

Supplementary Material

Combined Effects of Polyamide Microplastics and Hydrochemical Factors on the Transport of Bisphenol A in Groundwater

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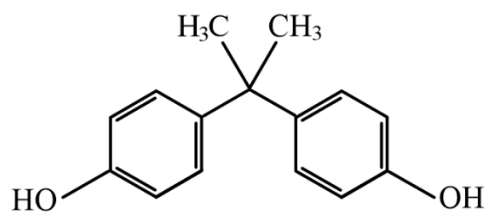
Table S1. The parameters of isotherm models for BPA adsorption on PA and QS

Media	Langmuir model			Freundlich model		
	$p_m(\text{mg}\cdot\text{g}^{-1})$	$K_L(\text{L}\cdot\text{mg}^{-1})$	R^2	$K_F(\text{mg}\cdot\text{g}^{-1})$	n	R^2
PA	35.9	0.001	0.999	0.04	-0.93	0.999
QS	0.002	3.4	0.925	1.59	-1.38	0.959

Table S2. Kinetic adsorption parameters for the adsorption of BPA on PA

Media	Quasi-first-order kinetic adsorption model			Quasi-second-order kinetic adsorption model		
	$p_{m1}(\text{mg}\cdot\text{g}^{-1})$	$k_1(\text{min}^{-1})$	R^2	$p_{m2}(\text{mg}\cdot\text{g}^{-1})$	$k_2(\text{g}\cdot\text{min}\cdot\text{mg}^{-1})$	R^2
PA	12.16	0.02	0.826	8.72	-1.59	0.299

(a) BPA



(b) PA66

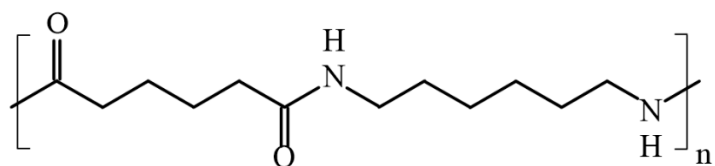


Figure S1. Molecular structure formula of BPA and PA66

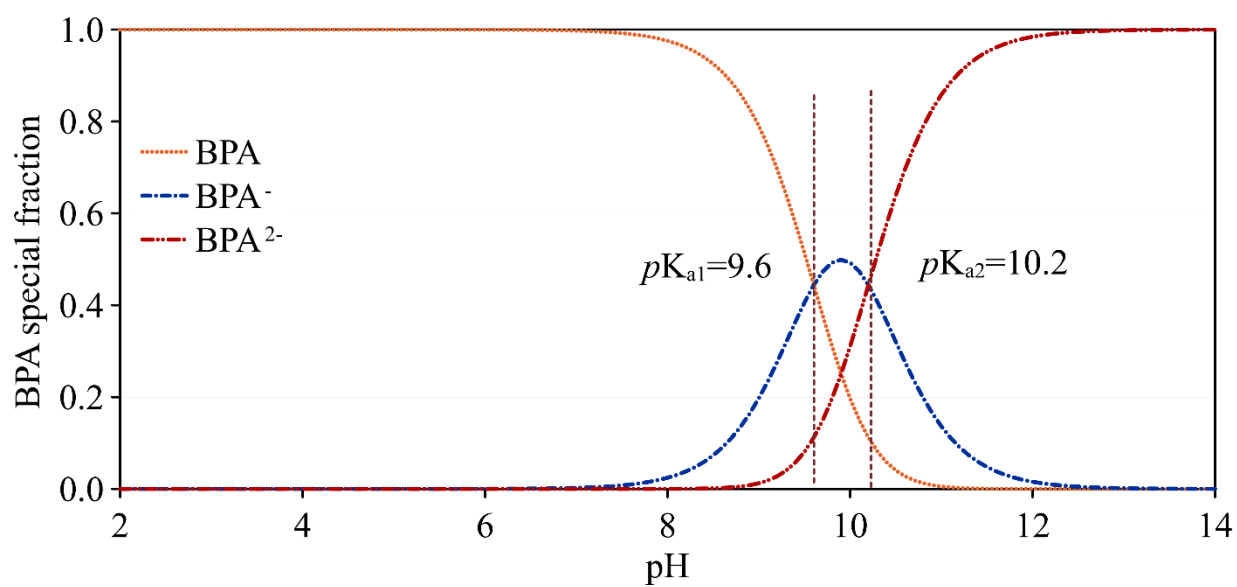


Figure S2. The existence form of BPA under different pH conditions

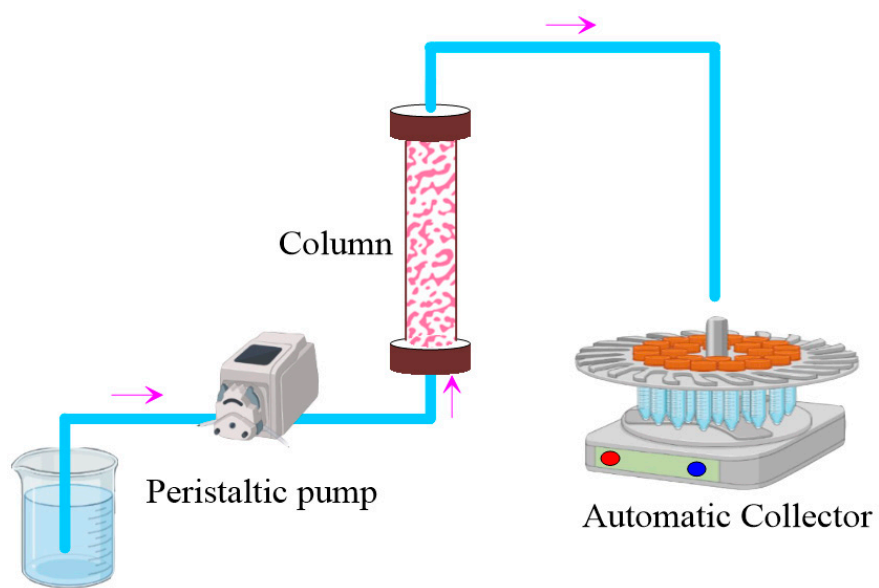


Figure S3. The device diagram of column experiment

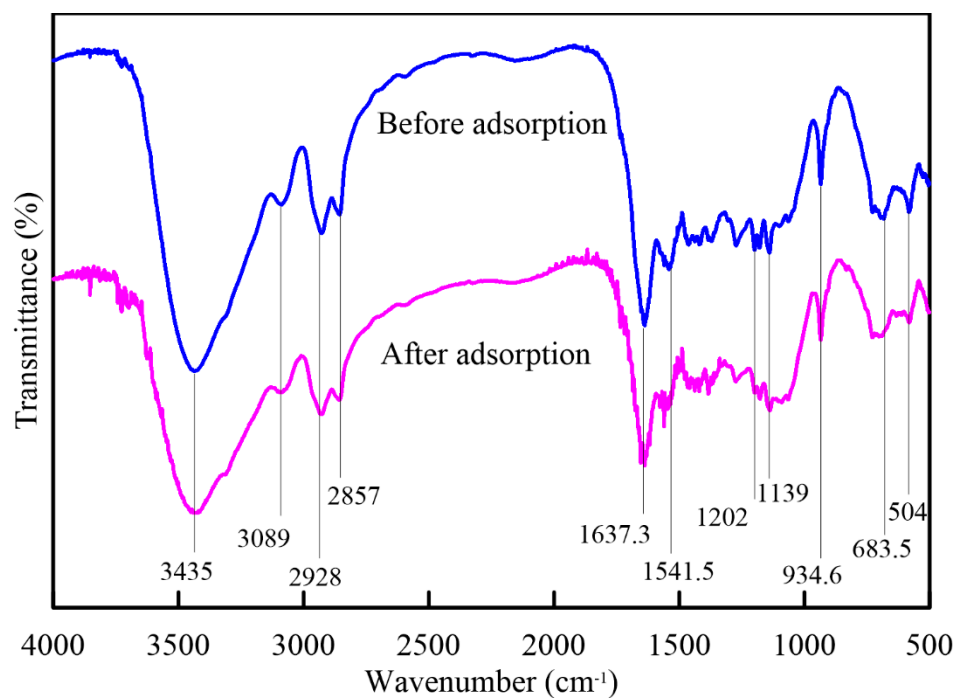


Figure S4. FTIR spectra of PA before and after adsorption experiments

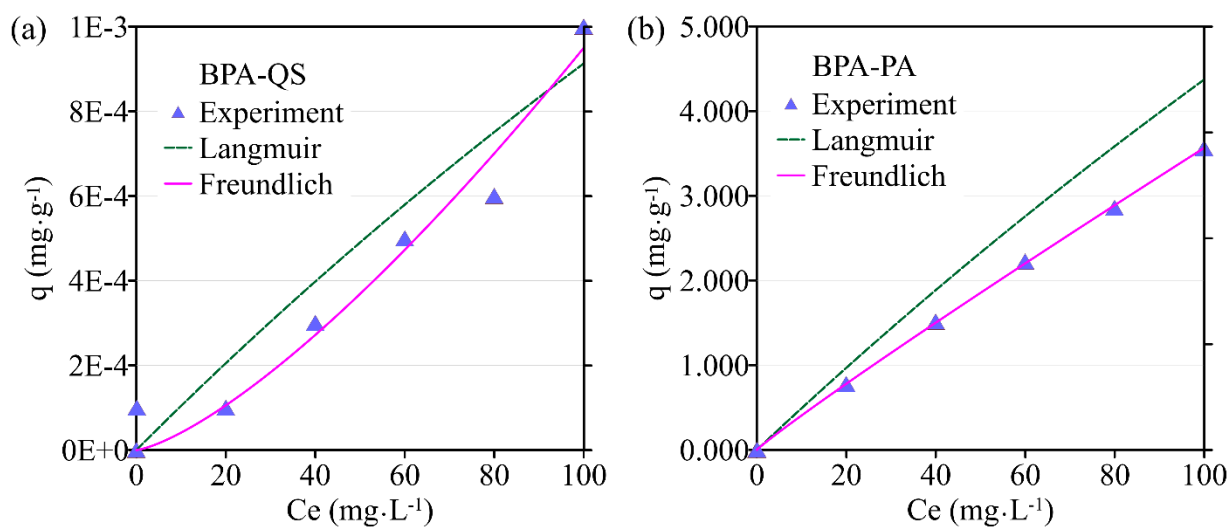


Figure S5. The results of adsorption experiments: (a) Isothermal adsorption model of BPA on PA and QS; (b) Quasi-first-order kinetic adsorption model and quasi-second-order kinetic adsorption model of BPA on PA