

عنوان مقاله:

The survey of electrocoagulation Process for removal dye Reactive Orange 16 from aqueous solutions using sacrificial iron electrodes

محل انتشار:

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خلاصه مقاله:

Discharge of textile industries colored wastewaters without enough treatment into natural water supplies cause serious damages to the environment. This study was performed to investigate the effect of electrocoagulation for dye removal from synthetic wastewater using iron electrodes. Removal of dye reactive orange 16 (RO16) by electrocoagulation using iron electrode was conducted in a batch reactor with volume 1 liter. The effect of operating parameters such as current density, initial concentration of dye, pH and contact time was studied and the electrical energy consumption was calculated. The maximum efficiency of hardness removal which was obtained in current density of 20mA/cm², optimum concentration 50mg L⁻¹, optimum pH 5.5, reaction time of 30 min and NaCl concentration 1.5g/l are equal to 99.27%. Also COD removal efficiency is increased to 66%. Results show, electrocoagulation process by iron electrode is an effective method for reactive dye removal from colored wastewater

کلمات کلیدی:

ye reactive orange 16 dye, Electrocoagulation, Decolourization, Iron electrode, Textile Wastewater

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