



# SSI-23 23<sup>rd</sup> International Conference on Solid State Ionics

July 17 - 22, 2022 | Boston Park Plaza | Boston, MA, USA

## CALL FOR PAPERS

The organizing committee of the **23<sup>rd</sup> International Conference on Solid State Ionics (SSI-23)** invites you to join us July 17 – 22, 2022 in Boston—a thriving center of scientific research, and one of the oldest municipalities with a special place in the history of the United States.

The International Conference on Solid State Ionics is a major event in the field, attracting a worldwide audience every two years. It provides an unparalleled opportunity to gather leading international scientists and engineers, top-level industrial, management and business executives, as well as students and young scientists, to discuss all aspects of the science, technology and applications of ion-conducting materials. The Conference facilitates the exchange of ideas between people with different backgrounds and fosters the development and professional growth of both young and experienced researchers alike.

### IMPORTANT DATES

**Abstract Submission Opens**

September 15, 2021

**Abstract Submission Deadline**

December 15, 2021

**Preregistration Opens**

Late April 2022

### CHIEF ORGANIZER

**Bilge Yildiz**, Massachusetts Institute of Technology

### CO-ORGANIZERS

**Yet-Ming Chiang**, Massachusetts Institute of Technology

**Jennifer L.M. Rupp**, Massachusetts Institute of Technology

**Harry L. Tuller**, Massachusetts Institute of Technology

## SCIENTIFIC PROGRAM

The six-day Conference will present a balance of fundamental, as well as application-inspired topics, under the solid-state ionics umbrella, including:

### Defects and Transport Mechanisms in Solid Electrolytes and Mixed Conductors

- ▶ Oxide Ion Conductors
- ▶ Proton Conductors
- ▶ Small Cation (Li, Na, Mg etc.) Conductors
- ▶ Cross-Cutting Themes in Ionic Conduction— From Liquids to Polymers to Hard Inorganics
- ▶ Mixed Electronic-Ionic Conductors
- ▶ Stress, Light and Electric Field Modulated Processes
- ▶ Advanced Characterization Techniques
- ▶ Theory and Computation

### Electrochemical Interfaces

- ▶ Electro-Catalytic Materials
- ▶ Gas/Solid
- ▶ Solid/Solid
- ▶ Liquid/Solid (photo-electrocatalysis)

### Iono-Electronics

- ▶ Resistive Switching Memory and Neuromorphic Computation
- ▶ Ferroelectrics, Multiferroics, Magneto-Ionics
- ▶ Transparent Conducting Oxides
- ▶ Chemical and Solid State Sensors
- ▶ Bio-electronics

### Energy and Fuels Conversion

- ▶ Solid Oxide Fuel Cells
- ▶ Solid Oxide Electrolyzers
- ▶ PEM Fuel-Electrolysis Cells
- ▶ Membrane Reactors
- ▶ Solar Cells
- ▶ Solar Fuels

### Energy Storage

- ▶ All Solid State Batteries
- ▶ Li-Ion Batteries
- ▶ Hybrid and Flow Batteries
- ▶ Flow Batteries

SSI-23 is managed by



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For the most up-to-date information on SSI-23, visit [mrs.org/ssi-23](https://mrs.org/ssi-23).

