

## Supporting Information

### Atomic Layer Deposited Tungsten Nitride Thin Films as New Lithium-ion Battery Anode

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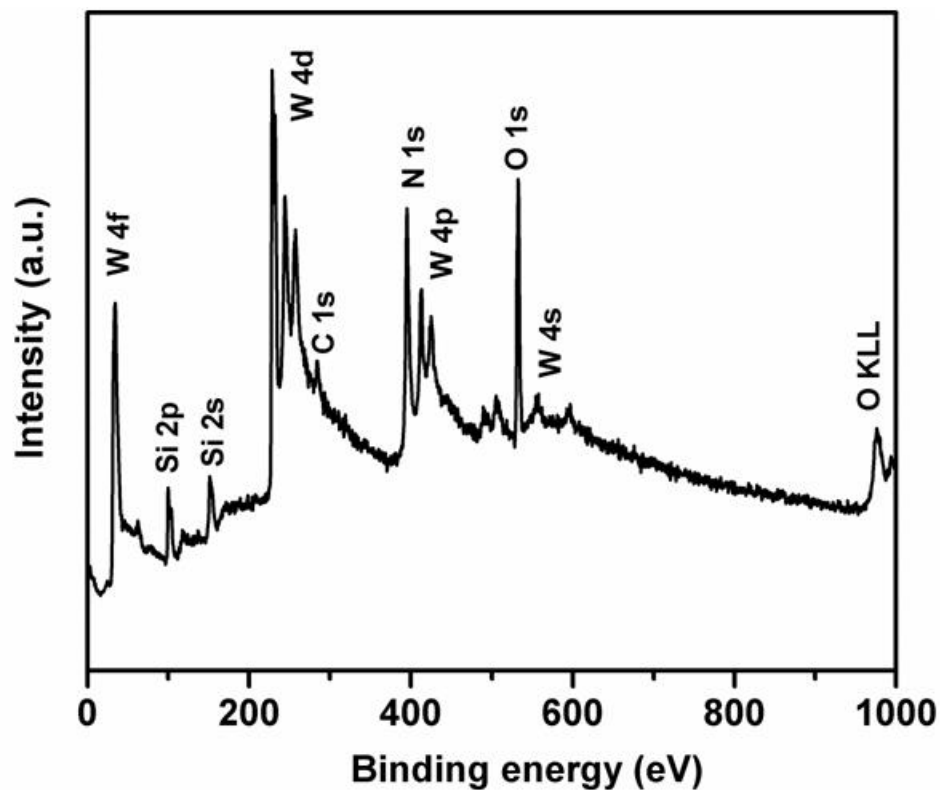


Fig. S1 XPS survey of the as-grown  $\text{WN}_x$  film in a complete binding energy range of 0-1000 eV

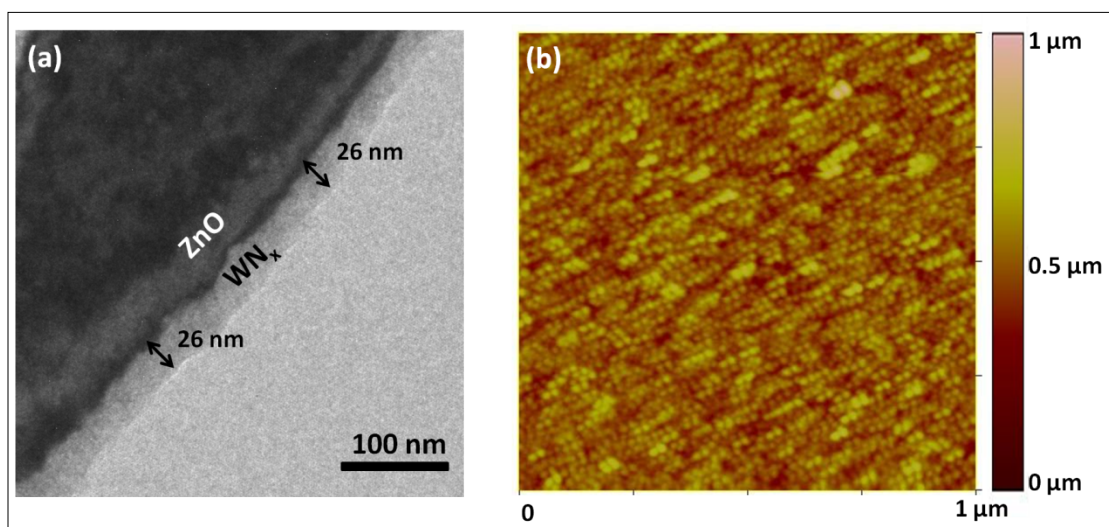


Fig. S2(a) HR-TEM image of ALD  $\text{WN}_x$  on ZnO and (b) surface AFM of the as-grown film

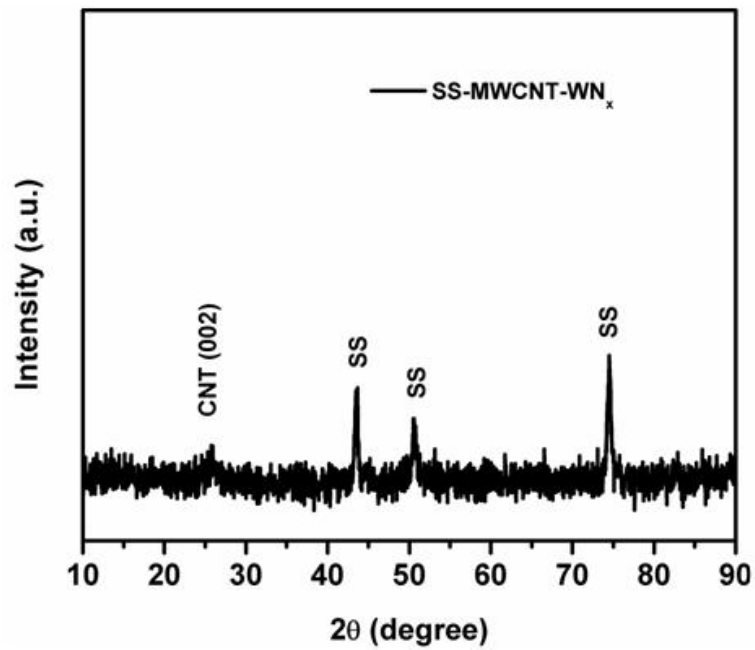


Fig. S3 X-ray diffraction of MWCNT-WN<sub>x</sub> film on SS substrate

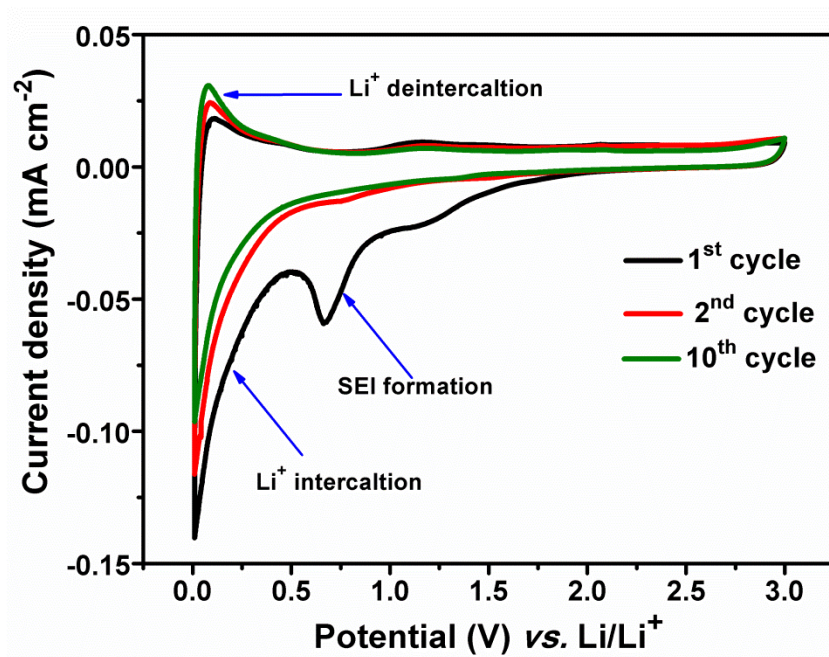


Fig. S4 Cyclic Voltammetry of MWCNT with scan rate of 0.2 mVs<sup>-1</sup> against Li/Li<sup>+</sup>

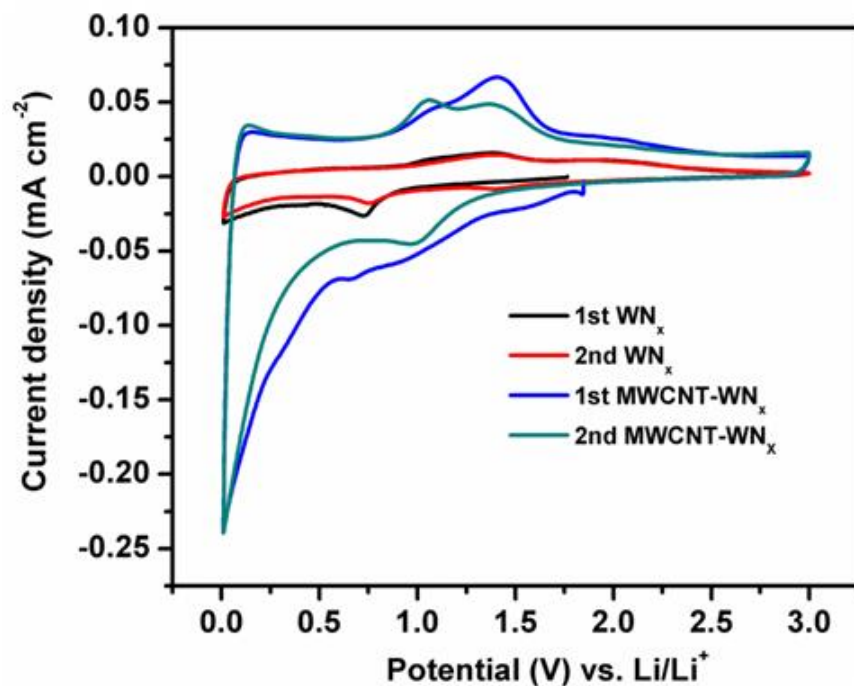


Fig. S5 CV of first two cycles for the as-grown film and film on MWCNT showing the capacity increment of the MWCNT-WN<sub>x</sub> assembly

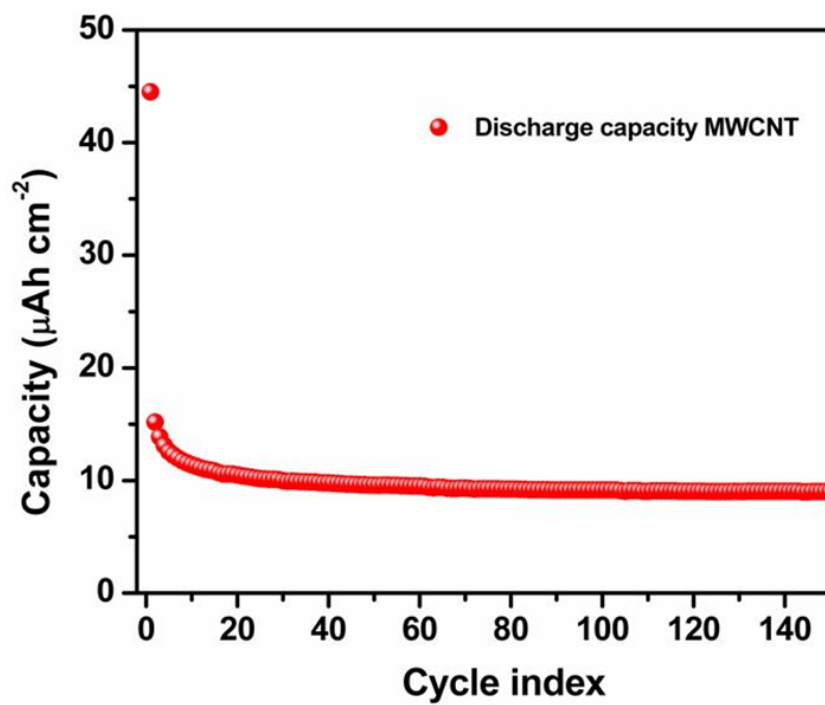


Fig. S6 Discharge capacity with cycle index for MWCNT at a scan rate of  $50 \mu\text{A cm}^{-2}$  against Li/Li<sup>+</sup>