



ChemTech

## International Journal of ChemTech Research

CODEN (USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555  
Vol.12 No.03, pp 169-176, 2019

### A Study of Electrocoagulation for Treatment of Wastewater from Oil Change Applying of Iron Electrodes

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**Abstract :** The liquid organic oil manufacturing content a high quantity of organic matter. Electrolytic degradation of organic matter in wastewater was conducted by electrocoagulation(EC) reagents. This process using irons electrodes were carried out in a batch electrolytic reactor. During the electrochemical process, hydroxide of iron was in situ generated by oxidation of iron from anodes and cathodic reduction of water. Effects of operating conditions such as current density, initial pHi, intensity of current, quantity of electricity. The EC process on removal efficiencies of total organic matter (OM), mass of iron, energy consumed were investigated. Removal efficiency of 96,22% for MO, 0,167mg for consumption of iron, with 0.901kWh/kg for energy consumed from the EC process at the optimum operating conditions (15,92A/mm<sup>2</sup>, 30 min, pHi 7, 0,4A), were obtained.

**Keywords :** Electrocoagulation wastewater, oil change, Iron Electrode.

Félix FridolinNyounaï *et al* / International Journal of ChemTech Research, 2019,12(3): 169-176.

DOI= <http://dx.doi.org/10.20902/IJCTR.2019.120324>

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