Adsorption Characteristics and Isosteric Heat of Adsorption of Acenaphthene from *Taxus chinensis* on Sylopute

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Abstract
The adsorption characteristics of the major tar compound, acenaphthene, derived from the plant cell cultures of Taxus chinensis by the commercial adsorbent Sylopute were investigated using different parameters such as initial acenaphthene concentration, adsorption temperature, and contact time. 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 (△H°), standard entropy (△S°) and standard Gibbs free energy (△G°) change, were also investigated.