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Turbidity and BOD removal of a paper recycling mill effluent by electro-coagulation technique

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ABSTRACT

The purpose of this work was to provide an alternative to effluent treatment of an OCC paper recycling mill by electro-coagulation technique. The experiments carried out to find the optimum conditions for turbidity and biological oxygen demand (BOD) reduction of the effluent at four levels of electrolysis time (10, 20, 30 and 60 min), three initial suspension pH levels (3, 7.5 and 10), by two constant voltage of 9.0 and 12.0. The results indicated that electro-coagulation is an effective technique for treatment of paper recycling mill effluent. At optimum conditions, more than 99.7% of turbidity and 96.1% of BOD were effectively removed.

Keywords: Electro-coagulation; Paper recycling; Effluents; Turbidity; BOD

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