Accepted Manuscript

Porous reduced graphene oxide modified electrodes for the analysis of protein aggregation. Part 2: Application to the analysis of calcitonin containing pharmaceutical formulation

Alina Vasilescu, Ran Ye, Samia Boulahneche, Sabrina Lamraoui, Roxana Jijie, Mohamed Salah Medjram, Szilveszter Gaspar, Santosh K. Singh, Sreekumar Kurungot, Sorin Melinte, Rabah Boukherroub, Sabine Szunerits

PII: S0013-4686(18)30320-7

DOI: 10.1016/j.electacta.2018.02.038

Reference: EA 31233

To appear in: Electrochimica Acta

Received Date: 14 December 2017

Revised Date: 5 February 2018

Accepted Date: 6 February 2018

Please cite this article as: A. Vasilescu, R. Ye, S. Boulahneche, S. Lamraoui, R. Jijie, M.S. Medjram, S. Gaspar, S.K. Singh, S. Kurungot, S. Melinte, R. Boukherroub, S. Szunerits, Porous reduced graphene oxide modified electrodes for the analysis of protein aggregation. Part 2: Application to the analysis of calcitonin containing pharmaceutical formulation, *Electrochimica Acta* (2018), doi: 10.1016/ j.electacta.2018.02.038.

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.



Porous reduced graphene oxide modified electrodes for the analysis of protein aggregation. Part 2: Application to the analysis of calcitonin containing pharmaceutical formulation

Alina Vasilescu,^{a*} Ran Ye,^b Samia Boulahneche,^{c,d} Sabrina Lamraoui,^{c,d} Roxana Jijie,^c Mohamed Salah Medjram,^d Szilveszter Gaspar,^a Santosh K. Singh,^{e,f} Sreekumar Kurungot, ^{e,f} Sorin Melinte,^b Rabah Boukherroub,^c Sabine Szunerits^{c*}

^a International Center of Biodynamics, 1B Intrarea Portocalelor, Bucharest 060101, Romania

^b Institute of Information and Communication Technologies, Electronics and Applied Mathematics, Université catholique de Louvain, 1348 Louvain-la-Neuve, Belgium

^c Univ. Lille, CNRS, Centrale Lille, ISEN, Univ. Valenciennes, UMR 8520-IEMN, F-59000 Lille, France

^d Laboratoire de Génie Chimique et Environnement de Skikda (LGCES), Université 20 Août 1955-Skikda, Algérie.

^e Physical and Materials Chemistry Division, CSIR-National Chemical Laboratory, Dr. Homi Bhabha Road, Pune 411008, India

^f Academy of Scientific and Innovative Research, Anusandhan Bhawan, 2 RafiMarg, New Delhi 110 001, India

ABSTRACT

In part 1 (A. Vasilescu et al, Porous reduced graphene oxide modified electrodes for the analysis of protein aggregation. Part 1: Lysozyme aggregation at pH 2 and 7.4 Electrochem. Acta, 254 (2017) 375-383) we proposed porous reduced graphene oxide coated glassy carbon electrode (GC/prGO) in combination with differential pulse voltammetry as a new analytical tool for aggregation studies of proteins. Lysozyme was used as a model to follow its aggregation by electrochemical means at pH 2 and pH 7.4, leading to the formation of

^{*}Corresponding authors: avasilescu@biodyn.ro and sabine.szunerits@univ-lille1.fr

Download English Version:

https://daneshyari.com/en/article/6604045

Download Persian Version:

https://daneshyari.com/article/6604045

Daneshyari.com