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REVERSE MICELLAR EXTRACTION OF CATIONIC DYES

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Abstract

A new technique based on reverse micelles is proposed whereby recovery of dyes and reuse is possible. Experiments were conducted by mixing a known quantity of dye in aqueous phase and bio-surfactant in a simple mixer. Feasibility of using the eco-friendly biodegradable surfactant saponin from soapnuts along with amyl alcohol for the removal of dyes was examined. The removal of cationic dye namely Basic red 9 from aqueous phase was studied by conducting batch experiments. The influence of key physicochemical parameters such as contact time, initial dye concentration, surfactant dosage, and solvent ratio on dye removal was studied.

Keywords: Reverse Micelles, Dye Effluent, Saponin

