

Recycling chocolate aluminum wrapping foil as to create electrochemical metal strip electrodes

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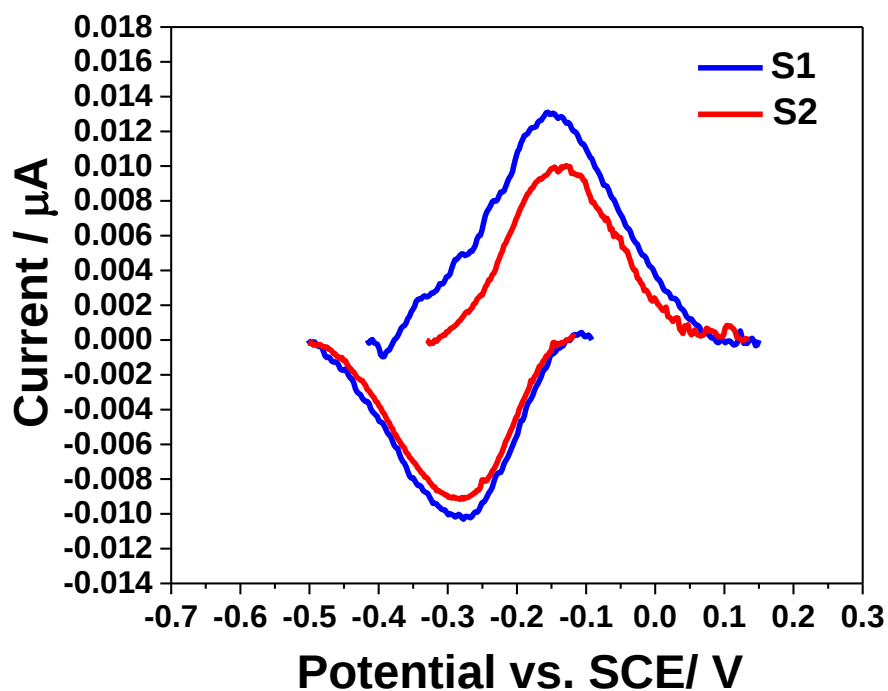


Figure S1: The anodic and cathodic currents for the S1 and S2 electrodes in 3 mm Ruhex (as shown in Figure 9A) after performing background subtraction in Origin 9.1 software by using a B-spline interpolation routine to estimate the background current in each CV. Then, the E_{pa} , E_{pc} and E_{mid} can be determined.

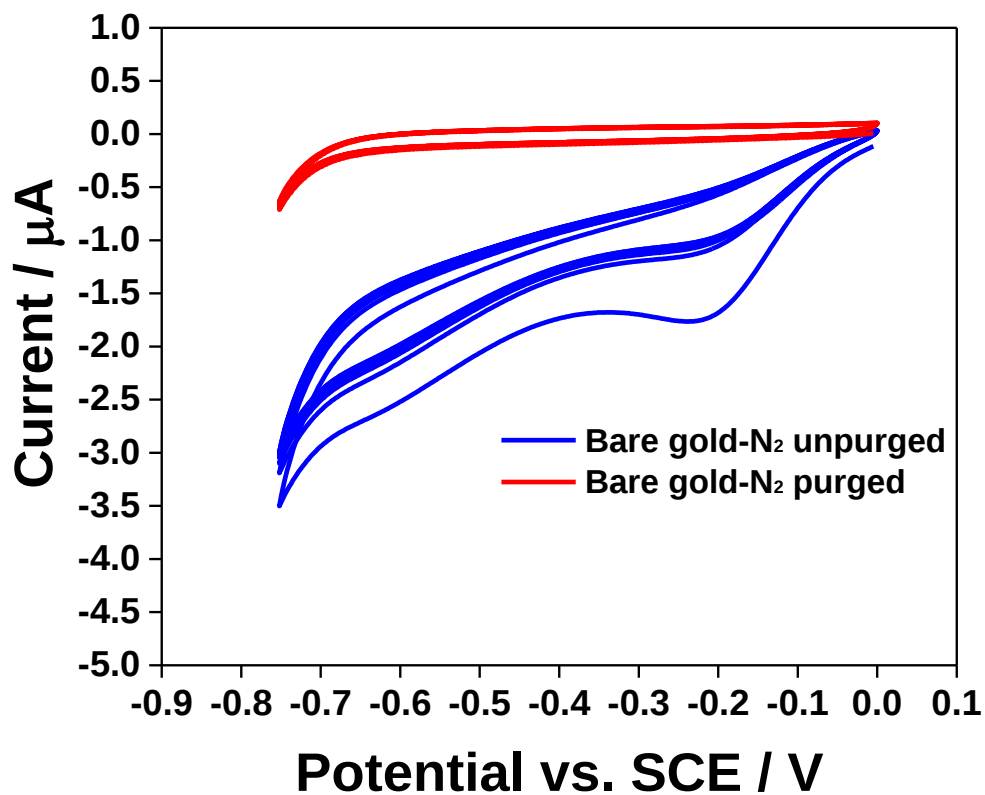


Figure S2: Cyclic voltammograms (10 cycles) of the bare gold electrode in an aerated and purged PB solutions (pH 7) at 50 mV s^{-1} . The potential was scanned from 0 to -0.7 V vs. SCE and the geometric electrode surface area is 0.0341 cm^2 .

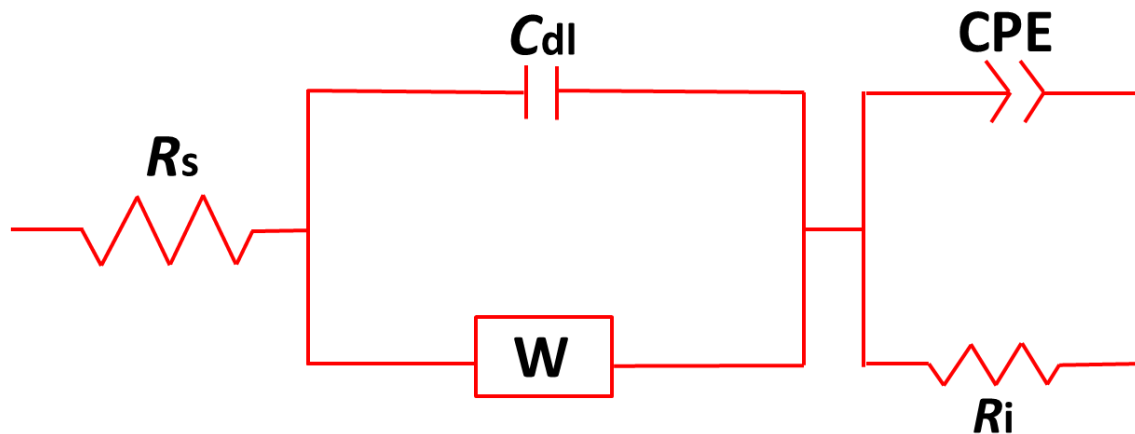


Figure S3: Suggested equivalent circuit model, utilized in convergently fitting the Nyquist and Bode plots from non-Faradaic impedance measurements for fresh polished bare GC, S1 and S2 electrodes. R_s is the solution or electrolyte resistance, C_{dl} is the electric double layer from electrolyte ions, W is the Warburg impedance, CPE is the constant phase element and R_i is the internal resistance between the diffuse layer and electrode surface.