UTILIZATION BURMESE ROSEWOOD (Pterocarpus indicus) AS ACTIVATED CARBON FOR TREATING OF LAUNDRY WASTEWATER

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Abstract

Laundry wastewater is potential to pollute river because contain high phosphate. Adsorption is the one treatment process of phosphate wastewater. Adsorption is influenced by contact time, adsorban dose, pH and size of the media. Carbon Burmese Rosewood were used in this research with a variation of contact time, adsorban dose, pH, carbon type (activation and non-activation) and adsorban size (powder and granular). Laundry wastewater from around ITS campuss were used in batch experiment. The optimum results of carbon powder for non-activation is the contact time of 180 minutes, a dose of 0.2 g/L and pH of 10, while for the carbon powder activation is the contact time of 180 minutes, the dose of 0.75 g/L and pH of 10. The optimum results of granular carbon non-activation is the contact time of 180 minutes, the dose of 0.75 g/L and pH of 7, while for granular carbon activation is the contact time of 180 minutes, the dose of 1.25 g/L and pH of 10.

Keywords: activated carbon, adsorption, burmese rosewood, laundry wastewater, phosphate.
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