Approaching Theoretical Specific Capacity of Iron-Rich Lithium Iron Silicate Using Graphene-incorporation and Fluoride-doing

Tianwei Liu,^{a,b,+} Yadong Liu,^{b,+} Yikang Yu,^{b,c} Yang Ren,^d Chengjun Sun,^e Yuzi Liu,^f Jiayi Xu,^g Cong Liu,^g Zhenzhen Yang,^g Wenquan Lu,^g Paulo Ferreira,^h Zisheng Chao,^a and Jian Xie ^{*b}

 ^a State Key Laboratory for Chemo/Biosensing and Chemometrics, College of Chemistry and Chemical Engineering, Hunan University, Changsha 410082, China
^b Department of Mechanical & Energy Engineering, Purdue School of Engineering and Technology, Indiana University-Purdue University, Indianapolis, Indiana 46202, USA.
Email: jianxie@iupui.edu
^c School of Mechanical Engineering, Purdue University, West Lafayette, IN, 47907, USA
^d Department of Physics, City University of Hong Kong, Kowloon, Hong Kong, China
^e X-ray Science Division, Advanced Photon Source, Argonne National Laboratory, 9700
South Cass Avenue, Lemont, Illinois 60439, USA.
^f Center for Nanoscale Materials, Argonne National Laboratory, 9700 South Cass
Avenue, Lemont, Illinois 60439, USA

^g Chemical Science and Engineering Division, Argonne National Laboratory, 9700 South Cass Avenue, Lemont, Illinois 60439, USA.

h Department of Mechanical Engineering, University of Texas at Austin, TX, 78712, USA

⁺ These authors contributed equally to this work.

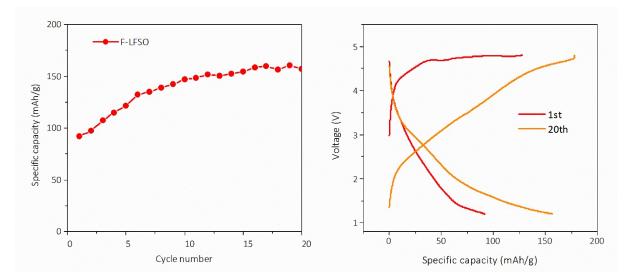


Figure S1. Electrochemical cycling of pure F-LFSO materials at 0.1C.