Electronic Supplementary Material (ESI) for Nanoscale.

Supporting Information

Simple Fabrication of Flexible Electrode with High Metal-Oxide Content: Electrospun Reduced Tungsten Oxide/Carbon Nanofibers for Lithium Ion Battery Applications

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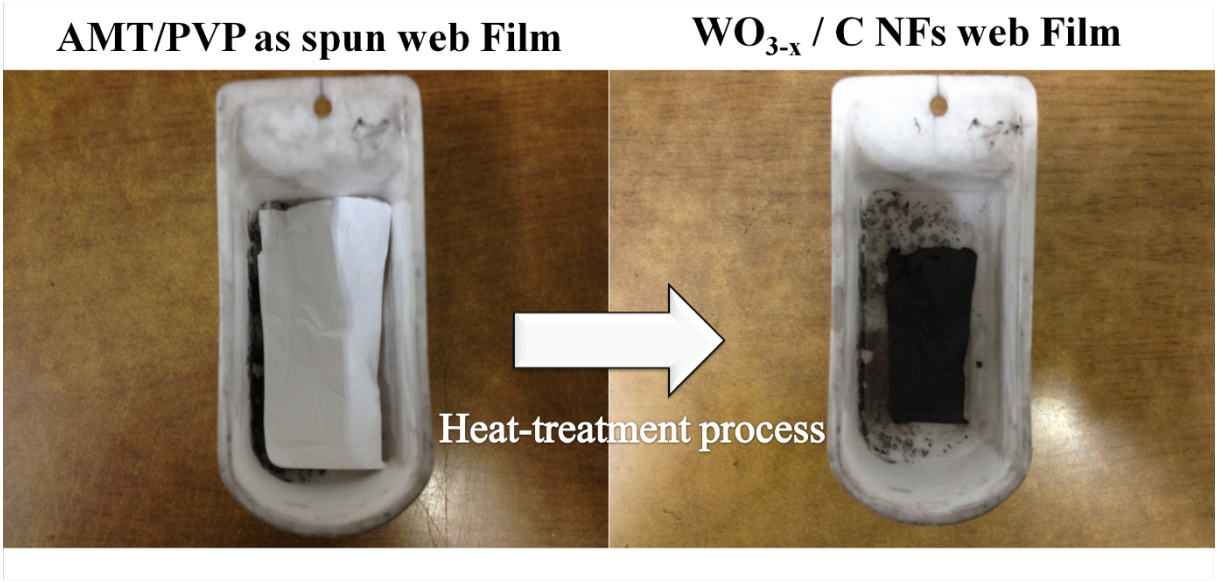

Figure S1. Digital photograph of as-spun fiber web (before heat treatment) and WO_x-C-NF web (after heat treatment)

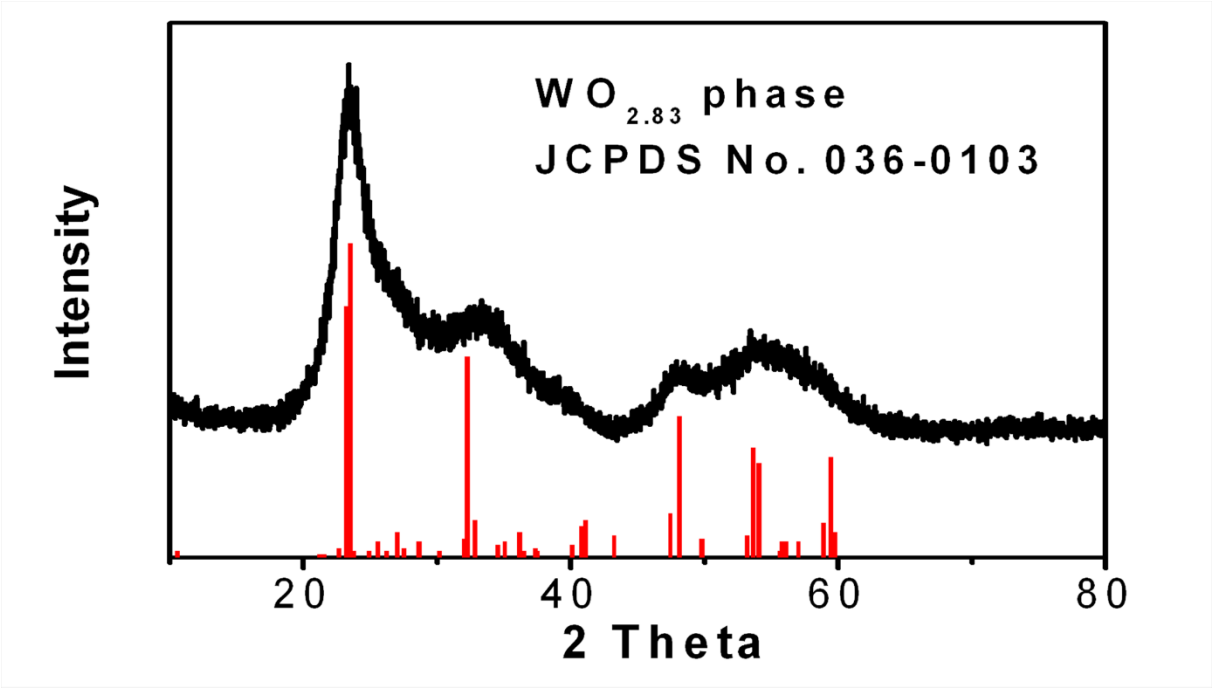

Figure S2. XRD pattern of WO_x-C NF ($WO_{2.83}$ phase, JCDS NO. 036-0103)

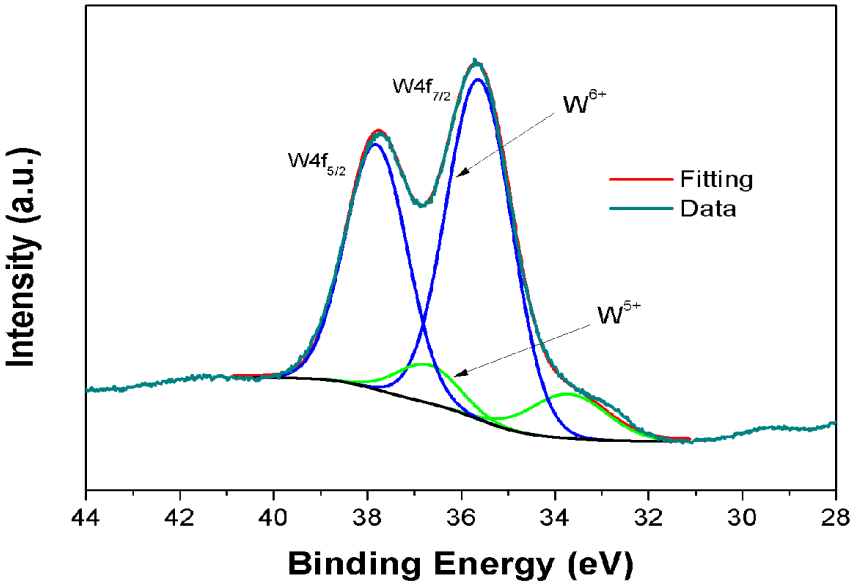

Figure S3. X-ray photoelectron spectroscopy of WO_x-C-NF for W 4f. The relative area of W^{5+} takes up 13 % of the total area.

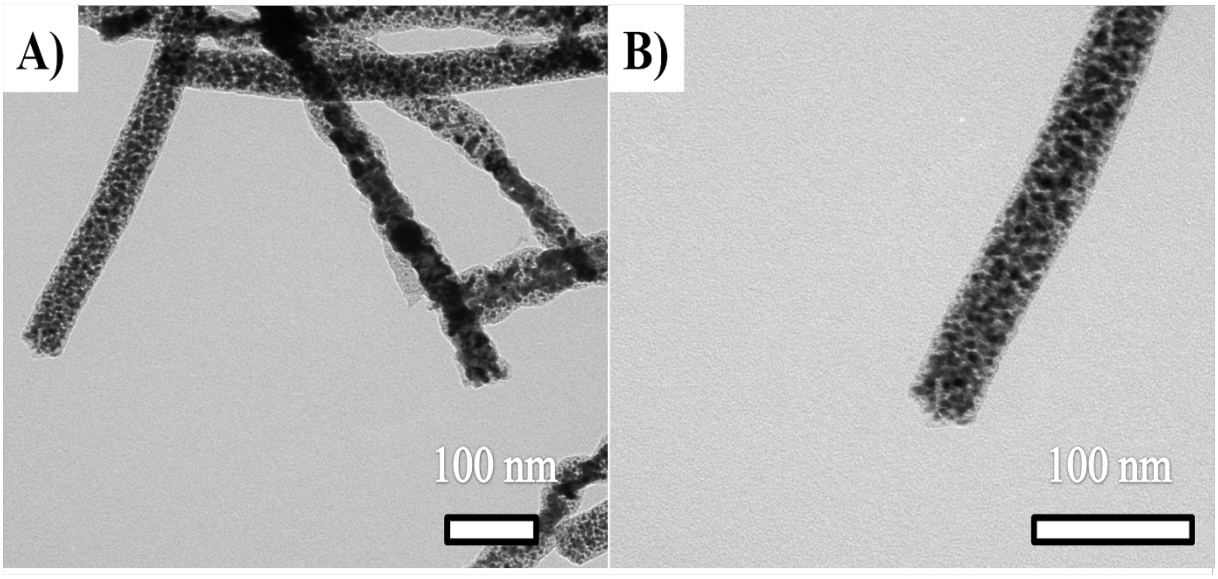

Figure S4. TEM images of WO_x-C-NF after heat-treated at 900 °C in nitrogen atmosphere.

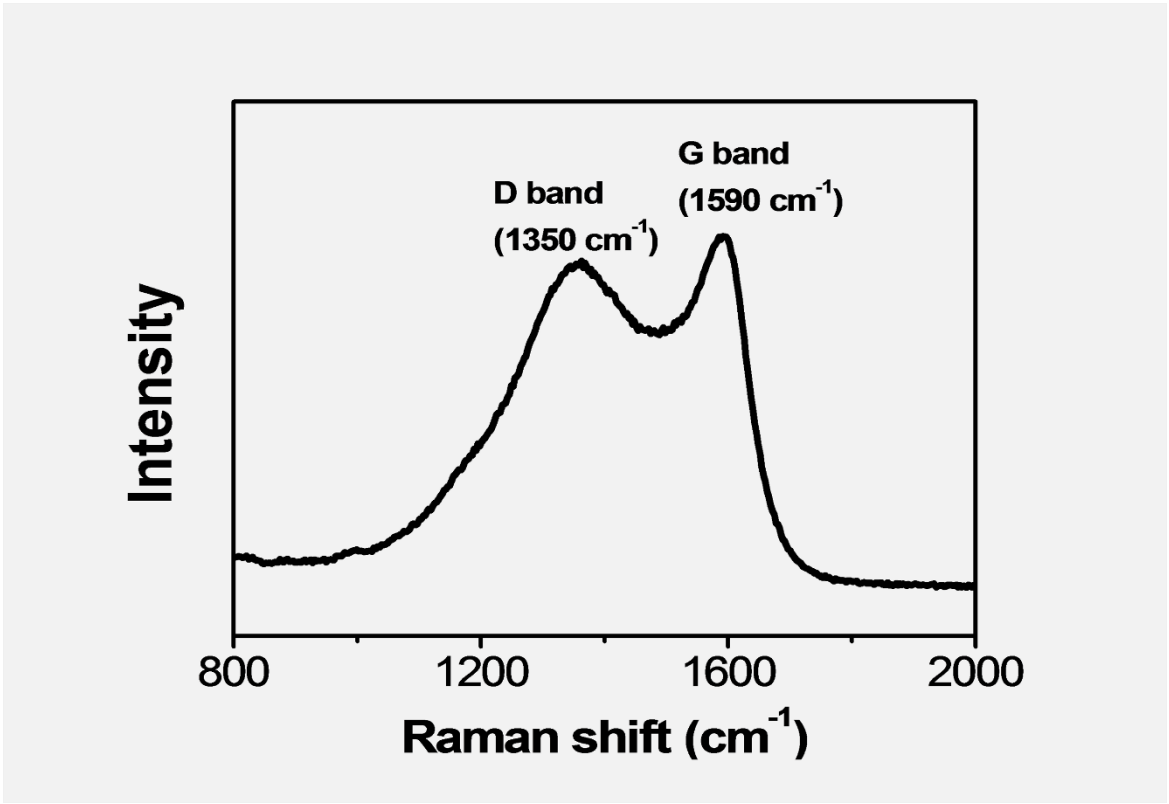

Figure S5. Raman spectrum of WO_x-C-NFs

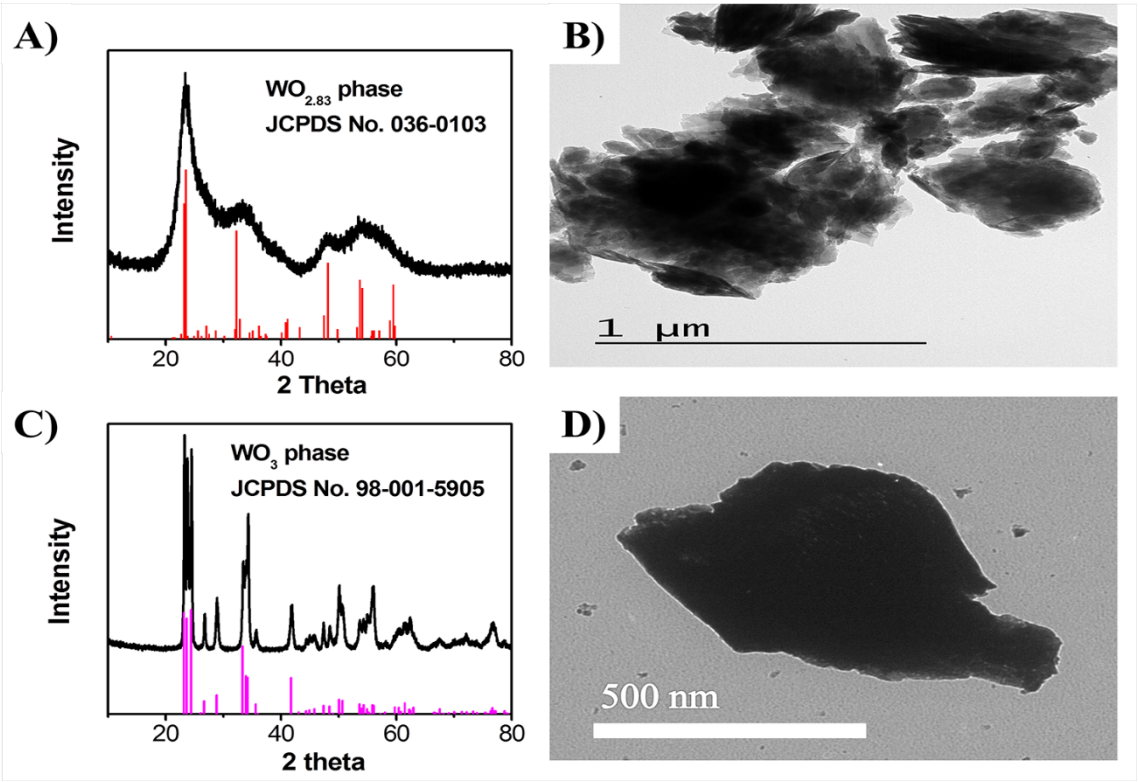

Figure S6. A) XRD pattern and B) TEM image of WO_x-C-Nano. C) XRD pattern and D) TEM image of WO_x-Nano

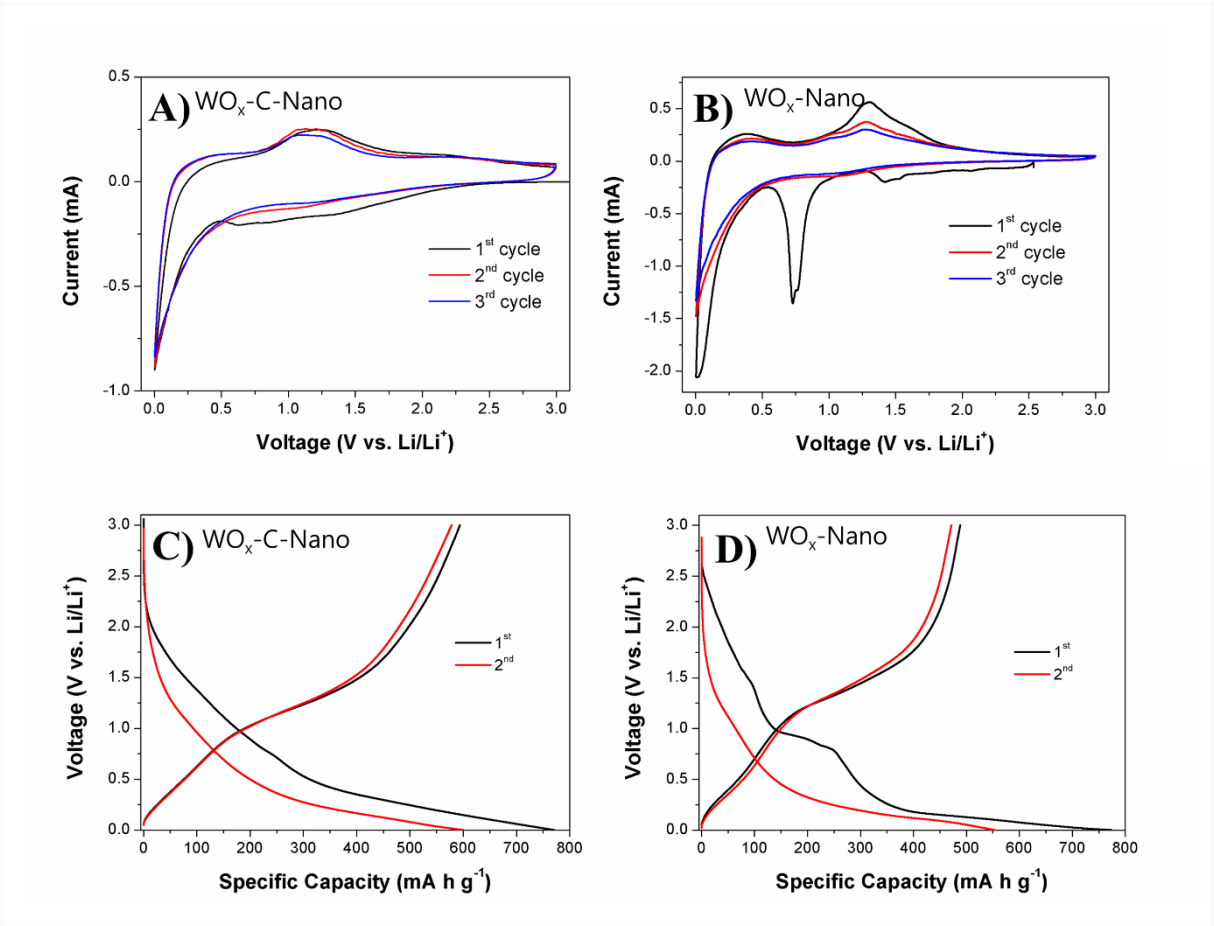

Figure S7. (A), (B) Cyclic voltammetry curves and (C), (D) galvanostatic charge/discharge curves of WO_x-C-Nano and WO_x-Nano electrodes. The voltage window has a range of 3.0 to 0.01 V range.

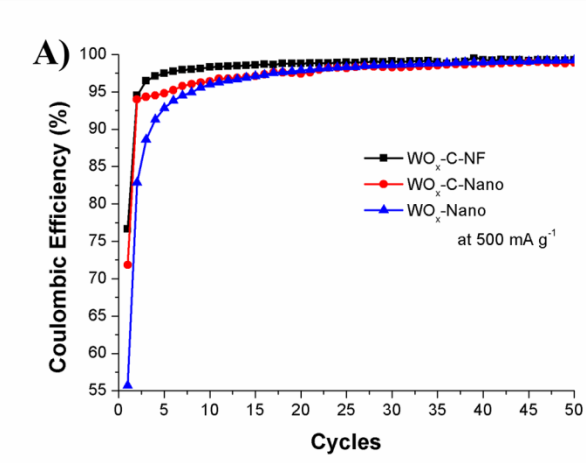

Figure S8. Coulombic efficiency versus cycle number plots for (A) WO_x-C-NF, WO_x-C-Nano, and WO_x-Nano electrodes at 500 mA g^{-1}.

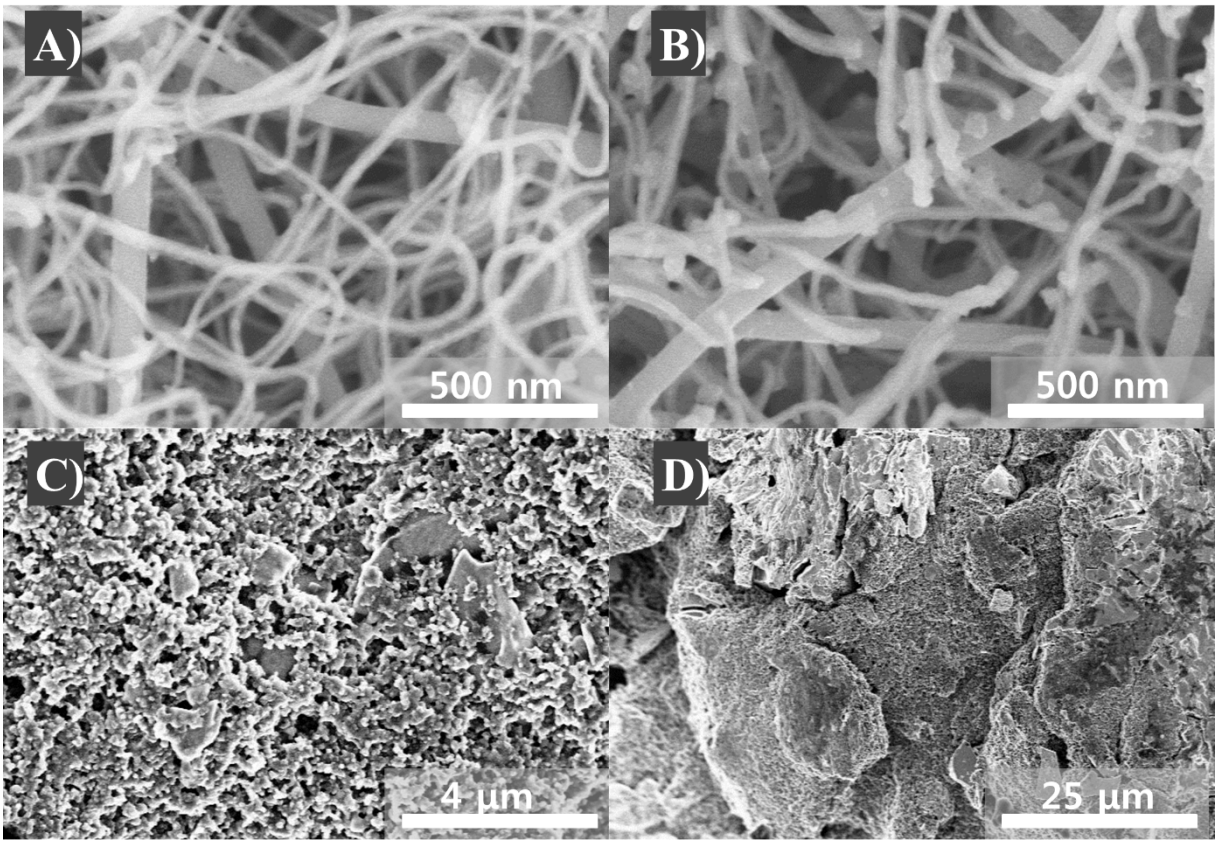

Figure S9. SEM images of (A, B) WO_x-C-NF and (C, D) WO_x-C-Nano after 50 charge-discharge cycles at constant current density of 50 mA g^{-1}.