

Detailed Program ICLSB 2021*

(all times are Central European Time)

MONDAY, JUNE 28, 2021

SESSION »ADVANCED BATTERY MATERIALS«

14:00-14:15	Session Opening S. Kaskel , Fraunhofer IWS
Moderator/ Chair	S. Kaskel , Fraunhofer IWS
14:15-14:55	Plenary: Lithium-sulfur batteries with stabilized lithium-metal deposition A. Manthiram , <i>University of Texas at Austin</i>
14:55-15:25	Keynote: Polymer-based solid-state Li-S cell development C. Li , <i>CIC energigune</i>
15:25-15:45	Influence of redox mediators on the discharge and charge mechanisms of lithium-sulfur batteries C. Holc , <i>University of Nottingham</i>
15:45-16:15	Coffee break – Meet the speaker, H. Althues, Fraunhofer IWS Virtual lab tour @ Fraunhofer IWS
Moderator/ Chair	S. Dörfler , Fraunhofer IWS
16:15-16:35	New approaches for achieving a practical and highly performing Li-S battery J. Hassoun , <i>University of Ferrara</i>
16:35-16:55	CNT sheets for high power Li-S- pouch cells T. Boenke , <i>Fraunhofer IWS</i>
16:55-17:15	Single sulfur atom discrimination of polysulfides : implementing nanopore sequencing approach to the field of batteries F. Betermier , <i>Collège de France</i>
17:15-17:45	Keynote: Si anodes and conversion-type cathodes for automotive Li-ion batteries G. Yushin , <i>Georgia Institute of Technology</i>
17:45-17:50	Concluding remarks S. Kaskel , Fraunhofer IWS

ePOSTER GALLERY

In addition to the poster flash presentations, ICLSB 2021 will feature a virtual poster exhibition (ePoster gallery), displaying all poster contributions. The ePoster gallery will be available for 3 months, opening one week before the conference starts until September 30, 2021.

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TUESDAY, JUNE 29, 2021

SESSION »FUNDAMENTALS AND SYSTEMS«

09:00-09:15	Session Opening S. Kaskel , Fraunhofer IWS
Moderator/ Chair	H. Sakaebe , AIST
09:15-09:55	Plenary: Advanced lithium-sulfur batteries under carbon neutralization: The Chinese roadmap Q. Zhang , <i>Tsinghua University, Department of Chemical Engineering</i>
09:55-10:25	Keynote: Colloidal synthesis approach for cathode materials of Li-S batteries Y. Lu , <i>Helmholtz-Zentrum Berlin für Materialien und Energie</i>
10:25-10:45	Combined use of titanium black as cathode additive and sparingly solvating electrolyte for high-energy-density lithium-sulfur batteries M. Watanabe , <i>Yokohama National University</i>
10:45-11:15	Coffee break – Meet the speaker, H. Althues, Fraunhofer IWS Virtual lab tour @ Fraunhofer IWS
Moderator/ Chair	S. Kaskel , Fraunhofer IWS
11:15-11:35	Invited: For a better option of electrolytes in metal polysulfides/Li cells H. Sakaebe , <i>National Institute of Advanced Industrial Science and Technology (AIST)</i>
11:35-11:55	Unravelling the mechanism of lithium nucleation and growth and interaction with the solid electrolyte interface Y. Xu , <i>Helmholtz-Zentrum Berlin für Materialien und Energie</i>
11:55-12:15	Electrolytes for high-performance lithium-sulfur batteries. Effect of lithium salt on specific energy and cycling life. E. Karaseva , <i>Ufa Institute of Chemistry</i>
12:15-12:45	Keynote: Origins of irreversible coulombic efficiency in anode-free lithium metal batteries B. J. Hwang , <i>National Taiwan University of Science and Technology</i>
12:45-12:55	Concluding remarks S. Kaskel , Fraunhofer IWS

POSTER FLASH PRESENTATIONS PART I

12:55-13:00	Opening by H. Althues, Fraunhofer IWS
13:00-13:05	Redox comediation with organopolysulfides in working lithium-sulfur batteries M. Zhao , <i>Beijing Institute of Technology</i>
13:05-13:10	Shielding polysulfide intermediates by an organosulfur-containing solid electrolyte interphase on the lithium anode in lithium-sulfur batteries L.-P. Hou , <i>Tsinghua University</i>
13:10-13:15	Modelling and simulation of polysulfide chain evolution during the discharge of a prototype lithium-sulfur pouch cell D. Brieske , <i>HELLA GmbH & Co. KGaA</i>
13:15-13:20	Towards stable artificial SEI protecting metal anodes in metal-sulfur batteries T. Rommel , <i>German Aerospace Center (DLR)</i>
13:20-13:25	Safe solid-like polymer electrolytes for room temperature lithium-sulfur batteries J. Castillo , <i>CIC energiGUNE</i>

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WEDNESDAY, JUNE 30, 2021

POSTER FLASH PRESENTATIONS PART II

13:25-13:30	Opening by H. Althues, Fraunhofer IWS
13:30-13:35	Challenges and promises of lithium metal anode in practical lithium–sulfur batteries Q. Zhang, <i>Tsinghua University</i>
13:35-13:40	Establishing an industry-oriented scalable process for sulfurized polyacrylonitrile-electrodes R. Moschner, <i>TU Braunschweig</i>
13:40-13:45	First pre-lithiation strategies of sulfur-CNT cathodes for Si-S batteries J. Offermann, <i>nascit GmbH</i>
13:45-13:50	Innovative nanostructured materials and flexible electrodes for next-generation batteries B. Sievert, <i>German Aerospace Center</i>
13:50-13:55	Clarification of reaction pathway difference of sulfur cathode between a concentrated liquid electrolyte and a solid-state electrolyte by soft X-ray absorption spectroscopy K. Yamamoto, <i>Kyoto University</i>

SESSION »ADVANCED CHARACTERIZATION TECHNIQUES«

14:00-14:15	Session Opening S. Kaskel, Fraunhofer IWS
Moderator/ Chair	S. Kaskel, Fraunhofer IWS
14:15-14:55	Plenary: Lithium-sulfur batteries: Past progress and new perspective Y. Cui, <i>Stanford University</i>
14:55-15:25	Keynote: Functional sites in metal-organic platforms for promoting polysulfide redox V. S. Thoi, <i>Johns Hopkins University</i>
15:25-15:45	Advanced <i>operando</i> analysis of lithium-sulfur battery by small-angle scattering technique E. Härk, <i>Helmholtz-Zentrum Berlin</i>
15:45-16:15	Coffee break – Meet the speaker, H. Althues, Fraunhofer IWS Virtual lab tour @ Fraunhofer IWS
Moderator/ Chair	S. Dörfler, Fraunhofer IWS
16:15-16:35	Invited: From Li-S to multivalent sulfur batteries R. Dominko, <i>National institute of chemistry</i>
16:35-16:55	The role of synthesis pathway on the microstructural characteristics of sulfur-carbon composites: X-ray imaging and electrochemistry in lithium battery D. Di Lecce, <i>Istituto Italiano di Tecnologia</i>
16:55-17:15	Distribution of Relaxation Time (DRT) analysis as a diagnostic tool for lithium-sulfur batteries R. Soni, <i>University College London</i>
17:15-17:45	Keynote: Strategies and progresses for overcoming barriers of high energy Li-S batteries J. Liu, <i>Pacific Northwest National Laboratory</i>
17:45-17:50	Concluding remarks S. Kaskel, Fraunhofer IWS

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THURSDAY, JULY 1, 2021

SESSION »ELECTRODE, CELL AND SYSTEM DESIGN«

09:00-09:15	Session Opening S. Kaskel , Fraunhofer IWS
Moderator/ Chair	P. Adelhelm , Humboldt-Universität zu Berlin
09:15-09:45	Keynote: All-solid-state lithium-sulfur batteries with sulfide electrolytes A. Hayashi , <i>Osaka Prefecture University</i>
09:45-10:05	Understanding the effect of sulfur loading and electrolyte amount in the energy density, power density and cycle life of Li-S battery technology at pouch cell level J. A. Blázquez , <i>Fundación CIDETEC</i>
10:05-10:25	The DryProTex project: Dry coating of electrodes for Li-S batteries B. Schumm , <i>Fraunhofer IWS</i>
10:25-11:00	Coffee break – Meet the speaker, H. Althues, Fraunhofer IWS Virtual lab tour @ Fraunhofer IWS
Moderator/ Chair	P. Adelhelm , Humboldt-Universität zu Berlin
11:00-11:30	Keynote: An overview of the Lithium-Sulfur Technology Accelerator (LiSTAR) project J. Robinson , <i>UCL</i>
11:30-11:50	A computational model for cathode design of lithium-sulfur batteries S. Grabe , <i>University of Surrey</i>
11:50-12:10	Lithium-sulfur battery state-of-energy estimation in a closed-loop system – A case-study on electric bus S. Munisamy , <i>Cranfield University</i>
12:10-12:30	A minimum physics-based cell level model for Li-S batteries M. Cornish , <i>Imperial College London</i>
12:30-12:40	Best Poster Award
12:40-12:50	Concluding remarks S. Kaskel , Fraunhofer IWS
12:50	End of the conference

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