

Author's Accepted Manuscript

A direct “touch” approach for gold nanoflowers decoration on graphene/ionic liquid composite modified electrode with good properties for sensing bisphenol A

Shaogui He, Ying Ma, Jieyi Zhou, Jun Zeng, Xiaofen Liu, Zhiyong Huang, Xiaomei Chen, Xi Chen



PII: S0039-9140(18)30908-1
DOI: <https://doi.org/10.1016/j.talanta.2018.08.093>
Reference: TAL19014

To appear in: *Talanta*

Received date: 15 June 2018
Revised date: 27 August 2018
Accepted date: 31 August 2018

Cite this article as: Shaogui He, Ying Ma, Jieyi Zhou, Jun Zeng, Xiaofen Liu, Zhiyong Huang, Xiaomei Chen and Xi Chen, A direct “touch” approach for gold nanoflowers decoration on graphene/ionic liquid composite modified electrode with good properties for sensing bisphenol A, *Talanta*, <https://doi.org/10.1016/j.talanta.2018.08.093>

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.

**A direct “touch” approach for gold nanoflowers decoration
on graphene/ionic liquid composite modified electrode with good
properties for sensing bisphenol A**

Shaogui He,^{a†} Ying Ma,^{b†} Jieyi Zhou,^b Jun Zeng,^b Xiaofen Liu,^c Zhiyong Huang,^b
Xiaomei Chen,^{b,*} Xi Chen^d

^aDepartment of Science and Technology for Inspection, Xiamen Huaxia University,
Xiamen, 361024, China

^bCollege of Food and Biological Engineering, Jimei University, Xiamen, 361021,
China

^cXiamen Maternal and Child Health Care Hospital, Xiamen, 361003, China

^dState Key Laboratory of Marine Environmental Science, College of Chemistry and
Chemical Engineering, Xiamen University, Xiamen, 361005, China

Abstract

In the present work, a direct “touch” method was developed for attaching AuNPs with clean surface on the graphene-ionic liquid modified glassy carbon electrode (G-IL GCE). The morphology and composition of the thus-prepared AuNPs on G-IL GCE were characterized by scanning electron microscopy, energy-dispersive X-ray spectroscopy and X-ray photoelectron spectroscopy. The results showed that AuNPs with interesting flower-like shapes are well dispersed on the G-IL film. Significantly, as it is a surfactant-free synthesis, the AuNPs are very clean and can be directly modified on a G-IL GCE without any pre-treatments. Comparing with the bare or

* Corresponding author. Fax: 86 592 6180470; Tel: 86 592 6181487

† These authors contributed equally to this work.

E-mail address: xmchen@jmu.edu.cn

Download English Version:

<https://daneshyari.com/en/article/10128023>

Download Persian Version:

<https://daneshyari.com/article/10128023>

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