

Adsorption of Methyl Violet Dye from Aqueous Solution onto Modified Kapok Sawdust : Characteristics and Equilibrium Studies

Authors : Widi Astuti, Triastuti Sulistyarningsih, Masni Maksiola

Abstract : Kapok sawdust, an inexpensive material, has been utilized as an adsorbent for the removal of methyl violet in aqueous solution. To increase the adsorption capacity, kapok sawdust was reacted with sodium hydroxide (NaOH) solution having various concentrations. Various physico-chemical parameters such as solution pH, contact time and initial dye concentration were studied. Langmuir, Freundlich and Redlich-Peterson isotherm model were used to analyze the equilibrium data. The research shows that the experimental data fitted well with the Redlich-Peterson model, with the value of constants are 41.001 for KR, 0.523 for aR and 0.799 for g.

Keywords : kapok sawdust, methyl violet, dye, adsorption

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