

Enhancing the Lithiation Rate of Silicon Nanowires by the Inclusion of Tin

Timothy D. Bogart,[†] Xiaotang Lu,[†] Meng Gu,[‡] Chongmin Wang,[‡] and Brian A. Korgel^{†}*

[†]Department of Chemical Engineering, Texas Materials Institute, Center for Nano- and Molecular Science and Technology, The University of Texas at Austin, Austin, Texas 78712-1062

[‡]Environmental Molecular Sciences Laboratory, Pacific Northwestern National Laboratory, Richland, WA 99354, USA

* Corresponding author: korgel@che.utexas.edu; (T) 1-512-471-5633; (F) 1-512-471-7060

Supporting Information

c-SiNW_1stLi. Movie of the *in situ* TEM lithiation of the *c*-Si nanowires from which the snapshots shown in Figure 5 were taken. Lithiation begins in the lower left at the contact point between the Si nanowire and the oxidized Li metal surface and continues along the length of the wire. Video is accelerated 10x real time.