An ionic liquid doped electrochemical copolymer coating of indole and 3-methylthiophene for the solid-phase microextraction of polycyclic aromatic hydrocarbons

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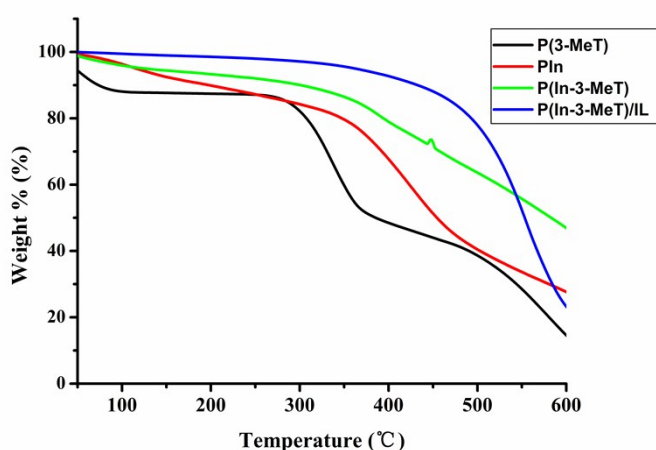
Supplementary Information

Fig. S1. TGA curves of P(In–3-MeT)/IL, P(In–3-MeT), P(3-MeT) and PIn coating in nitrogen gas atmosphere. Heating rate: 10 ◦C min^{-1}.
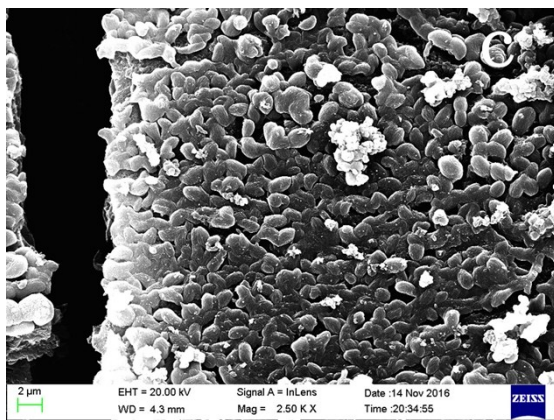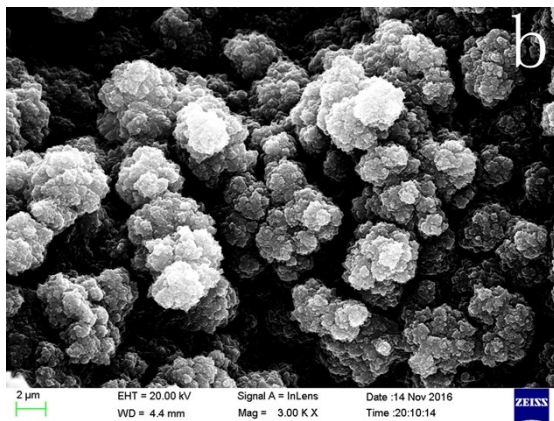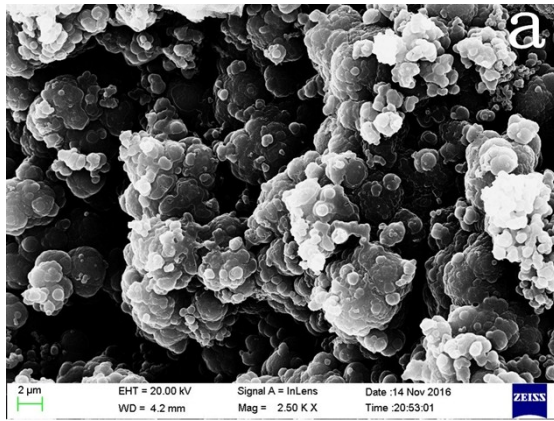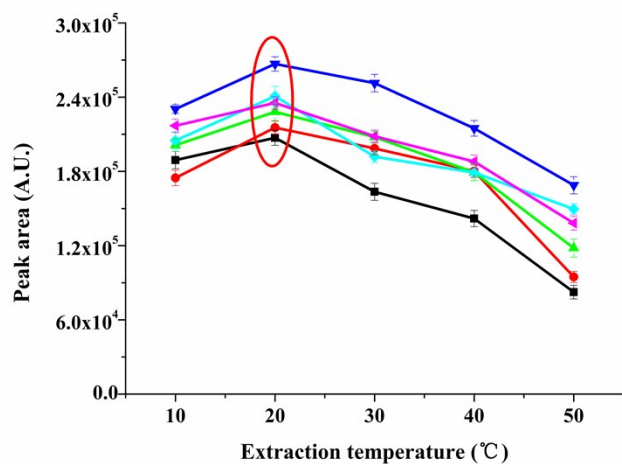
Fig. S2. SEM images of P(In–3-MeT) (a), P(3-MeT) (b), PIn (c).

Fig. S3a. Influence of extraction temperature on extraction efficiency of P(In–3-MeT)/IL fiber for the PAHs. Concentrations of the PAHs, 5 μg L^{-1}; extraction time, 30 min; NaCl concentration, 0.35 g mL^{-1}; stirring rate, 500 rpm; desorption time, 3 min; desorption temperature, 250 ◦C. Error bars show the standard deviation (n = 3).
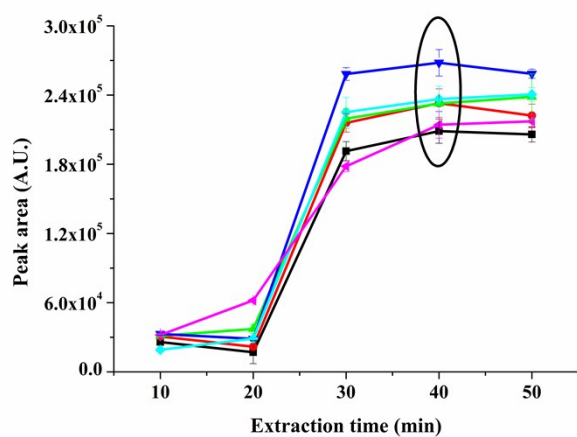

Fig. S3b. Influence of extraction time on extraction efficiency of P(In–3-MeT)/IL fiber for the PAHs. Other conditions as in Fig. S3a. Error bars show the standard deviation (n = 3).
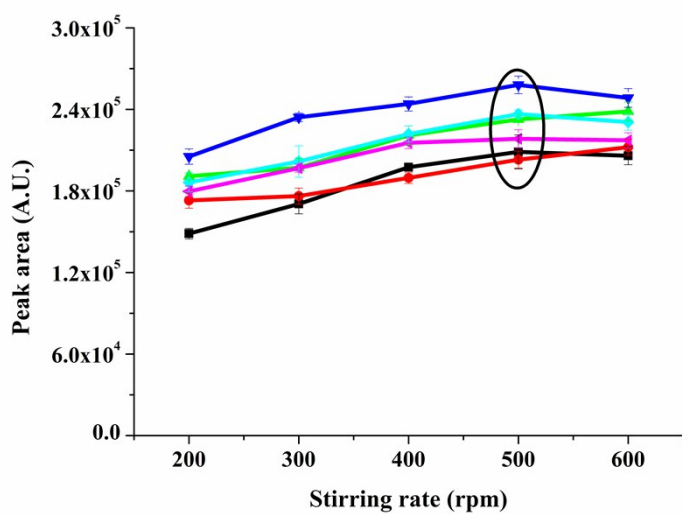
Fig. S3c. Influence of stirring rate on extraction efficiency of P(In–3-MeT)/IL fiber for the PAHs. Other conditions as in Fig. S3a. Error bars show the standard deviation (n = 3).
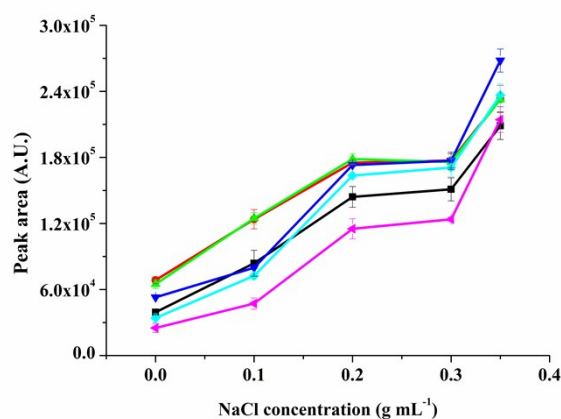

Fig. S3d. Influence of salt concentration on extraction efficiency of P(In–3-MeT)/IL fiber for the PAHs. Other conditions as in Fig. S3a. Error bars show the standard deviation (n = 3).
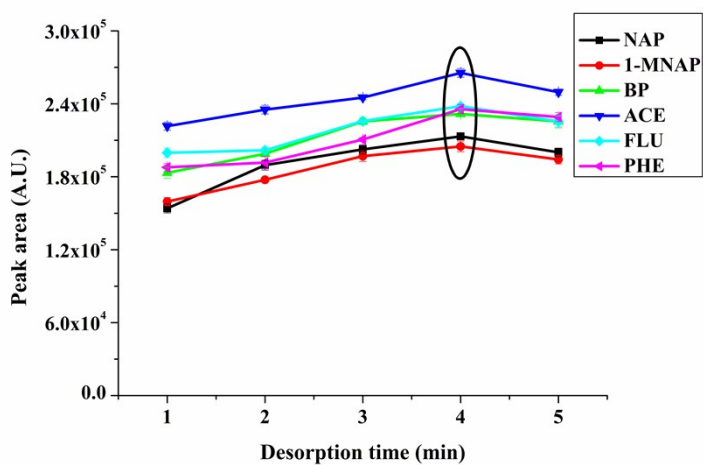

Fig. S3e. Influence of desorption temperature and time on GC peak areas of the PAHs after SPME

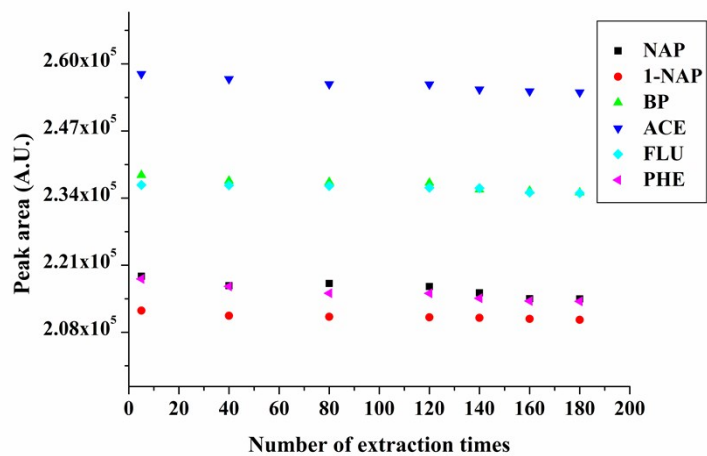with the P(In–3-MeT)/IL fiber. Other conditions as in Fig. S3a. Error bars show the standard deviation (n = 3).

Fig. S4. Variation of extraction efficiency with the extraction times used. Concentration of PAHs: 5 μg L^{-1}; extraction temperature: 20 ∘C; extraction time: 40 min; stirring rate: 500 rpm; NaCl concentration: 0.35 g mL^{-1}; desorption time: 4 min; desorption temperature: 250 ∘C.