

# Further investigation of array capillary in-tube solid-phase microextraction of trace organic pollutants in water samples

## (Supporting information)

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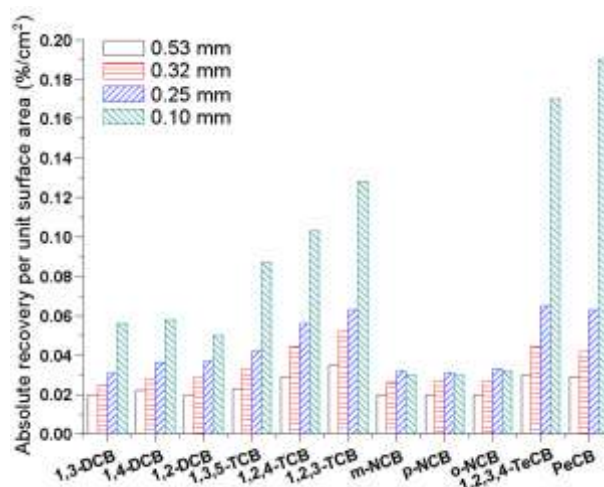
Table S1. The parameters of cartridges with quartz capillary tubes of different inner diameters.

I.D. of capillary tubes (mm)	O.D. of capillary tubes (mm)	Number of capillary tubes	Mass of extraction phase (mg)	Surface area (cm <sup>2</sup> )	Surface density (mg cm <sup>-2</sup> )	Average thickness of extraction phase (μm)
0.10	0.33	117	8.0	107	0.07	0.7
0.25	0.33	114	14	142	0.10	1.0
0.32	0.40	79	13	126	0.10	1.0
0.53	0.62	30	9.4	79	0.12	1.2

Table S2. The absolute recoveries of CBs and NCBs obtained by different ACIT-SPME cartridges.

Inner diameter (mm)	Extraction time (s)	Absolute recoveries (%) <sup>a</sup>										
		1,3-DCB	1,4-DCB	1,2-DCB	1,3,5-TCB	1,2,4-TCB	1,2,3-TCB	m-NCB	p-NCB	o-NCB	1,2,3,4-TeCB	PeCB
0.10	1200	6.0	6.2	5.4	9.3	11	13.7	3.2	3.2	3.4	18.2	20.3
0.25	120	4.4	5.1	5.3	5.9	7.9	8.9	4.6	4.4	4.7	9.2	9.0
0.32	63	3.1	3.5	3.7	4.2	5.5	6.5	3.3	3.4	3.4	5.6	5.3
0.53	29	1.6	1.7	1.6	1.8	2.3	2.8	1.6	1.6	1.6	2.4	2.3

<sup>a</sup> The sample volume was 100 mL, and the concentrations of the analytes in the water samples were as follows: 1,3-DCB (0.90 μg L<sup>-1</sup>), 1,4-DCB (0.96 μg L<sup>-1</sup>), 1,2-DCB (0.90 μg L<sup>-1</sup>), 1,3,5-TCB (0.12 μg L<sup>-1</sup>), 1,2,4-TCB (0.09 μg L<sup>-1</sup>), 1,2,3-TCB (0.10 μg L<sup>-1</sup>), m-NCB (0.17 μg L<sup>-1</sup>), p-NCB (0.16 μg L<sup>-1</sup>), o-NCB (0.14 μg L<sup>-1</sup>), 1,2,3,4-TeCB (0.03 μg L<sup>-1</sup>), and PeCB (0.03 μg L<sup>-1</sup>). The absolute recovery is the ratio of the extracted amount of analytes to the original amount of analytes in water sample.



20 Fig. S1. The absolute recoveries per unit surface area (cm<sup>2</sup>) of CBs and NCBs using ACIT-SPME cartridges with capillary tubes of different inner diameters. Conditions: sample volume, 100 mL; desorption temperature, 260 °C; desorption time, 4 min. The concentrations of the analytes in the water samples were the same as in Table S2.