Carbon-coated SnO₂@C with hierarchically porous structures and graphite layers inside for high performance lithium-ion battery

Yao Li a, Shenmin Zhu a, Qinglei Liu a, Jiajun Gu a, Zaiping Gu b, Zhixin Chen b, Chuanliang Feng a, Di Zhang a* and Won-Jin Moon c

a State Key Laboratory of Metal Matrix Composites, Shanghai Jiao Tong University, Shanghai 200240, China
b The Faculty of Engineering, University of Wollongong, NSW 2522, Australia
c Chonnam National University, 300 YongBong-Dong, Buk-Gu, Gwangju 500-757, Korea, Gwangju Center, Korea Basic Science Institute

* E-mail: smzhu@sjtu.edu.cn (S.-M. Z.) zhangdi@sjtu.edu.cn (D.Z.)

Content

1. TEM images (left), corresponding SAED patterns (insets), and EDS spectra (right) of (a, b) the activated carbon matrix (RHC), (c, d) RHC-SnO₂, and (e, f) RHC-SnO₂-C.
2. TGA curves of (a) RHC, (b) RHC-SnO₂, (c) RHC-SnO₂-C after heat treatment, and (d) RHC-SnO₂-C before heat treatment.
3. CV curves of (a) RHC-SnO₂ and (b) RHC-SnO₂-C.

Figure S1. TEM images (left), corresponding SAED patterns (insets), and EDS spectra (right) of (a, b) the activated carbon matrix (RHC), (c, d) RHC-SnO₂, and (e, f) RHC-SnO₂-C.
Figure S2. TGA curves of (a) RHC, (b) RHC-SnO₂, (c) RHC-SnO₂-C after heat treatment, and (d) RHC-SnO₂-C before heat treatment.

Figure S3. CV curves of (a) RHC-SnO₂ and (b) RHC-SnO₂-C.