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Fig. S1 FT-IR spectra of MnFe<sub>2</sub>O<sub>4</sub>



Fig. S2 EDX spectrum of MnFe<sub>2</sub>O<sub>4</sub>



Fig. S3 FE-SEM and TEM images of  $MnFe_2O_4$ 



Fig. S4 Effect of extraction temperature on the extraction efficiency of PAHs (N=3)



Fig. S5 Effect of pH on the extraction efficiency of PAHs (N=3)



**Fig. S6** The chromatograms of blank and spiked real aqueous samples at 5.0 ng mL<sup>-1</sup>, 1: NAP, 2: ACY, 3: FLU, 4: PHE, 5: ANT, 6: FLT, 7: PYR, 8: BaP, 9: BkF, 10: BaA