Isotherm, Kinetic and Thermodynamic Characteristics for Adsorption of 13-Dehydroxybaccatin Ⅲ onto Sylopute

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Batch experiment studies were carried out on the adsorption of 13-DehydroxybaccatinⅢ using sylopute while varying parameters such as initial 13-DehydroxybaccatinⅢ concentration, contact time and adsorption temperature. The experimental data were fitted to the Langmuir, Freundlich, Temkin and Dubinin-Radushkevich isotherm models. The kinetic data were then fitted using the pseudo-first-order, pseudo-second-order and intraparticle diffusion models. Thermodynamic parameters, such as activation energy (Ea), standard enthalpy change (△H°), standard entropy change (△S°) and standard Gibbs free energy change (△G°), were investigated.

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