

EUROMAT 2019 / Area E Energy and Environment

SYMPOSIUM: E3

Title: Batteries: From materials to cell		
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Abstract		
<p>This symposium will communicate recent progress in advanced batteries for electrochemical energy storage. Storage technologies require new concepts in materials design to overcome current limitations in performance, lifetime, and cost. The symposium will encompass both the basic and applied research that have enabled recent improvements in Li-based battery materials and in chemistries beyond Li, in terms of understanding fundamental processes and electrochemical performances.</p> <p>Session topics include:</p> <ul style="list-style-type: none">• Post Li-ion batteries: Na-ion, K-ion, multivalent ions• Lithium-air batteries• Lithium-sulfur batteries• Redox Flow batteries• All-solid-state batteries• Aging processes and failure mechanisms• Interface electrode/electrolyte chemistries• Electrode and electrolyte formulations• Advanced characterization for fundamental understanding• Battery prototyping		