

Accepted Manuscript

Title: Functionalised CuO nanostructures for the detection of organophosphorus pesticides: A non-enzymatic inhibition approach coupled with nano-scale electrode engineering to improve electrode sensitivity

Authors: Mawada Mohamed Tunesi, Nazar Kalwar, Malik Waseem Abbas, Selcan Karakus, Razium Ali Soomro, Ayben Kilislioglu, Muhammad Ishaq Abro, Keith Richard Hallam

PII: S0925-4005(18)30084-4
DOI: <https://doi.org/10.1016/j.snb.2018.01.084>
Reference: SNB 23933

To appear in: *Sensors and Actuators B*

Received date: 17-9-2017
Revised date: 3-1-2018
Accepted date: 5-1-2018

Please cite this article as: Mawada Mohamed Tunesi, Nazar Kalwar, Malik Waseem Abbas, Selcan Karakus, Razium Ali Soomro, Ayben Kilislioglu, Muhammad Ishaq Abro, Keith Richard Hallam, Functionalised CuO nanostructures for the detection of organophosphorus pesticides: A non-enzymatic inhibition approach coupled with nano-scale electrode engineering to improve electrode sensitivity, *Sensors and Actuators B: Chemical* <https://doi.org/10.1016/j.snb.2018.01.084>

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.



Functionalised CuO nanostructures for the detection of organophosphorus pesticides: A non-enzymatic inhibition approach coupled with nano-scale electrode engineering to improve electrode sensitivity

Mawada Mohamed Tunesi^a, Nazar Kalwar^b, Malik Waseem Abbas^c, Selcan Karakus^a, Razium Ali Soomro^{d*}, Ayben Kilislioglu^a, Muhammad Ishaq Abro^c, Keith Richard Hallam^d

^a Department of Chemistry, Istanbul University, Istanbul, 34320, Turkey

^b Department of Mechanical Engineering, University of Selcuk, Campus, 42079 Konya, Turkey

^c National Institute for Biotechnology and Genetic Engineering (NIBGI), Faisalabad 3800, Pakistan

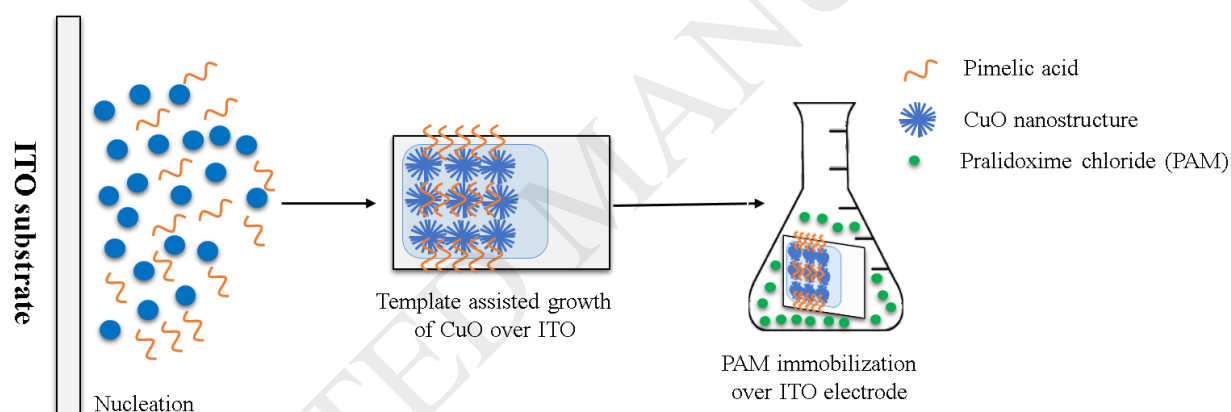
^d Interface Analysis Centre, School of Physics, University of Bristol, Bristol, BS8 1TL, UK

^e Department of Metallurgy and Materials Engineering, Mehran University of Engineering & Technology, Jamshoro 76080, Pakistan

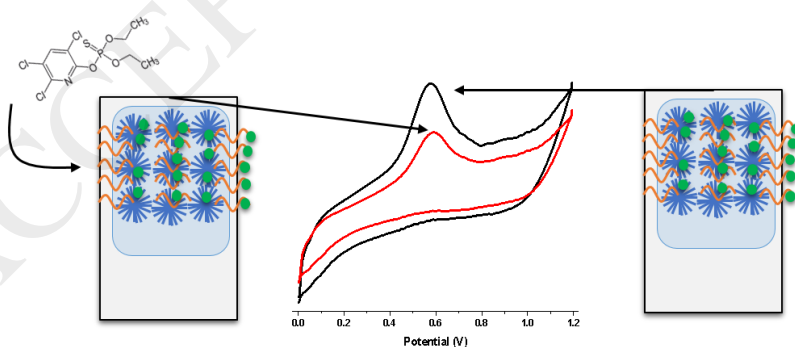
*Corresponding author. Tel.: +92 333-2761963

E-mail address Razium Ali Soomro (raziuumsoomro@gmail.com)

Graphical Abstract



Template assisted in-situ growth of CuO nanostructures



Signal inhibition of PAM immobilised electrode in the presence of chlorpyrifos

Highlights

- ❖ One pot in-situ growth and functionalization of CuO nanostructures
- ❖ Inhibition sensor for detection of pesticides

Download English Version:

<https://daneshyari.com/en/article/7140932>

Download Persian Version:

<https://daneshyari.com/article/7140932>

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