## **Electronic Supplementary Information**

## Three-dimensional Hierarchical Self-supported Multi-walled Carbon Nanotubes/Tin (IV) Disulfide Nanosheets Heterostructure Electrodes for High Power Li ion Batteries

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Figure S1. Low-magnification TEM image of the MWCNT.



Figure S2. XRD pattern of the self-supported MWCNT directly synthesized on the SS substrate.



Figure S3. (a, c) Low-magnification and (b, d) high-magnification TEM images of the  $MWCNT/SnS_2$  heterostructures.



**Figure S4.** Galvanostatic voltage profiles against specific capacity of the self-supported MWCNT electrodes over  $0.2 \sim 1.3$  V during 100 cycles at a current density of 645 mA g<sup>-1</sup>.