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## ACCEPTED MANUSCRIPT

## ELECTROCHEMICAL TREATMENT OF WASTEWATER FROM A BAKERY INDUSTRY: EXPERIMENTAL AND MODELING STUDY

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#### Highlights

- Optimal electrocoagulation was at neutral pH, 12 V and with Al electrodes;
- Turbidity, color and grease were quickly and fully removed from the effluent;
- The chemical oxygen demand was slowly and partially removed from the effluent;
- Electrocoagulation may conveniently substitute the usual pretreatment in fat traps;

#### ABSTRACT

The typical treatment of wastewater from the bakery industry in skimming tanks and bioreactors has some limitations, such as low removal of grease, and partial degradation of organic matter. The primary aim of this investigation was to evaluate the use of electrocoagulation as an alternative/complementary method to treat efficiently such an effluent, with focus on the determination of the best operating conditions, and on the kinetics

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