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Table S1

Mass spectrometry parameters of the four analytes

Analyte	Molecular weight	Parent ion (m/z)	Product ion (m/z)	Tube lens (V)	Collision energy(eV)
sulfamethazine	278	279	124	64	25
			186*	64	17
sulfamethoxazole	253	254	108	53	22
			156*	53	16
carbamazepine	236	237	192	59	23
			194*	59	19
triclocarban	314	315	127	69	34
			162*	69	19

*Quantitative ion.

Table S2

Experimental design points and recoveries of the Box-Behnken design

Independent variables				Recovery (%)			
Design Points	Volume of DESs (μL)	Extraction time (min)	extraction cycles	sulfamethazine	sulfamethoxazole	carbamazepine	triclocarban
1	50	1	2	78.8	78.1	80.6	77.4
2	125	3	2	86.7	86.0	83.8	88.0
3	125	3	2	88.5	85.9	84.0	88.9
4	200	5	2	95.7	89.8	95.6	94.6
5	125	1	1	54.6	52.5	56.0	60.5
6	50	3	1	51.2	47.4	51.6	54.6
7	125	3	2	91.2	82.2	85.1	86.8
8	125	5	1	56.7	55.1	59.2	64.2
9	125	3	2	90.0	85.5	87.6	85.2
10	50	5	2	66.6	66.7	65.8	72.8
11	200	3	1	71.2	69.7	65.9	77.3
12	125	1	3	102.1	95.8	98.2	103.7
13	125	5	3	95.2	92.1	92.4	96.3
14	200	3	3	116.9	101.7	103.5	100.1
15	200	1	2	92.9	87.2	96.4	93.8
16	125	3	2	85.1	85.9	81.8	89.3
17	50	3	3	88.6	85.4	85.9	89.5

Table S3

Analysis of variance of the predicted model for analyte recoveries

Term	Coefficients	F	P
Constant	0.88	122.36	< 0.0001
A	0.11	229.14	< 0.0001
B	-0.018	5.70	0.0484
C	0.21	784.18	< 0.0001
A×B	0.037	12.24	0.0100
A×C	0.021	3.70	0.0958
B×C	-0.022	4.43	0.0734
A×A	2.465E-004	5.617E-004	0.9818
B×B	-0.048	21.38	0.0024
C×C	-0.063	37.03	0.0005

Table S4

Calculation of LODs and LOQs

Analyte	Spiked concentration (ng/L)	S/N	LOD (S/N=3)	LOQ (S/N=10)
sulfamethazine	400	44.6	26.9	89.6
sulfamethoxazole	400	36.4	33.0	109.9
carbamazepine	400	71.9	16.7	55.6
triclocarban	400	39.0	30.8	102.6