



POETS

# Paul Braun-University of Illinois

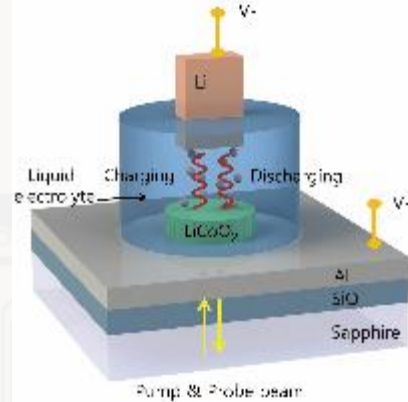
AN NSF SPONSORED CENTER



- Synthesis of materials with unique dynamic thermal properties
- Advanced electrode materials for energy storage
- Materials Characterization

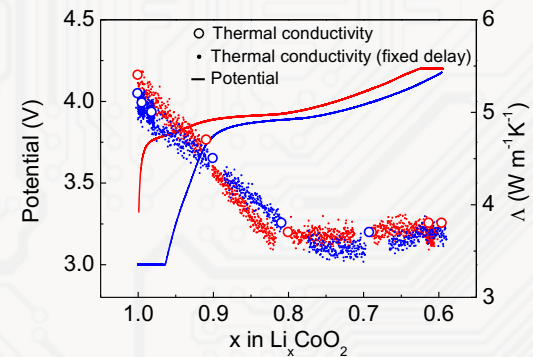


<http://braingroup.beckman.illinois.edu/>

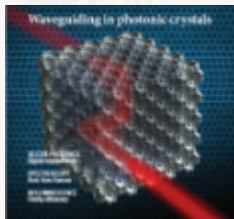


Dynamic Thermal Materials

Demonstrated in a Li-ion cathode material

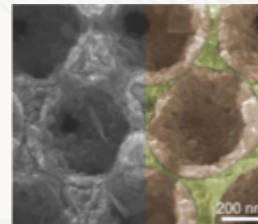


Optical Materials



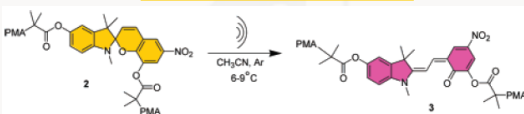
Materials Synthesis

3D Structured Materials



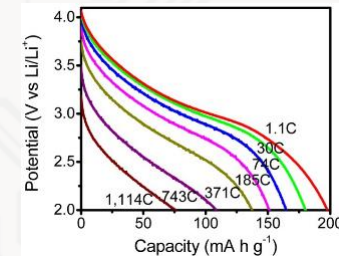
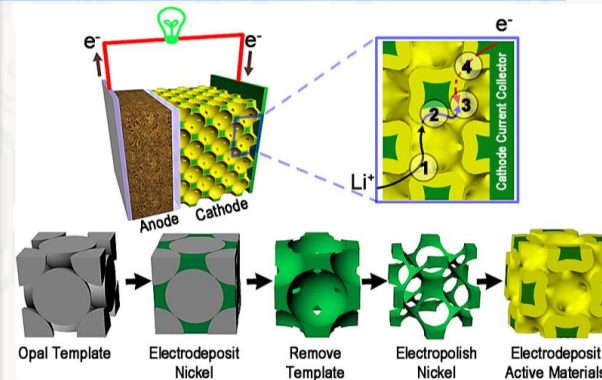
V<sub>2</sub>O<sub>5</sub>-graphene composite

Advanced Polymers



Properties change with applied stress

High Power and Energy Batteries



Optimized 3D structures for Li-ion and electron transport