

## Temperature and Charge Rate dependant phase relaxation of graphite anodes

*Tuesday, 25 June 2019 16:15 (1 hour)*

Poster (preferred) or short talk (15min).

In situ / operando Neutron Diffraction is a powerful tool to study phase inhomogeneity and relaxation phenomena in lithium-ion batteries.

Time-resolved operando neutron diffraction measurements of a commercial high power LiCoO<sub>2</sub>/Graphite pouch bag battery operated in the temperature range of -20 °C to 40 °C were done at STRESS-SPEC.

Analysis of the relaxation times allows to attribute the slow lithium transport due to limitations of grain boundaries between different phase domains or crystallites within the particles rather than in-plane transport.

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**Session Classification:** Poster session