ZIF-8}$ in water sample

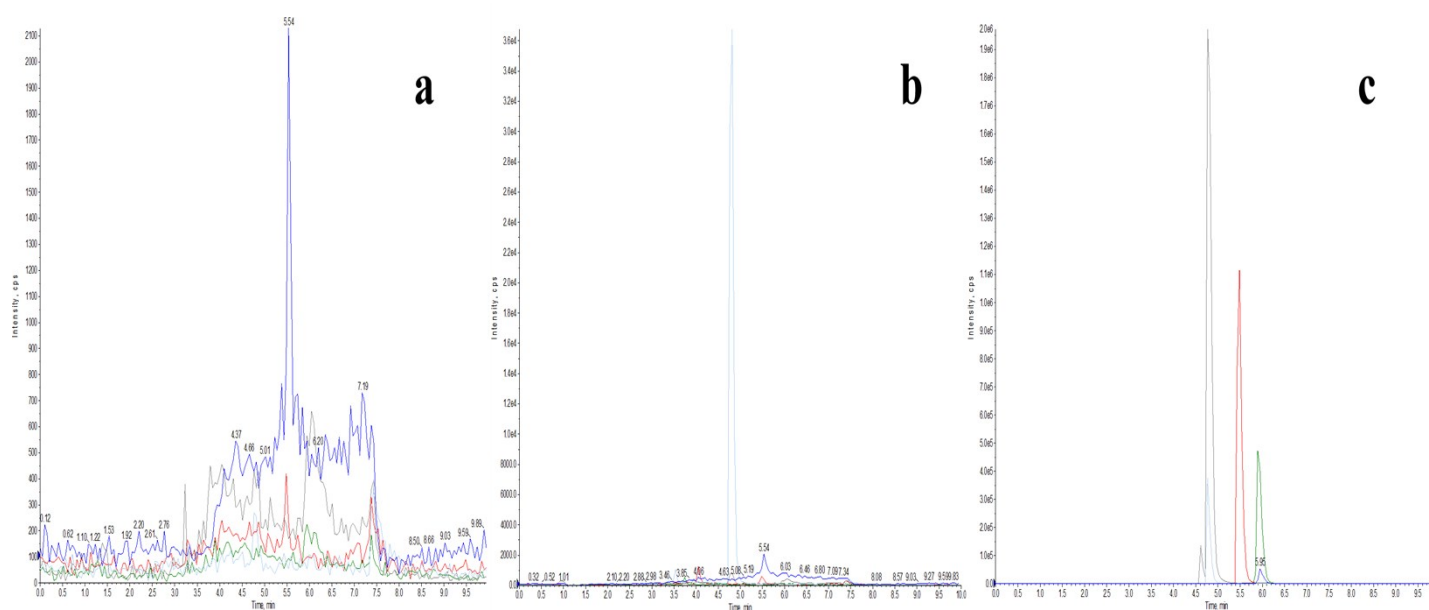


Fig. S2. The extracted ion chromatograms from blank river water sample (a), detected lake sample (b), and the tap water sample spiked at 50 ng/mL (c)

References:

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