Accepted Manuscript



Title: Removal and metabolism of triclosan by three different microalgal species in aquatic environment

Authors: Shujuan Wang, Karen Poon, Zongwei Cai

PII:	S0304-3894(17)30685-4
DOI:	http://dx.doi.org/10.1016/j.jhazmat.2017.09.004
Reference:	HAZMAT 18850
To appear in:	Journal of Hazardous Materials
Received date:	31-5-2017
Revised date:	2-9-2017
Accepted date:	4-9-2017

Please cite this article as: Shujuan Wang, Karen Poon, Zongwei Cai, Removal and metabolism of triclosan by three different microalgal species in aquatic environment, Journal of Hazardous Materialshttp://dx.doi.org/10.1016/j.jhazmat.2017.09.004

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

Removal and metabolism of triclosan by three different microalgal species in aquatic environment

Shujuan Wang^{a,b,d}, Karen Poon^d, Zongwei Cai^{a,c,*}

^a State Key Laboratory of Environmental and Biological Analysis, Department of Chemistry, Hong Kong Baptist University, Hong Kong SAR, China.

^b State Key Laboratory of Proteomics, Beijing Proteome Research Center, National Center for Protein Sciences-Beijing, Beijing, China

^c School of Environmental Science and Engineering, Guangdong University of Technology, Guangzhou, China.

^d Beijing Normal University-Hong Kong Baptist University United International College, Zhuhai, China.

Corresponding author. Tel.: +852 34117070; fax: +852 34117348. *E-mail address*: zwcai@hkbu.edu.hk (Z. Cai).

Highlights

- Triclosan was removed with high efficiency during the treatment by algae.
- Triclosan was reductively dechlorinated by two common algal species.
- Biotransformation products of triclosan by algal in aqueous environment were identified.
- Removal mechanisms of triclosan by algae were mainly cellular uptake and biotransformation.
- Metabolic pathway was proposed.

Download English Version:

https://daneshyari.com/en/article/4979125

Download Persian Version:

https://daneshyari.com/article/4979125

Daneshyari.com