

SUPPORTING INFORMATION

Electrochemical Immunosensor for Ultra-low Detection of Human Papillomavirus Biomarker for Cervical Cancer

**Siwaphiwe Peteni¹, Okoroike C. Ozoemena^{1#}, Tobile Khawula¹, Aderemi B. Haruna¹,
Frankie J. Rawson², Leshweni J. Shai³, Oluwafunmilayo Ola^{4*}, and Kenneth I.
Ozoemena^{1,*}**

*¹Molecular science Institute, School of Chemistry, University of the Witwatersrand,
Johannesburg, South Africa*

²School of Pharmacy, Biodiscovery Institute, University of Nottingham, Nottingham, UK

*³Department of Biomedical Sciences, Tshwane University of Technology, Pretoria,
South Africa*

*⁴Advanced Materials Group, Faculty of Engineering, The University of Nottingham,
Nottingham, UK*

* Authors to whom correspondence should be addressed: O. Ola (email: Oluwafunmilola.Ola@nottingham.ac.uk); and K.I. Ozoemena (e-mail: Kenneth.ozoemena@wits.ac.za).

The author was a visiting student to the School of Chemistry, University of the Witwatersrand during this work. He has relocated to the Department of Chemistry, University of Guelph, Ontario, Canada.

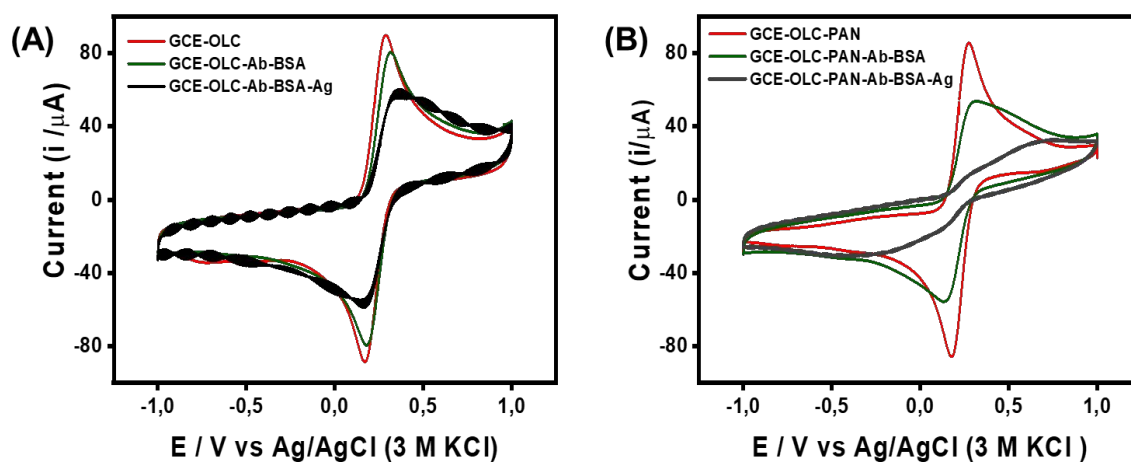


Fig. S1:Comparative cyclic voltammograms before and after antigen-antibody complexation: (A) OLC-based electrode and (B) OLC-PAN-based electrodes. All data were collected with HPV-16 L1 antigen (1.96×10^{-12} mg/mL) in the redox probe ($0.1 \text{ mM } [\text{Fe}(\text{CN})_6]^{4-}/[\text{Fe}(\text{CN})_6]^{3-}$ in PBS/AE, pH 7.4) at 20 mVs^{-1} .