

Accepted Manuscript

Title: Novel nanofibers mat as an efficient, fast and reusable adsorbent for solid phase extraction of non-steroidal anti-inflammatory drugs in environmental water

Authors: Ningge Jian, Liangliang Qian, Chunmin Wang, Ruixian Li, Qian Xu, Jian Li



PII: S0304-3894(18)30846-X
DOI: <https://doi.org/10.1016/j.jhazmat.2018.09.052>
Reference: HAZMAT 19776

To appear in: *Journal of Hazardous Materials*

Received date: 16-5-2018
Revised date: 17-8-2018
Accepted date: 20-9-2018

Please cite this article as: Jian N, Qian L, Wang C, Li R, Xu Q, Li J, Novel nanofibers mat as an efficient, fast and reusable adsorbent for solid phase extraction of non-steroidal anti-inflammatory drugs in environmental water, *Journal of Hazardous Materials* (2018), <https://doi.org/10.1016/j.jhazmat.2018.09.052>

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.

Novel nanofibers mat as an efficient, fast and reusable adsorbent for solid phase extraction of non-steroidal anti-inflammatory drugs in environmental water

Ningge Jian^a, Liangliang Qian^a, Chunmin Wang^b, Ruixian Li^a, Qian Xu^{a*}, Jian Li^{b*}

^a Key Laboratory of Environmental Medicine Engineering, Ministry of Education, School of Public Health, Southeast University, Nanjing 210009, China

^b Suzhou Municipal Center for Disease Prevention and Control, Suzhou 215004, China

***Corresponding to:**

Qian Xu. Tel.: +86 025 83272563; E-mail: q_xu68@163.com, 101006213@seu.edu.cn; fax: +86 025 83204231.

Jian Li. Tel.: +86 18962168852; E-mail: 1055729273@qq.com.

Highlights:

- Superior adsorption and desorption performance of PANI/PAN NFsM was confirmed.
- PANI/PAN NFsM was considered as ideal adsorbent for fast and efficient extraction of NSAIDs.
- The excellent reusability made PANI/PAN NFsM valuable in practical application.
- Practical feasibility was validated through the actual sample analysis.

Abstract

Core-shell polyaniline/polyacrylonitrile nanofibers mat (PANI/PAN NFsM) was prepared for extraction of hydrophilic non-steroidal anti-inflammatory drugs (NSAIDs) in environmental water. Superior adsorption and desorption performance of PANI/PAN NFsM was confirmed by both static and dynamic adsorption/desorption experiments. These properties proved PANI/PAN NFsM was a potentially efficient

Download English Version:

<https://daneshyari.com/en/article/11009890>

Download Persian Version:

<https://daneshyari.com/article/11009890>

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