



The All-Solid-State Battery

Conrad R. Stoldt

Department of Mechanical Engineering, CU-Boulder

Solid-state materials development and characterization

- Cathode and electrolyte processing
 - Microwave, sol-gel, sputtering, etc.
 - Establish structure / property relationships
- Ion transport measurements
 - Glassy and crystalline systems (phosphates, silicates, sulfides)
 - Structural and mechanical effects on ion conductivity

Cell-Level Materials Integration

- Integration of high-T ceramics into layered cell architecture
 - Industry compatible processes (slurry coating, other)
 - Interfaces, interfaces, interfaces
 - Mechanical and chemical robustness

