

## عنوان مقاله:

Destabilizing and Removal of Cr (VI) by Electrocoagulation (EC) Technique

## محل انتشار:

سومین همایش ملی آب و فاضلاب با رویکرد اصلاح الگوی مصرف (سال: 1388)

تعداد صفحات اصل مقاله: 7

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## خلاصه مقاله:

Electrocoagulation is a greener and cheaper method to remove Cr (VI) from the industrial effluents. The performance of electrocoagulation with iron and aluminum sacrificial anode for removal of Cr(VI) was investigated. The object of this research was to study the optimum conditions for treatment chromium waste waters. Several operational parameters, such as solution concentration, pH, electrical potential, current density, contact time, effect of ionic strength, kind of circuit (direct current and pulse) were studied in an attempt to achieve a higher removal capacity. Solutions of varying chromium concentrations (50-100-500-1000 ppm ) were prepared and the best optimized conditions for 99.9% removal efficiency of Cr(VI) and electrical energy consumption(EEC)6-65 kilowatt Hr/gr were introduced. current density13-55 mA/cm<sup>2</sup> , contact time30-120min, pH 2-5, electrical potential 17-28 volts and NaCl, Na<sub>2</sub>SO<sub>4</sub>, PAC(poly aluminum chloride) as supporting electrolyte were evaluated. Although equal removal efficiency was obtained in direct current and pulse current, in the pulse current the best clarity and arrangement sludge .configuration amazed our experimental team

## کلمات کلیدی:

Chromium(VI), Electrocoagulation (EC), Destabilization, Optimized operational parameters

## لینک ثابت مقاله در پایگاه سیویلیکا:

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