

- P 101 New Sample Environment for in operando Characterization of Solid-State Batteries**
 Therese Kjær (Aarhus/DK), L. N. Skov (Aarhus/DK), J. Grinderslev (Aarhus/DK), L. Kristensen (Aarhus/DK), J. Bendtsen (Aarhus/DK), M. Dahl (Aarhus/DK), T. Kessler (Aarhus/DK), B. Andersen (Aarhus/DK), I. Kantor (Lund/SE), M. Jørgensen (Aarhus/DK), D. Ravnsbæk (Aarhus/DK), T. Jensen (Aarhus/DK)
- P 102 Advanced Characterization of Sulfidic All-Solid-State Batteries: A Multi-Scale and Operando Microscopic Work Flow Approach**
 E. Reisacher (Aalen/DE), R. Ücuncüoğlu (Aalen/DE), T. Schubert (Aalen/DE), L. Trezecik Silvano (Aalen/DE), R. Tripathi (Oberkochen/DE), B. Linn (Oberkochen/DE), R. Zarnetta (Oberkochen/DE), Pinar Kaya (Aalen/DE), V. Knoblauch (Aalen/DE)
- P 103 Sodium Solid-State Batteries (Na-SSBs): The Tale of Layered Oxides and Sulfides – Will They Ever Get Along?**
 Neelam G Yadav (Berlin/DE), P. Adelhelm (Berlin/DE)
- P 104 Non-Destructive Investigation of Provoked Electrode Delamination in Solid-State Batteries Using Ultrasonic Techniques**
 Mohammad Bahonar (Braunschweig/DE), D. Schröder (Braunschweig/DE)
- P 105 A Three-Electrode Setup for All-Solid-State Battery Research**
 Christoffer Karlsson (Darmstadt/DE), M. Schöll (Darmstadt/DE), M. Drüschler (Darmstadt/DE), M. Soans (Ulm/DE); D. Bresser (Ulm/DE), A. Varzi (Ulm/DE), B. Huber (Darmstadt/DE)
- P 106 Cryo-Workflow for the Investigation of $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ at Sub-Nanometric Resolution**
 Yuqi Liu (Düsseldorf/DE), Y. Joshi (Düsseldorf/DE), Y. Zhang (Düsseldorf/DE), L. Iota (Düsseldorf/DE), D. Raabe (Düsseldorf/DE), B. Gault (Düsseldorf/DE)
- P 107 Unraveling the Impedance of Composite Cathodes**
 Jake Huang (Münster/DE), W. Zeier (Münster/DE)
- P 108 Microstructural Analysis of Deposited Alkali Metal in “Anode-Free” Solid-State Batteries Using EBSD**
 Till Fuchs (Gießen/DE), Till Ortmann (Gießen/DE), Juri Becker (Gießen/DE), Catherine Haslam (Ann Arbor/US), Marcus Rohnke (Gießen/DE), Boris Mogwitz (Gießen/DE), Klaus Peppeler (Gießen/DE), Jeff Sakamoto (Santa Barbara/US), Jürgen Janek (Gießen/DE)
- P 109 Thermal Stability of $\text{Li}_6\text{PS}_5\text{Cl}$ Argyrodite**
 Alexander Sedykh (Giessen/DE), M. Grube (Braunschweig/DE), W. G. Zeier (Münster/DE), J. Janek (Gießen/DE), M. Lepple (Gießen/DE)
- P 110 CuFeS_2 as a Cathode Active Material in All-Solid-State Batteries**
 Changjiang Bai (Berlin/DE), K. A. Mazzio (Berlin/DE), and P. Adelhelm (Berlin/DE)
- P 111 Sulfur Spillover on Carbon Materials and Its Relevance for Metal-Sulfur Solid-State Batteries**
 Roman Healy Corominas (Berlin/DE), F. Piccolo (Berlin/DE), S. Tagliaferri (Berlin/DE), M. Armbrüster (Chemnitz/DE), P. Adelhelm (Berlin/DE)
- P 112 Development of Lithium and Silicon Anodes for Sulfide-Based Solid-State Batteries Produced via Physical Vapor Deposition**
 Matteo Kaminski (Braunschweig/DE), Julian Brokmann (Braunschweig/DE), A. Gail (Braunschweig/DE), N. Dilger (Braunschweig/DE), S. Melzig (Braunschweig/DE), S. Zellmer (Braunschweig/DE)
- P 113 Densification of Sulfide-Based Separators for Solid-State Batteries**
 Carina Heck (Braunschweig/DE), D. H. Nguyen (Stuttgart/DE), J. B. W. Wijaya (Stuttgart/DE), L. Bröcker (Braunschweig/DE), M. Osenberg (Berlin/DE), A. Diener (Braunschweig/DE), I. Manke (Berlin/DE), P. Michalowski (Braunschweig/DE), C.-P. Klages (Braunschweig/DE), B. Lotsch (Stuttgart/DE), A. Kwade (Braunschweig/DE)
- P 114 3D-Printed Hydroborate Based All-Solid-State Sodium-Ion Battery**
 Jan Thomas (Bremen/DE), I. Bardenhagen (Bremen/DE), J. Schwenzel (Bremen/DE)
- P 115 A Metallic Lithium Anode for Solid-State Batteries With Low Volume Change by Utilizing a Porous Carbon Host**
 Stephanie Mörseburg (Dresden/DE), T. Boenke (Dresden/DE), K. Henze (Dresden/DE), K. Schutjajew (Dresden/DE), J. Kunigkeit (Dresden/DE), S. L. Benz (Gießen/DE), S. Cangaz (Dresden/DE), J. Sann (Gießen/DE), F. Hippauf (Dresden/DE), S. Dörfler (Dresden/DE), T. Abendroth (Dresden/DE), H. Althues (Dresden/DE), M. Oschatz (Dresden/DE), E. Brunner (Dresden/DE), J. Janek (Gießen/DE), S. Kaskel (Dresden/DE)
- P 116 Tribochemistry of Metalsulfides (TiS_4/VS_4) With Sulfidic Solid-State Electrolytes for High Energy Applications**
 Pascal Seete (Dresden/DE), Felix Hippauf (Dresden/DE), Susanne Dörfler (Dresden/DE), Holger Althues (Dresden/DE), Niklas Abke (Münster/DE), Kentaro Kuratani, Tomonari Takeuchi, Hikari Sakaebe, Stefan Kaskela (Dresden/DE)

- P 117** **Polymer Protective Coatings on Lithium Metal Anodes for Application in Solid-State Batteries**
Frederic Dournel (Giessen/DE), F. H. Richter (Giessen/DE)
- P 118** **Evaluating of the Pressure Dependence of Charge Transport in Composite Cathodes for Solid-State Batteries**
Johannes Schubert (Gießen/DE), P. Minnmann (Gießen/DE), S. Kremer (Gießen/DE), A. Bielefeld (Gießen/DE), J. Janek (Gießen/DE)
- P 119** **All-Solid-State Li Batteries with Co-Sintered NCM-LLZO Based Composite Cathodes**
Christoph Roitzheim (Jülich/DE), M. Finsterbusch (Jülich/DE), O. Guillon (Jülich/DE), D. Fattakhova-Rohlfing (Jülich/DE)
- P 120** **Systematic Optimization of Slurry-Cast All-Solid-State Battery Cathodes and Characterization of Critical Components**
Ruizhuo Zhang (Eggenstein-Leopoldshafen/DE), Jürgen Janek (Eggenstein-Leopoldshafen/DE), Aleksandr Kondrakov (Eggenstein-Leopoldshafen/DE), Torsten Brezesinski (Eggenstein-Leopoldshafen/DE)
- P 121** **Impact of Si Content in Si/Graphite Composites on Electrochemical and Chemo-Mechanical Properties of Solid-State Batteries**
Phuong Nam Le Pham (Münster/DE), W. Zeier (Münster/DE)
- P 122** **Graded NCM-Cathodes for Uniform Reaction in Solid-State Batteries**
Eva Schlautmann (Münster/DE), W. Zeier (Münster/DE)
- P 123** **Challenges and Opportunities in Calendering Composite Cathode of Polymer-Based Solid-State Batteries**
Jonas Dhom (Augsburg/DE), C. Berger (Augsburg/DE), R. Daub (Augsburg/DE)
- P 124** **Investigation of the Comminution of $\text{Li}_6\text{PS}_5\text{Cl}$ and Its Influence on the Improvement of the Performance of Composite Cathodes**
Lennart Blume (Braunschweig/DE), H. Ghanadimaragheh (Braunschweig/DE), P. Michalowski (Braunschweig/DE), A. Kwade (Braunschweig/DE)
- P 125** **Systematic Investigation of Stressing Cathode Composites for Sulfide-Based Solid-State Batteries in a Planetary Ball Mill**
Finn Frankenberg (Braunschweig/DE), C. A. Heck (Braunschweig/DE), M. Kissel (Gießen/DE), A. Diener (Braunschweig/DE), M. Horst (Braunschweig/DE), P. Haase (Braunschweig/DE), P. Michalowski (Braunschweig/DE), Jürgen Janek (Gießen/DE), A. Kwade (Braunschweig/DE)
- P 126** **Process Optimization of Sulfur-Carbon Black Cathodes for Enhanced Performance in PEO-Based Solid-State Lithium-Sulfur Batteries**
Mahsa Hokmabadi (Braunschweig/DE), P. Michalowski (Braunschweig/DE), A. Kwade (Braunschweig/DE)
- P 127** **Impact of HNBR-Based Binders on the Electrochemical and Mechanical Stability of Solvent-Based Argyrodite Solid-State Separators**
Michael Gockeln (Bremen/DE), I. Bardenhagen (Bremen/DE), J. Schwenzel (Bremen/DE)
- P 128** **Exploring the Humidity-Induced Reactivity of Li_3PS_4 Solid Electrolyte: An In-Depth Analysis Using Advanced Characterisations Techniques**
Vasily Tarnopolskiy (Grenoble/FR), I. Profatlova (Grenoble/FR), I. Leteyi Mfiban (Grenoble/FR), V. Vanpeene (Grenoble/FR), O. Thompson (Grenoble/FR), C. Villevieille (Grenoble/FR), M. Di Michiel (Grenoble/FR), L. Daniel (Grenoble/FR), S. Lyonnard (Grenoble/FR), M. Reytier (Grenoble/FR)
- P 129** **Microstructural Design and Analysis of Transport Properties of $\text{Li}_6\text{PS}_5\text{Cl}$ -Based Composite Cathodes in All-Solid-State Batteries**
Elias Reisacher (Aalen/DE), N. Papadopoulos (Aalen/DE), M. Straub (Aalen/DE), T. Schubert (Aalen/DE), P. Kaya (Aalen/DE), V. Knoblauch (Aalen/DE)
- P 130** **Microstructure Evolution and Transport Properties of Na_3PS_4 -Based Composite Cathodes for Sodium-Solid-State Batteries**
Rana Ücücüoğlu (Aalen/DE), L. Trezecik Silvano (Aalen/DE), T. Schubert (Aalen/DE), V. Knoblauch (Aalen/DE), P. Kaya (Aalen/DE)
- P 131** **Development of Sodium Metal Anodes for Ceramic Solid-State Batteries**
Ansgar Lowack (Dresden/DE), R. Anton (Dresden/DE), K. Nikolowski (Dresden/DE), M. Partsch (Dresden/DE), A. Michaelis (Dresden/DE)

- P 132 Microstructural Impact on Filament Growth in All-Solid-State Sodium Batteries via In-Situ TEM Observation**
 Ziming Ding (Eggenstein-Leopoldshafen/DE), Y. Tang (Eggenstein-Leopoldshafen/DE), T. Ortman (Gießen/DE), J. Eckhardt (Gießen/DE), M. Rohnke (Gießen/DE), G. Melinte (Eggenstein-Leopoldshafen/DE), C. Heiliger (Gießen/DE); J. Janek (Gießen/DE), Christian Kübel (Eggenstein-Leopoldshafen/DE)
- P 133 Coating Copper Current Collectors on Ceramic Solid Electrolytes with Atmospheric Plasma Spraying for Zero-Excess Solid-State Batteries**
 Andre Borchers (Forchheim/DE), T. Paschen (Forchheim/DE), M. Ockel (Erlangen/DE), Jörg Franke (Erlangen/DE), S. Christiansen (Forchheim/DE)
- P 134 Characterization of Composite Cathodes in All-Solid-State Lithium Batteries by Different Electrochemical Scanning Probe Microscopy Techniques**
 Dennis Körmer (Marburg/DE), V. Miß (Marburg/DE), B. Rölting (Marburg/DE)
- P 135 Unveiling the Decomposition Mechanism of $\text{Na}_{2.9}\text{Sb}_{0.9}\text{W}_{0.1}\text{S}_4$ with Na Metal via in situ XPS Analysis**
 Semih Engün (Giessen/DE), S. Benz (Giessen/DE), K. Münch (Giessen/DE), A. Panda (Münster/DE), W. Zeier (Münster/DE), J. Janek (Giessen/DE)
- P 136 Quantification of Side Reactions and SEI Growth on Lithium Metal Anodes with Coulometric Titration Time Analysis**
 Burak Aktekin (Giessen/DE), L. M. Riegger (Giessen/DE), S.-K. Otto (Giessen/DE), T. Fuchs (Giessen/DE), A. Henss (Giessen/DE), Jürgen Janek (Giessen/DE)
- P 137 Heteroionic Interfaces of Thiophosphate Solid Electrolytes**
 René Rekers (Giessen/DE), A. Bielefeld (Giessen/DE)
- P 138 Dilatometric Measurement of Pore Volume During Stripping of Lithium Metal Electrodes in Solid-State Batteries**
 Thomas Schall (Gießen/DE), T. Fuchs (Gießen/DE), J. Eckhardt (Gießen/DE), J. Kessler (Gießen/DE), T. Klunz (Gießen/DE), K. Peppler (Gießen/DE), J. Sann (Gießen/DE), B. Mogwitz (Gießen/DE), J. Janek (Gießen/DE)
- P 139 Modifying the Interface Between Solid Electrolytes and Fe-Mn Based Oxide Cathode Active Material for Sodium Solid-State Batteries**
 Surishi Vashishth (Giessen/DE), M. Ziegler (Giessen/DE), B.-X. Shi (Giessen/DE), F. H. Richter (Giessen/DE)
- P 140 Carbon/Solid Electrolyte Hybrid Materials for SSB**
 Ulrich Haagen (Jena/DE), S. Mirmasoomi (Jena/DE), E. Troschke (Jena/DE), M. Oschatz (Jena/DE)
- P 141 LLZO Cubic Garnets in PEO-Based Solid-State Electrolytes - Correlating Doping, Nanostructure and Performance**
 Susan Montes (Vienna/AT), S. Tischler (Vienna/AT), S. Martinez-Crespiera (Terrassa /ES), G. Pérez-Pi (Terrassa/ES), H. Lores (Castellón /ES), M. Jahn (Vienna/AT), M. Hasanpoor (Vienna/AT)
- P 142 Rational Design of Cathode Formulation with Halide Electrolyte for Solid-State Battery Assembly via Dry Process Chemistry**
 Artur Tron (Vienna/AT), P. Lannelongue (Vitoria-Gasteiz, ES), S. Lindberg (Vitoria-Gasteiz, ES), P. Lopez-Aranguren (Vitoria-Gasteiz, ES)
- P 143 Exploring the Structure-Property Nexus in Solid-State Electrolytes**
 Madhu Chaudhary (Edmonton/CA), V. K. Michaelis (Edmonton/CA)
- P 144 Nanocellulose-Templated Preparation of $\text{Na}_{1+x}\text{Zr}_2\text{Si}_x\text{P}_{3-x}\text{O}_{12}$ (NZSP) Nasicon Electrolytes**
 Hazzalea Elyse Reyes (Åbo/FI), H. Zhang (Åbo/FI), T. Lauren (Åbo/FI), Z. Mousavi (Åbo/FI), L. Hupa (Åbo/FI), C. Xu (Åbo/FI), J. Bobacka (Åbo/FI)
- P 145 Development of a Sulfidic Electrolyte: Industrial Perspective, From Modelling to Mass Production**
 Marc-David Braidà (Aubervilliers/FR), L. D'Alençon (Aubervilliers/FR), T. Le Mercier (Aubervilliers/FR), V. Buissette (Aubervilliers/FR)
- P 146 Experimental and Computational Investigation of Structure and Ionic Conductivity in the Halide Solid Electrolyte $\text{Na}_{1+x}\text{Zn}_x\text{Al}_{1-x}\text{Cl}_4$**
 Hao Guo (Bayreuth/DE), M. Häfner (Bayreuth/DE), H. Grüninger (Bayreuth/DE), M. Bianchini (Bayreuth/DE)
- P 147 Polymer Ceramic Electrolyte (PCE) for Medium Temperature All-Solid-State Sodium Batteries**
 Vinita Ahuja (Berlin/DE), B. Heyne (Potsdam/DE), C. Dirksen (Hermsdorf/DE), P. Adelhelm (Berlin/DE)
- P 148 Laser Sintering of Ceramic Solid Electrolytes**
 Houssin Wehbe (Braunschweig/DE), L. O. Schmidt (Braunschweig/DE), K. Dilger (Braunschweig/DE), M. W. Kandula (Braunschweig/DE)
- P 149 2-Adamantanone as Potential Solid-State Electrolyte for Post-Lithium Batteries**
 Joshua Budde (Bremen/DE), I. Bardenhagen (Bremen/DE), J. Schwenzel (Bremen/DE)

- P 150 Standardization and Automation of the Ionic Conductivity Measurements of Solid Electrolytes**
Fariza Kalyk (Jülich/DE), N. Vargas-Barbosa (Bayreuth/DE)
- P 151 Chemo-Mechanics of Solid Electrolytes: Investigating Fundamental Mechanisms of Lithium Metal Nucleation**
Yuwei Zhang (Düsseldorf/DE), J. P. Best (Düsseldorf/DE), G. Dehm (Düsseldorf/DE)
- P 152 Polyimide-PEO Copolymers as Novel Thermally Stable Solid Polymer Electrolytes for Lithium-Metal Batteries**
T. Kolesnikov (Karlsruhe/DE), D. Voll (Karlsruhe/DE), F. Jeschull (Eggenstein-Leopoldshafen/DE), P. Theato (Karlsruhe/DE)
- P 153 Schott's LLZO and LTP Materials: Pioneering the Future of Solid-State Batteries**
Nina Hoinkis (Mainz/DE), J. Schuhmacher (Mainz/DE), S. Leukel (Mainz/DE), C. Loho (Mainz/DE), A. Roters (Mainz/DE), F. H. Richter (Gießen/DE), J. Janek (Gießen/DE)
- P 154 Investigating the Formation of $\text{Li}_{6-x}\text{PS}_{5+x}\text{Cl}_{1+x}$ Based on Precursor Pre-Treatment**
Martin Alexander Lange (Münster/DE), V. Faka (Münster/DE), M. A. Kraft (Münster/DE), W. Zeier (Münster/DE)
- P 155 Sodium Metal Oxychlorides as Superionic Solid Electrolytes**
Xabier Martinez de Irujo-Labalde (Münster/DE), T. Zhao (Münster/DE), W. G. Zeier (Münster/DE)
- P 156 Investigating the Influence of Transition Metal Substitution in Lithium Argyrodites on Structure, Transport and Solid-State Battery Performance**
Johannes Hartel (Münster/DE), W. G. Zeier (Münster/DE)
- P 157 Pre-Passivation Strategy for More Reversible CA Plating and Stripping From Poly(Ethylene Oxide)-Based Solid Polymer Electrolytes**
Ulf-Christian Rauska (Eggenstein-Leopoldshafen/DE), C. Röder (Eggenstein-Leopoldshafen/DE), T. Kolesnikov (Eggenstein-Leopoldshafen/DE), F. Jeschull (Eggenstein-Leopoldshafen/DE)
- P 158 Effect of Processing Conditions on Transport and Cycling Properties of All-Solid-State Battery Cathodes**
Sebastian Puls (Münster/DE), N. M. Vargas-Barbosa (Bayreuth/DE)
- P 159 New Li-rich Niobate and Tantalate Phases: A Combined Structural Investigation Using Diffraction and Spectroscopic Methods**
Farheen Sayed (Cambridge/UK), Q. Jacquet (Grenoble/FR), P. Groszewicz (Delft/NL), S. Nagendran (Cambridge/UK), S. P. Emge (Cambridge/UK), P. C. M. M. Magusin (Cambridge/UK), C. O'Keefe (Cambridge/UK), S. Dey (Aberdeen/UK), C. P. Grey (Cambridge/UK)
- P 160 Discrete Element Method for Determining the Contact Properties of Halide Based ASSBs**
Cerun Alex Varkey (Braunschweig/DE), C. Gavagnin (Braunschweig/DE), S. Melzig (Braunschweig/DE), C. Schilde (Braunschweig/DE), S. Zellmer (Braunschweig/DE)
- P 161 Model-Based Cathode Optimization: Maximizing the Energy Density in High-Performance Solid-State Batteries**
Hassan Karaki (Braunschweig/DE), D. Schröder (Braunschweig/DE)
- P 162 Investigating Self-Heating of All-Solid-State Batteries via 3D Modelling**
Mahya Nezhadfar (Braunschweig/DE), D. Schröder (Braunschweig/DE)
- P 163 Enhancing Stability of $\text{Li}_6\text{PS}_5\text{Cl}$ Solid Electrolyte Through Nmp**
Boburmirzo Juraev (Darmstadt/DE), M. Sadowski (Darmstadt/DE), S. Siculo (Darmstadt/DE), K. Albe (Darmstadt/DE)
- P 164 Li Diffusion in the Argyrodite-Type $\text{Li}_6\text{PS}_5\text{Br}$: Effects Beyond Br/S Anion Disorder**
Marcel Sadowski (Darmstadt/DE), K. Albe (Darmstadt/DE)
- P 165 Investigating Fracture Formation of Solid-State Batteries at the Microscale**
Soroush Motahari (Düsseldorf/DE), C. Liu (Düsseldorf/DE), D. Raabe (Düsseldorf/DE)
- P 166 Benchmarking Data-Driven Anomaly Detection in Battery Cycling Protocols**
Mei-Chin Pang (Ludwigshafen/DE), S. Ohno (Sendai/JP)

- P 201 Speeding up Solid-State Battery Development - Benefits of High-Throughput Concepts for Battery Materials Research**
 Philip Minnmann (Heidelberg/DE), S. Claramunt (Heidelberg/DE), D. Jalalpoor (Heidelberg/DE), F. Huber (Heidelberg/DE), S. Altwasser (Heidelberg/DE)
- P 202 STEM, PED, and EELS: A Powerful Combination for the Investigation of Cathode-Active-Materials for Batteries**
 Thomas Demuth (Marburg/DE), S. Ahmed (Marburg/DE), P. Kurzhals (Gießen/DE), J. Haust (Marburg/DE), A. Beyer (Marburg/DE), J. Janek (Gießen/DE), K. Volz (Marburg/DE)
- P 203 PFIB-Preparation and STEM-Characterization of Electrochemically Plated Lithium at the Interface to the Solid Electrolyte $\text{Li}_6\text{PS}_5\text{Cl}$**
 Franziska Hüppe (Marburg/DE), J. Becker (Gießen/DE), J. Belz (Marburg/DE), S. Ahmed (Marburg/DE), T. Fuchs (Gießen/DE), B. Aktekin (Gießen/DE), J. Janek (Gießen/DE), K. Volz (Marburg/DE)
- P 204 Operando SEM Observations of Lithium-Metal Anodes During Dissolution and Deposition Through LLZO**
 Sabrina Lang (Eggenstein-Leopoldshafen/DE), D. Avadanii (Eggenstein-Leopoldshafen/DE), D. Kramer (Eggenstein-Leopoldshafen/DE), L. Hennerici (Bayreuth/DE), M. Linz (Bayreuth/DE), J. Kita (Bayreuth/DE), R. Moos (Bayreuth/DE), Reiner Mönig (Eggenstein-Leopoldshafen/DE)
- P 205 Structure and Ion-Dynamics in Inorganic Solid Electrolytes Using Solid-State NMR**
 Bibek Samanta (Münster/DE), W. Zeier (Münster/DE), M. R. Hansen (Münster/DE)
- P 206 Visualizing Diverse Lithium Growth and Stripping Behavior in Anode-Free Solid-State Batteries**
 Stephanie Elizabeth Sandoval (Münster/DE), D. L. Nelson (Atlanta/US), M. T. McDowell (Atlanta/US)
- P 207 Development of Operando Solid-State Battery Testing Technique for Scanning Electron Microscopy**
 Andre Borchers (Forchheim/DE), R. Tripathi (Oberkochen/DE), B. Linn (Oberkochen/DE), E. Reisacher (Aalen/DE), P. Kaya (Aalen/DE), S. Christiansen (Forchheim/DE), R. Zarnetta (Oberkochen/DE)
- P 208 Development of Reference Electrodes and Three-Electrode Cell Set-Ups for Lithium-Ion and Lithium-Metal Solid-State Batteries**
 Mervyn Soans (Ulm/DE), C. Karlsson (Darmstadt/DE), M. Schöll (Darmstadt/DE), B. Huber (Darmstadt/DE), D. Steinle (Ulm/DE), D. Bresser (Ulm/DE), A. Varzi (Ulm/DE)
- P 209 Disclosing the NCM Surface Degradation and the Coating Benefit in Sulfide-Based ASSBs by Operando XAS and XPEEM Spectroscopies**
 Valerie Siller (Villigen/CH), R. Wullich (Villigen/CH), B. Lelotte (Villigen/CH), C. A. F. Vaz (Villigen/CH), C. Jordy (Levallois-Perret/FR), V. Pelé (Levallois-Perret/FR), M. El Kazzi (Villigen/CH)
- P 210 Conductive Oxides as a Substitute for Carbon Black: Deconvoluting Side Reactions and the Importance of Volume Changes in Fluoride-Ion Batteries**
 Tommi Aalto (Stuttgart/DE), O. Clemens (Stuttgart/DE)
- P 211 Fluorine-Substituted Halide Solid Electrolyte with Enhanced Stability towards Lithium Metal**
 Priya Ganesan (Ulm/DE), M. Soans (Ulm/DE), M. A. Cambaz (Ulm/DE), R. Zimmermanns (Karlsruhe/DE), R. Gond (Uppsala/SE), S. Fuchs (Karlsruhe/DE), Y. Hu (Ulm/DE), S. Baumgart (Ulm/DE), M. Sotoudeh (Ulm/DE), D. Stepien (Ulm/DE), H. Stein (Karlsruhe/DE), A. Gross (Ulm/DE), D. Bresser (Ulm/DE), A. Varzi (Ulm/DE), M. Fichtner (Ulm/DE)
- P 212 Thin Film Composite Electrolyte with Small Amount Liquid for Quasi-Solid-State Batteries**
 Shuya Gong (Ulm/DE), Jianneng Liang (Ulm/DE), Alberto Varzi (Ulm/DE)
- P 213 A High-Performing Argyrodite-Based Cathode Material for All-Solid-State Lithium-Sulfur Batteries**
 Naohiro Horiuchi (Ageo/JP), T. Koketsu (Ageo/JP), T. Ito (Ageo/JP), N. Miyashita (Ageo/JP)
- P 214 Effects of Metal Halides on Sulfide-Based Cathode Composite of All-Solid-State Lithium-Sulfur Batteries**
 Shiori Kawasaki (Sendai/JP), I. Honma (Sendai/JP), S. Ohno (Sendai/JP)
- P 215 Mitigation the Oxygen Release in Lithium Rich Manganese Oxide Cathodes To Enable High-Energy Dense All Solid-State Lithium Batteries**
 Feng Jin (Trondheim/NO), I. Ellingsen (Trondheim/NO), H. Rotværbatlie (Trondheim/NO), D. Rettenwander (Trondheim/NO)
- P 216 Fluoropolymer Binders for Cathode Composites in All-Solid-State Batteries**
 Jaedong Kim (Daejeon/KR), H. R. Byon (Daejeon/KR)
- P 217 Paper-Like Anodes of 100% Si Integrated with Argyrodite $\text{Li}_6\text{PS}_5\text{Cl}$ Solid Electrolyte**
 E. Sánchez Ahijón (Madrid/ES), A. Pendashteh (Madrid/ES), Juan Vilatela (Madrid/ES)

- P 218 Improved Lithium Metal Cycling Performance via Mild Sintering Treatment of $\text{Li}_6\text{PS}_5\text{Cl}$ for All-Solid-State Batteries**
Jinsong Zhang (Villigen/CH), L. Xu (Villigen/CH), R. Wullich (Villigen/CH), T. Schmidt (Zurich/CH), M. El Kazzi (Villigen/CH)
- P 219 Investigation of the Thin Film Spinel Cathode-Coating Interaction Using Spectroscopic Techniques**
Farheen Sayed (Cambridge/UK), E. Björklund (Oxford/UK), A. J. Lovett (London/UK), S. Vema (Cambridge/UK), S. P. Emge (Cambridge/UK), A. Mahadevgowda (Cambridge/UK), C. Ducati (Cambridge/UK), R. S. Weatherup (Oxford/UK)
- P 220 Solution-Processed Non-Crystalline Sodium Thin Film Solid Electrolytes for Sodium-Metal Batteries.**
Thomas Gill (London/UK), A. Rettie (London/UK)
- P 221 Scalable Free-Standing Amorphous Solid Electrolyte Films for Advanced Lithium Batteries**
Shunli He (London/UK)
- P 222 Drop-in Ability of Solid-State Batteries (Oxide, Polymer, and Sulfide)**
Kiran Romaus (Gründau/DE), F. Hartmann (Gießen/DE), A. Lorenzoni (Böblingen/DE)
- P 223 Dry Coating of Sulfide-Based Components for All-Solid-State Batteries**
A. Dupuy (Dresden/DE), B. Schumm (Dresden/DE), Felix Hippauf (Dresden/DE), T. Abendroth (Dresden/DE), H. Althues, S. Kaskel (Dresden/DE)
- P 224 Towards a Higher Energy Density by Production of Free-Standing Thin SE-Films in a Role-To-Role Process**
Maria Rosner (Dresden/DE), A. Dupuy (Dresden/DE), F. Hippauf (Dresden/DE), S. Dörfler (Dresden/DE), H. Althues (Dresden/DE), S. Kaskel (Dresden/DE)
- P 225 Characterization of the Calendering Process for Sulfide-Based Solid-Electrolyte Separators**
Johannes Schachtl (Munich/DE), L. Wach (Munich/DE), E. Jaimez-Farnham (Munich/DE), R. Daub (Munich/DE)
- P 226 Development of 20 Ah Semi Solid-State Pouch Cell With an In-Situ Solidified Gel Polymer Electrolyte**
Andriy Kvasha (Donostia-San Sebastián/DE), M. Álvarez (Donostia-San Sebastián/DE), O. Garcia-Calvo (Donostia-San Sebastián/DE), M. Cobos (Donostia-San Sebastián/DE), I. Combarro (Donostia-San Sebastián/DE), I. Landa-Medrano (Donostia-San Sebastián/DE), L. Ganborena (Donostia-San Sebastián/DE), I. Urdampilleta (Donostia-San Sebastián/DE)
- P 227 Industrial Solutions Towards the Manufacturing of Semi- Solid and Sulfide- Based All-Solid-State Batteries**
David Laughman (Waltham/UK), M. Su (Hangzhou/CN), H. Van Benschoten (Waltham/UK)
- P 228 Material Interaction Between Ni-Rich NCM Cathode Active Material and Substituted Garnet LLZO:X ($X = \text{Ta}, \text{Al}, \text{Ga}$) Solid Electrolyte**
Yannic Collette (Jülich/DE), M. Finsterbusch (Jülich/DE), O. Guillon (Jülich/DE), D. Fattakhova-Rohlfing (Jülich/DE)
- P 229 Understanding and Quantifying Multiphase SEI Growth in Sulfide Solid Electrolytes**
Christoph Alt (Giessen/DE), N. Mueller (Giessen/DE), L. M. Riegger (Giessen/DE), B. Aktekin (Giessen/DE), P. Minnmann (Giessen/DE), K. Pepler (Giessen/DE), J. Janek (Giessen/DE)
- P 230 Understanding Impedance Spectra of Bulk-Type All-Solid-State Batteries**
Asvitha Ramanayagam (Marburg/DE), V. Miß (Marburg/DE), B. Roling (Marburg/DE)
- P 231 ToF-SIMS Investigation of Solid-State Electrolyte Degradation Behavior Against Different Conducting Agents**
Niklas Abke (Münster/DE), A. T. Strohschein (Münster/DE), K. Kuratani (Osaka/JP), T. Takeuchi (Osaka/JP), Y. Ito (Osaka/JP), M. Winter (Münster/DE), S. Nowak (Münster/DE), S. Wiemers-Meyer (Münster/DE)
- P 232 Cracking the Surface: Analyzing Argyrodite Stability with Lithium Alloying Anode Materials**
Arndt Strohschein (Münster/DE), N.M. Abke (Münster/DE), U. Rodehorst (Münster/DE), M. Winter (Münster/DE), S. Wiemers-Meyer (Münster/DE)
- P 233 In Situ Derived Protection of the Anode|Electrolyte Interface for Semi-Solid Structural Batteries**
Mintao Wan (Ulm/DE), A. Beutl (Vienna/AT), H. Kühnelt (Vienna/AT), D. Bresser (Ulm/DE)
- P 234 Electrochemical Investigation of the Li-Ion Transport at the Sulfide Solid Electrolytes Interfaces**
Kotaro Yoshida (Kanagawa/JP), A. Ikezawa (Kanagawa/JP), T. Okajima (Kanagawa/JP), Hajime Arai (Kanagawa/JP)

- P 235 Enhancing Electrochemical Stability in All-Solid-State Batteries Through Halide Incorporation in Lithium Argyrodites $\text{Li}_{6-x}\text{PS}_{5-x}\text{X}_{1+x}$ (X= Cl and Br)**
Ajay Gautam (Delft/NL), V. Kannan (Delft/NL), M. Wagemaker (Delft/NL)
- P 236 Polymerized Ionic Liquids as Multifunctional Cathode Coatings for Sulfide-Based Solid-State Batteries**
Pranav Karanth (Delft/NL), J. H. Prins (Delft/NL), A. Gautam (Delft/NL), Z. Cheng (Delft/NL), S. Ganapathy (Delft/NL), M. Wagemaker (Delft/NL), F. M. Mulder (Delft/NL)
- P 237 Influence of the Current Collector on Na All-Solid-State Anode-Free Batteries**
Cristina Garcia (Madrid/ES), Ricardo Jiménez (Madrid/ES), J.A. Alonso (Madrid/ES), J. Kilner (London/UK), R. Chater (London/UK), A. Panagiotopoulos (London/UK), A. Aguadero (Madrid/ES)
- P 238 Interfacial Stabilization by Prelithiated Trithiocyanuric Acid as an Organic Additive in Sulfide-Based All-Solid-State Lithium Metal Batteries**
Leonie Braks (Fribourg/CH), J. Zhang (Villigen/CH), Ali Coskun (Fribourg/CH)
- P 239 Unveiling Surface Chemistry of Ultrafast-Sintered LLZO Solid-State Electrolytes for High-Performance Li-Garnet Solid-State Batteries**
Matthias Klimpel (Zürich/CH), H. Zhang (Zürich/CH), K. Wiecezrak (Thun/CH), R. Dubey (Zürich/CH), F. Okur (Zürich/CH), J. Michler (Thun/CH), L.P.H. Jeurgens (Dübendorf/CH), D. Chernyshov (Grenoble/FR), W. van Beek (Grenoble/FR), K. V. Kravchyk (Zürich/CH), M. V. Kovalenko (Zürich/CH)
- P 240 The Stability of the Solid Electrolyte Interphase of Argyrodite Solid Electrolytes**
Matthew Burton (Oxford/UK), Y. Lang (Oxford/UK), J. Aspinall (Oxford/UK), B. Jagger (Oxford/UK), M. Pasta (Oxford/UK)
- P 241 Standardized Processing, Measuring and Evaluation of Solid Electrolyte Impedance Data for Reliable Characterization of Solid Electrolytes**
Lars Pateras Pescara (Darmstadt/DE), M. Drüschler (Darmstadt/DE), F. Kalyk (Jülich/DE), N. M. Vargas Barbosa (Bayreuth/DE), W. Zeier (Jülich/DE)
- P 242 Tailoring CsSnCl_3 Based Solid Electrolyte for High-Performance Solid-State Chloride-Ion Batteries**
Soutam Panja (Ulm/DE), Anantha Gopikuttan (Ulm/DE), Amr Radwan (Ulm/DE), Maximilian Fichtner (Ulm/DE)
- P 243 The Riddle of Succinonitrile Based Polymer Electrolytes: An NMR Perspective**
Meera Mohankumar (Delft/NL), P. Karanth (Delft/NL), F. Ooms (Delft/NL), S. Ganapathy (Delft/NL), M. Wagemaker (Delft/NL)
- P 244 Fully Reduced Electrolytes for Li Metal and Silicon Anodes in Solid-State Batteries**
V. Landgraf (Delft/NL), M. Tu (Delft/NL), Z. Cheng (Delft/NL), J. de Leeuw (Delft/NL), S. Ganapathy (Delft/NL), T. Famprikis (Delft/NL), Marnix Wagemaker (Delft/NL)
- P 245 Halogen Substitution Effects on Structure, Ionic Conductivity, and Electrochemical Stability of Solid Electrolytes $\text{Li}_3\text{YBr}_x\text{Cl}_{6-x}$**
Wenxuan Zhao (Delft/NL), E. van der Maas (Delft/NL), S. Ganapathy (Delft/NL), M. Wagemaker (Delft/NL)
- P 246 Degradation Mechanisms in LiFePO_4 -Based All-Solid-State Batteries Containing a Hybrid Electrolyte With Garnet $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ Designed for Maritime Applications**
Jeyhun Abbasov (Enschede/NL), Q. Qiu (Enschede/NL), M. Huijben (Enschede/NL), A. ten Elshof (Enschede/NL)
- P 247 Tape Casting $\text{Li}_6\text{PS}_5\text{Cl}$: Effect of Particle Size Distribution and Densification Pressure**
Meenal Agrawal (Trondheim/NO), Q.A. Tran (Trondheim/NO), M. Hausler (Leoben/AT), I.S. Ellingsen (Trondheim/NO), J. Todt (Leoben/AT), L. Fadillah (Trondheim/NO), P.E. Vullum (Trondheim/NO), M.M.U. Din (Trondheim/NO), R. Zettl (Graz/AT), V. Hennige (Graz/AT), J. Keckes (Leoben/AT), R. Brunner (Leoben/AT), D. Rettenwander (Trondheim/NO)
- P 248 Lithiation-Driven Cascade Dissolution Coprecipitation of Sulfide Superionic Conductors**
Seunggu Kim (Daejeon/KR), M. Ali (Changwon/KR), S. Kim (Daejeon/KR), Y. Choi (Pohang/KR), Y.-C. Ha (Changwon/KR), H. R. Byon (Daejeon/KR)
- P 249 Potassium-Ion Conducting Chloride Solid Electrolyte with High Voltage Stability**
Changhoon Kim (Seoul/KR), J. Park (Seoul/KR), H. Kwak (Seoul/KR), J.-S. Kim (Daejeon/KR), S. Jun (Seoul/KR), B. Jang (Seoul/KR), J. Jeon (Seoul/KR), S. Bong (Seoul/KR), D.-H. Seo (Daejeon/KR), Y. S. Jung (Seoul/KR)
- P 250 Improving the Ionic Conductivity of Low Cost and Scalable Solid Electrolytes Through Cation Disorder in Li-Rich Halides**
Raul Artal (Madrid/ES), H.L. Andersen (Madrid/ES), J.A. Alonso (Madrid/ES), R. Jiménez (Madrid/ES), A. Aguadero (Madrid/ES)
- P 251 Linking the Manufacturing Method and the Li^+ Ion Diffusion in Hybrid Solid Polymer Electrolytes**
Maica Morant-Miñana (Vitoria-Gasteiz/ES), E. Sasieta-Barrutia (Vitoria-Gasteiz/ES), J. Blanco (Vitoria-Gasteiz/ES), M. Armand (Vitoria-Gasteiz/ES), L. Otaegui (Vitoria-Gasteiz/ES), A. Villaverde (Vitoria-Gasteiz/ES)

- P 252 Exploring the Electrochemical Oxidation of LiBH_4 and $\text{Li}_2\text{B}_{12}\text{H}_{12}$ for High-Voltage All-Solid-State Batteries**
 R. Asakura (Dübendorf/CH), Z. Lodziana (Krakow/PL), D. Rentsch (Dübendorf/CH), C. Battaglia (Dübendorf/CH), Arndt Remhof (Dübendorf/CH)
- P 253 Reducing Overpotential in Quasi-Solid-State Lithium Sulfur Batteries by Integrating Solid-State Electrolyte into the Cathode Slurry**
 Boyi Pang (London/UK), H. Li (London/UK), J.B. Robinson (London/UK)
- P 254 Isovalent Substitution for Optimising Scalable Thin-Film Amorphous Solid Electrolytes**
 Yaoguang Song (London/UK), A. Rettie (London/UK)
- P 255 Exploring Pressure and Strain Effects in Argyrodite Solid Electrolytes for Enhanced Solid-State Batteries**
 Jemma L. Cox (Newcastle upon Tyne/UK)
- P 256 High Throughput Li-Ceramic Battery Electrolyte Property Optimization Based on Efficient Sample Space Exploration**
 Jesse Hinricher (Cambridge/US), T. Prein (Munich/DE), P. Simons (Cambridge/US), K.J. Kim (Munich/DE), M. Foshey (Cambridge/US), Y. Tian (Cambridge/US), T. Erps (Cambridge/US), W. Matusik (Cambridge/US), E. Olivetti (Cambridge/US), J. L. M. Rupp (Garching/DE)
- P 257 A High-Throughput Technique for Unidirectional Critical Current Density Testing of Solid Electrolyte Materials**
 Alireza Torabi (San Jose/US), D. M. Gendron (San Jose/US), M. Wanees (San Jose/US), M. Savio Dsouza (San Jose/US), B. Feddersen (Hamburg/DE), T. Holme (San Jose/US)
- P 258 Parameter Sensitivity Analysis and Calibration of Discrete Element Models for Optimizing All-Solid-State-Battery Cathode Microstructures**
 Ali Mohammad Bazzoun (Stuttgart/DE), J. Piruzjam (Stuttgart/DE), S. Hink (Stuttgart/DE), L. Rubaceck (Stuttgart/DE), A. Fill (Stuttgart/DE), P. Birke (Stuttgart/DE)
- P 259 Influence of Layered Electrode Designs on the Performance of All-Solid-State Batteries**
 J. Drews (Ulm/DE), E. Schlautmann (Münster/DE), M. Clausnitzer (Ulm/DE), T. Danner (Ulm/DE), W. Zeier (Münster/DE), Arnulf Latz (Ulm/DE)
- P 260 Unravelling the Role of Sulfur/Halide Local Disorder in Argyrodites: Pathways To Enhanced Ionic Diffusion**
 Anastasia K. Lavrinenko (Delft/NL), T. Famprikis (Delft/NL), J. A. Quirk (Berlin/DE), V. Landgraf (Delft/NL), P. B. Groszewicz (Delft/NL), J. R. Heringa (Delft/NL), J. A. Dawson (Berlin/DE), M. Wagemaker (Delft/NL), A. Vasileiadis (Delft/NL)
- P 261 Influence of Surfaces on Ion Transport and Stability in Anti-Perovskite Solid Electrolytes at the Atomic Scale**
 Ana Carolina Coutinho Dutra (Newcastle/UK), J. Quirk (Newcastle/UK), Y. Zhou (Newcastle/UK), J. Dawson (Newcastle/UK)
- P 262 Electrochemical Behavior of Silicon Nitride in Solid-State Batteries**
 Jingxuan Zhang (Muenster/DE), J. Huang (Muenster/DE), W. Zeier (Muenster/DE)
- P 263 Impact of Cathode Design on All-Solid-State Sodium-Sulfur Battery Performance**
 Stefano Tagliaferri (Berlin/DE), R. Healy Corominas (Berlin/DE), F. Piccolo (Berlin/DE), P. Adelhelm (Berlin/DE)
- P 264 The Role of Nanoporous Carbon Materials for Thiophosphate-Based All-Solid-State Lithium Sulfur Battery Performance**
 Magdalena Fiedler (Dresden/DE), F. Hippauf (Dresden/DE), S. Dörfler (Dresden/DE), H. Althues (Dresden/DE), S. Kaskel (Dresden/DE)
- P 265 Identification and Quantification of Kinetic Limitations of Thiophosphate-Based Solid-State Cathodes by Chronoamperometry**
 S. Yanev (Dresden/DE), Markus Pöthe (Dresden/DE), K. Nikolowski (Dresden/DE), M. Partsch (Dresden/DE), A. Michaelis (Dresden/DE)