Adsorption Kinetics of A Cationic Dye onto Indigenously Prepared Activated Kaza’s Carbon

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Accepted on 2nd November 2014

ABSTRACT
Adsorption kinetics of cationic dye, rhodamine B onto indigenously prepared activated Kaza’s carbon was studied. The kinetic process was investigated by applying the pseudo-first-order, pseudo-second-order, intraparticle diffusion, pore diffusion and Elovich models. The adsorption process offered excellent fit with pseudo-second-order model. Kinetic parameters such as rate constants and correlation coefficients, for each kinetic equation were calculated and discussed. Low SSE values of pore diffusion and Elovich equations indicate that pore diffusion plays a vital role in controlling the rate of the reaction.

Keywords: Adsorption, rhodamine-B, SSE.