Supporting Information

3D Graphene Supported MoO₂ for High Performance Binder-free

Lithium Ion Battery

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Supporting Information



Figure S1. (a) SEM image of precursor MoO_3 nanobelts. (b) SEM image of bulk MoO_3 . SEM images of MoO_2 on 3DG foam using bulk MoO_3 at (c) low magnification and (d)

high magnification. SEM images of MoO_2 on Ni foam at different magnifications, (e) high magnification showing agglomeration of MoO_2 particles, and (f) to (g) low magnification showing thick MoO_2 depositions with cracks and peels. SEM images of bulk MoO_2 , (h) low magnification, and (i) high magnification.



Figure S2. (a) Galvanostatic discharge and charge curves for MoO_2 -3DG electrodes at the 1st, 5th, 25th, 50th, 100th, and 150th cycles at a current density of 200 mA g⁻¹ in the potential range of 0.01 to 3.0 V. (b) Cycling performance of MoO_2 -3DG, bulk MoO_2 and as-prepared 3DG electrodes at current density of 1000 mA g⁻¹.

Table S1 – Fitting results of the EIS curves in Fig 5(a) using the equivalent circuit.

Sample	$R_{s}(\Omega)$	$R_{f}(\Omega)$	$R_{ct}(\Omega)$
Bulk MoO ₂	8	82	64
MoO ₂ -3DG	5	56	27