

SEPT
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2020

DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY COLLOQUIUM
UTAH STATE UNIVERSITY

*Electrolytes for High Capacity
Li and Alloy Anodes*

The energy density and safety of Li-ion batteries are critical for the portable devices, electric vehicles (EV), and renewable energy. However, the safety and energy density of current Li-ion batteries still need to improve to satisfy these applications. We developed the non-flammable fluorinated organic electrolytes that enable Li metal and micro-sized alloy anodes (Including Si, Al, and Bi) to achieve high coulombic efficiency of 99.9%. The principle for Li dendrite suppression and capacity decay of micro-sized alloy anodes in organic electrolytes were proposed and validated. The critical issues of these safe electrolytes are also discussed.

4-5PM (MDT) | Zoom

Meeting ID: 991 3991 8394

Passcode: 4W3tYY

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