

Textile Anionic Dyes Recovery Using Tri - n - Butyl Phosphate as Carrier through Supported Liquid Membrane

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The recovery of anionic dyes Acid Red10 B (CI Acid Violet 54) and Acid Pink BE (CI Acid Red 183) in flat type supported liquid membrane (SLM) using tri-n-butyl phosphate as carrier was studied. The parameters studied were the effect of feed phase pH, stripping reagent concentration, string speed and initial dye concentration on permeability of dyes. The influence of salt concentration such as sodium chloride and sodium sulphate on the dye recovery was examined. The reusability of membrane and kinetics of transport were also studied. The optimum conditions of transport are feed phase pH 1 ± 0.1 , 0.1 M sodium hydroxide as stripping phase, stirring speed at 500 rpm. The maximum recovery under optimum conditions was observed as 94.2 % for Acid Red10 B and 85.7 % for Acid Pink BE. The maximum permeability was 11.0×10^{-6} m/s for Acid Red10 B and 7.7×10^{-6} m/s for Acid Pink BE.

Key words : *TBP, Supported Liquid Membrane, dye recovery, stripping agent*