

Supporting Information

Carbon nanohorn modified platinum electrodes for improved immobilisation of enzyme in the design of glutamate biosensors

Rochelle Ford,^a Stephen. J. Devereux,^a Susan. J. Quinn^{a*} and Robert. D. O'Neill^{a*}

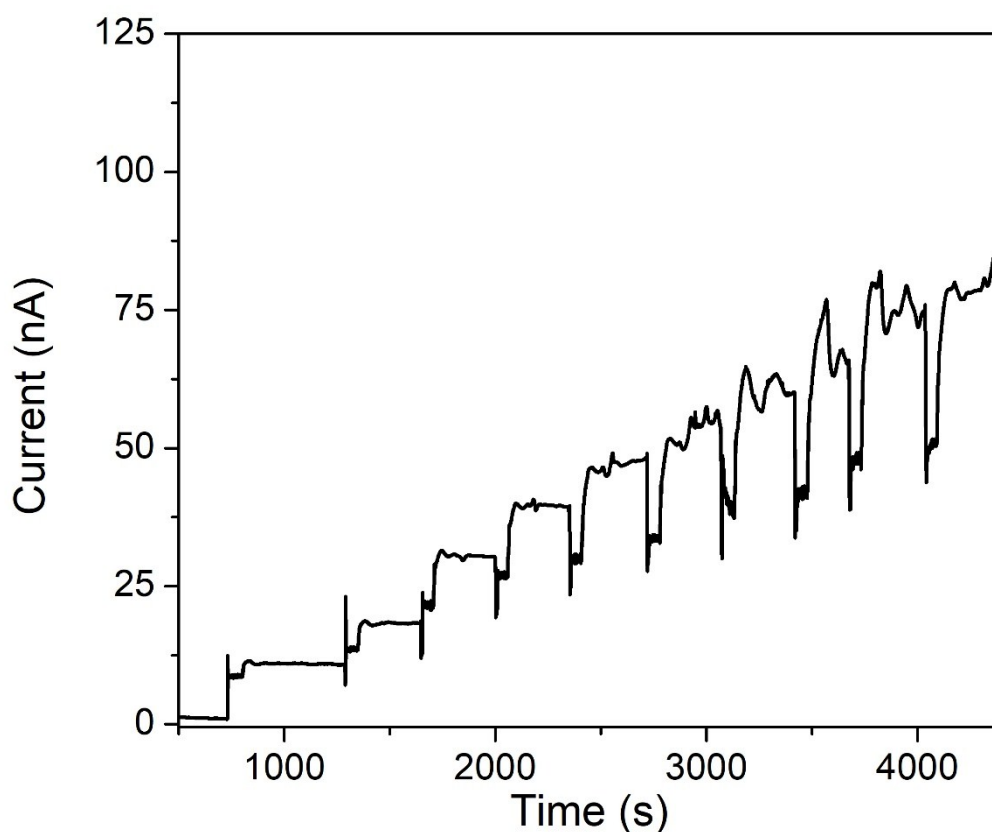


Fig. S1. Plot of current (nA) vs. time (s) showing incremental additions of Glu into the electrochemical cell with the **Pt/o-CNH-PEI₅/GluOx₅**, with o-CNH:PEI 1:5 mg mL⁻¹ electrode. Inset: Detailed method process demonstrating the steps involved - Steady current baseline is achieved, stirrer is turned on, Glu injection is made, stirring continues for approximately 20 seconds, stirrer is turned off, steady baseline is achieved for this Glu concentration and this is repeated until all additions are made and a plateau is obtained.

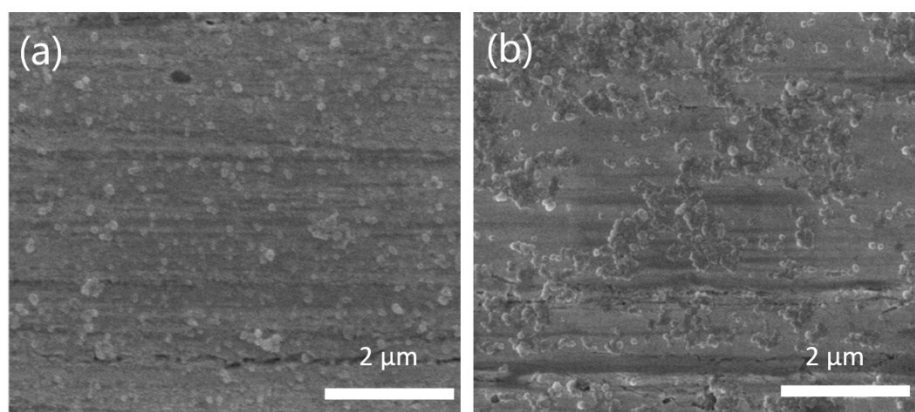


Fig. S2 SEM images of modified CNH deposition on the Pt surface. (a) **Pt/o-CNHS**, 1 mg mL⁻¹ and (b) **Pt/CNH-PEG₅**, 1 mg mL⁻¹.

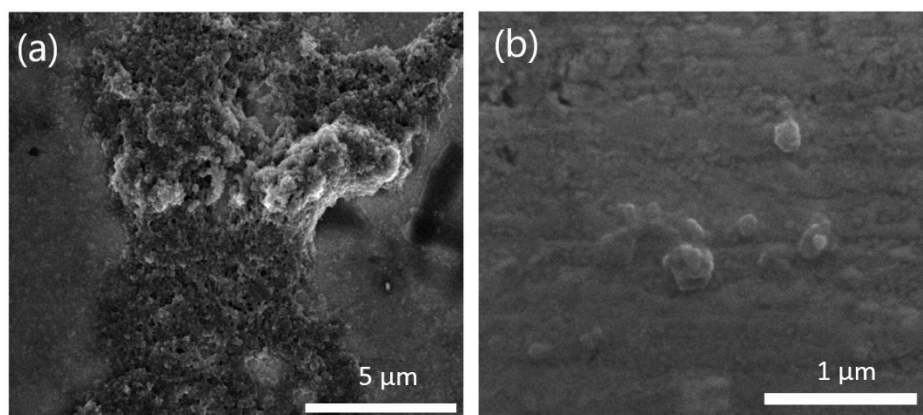


Fig. S3 SEM images of **Pt/o-CNHS-PEI₅** biosensor (a) **o-CNHS-PEI** (5 mg mL⁻¹: 1 mg mL⁻¹) and (b) **o-CNHS-PEI** (10 mg mL⁻¹: 10 mg mL⁻¹).