Supplementary material

Deep eutectic solvent-based dispersive liquid-liquid microextraction followed by smartphone digital image colorimetry for the determination of carbofuran in water samples

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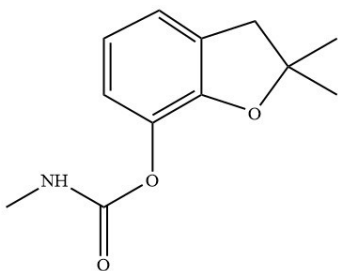
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Xiaowen Wang, College of Food Science and Engineering, Shanxi Agricultural University, Shanxi 030801, China; E-mail: wwxw11@163.com.
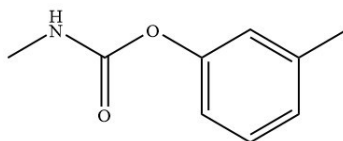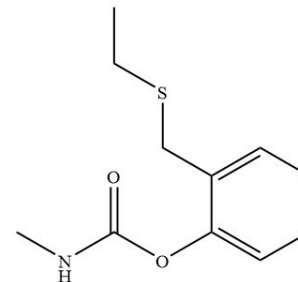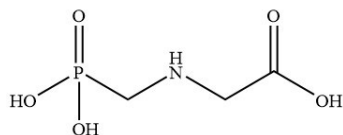
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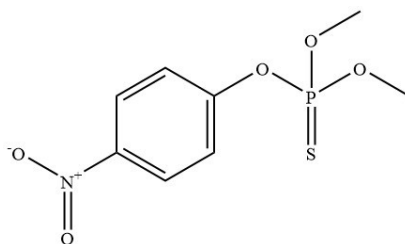
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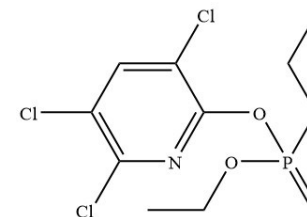
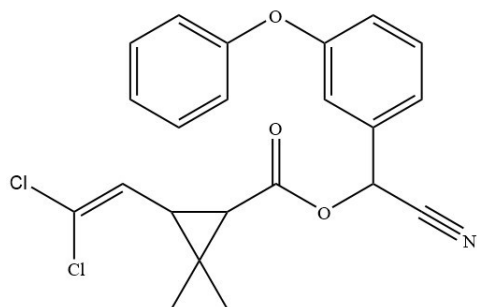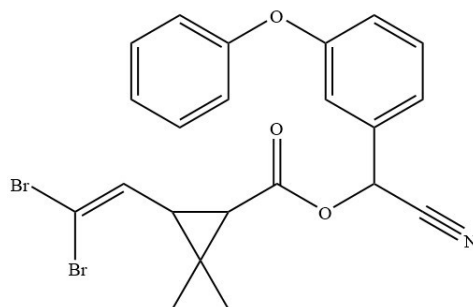Carbofuran   Metolcarb   Ethiofencarb

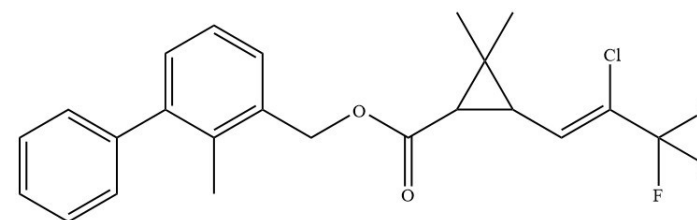Glyphosate   Parathion-methyl   Chlorpyrifos

Beta-cypermethrin   Deltamethrin   Bifenthrin

Fig. S1. The structures of carbamate (carbofuran, metolcarb, and ethiofencarb), organophosphorus (glyphosate, parathion-methyl, and chlorpyrifos), and pyrethroid insecticides (beta-cypermethrin, deltamethrin, and bifenthrin).
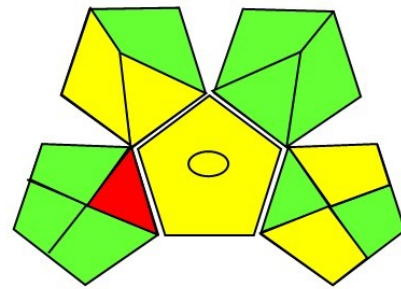
Fig. S2. GAPI assessment for CBF determination in a water sample.

Table S1. Penalty points for carbofuran determination in a water sample.

Reagents	Penalty points	Instruments	Penalty points
Sodium carbonate 20 mg	0	Occupational hazard	0
Sodium chloride 200 mg	0	Waste	2
FBBB 50 μL	1		
DES 50 μL	0		
	$\sum 1$		$\sum 2$

Total penalty points: 3
Analytical Eco-Scale total score: 97