Figure S1. The XRD pattern of a-MnO$_2$/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$_{1.5V}$
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 75 F g$^{-1}$, 101 F g$^{-1}$, 110 F g$^{-1}$, 114 F g$^{-1}$, 119 F g$^{-1}$ and 113 F 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}
The specific capacitance of a-MnO$_x$/CNT$_{1.25V}$, a-MnO$_x$/rGO$_{1.25V}$, and a-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.