Supporting Information

## Synthesis and investigation of layered GeS as a promising large capacity anode with low voltage and high efficiency in full cell Li-ion batteries

Yaqing Wei,<sup>a</sup> Jun He,<sup>a</sup> Qing Zhang,<sup>a</sup> Chang Liu,<sup>a</sup> Ameng Wang,<sup>a</sup> Huiqiao Li<sup>\*,a,b</sup> and Tianyou Zhai<sup>a</sup>

 <sup>a</sup> State Key Laboratory of Material Processing and Die & Mould Technology, School of Materials Science and Engineering, Huazhong University of Science and Technology (HUST), Wuhan 430074, Hubei, P. R. China
<sup>b</sup> Key Laboratory of Advanced Energy Materials Chemistry (Ministry of Education), Nankai University, Tianjin 300071, P. R. China

\*Corresponding author: Prof. H. Q. Li, Email: hqli@hust.edu.cn, Tel/Fax: 86-27-87559826

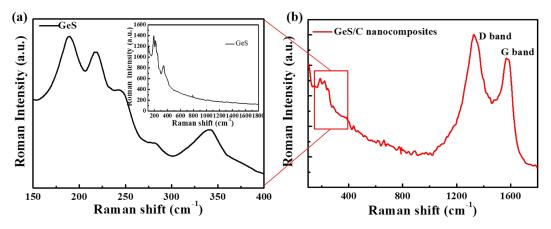


Figure S1. Raman spectra of a) GeS and b) GeS/C nanocomposite.

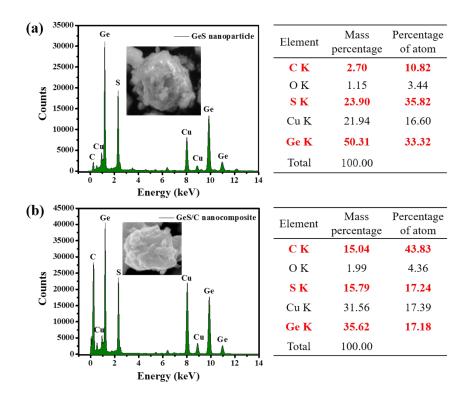


Figure S2. EDS spectra collected in TEM of a) GeS and b) GeS/C nanocomposite.

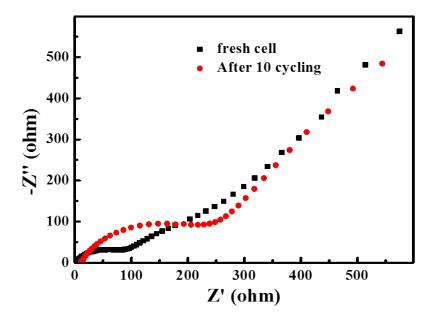


Figure S3. Nyquist plots of GeS/C nanocomposite before cycling and after 10 cycles.

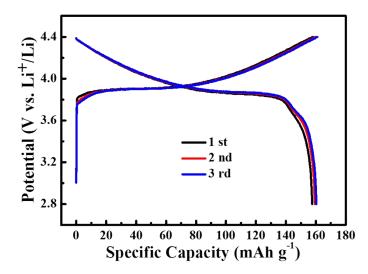


Figure S4. a) The typical charge/discharge profiles of LiCoO<sub>2</sub>/Li half-cell.