Direct Visualization of Solid Electrolyte Interphase on $Li_4Ti_5O_{12}$ by

in-situ AFM

Shuwei Wang^{a,b}, Kai Yang^c, Fei Gao^c, Deyu Wang^{a*} and Cai Shen^{a*}

Email: shencai@nimte.ac.cn; wangdy@nimte.ac.cn; <a href="mailto:wangdy@nimte.ac.cn"/wangdy@nimte.ac.cn"/wangdy@nimte.ac.cn"/wangdy@nimte.ac.cn; <a href="mailto:wangdy@nimte.ac.cn"/wangdy@nimte.ac.cn"/wangdy@nimte.ac.cn"//

^{b.} School of Materials Science and Engineering, Shanghai University, Shanghai, China, 200072

^c China Electric Power Research Institute, State Grid Corporation of China Electronic Supplementary Information (ESI) available: [AFM image

of electrode composes only Super P and PVDF, graphite, and height profiles of LTO surface]. See DOI: 10.1039/x0xx00000x



Figure S1. Line profiles of figure 8. Line 1 corresponds to the pristine LTO surface. Line 2 corresponds to the LTO surface after first CV.

^{a.} Ningbo Institute of Materials Technology & Engineering, Chinese Academy of Sciences. 1219 Zhongguan Road, Zhenhai District, Ningbo, Zhejiang, China. Fax: 86-574-87910728; Tel: 86-574-86682743;



Figure S2. (a) SEM image of LTO powder; (b) LTO electrode