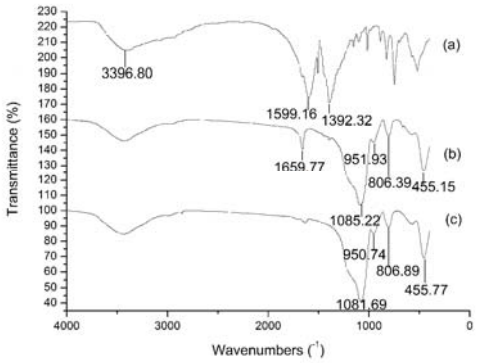
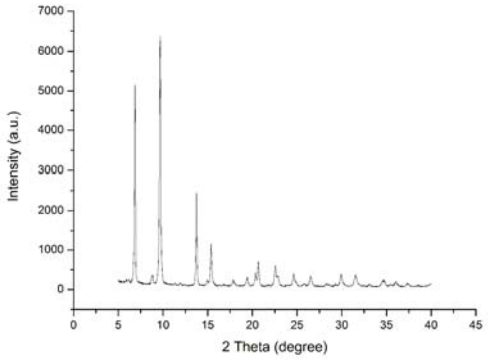
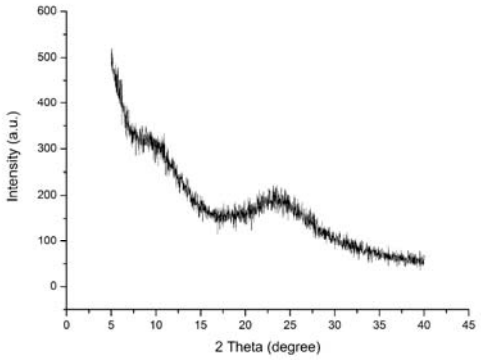


Fig. S1 FTIR spectrum of (a) MOF-5, (b) MOF@MIP and (c) MIP.



(a)



(b)

Fig. S2 Powder X-ray diffraction patterns for (a) MOF-5 and (b) MOF@MIP.

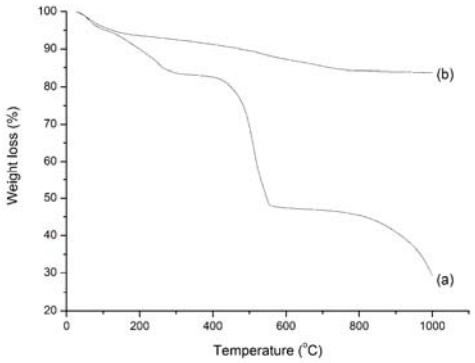


Fig. S3 Thermogravimetric analysis for (a) MOF-5 and (b) MOF@MIP.

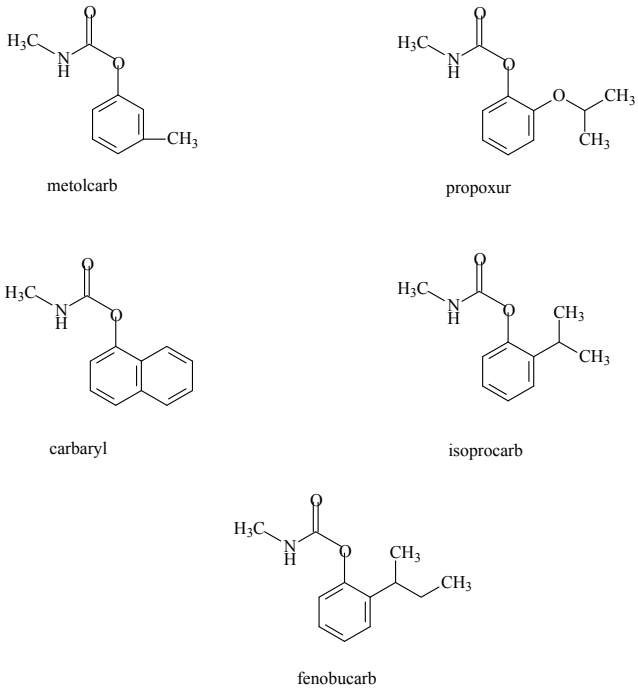


Fig. S4 The structures of metolcarb, propoxur, carbaryl, isoprocarb and fenobucarb.

Table S1 Comparison of kinetic parameters for the adsorption of metolcarb

Adsorbent	q_e (exp)	Pseudo-first-order kinetics			Pseudo-second-order kinetics		
		K_1	q_e (cal)	R^2	K_2	q_e (cal)	R^2
MOF@MIP	1.26	0.061	0.223	0.6679	0.358	1.30	0.9987
		Elovich			Intra-particle diffusion		
		α	β	R^2	k_{int}	C	R^2
		6.23	5.83	0.8165	0.070	0.79	0.6758

K_1, the rate constant of pseudo-first-order adsorption process (min^{-1}), $\ln(q_e - q_t) = \ln q_e - K_1 t$. Where q_t and q_e are the amounts of analyte adsorbed at time t and at equilibrium (μmol g^{-1}), respectively.

K_2, the rate constant of pseudo-second-order sorption (g μmol $^{-1}$ min^{-1}), $\frac{t}{q_t} = \frac{1}{K_2 q_e^2} + \frac{t}{q_e}$.

$q_t = \frac{1}{\beta}\ln(\alpha\beta) + \frac{1}{\beta}\ln t$. Where α is the initial sorption rate constant (μmol g^{-1} min^{-1}), and the parameter β is related to the extent of surface coverage and activation energy for chemisorption (g μmol $^{-1}$).

$q_t = k_{int} t^{1/2} + C$. Where k_{int} is the intra-particle diffusion rate constant (μmol g^{-1} $min^{-1/2}$), and C is the intercept.

Table S2 Competitive loading of metolcarb, propoxur, carbaryl, isoprocarb and fenobucarb by MOF@MIP and MOF@NIP

		MOF@MIP	MOF@NIP
Loading Capacity (μmol g^{-1})	metolcarb	1.1848	0.5218
	propoxur	0.2027	0.3457
	carbaryl	0.2445	0.4030
	isoprocarb	0.4725	0.4031
	fenobucarb	0.3783	0.4357
K_d	metolcarb	19.94	8.68
	propoxur	4.26	7.28
	carbaryl	4.91	8.13
	isoprocarb	9.26	7.85
	fenobucarb	7.90	9.11
K	propoxur	4.68	1.19
	carbaryl	4.06	1.07
	isoprocarb	2.16	1.11
	fenobucarb	2.52	0.95
K'	propoxur	3.93	
	carbaryl	3.80	
	isoprocarb	1.96	
	fenobucarb	2.65	

K_d, distribution coefficient, $K_d = \{(C_i - C_f) / C_f\} \times \{\text{volume of solution (mL)}\}/\{\text{mass of gel (g)}\}$.

Where C_i and C_f represent the initial and final concentrations, respectively.

K, selectivity coefficient, $K = K_d(\text{metolcarb})/K_d(\text{competitors})$.

K', relative selectivity coefficient, $K' = K_{MIP} / K_{NIP}$.