

Accepted Manuscript

Title: Impact of biosolid application rates on competitive sorption and distribution coefficients of Cd, Cu, Ni, Pb, and Zn in an Alfisol and an Entisol

Authors: Sabry M. Shaheen, Christos D. Tsadilas, Nabeel Khan Niazi, Zeng-Yei Hseu, Yong Sik Ok, Magdi Selim, Jörg Rinklebe

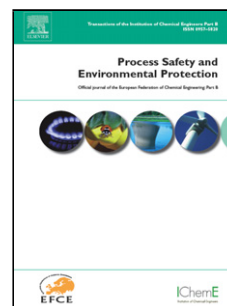
PII: S0957-5820(17)30348-8
DOI: <https://doi.org/10.1016/j.psep.2017.10.013>
Reference: PSEP 1210

To appear in: *Process Safety and Environment Protection*

Received date: 7-6-2017
Revised date: 26-9-2017
Accepted date: 16-10-2017

Please cite this article as: Shaheen, Sabry M., Tsadilas, Christos D., Niazi, Nabeel Khan, Hseu, Zeng-Yei, Ok, Yong Sik, Selim, Magdi, Rinklebe, Jörg, Impact of biosolid application rates on competitive sorption and distribution coefficients of Cd, Cu, Ni, Pb, and Zn in an Alfisol and an Entisol. *Process Safety and Environment Protection* <https://doi.org/10.1016/j.psep.2017.10.013>

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.



Impact of biosolid application rates on competitive sorption and distribution coefficients of Cd, Cu, Ni, Pb, and Zn in an Alfisol and an Entisol

Sabry M. Shaheen^{1,2}, Christos D. Tsadilas³, Nabeel Khan Niazi^{4,5}, Zeng-Yei Hseu⁶, Yong Sik Ok^{2,7}, Magdi Selim⁸, Jörg Rinklebe^{2,9*}

¹ University of Kafrelsheikh, Faculty of Agriculture, Department of Soil and Water Sciences, 33 516 Kafr El-Sheikh, Egypt, E-mail: smshaheen@agr.kfs.edu.eg

² University of Wuppertal, School of Architecture and Civil Engineering, Institute of Foundation Engineering, Water- and Waste-Management, Laboratory of Soil- and Groundwater-Management, Pauluskirchstraße 7, 42285 Wuppertal, Germany, E-mail: rinklebe@uni-wuppertal.de

³ Hellenic Agricultural Organization, Institute of Industrial and Forage Crops, 1 Theophrastos street, 413 35 Larissa, Greece, E-mail: christotsadilas@gmail.com

⁴ Institute of Soil and Environmental Sciences, University of Agriculture Faisalabad, Faisalabad 38040, Pakistan, E-mail: nabeelkniazi@gmail.com;

⁵ MARUM and Department of Geosciences, University of Bremen, Bremen D-28359, Germany

⁶ Department of Agricultural Chemistry, National Taiwan University, 1 Sect. 4, Roosevelt Rd., Taipei 10617, Taiwan

⁷ Korea Biochar Research Center, O-Jeong Eco-Resilience Institute (OJERI) & Division of Environmental Science and Ecological Engineering, Korea University, Seoul 02841, Korea

⁸ Louisiana State University, School of Plant, Environmental, and Soil Sciences, Baton Rouge, LA 70803, USA, e-mail: mselim@agctr.lsu.edu

⁹ Department of Environment and Energy, Sejong University, Seoul 05006, Korea

*Corresponding author: Phone: ++49 202 439 4057, Fax: ++49 202 439 4196; E-mail: rinklebe@uni-wuppertal.de

Download English Version:

<https://daneshyari.com/en/article/6974101>

Download Persian Version:

<https://daneshyari.com/article/6974101>

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