

	Room A	Room B	Room C	Room D
9:00	[Plenary] (A-01A-01) P. Balaya "Introducing Design Strategies for Safer Li-ion and Na-ion Cells"			
9:40	Chairs: Masaki Matsui, Yongyao Xia	Chairs: Bing Joe Hwang, Hengxing Ji	Chairs: Yung-Eun Sung, Katsuyoshi Kakinuma	Chairs: Amartya Mukhopadhyay, Urmimala Maitra
9:45	[Keynote] (A-01A-02) M. Matsui "Low-temperature Synthesis of Layered Cathodes"	[Keynote] (B-01A-02) B. Hwang "Recent Progress of Anode-free Lithium Metal Batteries"	[Keynote] (C-01A-02) Y. Sung "Engineering the Electronic Structure for Enhanced Performance in Oxygen Evolution Reaction"	[Keynote] (D-01A-02) A. Mukhopadhyay "Layered" transition metal oxides as cathode materials for Na-ion batteries: Composition - Structure - Environmental stability - Electrochemical behaviour/performance"
10:15	[Invite] (A-01A-03) Y. Xia "Single Crystal Spherical LiMn ₂ O ₄ for Prolonged Battery Life"	[Invite] (B-01A-03) H. Ji "Phosphorus Based Anode Materials for Fast-Charge Li-ion Batteries"	[Invite] (C-01A-03) K. Kakinuma "Highly durable and active electrocatalysts for polymer electrolyte fuel cells toward the application of heavy-duty vehicles"	[Invite] (D-01A-03) U. Maitra "Decoupling anion-redox from structural transitions in Intercalation cathodes for Na and Li-ion batteries"
10:35	(A-01A-04) S. Chen "Co-doped lithium cobalt phosphate as high-voltage cathode materials for lithium-ion batteries"	(B-01A-04) S. Chang "Using Artificial Solid-Electrolyte Interphase Coatings for Enhancing Safety of High-Energy Li-Ion Batteries"	(C-01A-04) J. Kim "Materials Interface Engineering of Polymeric Composite Membrane for Hydrogen Fuel Cell and Water Electrolyzer Applications"	(D-01A-04) P. Senguttuvan "Chemical Tuning of NASICON Cathodes for Sodium-ion Batteries"
10:50	[Invite] (A-01A-05) C. Yang "Highly Stable Performance of Ni-Rich LiNi _{0.92} Co _{0.04} Mn _{0.04} O ₂ Synthesis by Taylor-Couette Reactor (TCR) Through Fiber-type Microstructure Modification by Surface Coating and Doping with Tantalum"	[Invite] (B-01A-05) J. Chang "Silicon/Silicon Nitride Composite Anodes for High-Performance Li-Ion Batteries"	[Invite] (C-01A-05) H. Daimon "Utilization of Pt Catalyst NPs Supported on Mesoporous Carbon"	[Invite] (D-01A-05) Y. Lu "Amorphous materials for Na-ion batteries"
11:10	(A-01A-06) Y. Lu "Modification and optimization of Nickel-rich Cathode for Li-ion Battery"	(B-01A-06) H. Tian "Uncovering Unique Dendrite Formation Mechanisms in Li-Ion and Mg-ion Batteries Through First-Principles Calculations"	(C-01A-06) Y. Zhou "Graphitic Armor: A Natural Molecular Sieve for Robust Hydrogen Electrooxidation"	(D-01A-06) Sungjemmenla "A unique approach to control nitrogen doping in microporous carbon at ambient conditions for a stable reversible room-temperature sodium-sulfur battery"
11:25	Lunch (not provided)			
13:00	Poster Session (Room 1005-1007)			
14:00	[Plenary] (A-01P-01) K. Miyatake "Design of ionomer membranes for applications in energy devices"			
14:40	Chairs: Naoaki Yabuuchi, Fu-Ming Wang	Chairs: Hsisheng Teng, Man Fai Ng	Chairs: Minoru Inaba, Zhiming Cui	Chairs: Hiroyuki Usui, Prabeer Barpanda
14:45	[Keynote] (A-01P-02) N. Yabuuchi "High-energy Lithium Insertion Materials for Practical Li-ion Batteries"	[Keynote] (B-01P-02) H. Teng "Polymer Electrolytes for Lithium Batteries"	[Keynote] (C-01P-02) M. Inaba "Development of Highly Active and Durable Pt-based Catalysts for Polymer Electrolyte Fuel Cells"	[Keynote] (D-01P-02) H. Usui "Oxide- and Alloy-Based Anode Materials for Na-Ion Batteries"
15:15	[Invite] (A-01P-03) F. Wang "Low-Temperature Recovery of Deteriorated Ni-Rich Cathode Material Surfaces: LiNiO ₂ and LiNi _{0.8} Mn _{0.1} Co _{0.1} O ₂ Examples"	[Invite] (B-01P-03) M. Ng "Materials design for high-performance metal batteries via DFT modelling and machine learning"	[Invite] (C-01P-03) Z. Cui "Pt-based Intermetallic Catalysts for Proton Exchange Membrane Fuel Cell" [Cancel]	[Invite] (D-01P-03) P. Barpanda "Evaluation of New Layered Oxides for Potassium-ion Batteries"
15:35	(A-01P-04) R. Yuwono "Low-Temperature Reconstruction of Deteriorated Layered Ni-Rich Cathode Surface"	(B-01P-04) C. Wang "Ab-initio Screening of Anode Interlayers for Solid-state Lithium Batteries"	[Invite] (C-01P-04) D. Chua "Designing nanostructured catalyst electrode for highly robust Proton Exchange Membrane Fuel Cells"	(D-01P-04) H. Kang "Alloyed Sn-TiC/C-CNTs composite anode for K-ion batteries to relax stress propagation"
15:50	[Invite] (A-01P-05) S. Bak "Understanding improved cycling and thermal stability of compositionally graded Ni-rich layered LiNi _{0.8} Mn _{0.2} Co _{0.2} O ₂ cathode materials"	[Invite] (B-01P-05) J. Lee "Mechanistic study of performance degradation behaviors of composite electrodes for all-solid-state batteries"	(C-01P-05) D. Geng "Enhancing ORR activity/selectivity of PtNi@N,S-HMCS by boosting Lewis acid-base interface through heteroatom doping"	[Invite] (D-01P-05) H. Byon "Design of Naphthalene Diimide for Highly Soluble and Stable Negolyte in Organic Redox Flow Batteries"
16:10	(A-01P-06) S. Ahmed "Enhancing interfacial stability and inhibiting micro-cracks in Ni-rich cathodes through a porous structure"	(B-01P-06) F. Ozawa "Effect of Li Concentration of Li-Naphthalene Solution on Li Pre-doping Toward Si Anode for Next-generation Batteries"	(C-01P-06) C. Lin "Agricultural Waste-Derived Carbon Dots as Electrolyte Enhancement for Microbial Fuel Cells"	(D-01P-06) C. Soni "Shedding Light on the Origin of Sodium Dendrite Growth to Build Better Sodium Metal Batteries"
16:25	[Invite] (A-01P-07) P. Tsai "Electrochemical kinetics of polycrystalline and single-crystalline Ni-rich NMC cathodes powder for Li-ion batteries"	[Invite] (B-01P-07) K. Ramanujam "Lithium Metal/Lithium-ion Polymer Electrolyte Batteries"		(D-01P-07) V. Kala "High performance polymer blend based quasi solid state electrolyte system for sodium metal battery"
16:45	(A-01P-08) P. Huang "Synthesis and Characterization of Single-Crystal Ni-Rich Cathode Material via Molten Salt Approach"	(B-01P-08) C. Chao "Single Ion Conducting Quasi-Solid Polymer Electrolytes for Lithium Metal Batteries"		

	Room A	Room B	Room C	Room D
9:00	[Plenary] (A-02A-01) C. Hu "A Journey in Developing/Designing Pseudocapacitive Materials"			
9:40	Chairs: Nae-Lih Wu, Hui Xia	Chairs: Masashi Ishikawa, Hui Zhang	Chairs: Wei-Nien Su, Yuto Miyahara	Chairs: Aninda Bhattacharyya, Min-Hsin Yeh
9:45	[Keynote] (A-02A-02) N. Wu "All-Solid-State Li-Ion Batteries with Reinforced Cathode-Solid Electrolyte Interface"	[Keynote] (B-02A-02) M. Ishikawa "Sulfur-confined porous carbon cathodes for Li-S batteries"	[Keynote] (C-02A-02) W. Su "Enhancing Green Hydrogen Production: Innovative Approaches Beyond Water Electrolysis"	[Keynote] (D-02A-02) A. Bhattacharyya "Metal-CO ₂ Batteries"
10:15	[Invite] (A-02A-03) H. Xia "Manganese-based cathode materials for Li ⁺ /Na ⁺ ion batteries"	[Invite] (B-02A-03) H. Zhang "Electrode Engineering for High-Performance Lithium-Sulfur Batteries"	[Invite] (C-02A-03) Y. Miyahara "Perovskite-based oxygen evolution electrocatalysts: introduction of mixed-anion strategy and quantification of catalyst parameters"	[Invite] (D-02A-03) M. Yeh "Oxygen Plasma-activated NiFe Prussian Blue Analogues Interconnected N-doped Carbon Nanotubes as a Bifunctional Electrocatalyst for a Rechargeable Zinc-air Battery"
10:35	(A-02A-04) S. Taminato "Synthesis and Charge and Discharge Properties of Anti-fluorite Type Li _{1-x} Fe _{1-x} MnxO ₂ for Lithium Battery Cathode"	(B-02A-04) H. Park "Practical Lithium-Sulfur Batteries with Lean Electrolyte from Heterogeneous Nickel-Cobalt Metal/Metal Oxide Nanoparticles in Carbon Structure as Polysulfide Mediators"	(C-02A-04) G. Wang "(Fe, N)-doped carbon black catalysts formed by rapid thermal annealing for oxygen reduction reaction"	[Invite] (D-02A-04) F. Wang "Reversible Neutral Zinc-air Batteries Based on 2-electron ORR/OER Chemistry"
10:50	[Invite] (A-02A-05) Y. Orikasa "X-ray CT Analysis of Mechanical Interface between Silicon and Solid Electrolyte during Charge-Discharge Reaction of All-solid-state Batteries"	[Invite] (B-02A-05) P. He "Electrocatalytic reaction at the positive interface of lithium-carbon dioxide batteries"	(C-02A-05) G. Raj "High entropy alloying strategy for efficient seawater splitting, fuel cell and metal-air battery applications"	(D-02A-05) A. Behera "Cu doped Co ₃ O ₄ Bifunctional Electrocatalyst for Aqueous Zn Air battery"
11:10	(A-02A-06) H. Chen "Realizing the Practical Use of LiNiO ₂ with Halide-based All-Solid-State Lithium Metal Batteries"	(B-02A-06) C. Chiu "Combining Solid FePc Immobilized on Py-functionalized Carbon Matrix with Soluble Redox Mediator FePc as an Electrocatalyst for Non-aqueous Li-O ₂ Batteries"	(C-02A-06) A. Ikezawa "Oxygen Evolution Reaction Activities of Highly Crystalline γ-Ni ₂ Fe _{1-x} OOH Synthesized with Soft Chemistry"	(D-02A-06) S. Kumar "N-doped carbon nanotubes nucleated through cobalt nanoparticle as bifunctional catalyst for zinc-air battery"
11:25	Lunch (not provided)			
13:00	Poster Session (Room 1005-1007)			
	Chairs: Kyung-Wan Nam, Hikaru Sano	Chairs: Yuki Yamada, Kaoru Dokko	Chairs: Tsutomu Ioroi, Chinmoy Ranjan	Chairs: Hajime Arai, Tzu-Ho Wu
14:00	[Keynote] (A-02P-01) K. Nam "Unraveling Structure-property Correlations in New Solid Electrolyte Materials for All-Solid-State-Batteries using Synchrotron X-ray Analysis"	[Keynote] (B-02P-01) Y. Yamada "Battery electrolyte design based on Li ⁺ chemical potentials"	[Keynote] (C-02P-01) T. Ioroi "Evaluation of OER Activity of Iridium Nanoparticle Catalysts by RDE and Comparison with MEAs"	[Keynote] (D-02P-01) H. Arai "Development of Proton Batteries"
14:30	[Invite] (A-02P-02) H. Sano "How Trace Amount of Water Effect on Sulfide Solid Electrolytes: Li ₂ PS ₅ Cl, Li ₃ PS ₄ , Li ₄ SnS ₄ "	[Invite] (B-02P-02) K. Dokko "Anionic Effects on Li-Ion Intercalation Kinetics in Highly Concentrated Electrolytes"	[Invite] (C-02P-02) C. Ranjan "CO ₂ reduction using solid oxide electrodes: Operando Studies"	[Invite] (D-02P-02) T. Wu "Understanding Structure-Performance Relationship of Vanadium Oxides in Zn-Ion Batteries"
14:50	(A-02P-03) P. Yu "Sulfide Free All Solid-State Li-Ion Batteries"	(B-02P-03) T. Agnihotri "Enhanced Safety and Stability in Anode-Free Lithium-Metal Batteries Using Anion-Trapping Composite Gel Electrolyte"	(C-02P-03) H. Huang "Development of Ruthenium-based Nanocluster Catalysts with Atomic Dispersion for Anion Exchange Membrane Water Electrolysis Application"	(D-02P-03) R. Liu "Designing bifunctional bilayer electrode for Zinc-air batteries"
15:05	[Invite] (A-02P-04) A. Inoishi "Anode materials by in-situ formed electrolytes for all-solid-state lithium batteries"	[Invite] (B-02P-04) J. Li "Beyond Binding: Design of Functional Binders for High-energy Electrode of Lithium Ion Battery"	(C-02P-04) A. Chaturvedi "Glucose oxidation assisted ammonia production via electrochemical dinitrogen reduction over CoWO ₄ "	(D-02P-04) P. Dedetemo "Xanthan Gum-Based Hydrogel Electrolytes for All-Solid-State Alkaline Zinc Anode Rechargeable Batteries"
15:25	(A-02P-05) M. Kotobuki "Stabilization of cubic Li ₇ La ₂ Zr ₂ O ₁₂ by Al substitution in various atmospheres"	(B-02P-05) R. Foeng "An Investigation of PE(1) To the Compatibility of Different PVDF Binder Phases on Lithium Ion Battery"	(C-02P-05) K. Kumar "Green Synthesis of Magnesium Single Atom Catalyst from Spinacia oleracea-Chlorophyll Extracts for Sustainable Electrocatalytic Nitrate Reduction to Ammonia"	(D-02P-05) M. Singh "DMSO Stabilized Aqueous Iron-Sulfur Battery as a Potentially Scalable Post-Lithium Battery System"
	Break			
18:00	Banquet (tickets required, Room 1001)			

	Room A	Room B	Room C	Room D
9:00	[Plenary] (A-03A-01) S. Sun "In-situ/Operando Spectroscopy Studies on Electrochemical Energy Processes"			
9:40	Chairs: Akitoshi Hayashi, Wei-Ren Liu	Chairs: Stefan Adams, Kingo Ariyoshi	Chairs: Wataru Sugimoto, Naga Phani Aetukuri	Chairs: Kuan-Zong Fung, Hiroshi Suyama
9:45	[Keynote] (A-03A-02) A. Hayashi "Sulfide Glass Electrolytes for All-Solid-State Lithium Batteries"	[Keynote] (B-03A-02) S. Adams "Compressible Light-Weight Ion Conductors for Durable High Energy Density Batteries"	[Keynote] (C-03A-02) W. Sugimoto "Enhancing the Pseudocapacitive Properties of MnO ₂ with a Touch of PGM Oxides"	[Keynote] (D-03A-02) K. Fung "Importance of SOEC Technology for Power to X Applications: A Path to Net-Zero Emission by 2050"
10:15	[Invite] (A-03A-03) W.Liu "Synthesis and Characterizations of Li ₆ PS ₅ Br Solid Electrolytes for Li All Solid-State Batteries"	[Invite] (B-03A-03) K. Ariyoshi "Power Capability Prediction for Lithium-Ion Batteries based on Electrochemical Impedance Analysis"	[Invite] (C-03A-03) N. Aetukuri "Electrochemical Challenges in High Energy Density Batteries"	(D-03A-03) H.Suyama "A Neutral Proton NiMH Battery Using Anti-Freezing Highly Concentrated Potassium Pyrophosphate Aqueous Electrolytes"
10:35	(A-03A-04) K. Hikima "Electrochemical and Surface Analysis of Li ₁₀ GeP ₂ S ₁₂ Solid Electrolytes Synthesized by the Solution Method"	(B-03A-04) C. Lin "Enhancing Safety and Performance of Lithium-Ion Batteries through Aluminum Oxide Coating on Separators and Modified Electrode Materials"	[Invite] (C-03A-04) H. Yang "3D Printable Micro-supercapacitors with High Performance at Low-temperature"	(D-03A-04) S. Hsieh "Effects of Lead-Carbon fiber cloth composite plates in Lead batteries"
10:50	[Invite] (A-03A-05) S. Wu "Preparation and characterization of antimony doped Br-rich argyrodites (Li _{6-x} P1-ySByS5-xBr1+x)"	[Invite] (B-03A-05) Y. Xu "Progress on electrode materials for electrolytic devices"	(C-03A-05) A. Padhy "A High-Performance Asymmetric Supercapacitor Device Fabricated by Combining B-doped Carbon/Cobalt Pyrophosphate and MXene"	(D-03A-05) S. Yoo "Advancing Zn-Bromine Batteries: A Multifunctional Hydrated Deep Eutectic Solvent for Comprehensive Anode and Cathode Optimization"
11:10	(A-03A-06) D. Mori "Li dendrite suppression effect of the grain boundary modification in Garnet-type solid electrolytes Li _{6.25} Ga _{0.25} La ₃ Zr _{0.12} "	(B-03A-06) S. Chang "Lithophilic Silver Nanowires for Suppress Dendrite Formation in Anode-Free Lithium Metal Batteries"	(C-03A-06) B.Huang "Development of dimethyl sulfoxide based deep eutectic solvent electrolytes for high-safety and low-cost supercapacitors"	(D-03A-06) R. Alagar "Tuning the Redox-States of Poly(phenylenediamine) for Full-Polymer Dual-ion Batteries"
11:25	Lunch (not provided)			
13:00	Poster Session (Room 1005-1007)			
14:00	[Plenary] (A-03P-01) W. Yoon "Exploring anomalous charge storage behaviors in anode materials for next-generation Li rechargeable batteries"			
14:40	Chairs: Kyung Yoon Chung, Hong-Zhang Huang	Chairs: Xiaoli Dong, Derrick Fam	Chairs: Han-Yi Chen, Chun-Jern Pan	Chairs: Jeng-Yu Lin, Xiangyu Zhao
14:45	[Keynote] (A-03P-02) K. Chung "Characteristic analysis of Single particle NCM cathode materials for Sulfide-based All Solid State Batteries"	[Invite] (B-03P-02) X. Dong "Low-temperature lithium ion batteries"	[Invite] (C-03P-02) H. Chen "Investigation of charge storage mechanisms of electrode materials for sodium-ion batteries through in-situ studies"	[Invite] (D-03P-02) J. Lin "δ-MnO ₂ -Based Nanocomposite Cathodes for Aqueous Mg-Ion Energy Storage Devices"
15:05	(A-03P-03) H. Huang "Assessing the Impact of Particle Size and Distribution in Composite Electrodes in All-Solid-State Batteries: A 2D Continuum Model Investigation"	[Invite] (B-03P-03) D. Fam "Towards Multifunctional Structural Batteries"	[Invite] (C-03P-03) C. Pan "Unrevealing the Charge-Discharge Mechanism of Cathode in Zn/MnO ₂ Battery as Improved by Incorporating Manganese Acetate in Water-in-salt Electrolyte"	[Invite] (D-03P-03) X. Zhao "Interface modulations enable high-performance metal chalcogenide cathode materials for magnesium batteries"
15:30	(A-03P-04) K. Walle "Highly Stable LiTa ₂ PO ₆ -based Hybrid Solid Electrolytes Via In-situ Interfacial Formation Technique for Solid-State Lithium-Metal Batteries"	(B-03P-04) K. Melethil "A low-cost deep eutectic solvent electrolyte for Fe-Li dual ion batteries"	[Invite] (C-03P-04) M.Bhat "Managing Electrocatalytic Performance of Aqueous Micellar Solutions of Surface Active Ionic Liquids"	(D-03P-04) Y. Kirimoto "Design and verification of single roll rapid solidification injection nozzle for anode material of magnesium rechargeable battery"
15:45	(A-03P-05) M. Hung "Unravelling Mechanical Failures at Interfaces in All-Solid-State Batteries via Multi-Scale Simulations"	[Invite] (B-03P-05) H. Li "In-situ visualization of the reaction kinetics in lithium-ion batteries"	[Invite] (C-03P-05) Muhammed MustafaO T "Electricity from Acid-Base Reaction"	(D-03P-05) G. Gupta "Understanding the diffusion behavior of Mg ion in Chevrel phase, MoSS ₈ for rechargeable Mg batteries"
16:00			(C-03P-06) C. Chen "Acidic Redox-assisted Deposition of Complex metal Oxide Materials for Energy Applications"	(D-03P-06) J. Han "Catalytic Electrolyte Decomposition Mechanism by Spinel Oxide in Mg Rechargeable Batteries"