

Solid-State Architecture Batteries for Enhanced Rechargeability and Safety (SABERS)

Idea/Concept

- Develop a solid-state bipolar battery stack based on novel Li-S/Se chemistry and a non-flammable electrolyte to produce a battery which satisfies the system level needs of UAM concepts including: **safety** (non flammable), **energy density**, **discharge rate**, **packaging design**, and **scalability**.

Current status

- Visited partners at ANL, Ionic Materials, and Aurora, and held teleconference with PNNL to establish formal working relationship agreements.
- GRC started investigations on synthesis and processing of solid-state electrolyte for practical and scalable materials.
- LaRC started investigations of S/Se cathode chemistry and cathode/solid state electrolyte interface.
- Coordinating teams, formulating and finalizing plans (Event & Resource agreement).
- Kick-off meeting scheduled Nov 19, 20 at GRC.

Transition opportunities/status

- Process to make holey graphene licensed to private industry.
- Technical discussions with project leads for TTT and Game-Changing Technology Development Program.

