

Electronic Supplementary Information

Voltammetric Sensor Based on Carbon Black and Chitosan-Stabilized Gold Nanoparticles Nanocomposite for Ketoconazole Determination

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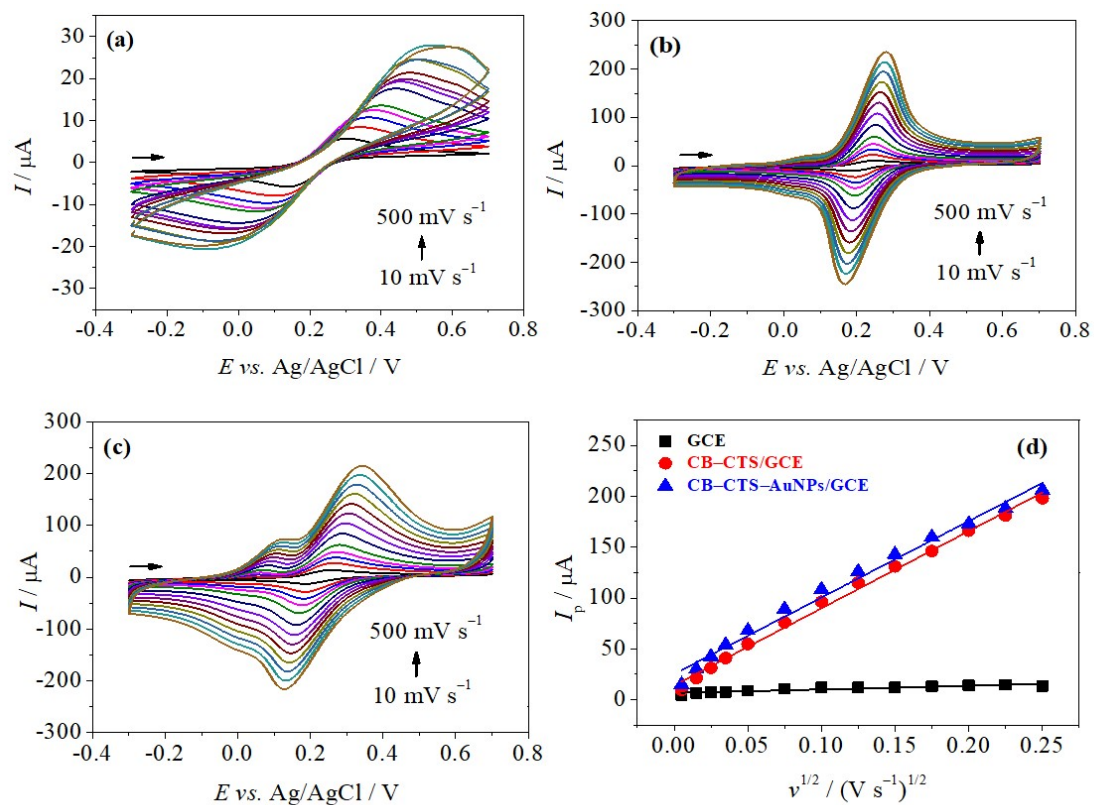


Fig. S1. Cyclic voltammograms recorded at different potential scan rates (10 – 500 mV s^{-1}) for GCE **(a)**, CB-CTS/GCE **(b)** and CB-CTS-AuNPs/GCE **(c)** using $1.0 \times 10^{-3} \text{ mol L}^{-1} [\text{Fe}(\text{CN})_6]^{4-/3-}$ in $0.1 \text{ mol L}^{-1} \text{ KCl}$ supporting electrolyte. **(d)** Plots of I_p vs. $v^{1/2}$ for anodic peak currents (I_a) for GCE, CB-CTS/GCE and CB-CTS-AuNPs/GCE.

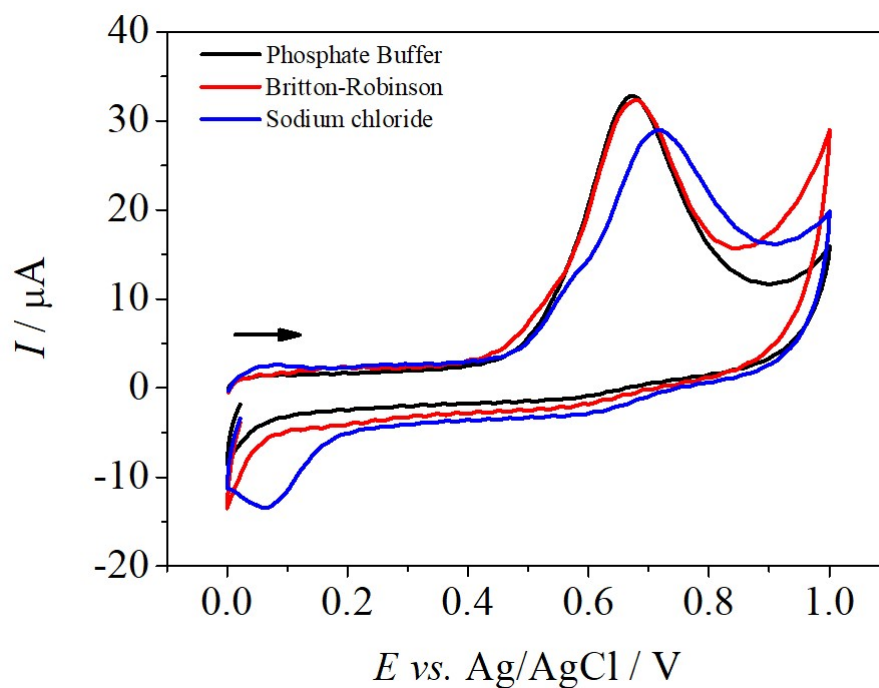


Fig. S2. Cyclic voltammograms for $1.0 \times 10^{-4} \text{ mol L}^{-1}$ KTO in 0.2 mol L^{-1} phosphate buffer, pH 9.0 (—), 0.04 mol L^{-1} Britton-Robinson, pH 9.0 (—) and 0.1 mol L^{-1} sodium chloride, pH 9.0 adjusted with a 0.1 mol L^{-1} NaOH solution (—) supporting electrolyte solutions. $\nu = 50 \text{ mV s}^{-1}$.

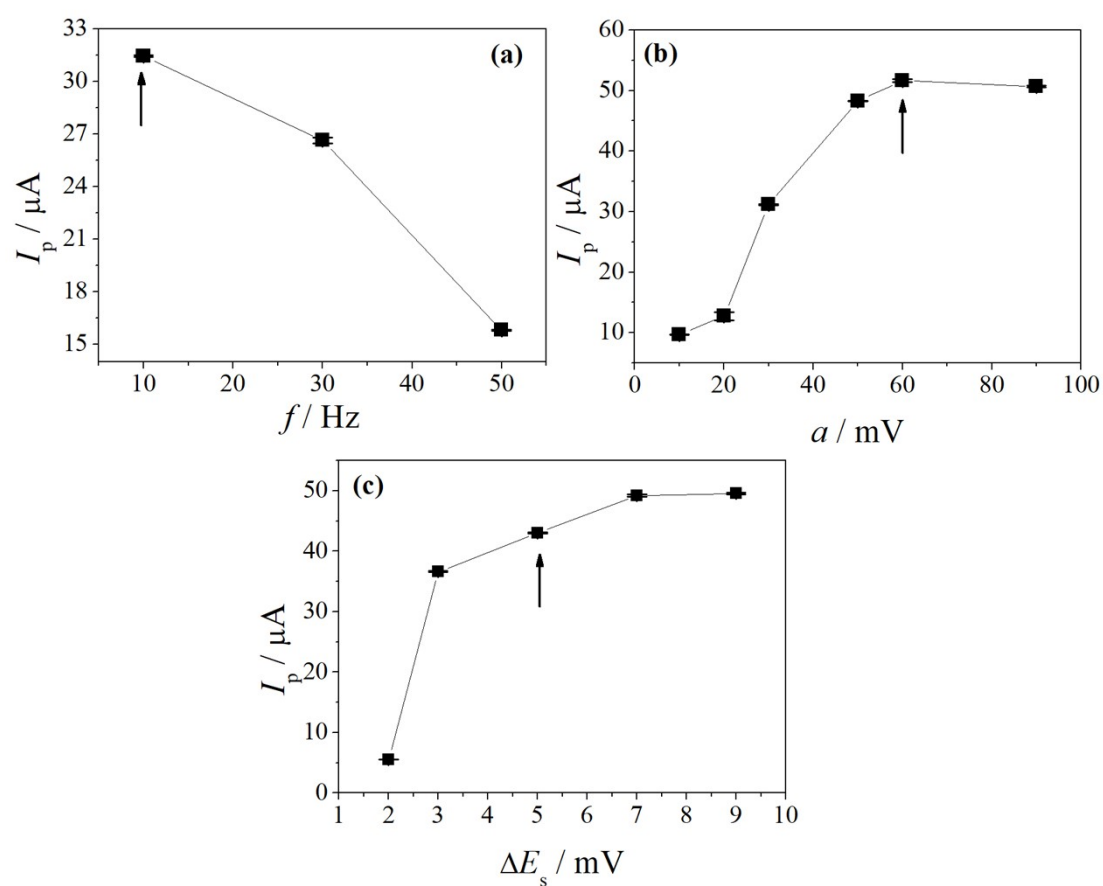


Fig. S3. Optimization of KTO anodic response (I_p) by square-wave voltammetry using CB-CTS-AuNPs/GCE for different parameters: frequency (f), plot of I_p vs. f **(a)**, amplitude (a), plot of I_p vs. a **(b)**, and potential increment (ΔE_s), plot of I_p vs. ΔE_s **(c)**.