

عنوان مقاله:

Investigation of parameters for COD removal from an industrial wastewater using Electrocoagulation comparing Al and Fe electrodes

محل انتشار:

اولین کنفرانس بین المللی آب، محیط زیست و توسعه پایدار (سال: 1395)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

Electrocoagulation on an industrial wastewater using Fe and Al electrodes was investigated in the present work. The goal was to inspect the parametric removal of COD from an industrial wastewater with the focus on both Al and Fe electrodes. The effects of current density, inter-electrode distance, electrocoagulation duration, and initial pH were evaluated. Results showed that in all cases, Fe electrodes removed COD more efficiently. With only 2 plates of Fe electrodes and durations of 15 min only, except for the time-assessed experiments, COD removal efficiencies of %35, %45, and %36 were found for 0.5 cm of electrode gap, 1000 A/m² of current density, and pH of 4.2. Results for Al electrodes were %28, %43, and %35, respectively. The best results for EC duration were found at 45 and 30 min of EC for Fe (%43) and Al (%32), respectively

کلمات کلیدی:

electrocoagulation, Fe, Al, COD removal

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