

Supplementary materials

A fast and simple procedure for the synthesis of zinc and 1,4–benzene dicarboxylic acid metal organic framework and its evaluation as a sorbent for dispersive micro solid phase extraction of pesticide residues

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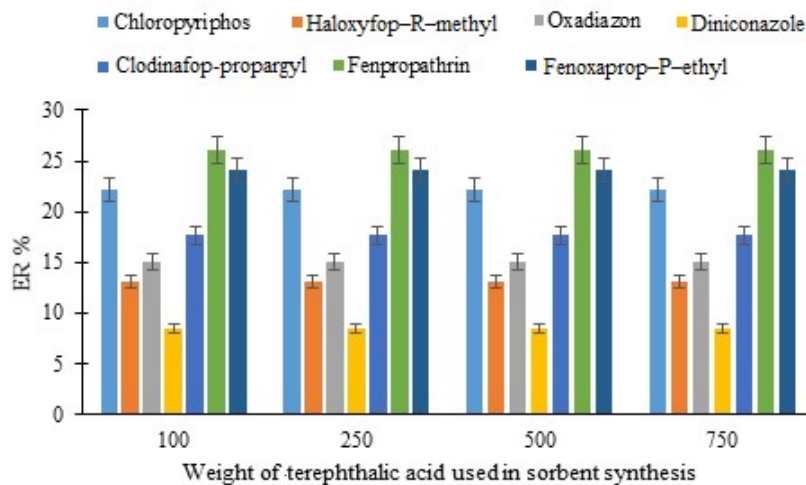


Fig. S1. Optimization of sorbent composition

Extraction conditions: sorbent amount, 20 mg; sample volume, 5 mL deionized water spiked with 100 $\mu\text{g L}^{-1}$ of each analyte; vortexing time in adsorption and desorption steps, 9 min; elution solvent (volume), acetonitrile (1 mL); DLLME aqueous phase, 5 mL deionized water; extraction solvent (volume), 1,2-DBE (45 μL); and centrifugation time and rate; 7 min and 7000 rpm, respectively. Error bars indicate minimum and maximum of three repeated determinations.

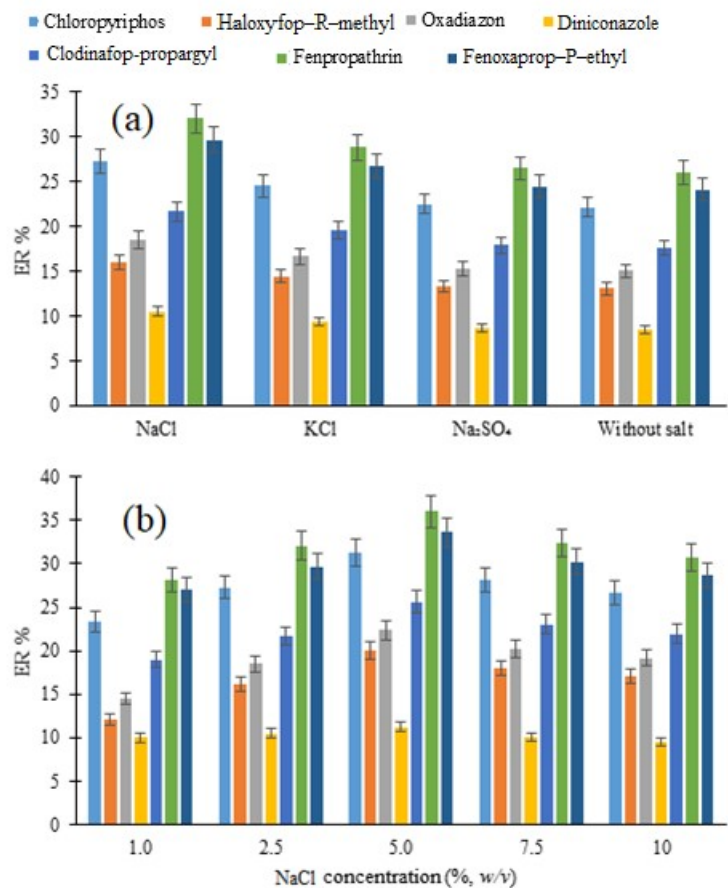


Fig. S2. Investigation of ionic strength of sample solution, (a) salt type and (b) salt concentration
 Extraction conditions: are the same as those used in Fig. S5, except the weight of sorbent which was 5 mg and terephthalic acid amount was 500 mg.

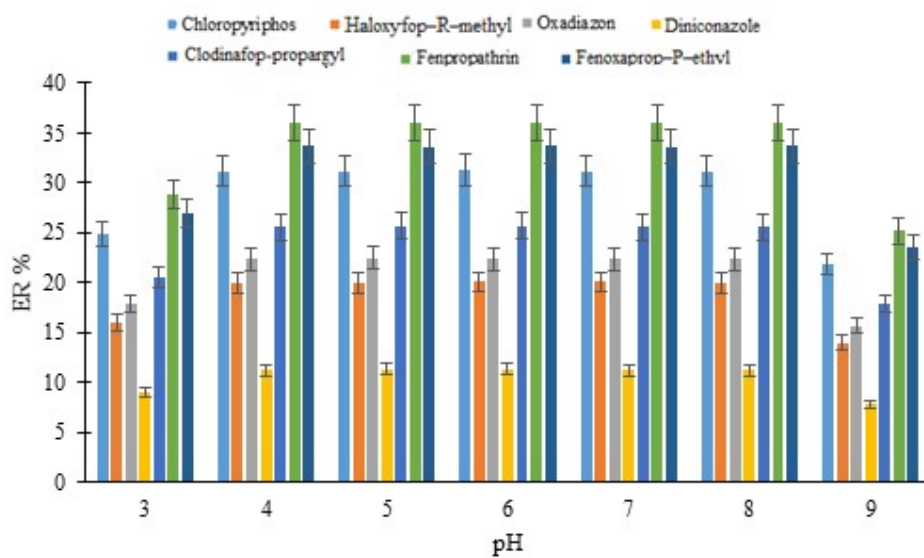


Fig. S3. Sample solution pH.

Extraction conditions: are the same as those used in Fig. S2b, except NaCl was added to the aqueous solution at a concentration of 5%, w/v.

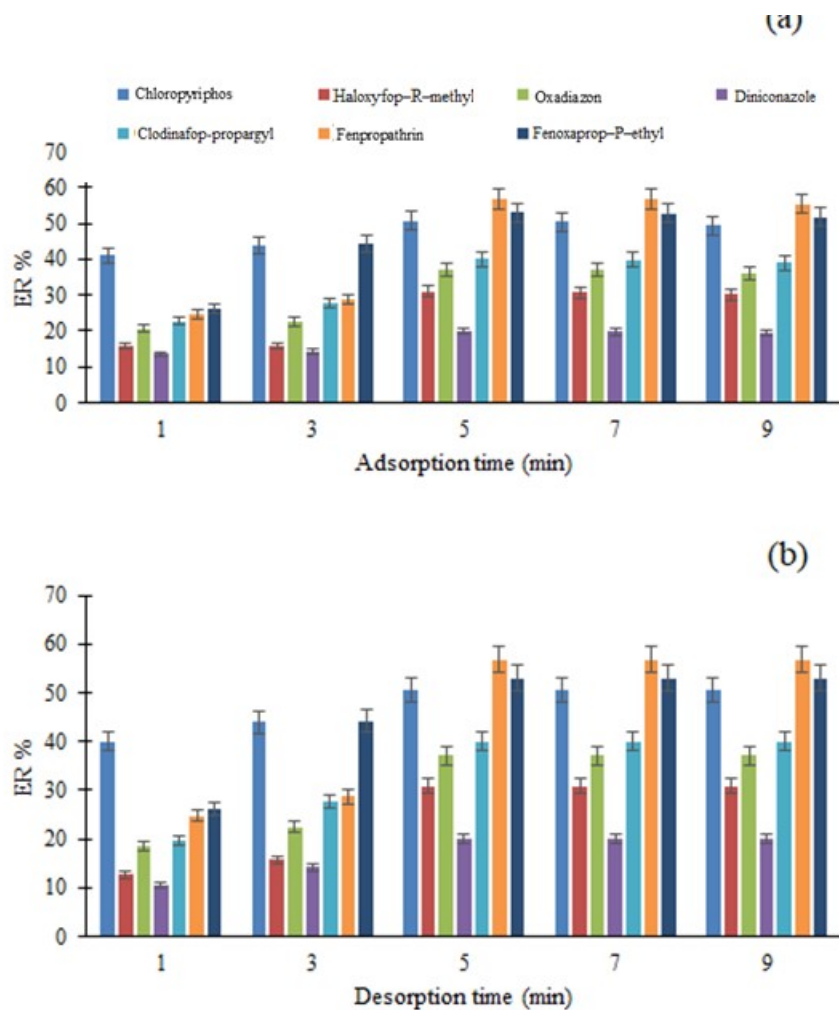


Fig. S4. Investigation of vortex agitation time in (a) adsorption and (b) desorption steps.

Extraction conditions: are the same as those used in Fig. S3 without pH adjustment.

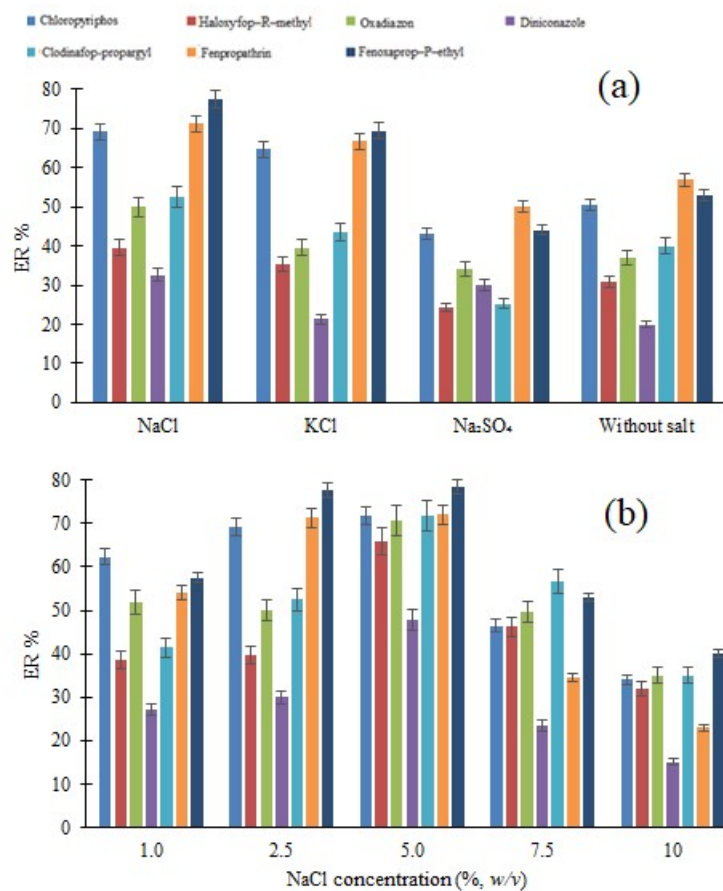


Fig. S5. Investigation of salt addition effect in DLLME step (a) salt type and (b) salt concentration.

Extraction conditions: (a) are the same as those used in Fig. S4, except 2.0 mL *iso*-propanol was used as the elution solvent and 5 min was the optimum adsorption and desorption times.

(b) are the same as those used in Fig. S5b, except NaCl was added into the DLLME aqueous phase.