Date	Poster #	Presentaor		Poster Title
Day 1	P-001	Tadesu	Mengesha	In-situ formed stable SEI and CEI layers for improved performance of solid-state lithium metal batteries for high voltage cathode materials
Day 2	P-002	Ryoji	Inada	Comparison of Electrochemical Properties for Wadsley-Roth WNb <sub>12</sub> O <sub>33</sub> and W <sub>5</sub> Nb <sub>16</sub> O <sub>55</sub> Phases for Li-Ion Battery Anode
Day 3	P-003	Teppei	Ono	Optimization of synthesis condition of low volume change V-based high-capacity positive electrode materials and applications for all- solid-batteries
Day 1	P-004	Sham	Mane	N <sub>2</sub> Fixation via Li-N <sub>2</sub> Battery
Day 2	P-005	Yite	Liu	Li <sub>2</sub> ZrO <sub>3</sub> Coated LiFe <sub>0.4</sub> Mn <sub>0.6</sub> PO <sub>4</sub> /C with Enhanced Cycling Performance at Elevated Temperature for Lithium-Ion Batteries
Day 3	P-006	SHIVAM	SHIVAM	Enhancing the stability of solid oxide electrodes for Ammonia Oxidation
Day 1	P-007	Soham	Raychowdhury	Effect of Pr-doping on oxygen defect formation and CO <sub>2</sub> electroreduction in CeO <sub>2</sub> using DFT+U studies
Day 2	P-008	Mai	Nakanishi	Cycleability of SiOx nano-flake anode in glyme-based localized high concentration electrolytes using fluorinated diluents
Day 3	P-009	Yuya	Kouno	Effects of Sintering Aids on Microstructural Changes of Li <sub>6.4</sub> La <sub>3</sub> Zr <sub>1.4</sub> Ta <sub>0.6</sub> O <sub>12</sub> Electrolytes and Their Lithium Plating/Stripping Properties
Day 1	P-010	Cian-Ping	Lin	Tailoring LiNO <sub>3</sub> -Deep Eutectic Electrolytes with ethylene carbonate additive as promising electrolytes for stable Li-metal batteries
Day 2	P-011	Ren-Jie	Huang	Unveiling the charge storage mechanism of aluminum-lead hybrid ion batteries in novel Al-based eutectic electrolyte
Day 3	P-012	Shih-Che	Lin	Achieving high performance Zn-Li hybrid ion Batteries via manipulating the solvation shell structure of deep eutectic electrolytes
Day 1	P-013	SIN-YI	SYU	Zinc-Lithium-Urea Deep Eutectic Mixture as Electrolyte for Rechargeable Zinc-based Hybrid Batteries
Day 2	P-014	Yi Chun	Yen	Sulfur-doped FeZn Composite Materials as Catalyst for Electrolytic Hydrogen Production in Seawater
Day 3	P-015	dipen	biswakarma	Unlocking The Reaction Mechanism of Anode-Protected Aqueous Organic Zinc Ion Battery
Day 1	P-016	Toshiya	Nakayama	Searching for New Materials toward All-Solid-State Batteries Based on the Predicted Rating of Recommender System
Day 2	P-017	Guan-Cheng	Chen	Non-precious metal catalyst applied in electrochemical hydrogen redox
Day 3	P-018	Zhen Wei	Hong	Dual Organic Ligands Formulated Nickel-Based Metal-Organic Framework Materials as Anode Catalysts for use in Water Electrolysis and Urea Electrolysis.
Day 1	P-019	Hsuan Hsuan	Su	Development of New Era Green Energy Battery: Calcium-Based Anode-Free Battery
Day 2	P-020	Hinata	Fujimura	Development of long-lived lithium-ion batteries with LiNiO <sub>2</sub>
Day 3	P-021	Nozomi	Hirakuni	Layered Iron-Titanium Oxides as Electrode Materials for Aqueous Sodium-ion Batteries
Day 1	P-022	Bei Ni	Chen	Chitosan-based Multi-layer Ion Conducting Membranes for Value-Added Hydrogen Evolution Systems
Day 2	P-023	Xue	Wen	Dual-element doping improves physical and electrochemical properties of O <sub>3</sub> -NaNi <sub>1/3</sub> Fe <sub>1/3</sub> Mn <sub>1/3</sub> O <sub>2</sub> cathode to obtain high energy density
Day 3	P-024	Minato	Hino	Double-Network Ion Gels as high-performance polymer electrolyte for Li metal batteries
Day 1	P-025	Hung-Yi	Huang	Tailored Doping Strategies in Conducting Polymers for the Development of an Efficient Electrochemical Deionization System with Enhanced Energy Efficiency and Prolonged Cycle Stability
Day 2	P-026	Hiroya	Sahashi	Interfacial stability of 4-volt class cathode (NMC) coated with various inorganic materials and PEO-based solid polymer electrolyte
Day 3	P-027	Yu-Hsiang	Yang	Cell voltage control on ion selectivity of carbon nanotube-copper hexacyanoferrate with enhanced electrochemical deionization performance
Day 1	P-028	Wenjun	Lin	Inorganic Fillers Tailored Li <sup>+</sup> Solvation Sheath for Stable Lithium Metal Batteries
Day 2	P-029	Ssu-Ping	Liao	Copper-coordinated polyvinylidene difluoride membranes for lithium metal batteries
Day 3	P-030	Jen-Wei	Teng	Carbon Dioxide Assisted Surface Modification on LiFePO <sub>4</sub> Cathode with Nitrogen-Doped Coating for Lithium-Ion Batteries
Day 1	P-031	Jarrn-Horng	Lin	Upcycling of waste polyethylene terephthalate into hierarchical porous carbons for high performance supercapacitor
Day 2	P-032	Yuan Chun	Ye	Electrochemical Nitrate Reduction to Ammonia Using Homogeneous Bimetallic Catalyst
Day 3	P-033	Kaoruko	Morita	Operando X-ray Fluorescence Spectroscopic Study on In-plane Cerium-ion Transport Phenomena in Proton Exchange Membrane Fuel Cell
Day 1	P-034	Chia Ching	Kuo	Glycerol-tailored Asymmetric Polyethersulfone Membranes with Uniform Ion Transport for Stable Lithium Metal Batteries
Day 2	P-035	Ailing	Huang	Regulating Li deposition with different morphology of fibers in anode free lithium batteries

Date	Poster #	Presentaor		Poster Title
Day 3	P-036	Chen-Wei	Tai	Lithium-ion Storage Mechanism in Closed Pore-rich Hard Carbon with Ultrahigh Extra Plateau Capacity
Day 1	P-037	Ayuko	Kitajou	Cathode properties of re-sintering nano-Li <sub>1.2</sub> Cr <sub>0.4</sub> Mn <sub>0.4</sub> O <sub>2</sub> having high interfacial concentration
Day 2	P-038	Daiki	Iwasaki	Li Dendrite Suppression by Li-Mg Alloy Anode for Li-air Batteries
Day 3	P-039	YUN	KU	Effect of carbonate solvent additives in electrolyte on the self-discharge phenomenon in organic electrical double layer capacitors
Day 1	P-040	Seiij	Katakura	Evaluation of ion transport in ceramic-polymer composite electrolyte for all-solid-state sodium secondary batteries
Day 2	P-041	Fumihiro	Sagane	The effect of the activated alumina on Mg plating/stripping reaction
Day 3	P-042	Cheng	Zhen	Novel Starch-Based Hydrogel Electrolyte for Zinc Anode Rechargeable Battery
Day 1	P-043	Sin-YI	Lin	Converting Fenton sludge into magnetic Fe-TiO <sub>2</sub> for acetaminophen degradation in wastewater using photo-Fenton process
Day 2	P-044	Xue	Yang	Effect of Anion Composition of Electrolyte on Electrochemical Properties of Graphite Positive Electrode for Rechargeable Aluminum Batteries
Day 3	P-045	Ren Hong	Wang	Converting Fentons sludge into electrode materials for electrochemical applications
Day 1	P-046	Xiao	Mu	Monodisperse Silicon/carbon Spherical Material as an Anode Material for Lithium-ion Batteries
Day 2	P-047	Chih-Wei	Huang	Integrated carbonization and activation processes to fabricate spherical activated carbon and its hydrothermal regeneration
Day 3	P-048	YU	CHEN	Magnesium-aluminum layered double hydroxide for carbon dioxide adsorption
Day 1	P-049	Chih	Chu	Magnesium-Titanium Mesoporous Materials for CO <sub>2</sub> Capture in Carbonation/Calcination Cycles
Day 2	P-050	zhi	zhou	Charge transfer kinetics at interface between LiMn <sub>2</sub> O <sub>4</sub> and high-concentration LiTFSA/ether electrolyte
Day 3	P-051	HONG-YU	GAO	Photothermal nanomaterials obtained from anode graphite of spent Lithium-ion batteries for seawater desalination
Day 1	P-052	Jun-Yang	You	Molten Salt Promoted MgO for CO <sub>2</sub> Capture in Carbonation/Calcination Cycles
Day 2	P-053	Ting-Feng	Gong	Preparation and characterization of porous nitrogen-doped graphene
Day 3	P-054	Jang-Yeon	Hwang	Fluorine-treated layered potassium manganese oxide cathode for high-performance potassium-ion batteries
Day 1	P-055	Zhi-Ting	Liu	Temperature effects on lithium/sodium ions storage behaviors and electrochemical performance of hard carbon microspheres derived from phenolic resin as potential anode materials for lithium/sodium-ion batteries
Day 2	P-056	Kuan-Zong	Fung	Investigation of Single-Crystal Process for Ni-rich Layered Oxides Cathode
Day 3	P-057	Bong Jin	KIM	Enhanced Cycle Performance of Zinc Metal Electrode for Zn-ion Batteries through Electroplating with a Boric Acid Additive
Day 1	P-058	Chao	Ма	2D BN-assisted enhancement of properties in gel polymer electrolytes containing sulfolane-based highly concentrated electrolytes
Day 2	P-059	Jaeho	Byeon	Regulating Electron Density of Atomically Dispersed Fe-N-C via Sulfur-doping to Control the Oxygen Reduction Reaction Activity with Volcano Correlation
Day 3	P-060	Junhaeng	Huh	Optimizing the Activation Process for Improved Electrochemical Characteristics in Cathode-less Zn/MnO <sub>2</sub> Cells
Day 1	P-061	Donghyeok	Son	High-performance lithium?sulfur batteries by ultrathin mixed ionic ?electronic conducting interlayer
Day 2	P-062	YU-HAN	TSAI	Synthesis and characterization of Li <sub>3</sub> InCl <sub>6</sub> solid electrolytes for lithium all-solid-state batteries
Day 3	P-063	Naoto	TAKADA	Phase transition of Y <sub>2</sub> Ti <sub>2</sub> O <sub>5</sub> S <sub>2</sub> by Li insertion
Day 1	P-064	Jian-Yi	Weng	Synthesis and Characterizations of Li <sub>9.5</sub> 4Si <sub>1.74</sub> P <sub>1.44</sub> S <sub>11.7</sub> Cl <sub>0.3</sub> Solid Electrolytes for Lithium All-Solid-State Battery Applications
Day 2	P-065	Yi-Shan	Huang	Recovery of valuable metals from wastewater using solar evaporator
Day 3	P-066	YuHsuan	Li	Coated silicon/hard carbon composites derived from phenolic resin as anode materials for lithium-ion batteries
Day 1	P-067	Pei-Jun	Wu	Synthesis and characterizations of MnIn <sub>2</sub> S <sub>4</sub> /SWCNTs composite as anode materials for Lithium-ion batteries
Day 2	P-068	Geng-Hua	Li	Synergistically enhanced electrochemical performance of TiNb <sub>2</sub> O <sub>7</sub> anode for Li ion batteries by sintering and composition optimizations
Day 3	P-069	Yun	Lin	A Novel Efficient Three-stage Electrochemical Pre-lithiation method for the Amorphous Carbon Negative Electrodes of Lithium-ion Capacitors
Day 1	P-070	Ryota	Kishi	Electrochemical properties of Li <sub>10</sub> GeP <sub>2</sub> S <sub>12</sub> solid electrolyte synthesized rapidly via liquid phase method

Date	Poster #	Presentaor		Poster Title
Day 2	P-071	Somvang	Chaleunphonh	Synthesis of Li <sub>2</sub> S-based cathode composites using different sulfide solid electrolytes and their applications on All-Solid-State Battery
Day 3	P-072	Taishi	Matsuba	Synthesis and electrochemical characterization of air-stable Li <sub>4</sub> SnS <sub>4</sub> -based solid electrolytes
Day 1	P-073	Masaki	Okada	Positive electrode behavior of manganese oxide in acidic aqueous electrolytes
Day 2	P-074	Ya-syuan	Wu	Inhibition of Shuttle Effect in Aqueous Zinc-Iodine Batteries By Conductive Polymer
Day 3	P-075	Jenn-Shing	Chen	Investigation of imidazole and pyridine as axial ligands for iron phthalocyanine immobilized onto multi-wall carbon nanotubes for non-aqueous Li-O <sub>2</sub> batteries
Day 1	P-076	Nur	Chamidah	Enhancing Lithiation into Silicon Semiconductors with Light-Assisted Lithium-ion Battery System
Day 2	P-077	Takayuki	Doi	High-energy-density Porous Si Negative-electrodes for Oxide-based All-solid-state Batteries
Day 3	P-078	Haruta	Mori	Proton conductivity of heterocyclic compound-incorporated metal-organic framework UiO-67 and its application to fuel cells
Day 1	P-079	Yeju	Jang	Improving Oxygen Reduction Reaction Activity via CO <sub>2</sub> Activation-derived Defect Engineering of Atomically Dispersed Iron Electrocatalysts for PEMFCs
Day 2	P-080	Yola	Hendri	Needle-like Microstructure of Primary Particles with Li <sub>7</sub> TaO <sub>6</sub> Conductive Protective Coating Layer strategies to achieve Highly Stable Performance of High-Ni-Rich LiNi <sub>0.92</sub> Co <sub>0.04</sub> Mn <sub>0.04</sub> O <sub>2</sub> Cathode for High-Energy-Density Li-ion Batteries
Day 3	P-081	Zhihao	Chen	High-entropy (LaCeNdSmGd)F <sub>3</sub> solid electrolytes for All-Solid-State Fluoride-Ion batteries
Day 1	P-082	Minkyeong	Ban	Multiscale Assembly-Driven Hierarchical Structuring of Anisotropic Carbon Particles via Spinodal Decomposition
Day 2	P-083	Hsiang-Sheng	Wei	A novel way to high speed electroplates (220)-orientation nano-twinned copper foil and control the material structure
Day 3	P-084	Jiwon	Kim	Enhancing Hydrogen Evolution Reaction Activity through Interaction-Mediated Synthesis of Mesoporous Molybdenum Carbide with Mo-Valence State Optimization
Day 1	P-085	Seungwon	Lee	Preventing Dendrite Formation in Potassium Metal Anode using Potassium-Polysulfide
Day 2	P-086	Changki	Jeon	Advanced Dual-functional Carbonate-based Electrolyte Design in Li-S Batteries utilizing Sulfurized Polyacrylonitrile cathodes
Day 3	P-087	Yoojin	Kang	Improvement of charge/discharge characteristics of a LiNi <sub>0.8</sub> Co <sub>0.1</sub> Mn <sub>0.1</sub> O <sub>2</sub> positive electrode by introducing fluorinated esterbased solvent to flame-retardant and highly concentrated electrolyte solutions
Day 1	P-088	Kota	Shinntani	Improved charge/discharge characteristics of Si-C negative electrodes by diluting the highly concentrated LiN(SO <sub>2</sub> F) <sub>2</sub> -based electrolyte solutions with fluorinated ether
Day 2	P-089	Tatsumi	Suzuki	Enhanced Charge Transfer Kinetics at Electrode/electrolyte Interface in Acetonitrile Solvent
Day 3	P-090	Saya	Hirakawa	Fluoride Ion Conduction Property and Conduction Path Analysis of Ba <sub>4</sub> Bi <sub>3</sub> F <sub>17</sub> with Fluorite-type Structural Unit
Day 1	P-091	Rinka	Yamamoto	Particle Morphology Analysis on Lithium-ion Battery Cathode LiNi <sub>0.8</sub> Mn <sub>0.1</sub> Co <sub>0.1</sub> O <sub>2</sub> using X-ray Computed Tomography
Day 2	P-092	Sho	Miyagi	Dual-cation fluoride cathode material for conversion-type lithium-ion batteries
Day 3	P-093	Yutaro	Goto	Soft X-ray Absorption Spectroscopy of Li Metal Anode after Plating and Stripping at Elevated Temperature
Day 1	P-094	Honoka	Oura	Fluorosulfide with Double-Layer Honeycomb Structure as a Fluoride-Ion Conductor
Day 2	P-095	Kei	Hirabayashi	X-ray Computed Tomography Study on Electrochemical Sodiation of Hard Carbon Particle
Day 3	P-096	Shinjiro	Hirai	Synthesis and Conductivity of a New Fluoride Sulfide $Gd_3Ba_xF_9S_x$
Day 1	P-097	Hayata	Okamoto	Synthesis and Conductivity of Metal-Organic Framework UiO66 with Immobilized Protic Acid and its Application to Fuel Cells
Day 2	P-098	Мао	Matsumoto	Operando X-ray CT Analysis of Mechanical Interface between Solid Electrolyte and Silicon during Charge-Discharge
Day 3	P-099	Rukiya	Hanahara	Time-resolved Micro-XRF Analysis on Dissolution and Diffusion of CeO <sub>2</sub> Radical Quencher into Proton Exchange Membrane
Day 1	P-100	Yuta	Ishiguro	Operando Analysis of Cerium-ion Radical Quencher Through-plane Migration in Polymer Electrolyte Fuel Cells
Day 2	P-101	Airi	Kato	Defluorination/Fluorination Reaction of AgCuF <sub>3</sub> /C Composite Electrode in a Solution-based Fluoride-ion Battery
Day 3	P-102	Takanari	Shotai	Synthesis and Ionic Conductivity Properties of a New Fluorosulfide Compounds LaSrF <sub>3</sub> S
Day 1	P-103	Hikaru	Enomoto	Solution Li Pre-doping Technique Using Li-Naphthalenide Solution for SiO Anodes in Next-generation Batteries
Day 2	P-104	Tsuyoki	Yoshida	Novel Polymer Hydrogel Electrolyte Membrane for Zinc Anode Rechargeable Batteries
Day 3	P-105	Ningzhi	Wang	Sodium Alginate-Based Hydrogel Electrolyte Membrane for Rechargeable Zinc Batteries
Day 1	P-106	Soshi	Shiraishi	Direct Al Junction to Seamless Activated Carbon Electrode for Electric Double-layer Capacitor