Supporting Information for

Microbelt-void-Microbelt Structured SnO_2@C as Advanced Electrode with Outstanding Rate Capability and High Reversibility

Wenhe Xie,[a,b] Qishang Wang,[a,b] Junqi Xu*[a,b], Yang Yu,[a,b], Ru Zhao,[a,b] Na Li,[a,b] Menghui Li,[a,b] Yifan Du,[a,b] Shanglong Peng*[c] and Guozhong Cao*[d]

[a.] *Key Laboratory of Microelectronics and Energy of Henan Province, Xinyang Normal University, Xinyang 464000, PR Chin. E-mail: phxujunqi@126.com,*
[b.] *Energy-Saving Building Materials Innovative Collaboration Center of Henan Province, Xinyang Normal University, Xinyang 464000, PR China*
[c.] *School of Physical Science and Technology, Lanzhou University, Lanzhou 730000, PR. China. E-mail: pengshl@lzu.edu.cn*
[d.] *Department of Materials Science and Engineering, University of Washington, Seattle, USA. E-mail: gzcao@u.washington.edu*
[e.]

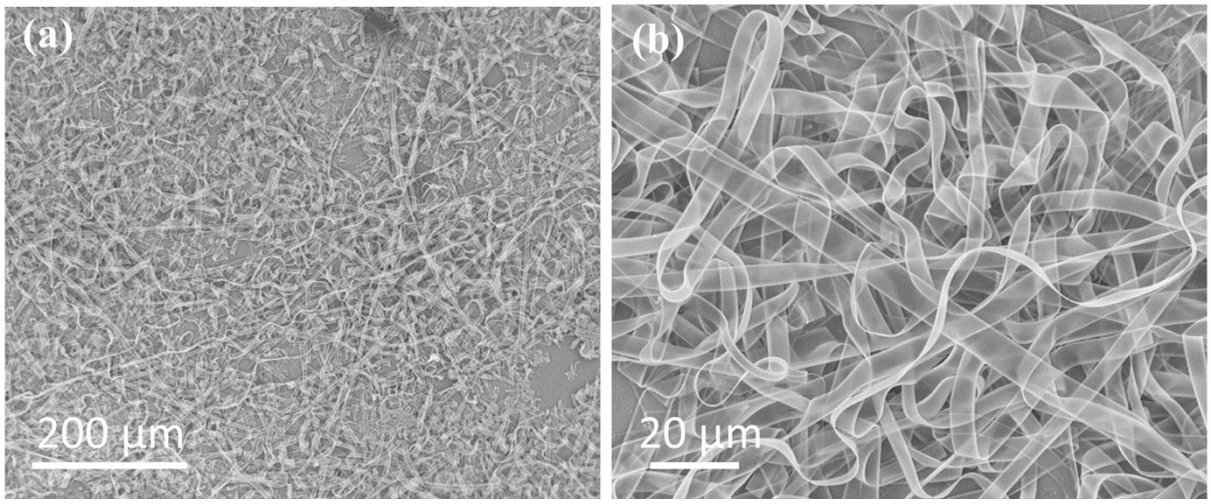


Figure S1. (a, b) SEM images of electrospinning products without annealing treatment.

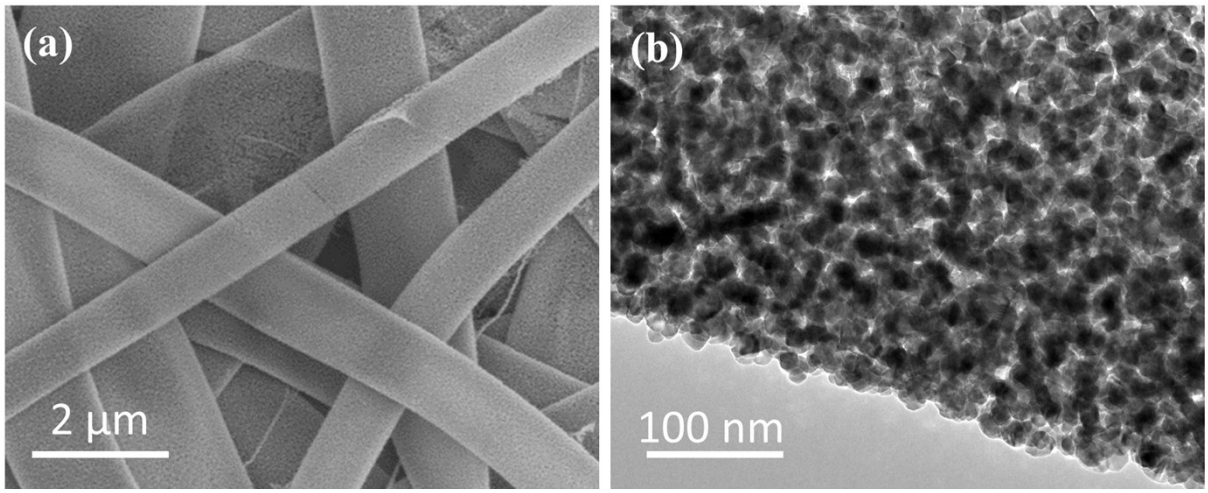


Figure S2. Morphological characterization of SnO_2 microbelts. (a-b) SEM images, (c-d) TEM of SnO_2 microbelts.

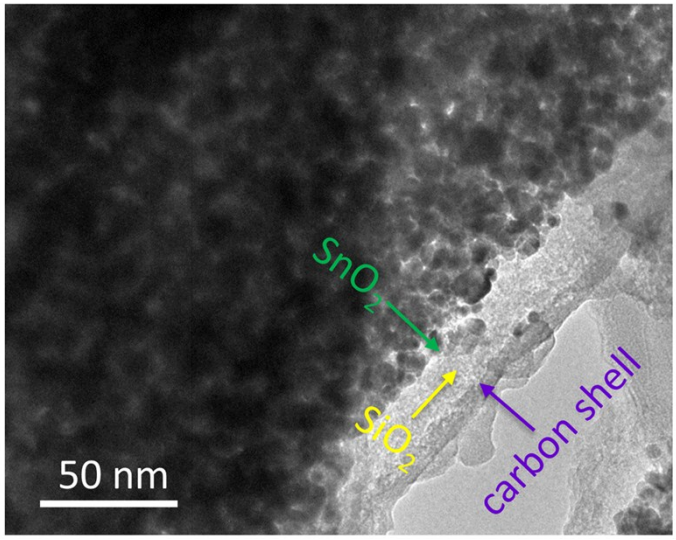


Figure S3. TEM images of the SnO_2 microbelt coated with SiO_2 and carbonized polydopamine.

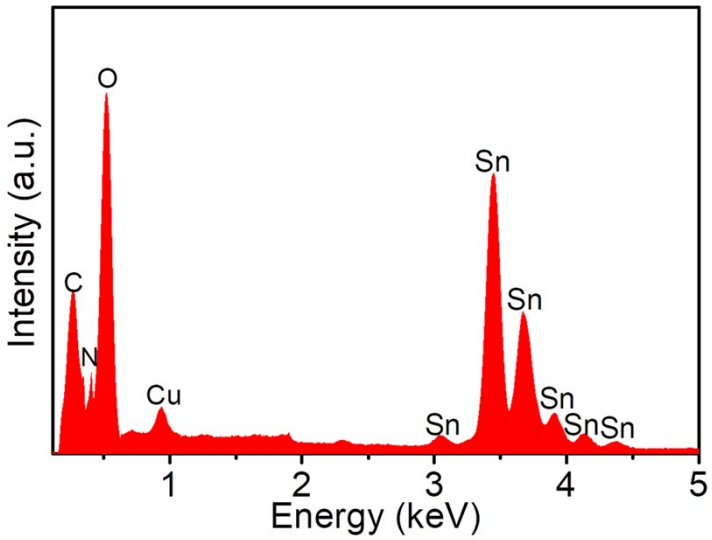


Figure S4. EDX spectrum of microbelt-void-microbelt structured SnO_2@C, showing the mass ratio of Sn, O, C and N are 54.47, 27.72, 15.29 and 2.51wt%, respectively.

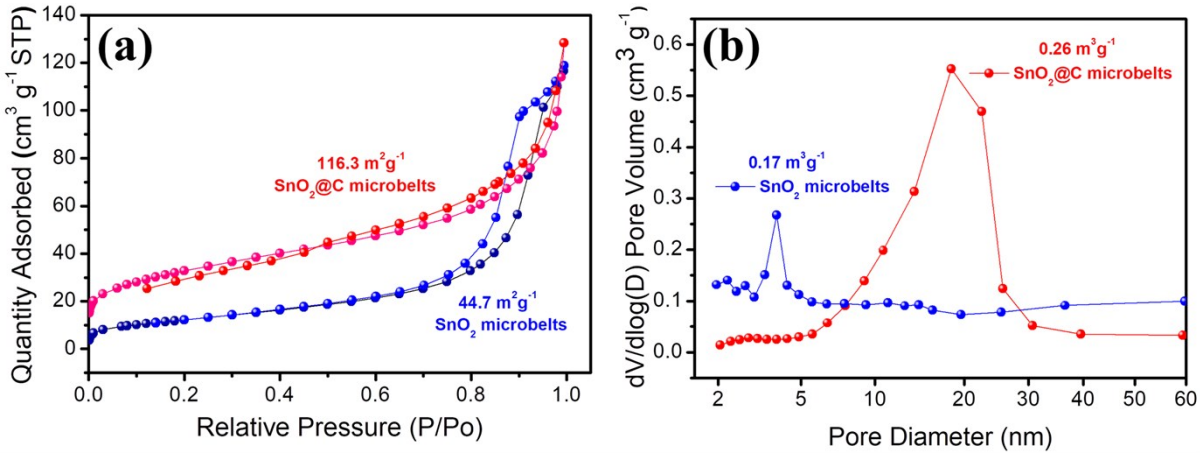


Figure S5. (a) Nitrogen adsorption-desorption isotherms of the SnO_2 microbelt and microbelt-void-microbelt structured SnO_2@C sample. (b) The corresponding pore size distribution.

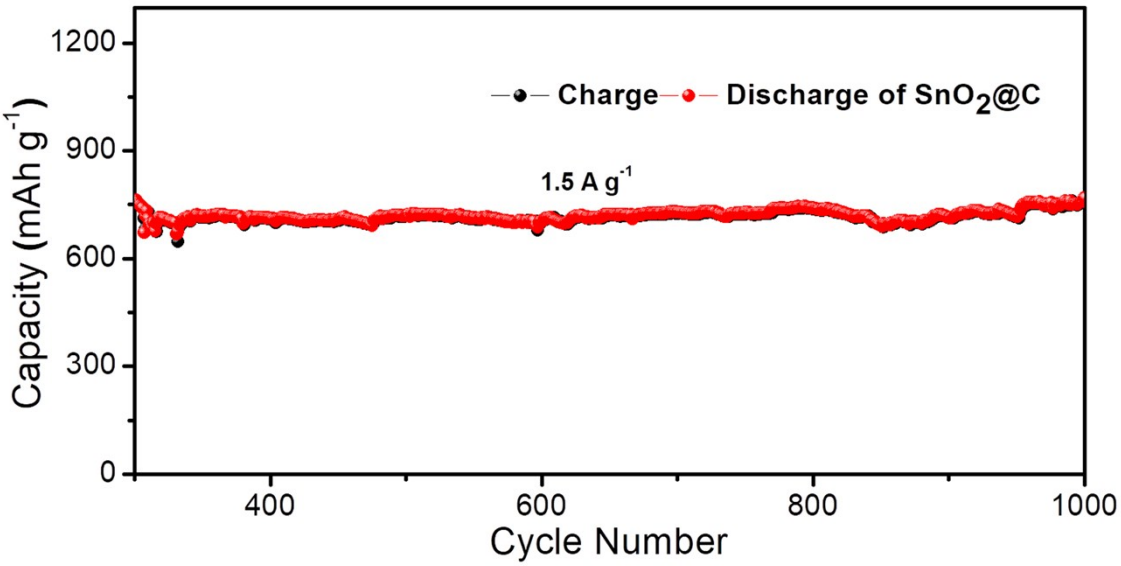


Figure S6. Cyclic performance of microbelt-void-microbelt structured SnO_2@C at 1.5 A g^{-1} after 300 cycles at 0.3 A g^{-1}.

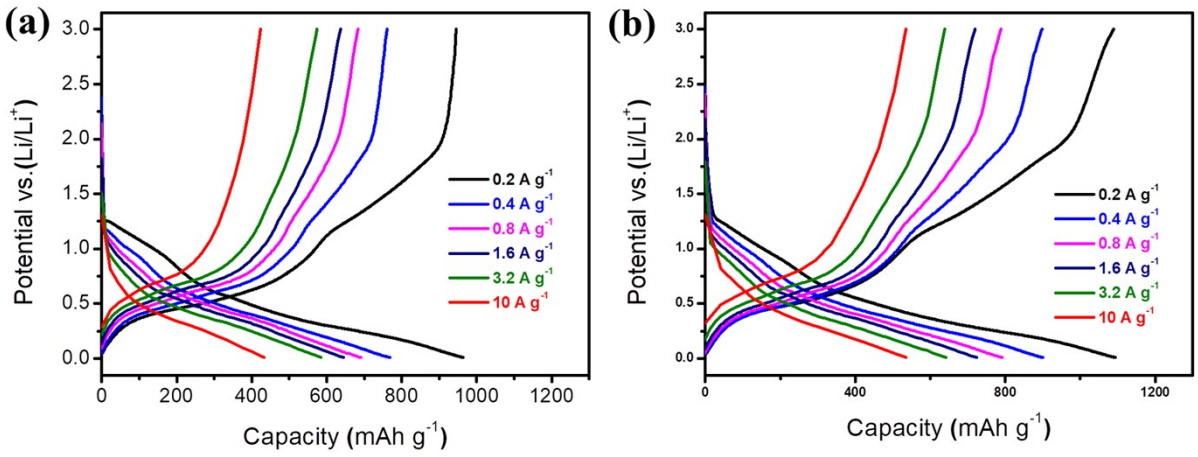


Figure S7. Charge and discharge profiles of (a) SnO_2 and (b) microbelt-void-microbelt structured SnO_2@C electrode at various current densities.

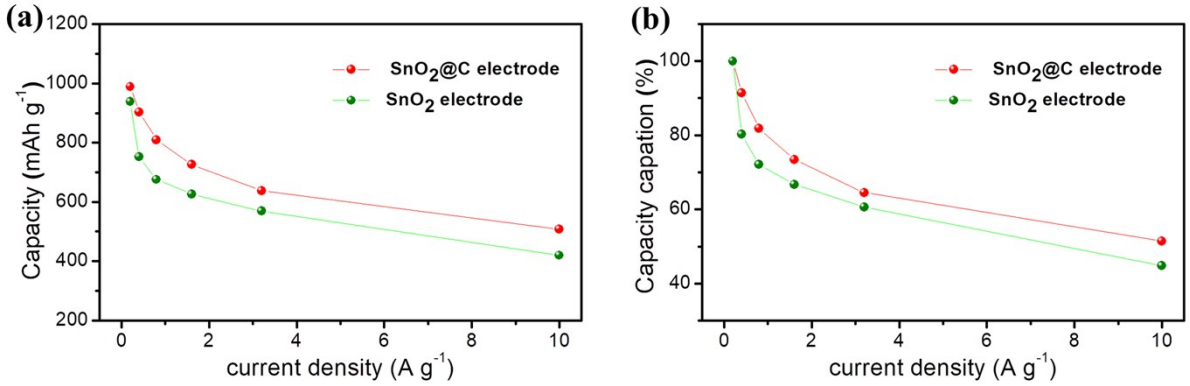


Figure S8. (a) Capacity and (b) capacity retention rate vs. current density plot of the two microbelt electrodes.

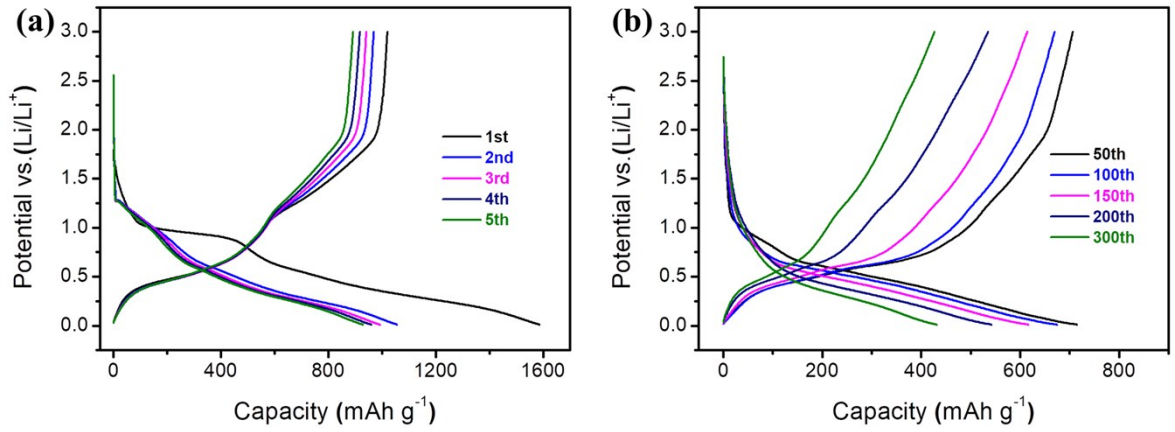
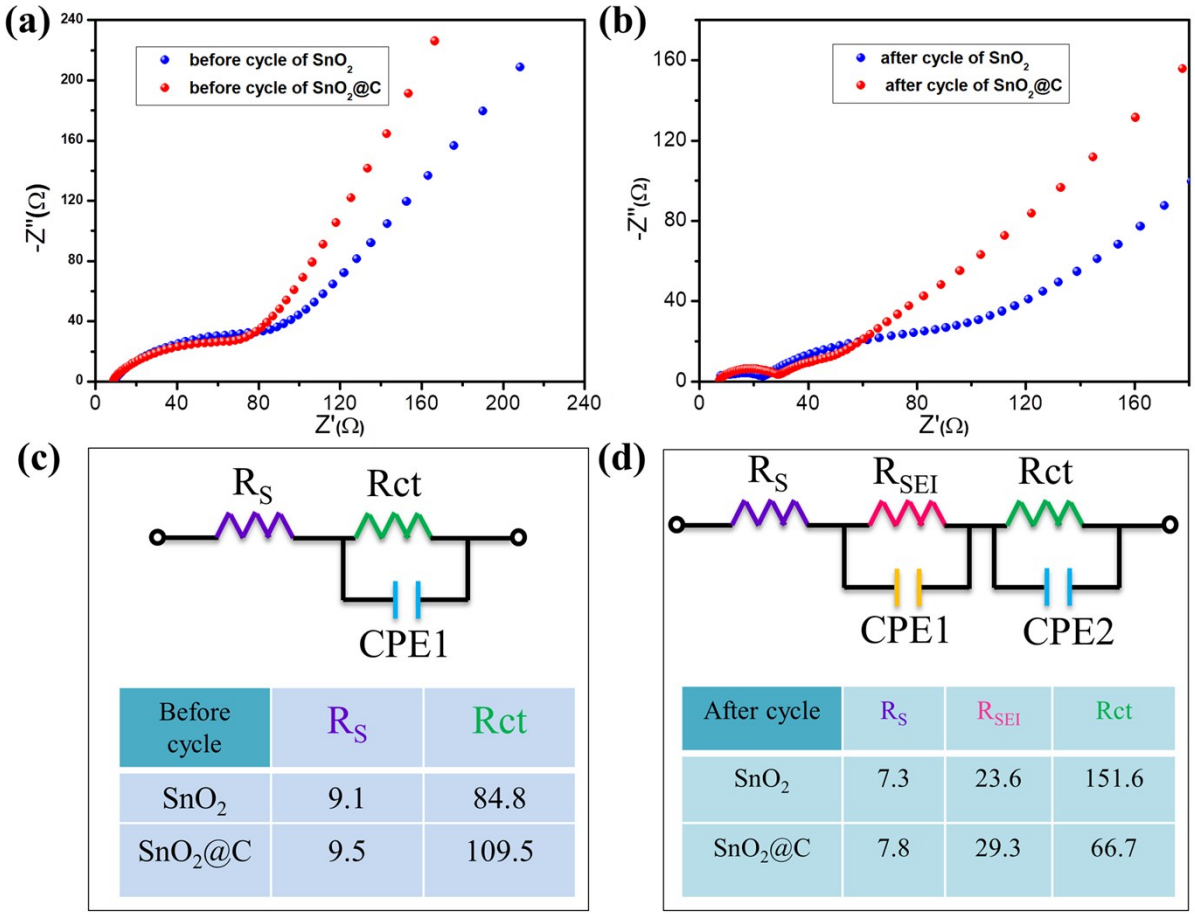


Figure S9. (a) Galvanostatic discharge-charge profiles of the SnO_2 microbelt electrode in the initial 5 cycles. (b) Galvanostatic discharge-charge profiles of the SnO_2 microbelt electrode in the 50th, 100th, 200th, 250th, and 300th cycles.



Before cycle	R_S	Rct
SnO_2	9.1	84.8
SnO_2@C	9.5	109.5

After cycle	R_S	R_{SEI}	Rct
SnO_2	7.3	23.6	151.6
SnO_2@C	7.8	29.3	66.7

Figure S10. Electrochemical impedance spectroscopy of SnO_2 and SnO_2@C electrode: (a) Before cycle, (b) after cycle, (c,d) the corresponding equivalent circuit and calculated resistances.