NOTATIONS

\( C_e \)  Equilibrium concentration (mg/L)
\( X_m \)  Mass of solute adsorbed (g)
\( m \)  Mass of adsorbent (g)
\( K \)  Freundlich constant indicative of adsorption capacity of the adsorbent (L/mg)
\( K_f \)  Adsorption capacity
\( n \)  Adsorption intensity
\( K_1 \)  Pseudo- first order rate constant (1/min)
\( K_2 \)  Pseudo- second order rate constant (1/min)
\( q_e \)  amount of adsorbate at equilibrium (mg/g)
\( q_t \)  amount of adsorbate at any time t, (mg/g)
\( h \)  initial sorption rate
\( k_{id} \)  rate constant for intraparticle diffusion
\( R_L \)  Equilibrium parameter
\( r \)  Regression coefficient