Supporting Information

Nitrogen-doped Carbon Nanofibers with Effectively Encapsulated GeO_2 Nanocrystals for Highly Reversible Lithium Storage

Lin Mei,[a] *Minglei Mao,*[a] *Shulei Chou,*[b] *Huakun Liu,*[b] *Shixue Dou,*[b] *Dickon H. L. Ng,*[c] *and Jianmin Ma** [a, b]

[a] **L. Mei, M. L. Mao** and Dr. **J. M. Ma***

Key Laboratory for Micro-/Nano-Optoelectronic Devices of Ministry of Education, School of Physics and Electronics, Hunan University, Changsha 410082, China. E-mail: nanoelechem@hnu.edu.cn (J. M. Ma)

[b] Dr. **S. L. Chou**, Prof. **H. K. Liu** and Prof. **S. X. Dou**

Institute for Superconducting and Electronic Materials, University of Wollongong, Wollongong, Australia

[c] Prof. **Dickon H. L. Ng**

Department of Physics, The Chinese University of Hong Kong, Hongkong, P. R. China.

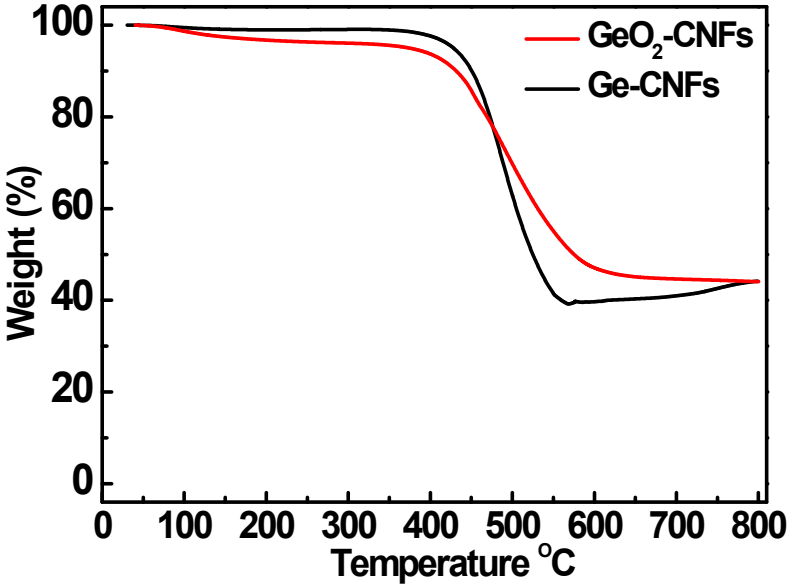

Fig. S1 TGA curves of GeO_2-CNFs and Ge-CNFs in air.

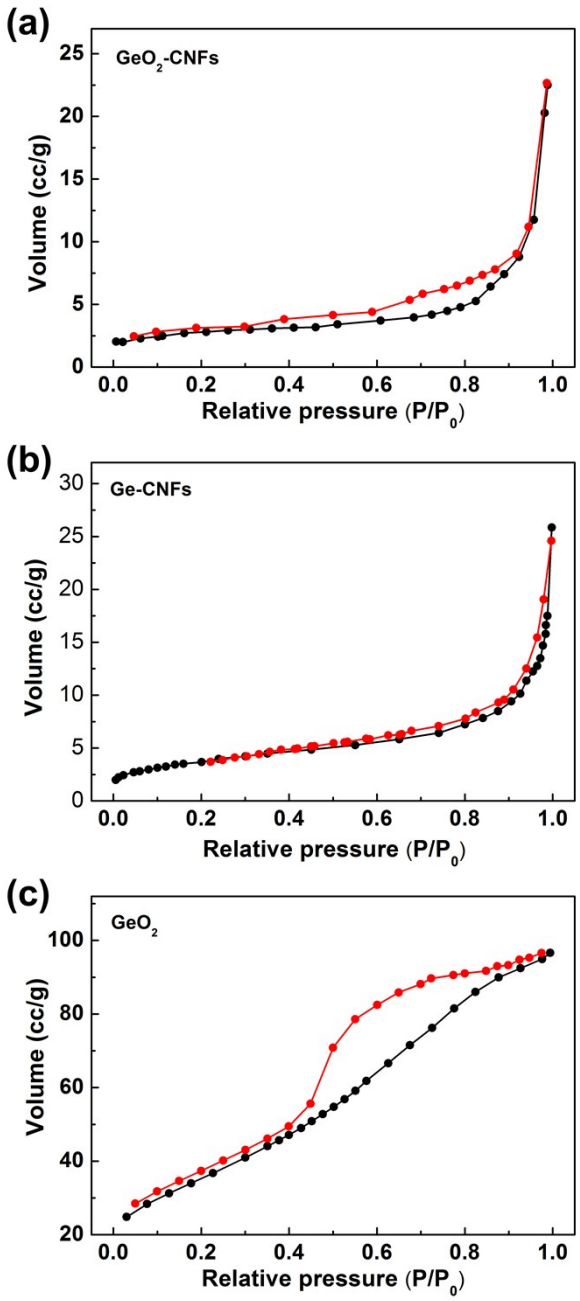

Fig. S2 N_2 adsorption-desorption isotherms of GeO_2-CNFs (a), Ge-CNFs (b) and GeO_2 (c).

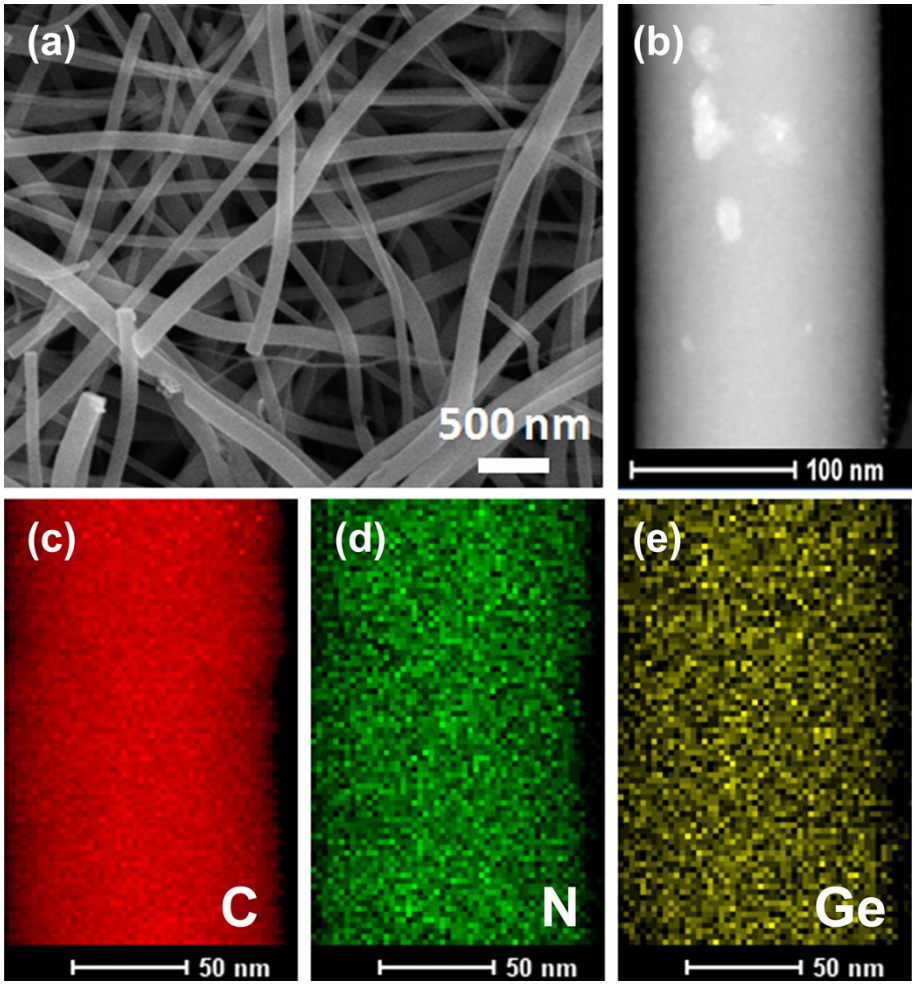

Fig. S3 (a) SEM image of Ge-CNFs, (b) STEM image and (c-e) EDX-elemental mapping images of single Ge-CNFs (b).

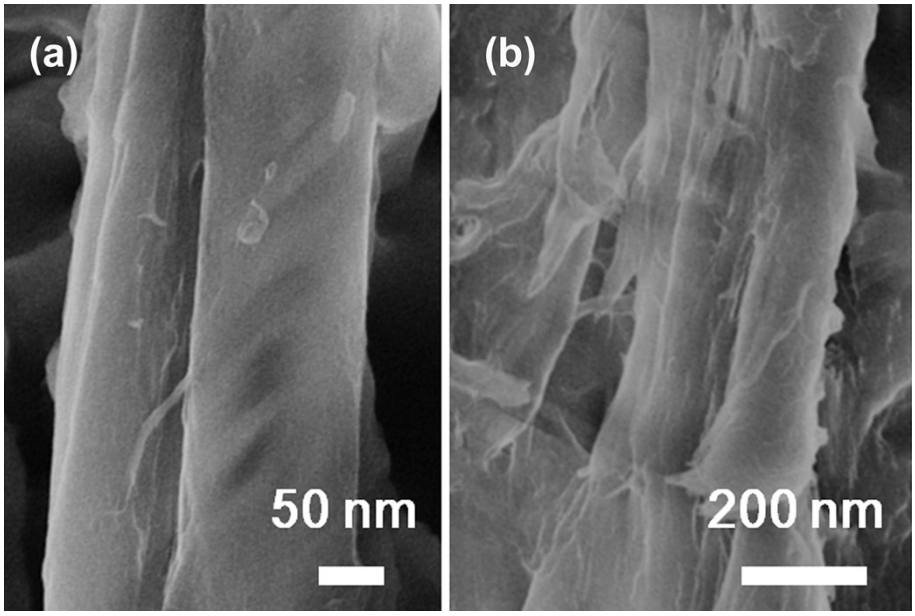

Fig. S4 SEM images of GeO_2-CNFs after 100 cycles.