

Supplementary Information

Non-Enzymatic Electrochemical Glucose Sensing Using Flexible rGO/AgNW@PANI Composite Films on Nylon Substrates

Ummul Kainatt,[†] Nusrat Jahan Usha[†], Ayesha Binth Humayun^a, Md Rakibul Hasan,^b Arup Kumer Roy,^{*b} and Sumit Majumder^{*a}

Department of Biomedical Engineering, Chittagong University of Engineering and Technology, Chattogram-4349, Bangladesh.

Department of Chemistry, Chittagong University of Engineering and Technology, Chattogram-4349, Bangladesh.

† These authors contributed equally to this work.

* Corresponding author

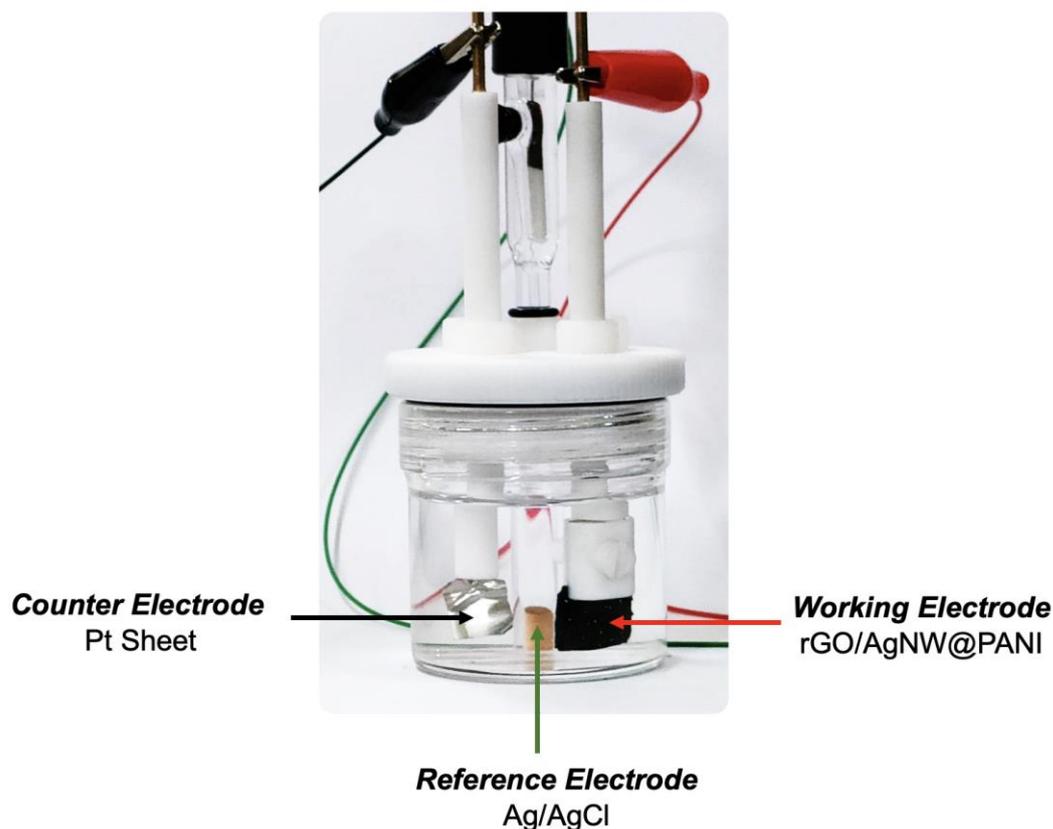


Figure S1: Electrochemical setup for a non-invasive glucose sensor employing rGO/AgNW@PANI as the working electrode.

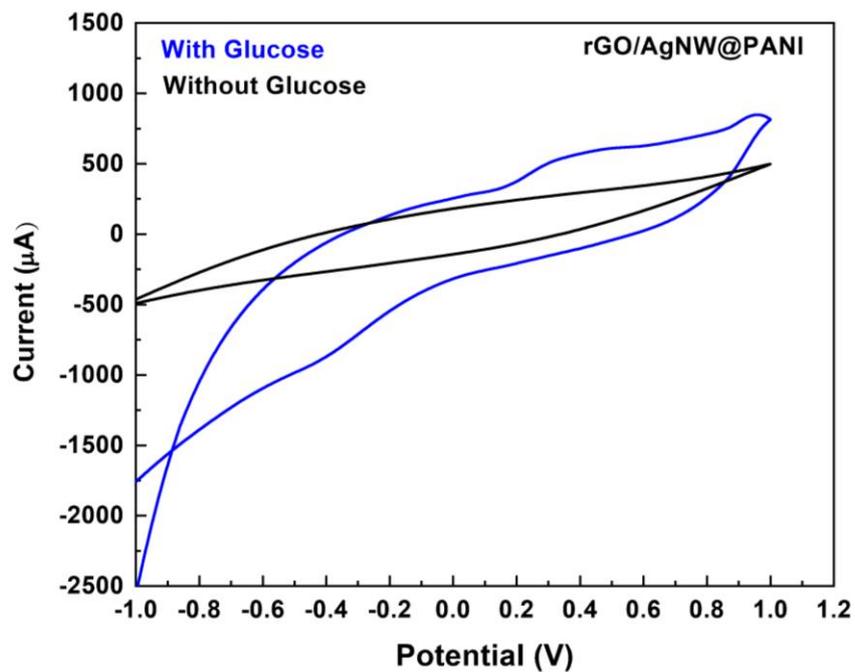


Figure S2: Comparative electrochemical performance of the rGO/AgNW@PANI electrode film with and without glucose.

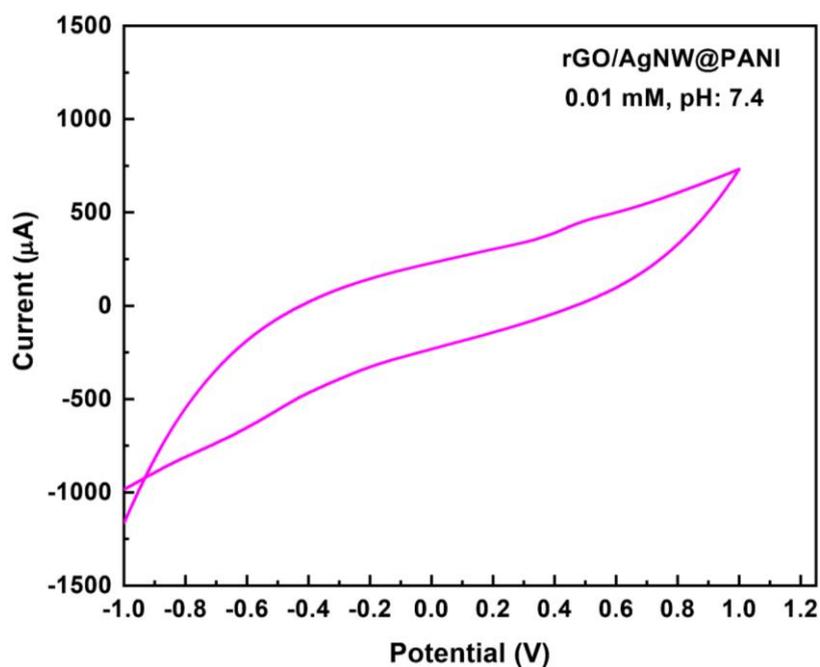


Figure S3: CV curves of glucose (0.01 mM) for rGO/AgNW@PANI at pH 7.4.

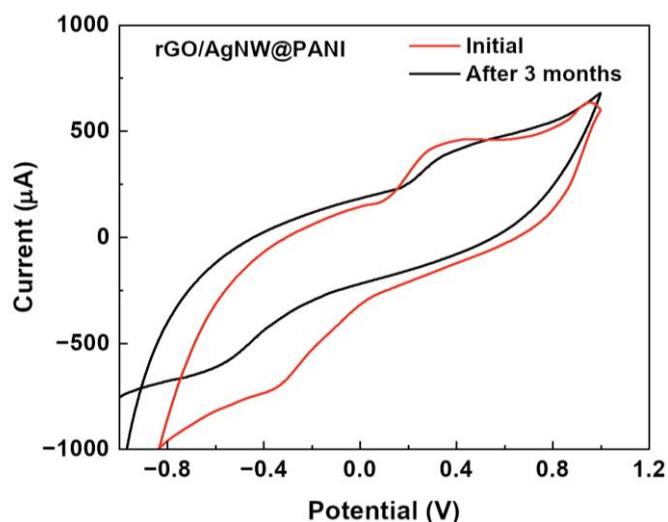


Figure S4: CV curves recorded for 0.01 mM glucose by rGO/AgNW@PANI film electrode after 3 months as compared to the initial.

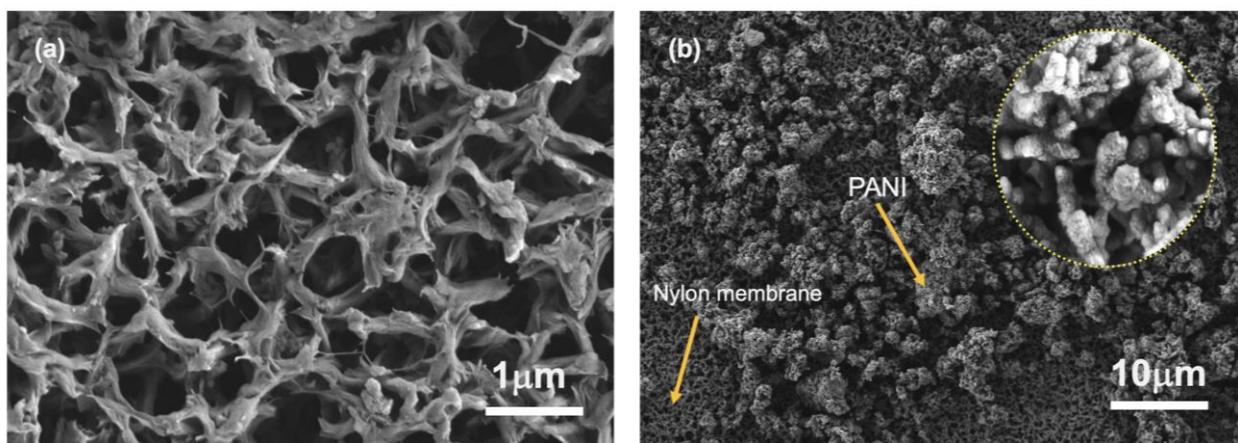


Figure S5: FE-SEM images of (a) Bare nylon membrane (b) PANI deposited on nylon membrane.

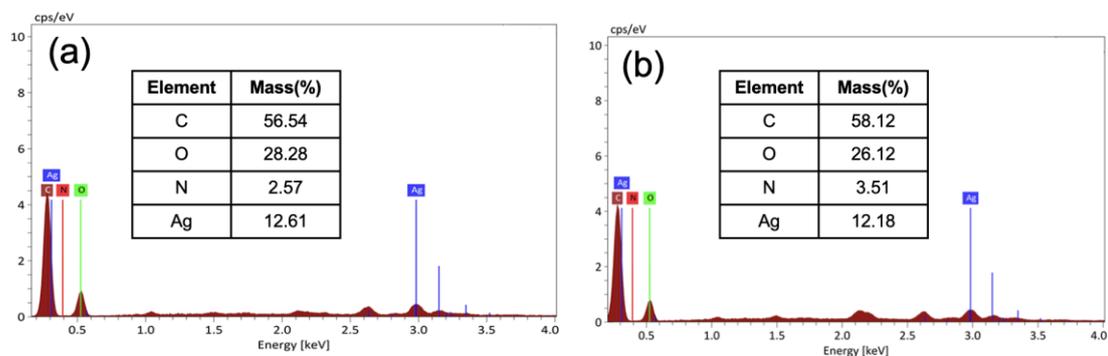


Figure S6: EDS spectra of (a) rGO/AgNWs and (b) rGO/AgNW@PANI.