Call for papers

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Mechanistic Interactions in Energy Storage

Energy storage is a key enabler in vehicle electrification, grid storage and advancing the overall goal toward decarbonization. These systems include inherently coupled, physicochemical interactions occurring at different length and time scales, which ultimately determine system metrics such as performance, life, and safety. To this end, energy storage research warrants a wide array of computation and characterization approaches to probe at different scales. In this special topic, we are soliciting contributions focusing on mechanistic interactions, including mechano-thermo-electrochemical coupling, microstructure—property—performance interplay, modeling, characterization, and analytics in Li-ion batteries and beyond, including Na-ion, lithium metal and solid-state chemistries.

Original research papers should be 3,000-9,000 words with up to 12 figures maximum; review papers should be 6,000-11,000 words with up to 20 figures maximum.

Detailed author instructions are available at: http://www.tms.org/AuthorTools/

Keywords for this topic: Characterization; Computational Materials Science & Engineering; Energy Conversion and Storage; Modeling and Simulation

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Committee Sponsor(s): Energy Conversion and Storage

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