Electronic Supplementary Material (ESI) for Analytical Methods.

Supplementary material

Imidazole ionic liquid functionalized ZIF-67 molecularly imprinted solid-phase extraction coupled with high performance liquid chromatography for analysis of bisphenol A

Shuyu Wan, Ouwen Xu, Hanyang Song, Jing Yang, Xiashi Zhu*

College of Chemistry and Chemical Engineering, College of Guangling, Yangzhou University, Yangzhou, 225002, China

* Corresponding author:

Tel/Fax:+86-514-87975244

E-mail address: xszhu@yzu.edu.cn

Figures and Tables

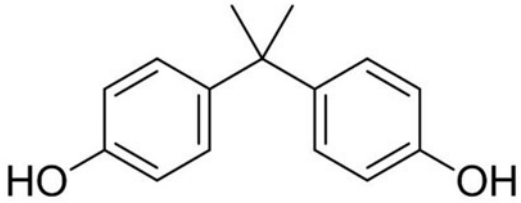

Fig. S1. The structure of BPA.

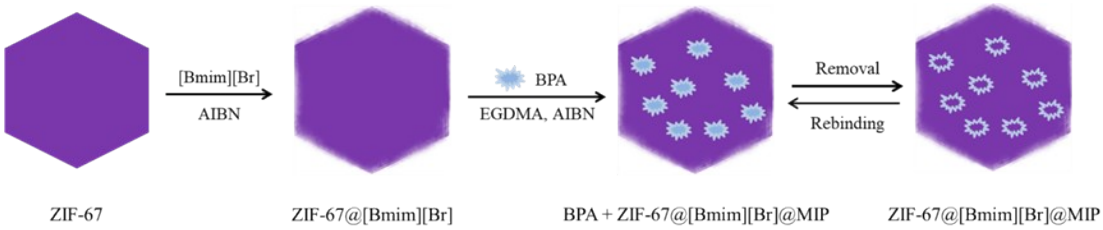

Fig. S2. The preparation process of ZIF-67@[Bmim][Br]@MIP.

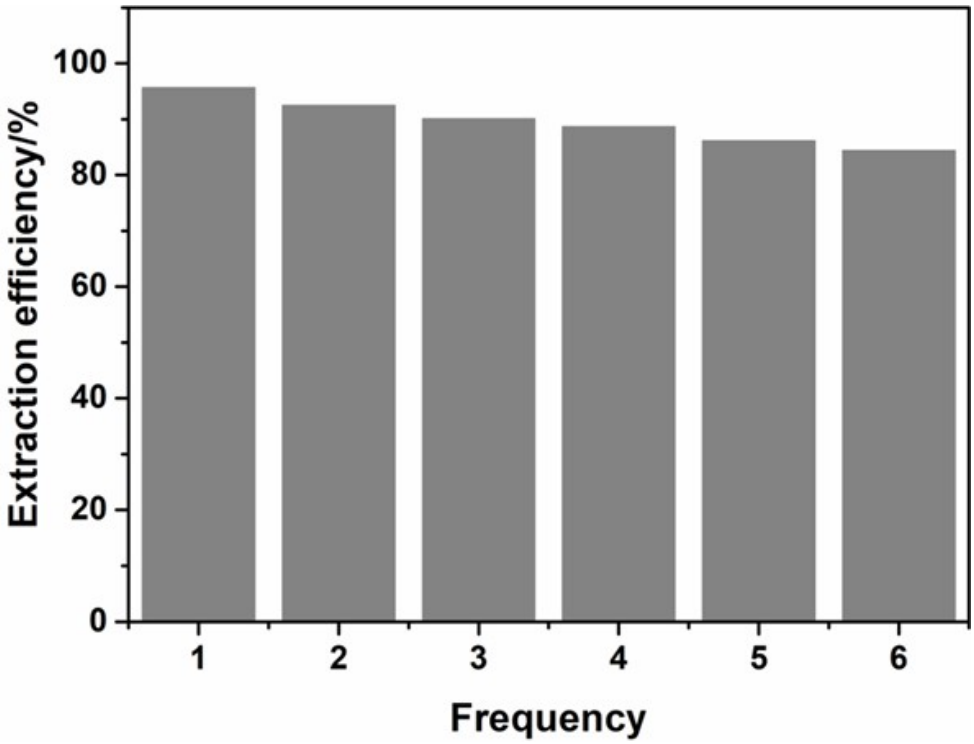

Fig. S3. Repeat utilization.

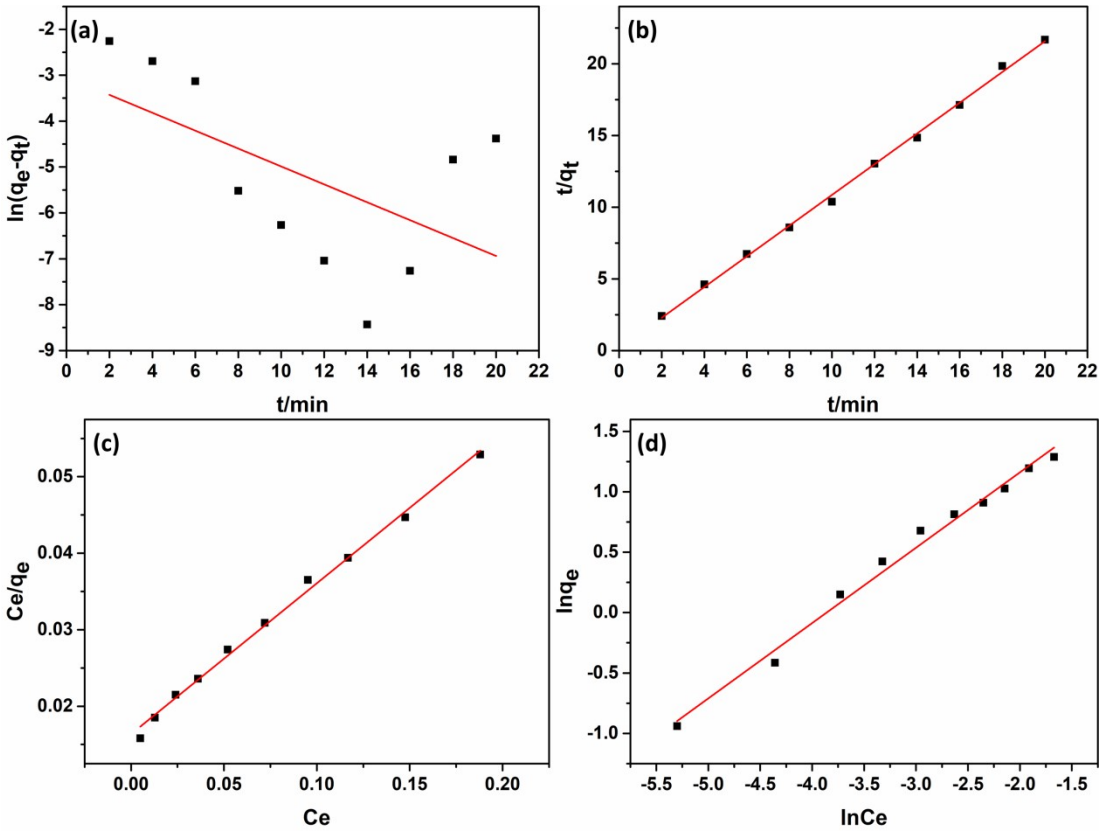

Fig. S4. (a) Pseudo-first-order and (b) Pseudo-second-order adsorption kinetic model of BPA; (c) Langmuir and (d) Freundlich adsorption isotherm of ZIF-67@[Bmim][Br]@MIP composite to BPA.

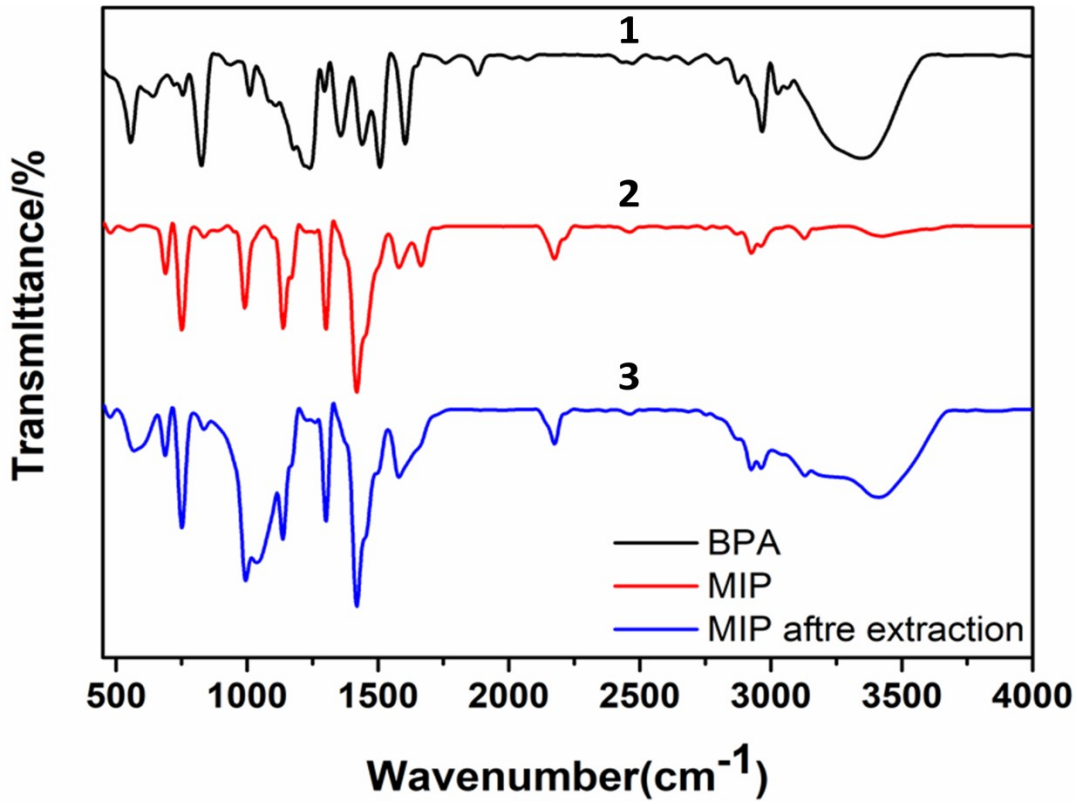

Fig. S5. FTIR spectra of ZIF-67@[Bmim][Br]@MIP after extraction.

Table S1. The surface area and porosity of ZIF-67, ZIF-67@[Bmim][Br], ZIF-67@[Bmim][Br]@MIP and ZIF-67@[Bmim][Br]@NIP.

Sample	$S_{BET}/(m^2\ g^{-1})$	$V_{pore}/(cm^3\ g^{-1})$
ZIF-67	1262.87	0.7051
ZIF-67@[Bmim][Br]	1115.69	0.6500
ZIF-67@[Bmim][Br]@MIP	2019.76	1.3283
ZIF-67@[Bmim][Br]@NIP	1049.26	0.6548

Table S2. Effect of interfering substances on extraction efficiency.

Tested substances	Tested substances to analyte ratio(w/w)	SC
BPAF	500	38.16
Phenol	300	20.15
2-Naphthol	300	16.88
β-Estradiol	300	22.93