December 7, 2012

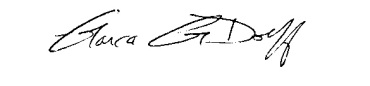
Dear JoVE Editors,

We would like to submit our manuscript entitled “Characterization of Electrode Materials for Lithium Ion and Sodium Ion Batteries using Synchrotron Techniques” to the Journal of Visual Experimentation for consideration. I, and the co-authors listed on the manuscript, are all involved in the use of this method or have been involved in it in the recent past. Currently, Drs. Mona Shirpour, Hugues Duncan and Chunjoong Kim are carrying out the experiments, but I relied heavily on previous work that Dr. Thomas Conry and Kinson Kam did while they were at LBNL (both left the lab in 2012 to pursue new careers) for the manuscript. Drs. Guoying Chen, Jordi Cabana, Thomas Richardson and I oversee the work, suggest experiments, and help with data analysis and interpretation. Dr. Apurva Mehta is a beam line scientist at SSRL who works closely with us. His help in setting up beam line experiments and with data interpretation and analysis is invaluable.

I have described two types of complementary beam line experiments that we commonly do at the synchrotron to characterize our materials. As a rule, these are not done simultaneously; we either have XRD or XAS time scheduled on any given week, rarely both and never on the same day. In the protocol, I have highlighted the *in situ* XRD work for filming, because we generally obtain more shifts for this type of work than for the XAS, so it is more likely that we will be doing this. However, depending on the timing, we can consider filming XAS experiments instead.

This manuscript is not under consideration for publication in another journal. We have been working with associate editor Rachelle Baker, who requested this article. Possible reviewers include Xiao-Qing Yang at Brookhaven National Lab (xyang@bnl.gov), Shirley Meng at the University of California at San Diego ([shirleymeng@ucsd.edu](mailto:shirleymeng@ucsd.edu)), Hironori Kobayashi at AIST, ([hironori-kobayashi@aist.go.jp](mailto:hironori-kobayashi@aist.go.jp)), Yang-Shao Horn at MIT (([shaohorn@mit.edu](mailto:shaohorn@mit.edu)), Won-Sub Yoon at Sungkyunkwan University, South Korea ([wsyoon@skku.edu](mailto:wsyoon@skku.edu)), and Christian Masquelier at the University of Picardie ([christian.masquelier@u-picardie.fr](mailto:christian.masquelier@u-picardie.fr)).

Sincerely,



Marca M. Doeff

Staff Scientist

Environmental Energy Technologies Division

Lawrence Berkeley National Laboratory

1 Cyclotron Rd, Berkeley, CA 94720

510-486-5821

mmdoeff@lbl.gov