

Bioelectrocatalysis of Hemoglobin on electrodeposited Ag Nanoflowers toward H_2O_2 Detection

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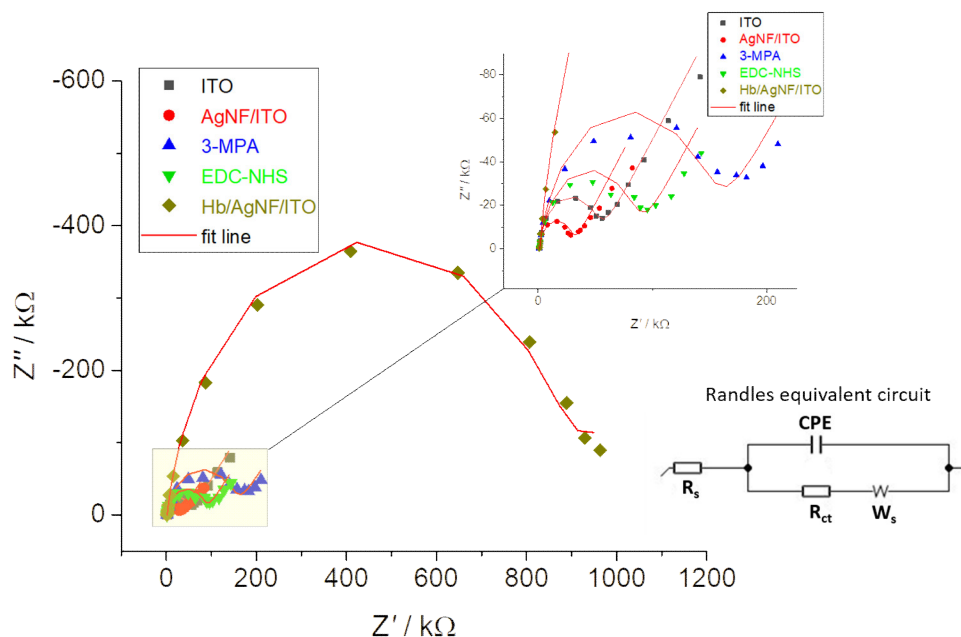


Figure 1. Nyquist plot for bare ITO and AgNF/ITO electrodes, 3-MPA SAM formation, EDC-NHS activation, and Hb binding. Measurements were performed in 10 mM $(\text{Fe}(\text{CN})_6)^{3-/4-}$ with 0.1 M KCl as background electrolyte. Inset is Randles equivalent circuit used to fit the experimental data to extrapolate impedance parameters. Here, R_s is the solution resistance, R_{ct} is the charge transfer resistance, CPE is the constant phase element, and W_s is the Warburg diffusion impedance.

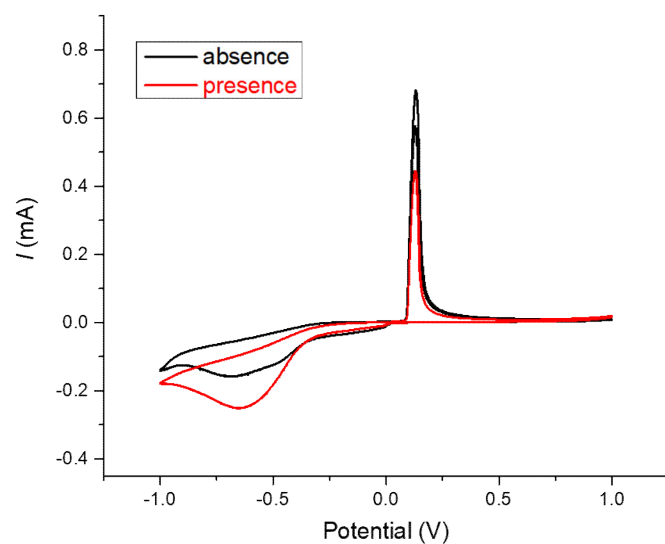


Figure S2. CVs of AgNF/ITO electrode in absence and in presence of H_2O_2 at a scan rate of 50 mV/s in 5 mL solution of 10 mM PBS (pH 7.0).

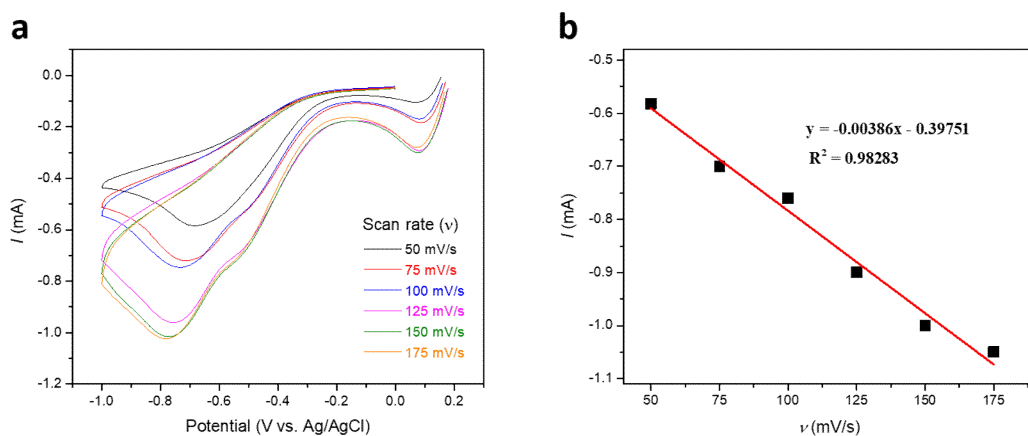


Figure S3. (a) CV and (b) plot of peak currents vs. scan rate v of Hb/AgNF/ITO in the presence of 10 mM H_2O_2 in 10 mM $(\text{Fe}(\text{CN})_6)^{3-}$ with 0.1 M KCl at different scan rate v from 50 to 175 mV/s.

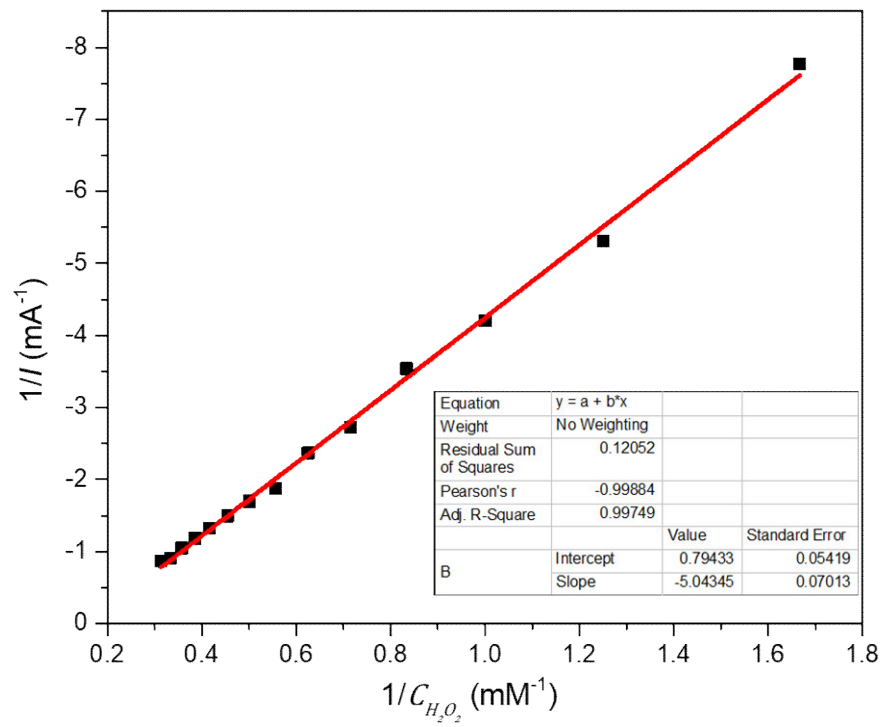


Figure 4. Lineweaver-Burk plot of $1/C_{H_2O_2}$ (mM⁻¹) vs. $1/I$ (mA⁻¹).