S1. Photographs of the conversion of eggshell membrane to SEP by thioglycolic acid and acetic acid treatment.

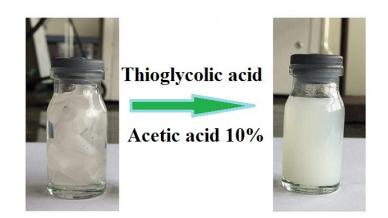
S2. FT–IR spectra of eggshell membrane and SEP.

S3. Effect of extraction time on extraction efficiency. Extraction conditions were the same as in Fig. 3.

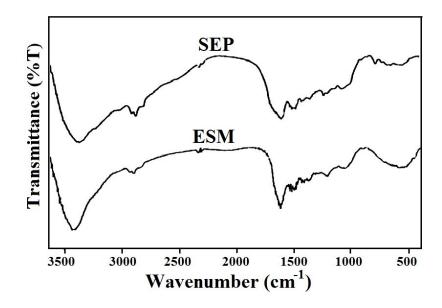
S4. Effect of stirring rate on the extraction efficiency. Extraction conditions were the same as in Fig. 3.

S5. Effect of desorption solvent (A) and desorption time (B) on the extraction efficiency of the PAHs. Extraction conditions were the same as in Fig. 3.

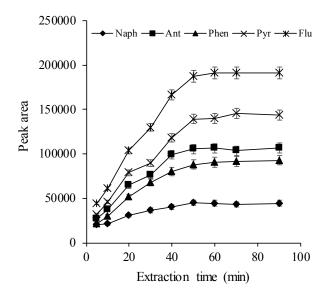
S6. Effect of salt concentration (A) and solution pH (B) on the extraction efficiency of the PAHs. Extraction conditions were the same as in Fig. 3.



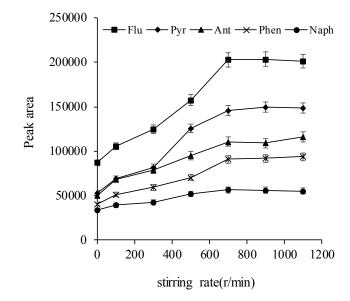
**S**1



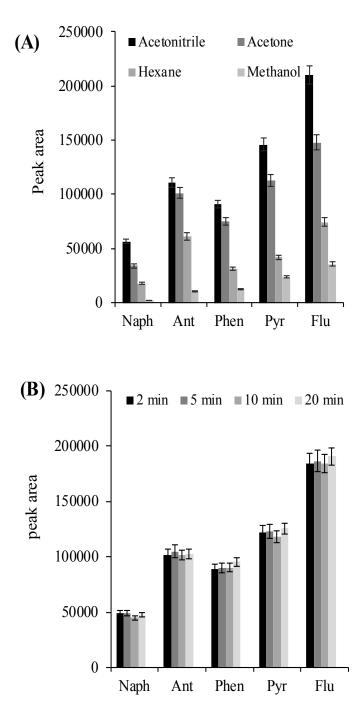
S2



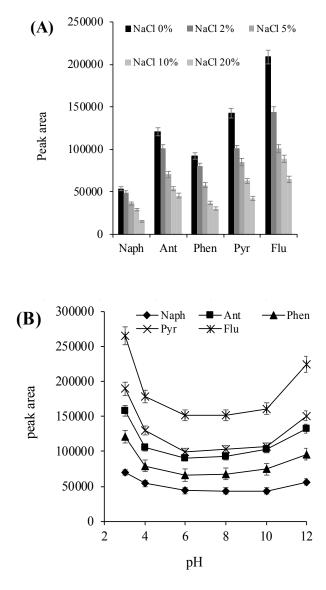
S3



S4



S5





Solutions	Naph	Phen	Ant	Flu	Pyr
NaCl 1 mol L <sup>-1</sup>	0.9872	1.0112	0.9604	0.9699	1.0242
HCl 0.1 mol L <sup>-1</sup>	0.9477	0.9707	1.0220	1.0264	1.0183
NaOH 0.1 mol L <sup>-1</sup>	1.0760	1.1573	1.0469	1.0334	1.1164
Methanol	1.0168	1.0415	0.9893	0.9990	1.0550
Acetonitrile	0.9181	0.9404	0.8932	0.9211	1.0167
n–Hexane	0.8905	0.9122	0.8664	0.9035	0.9240
Acetone	1.0859	1.1123	1.0565	0.9811	1.1267

Table S1. The ratio of SEP–fiber extraction efficiency obtained after treatment ( $E_a$ ) to that of before treatment ( $E_b$ ) in various solutions ( $E_a/E_b$ )