

Separation of Chlorobenzene Compounds from Environmental Water Using Magnetic Molecularly Imprinted Chitosan Membrane

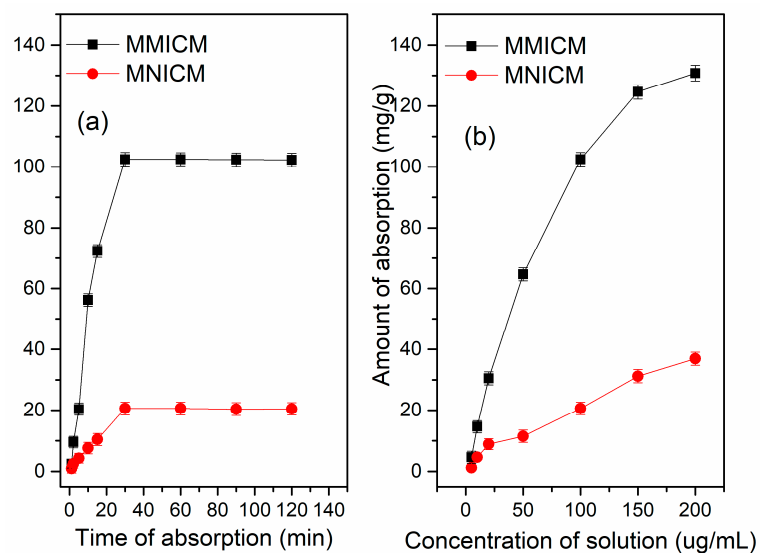


Figure S1. Dynamic adsorption (a) and static adsorption (b) of MMICM and MNICM for chlorobenzene.

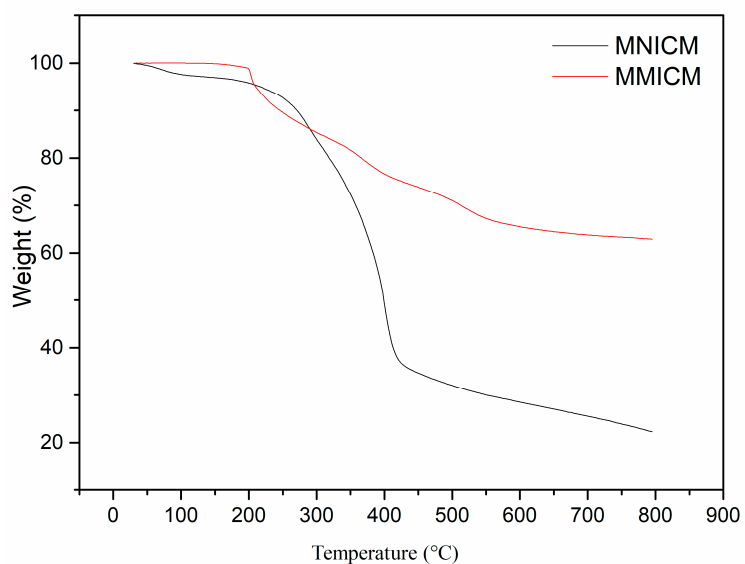


Figure S2. TGA curves of MNICM and MMICM.

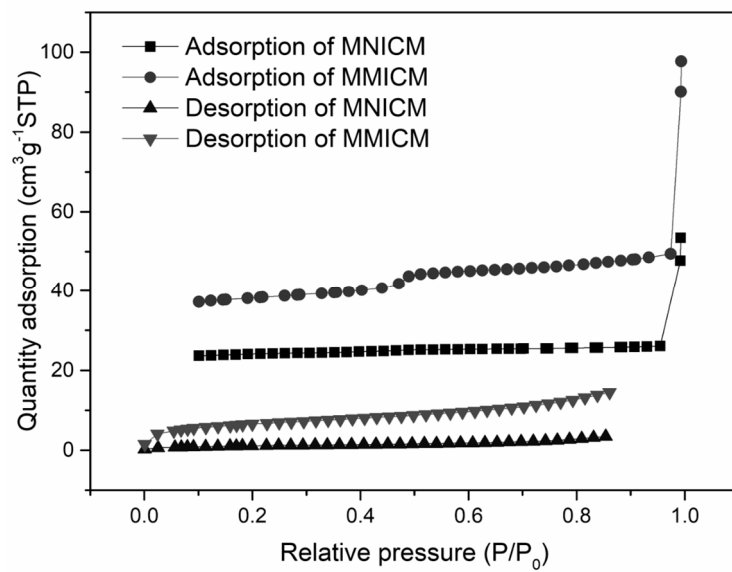


Figure S3. BET analysis of the MMICM and MNICM.

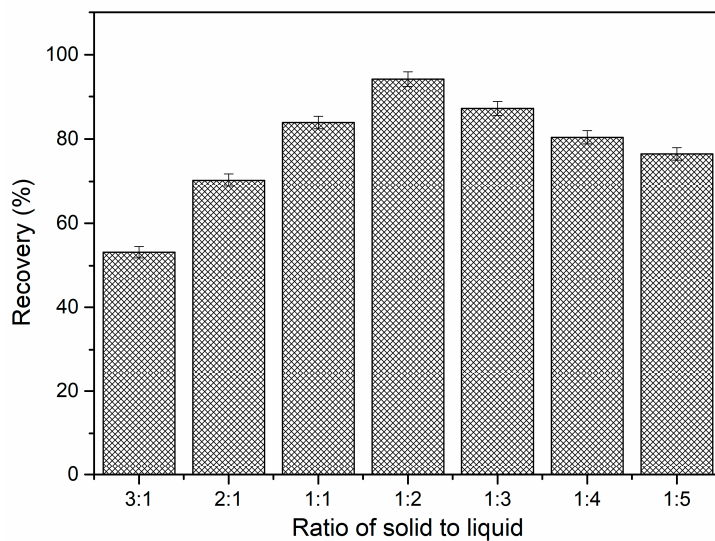


Figure S4. Effect of adsorbent and sample volume on the MMS procedure.

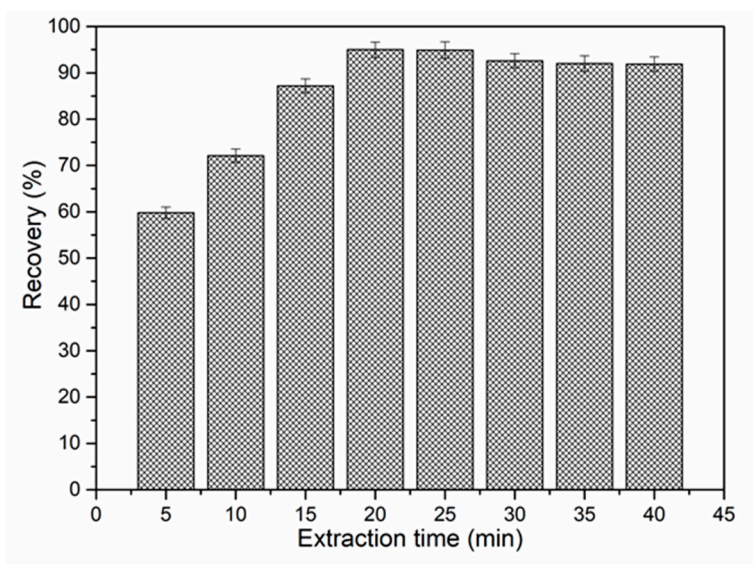


Figure S5. Effect of extraction time on the MMS procedure.

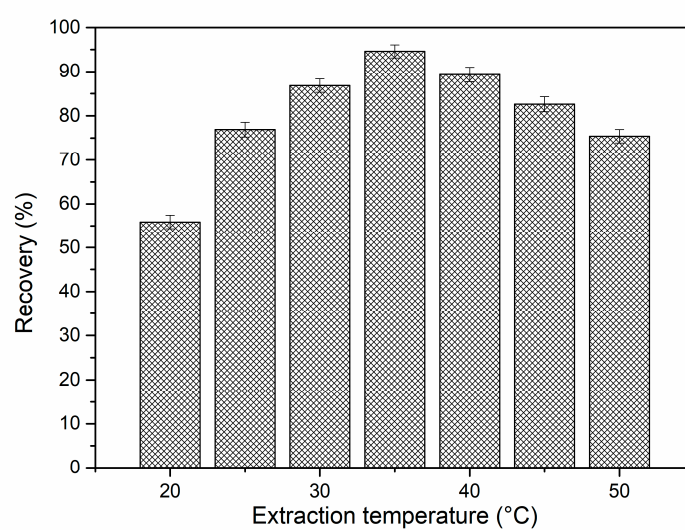


Figure S6. Effect of extraction temperature on the MMS procedure.

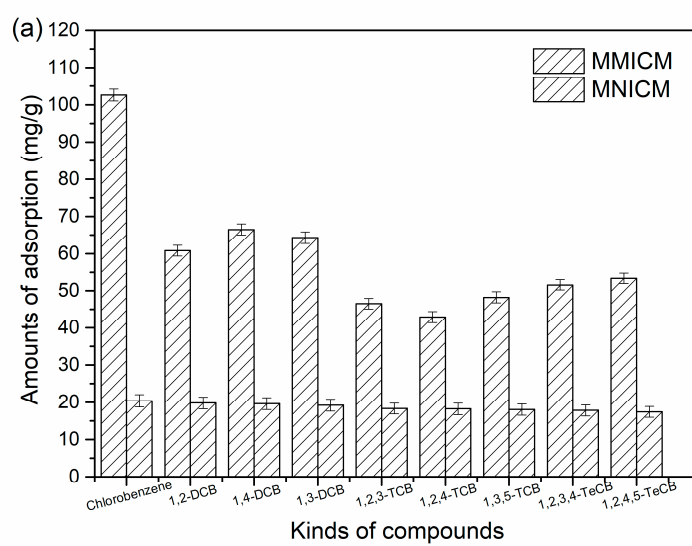


Figure S7. Adsorption amounts of different kinds of chlorobenzene compounds by MNICM and MMICM.

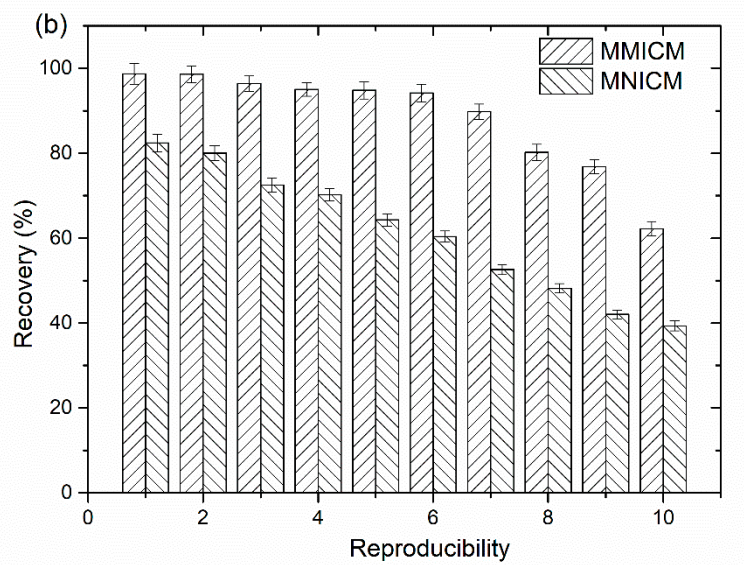


Figure S8. Reproducibility and stability of MNICM and MMICM.

Table S1 Intra-day and Inter-day precisions and accuracies of chlorobenzene compounds.

Targets	Concentration ($\mu\text{g}\cdot\text{mL}^{-1}$)	Intra-day				Inter-day	
		LOD ($\mu\text{g}\cdot\text{mL}^{-1}$)	LOQ ($\mu\text{g}\cdot\text{mL}^{-1}$)	Recovery (%)	RSD (%, n=4)	Recovery (%)	RSD (%, n=4)
Chlorobenzene	100	0.27	0.32	97.08	4.72	96.43	5.15
	200	0.16	0.26	101.06	3.83	99.51	3.12
1,2-DCB	100	0.31	0.46	96.89	5.12	97.13	6.02
	200	0.20	0.35	101.13	4.06	96.98	4.16
1,4-DCB	100	0.33	0.56	98.17	4.29	97.01	5.91
	200	0.29	0.35	99.87	3.87	98.16	3.28
1,3-DCB	100	0.45	0.79	106.97	5.03	96.00	4.69
	200	0.39	0.68	102.52	4.01	97.13	3.12
1,2,3-TCB	100	0.42	0.86	95.21	4.15	92.98	5.12
	200	0.36	0.57	97.00	3.21	95.07	4.65
1,2,4-TCB	100	0.35	0.68	95.15	4.31	92.78	5.42
	200	0.27	0.45	103.54	3.01	99.12	3.75
1,3,5-TCB	100	0.56	0.98	93.18	4.31	92.03	5.12
	200	0.48	0.67	95.02	3.08	94.13	3.46
1,2,3,4-TeCB	100	0.57	0.96	90.96	4.53	89.02	4.18
	200	0.45	0.82	102.17	3.96	90.13	3.24
1,2,4,5-TeCB	100	0.50	0.87	95.89	4.34	91.24	4.79
	200	0.39	0.65	99.12	3.03	93.42	3.83

1,2-dichlorobenzene (1,2-DCB), 1,4-dichlorobenzene (1,4-DCB), 1,3-dichlorobenzene (1,3-DCB), 1,2,3-trichlorobenzene (1,2,3-TCB), 1,2,4-trichlorobenzene (1,2,4-TCB), 1,3,5-trichlorobenzene (1,3,5-TCB), 1,2,3,4-tetrachlorobenzene (1,2,3,4-TeCB) and 1,2,4,5-tetrachlorobenzene (1,2,4,5-TeCB)