### Accepted Manuscript

Ultrafiltration membrane microreactor (MMR) for simultaneous removal of nitrate and phosphate from water

Qiang Gao, Cheng-Zhai Wang, Sheng Liu, David Hanigan, Si-Tong Liu, Hua-Zhang Zhao

PII: \$1385-8947(18)31611-5

DOI: https://doi.org/10.1016/j.cej.2018.08.137

Reference: CEJ 19751

To appear in: Chemical Engineering Journal

Received Date: 13 June 2018
Revised Date: 18 August 2018
Accepted Date: 21 August 2018



Please cite this article as: Q. Gao, C-Z. Wang, S. Liu, D. Hanigan, S-T. Liu, H-Z. Zhao, Ultrafiltration membrane microreactor (MMR) for simultaneous removal of nitrate and phosphate from water, *Chemical Engineering Journal* (2018), doi: https://doi.org/10.1016/j.cej.2018.08.137

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**

# $\label{eq:continuous} \begin{tabular}{ll} Ultrafiltration membrane microreactor (MMR) for simultaneous removal of \\[1mm] nitrate and phosphate from water \end{tabular}$

Qiang Gao<sup>a</sup>, Cheng-Zhai Wang<sup>b,c</sup>, Sheng Liu<sup>b,c</sup>, David Hanigan<sup>d</sup>, Si-Tong Liu<sup>b,c</sup>,
Hua-Zhang Zhao<sup>b,c,\*</sup>

- <sup>a</sup> Qinghai University, State Key Lab Plateau Ecology and Agriculture, Xining 810016,
   Qinghai, People's Republic of China.
- b College of Environmental Sciences and Engineering, Peking University, Beijing
   100871, People's Republic of China
- <sup>c</sup> The Key Laboratory of Water and Sediment Sciences, Ministry of Education, Beijing 100871, People's Republic of China
- <sup>d</sup> Department of Civil and Environmental Engineering, University of Nevada, Reno, NV 89557-0258, USA

Tel/fax: +86-10-62758748; email address: <u>zhaohuazhang@pku.edu.cn</u> (H.Z. Zhao)

<sup>\*</sup> Corresponding author.

#### Download English Version:

## https://daneshyari.com/en/article/8946811

Download Persian Version:

https://daneshyari.com/article/8946811

<u>Daneshyari.com</u>