Session Program

13–17 Sept 2021

EUROPEAN CONGRESS AND EXHIBITION ON ADVANCED MATERIALS AND PROCESSES - EUROMAT 2021

E4_Solid state batteries and components

Virtual

Tuesday 14 September

09:50

E4_Solid state batteries and components: E4_1_Transport and electrolyte stability

Session | **Location:** Room 14

09:50–10:10

Electrochemical stability and decomposition route of solid electrolytes

Speaker
Mr Tammo Schwietert

10:10–10:50

Enhanced Li-Ion Conductivity in Nanosized Li10GeP2S12 (Keynote)

Speaker
James Dawson

10:50–11:10

Correlation of oxidative electrochemical stability with electronic structure of argyrodite solid electrolyte, Li6PS5X

Speaker
Dr Ananya Banik

11:10–11:30

Design of Lithium ion conducting porous hybrid materials for the development of solid Li-battery electrolytes

Speaker
Mr Koceila Maouacine

11:30

11:50

E4_Solid state batteries and components: E4_2_Inorganic electrolytes

Session | **Location:** Room 14

11:50–12:10

Space-charge formation at grain boundaries in solid electrolytes (Highlight)

Speaker
Mr Jacob Dean

12:10–12:30

Unraveling the structure-transport correlations in Li3-xIn1-xZrxCl6 (0 ≤ x ≤ 0.5)

Speaker
Bianca Helm

12:30–12:50

Garnet-type Lithium Metal Fluorides, Li3Na3M2F12 (M = Al, Sc, In): A New Class of Solid Electrolytes for Solid-State Lithium Batteries

Speaker
Dr Umeshbabu Ediga

12:50–13:10

Phase Behavior and its Relationship to Ion Mobilities of NaSiCON Electrolytes and Electrodes

Speaker
Dr Zeyu Deng

13:10–13:30
Aliovalent substitutions in the sodium superionic conductors Na11+xSn2P1-xMxS12 with M = Sn, Ge

Speaker
Marvin Alexander Kraft

13:30

15:20

E4_Solid state batteries and components: E4_3_Solid state batteries

Session | **Location:** Room 14

15:20–15:40
Linking solid electrolyte degradation to charge carrier transport in the thiophosphate-based composite cathode toward solid-state lithium-sulfur batteries (Highlight)

Speaker
Prof. Saneyuki Ohno

15:40–16:00
Elucidating the Nature of the Electrode – Solid Electrolyte Interface Through Operando HAXPES Approaches on Ultra-Thin Film Electrodes

Speaker
Joshua Gibson

16:00–16:20
Development and operando characterization of thin films for Li-ion batteries.

Speaker
Dr Alex Morata

16:20–16:40 **Overcoming challenges of high-voltage Li-metal solid-state batteries**

Speaker
Mr Mikel Arrese-Igor

16:40–17:00
Amorphous carbon interlayers towards uniform lithium plating for anode-free solid-state batteries

Speaker
Dr Moritz Futscher

17:00

17:20

E4_Solid state batteries and components: E4_4_Polymer and hybrid systems

Session | **Location:** Room 14

17:20–17:40
LiBH4-MgO composite as Solid-state Electrolyte for Room Temperature Solid-State Lithium-ion Battery (Highlight)

Speaker
Dr Valerio Gulino

17:40–18:00
Tailoring the Li-ions transport at the interphase of hybrid solid electrolytes

Speaker
Dr Ming Liu

18:00–18:20

Boosting the rate capability of poly(ethylene)oxide-based solid state batteries with electronic conductive additives

Speaker
Dr Pedro López-Aranguren

18:20–18:40

LiBH4·LiCl·P2S5 system as solid electrolytes for all-solid-state Li-ion batteries

Speaker
Dr Yang Hu

18:40