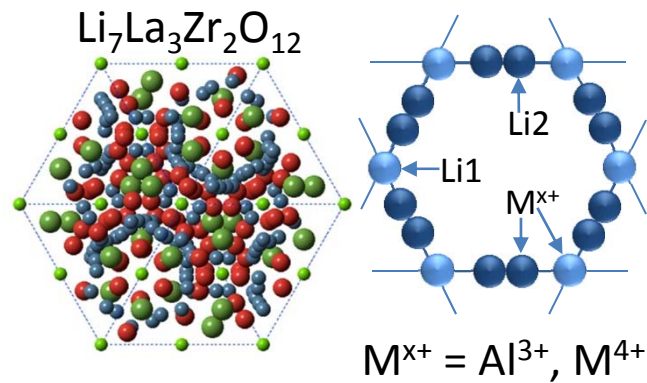


Fast ion conducting garnet-based electrolytes enabling a revolution in electrochemical energy storage

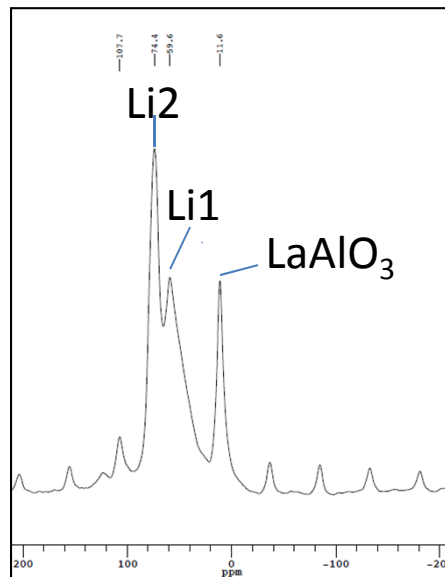
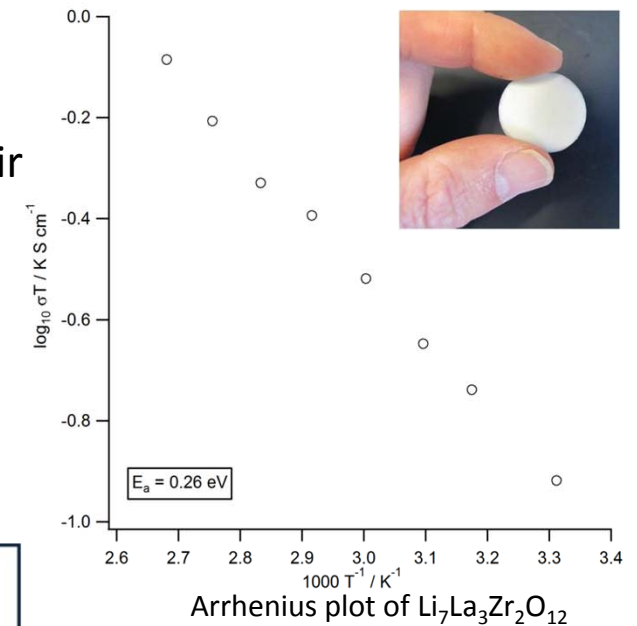
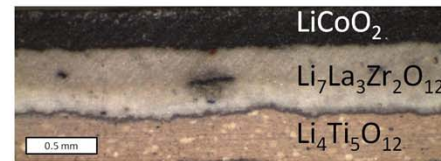


Jeff Sakamoto

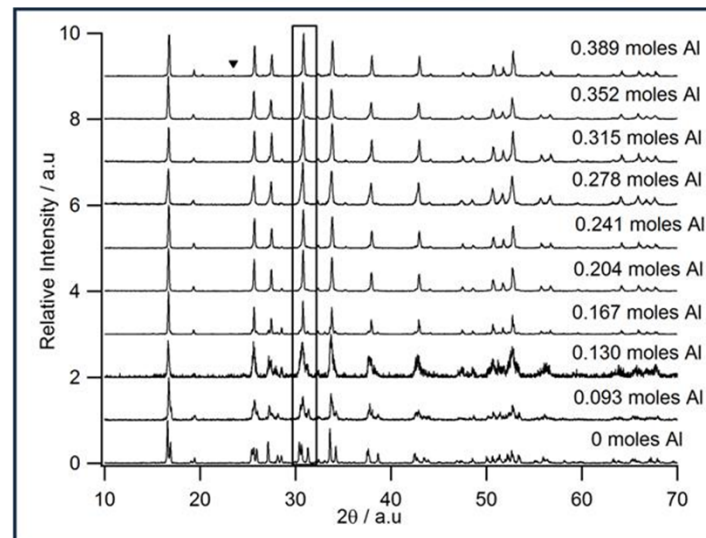


Highlights

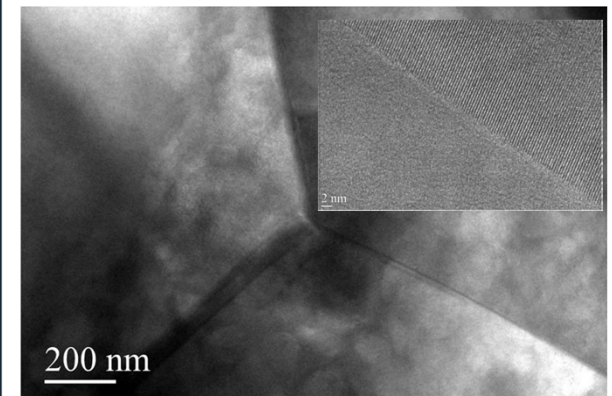
- $4 \times 10^{-4} \text{ S/cm}$ at 298 K
- Stable against lithium & air
- 98% dense
- Li-air, Li-S batteries
- Ceramic battery



Al 27 NMR in $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$



XRD vs. Al conc. in $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ calcined at 1000 °C.



TEM reveals clean grain boundaries