

## Electro coagulation for the pathogenic and microorganism removal from Oued El-Harrach, Algeria wastewater

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Received 29 September 2016; Accepted 3 November 2016

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### ABSTRACT

This study was carried out to investigate in the pathogenic and indicator microorganism of Oued El-Harrach wastewater removal by electro coagulation. Three microorganisms groups were studied, namely protozoa, helminth eggs, and bacteria. In the untreated water, the helminth eggs presence was found as follow: 2,310 eggs/l of Nematoda, 440 eggs/l of Cestoda and 90 eggs/l of Trematoda. The helminth eggs concentration found exceeds the standards recommended by the World Health Organization (i.e.,  $\leq 1$  viable Nematoda egg/liter). The best treatment efficiency was recorded for helminth eggs, especially for *Ascaris* (100% removal after only 5 min of treatment). The efficient electric current was about (3A) in removing pathogens, the eggs destruction mechanisms were also discussed. The obtained results were sat is factory for wastewater reuse in irrigation.

*Keywords:* Bacteria; Electro coagulation; Helminth eggs; Oued El Harrach; Wastewater treatment

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