Straight-forward Preparation of Na₂(TiO)SiO₄ Hollow Nanotubes as Anodes for Ultralong Cycling Lifespan Lithium Ion Battery

Xiaoyu Zhang^a, Xinjian Li^a, Xueqin Sun^a, Xintao Zhang^a, Litao Kang^a, Yanli Zhou^a,

Hua Yuan^b, Fuyi Jiang^{a*}, Zhipeng Yu^{a*}, Chuanxin Hou^a

- a. School of Environmental and Material Engineering, Yantai University, Yantai 264005, China
- b. State Key Laboratory of Bio-Fibers and Eco-Textiles, School of Materials Science and Engineering, Qingdao University, Qingdao 266071, China



Figure S1 XRD patterns of fresh, after half cycle and 10 cycles of SNTO-1 electrodes.



Figure S2 Nitrogen absorption/desorption isotherm loop and pore size distribution curves obtained thorough the desorption branch used the BJH model of SNTO-0.8 (a) and SNTO-1.2 (b).



Figure S3 GITT measurement results of SNTO-0.8 electrode: a) GITT discharge curve, b) GITT charging curve, c) Li^+ diffusion coefficient (D_{Li}) during discharge, d) Li^+ diffusion coefficient (D_{Li}) during charging.



Figure S4 GITT measurement results of SNTO-0.8 electrode: a) GITT discharge curve, b) GITT charging curve, c) Li^+ diffusion coefficient (D_{Li}) during discharge, d) Li^+ diffusion coefficient (D_{Li}) during charging.



Figure S5 XRD patterns (a) and SEM of SNTO-1 nanotube electrodes after 10 cycles.