

Supplementary Information

Hierarchical Porous ZnMnO₃ Yolk-Shell Microspheres with Superior Lithium Storage Properties Enabled by Unique One-Step Conversion Mechanism

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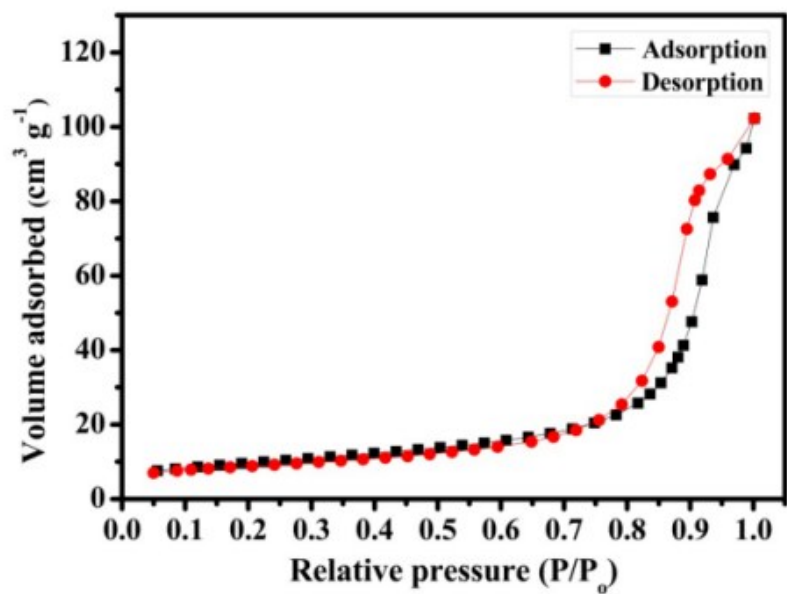


Fig. S1 The N₂ adsorption-desorption isotherms of ZnMnO₃ core-shell microspheres.

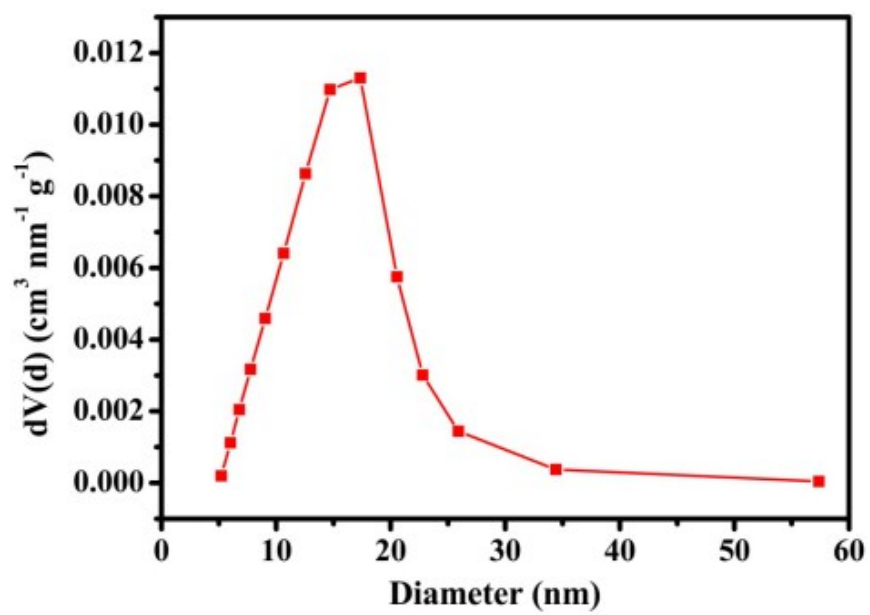


Fig. S2 Pore size distribution based on DFT method of ZnMnO₃ core-shell microspheres.

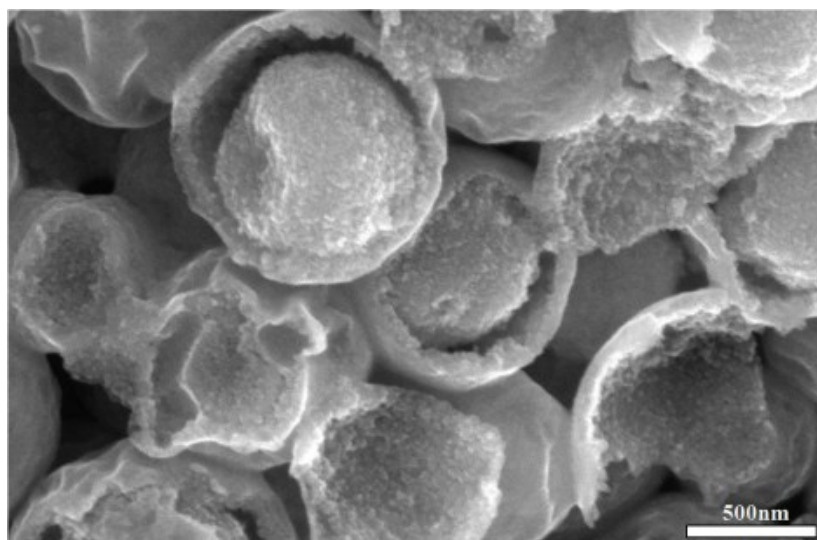


Fig. S3 SEM image of ZnMnO₃ core-shell microspheres obtained by the vigorous ultrasound.

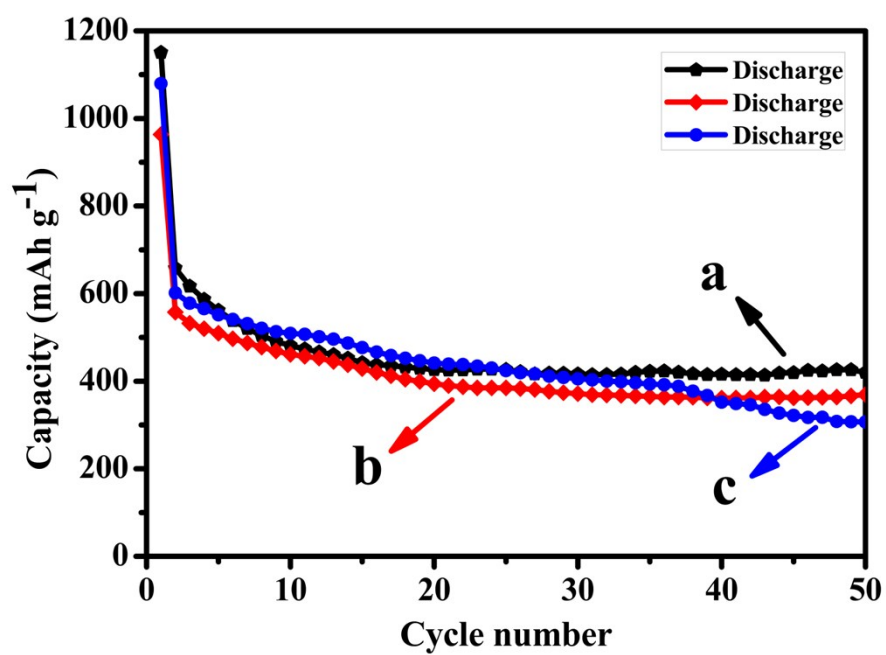


Fig. S4 Cycling life at the same current density of 400 mA g^{-1} : (a) the data as shown in Fig. 4; (b) the active material loading is 2.3 mg cm^{-2} ; (c) the mass ratio of conductive carbon decreases by 10 wt%.

Sample	Morphology	First charge capacity (mAh g ⁻¹)	Cycles	Capacity retention (%)	References
ZnMnO ₃	Nanorod	~600	300	63	[5]
ZnMnO ₃	Porous spherulite	~890	50	89	[10]
ZnMnO ₃	Yolk-shell microsphere	~600	300	90	

Table 1 Comparison of electrochemical properties of ZnMnO₃ with different morphology.