

Response to Q3

ESI 1:

GC- μ ECD instrument calibration

Linearity for standard diazinon and chlorpyrifos was obtained in the concentration range 10 - 500 ng mL⁻¹ and for standard phosphamidon and dimethoate 200 - 10000 ng mL⁻¹ (Table S1 and Fig. S1). The instrument LOD obtained was 1.7, 2.8, 26.7 and 52.8 ng mL⁻¹ for chlorpyrifos, diazinon, phosphamidon and dimethoate, respectively. The instrument LOQ obtained was 5.6, 9.3, 88.9 and 175.9 ng mL⁻¹ for chlorpyrifos, diazinon, phosphamidon and dimethoate, respectively. Dynamic range for instrument was carried out by limit of linearity obtained in the range of 5.6 to 10,000 ng mL⁻¹ (for all the OPPs).

Table S1 Data's for calibration curve

C_s/C_{is} *	A_s/A_{is} **		C_s/C_{is}	A_s/A_{is}	
	Phosphamidon	Dimethoate		Diazinon	Chlorpyrifos
2	0.027	0.018	0.01	0.005	0.019
10	0.126	0.072	0.1	0.018	0.031
20	0.288	0.119	1	0.074	0.154
50	0.727	0.279	3	0.198	0.422
100	1.372	0.533	5	0.324	0.691

C_s : Concentration for standard OPPs, C_{is} : Concentration for internal standard, A_s : Peak area of standard OPPs and A_{is} : Peak area of internal standard.

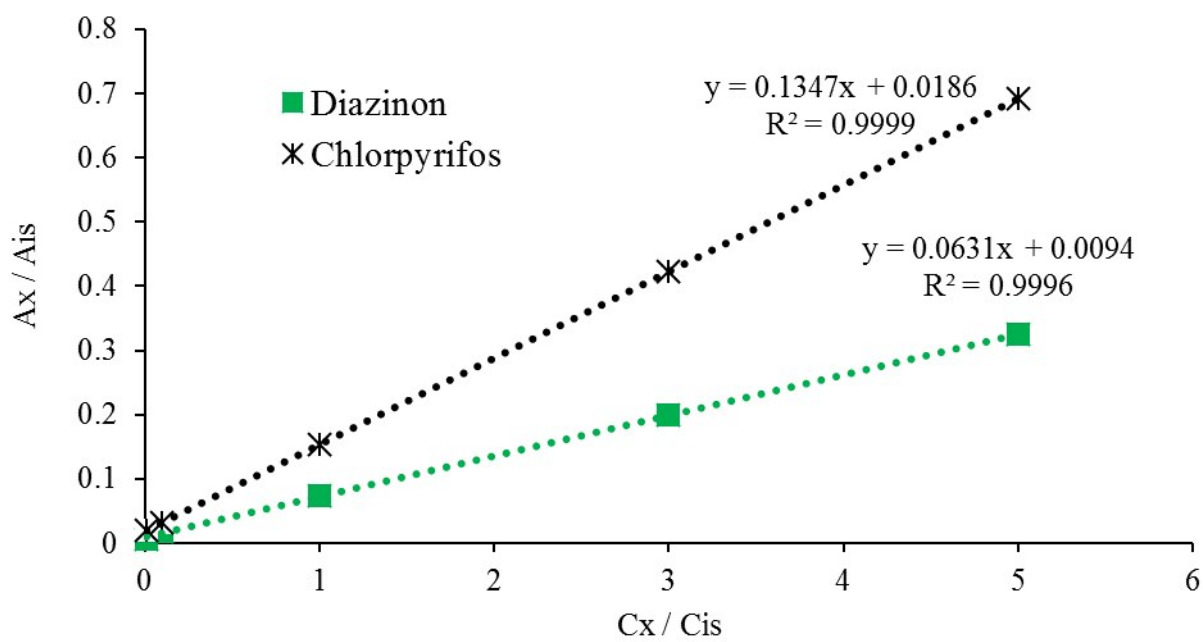
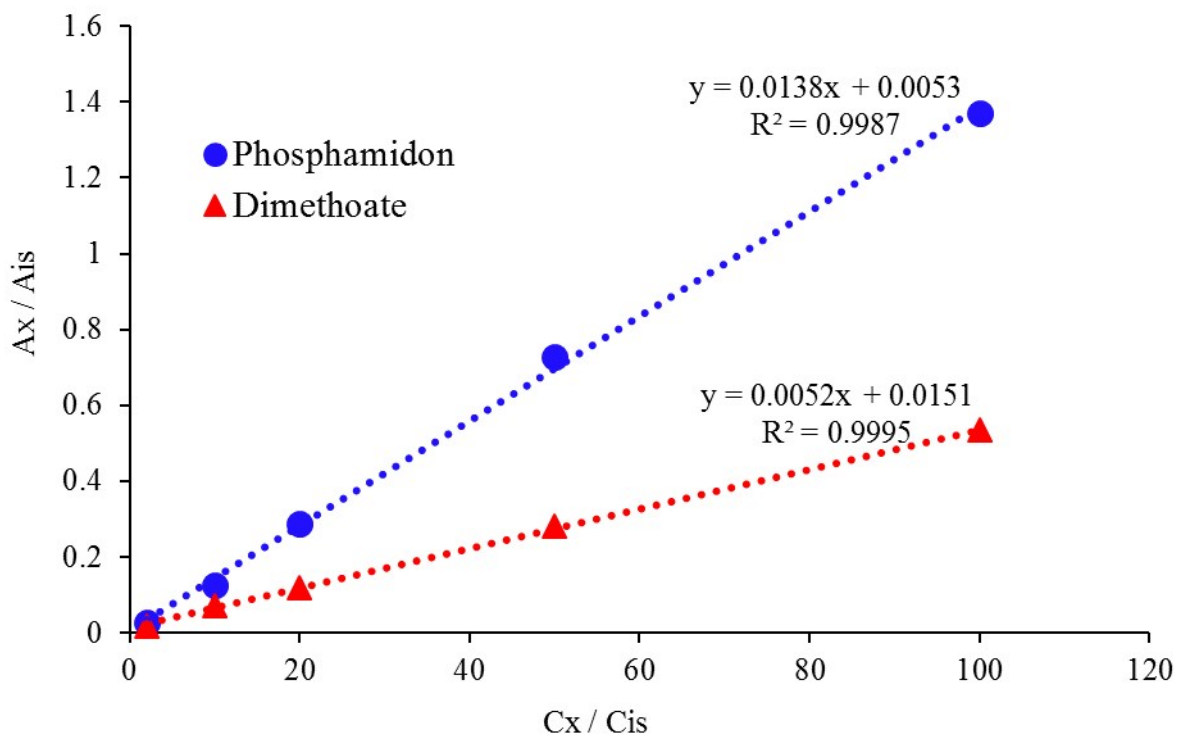
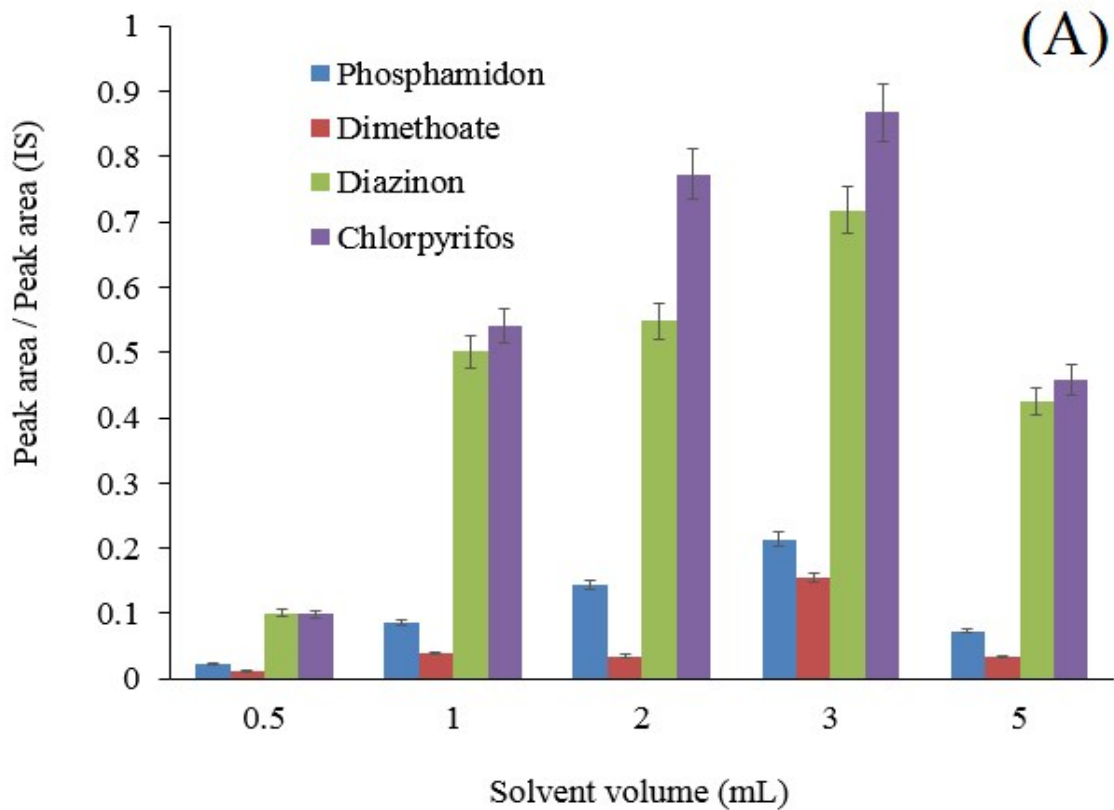


Fig. S1 Calibration curve using internal standard method

SEI 2:

Effect of solvent volume on extraction performance

Different volume of acetonitrile ranging from 0.5 to 5 mL were studied for desorption of the four OPPs from, C18-SPE (Fig. S2A), CN-SPE (Fig. S2B) and Fe₃O₄@G-CNPrTEOS (Fig. S2C). Finally 1 mL, 3 mL and 2 mL acetonitrile were selected as the optimum volume for Fe₃O₄@G-CNPrTEOS, C18-SPE and CN-SPE, respectively.



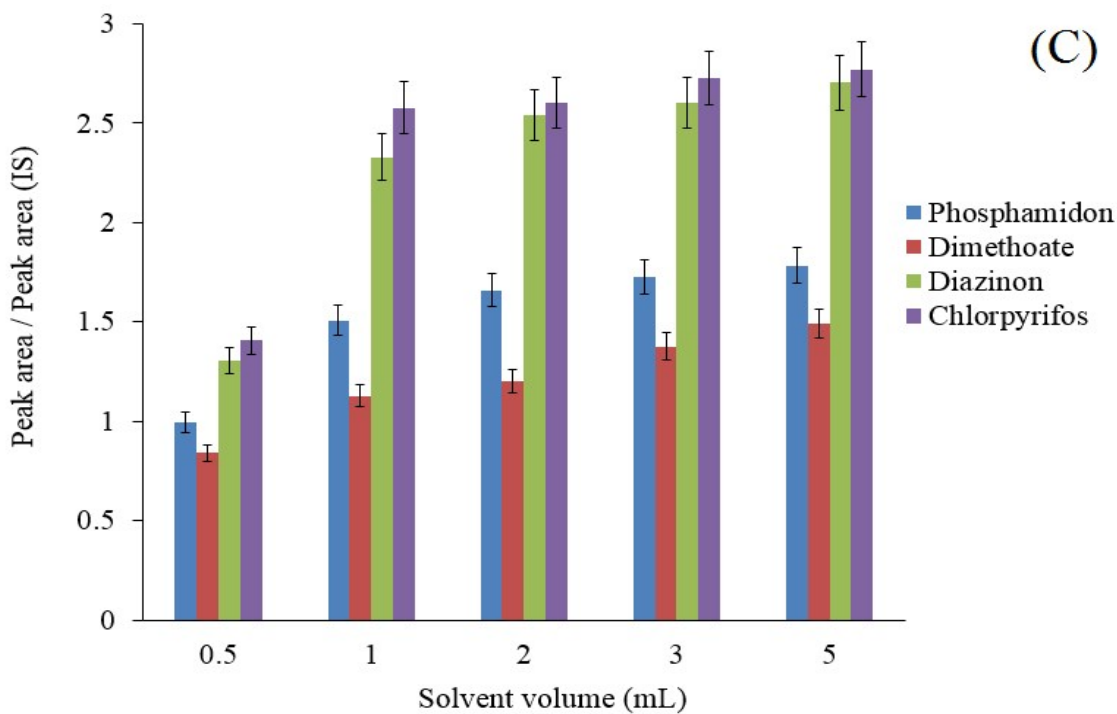
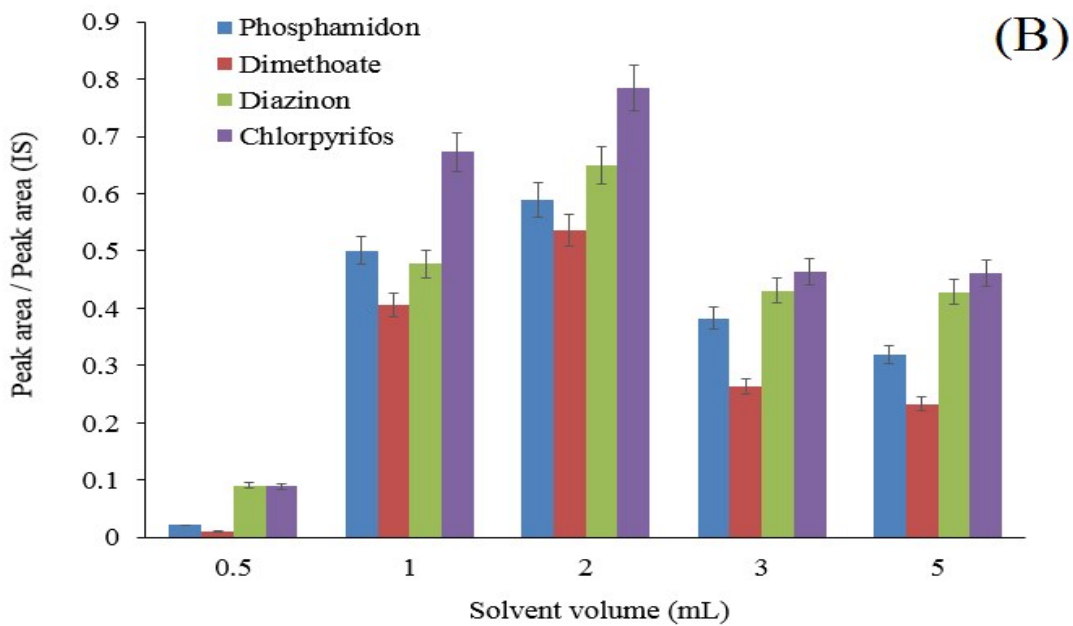


Fig. S2 Effect of solvent volume on extraction performance of (A) SPE-C18, (B) SPE-CN and (C) $\text{Fe}_3\text{O}_4@\text{G-CNPrTEOS MSPE}$.