## Accepted Manuscript

Title: Bioaugmentation of chlorothalonil-contaminated soil with hydrolytically or reductively dehalogenating strain and its effect on soil microbial community

Authors: Xi-Hui Xu, Xiao-Mei Liu, Long Zhang, Yang Mu, Xu-Yuan Zhu, Jing-Ya Fang, Shun-Peng Li, Jian-Dong Jiang

PII: S0304-3894(18)30146-8

DOI: https://doi.org/10.1016/j.jhazmat.2018.03.002

Reference: HAZMAT 19222

To appear in: Journal of Hazardous Materials

Received date: 9-10-2017 Revised date: 2-3-2018 Accepted date: 3-3-2018

Please cite this article as: Xu X-H, Liu X-M, Zhang L, Mu Y, Zhu X-Y, Fang J-Y, Li S-P, Jiang J-D, Bioaugmentation of chlorothalonil-contaminated soil with hydrolytically or reductively dehalogenating strain and its effect on soil microbial community, *Journal of Hazardous Materials* (2010), https://doi.org/10.1016/j.jhazmat.2018.03.002

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

# Bioaugmentation of chlorothalonil-contaminated soil with hydrolytically or reductively dehalogenating strain and its effect on soil microbial community

Xi-Hui  $Xu^{a,\dagger}$ , Xiao-Mei  $Liu^{a,b,\dagger}$ , Long Zhang<sup>a</sup>, Yang Mu<sup>a</sup>, Xu-Yuan Zhu<sup>a</sup>, Jing-Ya, Fang<sup>a</sup>, Shun-Peng  $Li^a$ , Jian-Dong Jiang<sup>a,c,\*</sup>

<sup>a</sup>Department of Microbiology, Key Lab of Environmental Microbiology for Agriculture, Ministry of Agriculture, College of Life Sciences, Nanjing Agricultural University, 210095, Nanjing, China.

<sup>b</sup>College of Food Science and Engineering, Inner Mongolia Agricultural University, 010018, Hohhot, China.

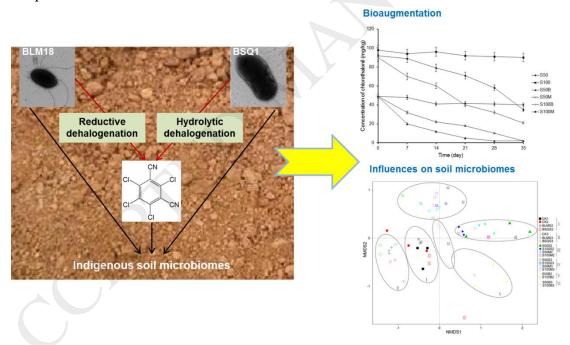
<sup>c</sup>Jiangsu Key Lab for Solid Organic Waste Utilization, 210095, Nanjing, China.

#### \*Corresponding author:

Jian-Dong Jiang

Tel.: 0086-025-84399726 Fax: 0086-025-84399726 E-mail: jiang\_jjd@njau.edu.cn

#### Graphical abstract



#### Highlights:

- Bioremediation through hydrolytic dehalogenation showed better effects.
- The TPN treatment decreased bacterial richness and diversity.
- The TPN treatment was the main force shifting the indigenous consortia.
- Bioaugmentation may affect soil microcosms depending on the inoculated strain.

<sup>&</sup>lt;sup>†</sup>Both authors contributed equally to this paper.

#### Download English Version:

## https://daneshyari.com/en/article/6968755

Download Persian Version:

https://daneshyari.com/article/6968755

<u>Daneshyari.com</u>