Accepted Manuscript

Title: Ultra-sensitive and ultra-fast detection of whole unlabeled living cancer cell responses to paclitaxel with a graphene-based biosensor

Authors: Yijia Wang, Shiwu Zhang, Ting Xu, Tonglin Zhang, Yuru Mo, Jun Liu, Liqun Yan, Fei Xing

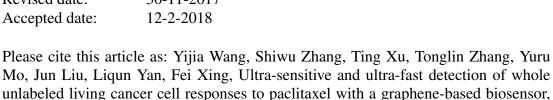
PII: S0925-4005(18)30373-3

DOI: https://doi.org/10.1016/j.snb.2018.02.095

Reference: SNB 24190

To appear in: Sensors and Actuators B

Received date: 11-9-2017 Revised date: 30-11-2017 Accepted date: 12-2-2018



Sensors and Actuators B: Chemical https://doi.org/10.1016/j.snb.2018.02.095

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

Ultra-sensitive and ultra-fast detection of whole unlabeled living cancer cell responses to paclitaxel with a graphene-based biosensor

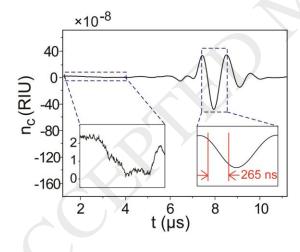
Yijia Wang, ¹ Shiwu Zhang, ¹ Ting Xu, ² Tonglin Zhang, ² Yuru Mo, ² Jun Liu, ¹* Liqun Yan, ²* Fei Xing, ¹, ², ³*

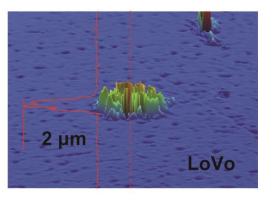
- 1 Tianjin Union Medical Center, Tianjin 300121, China
- 2 Optoelectronics Research Centre, Beijing Carbon Century Technology Co., Ltd., Beijing 100071, China
- 3 The Key Laboratory of Weak Light Nonlinear Photonics, Ministry of Education, Teda Applied Physics School and School of Physics, Nankai University, Tianjin 300071, China

Corresponding Author

Jun Liu: junliu_sci@163.com; Liqun Yan: yanlq@bgcct.com; Fei Xing: 370027468@qq.com.

Graphical abstract





Highlights

- A label-free, ultra-sensitive, ultra-fast cell biosensor was first established.
- The detection depth is the highest reported for entire cancer cell sensing.
- Responses of entire cancer cell to anti-cancer drugs were accurately detected.
- Novel responses were discovered and examined by conventional biological assays.

Download English Version:

https://daneshyari.com/en/article/7140439

Download Persian Version:

https://daneshyari.com/article/7140439

<u>Daneshyari.com</u>