

Supplementary material to

Simultaneous electrochemical determination of acetaminophen and ciprofloxacin in pharmaceutical formulations using a holmium-modified UiO-66 metal-organic framework electrode

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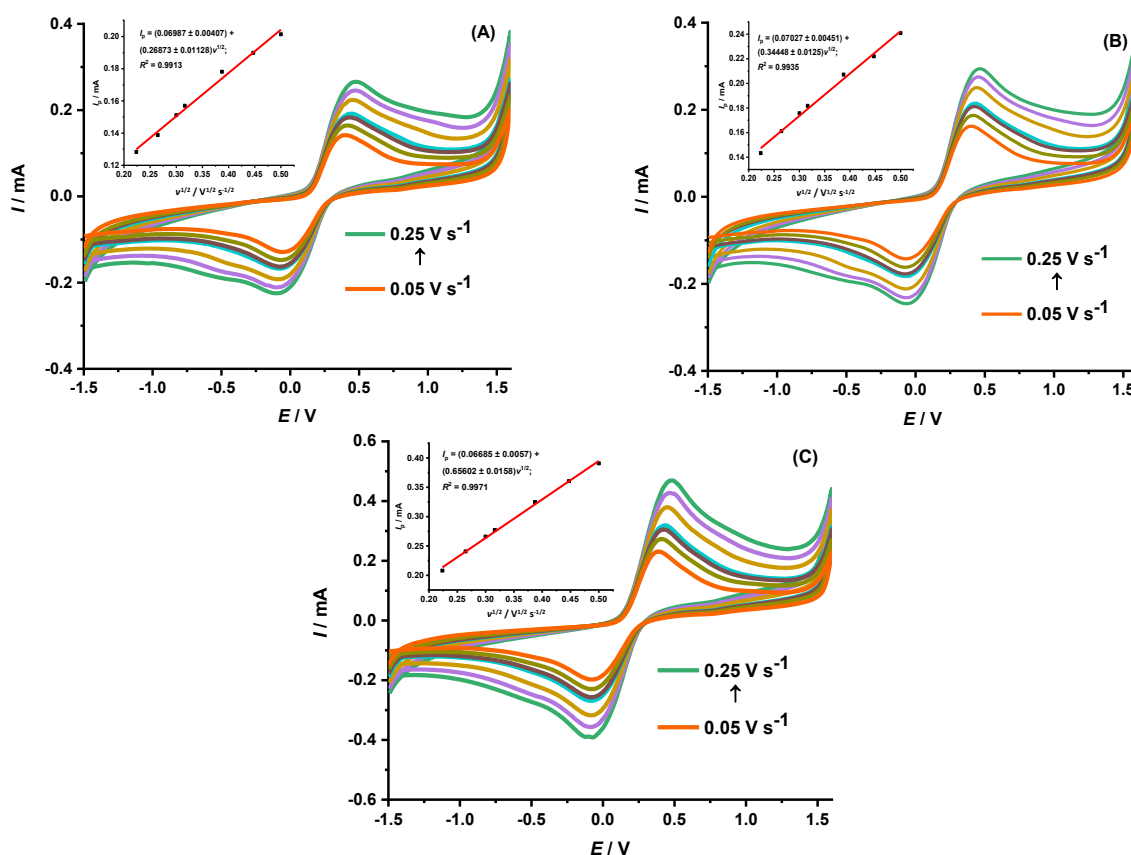
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Figure S1. Cyclic voltammograms obtained at scan rates ranging from 0.05 to 0.25 V s⁻¹ for (A) GCE, (B) UiO-66/GCE and (C) Ho-UiO-66 (3/100)/GCE in a 10 mM [Fe(CN)₆]^{3-/4-} solution. Insets depict the linear dependence of the peak current on the square root of the scan rate, which was used to estimate the electrochemically active surface area (ECSA)

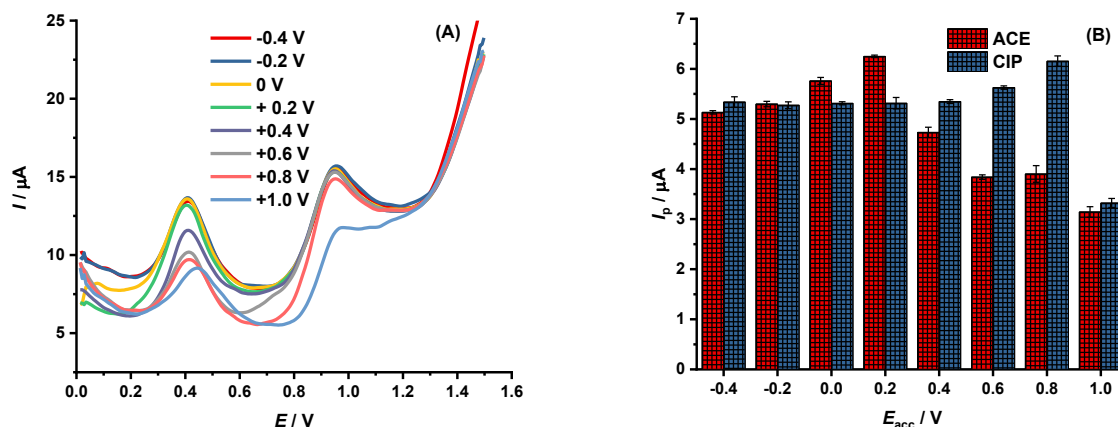


Figure S2. (A) DPV curves of Ho-UiO-66/GCE recorded in 0.02 M Britton-Robinson buffer (BRS, pH 6.0) containing 20 μM acetaminophen (ACE) and 20 μM ciprofloxacin (CIP) at accumulation potentials ranging from -0.4 to $+1.0$ V (Conditions: accumulation time, 10 s; pulse amplitude, 0.07 V; step potential, 0.007 V); (B) Variation of the peak current (I_p) of ACE and CIP with accumulation potential

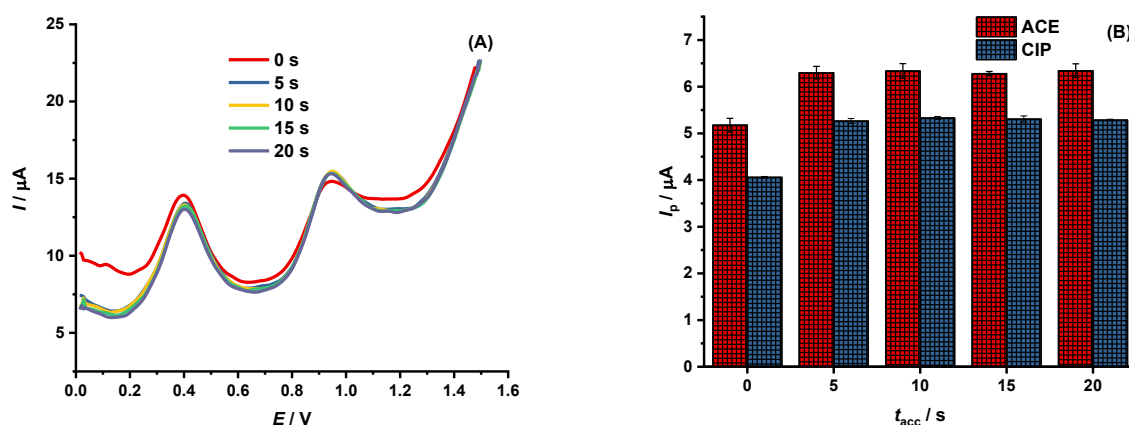


Figure S3. (A) DPV curves of Ho-UiO-66/GCE recorded in 0.02 M Britton-Robinson buffer (BRS, pH 6.0) containing 20 μM ACE and 20 μM CIP at accumulation time ranging from 0 s to 20 s (Conditions: accumulation potential, $+0.2$ V; pulse amplitude, 0.07 V; step potential, 0.007 V); (B) Variation of the peak current (I_p) of ACE and CIP with accumulation time

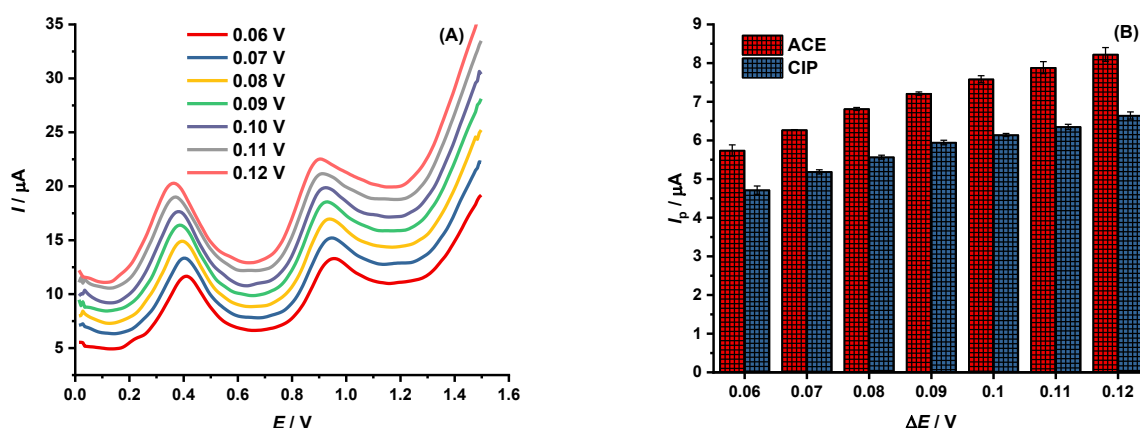


Figure S4. (A) DPV curves of Ho-UiO-66/GCE recorded in 0.02 M Britton-Robinson buffer (BRS, pH 6.0) containing 20 μM ACE and 20 μM CIP at pulse amplitude ranging from 0.06 to 0.12 V (Conditions: accumulation potential, $+0.2$ V; accumulation time, 5 s; step potential, 0.007 V); (B) Variation of the peak current (I_p) of ACE and CIP with pulse amplitude

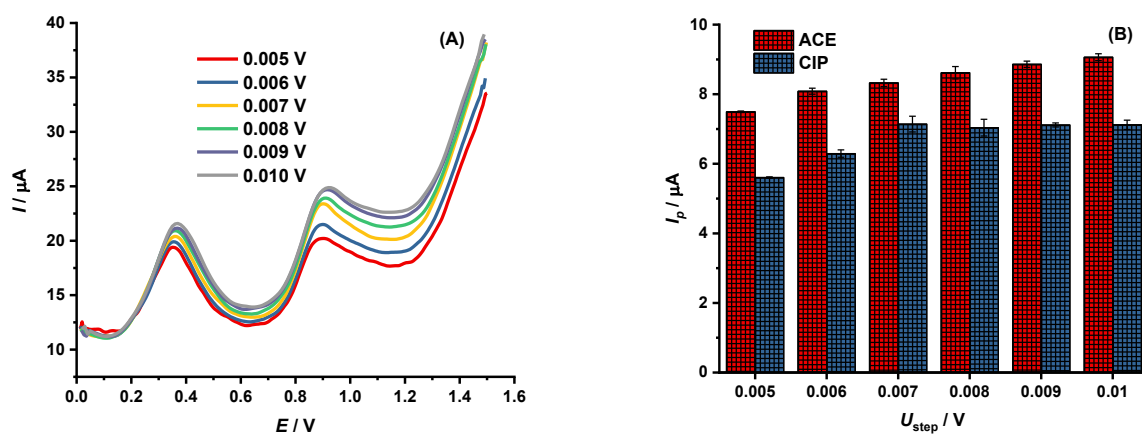


Figure S5. (A) DPV curves of Ho-UiO-66/GCE recorded in 0.02 M Britton-Robinson buffer (BRS, pH 6.0) containing 20 μM ACE and 20 μM CIP at step potential ranging from 0.005 to 0.010 V (Conditions: accumulation potential, +0.2 V; accumulation time, 5 s; pulse amplitude, 0.12 V); (B) Variation of the peak current (I_p) of ACE and CIP with step potential