Isolation and Purification of *Lactobacillus Acidophilus* and Analyzing its Influence on Effluent Treatment

K. Vellingiri[1,*], T. Ramachandran[2], A. Thirugnanasambantham[3]

[1]Department of Textile Technology, PSG College of Technology, Coimbatore, Tamil Nadu, India

[2]Karpagam Institute of Technology, Coimbatore, Tamil Nadu, India

[3]PSG Polytechnic College, Coimbatore, Tamil Nadu, India

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Abstract

Out of various activities in textile industry, wet processing produces about 70% of the effluents. Of late textile industry is giving importance for the eco-friendly processes to protect the environment. The effluents degrade the quality of water and cause injury to the existing organisms and aquatic life. When biological treatments are given to the textile effluents it results in significant reduction in the effluent characteristics and the resultant becomes environmental friendly. This successful bio-culture treatment uses aquatic organisms to purify effluent and refresh the water. A number of bio-cultural species are widely used in the treatment of effluents. *Lactobacillus acidophilus* is one such bacterium used in the effluent purification. *Lactobacillus acidophilus* has the ability to remove, assimilate and decompose the biodegradable organic matters present in the effluents. In addition to these, the present research study attempts to control the levels of total suspended solids (TSS), improve the dissolved oxygen content, reduce the chemical oxygen demand (COD) and biological oxygen demand (BOD).

Keywords: *Lactobacillus Acidophilus*, chemical oxygen demand, biological oxygen demand, total dissolved solids, Total suspended solids, PH.

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* Corresponding author. E-mail address: rkv@fas.psgtech.ac.in

Tel.:0422-2572177 ; Fax: 0422-2573833

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