Supporting Information

In situ growth of δ-MnO_2/C fibers as binder-free and free-standing cathode for advanced aqueous Zn-ions batteries

Yan Li[a], Fei Zhang[a], Miaomiao Wu[a], Yong Guo[a], Yuanyuan Liang[a], Reyihanguli Ababaikeri[a], Luyang Wang[a], Qiao Liu[a], Xingchao Wang[ab*]*

[a]State Key Laboratory of Chemistry and Utilization of Carbon Based Energy Resources; Key Laboratory of Advanced Functional Materials, Autonomous Region; Institute of Applied Chemistry, College of Chemistry, Xinjiang University, Urumqi, 830046, Xinjiang, P. R. China.

[b]Key Laboratory of Advanced Energy Materials Chemistry (Ministry of Education), Nankai University, Tianjin 300071, China

E-mail: xju1998@163.com; ichemabc@126.com

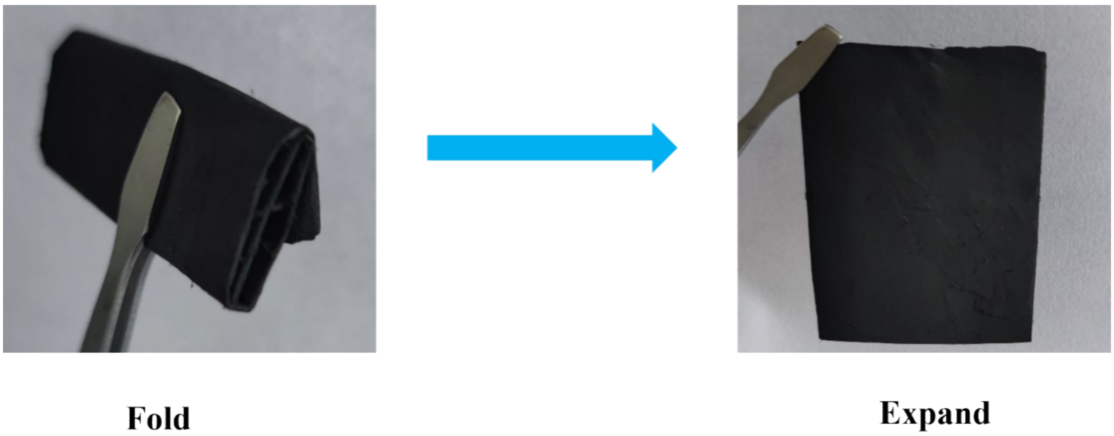

Figure S1. Flexibility of δ- MnO_2@CCFs.

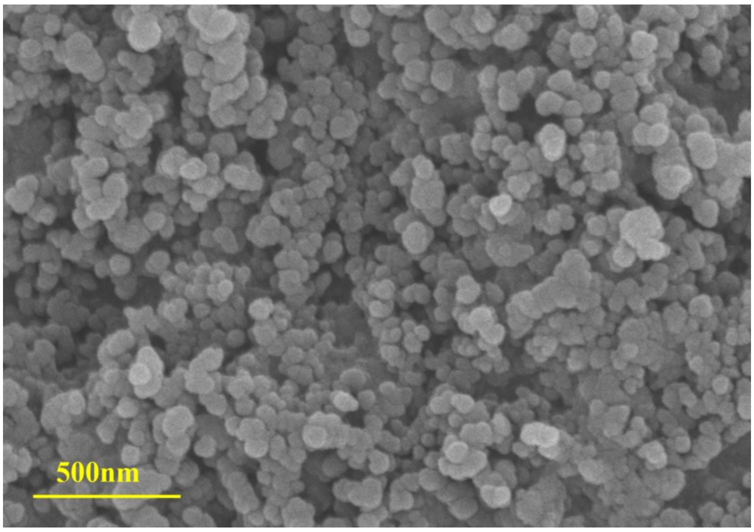

Figure S2. SEM of δ-MnO_2.

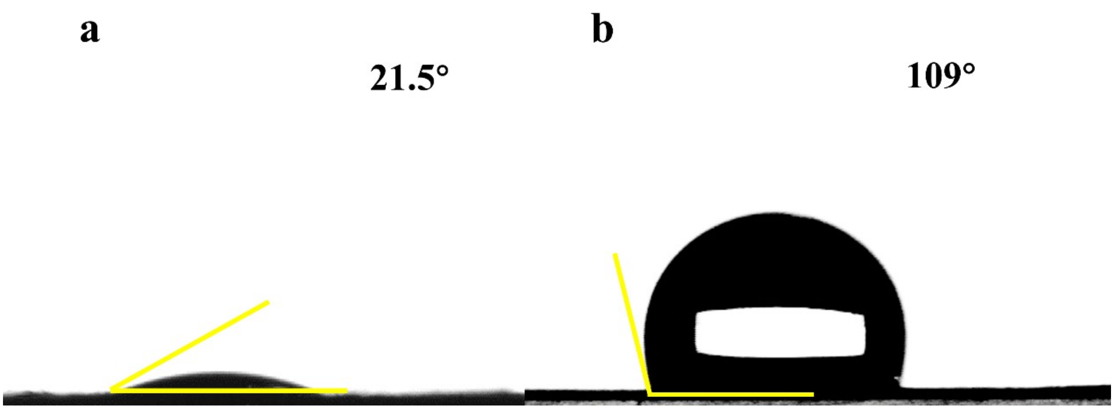

Figure S3 Contact angle of a) δ-MnO_2@CCFs and b) δ-MnO_2.

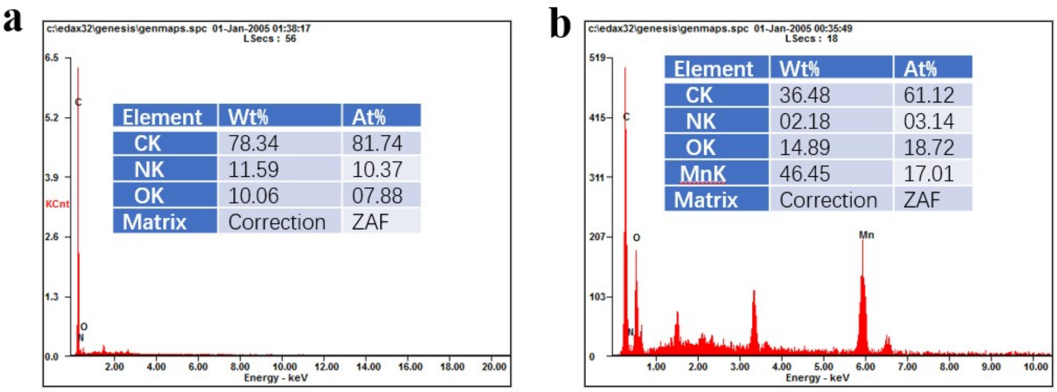

Figure S4. SEM-EDS of a) CCFs and b) δ-MnO_2@CCFs.

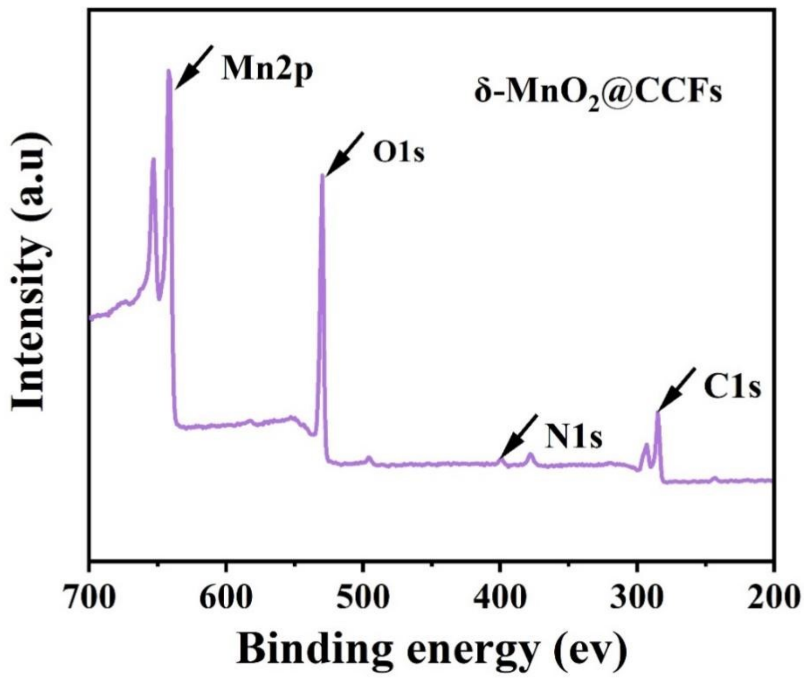

Figure S5. XPS survey spectra of δ-MnO_2@CCFs.

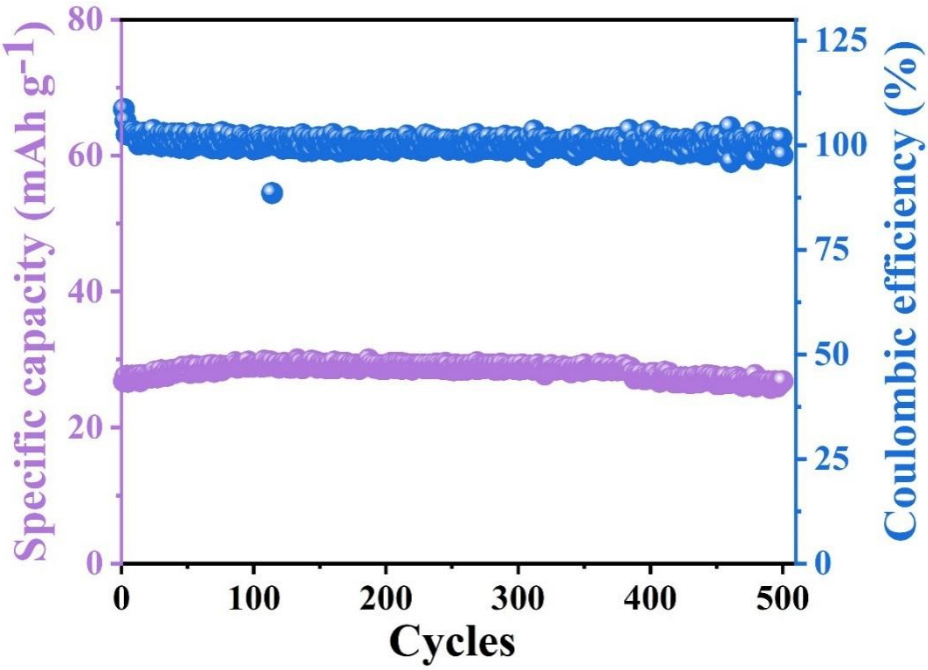

Figure S6. Cycling performance of CCFs at 1.0 A g^{-1}.

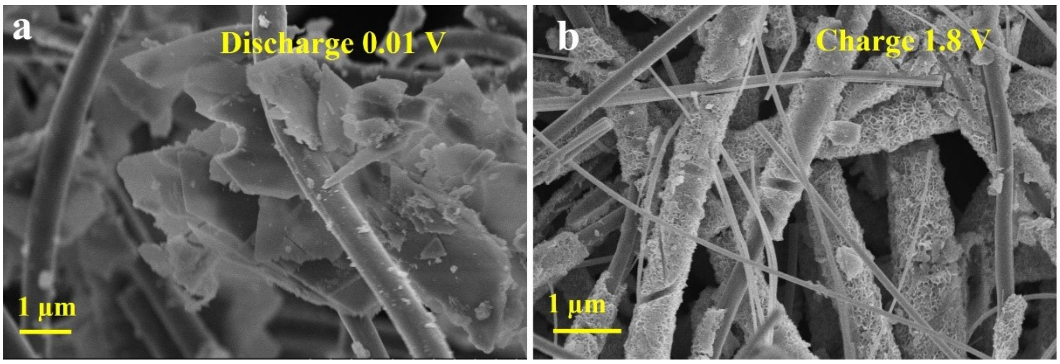

Figure S7. a) The SEM of discharge to 0.01 V and b) charge to 1.80 V of δ-MnO_2@CCFs.

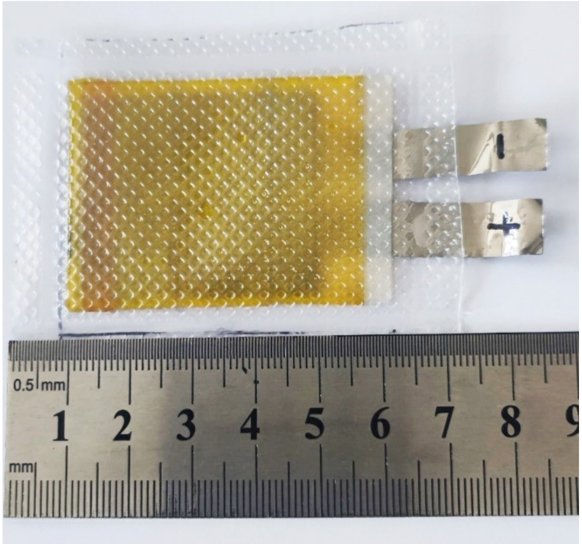

Figure S8 The photograph of a 3 cm × 5 cm flexiblesoft-packaged batteries.

Table S1 Comparison of electrochemical performance of δ-MnO_2@CCFs and reported MnO_2 electrode for ZIBs

Materials	Current density (A g^{-1})	Capacity (mAh g^{-1})
δ-MnO_2@CCFs	**0.5**	**352 at 100th cycle (this work)**
	3	**132.3 at 7000th cycle (this work)**
S-MnO_2	1	122.9 at 1000th cycle[1]
MG10	1	80 at 1000th cycle[2]
CN_{600}/MnO_2	0.1	249 at 60th cycle[3]
MnO_2 nanospheres	0.3	358 at 100th cycle[4]
MnO_2-NHCS	2	100 at 2000th cycle[5]
MnO_2@PEDOT	2	213 at 2000th cycle[6]
MGS	3	145 at 3000th cycle[7]
S-MnO_2	0.2	320 at 100th cycle[8]
MnO_2@NC	2	90 at 2500th cycle[9]

References

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