Author's Accepted Manuscript

Metal-organic framework-based moleculary imprinted polymer as a high sensitive and selective hybrid for the determination of dopamine in injections and human serum samples

Wanqing Zhang, Dawei Duan, Shanqin Liu, Yongsheng Zhang, Leipeng Leng, Xinli Li, Na Chen, Yuping Zhang



www.elsevier.com/locate/bios

PII: S0956-5663(18)30549-9

DOI: https://doi.org/10.1016/j.bios.2018.07.047

Reference: BIOS10636

To appear in: Biosensors and Bioelectronic

Received date: 8 June 2018 Revised date: 23 July 2018 Accepted date: 24 July 2018

Cite this article as: Wanqing Zhang, Dawei Duan, Shanqin Liu, Yongsheng Zhang, Leipeng Leng, Xinli Li, Na Chen and Yuping Zhang, Metal-organic framework-based moleculary imprinted polymer as a high sensitive and selective hybrid for the determination of dopamine in injections and human serum samples, *Biosensors and Bioelectronic*, https://doi.org/10.1016/j.bios.2018.07.047

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 galley proof before it is published in its final citable 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

Metal-organic framework-based moleculary imprinted polymer as a high sensitive and selective hybrid for the determination of dopamine in injections and human serum samples

Wanqing Zhang ^{a,*}, Dawei Duan^a, Shanqin Liu^a, Yongsheng Zhang ^b, Leipeng Leng^a, Xinli Li^a, Na Chen^a, Yuping Zhang ^{a,*}

^a School of Chemistry and Chemical Engineering, Henan Institute of Science and Technology, Xinxiang, 453003, China

^b School of Chemical Engineering and Energy, Zhengzhou University, Zhengzhou 450001, China

*Corresponding author. Fax: +86-0373-3040933,

E-mail address: zhangwqzzu@163.com and beijing2008zyp@163.com (Y. P. Zhang).

Abstract: A highly sensitive and selective molecular imprinting polymer (MIP) sensor was fabricated based on polypyrrole (PPy)/ZIF-67/Nafion hybrid modified glassy carbon electrode (GCE) for the determination of dopamine (DA). The ZIF-67 material was facilely prepared by using hydrothermal synthesis method; subsequently, the PPy/ZIF-67/Nafion hybrid was obtained through a one-pot synthesis method. The physical properties of the materials and the modified sensors were investigated by using X-ray powder diffraction (XRD), Fourier transform infrared spectroscopy (FTIR), Nitrogen adsorption-desorption isothermal (BET), X-ray photoelectron spectroscopy (XPS), Scanning electron microscope (SEM) and Atomic force

Download English Version:

https://daneshyari.com/en/article/7228930

Download Persian Version:

https://daneshyari.com/article/7228930

<u>Daneshyari.com</u>