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A biotechnological thrive on COD and chromium removal from leather industrial wastewater by the isolated microorganisms

Tamal Mandal[a]*, Dalia Dasgupta[b], Siddhartha Datta[c]

[a]*Department of Chemical Engineering, NIT, Durgapur, India*
Tel. +91 9474533097; Fax +91 343 2547375; email: tamal_mandal@yahoo.com
[b]*Department of Biotechnology, NIT, Durgapur, India*
[c]*Department of Chemical Engineering, Jadavpur University, Kolkata-32, India*
Tel. +91 33 2335-9345; Fax +91 33 2413-7121; email: sdatta_che@rediffmail.com, provc@admin.jdvu.ac.in

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ABSTRACT

Tannery wastewater treatment using three isolated bacteria has been studied separately and in combination in the present study. The removal of COD, BOD and chromium were evaluated. The high salt and Cr tolerant bacteria designated as strain-I showed maximum efficiency in COD and Cr removal from the tannery wastewater of Kolkata, India compared to other two strain-II and strain-III. In combination treatment by all three bacteria showed additive effect in waste degradation. From the results it can be said that the bacteria present in the tannery effluents and nearby soil have significant potential in treatment of leather industrial wastewater.

Keywords: Leather industrial wastewater; COD; BOD; Chromium; Halophiles; Fenton's reagent; Combined treatment process

* Corresponding author.