

**Supporting Information**

**Graphene Nanoribbon-Supported PtPd Concave Nanocubes for Electrochemical**

**Detection of TNT with High Sensitivity and Selectivity**

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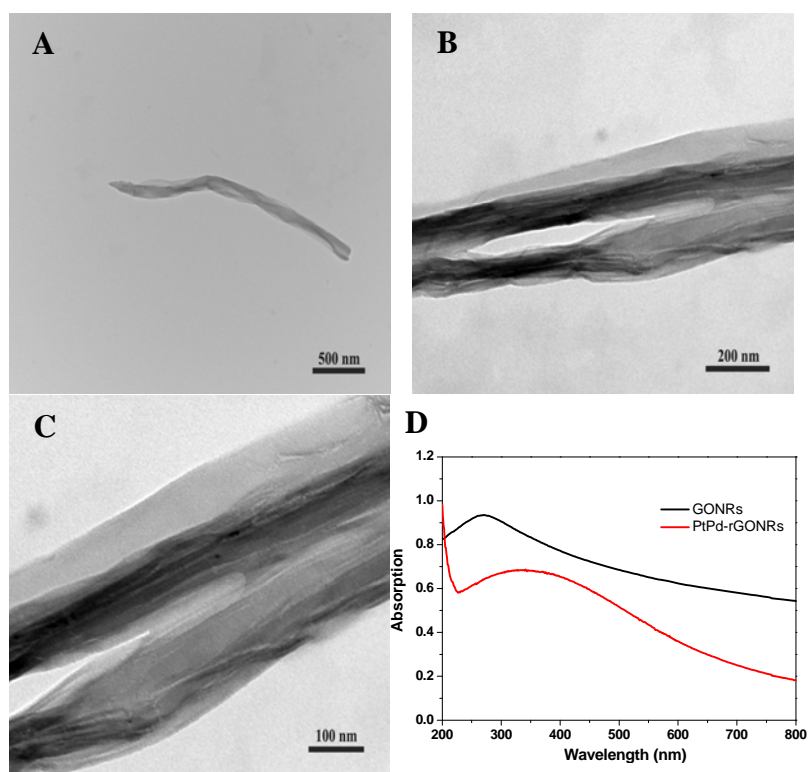
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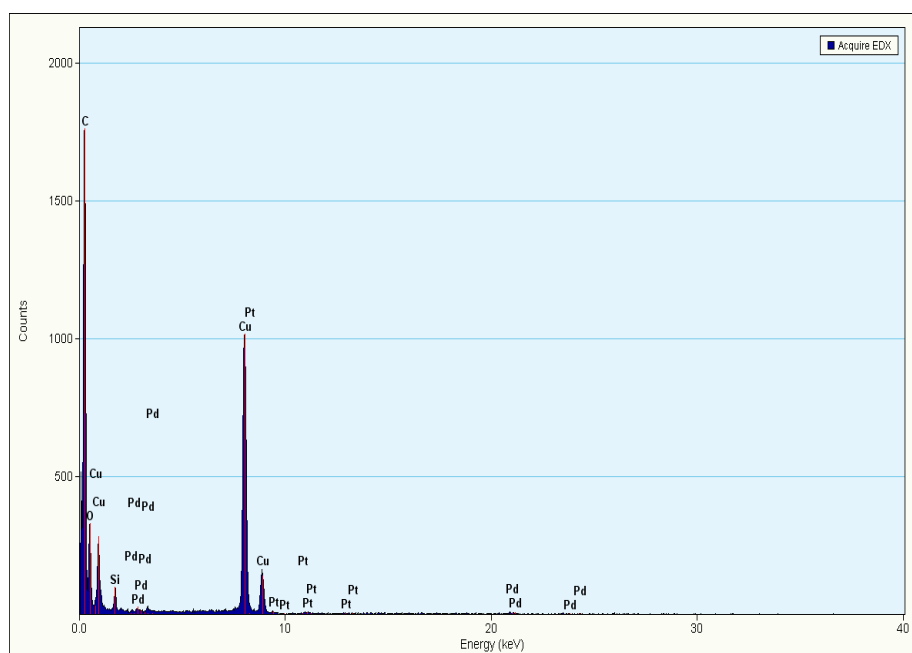
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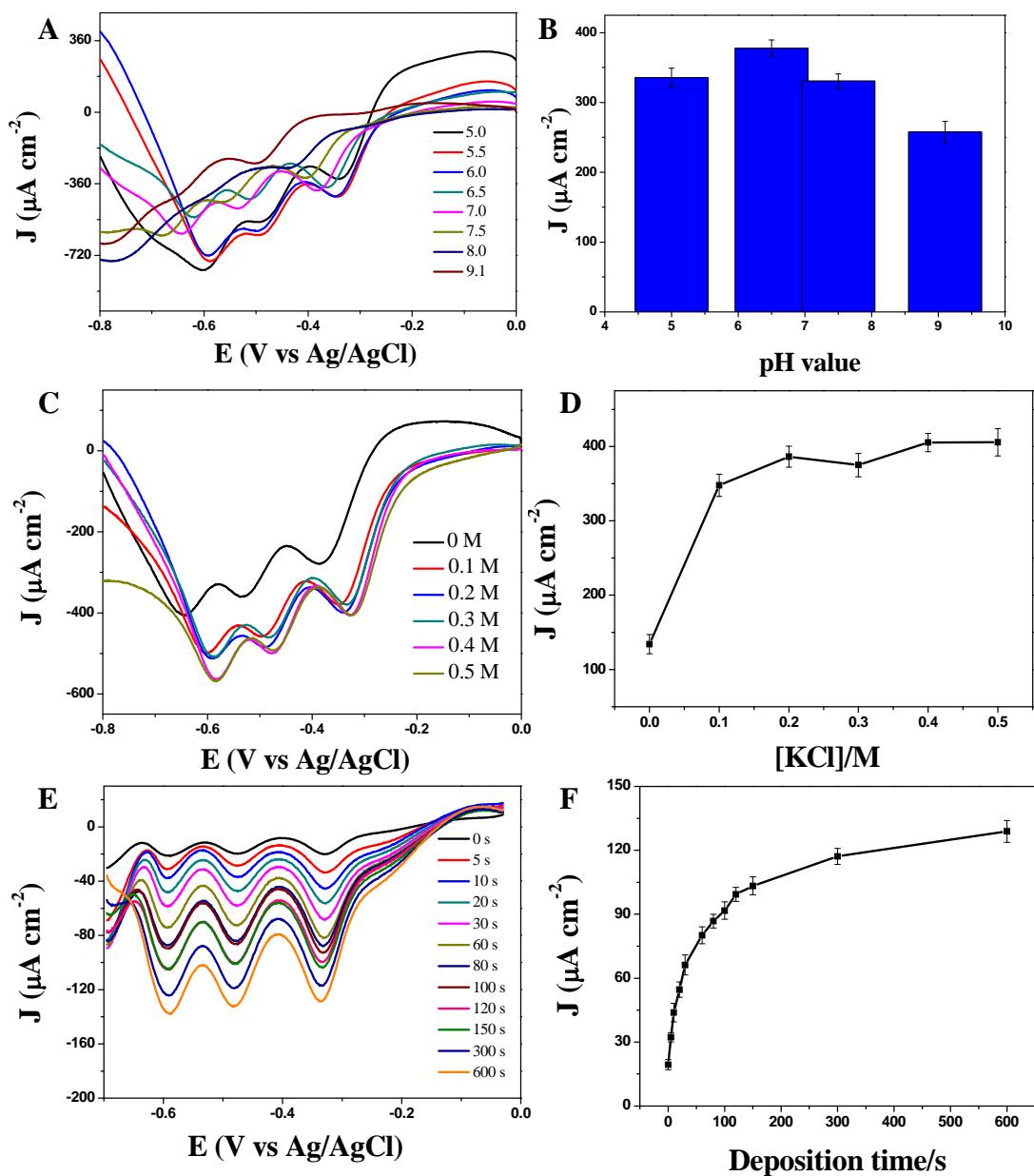
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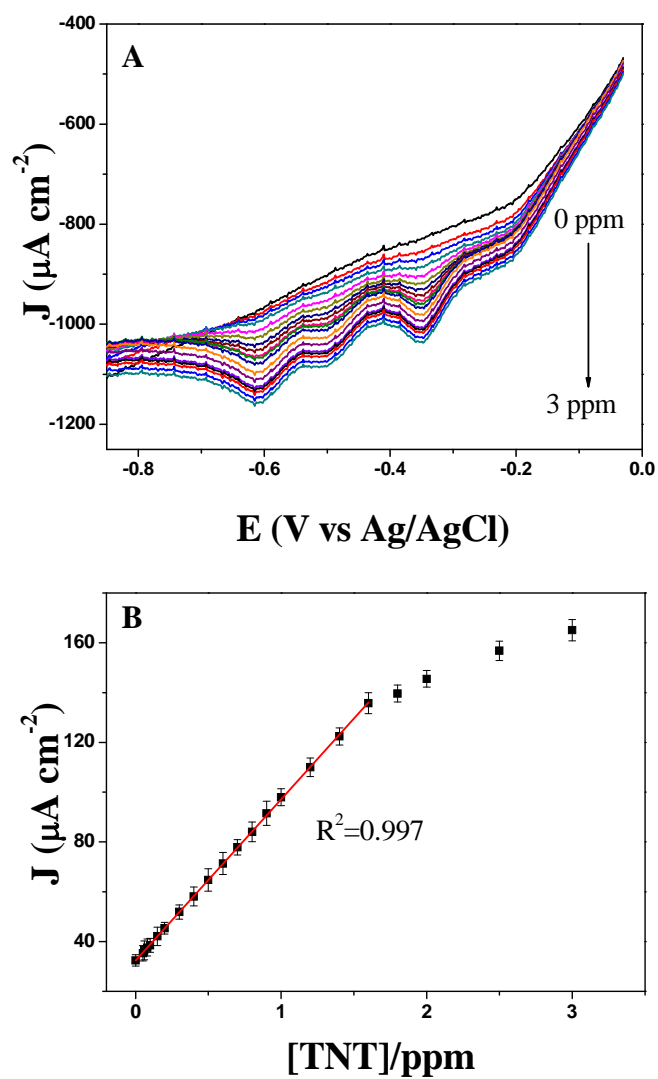
**Figure S1** (A-C) TEM images of graphene oxide nanoribbons (GONRs) at different magnifications. (D) UV-Vis spectra of GONRs and PtPd-rGONRs dispersed in water.



**Figure S2** Energy-disperse X-ray (EDX) analysis of the PtPd-rGONRs. The carbon and Cu peaks come from the carbon film and Cu grid, respectively, for TEM measurements.



**Figure S3** (A) The influence of pH on voltammetric response and (B) the corresponding current density-pH histogram for 1 ppm TNT in 0.1 M PBS containing 0.2 M KCl (scan rate: 50 mV/s, accumulation time: 150 s at 0 V). (C) The influence of supporting electrolyte (KCl) on voltammetric response for 1.4 ppm of TNT in 0.1 M PBS (pH 7.0) and (D) the corresponding current density-KCl concentration histogram. (E) ASVs at the PtPd-rGONRs/GCE for 0.3 ppm of TNT with different accumulation times in 0.1 M PBS with 0.2 M KCl and (F) the corresponding current density-accumulation time plot.



**Figure S4** (A) Stripping voltammograms at the rGONRs/GCE for TNT with different concentrations in 0.1 M PBS with 0.4 M KCl. (B) The plot of the linear relationship between peak current density at -0.36 V and TNT concentrations, the error bars represent the standard deviation of three separate measurements.