

## Accepted Manuscript

Title: Bipolar Electrochemical Detection of Reducing Compounds Based on Visual Observation of a Metal Electrodeposited Track at the Onset Driving Voltage

Authors: Antonios P. Hadjixenis, Jan Hrbac, Mamas I. Prodromidis



PII: S0925-4005(18)30770-6  
DOI: <https://doi.org/10.1016/j.snb.2018.04.066>  
Reference: SNB 24541

To appear in: *Sensors and Actuators B*

Received date: 25-1-2018  
Revised date: 11-4-2018  
Accepted date: 12-4-2018

Please cite this article as: Antonios P.Hadjixenis, Jan Hrbac, Mamas I.Prodromidis, Bipolar Electrochemical Detection of Reducing Compounds Based on Visual Observation of a Metal Electrodeposited Track at the Onset Driving Voltage, *Sensors and Actuators B: Chemical* <https://doi.org/10.1016/j.snb.2018.04.066>

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.

# Bipolar Electrochemical Detection of Reducing Compounds Based on Visual Observation of a Metal Electrodeposited Track at the Onset Driving Voltage

Antonios P. Hadjixenis<sup>1</sup>, Jan Hrbac<sup>2</sup>, Mamas I. Prodromidis<sup>1\*</sup>

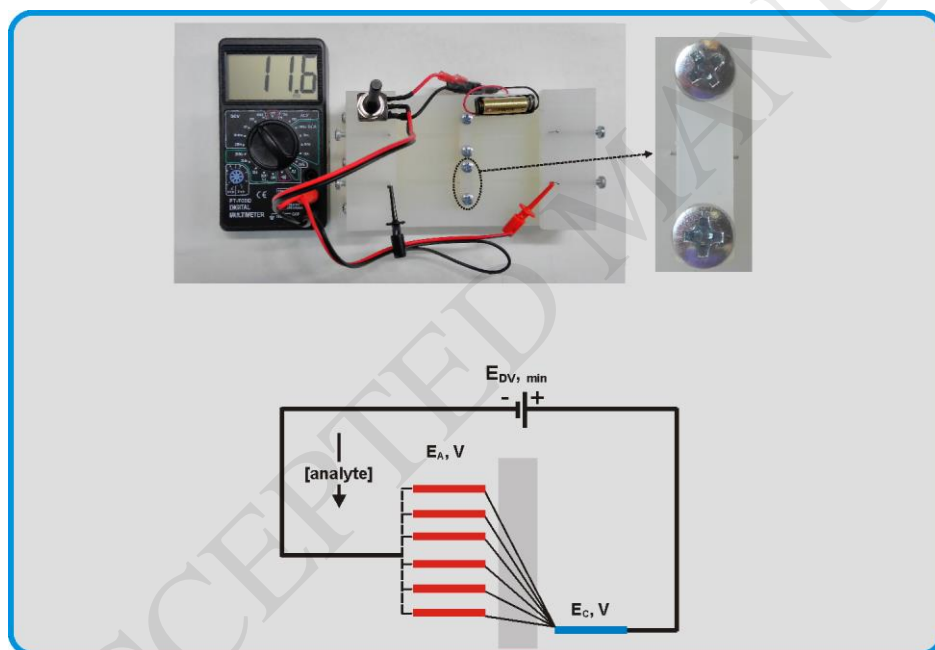
<sup>1</sup>Department of Chemistry, University of Ioannina, Ioannina 451 10, Greece

<sup>2</sup>Department of Chemistry, Masaryk University, Kamenice 5, Brno 625 00, Czech Republic

\*Corresponding author: ([mprodrom@cc.uoi.gr](mailto:mprodrom@cc.uoi.gr))

Tel: +30 26510 08301; Fax: +30 26510 08796

## Graphical Abstract:



## Highlights:

- A novel low-cost, battery-powered bipolar electrochemistry apparatus is developed
- Onset driving potential ( $E_{DV, min}$ ) is used for the first time to quantify the target
- Detection of targets is based on visual observation of a metal track at the  $E_{DV, min}$
- The device was tested for the determination of ascorbic acid and  $H_2O_2$

Download English Version:

<https://daneshyari.com/en/article/7139384>

Download Persian Version:

<https://daneshyari.com/article/7139384>

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