

Electronic Supplementary Information

Preparation of carbon coated MoO₂ nanobelts and its high performance as anode material for lithium ion batteries

Lichun Yang,^{a, b} Lili Liu,^a Yusong Zhu,^a Xujiang Wang^a and Yuping Wu^{*a}

^a New Energy and Materials Laboratory (NEML), Department of Chemistry & Shanghai Key Laboratory of Molecular Catalysis and Innovative Materials, Fudan University, Shanghai 200433, China

^b Institute for Integrative Nanosciences, IFW Dresden, Helmholtzstrasse 20, Dresden 01069, Germany

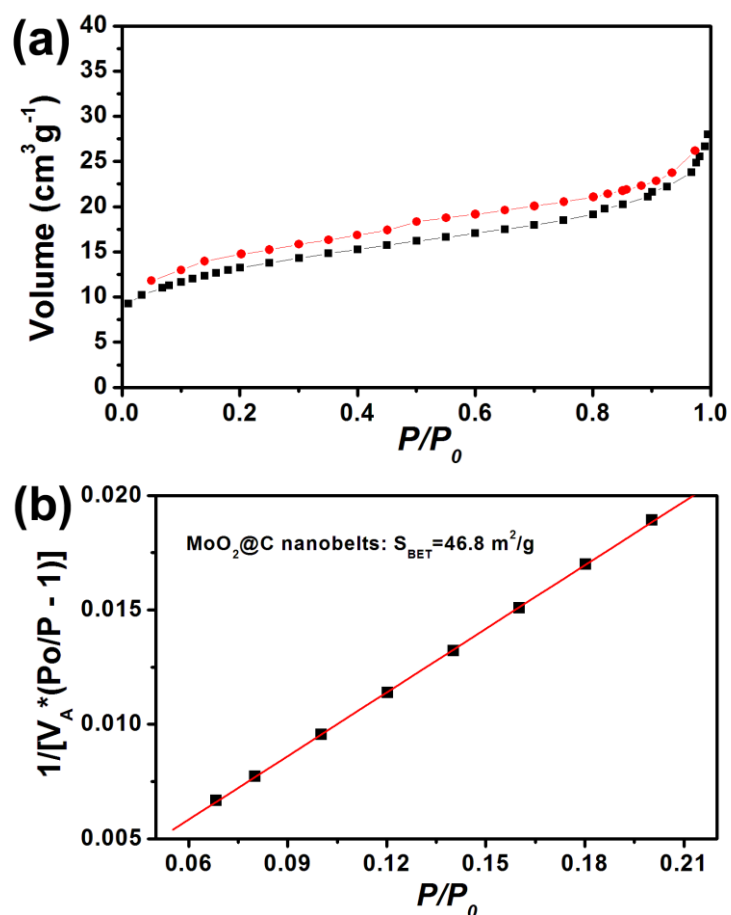


Figure S1. (a) N₂ adsorption-desorption isotherms of MoO₂@C NBs, and (b) corresponding BET curve indicating the surface area of 46.8 m²/g.

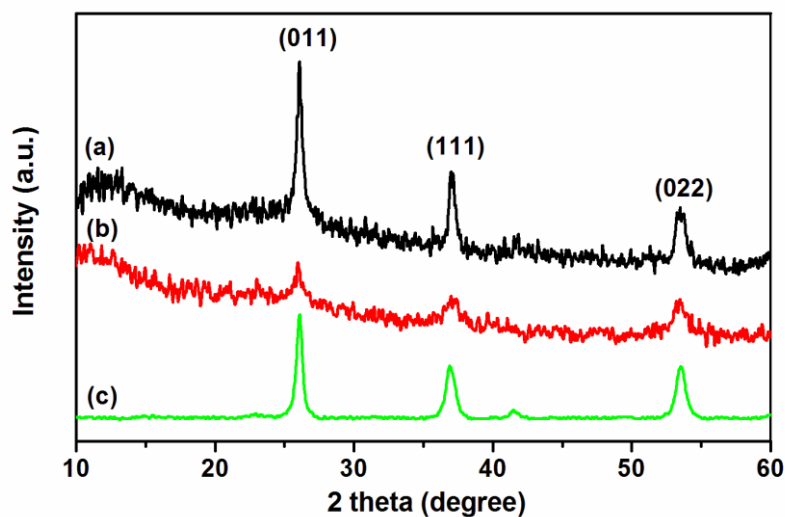


Figure S2. XRD patterns of products obtained through hydrothermal process in case of (a) without glucose, (b) without ethanol and (c) with low $n_{\text{glucose/Mo}}$ of 1.71.

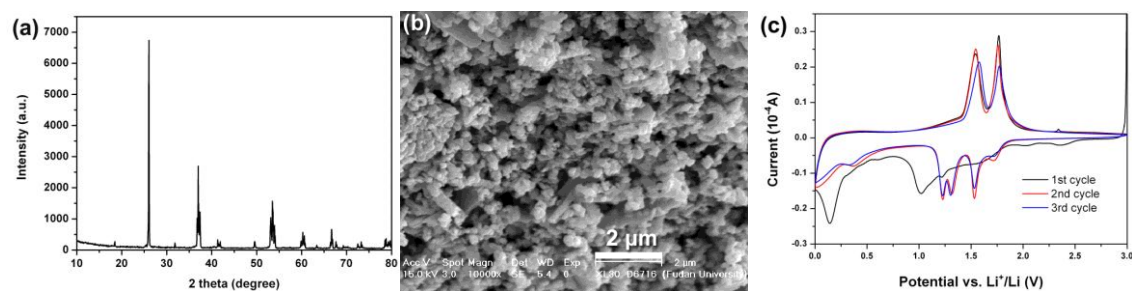


Figure S3. (a) XRD pattern, (b) SEM image and (c) CV curves of MoO₂ microplates purchased from Alfa Aesar. The scan rate of CV test is 0.1 mV/s.

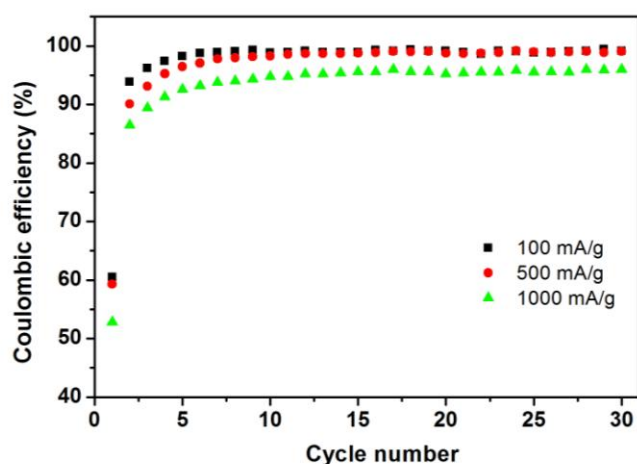


Figure S4. Coulombic efficiency of MoO₂@C NBs during cycling performance in the range of 0.01~3 V vs. Li⁺/Li at different current densities.

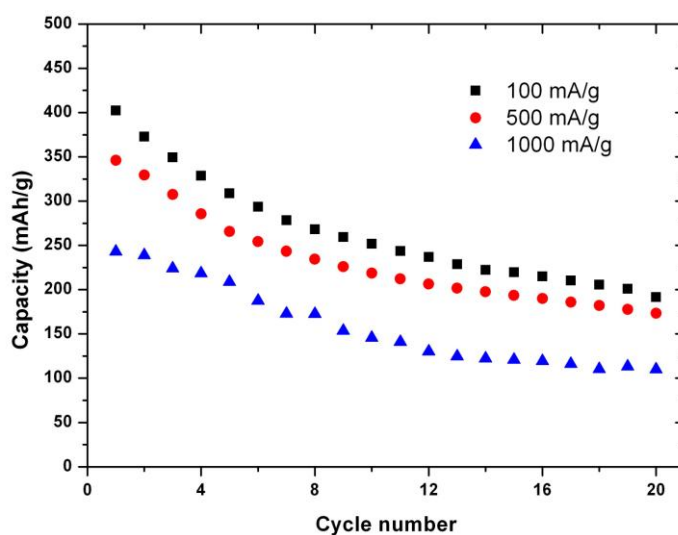


Figure S5. Cycling performance of commercial MoO₂ nanoparticles purchased from Alfa Aesar tested in the range of 0.01 - 3 V vs. metallic lithium.