ADSORPTION OF LEAD BY USING DURIAN LEAVES

RABIHAH BINTI AWANG ALI

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ABSTRACT

ADSORPTION OF LEAD BY USING DURIAN LEAVES

Ability to remove Pb(II) from aqueous solution by Durian leaves (DL) was evaluated. DL was characterized by using pH\text{slurry} and pH\text{zpc} of biosorbent. The effect of physicochemical such as pH, adsorbent dosage, initial concentration of Pb(II) and contact time has been studied to obtain the optimum condition to remove Pb(II) ion from the aqueous solution. The studies were conducted at pH 4, DLP dosage 0.02 g, in contact time of 90 minutes. Kinetic data were analyzed by using two adsorption kinetic model which is pseudo-first-order and pseudo-second-order. The data shows high correlation coefficient based on pseudo-second-order model with $R^2$ is 0.9966 rather than pseudo-first-order model.
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