

Accepted Manuscript

Title: Insights into the morphological and structural particularities of highly sensitive porous bismuth-carbon nanocomposites based electrochemical sensors

Authors: Mihai M. Rusu, Carmen I. Fort, Liviu C. Cotet, Adriana Vulpoi, Milica Todea, Graziella L. Turdean, Virginia Danciu, Ionel Catalin Popescu, Lucian Baia



PII: S0925-4005(18)30807-4
DOI: <https://doi.org/10.1016/j.snb.2018.04.103>
Reference: SNB 24579

To appear in: *Sensors and Actuators B*

Received date: 10-10-2017
Revised date: 4-4-2018
Accepted date: 21-4-2018

Please cite this article as: Mihai M.Rusu, Carmen I.Fort, Liviu C.Cotet, Adriana Vulpoi, Milica Todea, Graziella L.Turdean, Virginia Danciu, Ionel Catalin Popescu, Lucian Baia, Insights into the morphological and structural particularities of highly sensitive porous bismuth-carbon nanocomposites based electrochemical sensors, *Sensors and Actuators B: Chemical* <https://doi.org/10.1016/j.snb.2018.04.103>

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.

Insights into the morphological and structural particularities of highly sensitive porous bismuth-carbon nanocomposites based electrochemical sensors

Mihai M. Rusu^{a,b} §, Carmen I. Fort^{c§*}, Liviu C. Cotet^c, Adriana Vulpoi^a, Milica Todea^a, Graziella L. Turdean^c, Virginia Danciu^c, Ionel Catalin Popescu^c, Lucian Baia^{a,b*}

^aDepartment of Condensed Matter Physics and Advanced Technologies, Faculty of Physics, “Babes-Bolyai” University, M. Kogalniceanu 1, RO-400084 Cluj-Napoca (Romania)

^bNanostructured Materials and Bio-Nano-Interfaces Center, Institute of Interdisciplinary Research in Bio-Nano-Sciences, “Babes-Bolyai” University, T. Laurean 42, RO-400271 Cluj-Napoca (Romania)

^cLaboratory of Electrochemical Research and Nonconventional Materials, Department of Chemical Engineering, Faculty of Chemistry and Chemical Engineering, “Babes-Bolyai” University, Arany Janos 11, RO-400028 Cluj-Napoca (Romania)

§ First authors; * Corresponding authors

E-mail: iladiu@chem.ubbcluj.ro, lucian.baia@phys.ubbcluj.ro, Tel: +40-264-591998

Highlights

- For Cd^{II} detection the highest sensitivity & the lowest LD ever reported were found
- Materials properties were correlated with their electroanalytical behavior
- Sensitive, reproducible & stable sensors for Pb^{II} & Cd^{II} simultaneous detection

Download English Version:

<https://daneshyari.com/en/article/7139342>

Download Persian Version:

<https://daneshyari.com/article/7139342>

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