

Supplementary File

Low Potential and Non-Enzymatic Hydrogen Peroxide Sensor Based on Copper Oxide Nanoparticle on Activated Pencil Graphite Electrode

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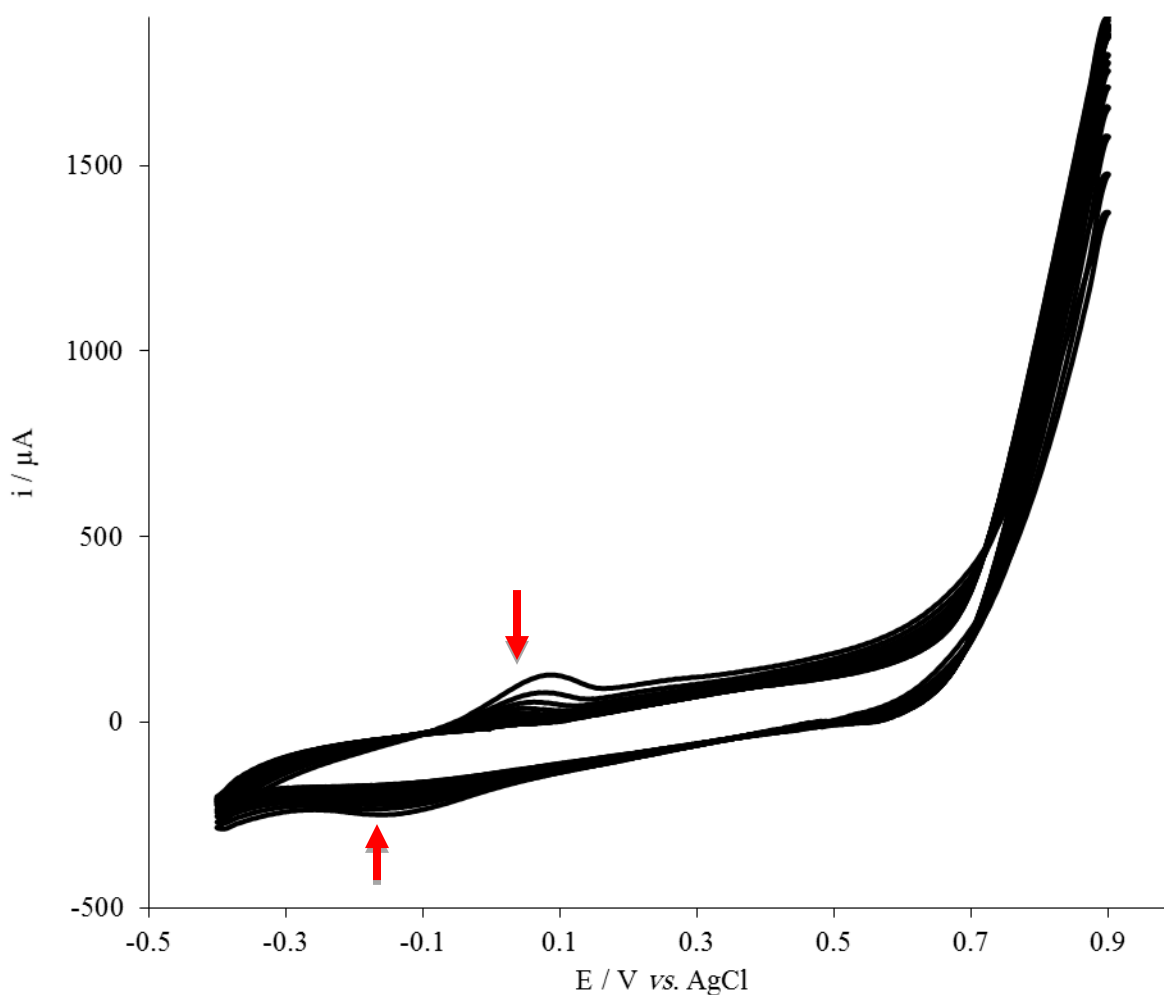


Figure S1. Cyclic voltammograms of CuO/APGE electrode in 0.1 mol L⁻¹ NaOH at 100 mV s⁻¹. Arrows indicate the progression of the potential scanning (scanning range: -0.4 to +0.9 V).

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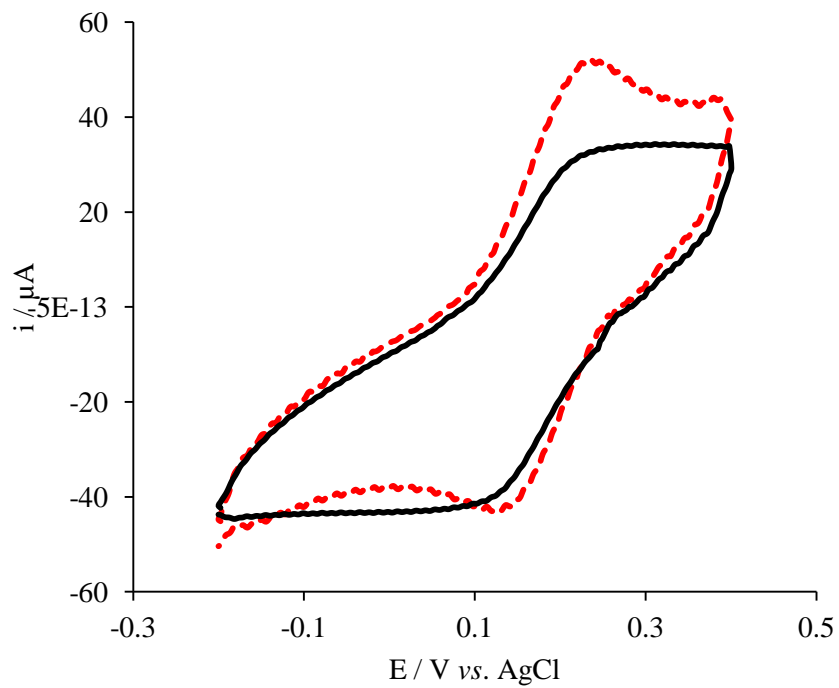


Figure S2. Cyclic voltammogram of 4.0 mmol L⁻¹ Fe(CN)₆³⁻ in KCl 0.1 mol L⁻¹ on APGE (solid line) and CuO/APGE (dashed line), scan rate 0.1 V s⁻¹.

Table S1. The standard redox potentials

Redox reaction	E° / V vs. SHE
2CuO + 2e ⁻ → Cu ₂ O + 2OH ⁻ + H ₂ O	-0.09
O ₂ + 2H ⁺ + 2e ⁻ → H ₂ O ₂	+0.68
Fe(CN) ₆ ³⁻ + e ⁻ → Fe(CN) ₆ ⁴⁻	+0.36