

The 2nd International Symposium on Solid State Chemistry (ISSSC2025)  
December 1–5, 2025, Shimane, Japan

**Poster Presentation**

Odd-numbered posters: Poster Session A (Dec. 1)

Even-numbered posters: Poster Session B (Dec. 3)

★: Poster award nominated

P1	Ferroelectricity of aluminum sulfide: a first-principles study <i>Hirofumi Akamatsu (Kyushu University)</i>
P2	Glass/molten state crystallisation to synthesise innovative out-of-equilibrium oxides <i>Mathieu Allix (CEMHTI - CNRS)</i>
P3	Multiple magnetic transitions and coordination environments in the $\text{MCuFe}_2\text{O}_5$ (M = Mn and Co) high pressure oxides. <i>Angel M. Arevalo-Lopez (CNRS, UCCS, University of Lille)</i>
P4★	Synthesis and Evaluation of Electrochemical Properties of Fluorochloride <i>Shiori Arita (Ritsumeikan University)</i>
P5★	Antiperovskites as Potential Catalysts <i>Raza Ullah Shah Bacha (KAUST)</i>
P6★	Designing New Lead-Free Layered Perovskites <i>Bhawna Bhawna (Kyoto University)</i>
P7	Reagent-dependent reaction manifolds governing competitions between topochemical conversion and intercalation of layered lanthanum oxysulfide <i>Isabelle Braems-Abbaspour (Institut des Matériaux de Nantes Jean Rouxel (IMN))</i>
P8	High-Capacity and Stable Mn-Based Cation-Disordered Rocksalt Oxide Cathodes for All-Solid-State Lithium Batteries <i>Marcela Calpa (National Institute for Materials Science (NIMS))</i>
P9	Pressure-modulated magnetism and negative thermal expansion in the $\text{Ho}_2\text{Fe}_{17}$ intermetallic compound <i>Yili Cao (University of Science &amp; Technology Beijing)</i>
P10★	$\text{TiH}_2$ and TiN as Functional Non-Oxide Supports for Ru-Catalyzed Plastic Upcycling <i>Yu Cao (Utrecht University)</i>
P11★	Giant Birefringence Enabled by a Highly Anisotropic Interhalogen Design <i>Chong-An Chen (Sogang University)</i>
P12	DMC Investigation of Insulator-to-metal Transition of High-pressure Solid Hydrogen <i>Putu Bhargo Abhimana Chrysnanda (JAIST)</i>
P13★	Miscibility of F and Cl beyond Hume-Rothery Rule in Anti-Perovskite <i>Kohei Daijo (Kyoto University)</i>

P14★	Electronic Structure Modulation in GeTe by Hg and Sb Codoping Leads to High Thermoelectric Performance <i>Animesh Das (Jawaharlal Nehru Centre For Advanced Scientific Research)</i>
P15★	Ambient Atmospheric Nitridation of Ternary Molybdenum Oxides <i>Momoka Demura (Hokkaido University)</i>
P16★	Topochemical Lithium Insertion into W-based B-site Deficient Perovskite Compounds <i>Riju Dey (University of Oxford)</i>
P17	Anionic Sublattices in Halide Solid Electrolytes: A Case Study with High-Pressure Phase of $\text{Li}_3\text{ScCl}_6$ <i>Fenghua Ding (Central South University)</i>
P18★	A novel layered fluoride selenide $\text{Ba}_3\text{F}_4\text{Se}_{2-x}$ exhibiting incommensurate modulation on its polyselenide chains <i>Hajar Echate (Nantes University)</i>
P19★	Dimerization and charge ordering state satisfying Anderson condition of spinel-type compound $\text{CuIr}_2\text{X}_4$ (X = S, Se) under high pressure <i>Masatoshi Emi (Nagoya University)</i>
P20★	Ab initio quantum Monte Carlo study of structural bistability in $\text{NiPd}(\text{CN})_4$ <i>Ryunosuke Fujimaru (Japan Advanced Institute of Science and Technology)</i>
P21★	$\text{Pd/MgAl}_2\text{O}_4$ catalyst effective for purifying automotive exhaust gases <i>Kyotaro Fujino (Kyoto Institute of Technology)</i>
P22	Improved conductivity in oligomeric molecular conductors: band filling control by excess anions incorporated into crystal pockets <i>Tomoko Fujino (Yokohama National University)</i>
P23	Cancelled
P24★	Trapping the Over-Reduced Phase $\text{SrVO}_2\text{H}_{1-x}$ by application of strain <i>Honoka Fukuda (Kyoto University)</i>
P25★	Metathesis route to new antiperovskite-derived subnitride with metallic Lieb lattice <i>Artem Gabov (Kyoto University)</i>
P26★	Cluster-Center Engineering in Tsai-Type Structures: Toward a New Family of Magnetic Quasicrystals and Approximants <i>Sivaprasad Ghanta (Tokyo university of Science)</i>
P27	Successive phase transitions in A-site-layer-ordered double perovskites $\text{RBaFe}^{3.5+}_2\text{O}_6$ <i>Masato Goto (Kyoto University)</i>
P28★	Magnetic properties of $\text{RBaMn}_2\text{O}_6$ with R = Pr, Nd, and Sm. <i>Noriharu Hamai (Toho University)</i>
P29	Thermal conductivity and specific heat of $\text{CeCoSi}$ under pressure <i>Satoshi Hamaoka (Shimane University)</i>
P30	Unlocking Hidden Magnetism of Quantum Spin-liquid Candidates by Tuning Solid-state Chemistry <i>Yuya Haraguchi (Tokyo University of Agriculture and Technology)</i>

P31	Evaluating hybrid material concepts for solid-state batteries <i>Bianca Helm (University of Bayreuth/Bayerisches Zentrum für Batterietechnik)</i>
P32★	Using Advanced Chemical Bonding Descriptors to Link Functional Materials Properties and the Bonding Phenomena that Enable Them <i>Jan Hempelmann (Institute of Science Tokyo)</i>
P33	Exploration of Strongly Correlated High Entropy Compounds via Anion Engineering <i>Daigorou Hirai (Nagoya University)</i> (to be presented in Poster Session B)
P34	Ideal spin-orbit-free Dirac semimetal and diverse topological transitions in $Y_8CoIn_3$ family <i>Motoaki Hirayama (RIKEN)</i>
P35	Chemical regulation of functional composite solids <i>Keke Huang (Jilin University)</i> (cancelled)
P36★	Hydroxyfluorides: The Interplay of Synthesis, Anion Order, and Properties tunability <i>Helies Hyrondelle (Kyoto University)</i>
P37	Relativistic Origin of Nonmagnetic Ground State of $LaCoO_3$ Perovskite <i>Tom Ichibha (Japan Advanced Institute of Science and Technology)</i>
P38★	$Al_2Ge_2$ Tetramer Formation in Topological Semimetal $KAlGe$ <i>Toshiya Ikenobe (The University of Tokyo)</i> (cancelled)
P39★	Amorphous $MoS_4$ with Cluster-Like Local Structure for Energy Storage Materials <i>Keitaro Imai (Osaka Metropolitan University)</i>
P40	Phase transition and dielectric properties in a B-site ordered perovskite-type oxyfluorides $Ag_3TiOF_5$ <i>Yoshiyuki Inaguma (Gakushuin University)</i>
P41	Robust charge disproportionation in helimagnetic cubic perovskites $Ba_{1-x}La_xFeO_3$ <i>Shintaro Ishiwata (The University of Osaka)</i>
P42★	Exploring the precursor-composition-transport relationship in ion-conducting amorphous oxychlorides <i>Shun Itakura (Tohoku University)</i>
P43★	Nonmagnetic state originating from the formation of $Ru_2O$ molecular in $Tl_2Ru_2O_7$ <i>Daigo Ito (Nagoya University)</i>
P44★	Influence of Substituent Position on Electrochemical $CO_2$ Reduction Activity in Pb-S-based Coordination Polymers <i>Shunta Iwamoto (Institute of Science Tokyo)</i>
P45★	Chemical doping-triggered property alteration in $Mn_{2-x}Co_xScSbO_6$ <i>Kunlang Ji (Kyoto University)</i>
P46★	Dendronized $\pi$ -Conjugated Modules with Supralinear Polarizability Anisotropy for Solution-Processable Birefringent Crystals <i>Congcong Jin (Sogang University)</i>
P47	High-Entropy V-Based Null Matrix Alloys— Short/Long-Range Structural Features, Chemical Stabilities, and Mechanical Properties <i>Wang Hay Kan (Spallation Neutron Source Science Center)</i>

P48★	Synthesis of Multi-Component Metal Oxides via Sol–Gel Method and Evaluation of Their Photocatalytic Activity <i>Yoshiro Kanetsuki (Toyohashi University of Technology)</i>
P49	Structural study of molecular gyrotop $C_{14}PhF_2$ using synchrotron radiation X-rays <i>Naoyuki Katayama (Nagoya University)</i>
P50★	Single crystal growth of complex layered oxychalcogenide by simple melt-solidification method <i>Takahiro Kato (Tokyo University of Science)</i>
P51	Synthesis and crystal structure of $Sr_2MnGaO_{5-x}F_{2x}$ and $Sr_2Mn_2O_{5-x}F_{2x}$ <i>Tetsuhiro Katsumata (Tokai University)</i> (to be presented in Poster Session B)
P52★	Martensitic-Like Phase Transformations in LnSI Driven by Cation Size and Pressure <i>Shohei Kawanishi (Kyoto University)</i>
P53★	Temperature-Dependent Photoluminescence Property of $Cr^{3+}$ -Doped Layered Titanates <i>Yukino Kida (Shimane University)</i>
P54★	Crystal Structure Analysis and Photocatalytic Performance of a New Pyrochlore Type Sn-Ti Oxyfluoride <i>Gentoku Kido (Institute of Science Tokyo)</i>
P55★	Kinetically Trapped Calcium-Iridium Ilmenite Polymorph: Beyond Perovskite Constraints <i>Haruki Kira (Tokyo University of Agriculture and Technology)</i>
P56	X-ray Magnetic Circular Dichroism in a room-temperature altermagnet FeS <i>Aki Kitaori (The University of Tokyo)</i>
P57★	Orbital disordered nonmagnetic insulating state in NbSeI <i>Keita Kojima (University of Tokyo)</i>
P58	Artificial control of chirality in highly oriented pyrolytic graphite via electrochemical intercalation of enantiopure molecular cations <i>Shu Kiwada (Institute of Science Tokyo)</i>
P59	Synthesis and Electronic Structure of Nitrogen-Doped Perovskite Oxide Nanosheet <i>Makoto Kobayashi (Nagoya University)</i>
P60★	Possible one-dimensional magnetism in a rutile-based homologous series $Na(PtO_2)_{2n+1}$ <i>Yasuhito Kobayashi (The University of Osaka)</i>
P61	Cubic magnetic anisotropy of soft magnetic spinel ferrites $Mn_{1+x}Fe_{2-x}O_4$ <i>Rintaro Koide (Kyoto University)</i>
P62	Short-range ordered one-dimensional tetramers in nonmagnetic pyrochlore niobate <i>Shunsuke Kitou (The University of Tokyo)</i>
P63★	Phase stability in $\beta$ -gallia type complex-oxide thin films: impacts of composition and crystal orientation <i>Kazuki Koreishi (Institute of Science Tokyo)</i>

P64★	Mathematical crystal chemistry: A mathematical optimization problem formalization of inorganic structural chemistry for computational prediction of inorganic compounds <i>Ryotaro Koshoji (The University of Tokyo)</i>
P65★	Composition Dependence of Saturation Magnetostriction Constant in $\text{Cu}_x\text{Co}_{1-x}\text{Fe}_2\text{O}_4$ Ferrites at Room Temperature <i>Shizuka Kosugi (Osaka University)</i>
P66★	Elucidation of electron orbital states in spinel-type oxide $\text{FeV}_2\text{O}_4$ with successive phase transitions <i>Chihaya Koyama (The University of Tokyo)</i>
P67★	Pressure-Induced Direct Structural Transition from Baddeleyite to Cotunnite in NbON Oxynitride <i>Shumma Kozaki (Kyoto University)</i>
P68	Cancelled
P69★	Observation of local structure in $\text{RuX}$ ( $X = \text{Pnictogen}$ ) by using 3D- $\Delta$ PDF <i>Taisei Kubo (Nagoya University)</i>
P70★	Derivation of a non-stoichiometric 1/1 quasicrystal approximant from a stoichiometric 2/1 quasicrystal approximant and maximization of magnetocaloric effect <i>Farid Labib (Tokyo University of Science)</i>
P71★	Rapid Synthesis of Rare-Earth-Based Iodides <i>Achintya Lakshan (Hokkaido University)</i>
P72★	First-principles calculations of the effect of acceptor dopants on proton solubility and mobility in xenotime-type rare-earth phosphates <i>Gyeongseo Lee (Japan Fine Ceramics Center)</i>
P73★	Zn-based Homochiral Coordination Polymers Exhibiting Second-Harmonic Generation and Photoinduced [2+2] Cycloaddition Reactions <i>Jihyun Lee (Sogang University)</i>
P74★	Electric-Field-induced Weakly Ferromagnetic Domain Change by Ferroelectric Topological Domain Switching in $\text{BiFe}_{0.9}\text{Co}_{0.1}\text{O}_3$ Nanodots <i>Koomok Lee (Institute of Science Tokyo)</i>
P75	Synthesis of $\text{Eu}_2\text{NiO}_4$ with Ruddlesden-Popper structure <i>Haobo Li (The University of Osaka)</i>
P76★	Endurable Ferroelectricity in Ho-doped $\text{HfO}_2$ Epitaxial Thin Films <i>Jiaqi Li (University of Science and Technology Beijing)</i> (cancelled)
P77	van der Waals chalcogenides: from 2D to 1D (→ Oral Session, Dec. 5th (Fri.) <i>Sara A. Lopez Paz (University of Copenhagen)</i>
P78	Experimental realization of low-dimensional magnets <i>Hongcheng Lu (Huazhong University of Science and Technology)</i>
P79★	All-Organic Crystalline Systems with Enhanced UV Birefringence via a Cationic Dimerization Strategy <i>Jiachen Lu (Sogang University)</i>
P80★	Proton conduction in novel donor-doped perovskites <i>Ryo Maeda (Institute of Science Tokyo)</i>

P81★	Topochemical Transformations in Ordered Corundum Systems <i>Suraj Mahato (Kyoto University)</i>
P82★	Magnetostructural Conversion from Altermagnetism to Spin Density Waves in $\text{Co}_x\text{NbSe}_2$ <i>H. Cein Mandujano (University of Maryland)</i>
P83★	From Ion Transport to Multiferroicity? Ion Ordering in Solid Ion-Conductors <i>Xabier Martinez de Irujo (Universität Münster)</i>
P84★	Synthesis and Fluoride-Ion Conductivity Evaluation of $\text{Ba}_3\text{M}_2\text{F}_{12}$ (M = In, Sc) <i>Daigo Matsuda (Ritsumeikan University)</i>
P85	Moisture-Assisted Synthesis of Layered Cathodes <i>Masaki Matsui (Hokkaido University)</i>
P86★	Synthesis and Ionic Conduction in Cation-Ordered Fluorides with Infinite Chains <i>Kenta Matsumoto (Ritsumeikan University)</i>
P87★	Importance of the $c/a$ Ratio for Superconductivity in $\text{Zr}_6\text{FeSb}_2$ <i>Ryohei Matsumoto (Hiroshima University)</i>
P88★	Optical properties evaluation for the thin films of Br-substituted Layered Hybrid Perovskite fabricated by spin-coating method <i>Koki Matsushima (Institute of Science Tokyo)</i>
P89★	Magnetic-field-induced Jahn–Teller effect in $\text{TmPO}_4$ <i>Masahiro Matsushita (Hiroshima University)</i>
P90★	Hydrothermal synthesis and magnetic properties of novel chromium arsenate - $\text{NaCr}(\text{HAsO}_4)_2 \cdot \text{H}_2\text{O}$ <i>Shinji Matsuura (The University of Tokyo)</i>
P91	Cancelled
P92	Synthesis of molybdenum oxides by a stepwise dimensionality-increasing strategy <i>Takuo Minato (Hiroshima University)</i>
P93★	Negative thermal expansion in A, B-sites substituted $\text{BiFeO}_3$ <i>Jun Miyake (Institute of Science Tokyo)</i>
P94	Synthesis and fluorine ionic conductivity of double perovskite-type $\text{Cs}_2\text{RbBiF}_6$ -based fluoride <i>Daisuke Mori (Mie university)</i>
P95★	Concentration-Gradient-Driven Enhancement of Photocatalytic Water Splitting on Sr-Doped $\text{NaTaO}_3$ Unveiled by First-Principles Calculations <i>Ryusei Morimoto (Kyoto University)</i>
P96★	Orbital-Based Bonding in Solids <i>Peter C. Mueller (RWTH Aachen University)</i>
P97★	Lattice softening and spatiotemporal dynamics in a polar metal $\text{LiReO}_3$ <i>Kantaro Murayama (Kyoto University)</i>
P98★	Quadrupolar order in a spin–orbit coupled insulator $\text{Ba}_2\text{MgReO}_6$ probed by ultrasonic measurements <i>Toshihiko Muroi (University of Tokyo)</i>

P99★	Synthesis, magnetism and electrochemistry of Na <sub>2</sub> Mn <sub>2</sub> OS <sub>2</sub> layered antiperovskite <i>James I. Murrell (ICMCB)</i>
P100★	First-principles investigation of electron trapping in Sn(IV) oxides and sulfides <i>Teruya Nagafuji (Institute of Science Tokyo)</i>
P101★	Magnetic property of a series of new Zintl phase LiRGa <sub>4</sub> (R=rare earth) <i>Keita Nagasawa (The University of Tokyo)</i>
P102★	Synthesis of Ga-Pd-RE (RE = Sm, Gd-Tm) i-QC by melt spinning <i>Rei Naito (Tokyo University of Science)</i>
P103★	A new tin-based layered mixed-anion compounds <i>Kotaro Nakai (Kyoto University)</i>
P104	Single crystal X-ray diffraction analysis of the polar semiconductor PbPdO <sub>2</sub> <i>Akitoshi Nakano (Nagoya University)</i>
P105★	Structure and Properties of the All-Organic (Anti)Ferroelectric MDABCO-(NH <sub>4</sub> )-(NO <sub>3</sub> ) <sub>3</sub> <i>Takato Anthony Nakao (The University of Tokyo)</i>
P106★	Circular photogalvanic effect induced by bulk-polarity in two-dimensional organic-inorganic hybrid perovskite lead iodides <i>Ichir Naruse (Institute of Science Tokyo)</i>
P107	Evaluation of the Oxygen Substitution into Na <sub>3</sub> PS <sub>4</sub> sulfide solid electrolytes for all-solid-state sodium batteries <i>Akira Nasu (Hokkaido University)</i>
P108★	Single Crystal Growth of the Altermagnets CrSb and NiS for the Piezomagnetic Effect <i>Hiroto Ninomiya (Hiroshima University)</i>
P109★	Tuning of negative thermal expansion in BiNiO <sub>3</sub> with the aid of Bayesian optimization <i>Takumi Nishikubo (Kanagawa Institute of Industrial Science and Technology)</i>
P110	Thin film growth of transition metal pernitride on Al <sub>2</sub> O <sub>3</sub> substrate under high pressure and high temperature <i>Ken Niwa (Nagoya University)</i>
P111★	Synthesis and thermoelectric properties evaluation of Al-Ge-Ru 1/0 approximant crystals <i>Yasuhiro Niwa (Tokyo University of Science)</i>
P112	Anisotropic Thermal Expansion in Sr(Ni <sub>1-x</sub> Fe <sub>x</sub> ) <sub>2</sub> P <sub>2</sub> <i>Minoru Nohara (Hiroshima University)</i>
P113	Robot-Accelerated Perovskite Investigation and Discovery: Copper Halide Perovskitoids <i>Alex Norquist (Haverford College)</i>
P114	Bi <sup>3+</sup> Lone-Pair Activity for Electronic Structure Control <i>Kanta Ogawa (Kyoto University)</i>
P115	Catalytic activity of La <sub>1-x</sub> Sr <sub>x</sub> CoO <sub>3-δ</sub> (x = 0 - 1) for aqueous lithium-air batteries <i>Minami Ohashi (Mie University)</i>
P116★	Stepwise X-ray-induced phase transition in CuIr <sub>2</sub> S <sub>4</sub> <i>Tsubasa Ohashi (Nagoya University)</i>

P117★	Defect-Ordering-Induced Dimensional Reduction in Formamidinium-based Organic-Inorganic Hybrid Perovskites <i>Takuya Ohmi (National Institute for Materials Science (NIMS))</i>
P118	Solid electrolyte design through anion sublattice engineering: cases in halogen-containing compounds <i>Saneyuki Ohno (Tohoku University)</i>
P119	Metastability and Eutectic-like Behavior in the Ising Model <i>Hiroshi Oike (National Institute for Materials Science)</i>
P120★	Synthesis and fine structural analysis of BaTiO <sub>3-x</sub> H <sub>x</sub> nanocube <i>Hayato Ohtani (Ibaraki University)</i>
P121	Cubic ReSTe as a High-Performance Thermoelectric Material <i>Yoshihiko Okamoto (The University of Tokyo)</i>
P122★	Development of Artificial Organic-Inorganic Hybrid Chiral Semiconductors and Detection of Chiral Electronic States <i>Tomohiro Okano (Institute of Science Tokyo)</i>
P123	In-situ XAFS measurement of cobalt oxide nanoparticulate catalyst suspended in the aqueous solution for photochemical water oxidation <i>Megumi Okazaki (Science Tokyo)</i>
P124	Solution-processed nanocrystalline solid electrolytes for advanced energy storage <i>Alex Rettie (University College London)</i>
P125	Discovery of High Proton Conductors Based on Intrinsic Oxygen Vacancies <i>Kei Saito (Institute of Science Tokyo)</i>
P126	Study on the Valence Instability of EuRh <sub>2</sub> Si <sub>2</sub> <i>Kohtaro Saiga (Shimane University)</i>
P127★	Identification of Stable Structures in Solid Solutions via Neural Network Potential <i>Taku Sakai (Japan Advanced Institute of Science and Technology)</i>
P128	Cancelled
P129★	Opportunities of atomic/molecular layer deposition technique for the fabrication of multiferroic ε-Fe <sub>2</sub> O <sub>3</sub> thin films with tailored properties <i>Lavinia Saltarelli (Aalto University)</i>
P130★	Rocksalt-type heavy rare earth monoxide epitaxial thin films as high Curie temperature ferromagnetic metals <i>Satoshi Sasaki (Tohoku University)</i>
P131	A metastable polymorph of La <sub>2</sub> O <sub>2</sub> S prepared by topochemical sulfur deintercalation <i>Shunsuke Sasaki (IMN, CNRS-Nantes University)</i>
P132	High-Pressure Synthesis and Crystal Chemistry of Novel Chromium Silicides MoSi <sub>2</sub> -type CrSi <sub>2</sub> and PdGa <sub>5</sub> -type CrSi <sub>5</sub> <i>Takuya Sasaki (Nagoya University)</i>
P133★	Unusually High Europium Occupancy in Novel Filled Skutterudite Eu(Rh <sub>0.93</sub> Co <sub>0.07</sub> ) <sub>4</sub> P <sub>12</sub> <i>Mizuki Satake (Hiroshima University)</i>
P134★	Electronic structure and magnetism of Ni(Mo,Re) <sub>4</sub> S <sub>8</sub> single crystal <i>Yusuke Segawa (Kyoto University)</i>



P135	Domain Structure and Magnetic Reversal by Electric Field in Cobalt-substituted Bismuth Ferrite Thin Films and Nanodots <i>Kei Shigematsu (Institute of Science Tokyo)</i>
P136	Effects of Interlayer Cations on the Photoabsorption and Luminescence Properties of Cr <sup>3+</sup> -Doped Titanate Nanoscroll <i>Sota Shimizu (Shimane University)</i>
P137★	Observation of the coexistence of two phases in negative thermal expansion material particles using Piezoresponse Force Microscope <i>Yusuke Shiono (Institute of Science Tokyo)</i>
P138★	Synthesis and Fluoride Ion Conduction Properties of Novel Fluorosulfide LaBaF <sub>3</sub> S <i>Takanari Shotai (Ritsumeikan University)</i>
P139★	Discovering chalcogenide perovskites for solar light harvesting and catalysis <i>Robert Smyth (University of Oxford)</i>
P140	Combinatorial synthesis of multinary nitride epitaxial films <i>Takuto Soma (Institute of Science Tokyo)</i>
P141	Insights from Element-Specific Probes of Atomic Structures for Functional Glasses <i>Jens R. Stellhorn (Shimane University)</i>
P142	Development of a Multi-Probe Cell for In Situ Analysis of Chemical Reactions in Sub and Supercritical Fluids <i>Matthew Suchomel (University of Bordeaux)</i>
P143	Interstitial Oxygen in Transparent Conducting Anatase TiO <sub>2</sub> <i>Tomohito Sudare (The University of Tokyo)</i>
P144★	Oxygen Storage Property and Thermal Stability of Co-doped Perovskite Oxides <i>Ryosuke Sugimoto (Kyoto Institute of Technology)</i>
P145	DMC Benchmarking of DFT for Selective Methane Oxidation on Fe-Trimesate MOF <i>Reza Pamungkas Putra Sukanli (JAIST)</i>
P146★	Deconstruction Energy Contributions in LiCoO <sub>2</sub> via Multi-Stage Cluster Expansion <i>Joel Fredericko Sumbowo (JAIST)</i>
P147★	Synthesis of Bi <sub>3</sub> MO <sub>4</sub> Cl(NCN) (M = Sr, Pb) via Mechanochemical Metathesis Method <i>Oomi Sumioka (Hiroshima University)</i>
P148	Facet engineered metal nanoparticles composited with metal-organic framework for photocatalytic CO <sub>2</sub> reduction to C <sup>2+</sup> products <i>Wei-Yin Sun (Nanjing University) (to be presented in Poster Session A)</i>
P149	Tailoring Electrochemical Behavior of LiNi <sub>1/2</sub> Mn <sub>3/2</sub> O <sub>4</sub> -Derivatives through Ni-Mn Ratio Control for Lithium-Ion Batteries <i>Ai Suzuki (TOYOTA CENTRAL R&amp;D LABS)</i>
P150★	Phase transition in Ruddlesden-Popper-type oxysulfide Y <sub>2</sub> Ti <sub>2</sub> O <sub>5</sub> S <sub>2</sub> by electrochemical Li <sup>+</sup> intercalation and deintercalation <i>Naoto Takada (Hokkaido University)</i>
P151	Chromatographic H <sub>2</sub> /D <sub>2</sub> Separation at Room Temperature by Controlling Metal-H <sub>2</sub> Interaction in Solid-State <i>Shinya Takaishi (Tohoku University)</i>

P152★	Synthesis and Electronic Properties of High-entropy Transition Metal Disulfides <i>Hayato Takano (The University of Tokyo)</i>
P153	Synthesis and Novel Properties of Anion-Ordered Layered Oxyhydride <i>Hiroshi Takatsu (Kyoto University)</i>
P154	New van der Waals magnet $\text{MPTl}_6$ (M = Fe, Co, Ni) with ordered-honeycomb lattice <i>Tomohiro Takayama (National Institute for Materials Science)</i>
P155	Unraveling the Dominance of Structural Vacancies in Sodium Ion Conductivity in $\text{Na}_3\text{SO}_4\text{F}$ <i>Ya Tang (Shanghai University)</i>
P156	Titanite-type Uniaxial Antiferroelectrics <i>Hiroki Taniguchi (Nagoya University)</i>
P157★	Electride formation via negative chemical pressure <i>Tatsuya Tsumori (Kyoto University)</i>
P158★	Structural determination and enhanced diffusion and oxygen storage capacity of a high entropy fluorite-type oxide for redox catalysis <i>Yuvraj Vaishnav (KAUST)</i>
P159★	Structural investigation of transparent $\text{SrAl}_2\text{O}_4$ : Eu, Dy single crystal with long-lasting persistent luminescence synthesized using ADL technique <i>Maxence Vigier (CNRS, CEMHTI)</i>
P160★	Cation Exchange Reactions of $\text{LiSbO}_3$ -type Structure <i>Anni Wang (University of Oxford)</i>
P161	Anti-Perovskite Vanadium Oxynitrides for High-Performance SOFCs Anodes <i>Xiaoming Wang (Shaanxi Normal University)</i> (cancelled)
P162★	$\text{KMB}_4\text{O}_6\text{F}_3$ (M = Co, Fe): Two-dimensional magnetic fluorooxoborates with triangular lattices directed by triangular $\text{BO}_3$ units <i>Yanhong Wang (Huazhong University of Science and Technology)</i>
P163★	High-Throughput First-Principles Calculations for Defect Formation and Association in Proton-Conducting Perovskite Oxides <i>Hiroto Watanabe (Kyushu University)</i>
P164★	Room-Temperature Ferroelectricity and Switching in $3\text{R-ZnIn}_2\text{S}_4$ <i>Xianyi Wei (University of Science and Technology Beijing)</i>
P165★	High-Pressure Solid-State Synthesis of Lanthanide Nitride-Hydrides <i>Zefeng Wei (Northwestern University)</i>
P166★	Solid State Electrolyte $\text{Li}_7\text{P}_2\text{S}_8\text{I}$ – Relationship between Structure and Li ion Conductivity <i>Hanna Marita Wenzel (Philipps-University Marburg)</i>
P167★	Aperiodic ordering in zinc 4-hydroxybenzoate <i>Hunter Windsor (University of Oxford)</i>
P168	Design Strategies for High-performance Lithium Insertion Materials Through Defect Engineering <i>Naoaki Yabuuchi (Yokohama National University)</i>
P169	Single-Crystal Study on Ionic Correlation and Transport in Lithium Superionic Conductors <i>Takeshi Yajima (Nagoya University)</i>

P170	Single crystal growth of layered oxypnictides by utilizing their melting properties <i>Chihiro Yamaki (Tokyo University of Science)</i>
P171	Crystal Structure Changes in $\text{LnInO}_3$ (Ln: lanthanoid) Depending on Ln Ionic Size and Synthesis Pressure <i>Ayako Yamamoto (Shibaura Institute of Technology)</i>
P172	Crystal structure and electronic state of ilmenite-type vanadium oxides <i>Hajime Yamamoto (Tohoku University)</i>
P173★	Exploring labile anion exchange in perovskite titanium oxyhydrides for photocatalytic application <i>Issei Yamamoto (Institute of Science Tokyo)</i>
P174	High-capacity oxyfluoride cathodes using excess fluoride-ion (de)intercalation with anionic redox <i>Kentaro Yamamoto (Nara Women's University)</i>
P175	Promoting high-voltage stability through local lattice distortion of halide solid electrolytes <i>Hua Yang (Spallation Neutron Source Science Center)</i>
P176★	Fast oxide-ion conduction in Rb-containing oxides enabled by acceptor doping <i>Bowen Yao (Institute of Science Tokyo)</i>
P177★	Synthetic Mica as a Platform of Quantum Magnet <i>Wataru Yokoshima (Tokyo University of Agriculture and Technology)</i>
P178	Advanced temperature-programmed desorption analysis up to 2100 °C for the characterization of heteroatoms in carbon and oxides <i>Takeharu Yoshii (Tohoku University)</i>
P179★	Two new perovskite-related nitrides via high-pressure synthesis <i>Yao Yuan (Kyoto University)</i>
P180★	Single crystal growth and superconducting properties of hexagonal $\text{Sc}_6\text{MTe}_2$ without spatial inversion symmetry <i>Kosuke Yuchi (The University of Tokyo)</i>
P181★	Modulation of Ferroelectric Properties in Layered Perovskite Oxides $\text{Ln}_2\text{SrSc}_2\text{O}_7$ (Ln = La, Nd) <i>Yang Zhang (Kyoto University)</i>
P182	Double-Honeycomb Layers Boost $\text{F}^-$ Conductivity in $\text{LaA}_2\text{F}_3\text{S}_2$ (A = Ba, Sr) <i>Chengchao Zhong (Ritsumeikan University)</i>
P183	Cancelled
P184	<i>Strong Uniaxial Negative Thermal Expansion in Layered 2122 Perovskites</i> <i>Tong Zhu (Kyoto University)</i>
P185	Oxide-ion-conductive Apatite-type $\text{La}_{9.33}\text{Si}_6\text{O}_{26}$ for Catalytic Partial Oxidation of Methane <i>Afif Zulfikar Pamungkas (Kanagawa University)</i>