Neutron imaging Product Distribution in Li-Air Cathodes

Neutron Imaging
Li-air cathode

3D Modeling
Li-air Cathode

- Neutron imaging shows a non-uniform lithium product distribution across the electrode.
- Non-uniformity driven by complex charge transfer kinetics and electronic passivation.
- Spatio-temporal reaction phase 3D modeling predicts nonuniform Li-product distribution confirming neutron results.
- Enables understanding the mechanism of discharge product formation in lithium-air cells.

3D Neutron Tomography
Lithium Concentration Profile

Lithium Concentration Cross Section

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