

Figure S1. The XRD pattern of a-MnO₂/rGO-CNT and a-MnOx

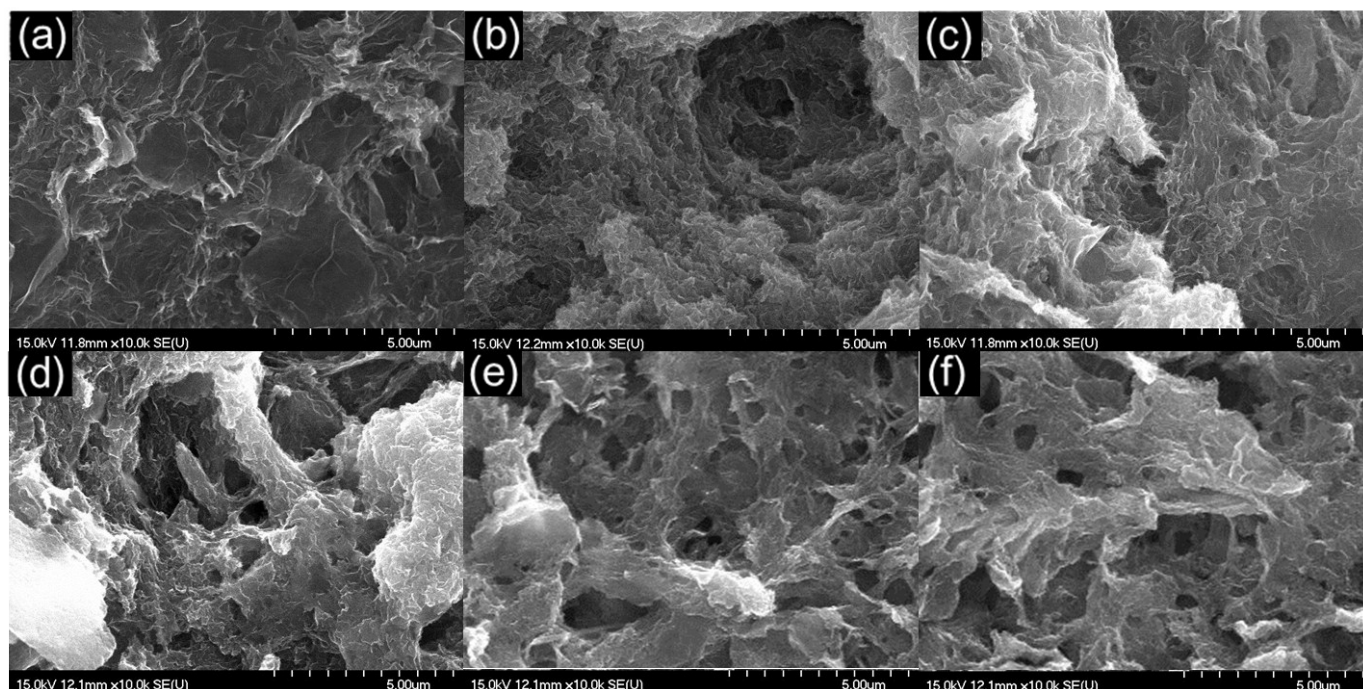


Figure S2. The SEM images of (a)rGO, (b)rGO-CNT_{0.5V}, (c)rGO-CNT_{0.75V}, (d) rGO-CNT_{1V}, (e) rGO-CNT_{1.25V}, (f) rGO-CNT_{1.5V}

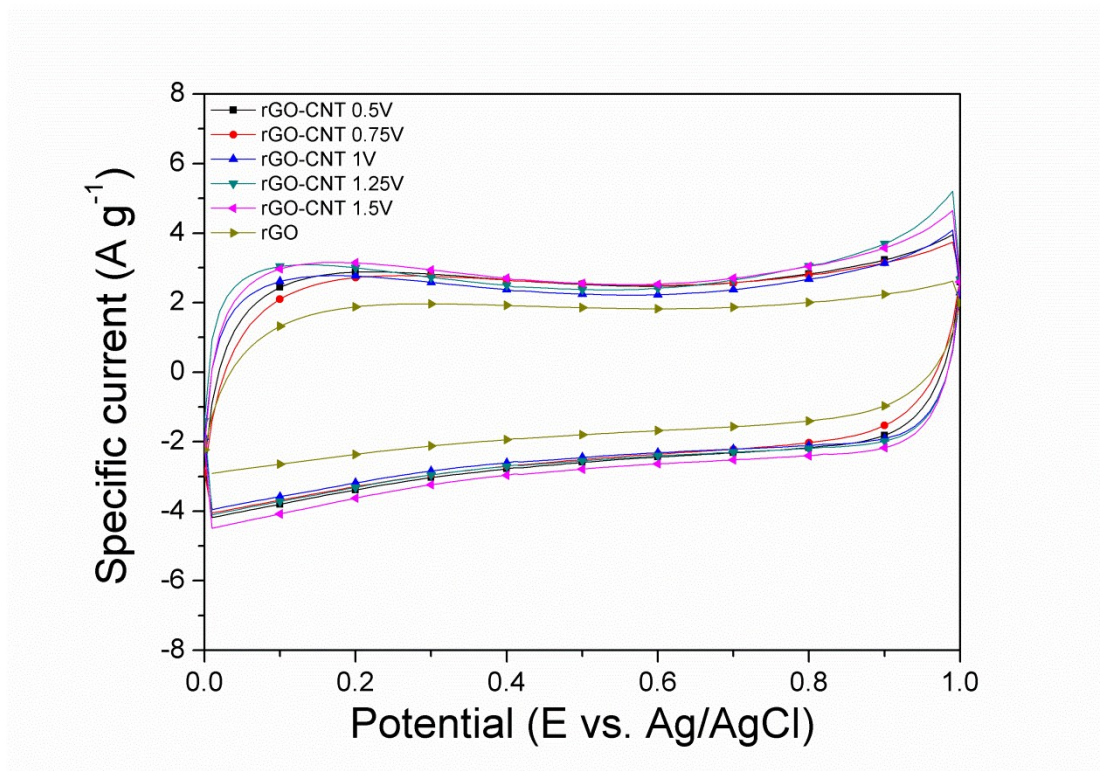


Figure S3. The CV curves of rGO, rGO-CNT_{0.5V}, rGO-CNT_{0.75V}, rGO-CNT_{1V}, rGO-CNT_{1.25V} and rGO-CNT_{1.5V}

The specific capacitance of rGO, rGO-CNT_{0.5V}, rGO-CNT_{0.75V}, rGO-CNT_{1V}, rGO-CNT_{1.25V} and rGO-CNT_{1.5V}, calculated from CV curves, was 75F g⁻¹, 101F g⁻¹, 110F g⁻¹, 114F g⁻¹, 119F g⁻¹ and 113F g⁻¹, respectively.

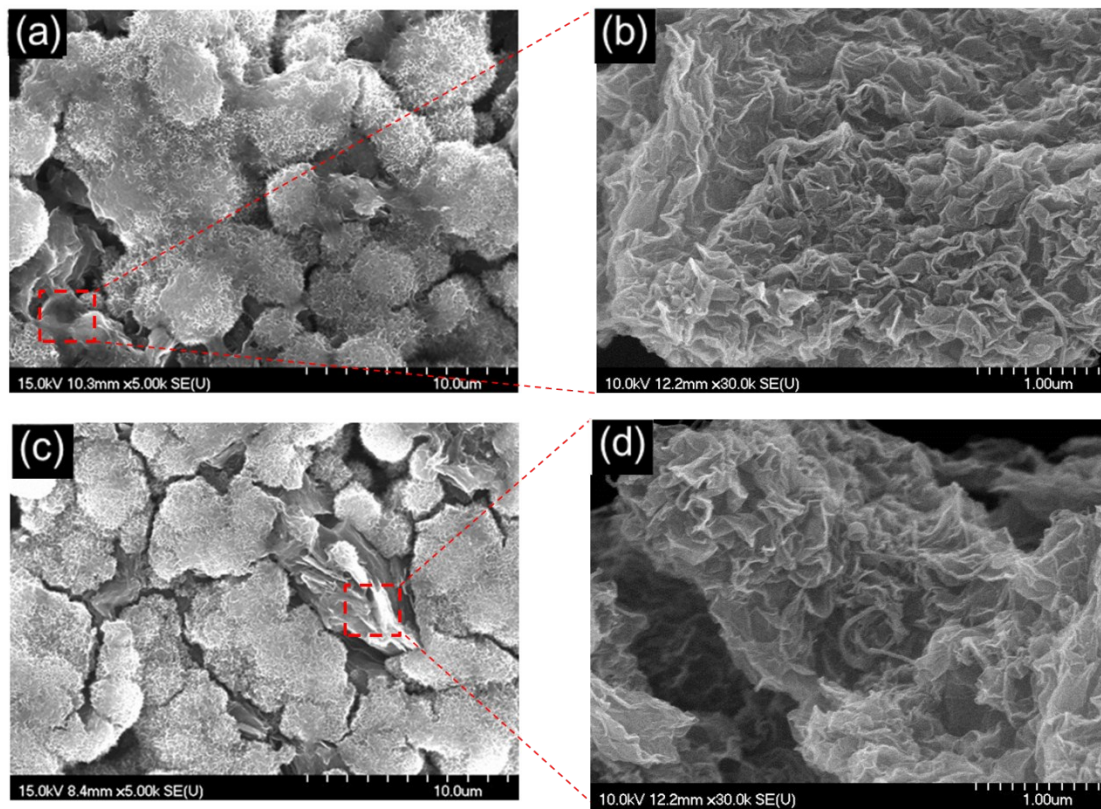


Figure S4. The CV curves of a-MnOx/CNT_{1.25V}, a-MnOx/rGO_{1.25V}, and a-MnOx/r-GO-CNT_{1.25V}

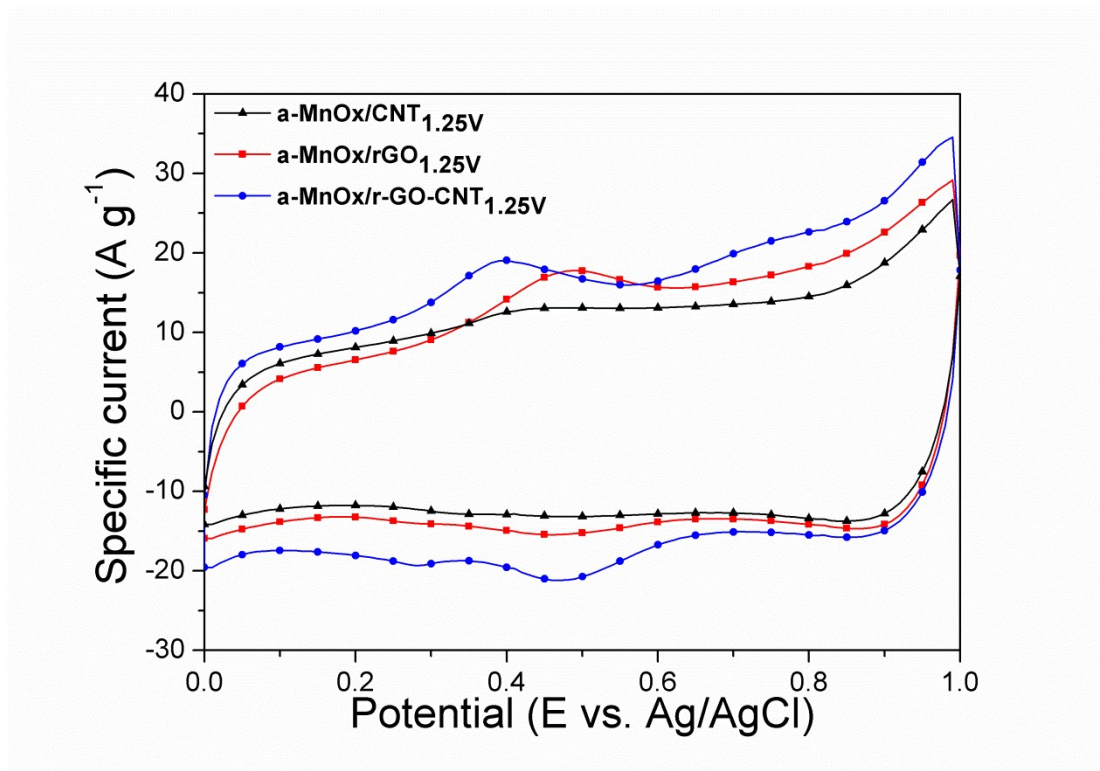


Figure S5. The SEM images of (a,c) α -MnO_x/rGO-CNT and (b,d) the exposed rGO-CNT

The specific capacitance of α -MnO_x/CNT_{1.25V}, α -MnO_x/rGO_{1.25V}, and α -MnO_x/r-GO-CNT_{1.25V}, calculated from CV curves, was 311.7 F g⁻¹, 349 F g⁻¹, and 437 F g⁻¹, respectively.