

Figure 2 – (a) Langmuir and (b) Freundlich isotherm adsorption model of the Cu (II), Pb (II) and Cr (VI)

Table 2 – Kinetic characteristics of adsorption of metal ions

Metal ion	Pseudo-first-order kinetic model			Experimental value	Pseudo-second-order kinetic model		
	$C_0$ (mg/l)	$k_1$ (min $^{-1}$ )	$R^2$		$C_0$ (mg/l)	$k_2$ (l mg $^{-1}$ min $^{-1}$ )	$R^2$
Cu (II)	6.13	0.014	0.999	5.21	0.04	0.618	0.950
Pb (II)	4.44	0.003	0.918	7.94	0.25	0.025	0.941
Cr (VI)	6.24	0.015	0.983	2.00	0.03	0.694	0.892

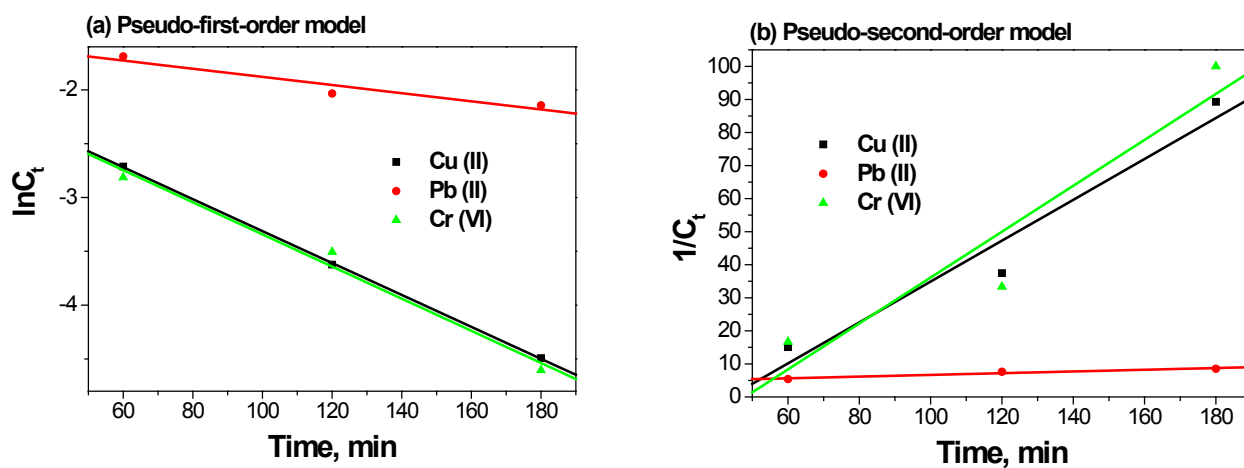


Figure 3 – Plots of (a) pseudo-first-order and (b) pseudo-second-order kinetics of sorption by chitosan-unithiol composite