Electronic Supplementary Material (ESI) for Nanoscale.

Supporting information

Uniform Small-Sized MoS_2 from Novel Solution-Based Microwave Assistant Method with Exceptional Reversible Lithium Storage Properties

Xuehui Tian, Qiuming Gao*, Hang Zhang, Zeyu Li, Hong Xiao, Qiang Zhang and Li Ma

Key Laboratory of Bio-inspired Smart Interfacial Science and Technology of Ministry of Education, Beijing Key Laboratory of Bio-inspired Energy Materials and Devices, Beijing Advanced Innovation Center for Biomedical Engineering, School of Chemistry, Beihang University, Beijing 100191, P. R. China

*The corresponding author. E-mail: qmgao@buaa.edu.cn Tel: +86-10-82338212

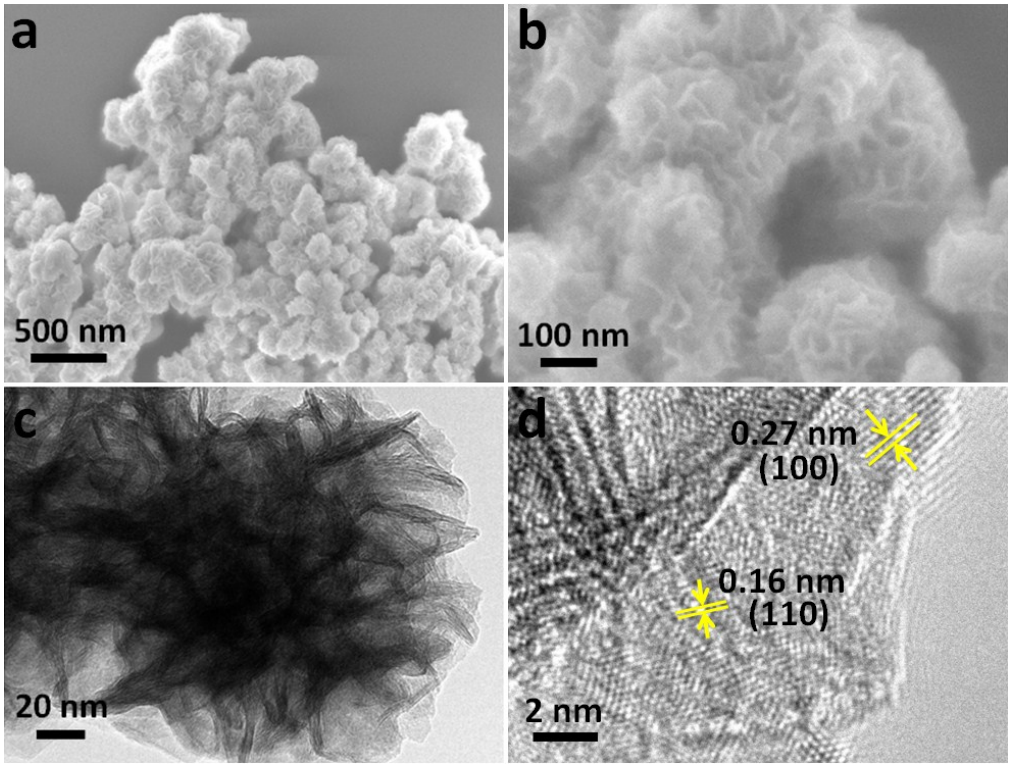

Figure S1. (a,b) SEM images at different magnifications as well as (c) TEM and (d) HRTEM images of HT-MoS_2.

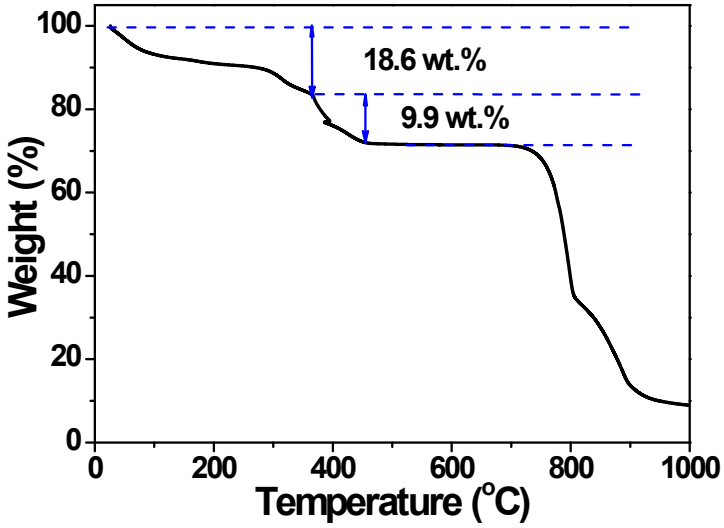

Figure S2. TGA curve of MW-MoS_2. There is a weight loss of 9.9% at about 400°C due to the decomposition of MoS_2, which was oxidized to MoO_3. In addition, the weight loss of about 18.6% under 400°C may be observed due to the adsorbed moisture from air, since the small size MW-MoS_2 possessing of large pore volume and BET surface area were exposed to the air before the measurement, and the mass loss beyond 700°C can be ascribed to the decomposition of MoO_3.

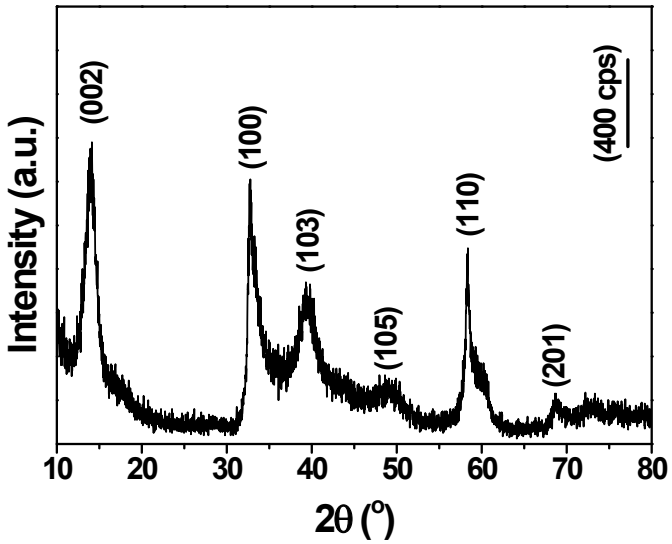

Figure S3. XRD curve of HT-MoS_2.

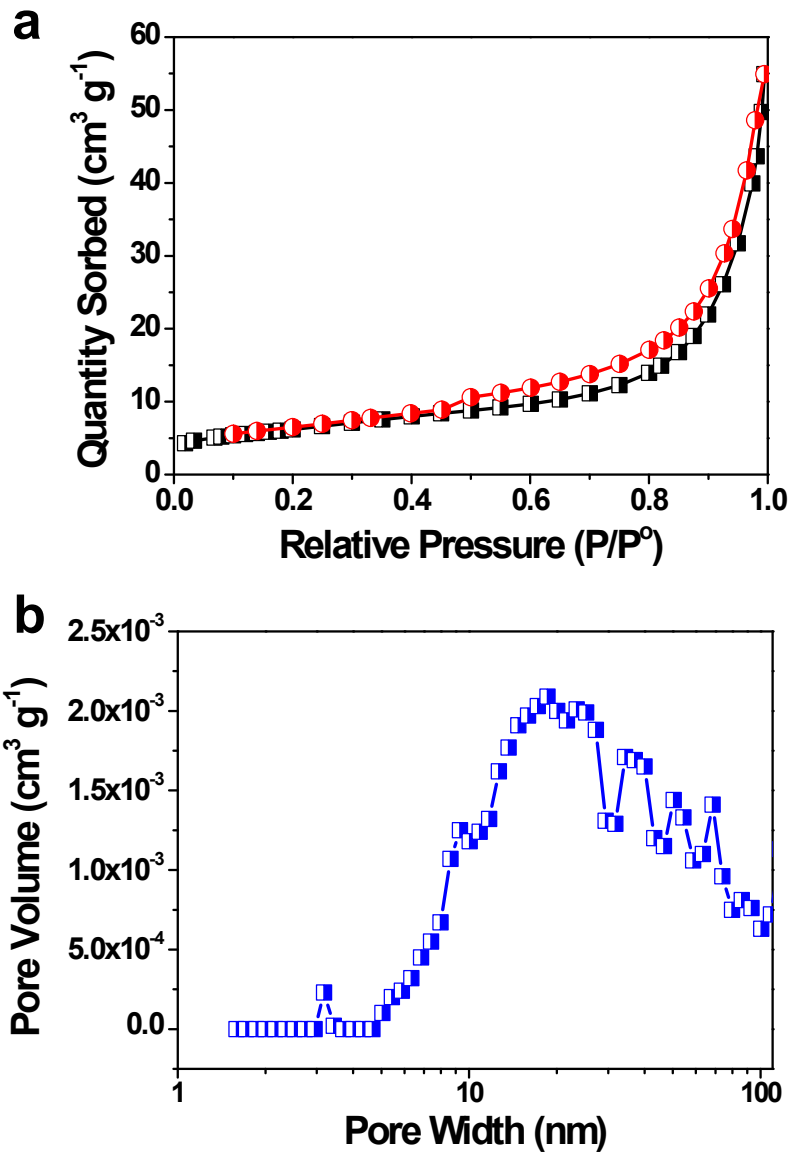

Figure S4. (a) N_2 adsorption-desorption isotherms and (b) pore size distribution of HT-MoS_2.