Supporting Information

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

Xinyi Li, Bingzhi Li, Min Chen, Mengmeng Yan, Xiaolin Cao, Jungang Yin, Ziping Zhang

[a] College of Life Science, Yantai University, Yantai 264005, P. R. China
[b] Yantai Academy of Agricultural Sciences, Yantai, 265500, P. R. China
[c] Institution of Quality Standard Testing Technology for Agro-Product, Shandong Academy of Agricultural Science, Jinan 250100, P. R. China

Synthesis of Fe₃O₄ nanoparticles

The magnetic Fe₃O₄ microspheres were synthesized using a reported chemical co-precipitation method. 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 Fe$_3$O$_4$/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:

