

Electronic Supplementary Material

Fully reversible lithium storage of tin oxide enabled by self-doping and partial amorphization

Yuepeng Pang,¹ Jing Wang,² Junhe Yang,¹ Fang Fang,^{2,*} Dalin Sun² and Shiyou Zheng^{1,*}

1 School of Materials Science and Engineering, University of Shanghai for Science & Technology, Shanghai 200093, China.

E-mail: syzheng@usst.edu.cn

2 Department of Materials Science, Fudan University, Shanghai 200433, China

E-mail: f_fang@fudan.edu.cn

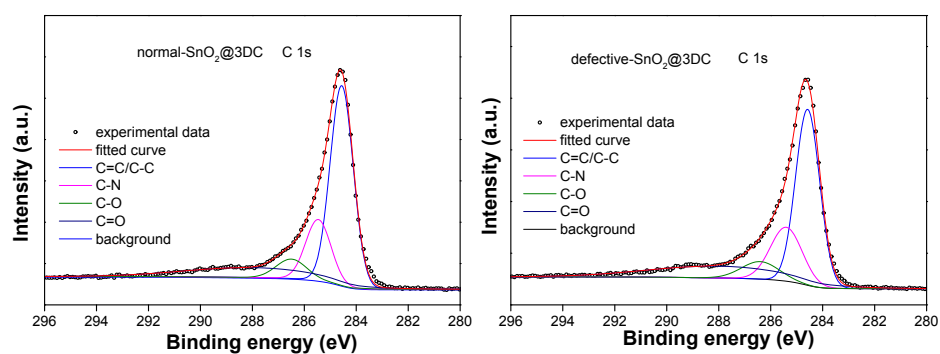


Figure S1. C 1s XPS spectra of normal-SnO₂@3DC and defective-SnO₂@3DC.

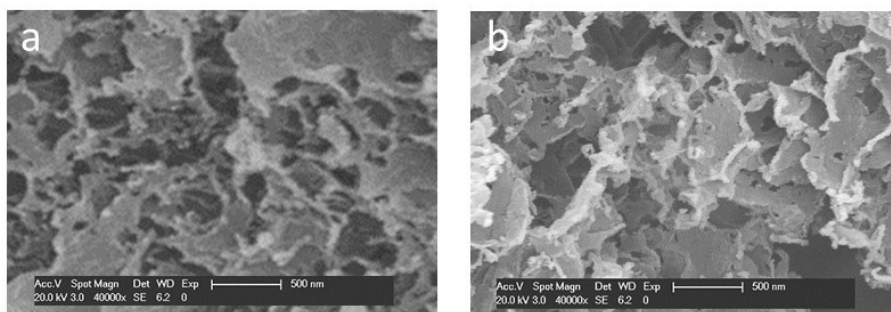


Figure S2. SEM image of (a) normal-SnO₂@3DC and (b) defective-SnO₂@3DC.

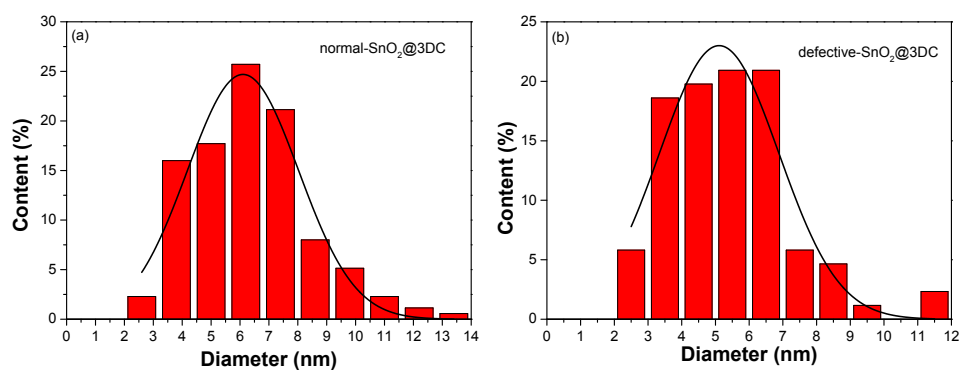


Figure S3. Size distribution of (a) normal- and (b) defective-SnO₂ nanoparticles

obtained from statistics.

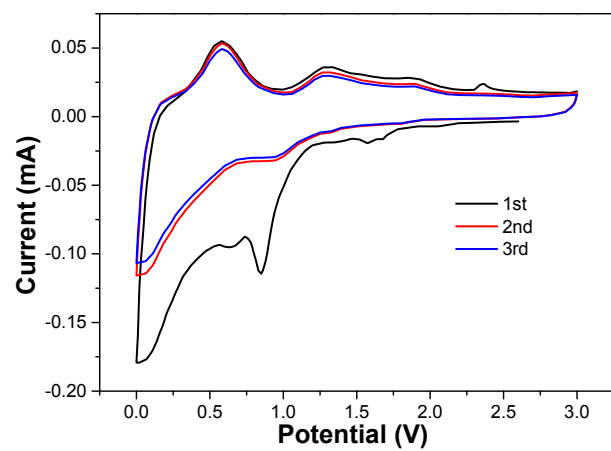


Figure S4. CV curves of normal-SnO₂@3DC.

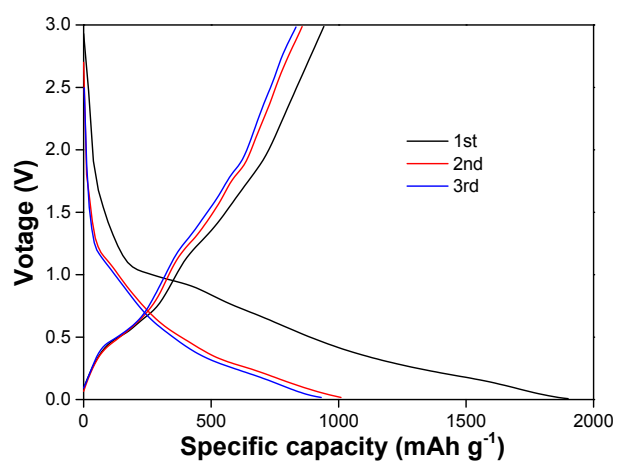


Figure S5. Galvanostatic charging and discharging curves of normal-SnO₂@3DC.

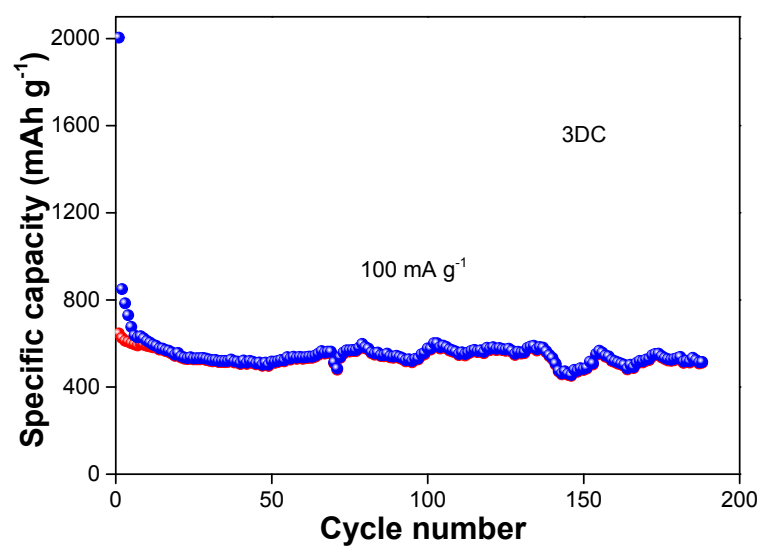


Figure S6. Cycling performance of 3DC.

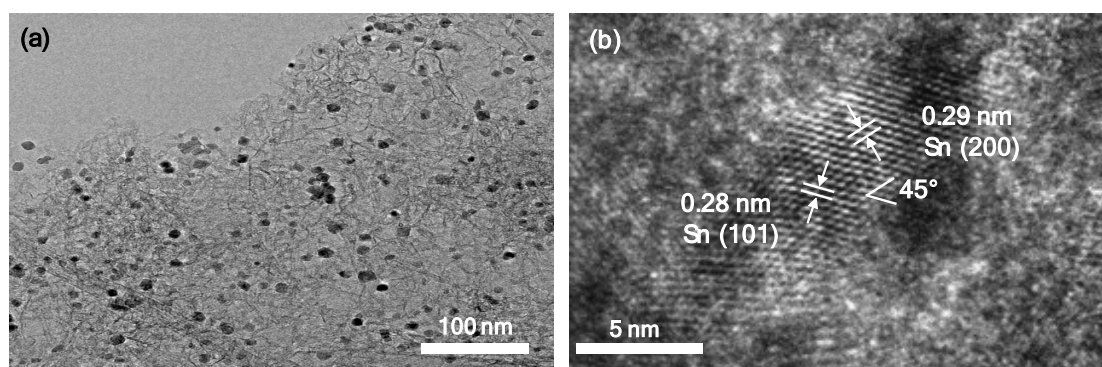


Figure S7. TEM images of normal-SnO₂@3DC after 50 cycles.

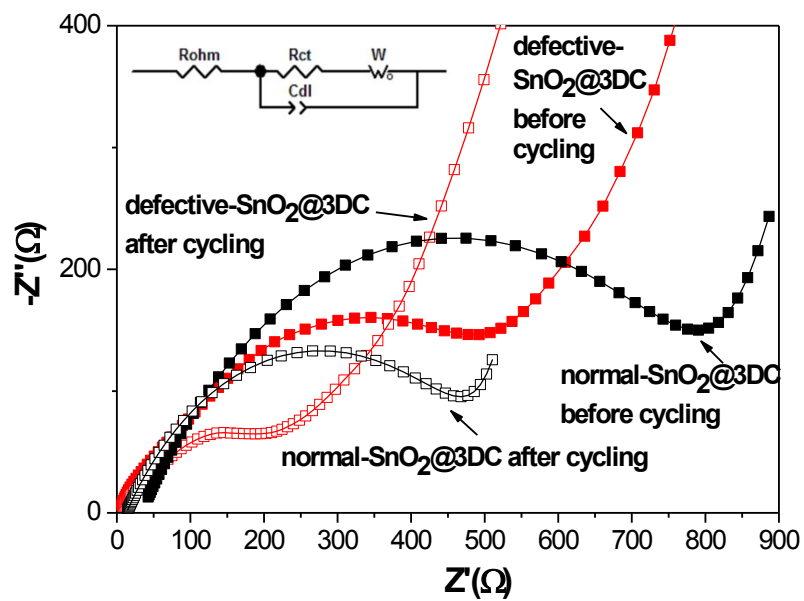


Figure S8 EIS of normal-SnO₂@3DC and defective-SnO₂@3DC before and after cycling.