Accepted Manuscript

Title: Ultrasensitive SERS Detection of Propranolol Based on Sandwich Nanostructure of Molecular Imprinting Polymers

Authors: Yajiao Liu, Jingjing Bao, Lei Zhang, Chen Chao, Jianjun Guo, Yuchuan Cheng, Yuejin Zhu, Gaojie Xu

PII: S0925-4005(17)31441-7

DOI: http://dx.doi.org/doi:10.1016/j.snb.2017.08.018

Reference: SNB 22885

To appear in: Sensors and Actuators B

Received date: 2-3-2017 Revised date: 31-7-2017 Accepted date: 2-8-2017

Please cite this article as: Yajiao Liu, Jingjing Bao, Lei Zhang, Chen Chao, Jianjun Guo, Yuchuan Cheng, Yuejin Zhu, Gaojie Xu, Ultrasensitive SERS Detection of Propranolol Based on Sandwich Nanostructure of Molecular Imprinting Polymers, Sensors and Actuators B: Chemicalhttp://dx.doi.org/10.1016/j.snb.2017.08.018

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

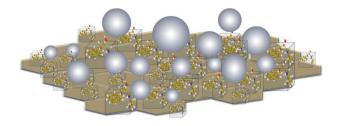
Ultrasensitive SERS Detection of Propranolol Based on Sandwich Nanostructure of Molecular Imprinting Polymers

Yajiao Liu $^a,\,^b,$ Jingjing Bao a, Lei Zhang a, Chen Chao a, Jianjun Guo a, Yuchuan Cheng**a, Yuejin Zhu b, and Gaojie Xu a

*E-mail: yccheng@nimte.ac.cn

Graphical Abstract

A novel sandwich nanostructure, consisting of graphene oxide/molecular imprinting polymers, target propranolol, and sliver nanoparticles, exhibits excellent selectivity and sensitivity in complex system



Highlights

- The novel sandwich nanostructure sensor was composed of graphene oxide/molecular imprinting polymers, target molecules, and sliver nanoparticles
- The macroporous graphene oxide/molecular imprinting polymers layer not only enriched PRO molecules and Ag NPs, but also provided the secondary scattering light to produce the additional Raman signal
- The nanostructure exhibited excellent sensitivity for propranolol, which makes the limit of detection as low as 10⁻¹¹ mol/L

^a Zhejiang Key Laboratory of Additive Manufacturing Materials, Ningbo Institute of Materials Technology & Engineering, Chinese Academy of Sciences, Ningbo 315201, P. R. China ^b Department of Microelectronic Science and Engineering, Faculty of Science, Ningbo University, Ningbo 315211, P. R. China.

دريافت فورى ب متن كامل مقاله

ISIArticles مرجع مقالات تخصصی ایران

- ✔ امكان دانلود نسخه تمام متن مقالات انگليسي
 - ✓ امكان دانلود نسخه ترجمه شده مقالات
 - ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
 - ✓ امكان دانلود رايگان ۲ صفحه اول هر مقاله
 - ✔ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
 - ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات