Prashant M. Pawar · Babruvahan P. Ronge
R. Balasubramaniam · Anup S. Vibhute
Sulabha S. Apte *Editors*

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Continuous Electro Coagulation Process for the Distillery Spent Wash Using Al Electrodes

Manoj Pandurang Wagh, Pravin Dinkar Nemade, and Pradeep Jadhav

Keywords Electro coagulation · Distillery spent wash · Chemical oxygen demand · High- performance liquid chromatography (HPLC) · XRD

1 Introduction

All over the world a large amount of wastewater is generated from the sugar and distillery industry. DSW contains organic, inorganic pollutants, heavy metals, very high BOD, COD, and TDS. High consumption of water is one of the most important environmental apprehensions in the distillery industry. It is the fourth major water consuming process after the primary metals, the chemical industries, pulp and paper industry [1]. Distillery industry generates two types of wastewater. Raw spent wash directly discharge from the distillery industries. Distillery spent wash (DSW) is the intensive dark brown acidic, highly polluted, complex, cumbersome effluent generated during the alcohol manufacturing. Anaerobic treat is the primary treatment accepted all over the world to treat the DSW, however, color components are still persisting due to non-biodegradability. Treated DSW called as biomethane spent wash which was released during the anaerobic treatment. However to full fill the environmental standards and regulations this treatment is insufficient to safely discharge the effluent. Electrocoagulation treatment has an ability to eliminate

M. P. Wagh (✉)
Department of Civil Engineering, Dr. Vithalrao Vikhe Patil College of Engineering, Ahmednagar, India

Savitribai Phule Pune University, Pune, Maharashtra, India

P. D. Nemade
Savitribai Phule Pune University, Pune, Maharashtra, India

Department of Civil Engineering, S. B. Patil College of Engineering, Indapur, India

P. Jadhav
Department of Mechanical Engineering, Bharati Vidyapeeth University College of Engineering, Pune, Maharashtra, India
e-mail: pvjadhav@vbvucoep.edu.in

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