Supplementary Information

Electrochemical characteristics of silicon carbide film as lithium-ion battery anode

X.D. Huang ^{a*}, F. Zhang^a, X.F. Gan^a, Q.A. Huang^a, J.Z. Yang^{b*}, P.T. Lai^c and W.M. Tang^{d*}
^aKey Laboratory of MEMS of the Ministry of Education, Southeast University, Nanjing 210096, China
^bSchool of Chemistry and Chemical Engineering, Nanjing University of Science and Technology, Nanjing 210094, China
^cDepartment of Electrical and Electronic Engineering, the University of Hong Kong, Hong Kong, China
^dDepartment of Applied Physics, the Hong Kong Polytechnic University, Hong Kong, China

^{*} Electronic mail: <u>xdhuang@seu.edu.cn</u>, <u>jiazhiyang@sina.com</u>, <u>wm.tang@polyu.edu.hk</u>



Fig. S1. C 1s XPS spectrum of the 500-nm fresh SiC sample. Note that the sample is etched by





Fig. S2. EDX of the fresh Si and SiC samples, where the peaks from the substrate (including Fe,

Cr, Mn and Ni) are not labeled.



Fig. S3. C 1s XPS depth profiling of the fresh Si sample as a function of Ar⁺ sputtering time.