

Supplementary material

Simultaneous determination of 11 antiseptic ingredients in surface water based on polypyrrole decorated magnetic nanoparticles

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Table S1

Table S1 Sample information.

Month	Sample No.		
	Zhengding	Shijiazhuang	Gaocheng
January	JA1	JA2	JA3
February	FE1	FE2	FE3
March	MR1	MR2	MR3
April	AP1	AP2	AP3
May	MY1	MY2	MY3
June	JU1	JU2	JU3

Table S2

Table S2 Gradient elution program of the proposed method.

Time (min)	A*%	B**%	Flow rate (mL min ⁻¹)
0.0	50	50	0.30
1.0	20	75	0.30
1.5	35	65	0.30
8.0	25	75	0.30
8.1	10	90	0.30
9.0	10	90	0.30
9.1	50	50	0.30
12.0	50	50	0.30

* Ultrapure water with 0.10% formic acid and 0.30% 1.0 mM ammonium acetate

** Acetonitrile

Table S3

Table S3 The matrix effects of the method validation.

Compound	ME (%)		
	Spiked 10 $\mu\text{g L}^{-1}$	Spiked 20 $\mu\text{g L}^{-1}$	Spiked 50 $\mu\text{g L}^{-1}$
PCMP	69.61	75.34	76.28
C12-BAC	89.32	91.06	93.95
BAB	85.41	93.05	93.68
BEC	82.17	89.06	92.49
C14-BAC	90.24	94.18	96.03
TCC	88.02	89.97	92.58
TCS	70.45	76.31	79.09
CFC	72.66	75.09	79.81
BCP	72.51	74.28	77.09
C16-BAC	91.67	95.48	98.03
HCP	69.95	71.18	75.02

Fig. S1

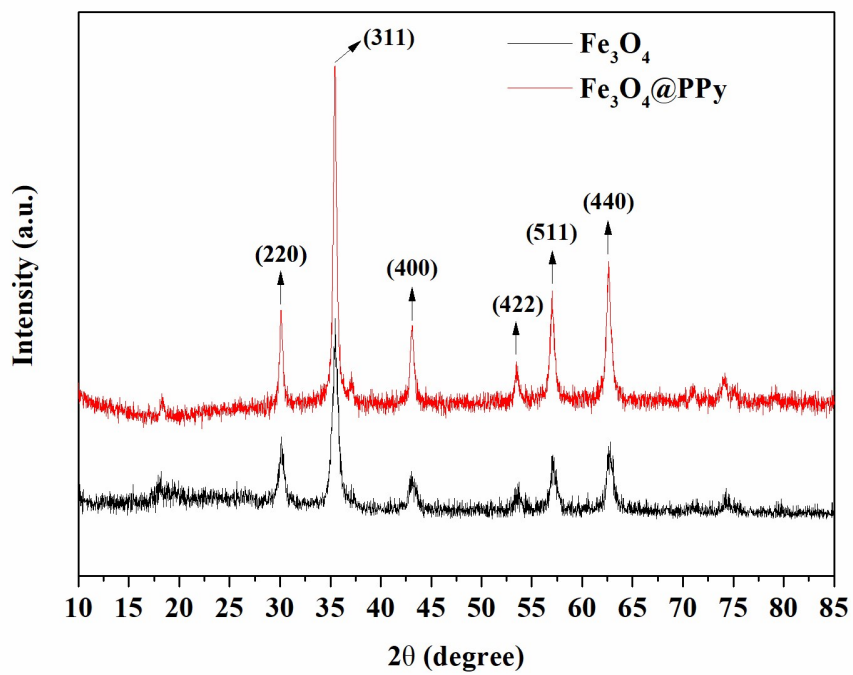


Fig. S1 XRD of Fe_3O_4 and $\text{Fe}_3\text{O}_4@PPy$.

Fig. S2

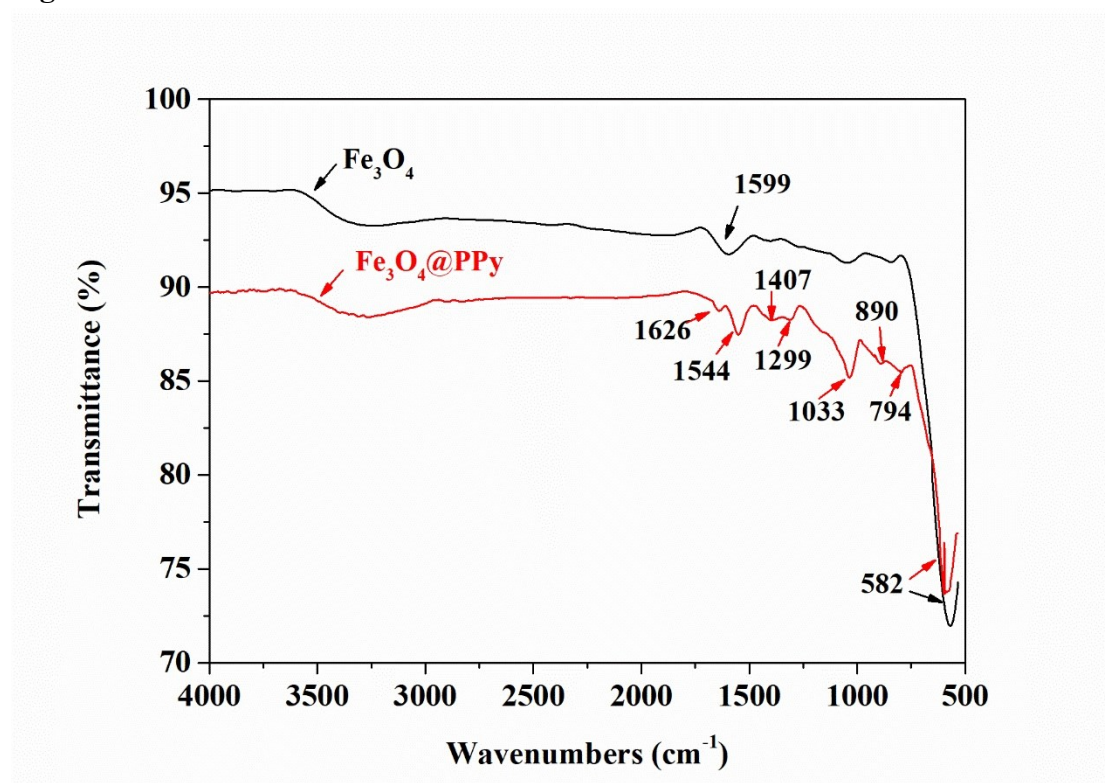


Fig. S2 FT-IR of Fe₃O₄ and Fe₃O₄@PPy.

Fig. S3

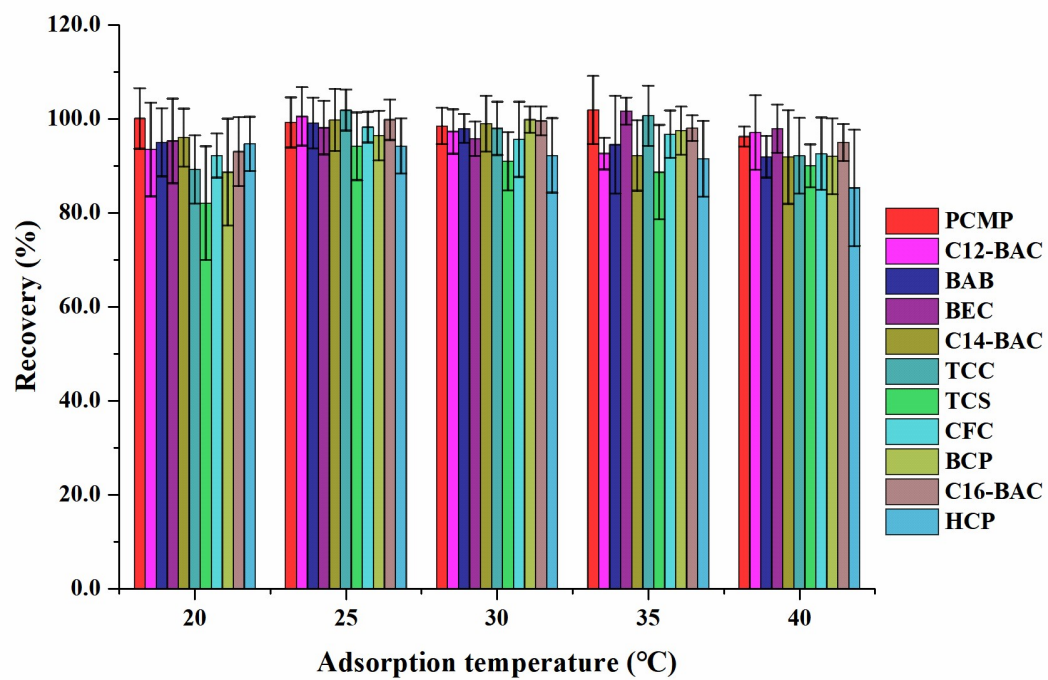


Fig. S3 Effect of adsorbent temperature on extraction efficiency of $\text{Fe}_3\text{O}_4@\text{PPy}$.