

Supplemental Information

**Free-standing lithiophilic Ag-nanoparticles-decorated 3D porous carbon nanotube film for
stable lithium metal anode**

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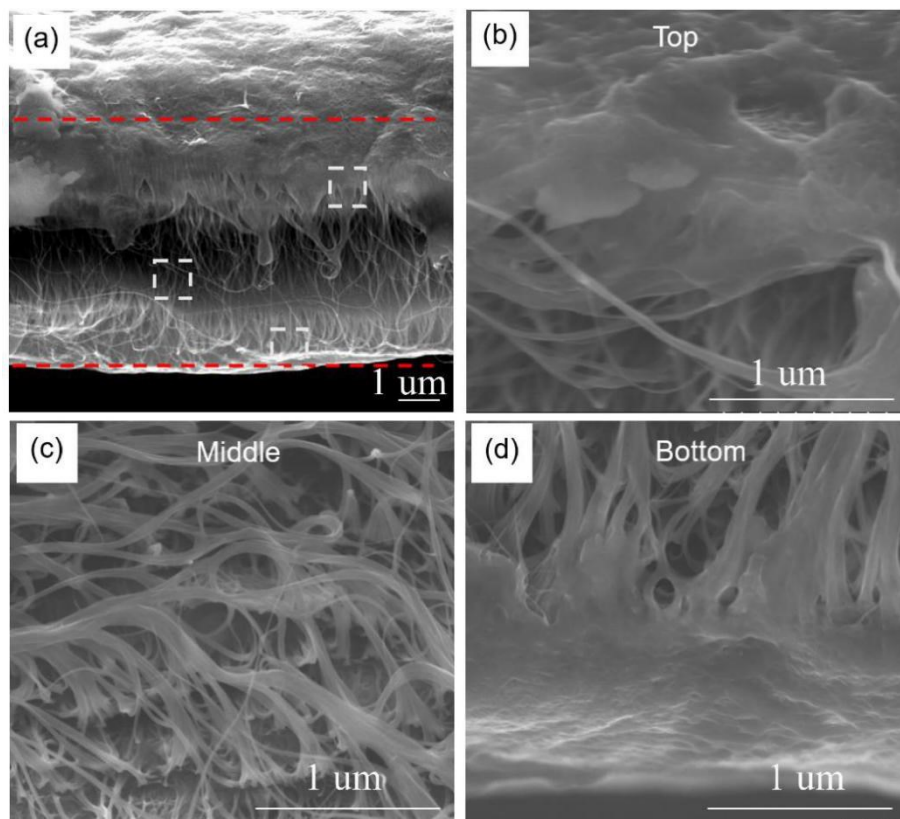


Figure S1. Cross sectional SEM images of the CNTs film.

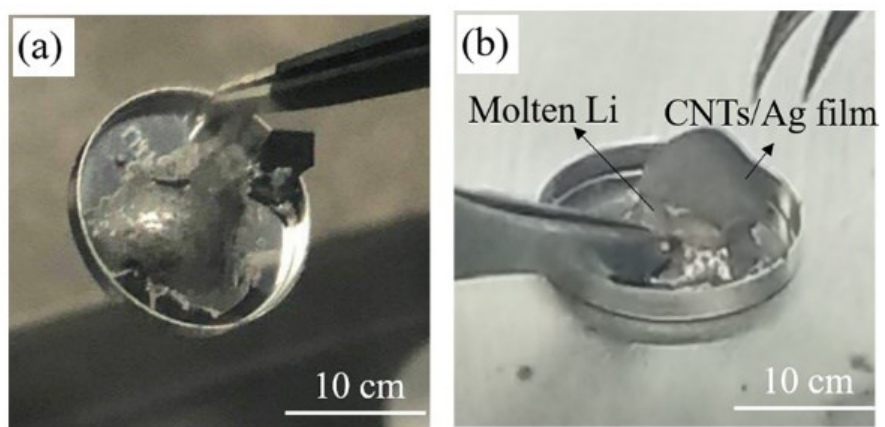


Figure S2. Digital photographs of CNTs film (a) and CNTs/Ag film (b) during thermal molten Li at 300 °C.

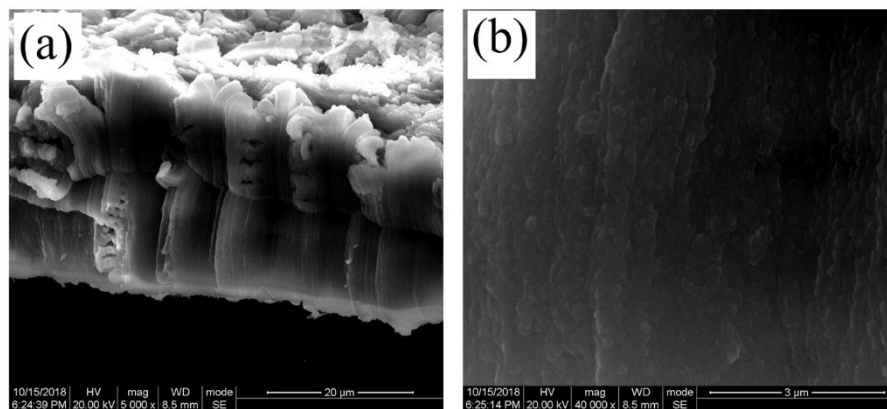


Figure S3. The cross-sectional SEM image of CNTs/Ag/Li film at a low magnification (a) and a high magnification (b).

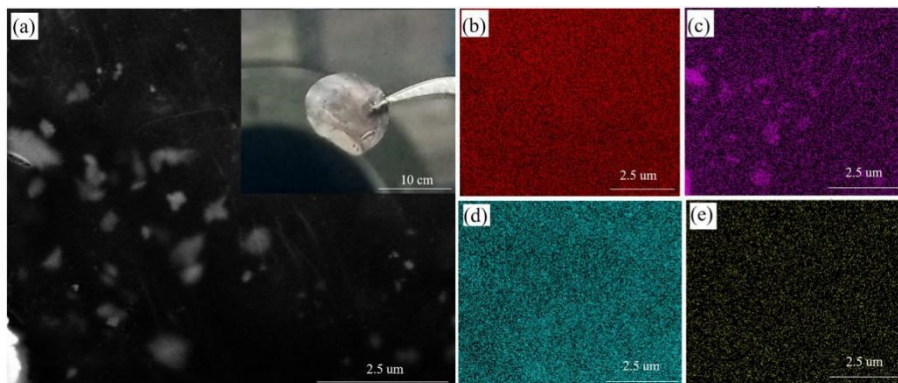


Figure S4. The cross-sectional SEM image of CNTs/Ag/Li film (a) and the corresponding elemental mapping of C (b), Ag (c), O (d), Li (e). the inset image in (a) is the optical photograph of CNTs/Ag/Li film.

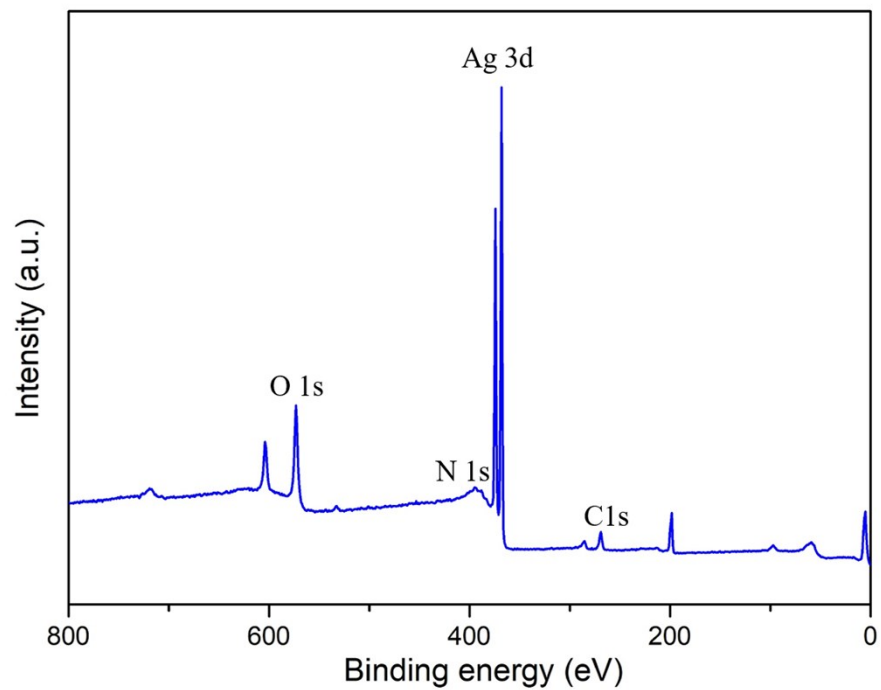


Figure S5. XPS spectrum of the CNTs/Ag/Li film.