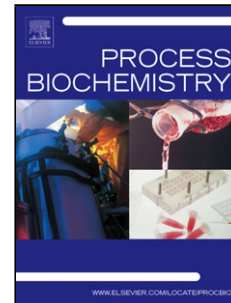


Accepted Manuscript

Title: Enhanced anaerobic digestibility of waste activated sludge by plant-derived biosurfactant

Author: Aijuan Zhou Haichao Luo Cristiano Varrone
Youzhao Wang Wenzong Liu Aijie Wang Xiuping Yue



PII: S1359-5113(15)00258-5
DOI: <http://dx.doi.org/doi:10.1016/j.procbio.2015.04.023>
Reference: PRBI 10423

To appear in: *Process Biochemistry*

Received date: 14-3-2015
Revised date: 24-4-2015
Accepted date: 30-4-2015

Please cite this article as: Zhou A, Luo H, Varrone C, Wang Y, Liu W, Wang A, Yue X, Enhanced anaerobic digestibility of waste activated sludge by plant-derived biosurfactant, *Process Biochemistry* (2015), <http://dx.doi.org/10.1016/j.procbio.2015.04.023>

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.

Enhanced anaerobic digestibility of waste activated sludge by plant-derived biosurfactant

Aijuan Zhou ¹, Haichao Luo ², Cristiano Varrone ³, Youzhao Wang ⁴, Wenzong Liu ⁵,
Aijie Wang ^{2,5} and Xiuping Yue ^{1,*}

¹ College of Environmental Science and Engineering, Taiyuan University of Technology,
Taiyuan, China

² State Key Laboratory of Urban Water Resource and Environment, Harbin Institute of
Technology (SKLUWRE, HIT), Harbin, China

³ Section for Sustainable Biotechnology, Aalborg University Copenhagen, Denmark

⁴ School of Mechanical Engineering and Automation, Northeastern University, Shenyang,
China

⁵ Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences,
Beijing, China

***Corresponding author:** College of Environmental Science and Engineering, Taiyuan
University of Technology, Taiyuan 030024, China

E-mail: yuexiuping@tyut.edu.cn; Tel./fax: +86 0351-6010214;

Abstract

To improve anaerobic digestibility of waste activated sludge (WAS), a novel treatment was explored by a plant-derived biosurfactant (saponin biosurfactant (SB)). SB showed positive effects on WAS hydrolysis and acidogenesis with increasing concentration, but was insignificant at dosage > 0.20 g SB /g total suspended solids (TSS). Soluble protein

Download English Version:

<https://daneshyari.com/en/article/10235238>

Download Persian Version:

<https://daneshyari.com/article/10235238>

[Daneshyari.com](https://daneshyari.com)