

Supplementary Data

Raman Spectroscopy as an Assay to Disentangle Zinc Oxide Carbon Nanotube Composites for Optimized Uric Acid Detection

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Content: 6 series of cyclic voltammograms, varying scan rates, and Randles-Sevcik plots

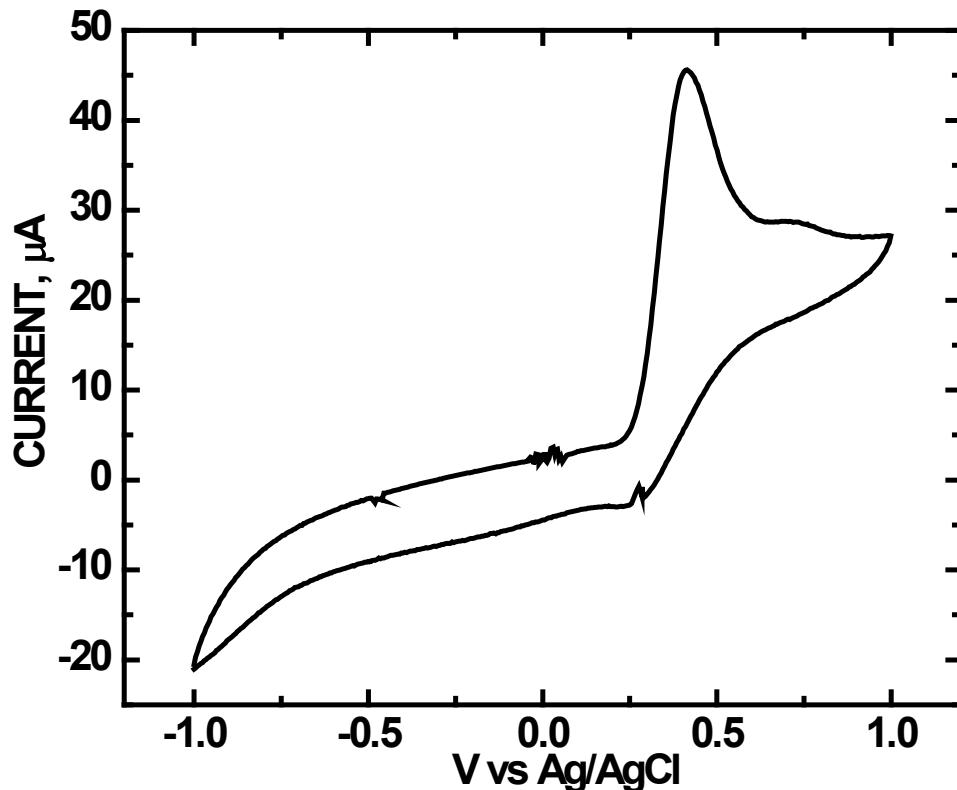


Figure S1. CV of 10 mM UA in PBS ($\text{pH} = 7.0$) at scan rates between $50 \text{ mV}\cdot\text{s}^{-1}$ using only refluxed ZnO NPs.

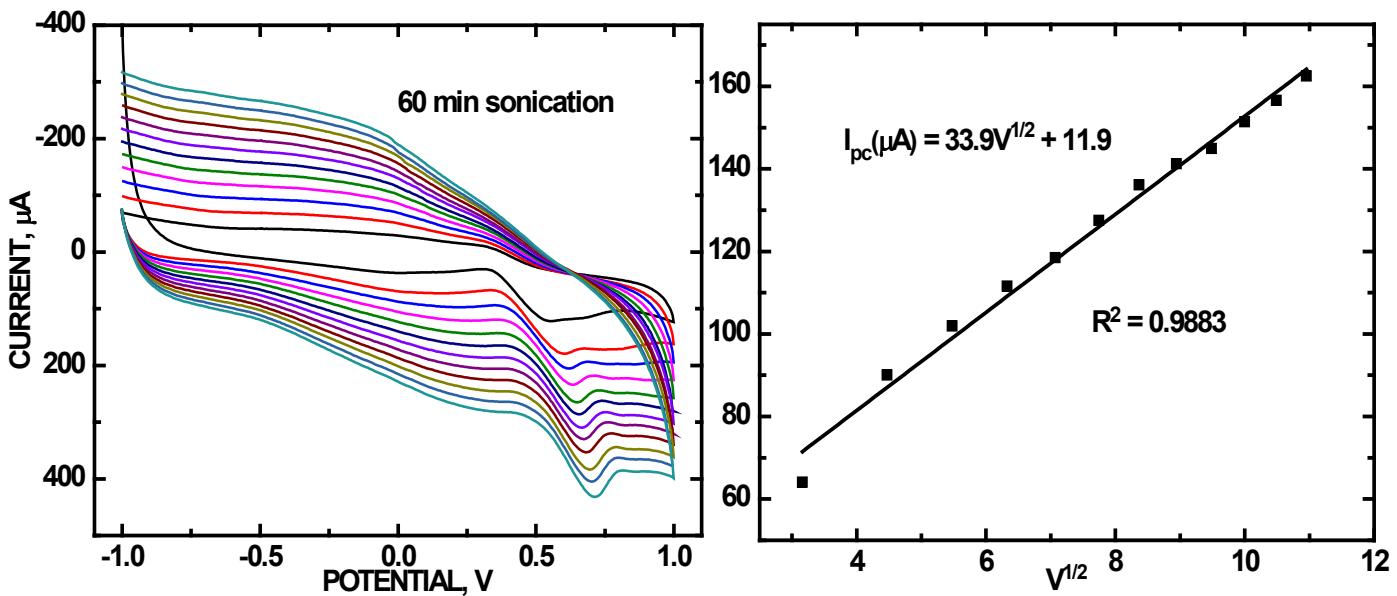


Figure S2. CVs of 10 mM UA in PBS (pH = 7.0) at scan rates between 10-100 mV·s⁻¹ for a 60 min refluxed ZnO/COOH-MWNT composite (left panel). Linear least squares plot from Randles-Sevcik analysis (right panel).

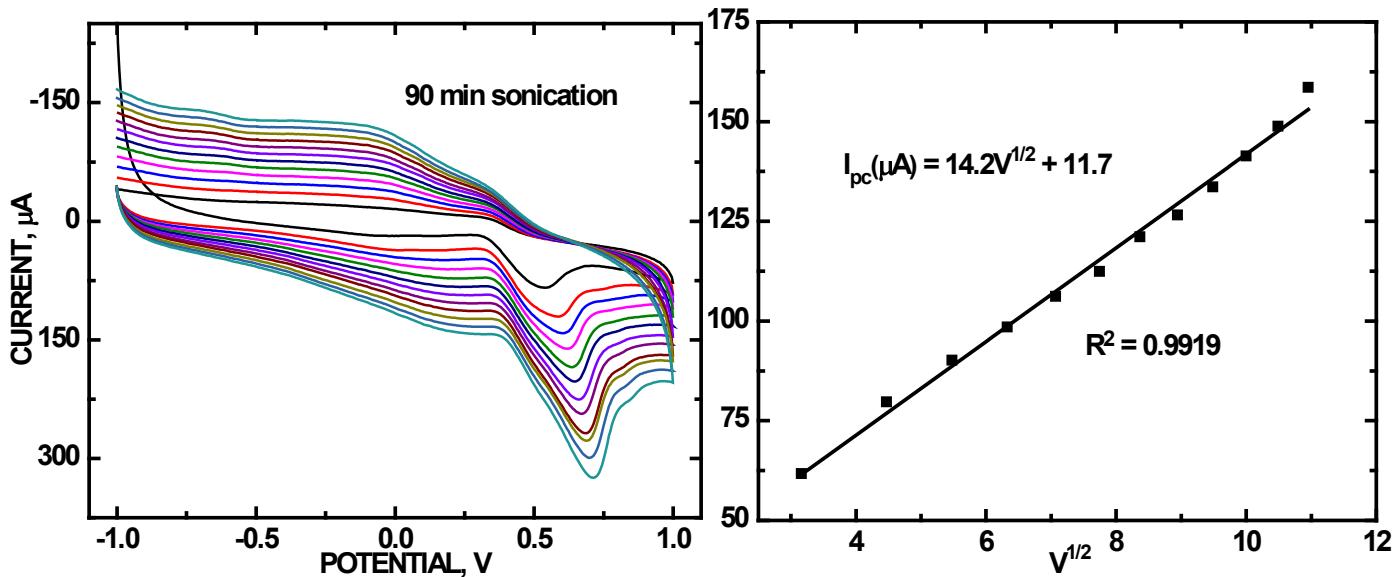


Figure S3. CVs of 10 mM UA in PBS (pH = 7.0) at scan rates between 10-100 mV·s⁻¹ for a 90 min refluxed ZnO/COOH-MWNT composite (left panel). Linear least squares plot from Randles-Sevcik analysis (right panel).

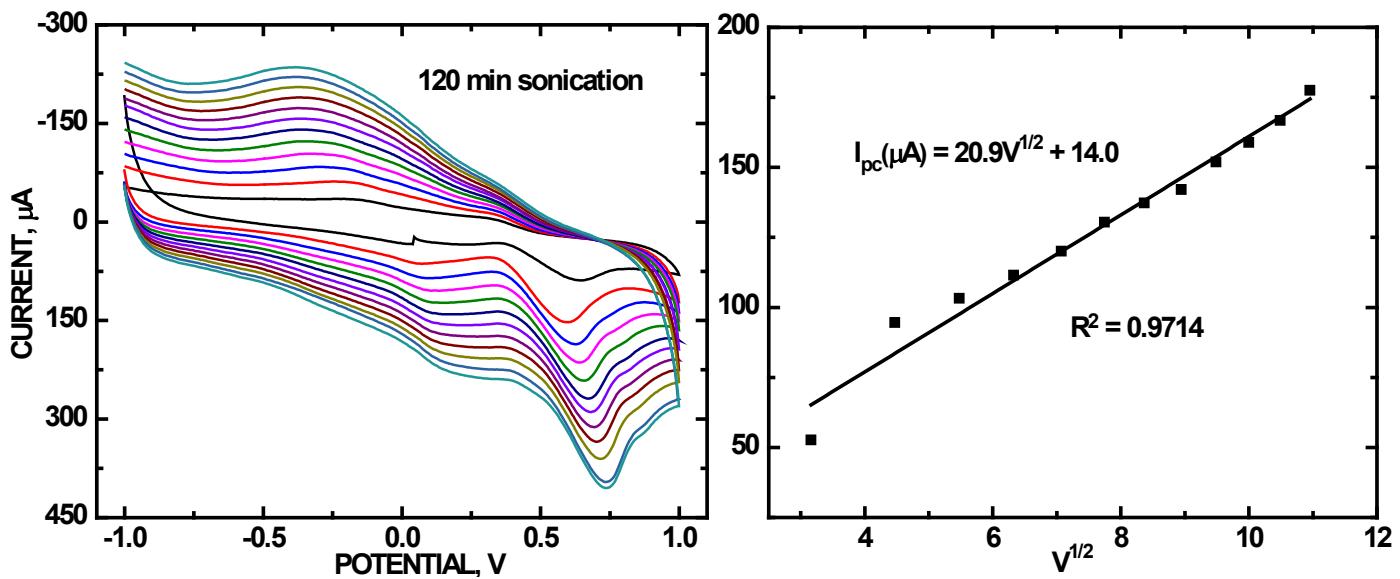


Figure S4. CVs of 10 mM UA in PBS (pH = 7.0) at scan rates between 10-100 mV·s⁻¹ for a 120 min refluxed ZnO/COOH-MWNT composite (left panel). Linear least squares plot from Randles-Sevcik analysis (right panel).

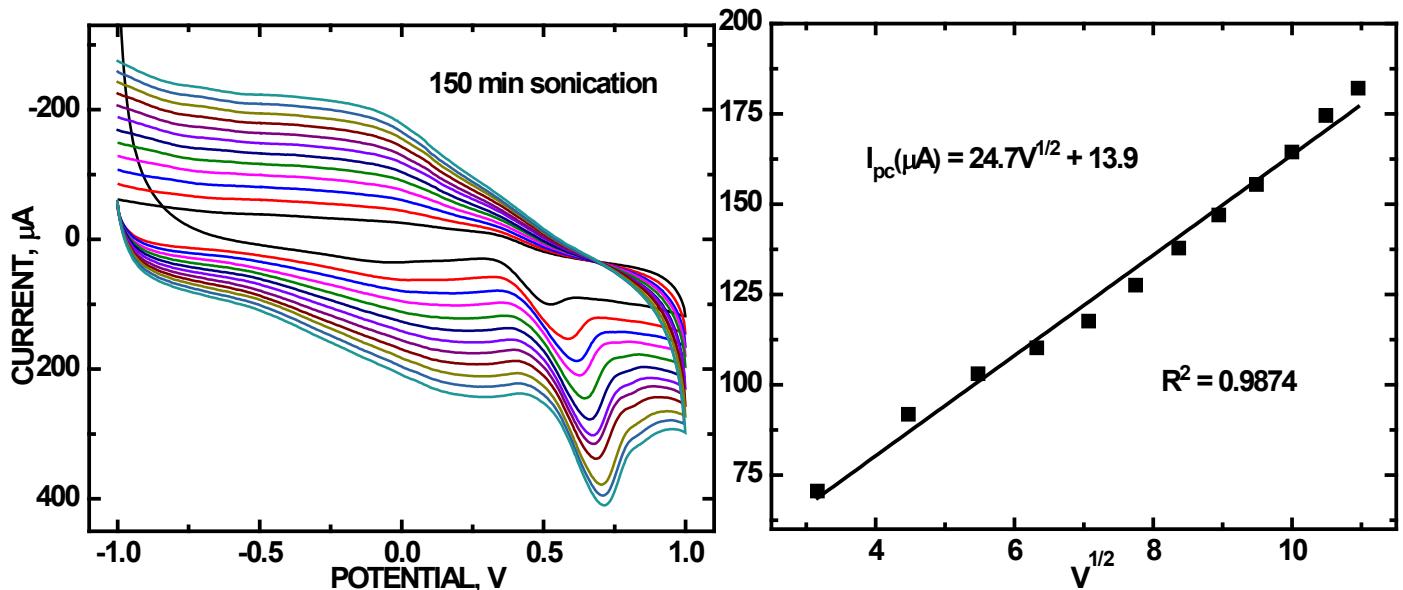


Figure S5. CVs of 10 mM UA in PBS (pH = 7.0) at scan rates between 10-100 mV·s⁻¹ for a 150 min refluxed ZnO/COOH-MWNT composite (left panel). Linear least squares plot from Randles-Sevcik analysis (right panel).

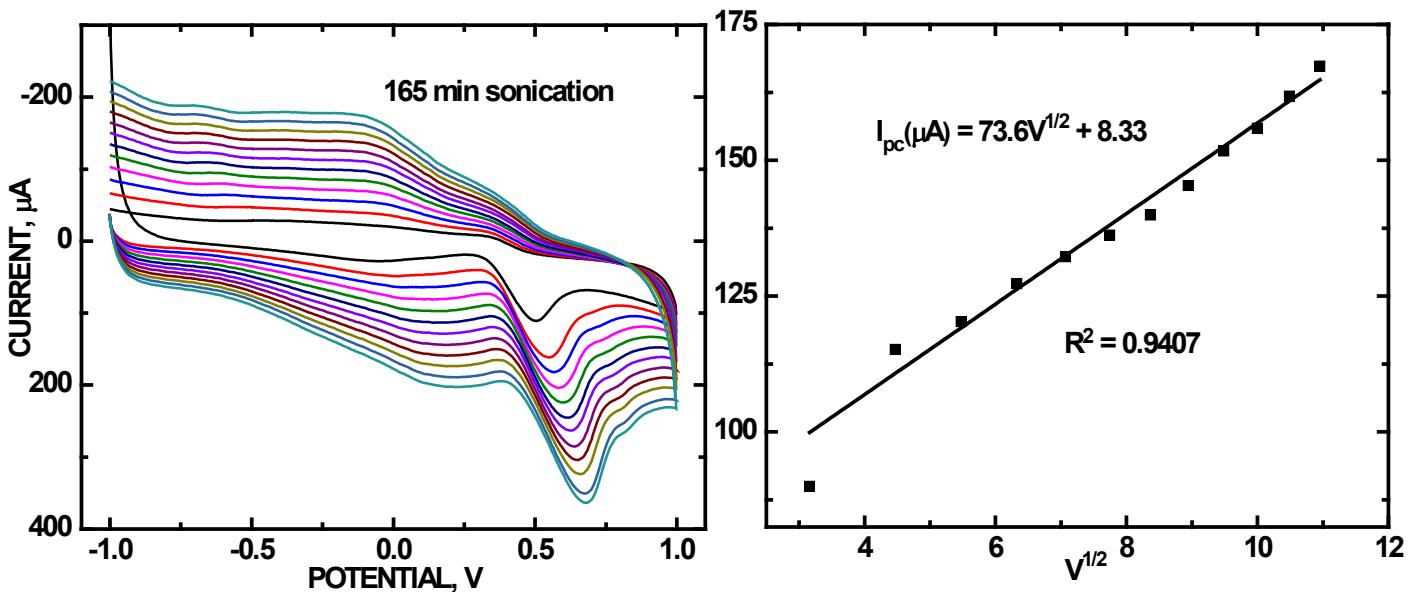


Figure S6. CVs of 10 mM UA in PBS (pH = 7.0) at scan rates between 10-100 mV·s⁻¹ for a 165 min refluxed ZnO/COOH-MWNT composite (left panel). Linear least squares plot from Randles-Sevcik analysis (right panel).

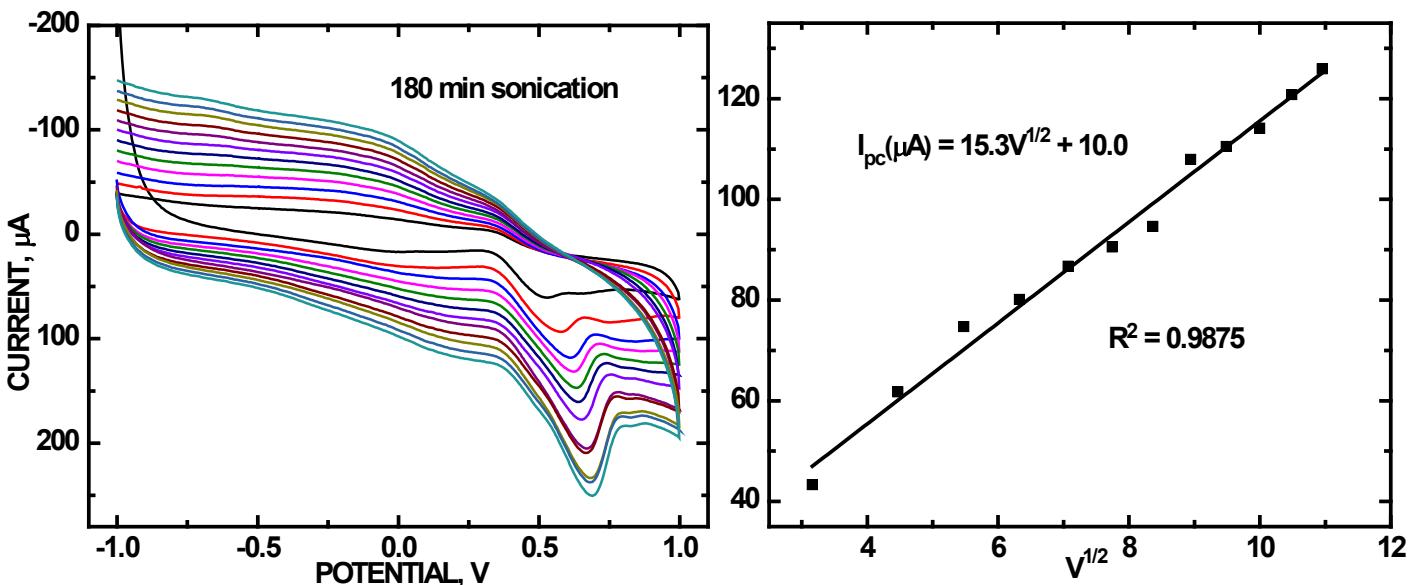


Figure S7. CVs of 10 mM UA in PBS (pH = 7.0) at scan rates between 10-100 mV·s⁻¹ for a 180 min refluxed ZnO/COOH-MWNT composite (left panel). Linear least squares plot from Randles-Sevcik analysis (right panel).

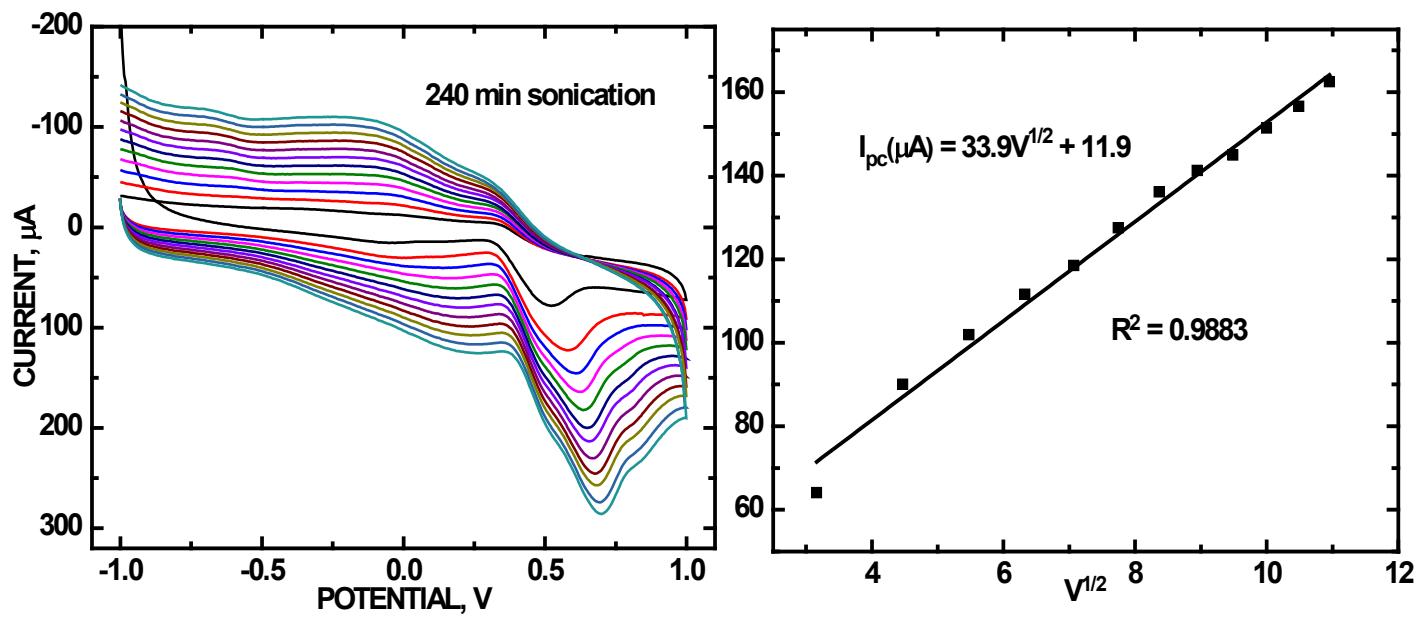


Figure S8. CVs of 10 mM UA in PBS (pH = 7.0) at scan rates between $10\text{-}100 \text{ mV}\cdot\text{s}^{-1}$ for a 240 min refluxed ZnO/COOH-MWNT composite (left panel). Linear least squares plot from Randles-Sevcik analysis (right panel).