

## Supporting information

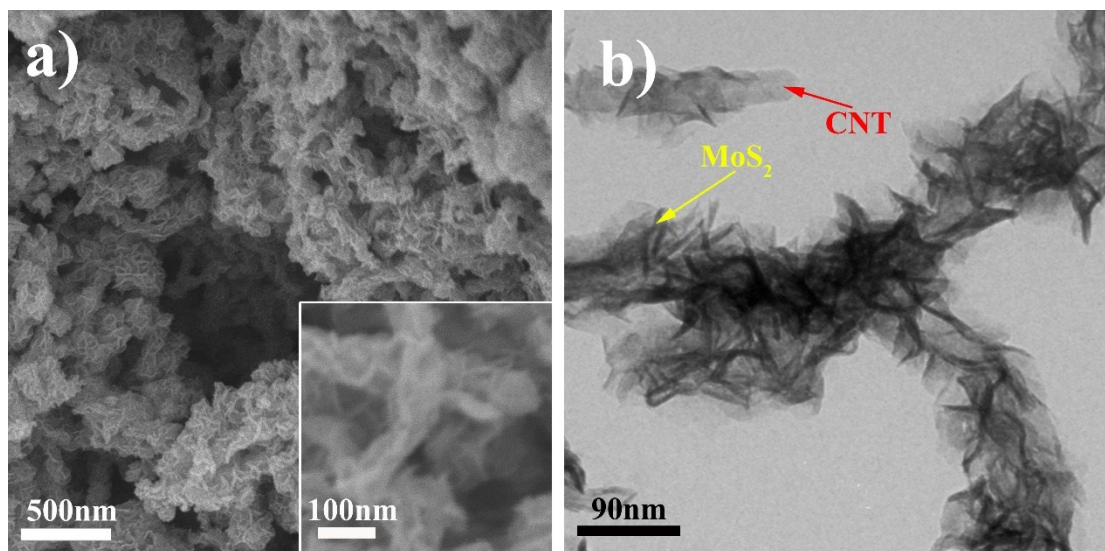
### MoS<sub>2</sub>-GNS-CNT 3D Hybrids with Excellent Electrochemical Performances for Lithium Ion Batteries

Fusen Pan,<sup>a</sup> Jiaqing Wang,<sup>a</sup> Zhenzhong Yang,<sup>b</sup> Lin Gu<sup>b</sup>, Yan Yu<sup>\*,a</sup>

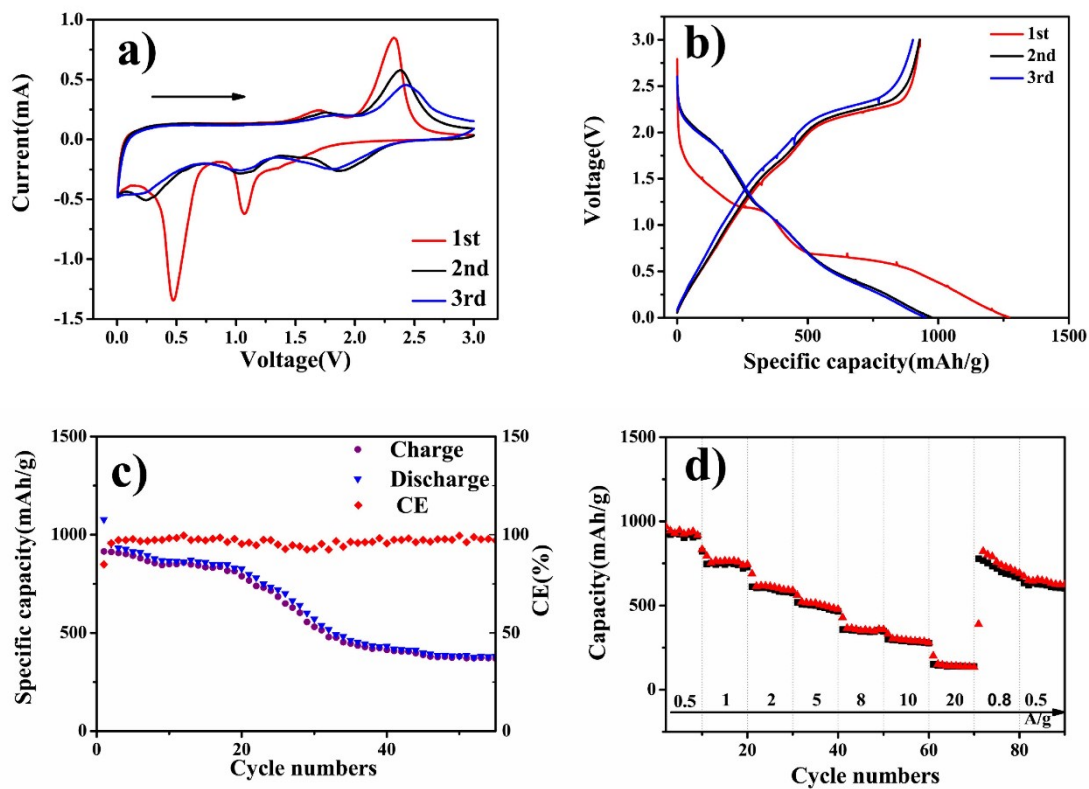
<sup>a</sup> Key Laboratory of Materials for Energy Conversion, Chinese Academy of Sciences,  
Department of Materials Science and Engineering, University of Science and Technology  
of China, Hefei, Anhui Province, 230026, China.

E-mail: yanyumse@ustc.edu.cn

<sup>b</sup> Beijing Laboratory for Electron Microscopy, Institute of Physics, Chinese Academy of  
Sciences (CAS), Beijing, 100190, China.



**Fig. S1:** (a) SEM images of MoS<sub>2</sub>-CNT at different magnifications. The inset in (a) is the high magnification of MoS<sub>2</sub>-CNT. (b) TEM image of MoS<sub>2</sub>-CNT.



**Fig. S2:** (a) The CV curve of MoS<sub>2</sub>-CNT composite at a scanning rate of 0.2 mV/s. (b) Charge-discharge profile for the first three cycles at a current density of 0.5 A/g for MoS<sub>2</sub>-CNT composite. (c) Cycling behavior of MoS<sub>2</sub>-CNT electrode at a current density of 0.5 A/g. (d) Rate capability of MoS<sub>2</sub>-CNT electrode at various current densities.