

## عنوان مقاله:

Innovative Wastewater Treatment Toward Environmental Green Community

## محل انتشار:

کنفرانس بین المللی مهندسی، هنر و محیط زیست (سال: 1393)

تعداد صفحات اصل مقاله: 10

## نویسندگان:

Hala Ahmed Hegaziand - *Housing & Building National Research Centre, Egypt*

Safaa Mahmoud Raghab - *Housing & Building National Research Centre, Egypt*

## خلاصه مقاله:

A key step in conducting a Community assessment is to inventory those environmental problems which may pose a serious threat to the community and its surrounding natural systems, the industrial waste is considered one of these problems. Electrocoagulation (EC) is becoming a popular process to be used for high polluted industrial wastewater treatment as the poultry processing which is characterized by high turbidity, increased chemical oxygen demand (COD) concentration , and a dark color. The removal of COD and turbidity from wastewater by EC using iron (Fe) electrode material was investigated in this paper. Several working parameters, such as pH, current density, and operating time were studied in an attempt to achieve a higher removal capacity. Wastewater sample was collected from the automatic slaughterhouse in QuewsnaCOD of 1550 mgL<sup>-1</sup> and turbidity of 700 NTU. Current density was varied from 2.80 to 5.26 mA/cm<sup>2</sup>, and operating time 40 minutes followed by settling time 120 min. The results show that the effluent wastewater was very clear and its quality exceeded the direct discharge standard. The removal efficiencies of COD and turbidity were high, being more than 88 % and 93%. In addition, the experimental results also .show that the electrocoagulation can neutralize pH of wastewater

## کلمات کلیدی:

Industrial wastewater , treatment , Electrocoagulation and poultry:

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/372318>

