Supplementary Information (SI) for RSC Advances.
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Self-supporting cotton-derived 3D carbon–Si nanoarchitecture for solvent-free fabrication of high-performance lithium-ion anodes

Nguyen Van Tu[1*], Pham Van Trinh[1], Nguyen Van Chuc[1], Cao Thi Thanh[1], Bui Hung Thang[1], Pham Thi Nam[1], Nguyen Hoang Tung[1], Pham Duy Long[1], Nguyen Thanh Tung[1], Tran Dai Lam[1], Phan Ngoc Minh[2], Nguyen Van Hao[3], Vu Xuan Hoa[3], Vu Van Ngoc[4], Dinh Trong Thang[4], Tran Van Hau[1*]

[1]Institute of Materials Science, Vietnam Academy of Science and Technology, Hanoi, Vietnam

[2]Gruaduate University of Science and Technology, Vietnam Academy of Science and Technology, Hanoi, Vietnam

[3]Institute of Science and Technology, TNU-University of Sciences, Thai Nguyen, Vietnam.

[4]University of Science, Vietnam National University, Hanoi, Vietnam

Corresponding email: tunv@ims.vast.vn; hautv@ims.vast.ac.vn

Table S1. Estimated specific capacity and corresponding C-rate definition for Si/C composite electrodes

Composition (wt%)	Estimated specific capacity (mAh g^{-1})	Definition of 1C (mA g^{-1})	0.25C	0.5C	0.75C	1C
C (100%)	372	372	93	186	279	372
Si(10%)/C(90%)	628	628	157	314	471	628
Si(20%)/C(80%)	956	956	239	478	717	956
Si(30%)/C(70%)	1,284	1,284	321	642	963	1,284
Si(40%)/C(60%)	1,612	1,612	403	806	1029	1,612

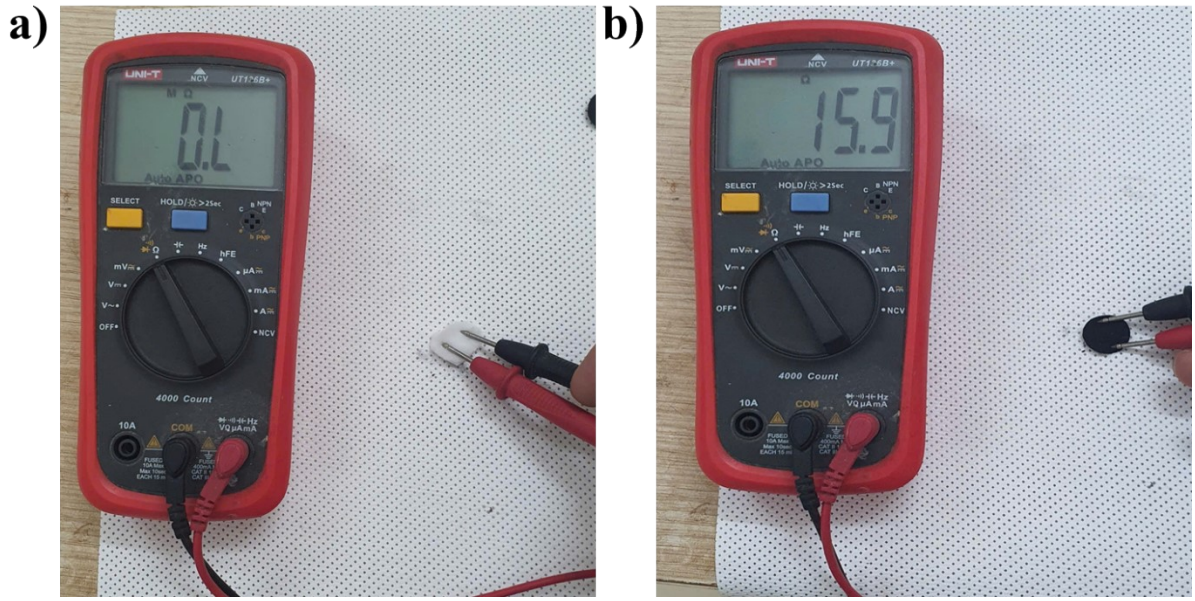

Figure S1. Surface resistance of (a) pristine cotton and (b) 3D-CC@Si

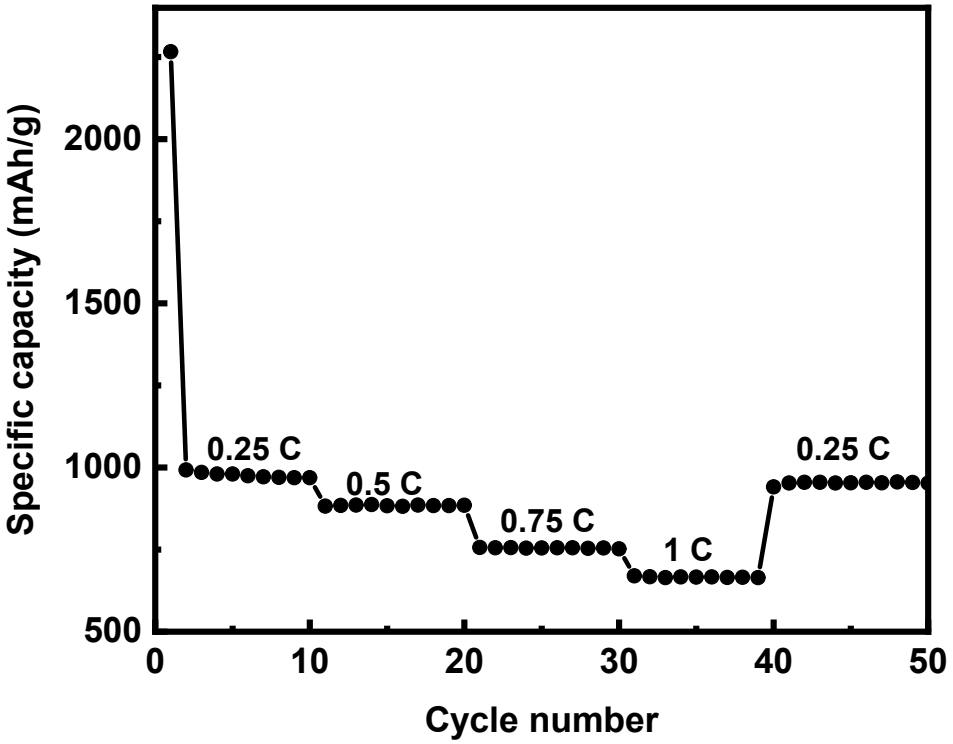

Figure S2. Rate capabilities at various C-rates from 0.25 to 1C.

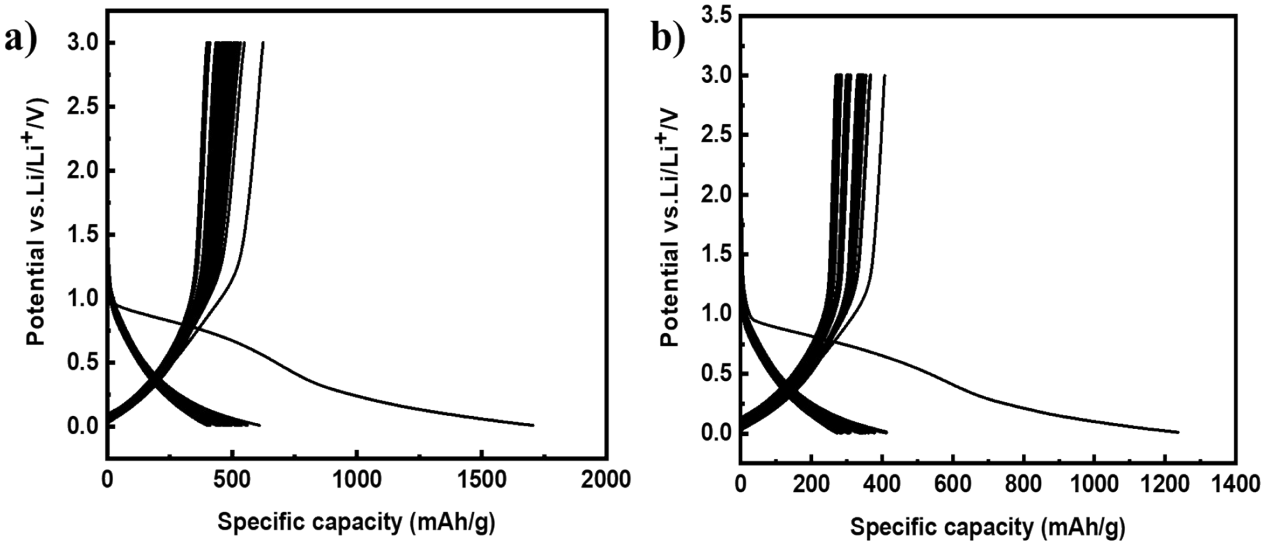

Figure S3. Long-term cycling performance of 3D-CC@Si composite under high C-rates