



Removal of Zn(II) from aqueous solutions using Lewatit S1468

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ABSTRACT

Adsorption of Zn(II) ions from aqueous solution onto Lewatit S1468 has been investigated to evaluate the effect of ground resin. Experimental data obtained from batch equilibrium tests have been analyzed by three two-parameter models (Freundlich, Langmuir and Temkin) and kinetic models including the Lagergren pseudo-first order and pseudo-second order. The equilibrium adsorption results are fitted better with Langmuir and Temkin isotherm compared to Freundlich models. It was determined that removal Zn(II) was well-fitted by first-order reaction kinetic. The adsorption process was relatively fast due to 90% of Zn(II) sorption was occurred within 1 min and equilibrium was reached at about 5 min for ground form of resin.

Keywords: Adsorption; Kinetic; Isotherms; Zinc; Resin; Lewatit S1468

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