Electronic Supplementary Information (ESI)

A low-cost and advanced SiO_x/C composite with hierarchical structure as anode material for lithium-ion batteries

Wenjun Wu,[a] Jing Shi,[a] Yunhui Liang,[a] Fang Liu,[a] Yi Peng[a] and Huabin Yang*[a]

Institute of New Energy Material Chemistry, Tianjin Key Laboratory of Metal and Molecule Based Material Chemistry, Collaborative Innovation Center of Chemical Science and Engineering, Nankai University, Tianjin 300071, China.

Email: hb_yang@nankai.edu.cn; Fax: +86-22-23502604. Tel: +86-22-23508405.

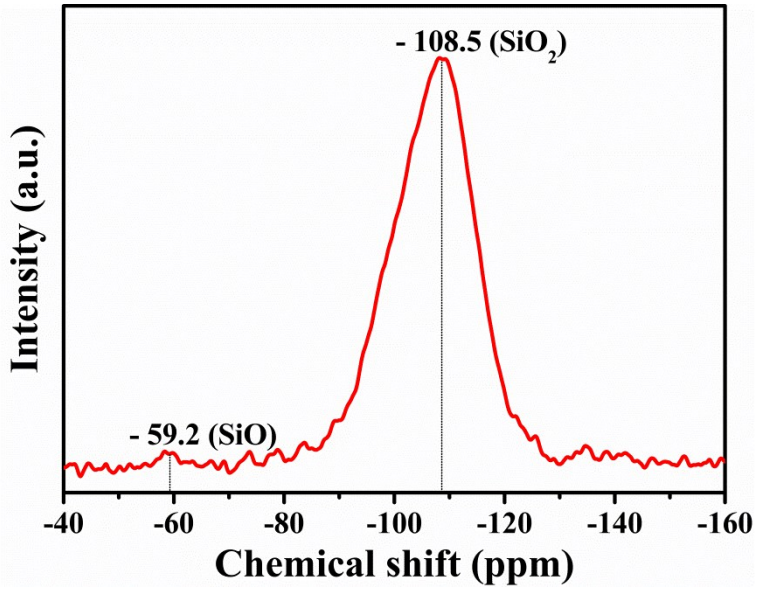

Fig. S1 The ^{29}Si-NMR spectrum for the SiO_x/C composite.

Table S1 The element analysis of EDS for the SiO_x/C composite.

Element	Weight percent (%)	Atomic percent (%)
C	66.4	76.7
O	17.9	15.5
Si	15.7	7.8

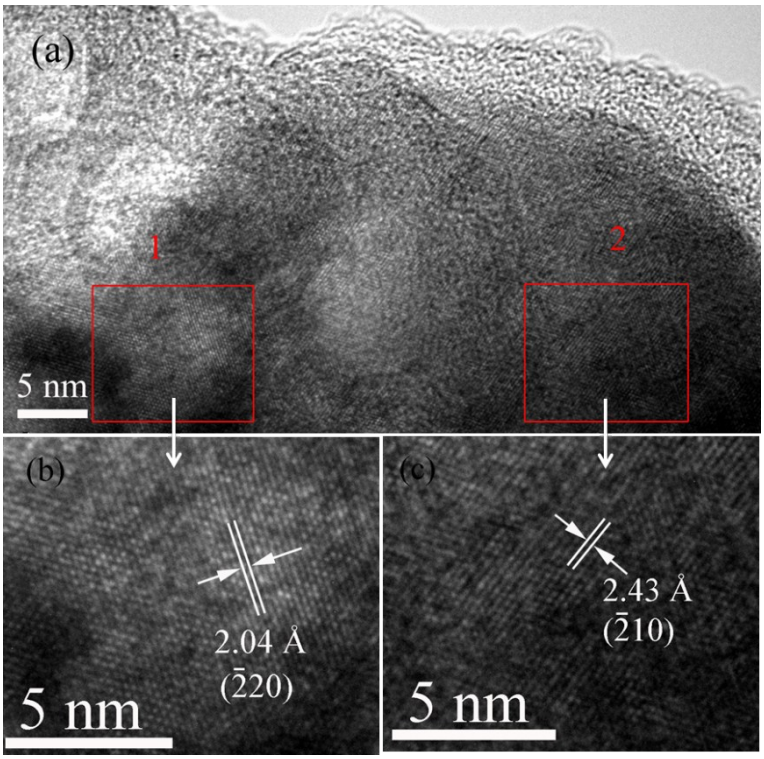

Fig. S2 HRTEM image of the SiO_x/C composite after discharging to 0.01 V; magnified HRTEM image of (b) region 1 and (c) region 2.

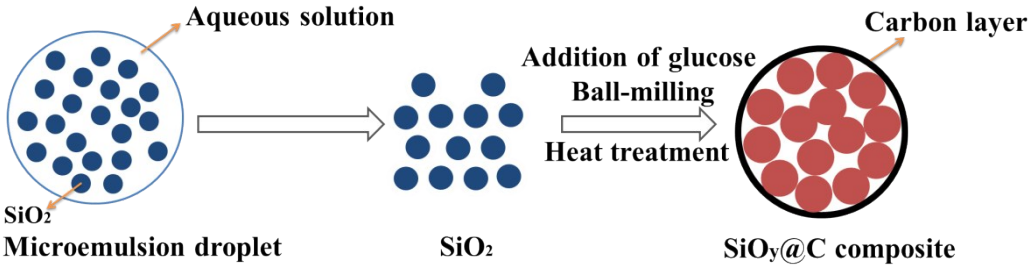

Fig. S3 Schematic of the preparation process for SiO_y@C composite.

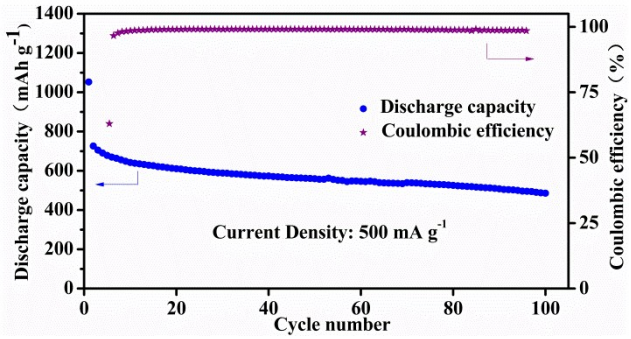

Fig. S4 Cycling test of the SiO_x/C electrode at the current density of 500 mA g^{-1}.