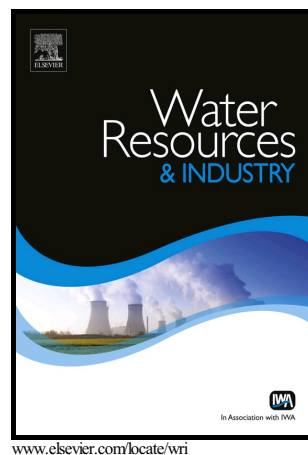


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Abstract:

Sugar industry is one of the major industries which have been included in the polluting industries list by the World Bank. Different pollution monitoring agencies like State and National Pollution Control Boards have been made compulsory for each industry to set up a waste water treatment plants. In treatment system, single treatments of effluent are not effective to manage the dischargeable limit. So an attempted has been made to treat sugar industry wastewater with electrochemical and chemical process by using copper as electrode and chemical. Electrochemical process shows 81% chemical oxygen demand and 83.5% color reduction at pH 6, electrode distance 20mm, current density 178Am^{-2} and 120 min treatment time. The combined treatment results show 98% chemical oxygen demand and 99.5% color removal at 8mM mass loading and pH 6 with copper sulphate.

Keywords

Chemical oxygen demand; Color; Inorganic; Settling; Waste

Introduction:

Sugarcane has been cultivated from pre-historic times in India. Indian mythology supports the fact as second largest producer of sugarcane next to Brazil. Sugar industry is seasonal in nature and operates 150 to 180 days in a year (Aradhey, 2014; Vaithiyanathan et al., 2014). A significant large amount of waste are generated during the manufacture of sugar, which

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