

Electronic Supplementary Information

Nanoporous Silicon from Low-cost Natural Clinoptilolite for Lithium Storage

Rongrong Miao,^a Jun Yang*,^a Yanan Wu,^a Jiulin Wang,^a Yanna Nuli,^a and Wei Lu^b

^a Shanghai Electrochemical Energy Devices Research Center, School of Chemistry & Chemical Engineering, Shanghai Jiao Tong University, Shanghai 200240, China. Fax: (+86)-21-54747667; Tel: (+86)-21-54747667; E-mail: yangj723@sjtu.edu.cn (J. Yang)

^b Department of Chemical Engineering, University of Michigan, Ann Arbor, MI 48109 (USA)

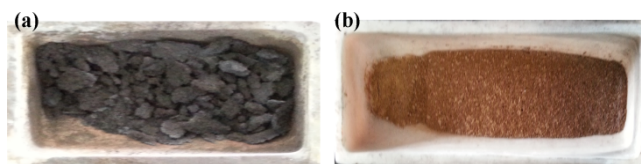


Fig. S1. Images of (a) products obtained by magnesiothermic reduction from NCLI without and (b) with ball-milling pretreatment (before acid etching)

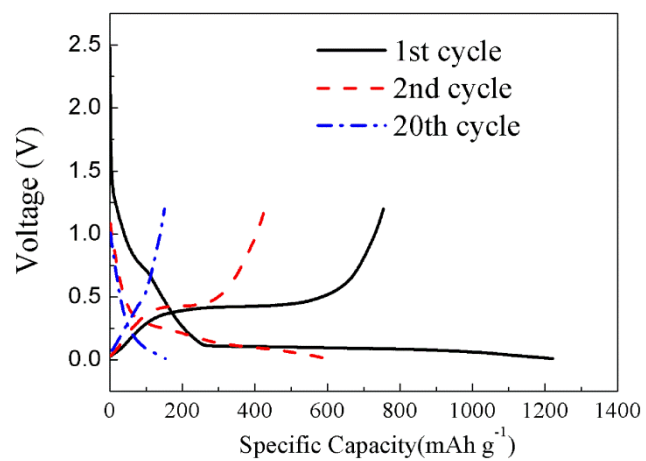


Fig. S2. Charge–discharge curves of the pSi obtained from NCLI without ball-milling pretreatment for the 1st, 2nd and 20th cycles at a current density of 0.05C for the initial two cycles and at 0.2C for the following cycles.

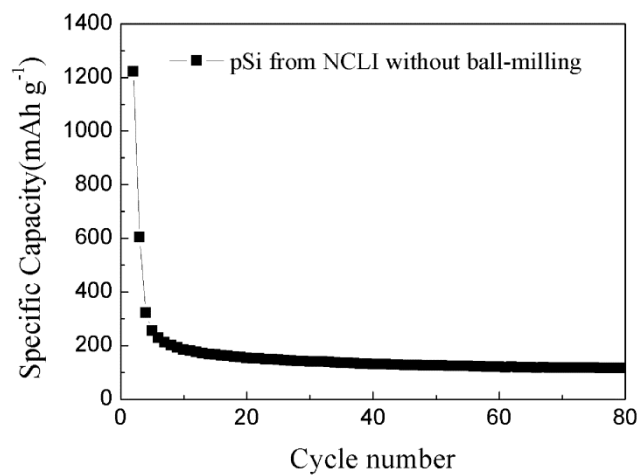


Fig. S3. Cycling performance of pSi obtained from NCLI without ball-milling pretreatment at a current density of 0.05C for the initial two cycles and at 0.2C for the following cycles.

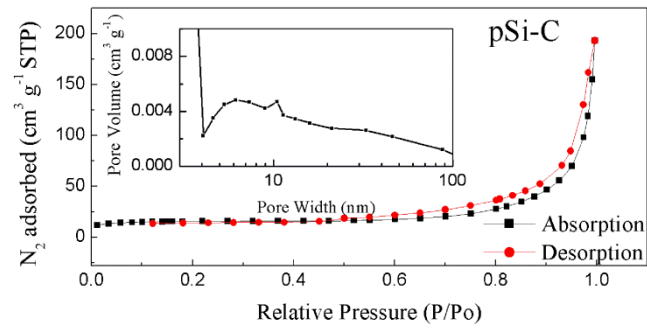


Fig. S4. Nitrogen adsorption–desorption isotherm linear plot of pSi-C and the inset is Barrett-Joyner-Halenda (BJH) pore size distribution.