

Supporting Information

MnO nanoparticles embedded in carbon matrix as high performance lithium-ion battery anodes: Preparation, Microstructure and Electrochemistry

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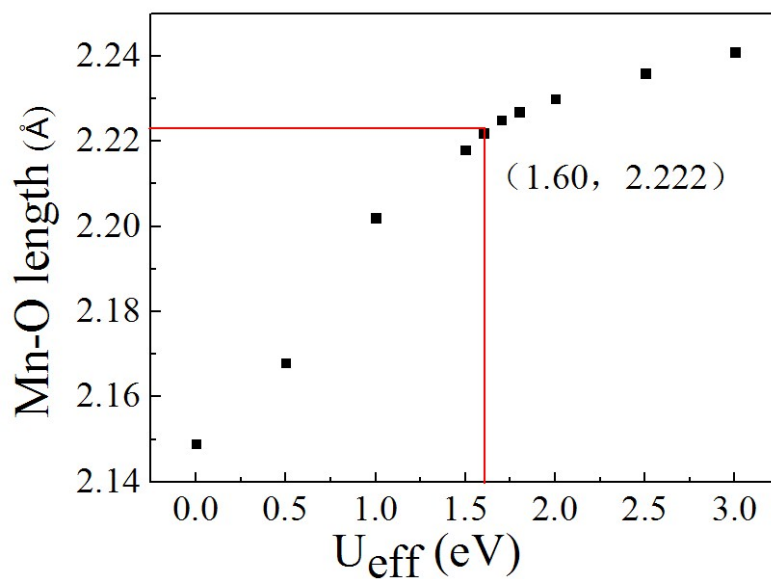


Fig. S1 The relationship between Hubbard U value and bond length of Mn–O.

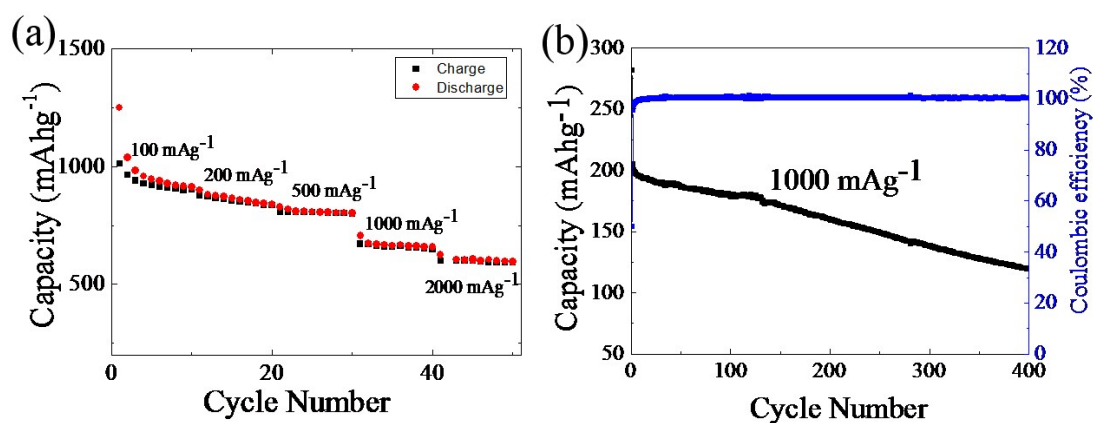


Fig. S2 (a) the rate performance of MnO/C, (b) the discharge capacity and coulombic efficiency (%) of MnO at 1000 mA g⁻¹.

Table S1 Comparison of electrochemical performance of MnO/C with other MnO-based electrodes.

Samples	Current density (mA g ⁻¹)	Capacity (mAh g ⁻¹)	cycle number	Ref.
This work	500	792	50	

	1000	725	400	
MnO@C core– shell	200	770	30	<i>J. Mater. Chem.</i> , 2012, 22 , 17864. ^[1]
hollow porous MnO/C	100	702.2	50	<i>ACS Nano</i> , 2013, 7 , 7083. ^[2]
MnO on carbon fibers	1000	575	200	<i>Sci. Rep.</i> , 2014, 4 , 4229. ^[3]
carbon/MnO disks	1000	534.6	250	<i>J. Mater. Chem.</i> , 2012, 22 , 19190. ^[4]
MnO/rGO	200	750	100	<i>J. Mater. Chem. A</i> , 2015, 3 , 297. ^[5]
Cu–MnO@C	200	629	100	<i>J. Phys. Chem. C</i> , 2014, 118 , 17452. ^[6]
MnO@C	100	800	80	<i>Sci. Rep.</i> , 2013, 3 , 2639. ^[7]
MnO@C nanowires	500	801	200	<i>Chem-eur. J.</i> , 2013, 19 , 11310. ^[8]
porous MnO nanoflakes	2460	376.4	55	<i>J. Mater. Chem.</i> , 2012, 22 , 9189. ^[9]

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