

Accepted Manuscript

New use for spent coffee ground as an adsorbent for tetracycline removal in water

Yingjie Dai, Kexin Zhang, Xianbing Meng, Jingjing Li, Xueting Guan, Qiya Sun, Yue Sun, Wensi Wang, Mu Lin, Mei Liu, Shengshu Yang, Yanjun Chen, Feng Gao, Xu Zhang, Zhihua Liu



PII: S0045-6535(18)31813-7

DOI: [10.1016/j.chemosphere.2018.09.150](https://doi.org/10.1016/j.chemosphere.2018.09.150)

Reference: CHEM 22230

To appear in: *ECSN*

Received Date: 17 July 2018

Revised Date: 19 September 2018

Accepted Date: 25 September 2018

Please cite this article as: Dai, Y., Zhang, K., Meng, X., Li, J., Guan, X., Sun, Q., Sun, Y., Wang, W., Lin, M., Liu, M., Yang, S., Chen, Y., Gao, F., Zhang, X., Liu, Z., New use for spent coffee ground as an adsorbent for tetracycline removal in water, *Chemosphere* (2018), doi: <https://doi.org/10.1016/j.chemosphere.2018.09.150>.

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.

1 **New use for spent coffee ground as an adsorbent for**
2 **tetracycline removal in water**

3
4 **Yingjie Dai^{1,2}, Kexin Zhang¹, Xianbing Meng¹, Jingjing Li¹, Xueting Guan³, Qiya Sun¹,**
5 **Yue Sun¹, Wensi Wang¹, Mu Lin¹, Mei Liu⁴, Shengshu Yang⁴, Yanjun Chen¹,**
6 **Feng Gao¹, Xu Zhang¹ and Zhihua Liu^{1,5*}**

7
8 ¹*Laboratory of Environmental Remediation, College of Resources and Environment,*
9 *Northeast Agricultural University, NO.600 Changjiang Road, Xiangfang District, Harbin*
10 *150030, China*

11 ²*Key Laboratory of Original Agro-Environmental Pollution Prevention and Control,*
12 *Ministry of Agriculture/Tianjin Key Laboratory of Agro-environment and Safe-product,*
13 *NO.31 Fukang Road, Nankai District, Tianjin 300191, China*

14 ³*College of Animal Science and Technology, Northeast Agricultural University, NO.600*
15 *Changjiang Road, Xiangfang District, Harbin 150030, China*

16 ⁴*Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, NO.18,*
17 *Shuang Qing Road, Haidian District, Beijing 100085, China*

18 ⁵*State Key Laboratory of Soil and Sustainable Agriculture,*
19 *Institute of Soil Science, Chinese Academy of Sciences, NO.71 East Beijing Road, Nanjing,*
20 *210008, China*

21
22 **Abstract**

23 Spent coffee grounds (SCG-1 and SCG-2) were used to study the adsorption of
24 tetracycline (TC) antibiotics and the effects of adsorption time, initial pH, amount of
25 adsorbent and ionic strength were detected. The TC adsorption isotherm on SCG-1 was

Download English Version:

<https://daneshyari.com/en/article/11010223>

Download Persian Version:

<https://daneshyari.com/article/11010223>

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