

## Supporting Information

# Rationally designed Hierarchical C/TiO<sub>2</sub>/Ti multilayer Core-sheath Wires for High-performance Energy Storage Devices

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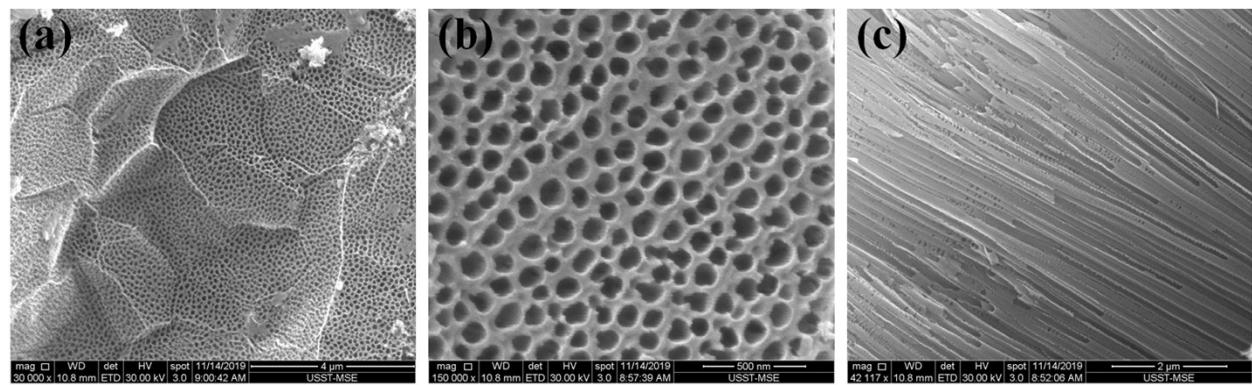


Figure S1. (a,b) Top-view and (c) side view SEM images of  $\text{TiO}_2/\text{Ti}$  core-sheath wire.

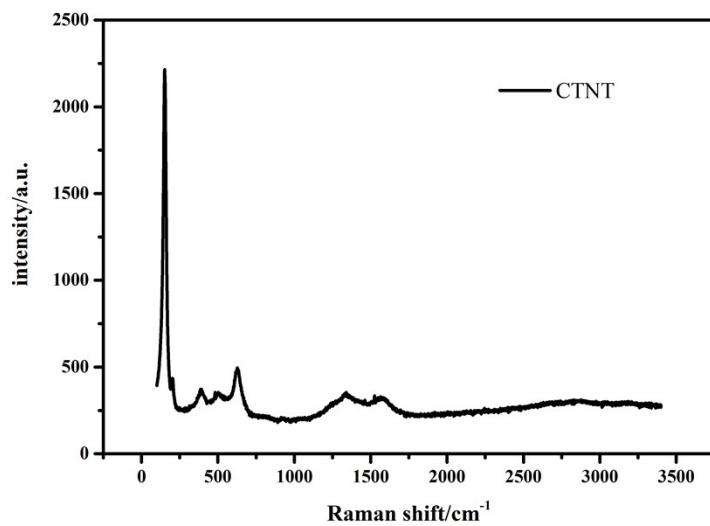


Figure S2. Raman spectrum of CTNT.

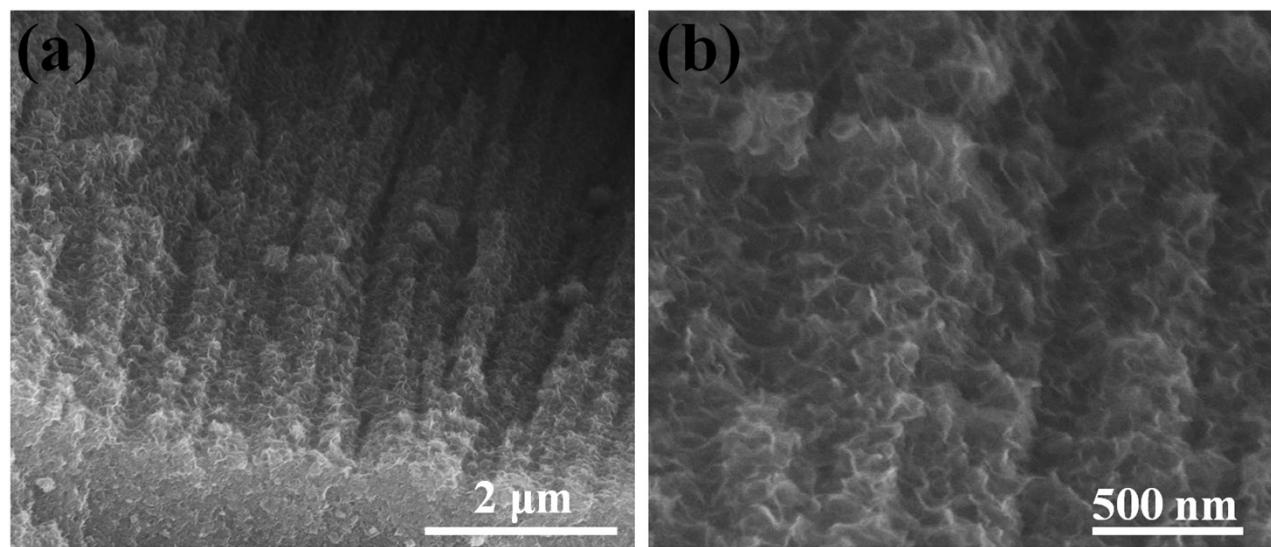


Figure S3. Side view SEM image of MoS<sub>2</sub>@CTNT core-sheath wire.

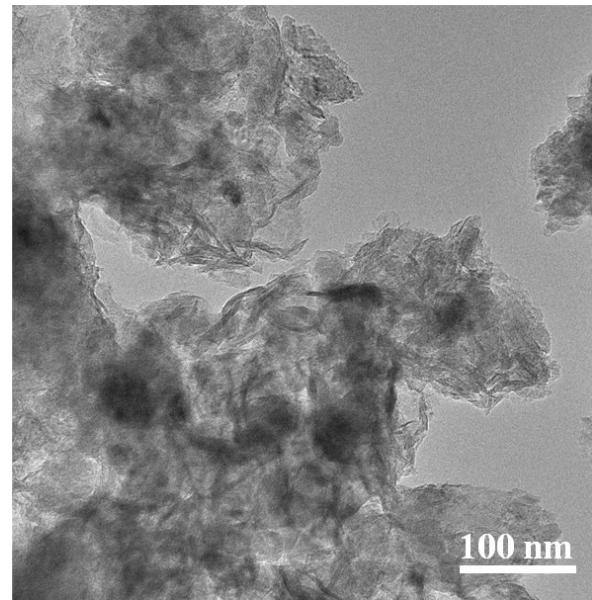


Figure S4. TME image of MoS<sub>2</sub> from MoS<sub>2</sub>@CTNT core-sheath wire

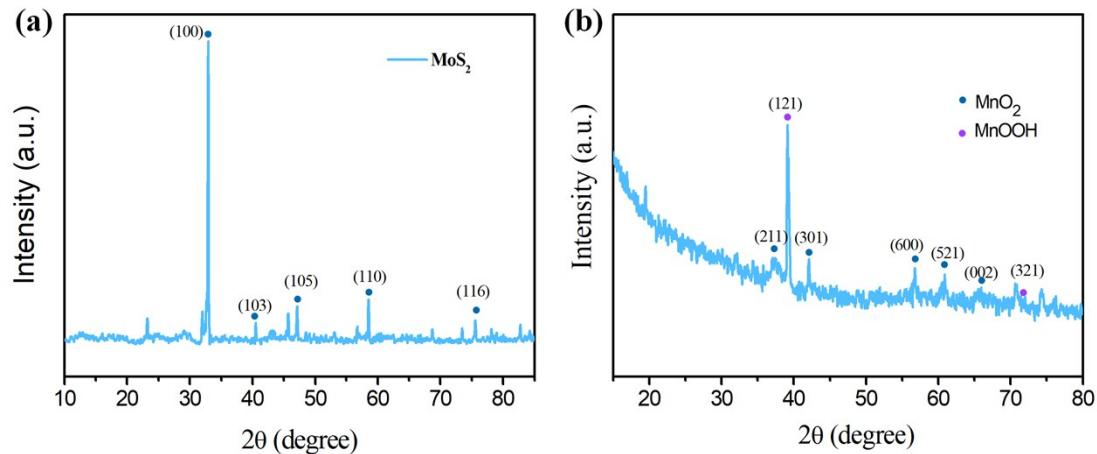


Figure S5. XRD patterns of (a) MoS<sub>2</sub>@CTNT (b) MnO<sub>2</sub>@CTNT

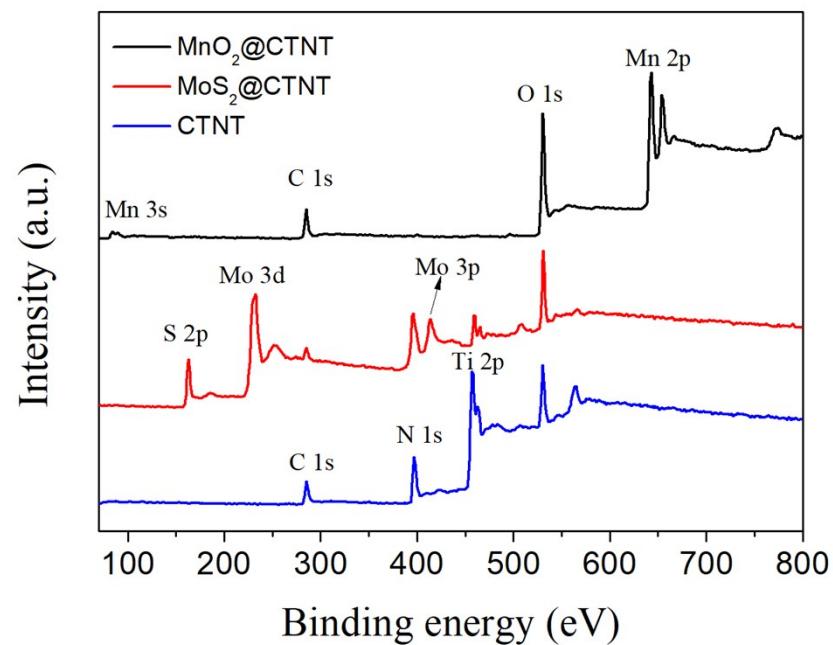


Figure S6. The survey XPS spectra of CTNT, MoS<sub>2</sub>@CTNT, MnO<sub>2</sub>@CTNT.