Supporting Information

High Capacity Vanadium Oxide Electrodes:

Effective Recycling through Thermal Treatment

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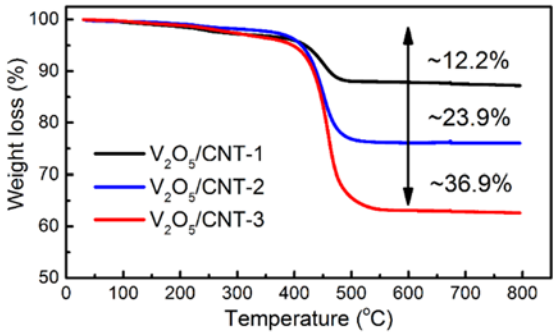

Figure S1. TGA curves for V_2O_5/CNT-1, V_2O_5/CNT-2, and V_2O_5/CNT-3 binder-free electrodes.

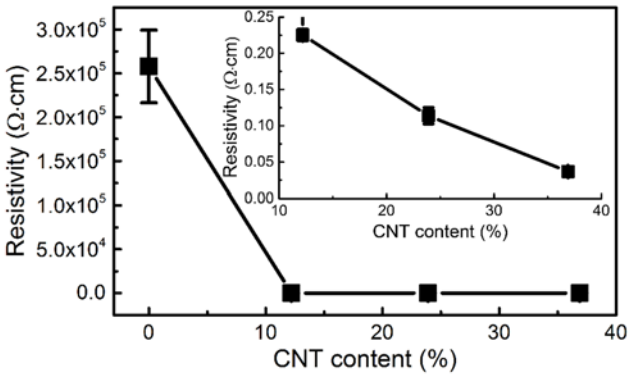

Figure S2. Resistivity values for V_2O_5/CNT-0, V_2O_5/CNT-1, V_2O_5/CNT-2, and V_2O_5/CNT-3.

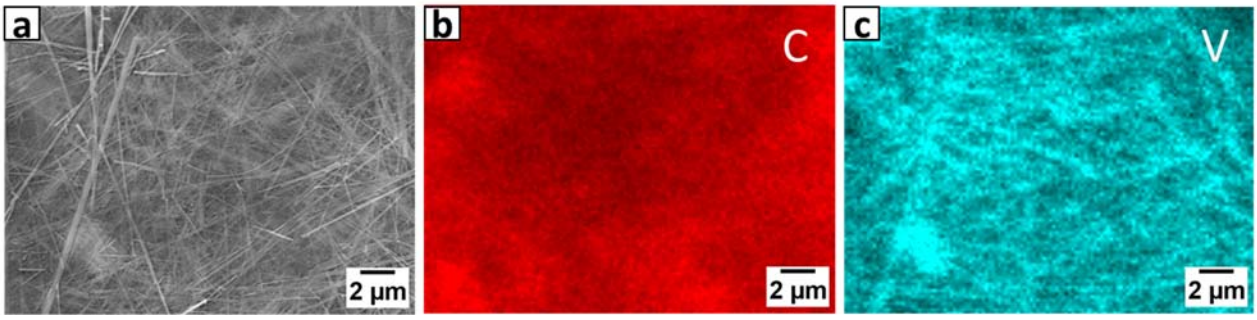

Figure S3. SEM images (a), and EDS maps for carbon (b), and vanadium (c) for V_2O_5/CNT-3.

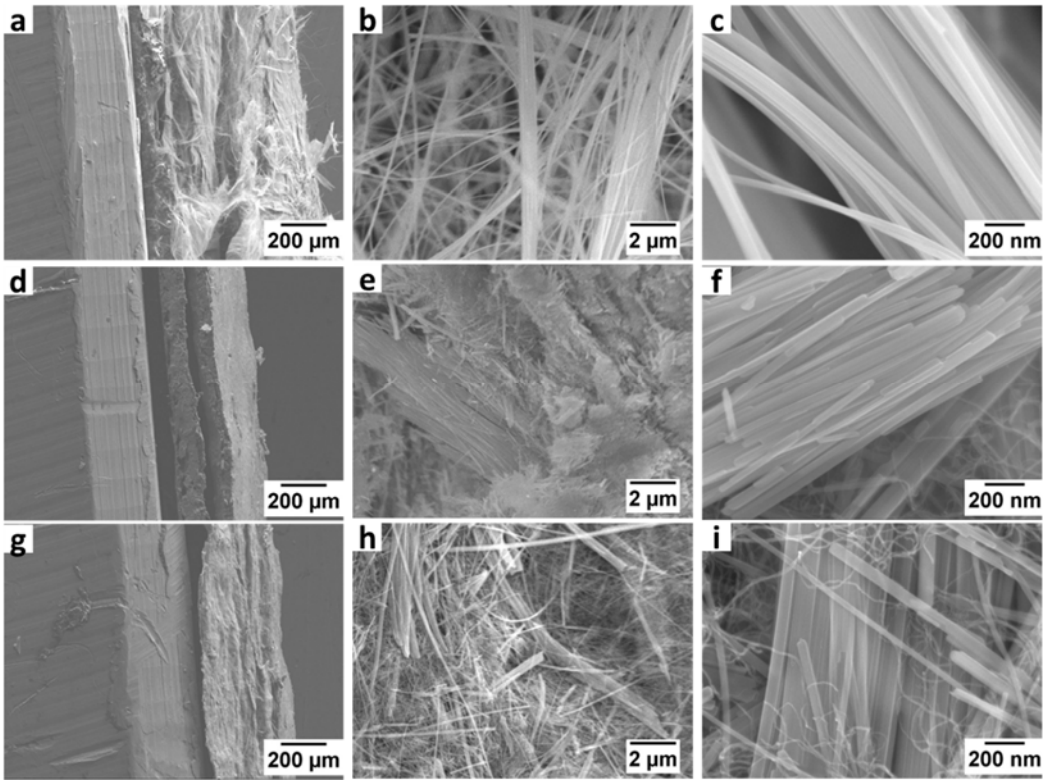

Figure S4. Representative low magnification side-view (a,d,g), high magnification side-view (b,e,h) and top-view (c,f,i) images of (a-c) V_2O_5/CNT-0, (d-f) V_2O_5/CNT-1, and (g-h) V_2O_5/CNT-2.

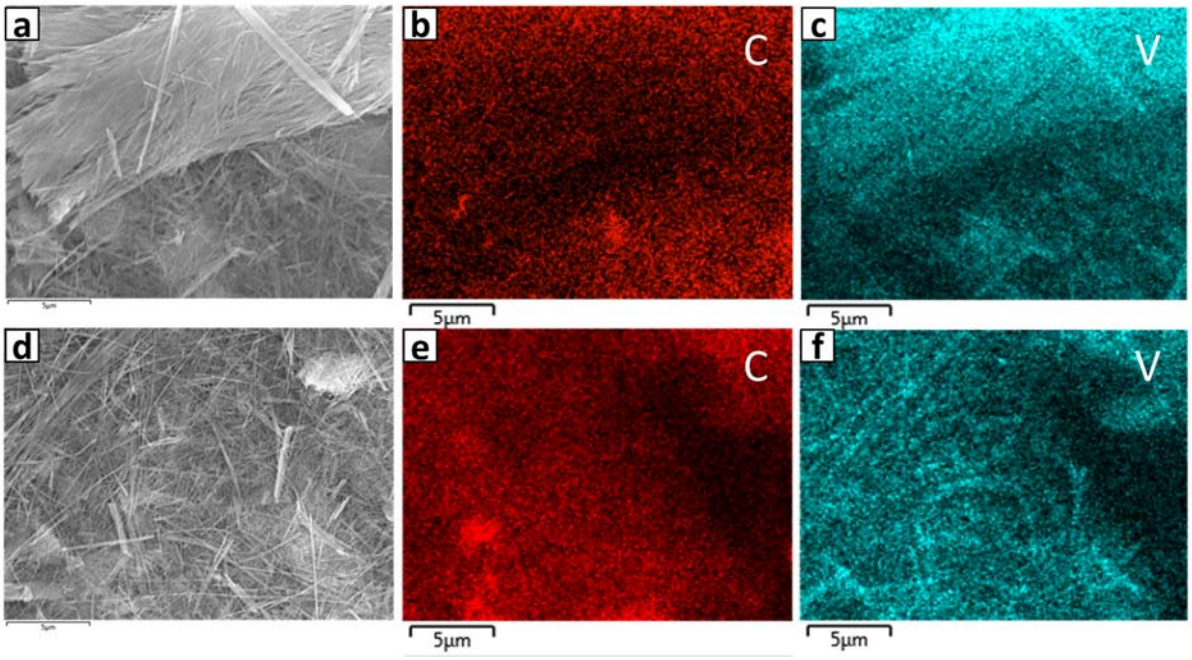

Figure S5. Representative SEM images (a,d), and elemental EDS maps for carbon (b,d), and vanadium (c,f) for (a-c) V_2O_5/CNT-1, (d-f) V_2O_5/CNT-2.

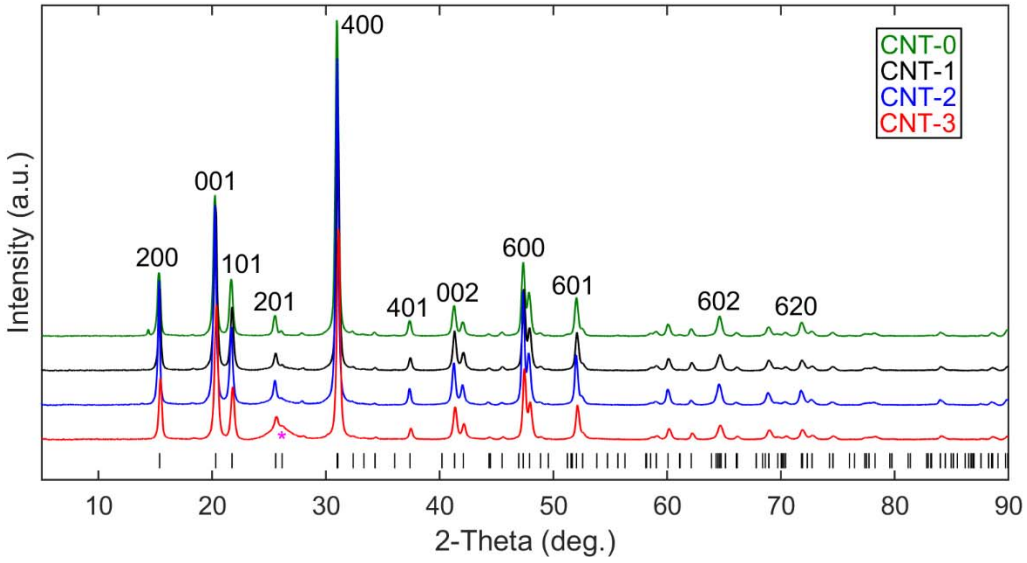

Figure S6. XRD patterns of V_2O_5/CNT-0, V_2O_5/CNT-1, V_2O_5/CNT-2, and V_2O_5/CNT-3 binder-free electrodes. The reflections corresponding to α-V_2O_5 (PDF#00-041-1426) are marked in black, and the magenta asterisk indicates the broad peak of carbon nanotubes.

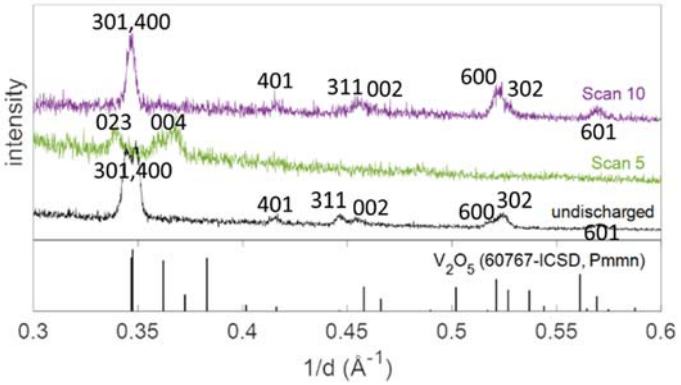

Figure S7. EDXRD patterns for the V_2O_5-CNT-3 electrode undischarged, at end of discharge (scan 5), and end of charge (Scan 10) in the same spatial location from 1/d = 0.3 - 0.6 $Å^{-1}$.