

Supplementary Information (SI)

Highly selective amino-functionalized magnetic molecularly imprinted polymers: absorbents for dispersive solid phase extraction and trace level analysis of chlorophenols in seawater

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Figure Captions of Fig. S1~S3

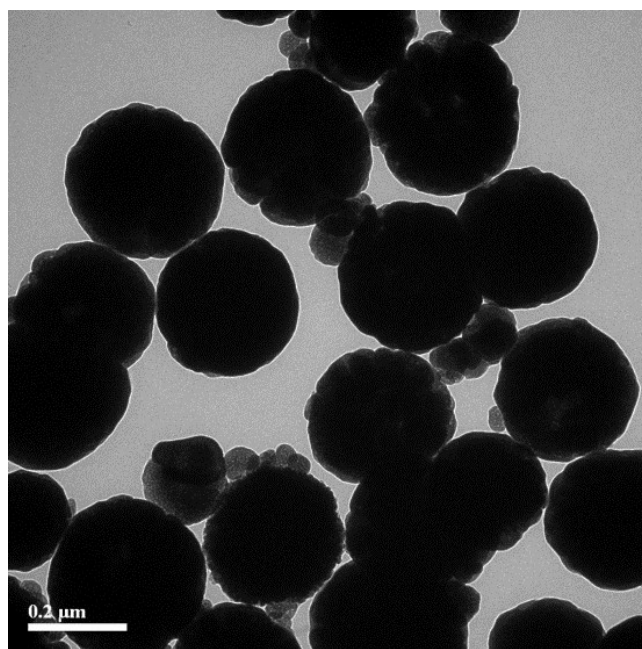
Fig. S1 TEM (a) and SEM(b) image of $n\text{Fe}_3\text{O}_4@\text{TEPA-PCP-MIP}$

Fig. S2 (a) XRD and (b) VSM of the as-prepared materials

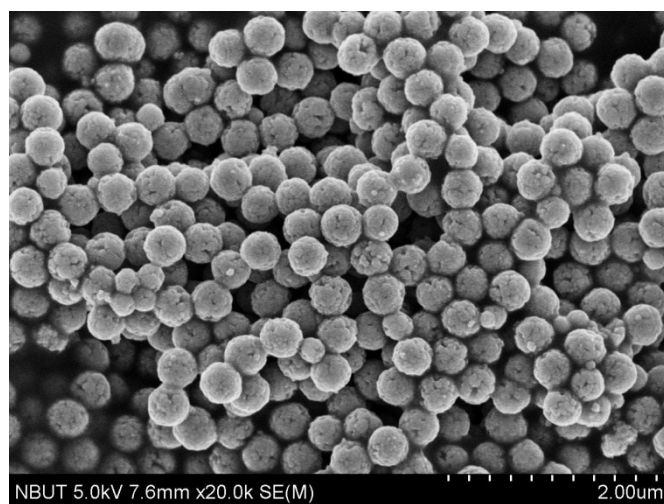
Fig. S3 Effect of adsorption time on the adsorption of CPs at 5.0 $\mu\text{g/L}$ (a) 2-CP, (b) 2,4-DCP (c) 2,4,6-TCP (d) 2,3,4,6-TeCP (e) PCP onto $n\text{Fe}_3\text{O}_4@\text{NH}_2\text{MIP}$ and $n\text{Fe}_3\text{O}_4@\text{NH}_2\text{NIP}$

Table S1 Imprinting factors (α) of $n\text{Fe}_3\text{O}_4@\text{NH}_2\text{MIP}$

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(a)



(b)

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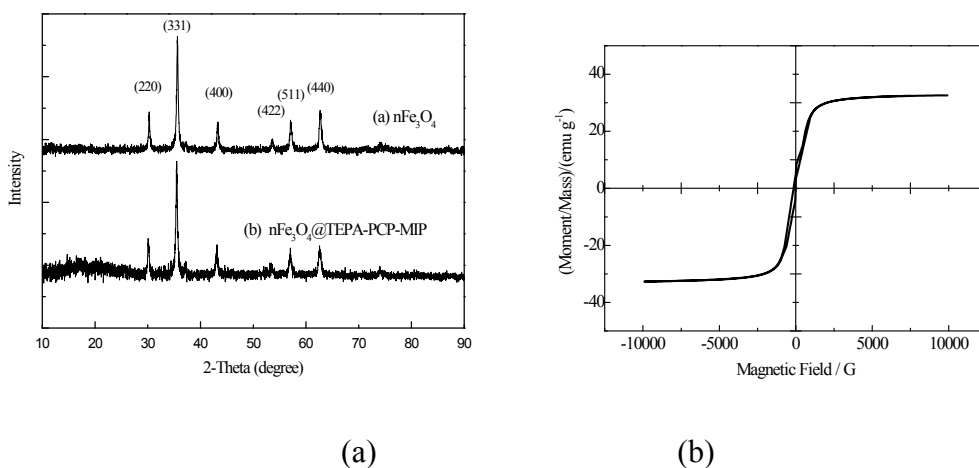
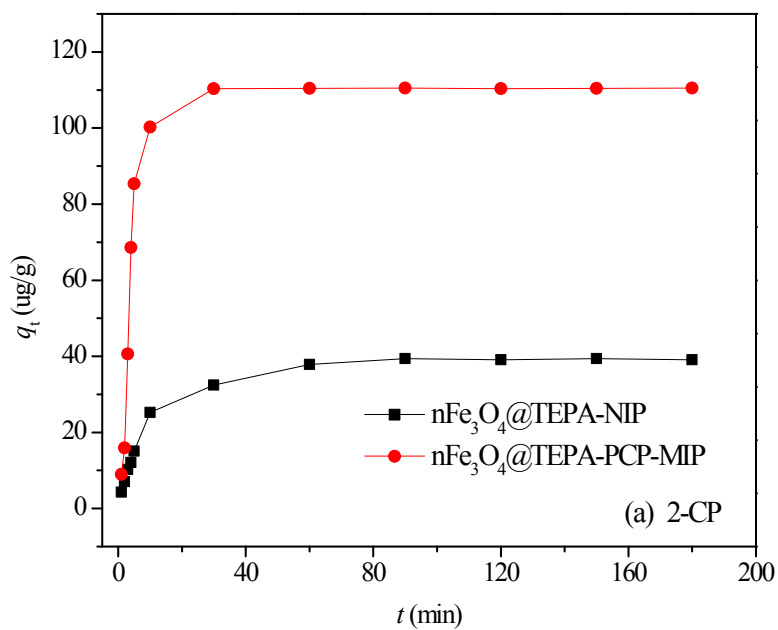
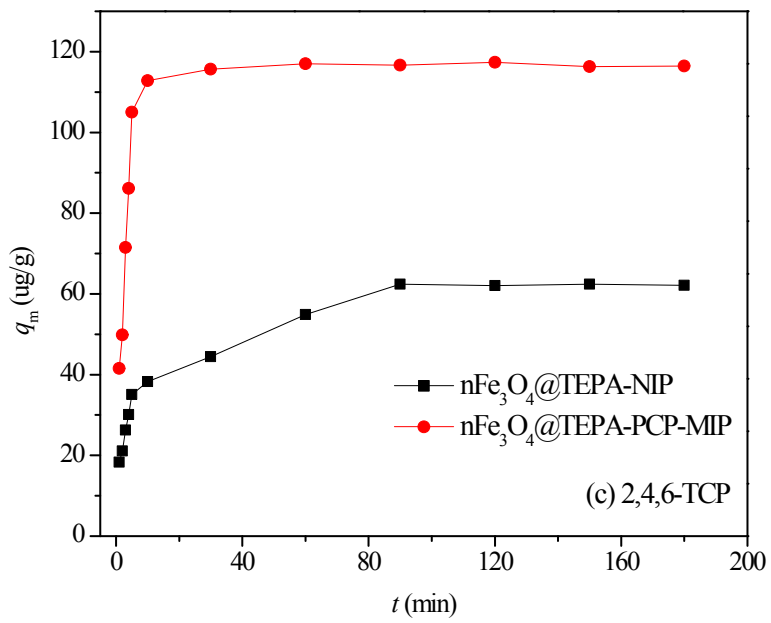
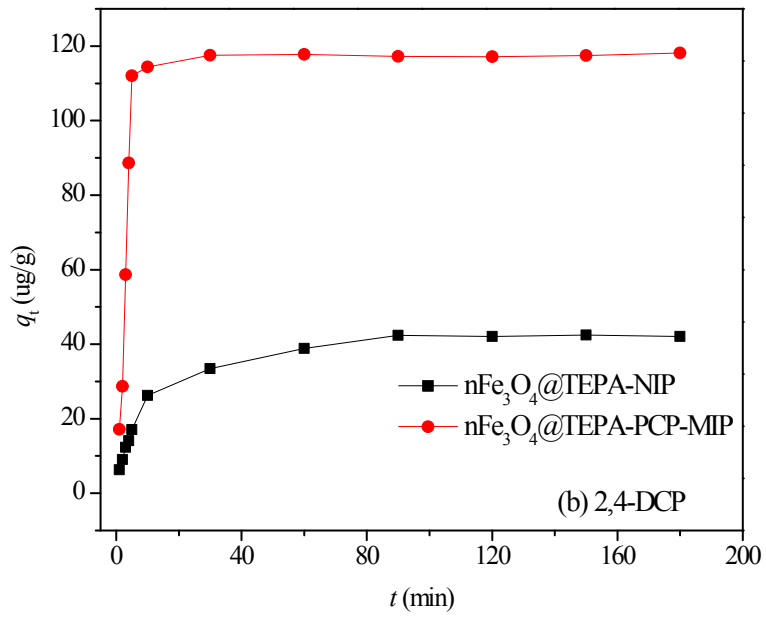


Fig. 2 (a) XRD and (b) VSM of the as-prepared materials





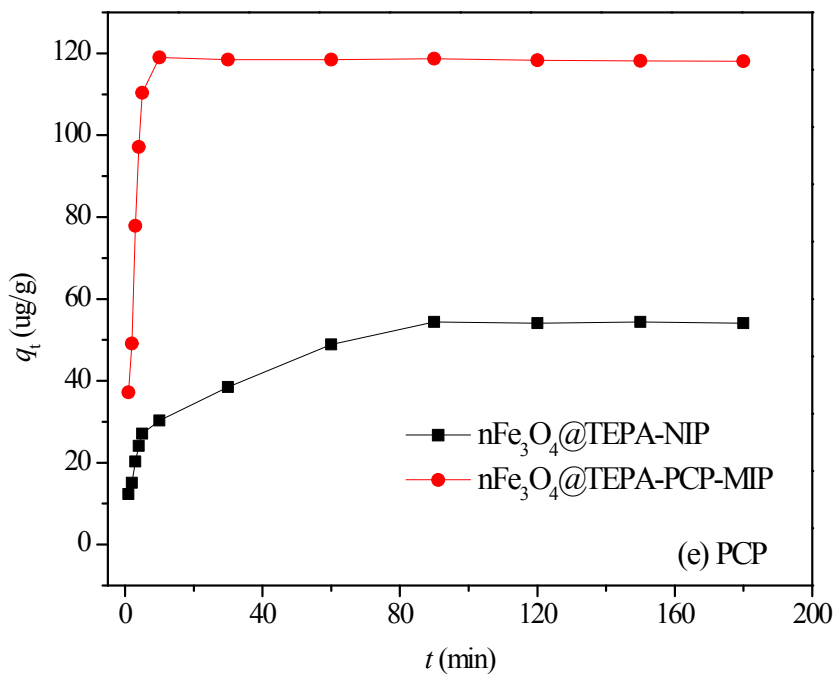
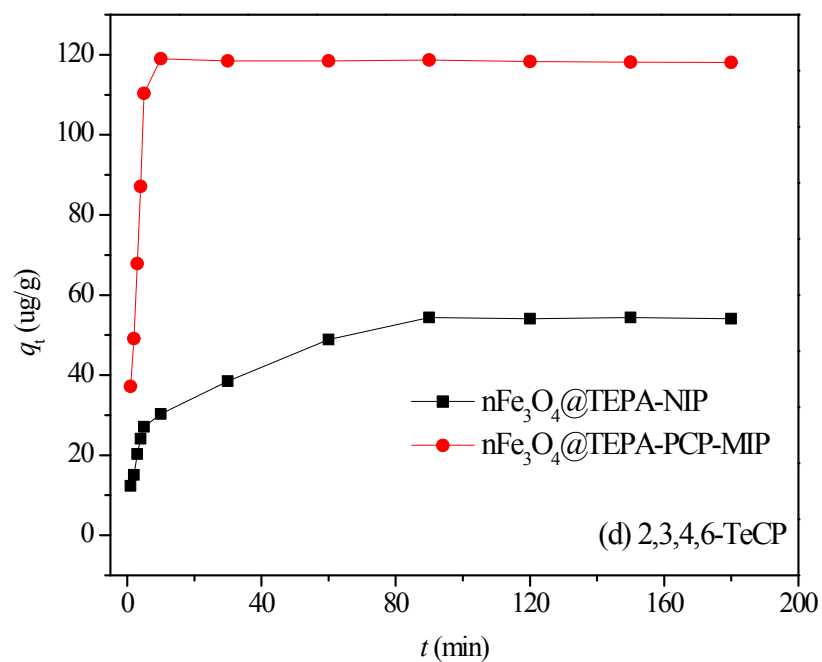


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Table S1 Imprinting factors (α) of $n\text{Fe}_3\text{O}_4@\text{NH}_2\text{MIP}$

	2-CP	2,4-DCP	2,4,6-TCP	2,3,4,6-TeCP	PCP
$q(n\text{Fe}_3\text{O}_4@\text{TEPA-PCP-MIP})$ (ug/g)	118.1	118.1	118.5	118.2	118.5
$q(n\text{Fe}_3\text{O}_4@\text{TEPA-NIP})(\text{ug/g})$	54.1	54.1	52.1	42.1	39.1
α	2.18	2.18	2.27	2.81	3.03
$q(n\text{Fe}_3\text{O}_4@\text{TEPA-TeCP-MIP})$ (ug/g)	88.1	98.1	98.5	120.2	66.5
$q(n\text{Fe}_3\text{O}_4@\text{TEPA-NIP})(\text{ug/g})$	54.1	54.1	52.1	42.1	39.1
α	1.63	1.81	1.89	2.86	1.70
$q(n\text{Fe}_3\text{O}_4@\text{TEPA-TCP-MIP})$ (ug/g)	87.8	95.6	117.5	80.2	68.5
$q(n\text{Fe}_3\text{O}_4@\text{TEPA-NIP})(\text{ug/g})$	54.1	54.1	52.1	42.1	39.1
α	1.62	1.77	2.26	1.90	1.75
$q(n\text{Fe}_3\text{O}_4@\text{TEPA-DCP-MIP})$ (ug/g)	89.8	116.8	97.5	81.4	67.3
$q(n\text{Fe}_3\text{O}_4@\text{TEPA-NIP})(\text{ug/g})$	54.1	54.1	52.1	42.1	39.1
α	1.66	2.16	1.87	1.93	1.72
$q(n\text{Fe}_3\text{O}_4@\text{TEPA-CP-MIP})$ (ug/g)	119.8	86.5	87.4	75.1	65.6
$q(n\text{Fe}_3\text{O}_4@\text{TEPA-NIP})(\text{ug/g})$	54.1	54.1	52.1	42.1	39.1
α	2.21	1.60	1.68	1.78	1.68
$q(n\text{Fe}_3\text{O}_4@\text{TETA-PCP-MIP})$ (ug/g)	98.2	98.5	78.5	78.6	68.4
$q(n\text{Fe}_3\text{O}_4@\text{TETA-NIP})(\text{ug/g})$	50.1	50.2	50.3	47.2	38.5
α	1.96	1.96	1.56	1.67	1.78
$q(n\text{Fe}_3\text{O}_4@\text{DETA-PCP-MIP})$ (ug/g)	96.8	96.5	82.4	75.9	65.4
$q(n\text{Fe}_3\text{O}_4@\text{DEPA-NIP})$ (ug/g)	47.3	48.2	46.8	42.3	37.8
α	2.05	2.00	1.76	1.79	1.73
$q(n\text{Fe}_3\text{O}_4@\text{EDA-PCP-MIP})$ (ug/g)	95.2	93.6	81.6	74.6	64.2
$q(n\text{Fe}_3\text{O}_4@\text{EDA-NIP})(\text{ug/g})$	45.4	46.4	45.5	42.5	37.6
α	2.10	2.02	1.79	1.76	1.71