

Electronic Supplementary Information

Zeolite Socony Mobil-5 ordered mesoporous carbon as a fiber coating for solid-phase microextraction

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Supplement of experimental section

The preparation of silver modified stainless steel wires

First, one end (1.5 cm) of the 18 cm long stainless steel wire (o.d. 350 μm) was dipped in nitrohydrochloric acid ($\text{HCl}:\text{HNO}_3 = 3:1, v/v$) to remove the stable oxide on its surface and corrode the end to the diameter of about 180 μm . Then, the wire was polished smoothly and subsequently ultrasonication-washed with acetone, methanol and double-distilled water each for 6 min, respectively. After being conditioned in a desiccator at room temperature for 24 h, the wire was dipped into a reaction solution containing 0.1 mol L^{-1} $[\text{Ag}(\text{NH}_3)_2]^+$ and 0.5 mol L^{-1} glucose for about 2.5 h to form a microstructured silver layer by silver mirror reaction. Then, the wire was taken out and rinsed with distilled water. After being dried at room temperature, a firm and porous coating of silver was formed on the surface of the stainless steel wire.

Supplement of Figure

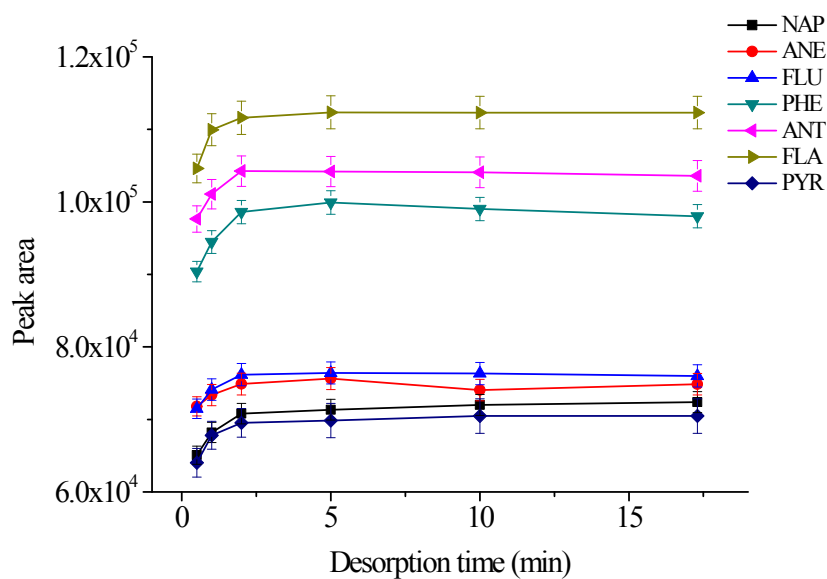


Fig. S1 Effect of desorption time. *Conditions:* analyte concentration, 100 ng L⁻¹; extraction temperature, 60 °C; extraction time, 30 min; stirring rate, 600 rpm; KCl concentration, 20% (w/v); desorption temperature, 250 °C.

Supplement of Table

Table S1 Comparison of sensitivity of different methods by various sorbents for the SPME of PAHs.

Extraction/ determination method	Extracting phase	Samples	Linear range	LOD	RSD (%)
SPME-GC/ MS ⁴¹	PDMS	Water	0.1- 50.0 ng mL ⁻¹	0.01- 0.7 ng mL ⁻¹	3.7- 27.0
Cold-fiber SPME-GC/ FID ⁴²	PDMS	Soil	1200- 40000 ng g ⁻¹	200- 2300 ng g ⁻¹	4- 19
SPME-GC/ MS ⁴³	PDMS/DVB	Coast sediments	1.2- 500 ng g ⁻¹	0.4- 15 ng g ⁻¹	3.3-9.6
SPME-GC/ FID ⁴⁰	Graphene	Water	0.05-200 ng mL ⁻¹	0.004- 0.05 ng mL ⁻¹	2.8- 9.4
SPME-GC/ FID ⁴⁴	PEDOT/GO ^a	Water	0.4- 600 ng mL ⁻¹	0.05- 0.13 ng mL ⁻¹	4.1- 6.8
SPME-GC/ FID ⁴⁵	MWCNTs ^b	smoked rice	0.5- 800 ng g ⁻¹	0.04- 0.15 ng g ⁻¹	1.83- 5.17
SPME-GC/ FID ^c	OMC-ZSM-5	Soil	1.7- 100.0 ng g ⁻¹	0.5- 1.6 ng g ⁻¹	4.6- 7.9

^a PEDOT/GO: poly(3,4-ethylenedioxythiophene)/ graphene oxide.

^b MWCNTs: Multiwalled carbon nanotubes.

^c present work.

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