Supporting Information

Vacuum Topotactic Conversion Route to Mesoporous Orthorhombic MoO_3 Nanowire Bundles with Enhanced Electrochemical Performance

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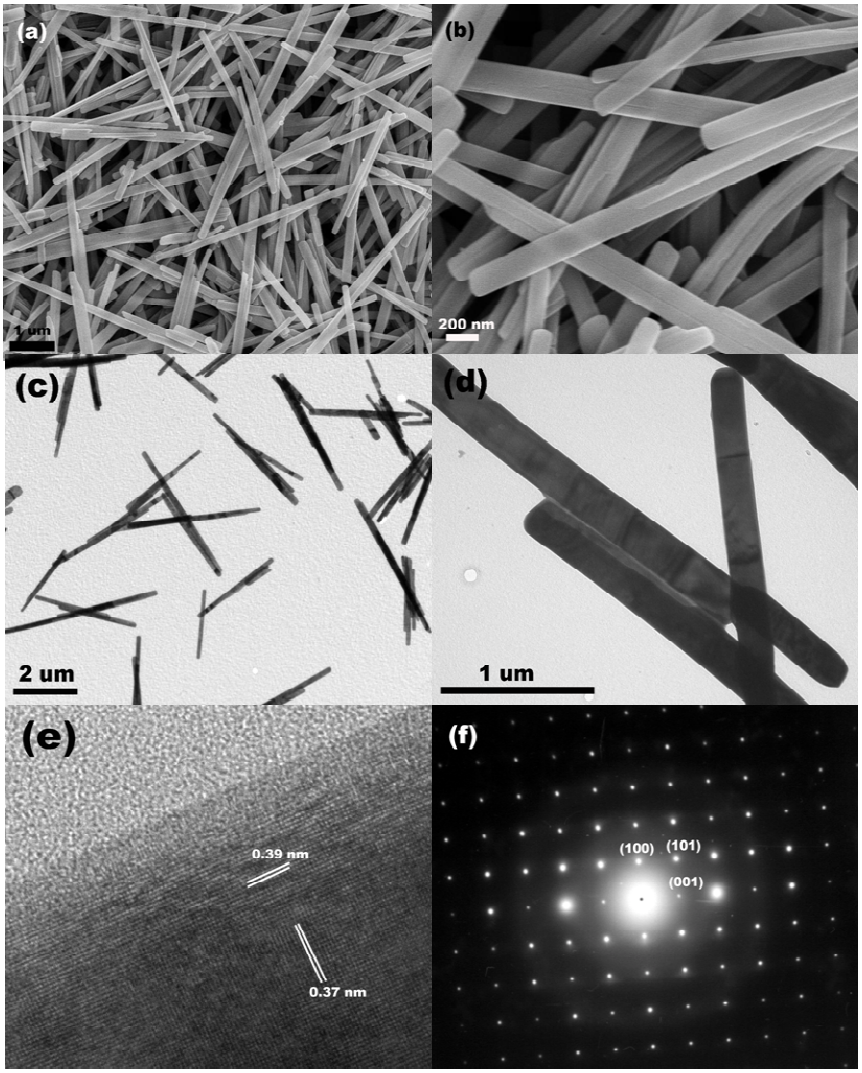

Figure S1 The characterization of the orthorhombic MoO_3 nanobelt.

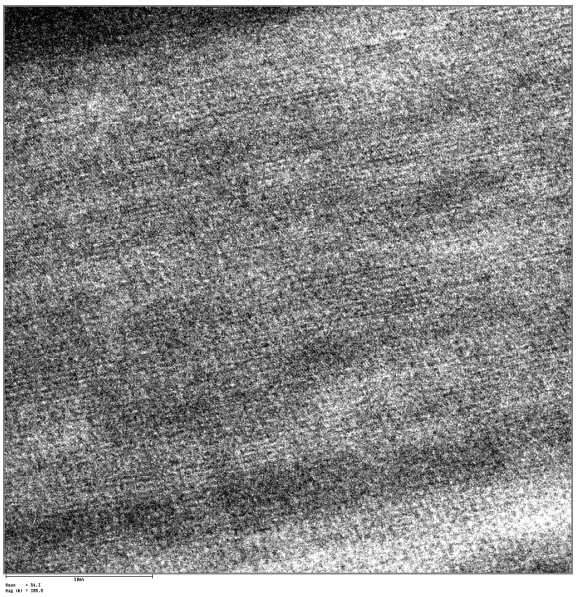

Figure S2 HRTEM of the vacuum 180 ºC sample.

Table S1 The cycling performances of current MoO_3 nanostructures and/or nanocomposites.

Nanostructures and/or nanocomposites	Current density (mA g^{-1})	Cycle Number	Capacity (mAh g^{-1})	Reference
MoO_3 nanoparticles	**500**	**150**	**630**	*Adv. Mater.* **2008,** *20,* 3627–3632**.**
MoO_3 nanoparticles	**100**	**20**	**1050**	*J. Power Sources* **2010**, *195,* 588–592.
Carbon-coated MoO_3 nanobelts	**100**	**50**	**1064**	*J. Power Sources* **2010,** *195,2372*–2376.
Ultralong α-MoO_3 Nanobelts	**200**	**200**	**730**	*J. Phys. Chem. C* **2012**, *116,* 12508−12513.
MoO_3/C composite	**100**	**100**	**500**	*J. Power Sources* **2013**, 226, 107-111.
MoO_3 nanowire bundles	**200** **500** **1000**	**150** **100** **100**	**954.8** **712.2** **490.5**	**Our work**

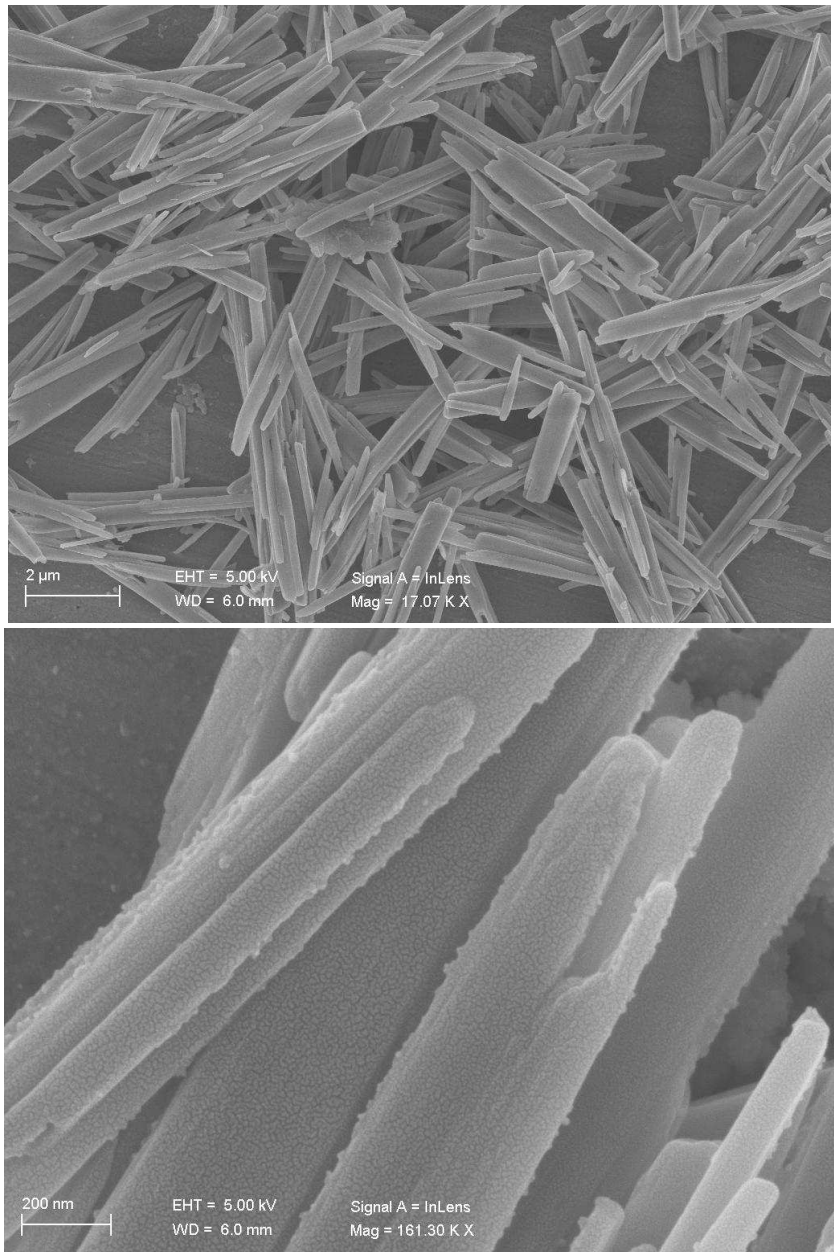

Figure S3 The SEM images of the product obtained by calcining the triclinic α-MoO_3•H_2O nanorods in air at 260 ºC for 10 hours.

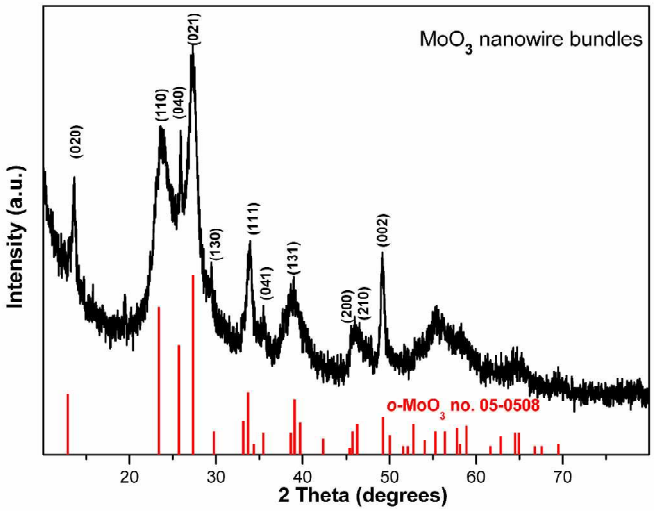

Figure S4 The single XRD pattern the o-MoO_3 nanowire bundles obtained from the precursor in vacuum at 260 ºC for 10 hours. The lines mark the expected position for o-MoO_3 phase (JCPDS no. 05-0508).

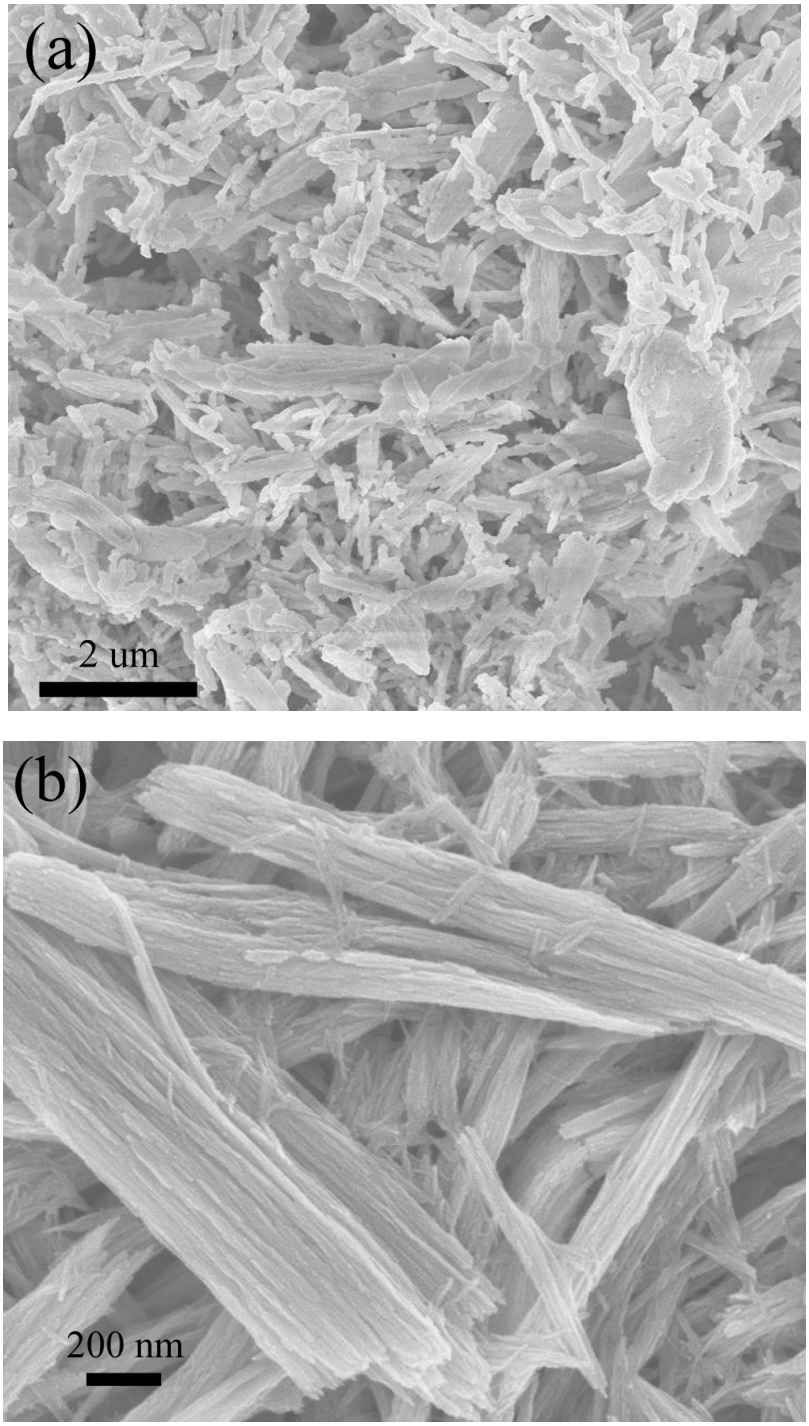

Figure S5 The SEM images of the electrode material MoO_3 nanowire bundles after 150 cycles.