

ARTICLE

***In-situ* strain evolution during a disconnection event
in a battery nanoparticle - SUPPLEMENT**

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Supporting Figure Captions.

Figure S1. Powder X-ray diffraction data for the as synthesized spinel confirming Fd-3m spacegroup.

Figure S2. C/20 rate data for the first charge and discharge cycle of the synthesized spinel confirming good electrochemical cycling.

Figure S3. Phase retrieval transfer function used to calculate the resolution of the reconstructed displacement fields. A cut-off of 0.5 is applied to determine the resolution of 40 nm.

Figure S4. Electron microscopy image of the cathode sample. It contains nanoparticles that are randomly oriented.

Figure S5. Electrochemical data for the coin cell during the first cycle at a charge and discharge rate of C/2. The capacity achieved during this cycle is used to estimate how much capacity is lost by the third cycle.

Figure S6. Electrochemical data for the coin cell during the third cycle at a charge and discharge rate of C/2. The curves look as expected and indicate that the battery functions normal at a reduced capacity. The particle we image is disconnected during this cycle.

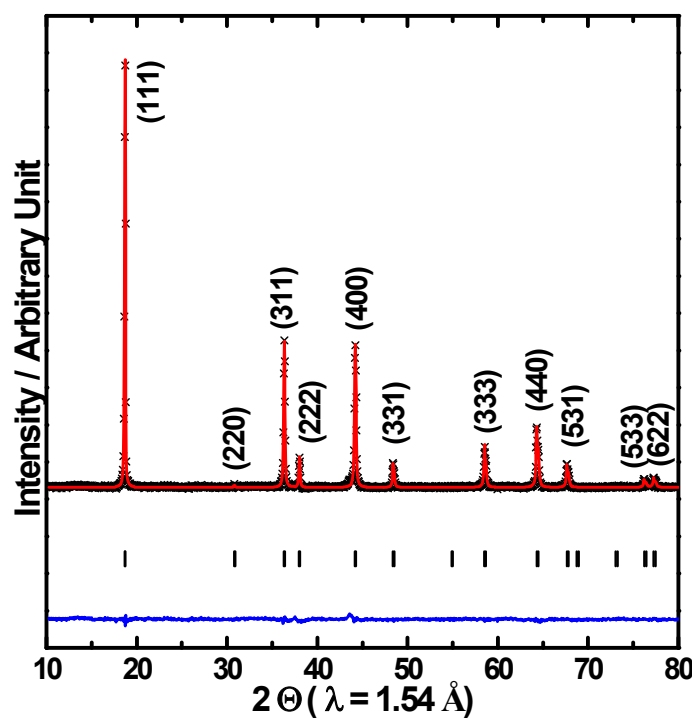


Fig. S1. A. Ulvestad et al.

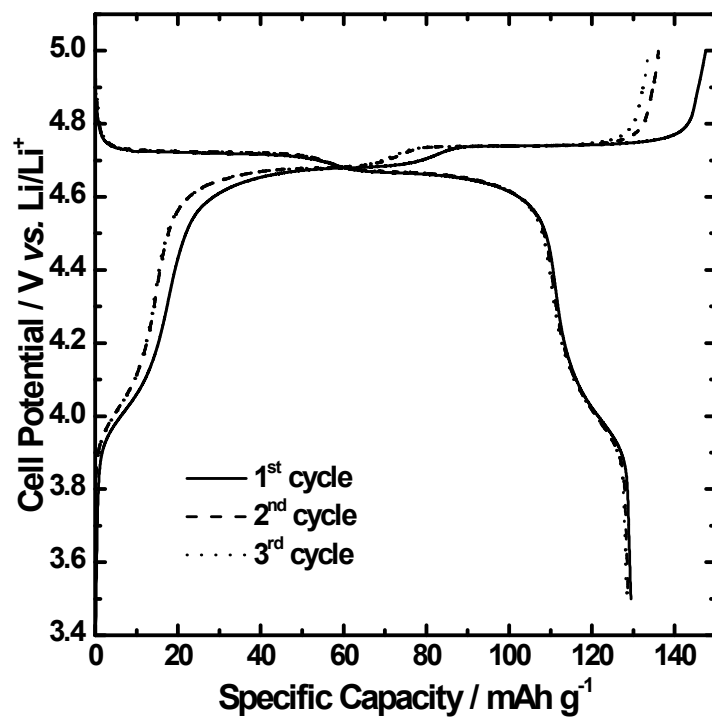


Fig. S2. A. Ulvestad et al.

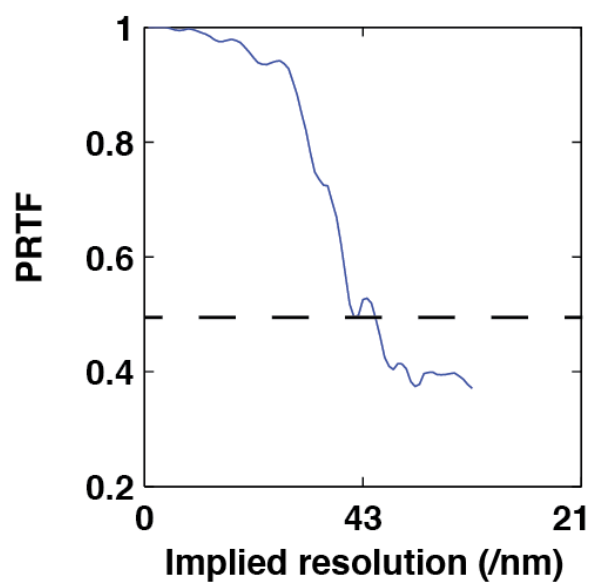


Fig. S3. A. Ulvestad et al.

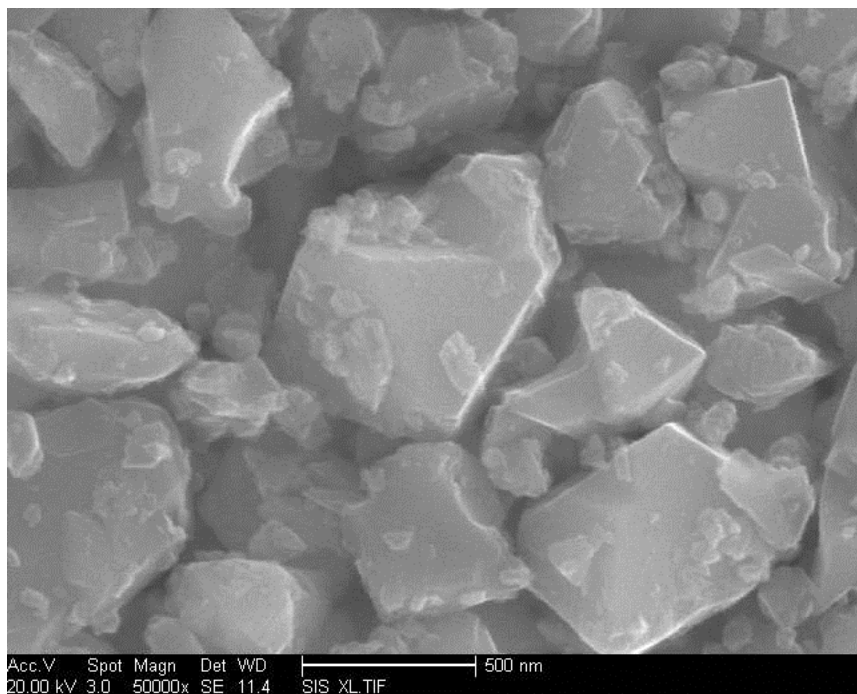


Fig. S4. A. Ulvestad et al.

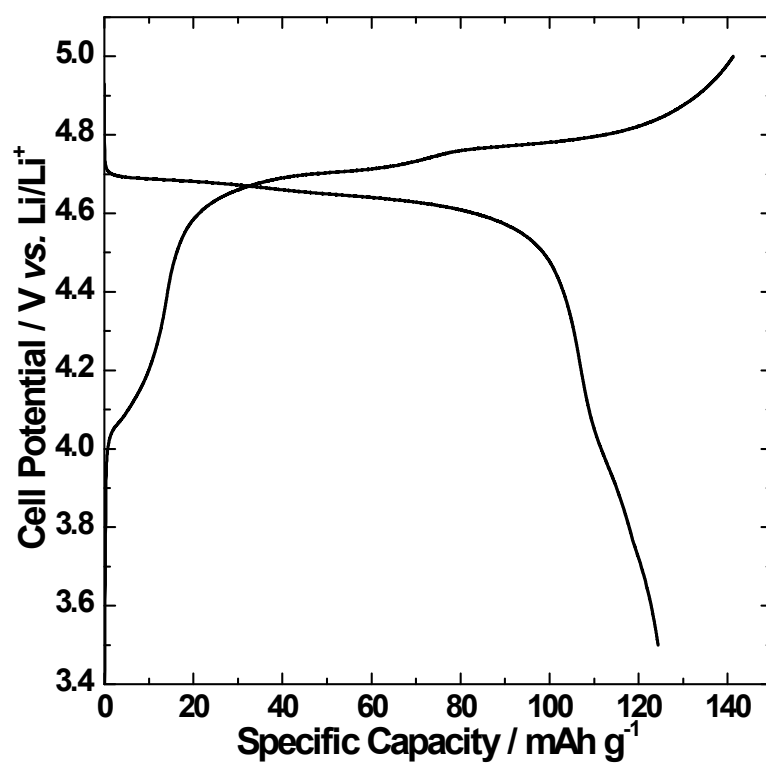


Fig. S5. A. Ulvestad et al.

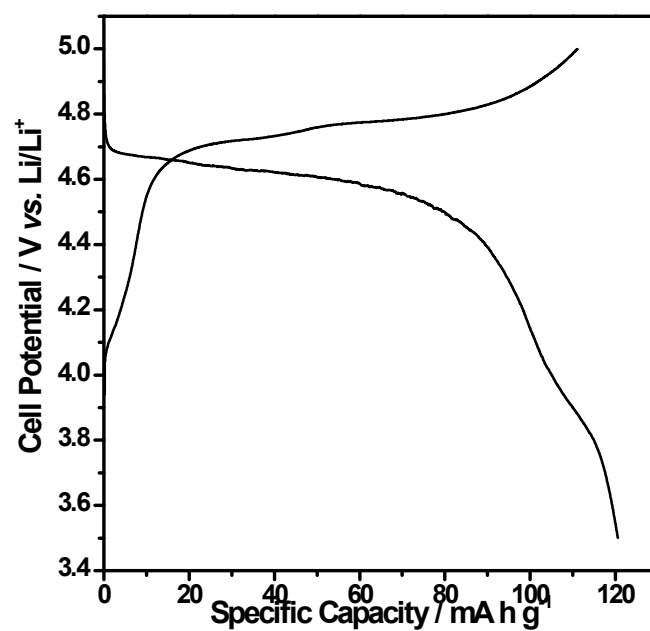


Fig. S6. A. Ulvestad et al.