

Supplementary Materials

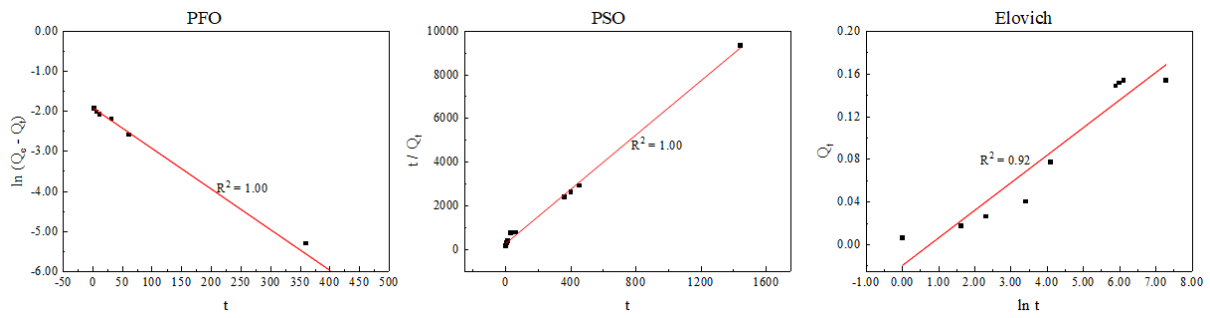


Fig. S1. Adsorption kinetic model fitting for Cu(II) adsorption by DCW adsorbent.

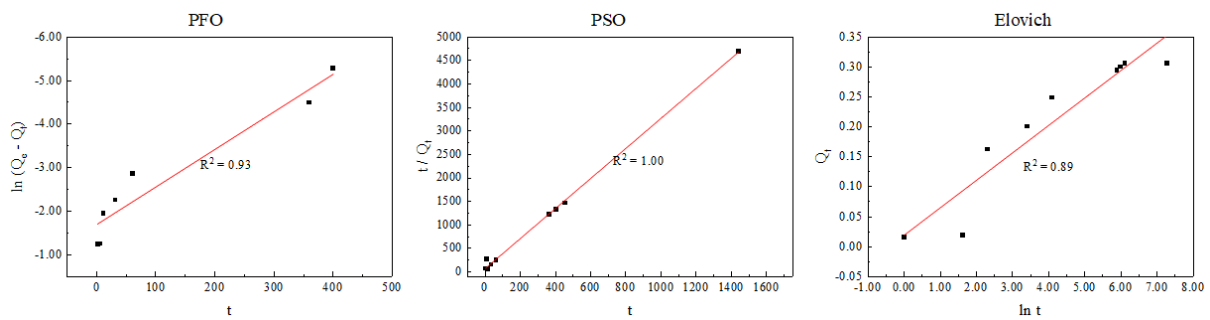


Fig. S2. Adsorption kinetic model fitting for Ni(II) adsorption by DCW adsorbent.

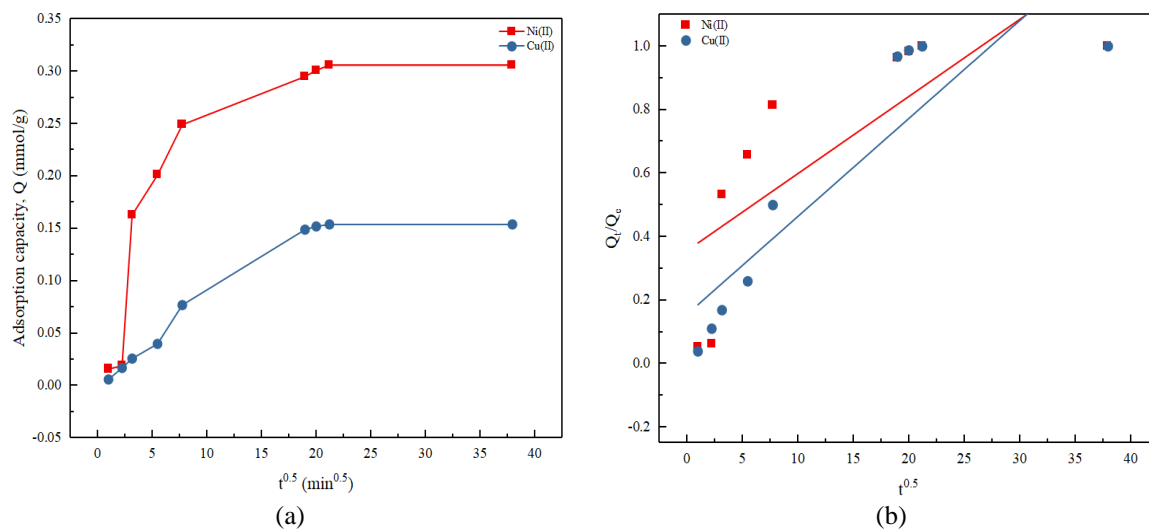


Fig. S3 (a) Weber-Morris plot and (b) Fick's Law plot for Ni(II) and Cu(II) adsorption process.

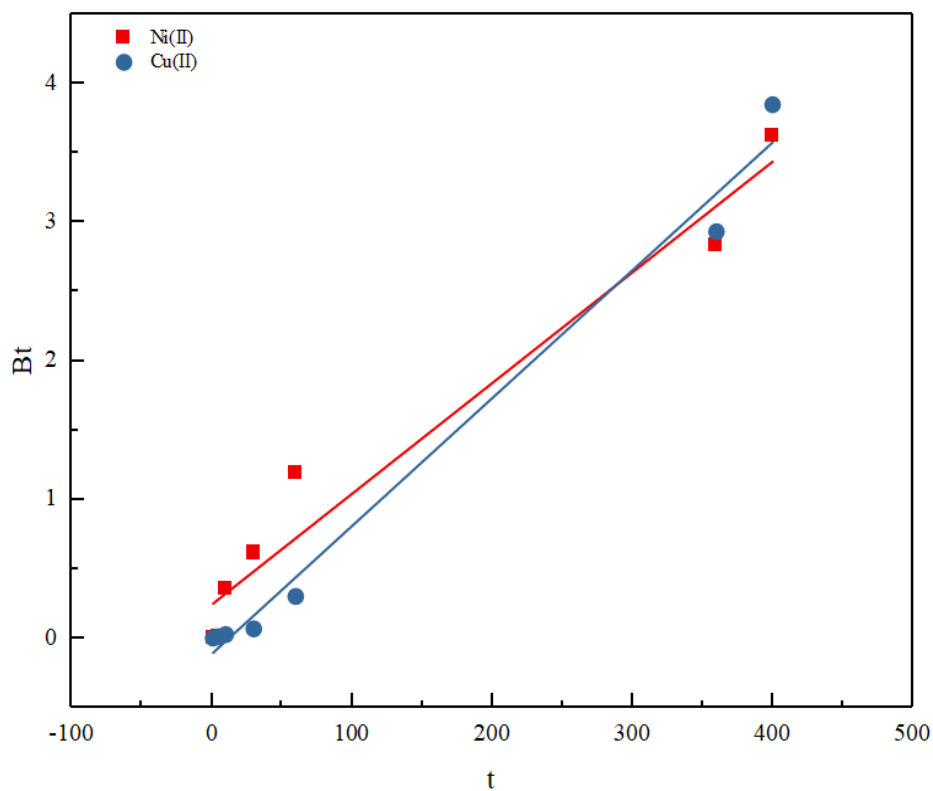


Fig. S4. Boyd's plot for Ni(II) and Cu(II) adsorption by DCW adsorbent.

Table S1. Comparisons of Coefficient Value for Film Diffusion, D_f and Effective Diffusion, D_{eff}

Heavy metal adsorbate	Film diffusion coefficient, D_f (cm^2/min)	Effective diffusion coefficient, D_{eff} (cm^2/min)
Cu(II)	1.872×10^{-8}	1.819×10^{-7}
Ni(II)	1.160×10^{-8}	2.102×10^{-7}