

## Supplementary Material

### A Non-Reductive Electrochemical Sensor for Ultrasensitive Detection of pM-Level TNT

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Figure S1. The sensitivities of PANI/AuNPs/CNTs and PANI/CNTs composite electrodes with the same 30-layer PANI to TNT.

Figure S2. The stability of PANI/AuNPs/CNTs (with 30 PANI layers) composite electrode.

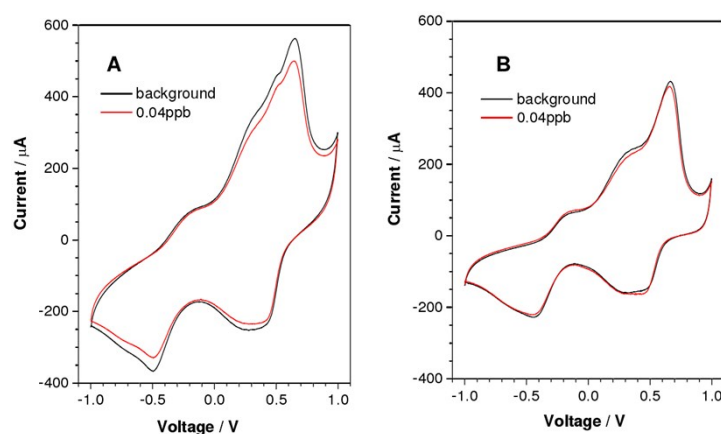


Figure S1. The CV curves of composite electrodes (with 30 PANI layers) with addition of 0.04 ppb TNT: (A) PANI/AuNPs/CNTs; (B) PANI/ CNTs. Potential scan rate: 500 mV•s<sup>-1</sup>; electrolyte: 0.5 M NaCl.

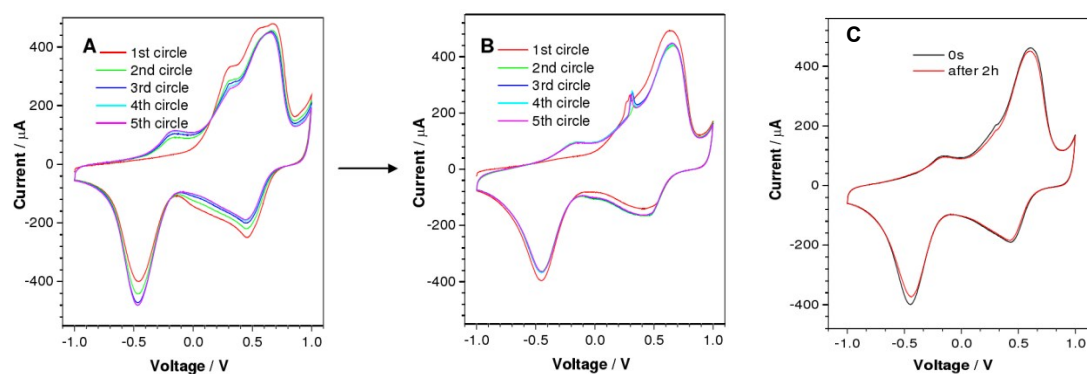


Figure S2. The stability of PANI/AuNPs/CNTs (with 30 PANI layers) composite electrode. (A) Cyclically scan 5 times for the first time in the potential range of +1.0 to -1.0 V. (B) Cyclically scan the second 5 times. (C) Cyclically scan after 2 hours. (Potential scan rate:  $500 \text{ mV}\cdot\text{s}^{-1}$ ; electrolyte: 0.5 M NaCl.)