

Supporting Information

Switching On/Off the Chemisorption of Thioctic-based Self-Assembled Monolayers on Gold by Applying a Moderate Cathodic/Anodic Potential

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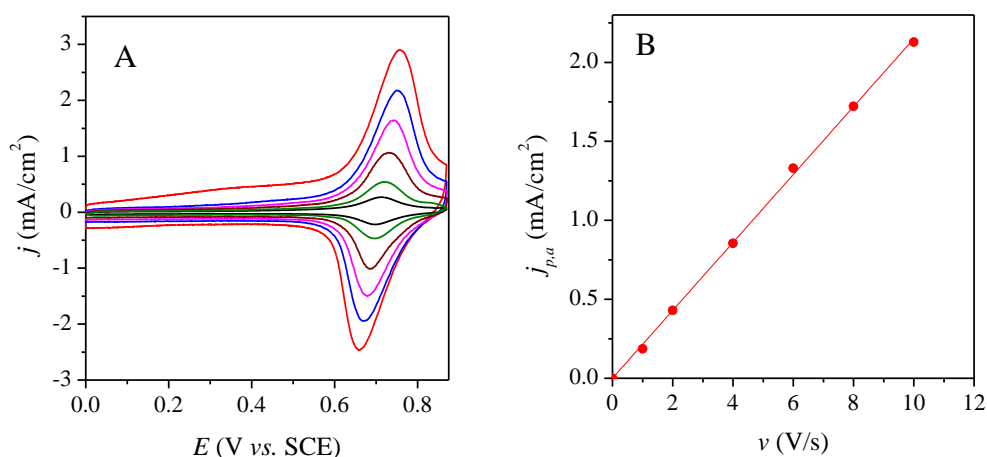


Figure S1. (A) CVs of a redox-active SAM on gold ($\Gamma_{Fc} = 2.1 \times 10^{-10}$ mol/cm² FcCO₂DT) recorded at different scan rate (from top to bottom: 10, 8, 6, 4, 2 and 1 V/s) and (B) plot of the anodic peak current density ($j_{p,a}$) as a function of scan rate.

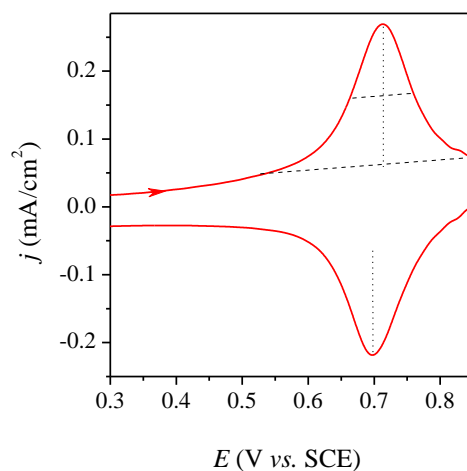


Figure S2. CVs of a redox-active SAM on gold ($\Gamma_{Fc} = 2.1 \times 10^{-10}$ mol/cm² FcCO₂DT) recorded at 1 V/s in 0.1 M TBABF₄/CH₃CN.

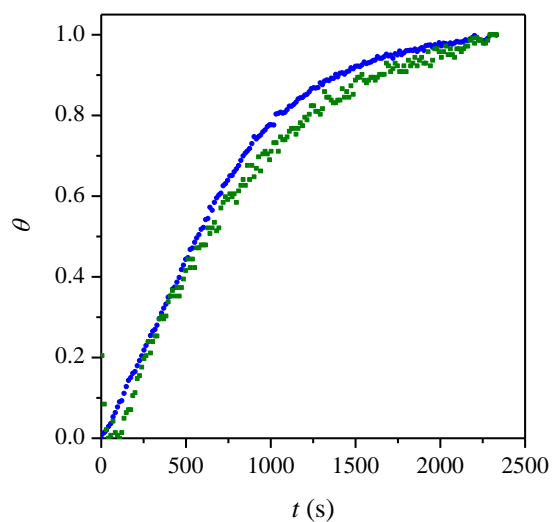


Figure S3. Normalized response (θ) of the (●) surface coverage and (■) capacitance densities plotted in Figure 2E.

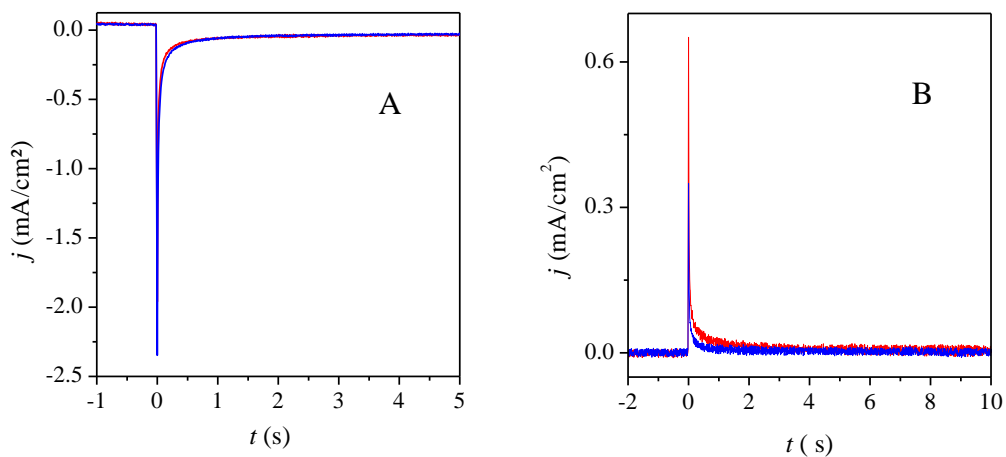


Figure S4. (A) Chronoamperometric curves obtained after stepping the potential of a bare gold electrode from +0.5 to -0.4 V in (blue) a 20 μM FcCO_2DT solution and (red) in a FcCO_2DT -free solution. (B) Chronoamperometric curves obtained after stepping the potential of (blue) a saturated FcCO_2DT -SAM-coated gold electrode and (red) a bare gold electrode from -0.4 to +0.5 V in a pure solution of 0.1 M $\text{TBABF}_4/\text{CH}_3\text{CN}$.

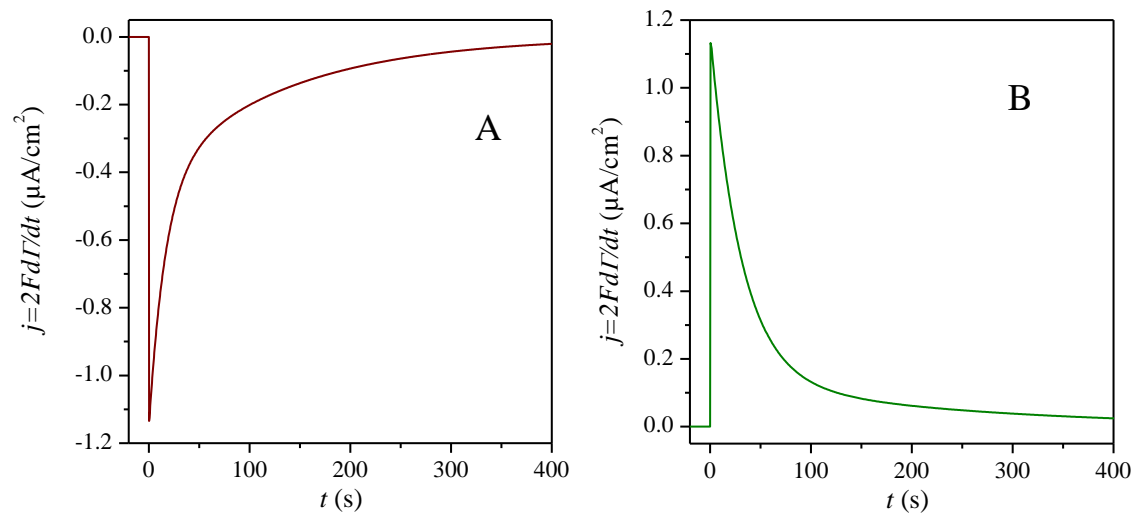


Figure S5. Theoretical transient current responses deduced from the first derivation of the double-exponential fits of (A) the absorption kinetic plot shown in Figure 2E (red plot) and (B) desorption kinetic plot shown in Figure 2F.