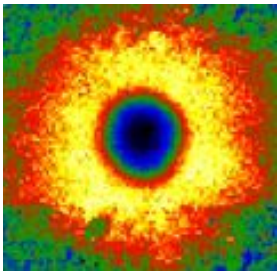

Contribution ID: **67** Type: **Poster**

C-AFM driven electrodeposition in a solid state battery

Solid state electrolytes are a key focus of research due to their potential to enable production of batteries with greater capacity and enhanced safety compared to established technologies. In our study, we utilised conductive atomic force microscopy (C-AFM) to investigate the transport of Li^+ ions through the electrolyte. Measurements were conducted using a scanning electron microscope (SEM) and LiteScope AFM-in-SEM. Our experiments were performed on a cathode-less half-cell, comprising an InLi negative electrode covered by a solid state electrolyte. Using a conductive AFM tip with a negative bias, we successfully electrodeposited lithium pillars on the half-cell.

Primary authors: PATOČKA, Marek (BUT); Mr KRAMÁŘ, Jan (BUT)

Co-author: KOLÍBAL, Miroslav (BUT)

Presenter: PATOČKA, Marek (BUT)

Session Classification: Posters

Track Classification: Topics: Electronics