Accepted Manuscript

The performance of microbial fuel cells treating vegetable oil industrial wastewater

S. Firdous, W. Jin, N. Shahid, Z.A. Bhatti, A. Iqbal, Ammara Abbasi, Q. Mahmood, A. Ali





Please cite this article as: Firdous S., Jin W., Shahid N., Bhatti Z.A., Iqbal A., Abbasi A., Mahmood Q., Ali A., The performance of microbial fuel cells treating vegetable oil industrial wastewater. *Environmental Technology & Innovation* (2018), https://doi.org/10.1016/j.eti.2018.02.006

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

| 1 | The performance of microbial fuel cells treating vegetable oil industrial |
|----|---|
| 2 | wastewater |
| 3 | S. Firdous ¹ , W. Jin ^{*†2} , N. Shahid ³ , Z.A. Bhatti ¹ , A. Iqbal ¹ , |
| 4 | Ammara Abbasi ¹ , Q. Mahmood* ^{‡1} , A. Ali ⁴ |
| 5 | |
| 6 | ¹ Department of Environmental Sciences, COMSATS Institute of Information Technology, Abbotabad |
| 7 | 22060, Pakistan |
| 8 | ² College of Agriculture and Biology, Shanghai Jiao Tong University, Shanghai 200240, China |
| 9 | ³ Department of Environmental Sciences, COMSATS Institute of Information Technology, Vehari, |
| 10 | Pakistan |
| 11 | ⁴ Military College of Engineering (MCE), National University of Sciences and Technology |
| 12 | (NUST) Risalpur Campus, KPK, Pakistan-24080 22060, |
| 13 | |
| | |

14 Abstract

The safe disposal of contaminated water has always remained a global challenge to environmentalists. To rectify wastewater pollution, current treatment technologies are not enough sustainable to meet the ever growing water sanitation needs. However, microbial fuel cell (MFC) is an emerging technology, not only treats wastewater but also generates electric energy. In this study, we investigated the electricity generation by a dual chambered MFC during wastewater treatment of vegetable oil industries from Hattar Industrial Estate, Pakistan. The MFC was operated under laboratory conditions

^{*} Corresponding author, Email: <u>mahmoodzju@gmail.com</u>, Tel: 092-992-383591, Fax: 092992383441

Corresponding author, Email: wangjin100@sjtu.edu.cn

Download English Version:

https://daneshyari.com/en/article/8857984

Download Persian Version:

https://daneshyari.com/article/8857984

Daneshyari.com