Preparation of naphthyl functionalized magnetic nanoparticles for extraction of polycyclic aromatic hydrocarbons from river waters

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Supplementary Materials

2. Experimental

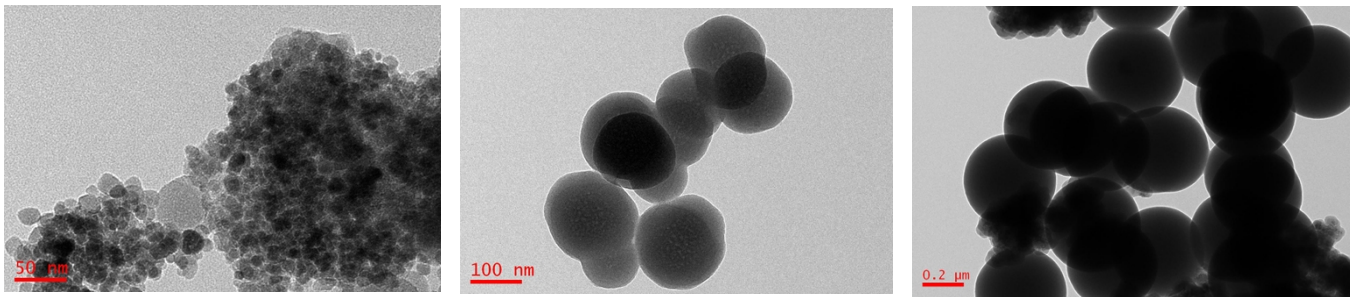
2.2. Instrumentations and analytical conditions

Table S1 Excitation and emission wavelength program used for the fluorescence detection of PAHs

Time(min)	excitation wave length (nm)	emission wavelength (nm)	PAH determined
0	270	323	Flu
6	270	323	Ant
8.9	252	402	FlA
10	290	460	Pyr
12	270	390	BaA
15	283	396	BbF
19	300	420	BkF

3. Results and discussion

3.1 Characterization of Fe_3O_4@SiO_2@Nap magnetic nanoparticles



(a) (b) (c)

Fig.S1. TEM images of Fe_3O_4 (a) Fe_3O_4@SiO_2 (b) and Fe_3O_4@SiO_2@Nap (c) MNPs.

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3.4 Reusability of Fe_3O_4@SiO_2@Nap

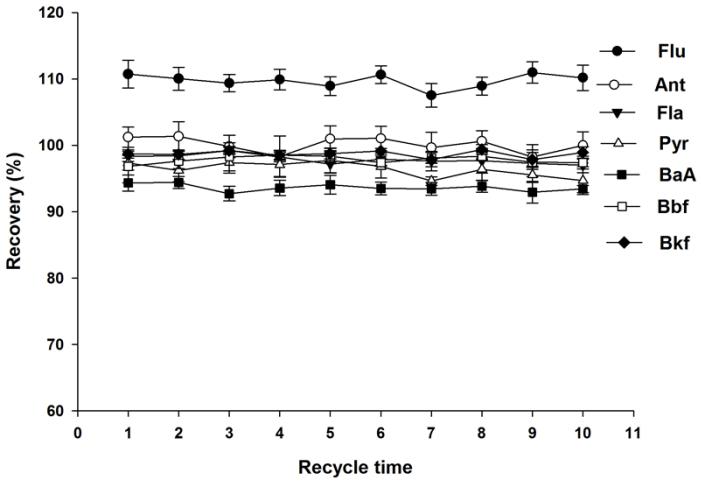

Fig.S2. Effect of recycling times on the recoveries of PAHs. Amount of sorbent, 40 mg; sample volume: 150 mL; desorption solvent, acetonitrile (1.0 mL); extraction time, 12 min.