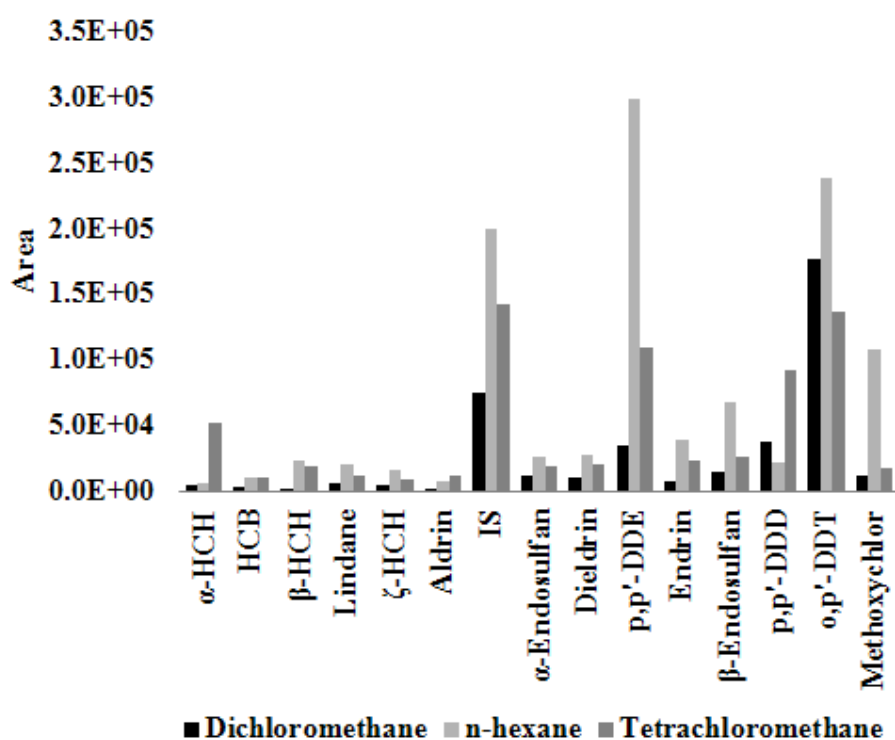


## Electronic Supplementary Material

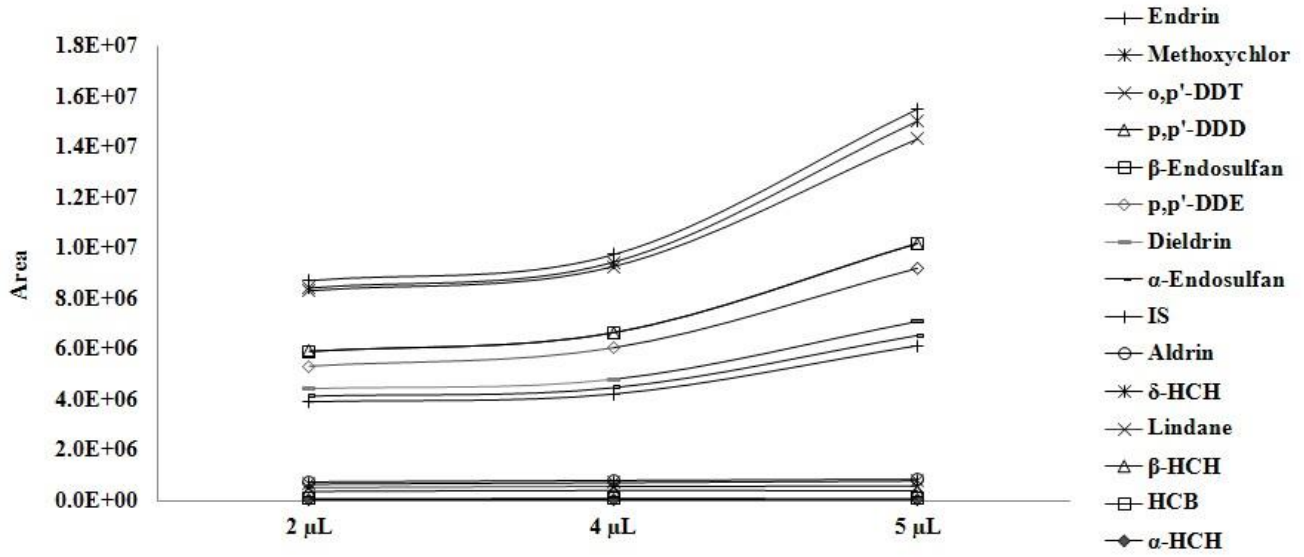
The development and optimization of a modified single-drop microextraction method for organochlorine pesticides determination by gas chromatography–tandem mass spectrometry

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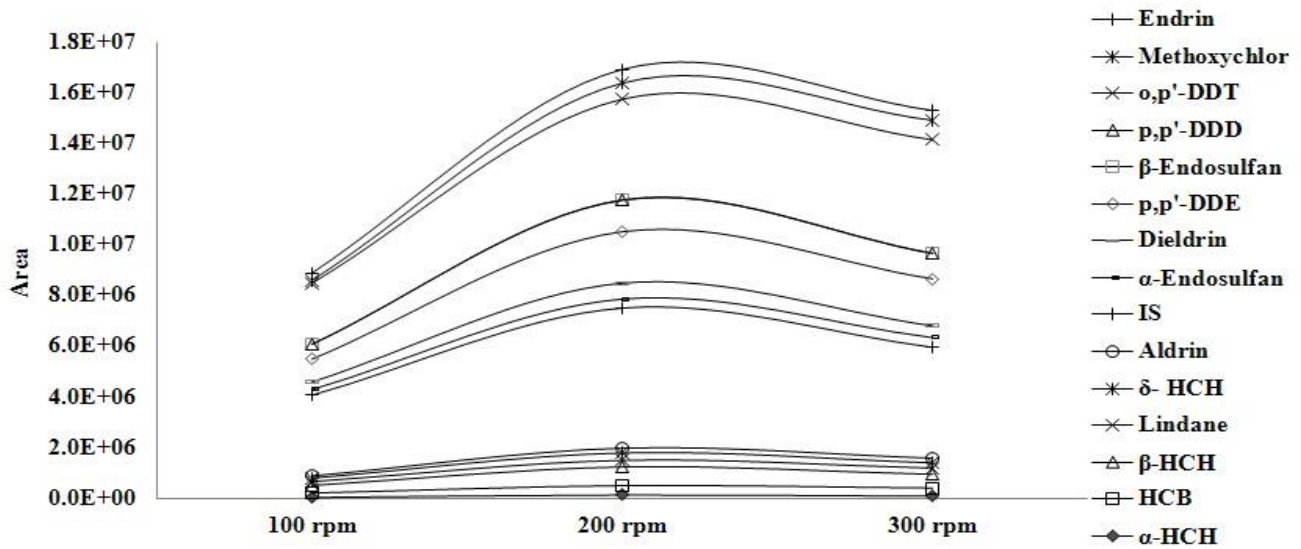


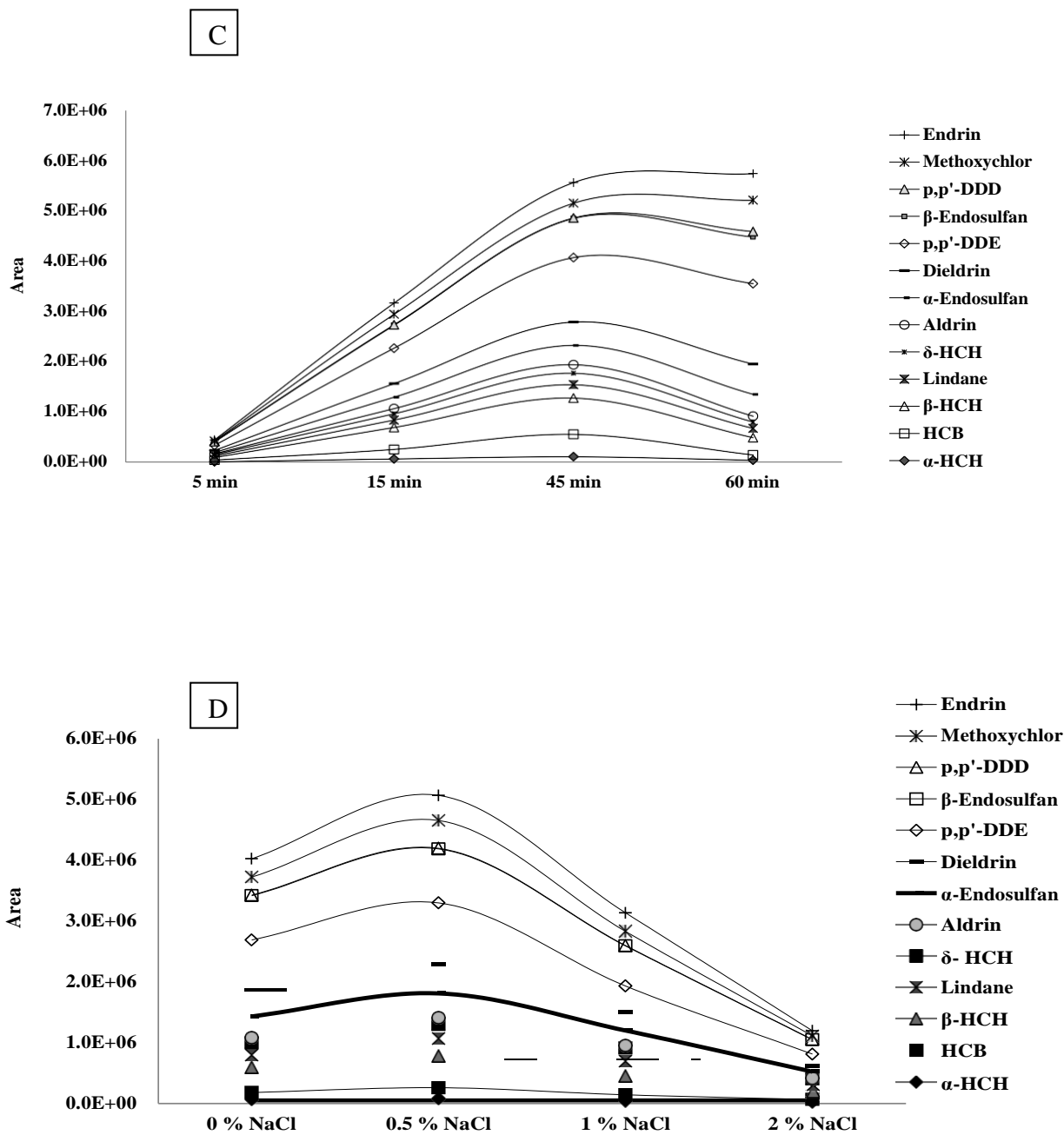
**Fig S1.** Comparison of areas obtained by extracting with different solvents (dichloromethane, n-hexane and carbon tetrachloride)

A



B





**Fig S2.** (A) Relationship between the extraction efficiency and microdrop volume; (B) Relationship between the extraction efficiency and stirring rates; (C) Relationship between the extraction efficiency and extraction time; (D) Relationship between the extraction efficiency and ionic strength

**Table S1.** Parameters for validation method using SDME and QuEChERS

OCP	Equation	R <sup>2</sup>	CV (n=3) (%)	LOD <sup>a</sup> ( $\mu\text{g kg}^{-1}$ )			
				Soil	Jam	Strawberries	Strawberries with QuEChERS [42]
$\alpha$ -HCH	$y = 6594.9x + 6647.8$	0.9942	2.9	0.05	0.04	0.03	0.96
HCB	$y = 2548.7x + 23258.4$	0.9940	2.6	0.04	0.03	0.02	1.05
$\beta$ -HCH	$y = 28490x + 68709.6$	0.9938	3.2	0.05	0.05	0.04	1.15
Lindane	$y = 15231.9x + 9819.2$	0.9977	9.2	0.04	0.03	0.02	0.82
$\zeta$ -HCH	$y = 9781.3x + 21840.7$	0.9976	4.4	0.15	0.12	0.11	1.02
Aldrin	$y = 944.9x + 12893.5$	0.9922	2.0	0.05	0.05	0.04	1.05
IS	$y = 158026.4x + 582143.7$	0.9964	9.2	0.004	0.003	0.001	0.10
$\alpha$ -Endosulfan	$y = 10389.9x + 36444.12$	0.9962	7.2	0.01	0.009	0.007	0.12
Dieldrin	$y = 11753.3x + 56239$	0.9934	0.5	0.05	0.05	0.03	0.53
p,p'-DDE	$y = 14423x + 242124.8$	0.9971	14.8	0.006	0.004	0.002	0.28
Endrin	$y = 5888.2x + 39162$	0.9952	0.7	0.07	0.05	0.03	0.18
$\beta$ -Endosulfan	$y = 21042.5x + 89782.9$	0.9959	2.0	0.05	0.04	0.02	0.20
p,p'-DDD	$y = 2609.4x + 33056.5$	0.9951	0.3	0.008	0.005	0.003	0.17
o,p'-DDT	$y = 21293.2x + 355671.5$	0.9986	6.1	0.05	0.02	0.01	0.16
Methoxychlor	$y = 2194x + 51796.9$	0.9936	2.0	0.04	0.01	0.008	0.62

R<sup>2</sup>: determination coefficient; CV: coefficient of variation; LOD: limit of detection

<sup>a</sup> The LODs were calculated based on S/N of chromatogram of a sample spiked with  $1\mu\text{g kg}^{-1}$  of all OCP.

**Table S2.** Percent mean recoveries based on 3 replicate experiments for the analysis of OCP by GC-MS/MS in different samples.

	Strawberry			strawberry jam <sup>c</sup>			soil <sup>c</sup>		
	spiking levels ( $\mu\text{g kg}^{-1}$ )								
	1	10	50	1	10	50	1	10	50
	Mean recoveries (%) (n=3) < 15% RSD								
$\alpha$ -HCH <sup>a</sup>	76	81	70	60	61	59	74	71	71
HCB	79	80	71	63	62	62	66	63	63
$\beta$ -HCH	83	90	77	75	77	73	82	88	89
Lindane	78	81	76	64	74	60	101	96	97
$\zeta$ -HCH	87	90	80	68	80	62	92	90	84
Aldrin	92	92	86	88	80	77	75	76	78
IS	97	96	87	96	84	82	89	90	87
$\alpha$ -Endosulfan <sup>b</sup>	91	98	83	88	78	74	112	105	101
Dieldrin	92	96	90	89	86	81	105	100	96
p,p'-DDE	75	78	77	73	70	68	87	83	80
Endrin	93	97	84	91	90	84	68	68	68
$\beta$ -Endosulfan <sup>b</sup>	95	95	81	94	88	79	97	95	98
p,p'-DDD	85	90	83	80	76	70	69	69	70
o,p'-DDT	92	93	86	91	86	85	86	83	84
Methoxychlor	94	95	85	89	84	82	117	102	91

<sup>a</sup>MRL for each pesticide in Europe in strawberries -  $10 \mu\text{g kg}^{-1}$ ; <sup>b</sup>MRL for each pesticide in Europe in strawberries -  $50 \mu\text{g kg}^{-1}$ ;

<sup>c</sup>For strawberry jam and soils there is no legislation.