IGPAC 2025 Technical program

Poster Prensentation

■■ Mon, Oct 6, 2025 (2nd day) 17:15-18:45 ■■

Poster No.	Presentation Title	Authors	Affiliation	Country
1-P-1	Synthesis and charge-discharge properties of W-doped anatase TiO2 nanoparticle by hydrothermal synthesis process	Sou Taminato, Yuri Yamada, Daisuke Mori, Nobuyuki Imanishi	Mie University	Japan
1-P-2	Green synthesis of sea urchin-like niobium oxide nanoparticles	Teruaki Fuchigami	National Institute of Advanced Industrial Science and Technology	Japan
1-P-3	Relation Between Cooling Rate and Structural Phase Transition in (Bi0.5Na0.5)TiO3-Based Energy Storage Ceramics	Yuka Takagi, Hyunwook Nam, and Hajime Nagata	Tokyo University of Science	Japan
1-P-4	Synthesis of Phosphorus Adsorbent from Waste Limestone Cake for Fertilizer Application	Takaaki Wajima	Chiba University	Japan
1-P-5	Comparison of structural and mechanical properties of whitlockite ceramics fabricated via conventional and cold sintering process	Shiori Nawa, Yeongjun Seo, Yoshifumi Kondo, Sung Hun Cho, Jonas Stadulis, Aleksej Zarkov, Tomoyo Goto, Tohru Sekino	The University of Osaka	Japan
1-P-6	Pulsed wire discharge-induced rapid melting and solidification of Ti-6Al-4V microstructures	Wataru Mita, Hideto Furuno, Hiroyuki Saito, Yuya Takimoto and Tadachika Nakayama	Nagaoka University of Techology	Japan
1-P-7	Fracture toughness improvement of SiC dispersed Yb2Si2O7 by heat treatment for environmental barrier coatings	Punnaphop Watcharamaisakul, Ayahisa Okawa, Hiroyuki Saito, Son Thanh Nguyen, Hisayuki Suematsu, Thi Mai Dung Do, Hideto Furuno, Yuya Takimoto and Tadachika Nakayama	Nagaoka University of Technology	Japan
1-P-8	Ca of microstructural control mechanisms in Ti-6Al-4V using Pulsed Wire Discharge		Nagaoka University of Techology	Japan

1-P-9	Fabrication and Biological Evaluation of Biodegradable CaSiO3/ β-TCP Coatings on PEEK via Vacuum Cold Spraying Technology	Kai Ma, Chang-Jiu Li, Cheng-Xin Li*	School of Materials Science and Engineering, Xi'an Jiaotong University, P.R.China	China
1-P-10	Mild Synthesis of Nano-Pigments via the Novel Water-Assisted Solid-Stated Reaction (WASSR) Method	Wataru Hikita, Ryusuke Ito, Fukutaro Tanaka, Kenji Toda	Niigata University	Japan
1-P-11	Bridging the Missing Link Between Cold Sintering and Water-Assisted Solid Phase Reactions	Fukutaro Tanaka, Kenji Toda	Department of Engineering, School of Engineering Applied Chemistry Course, Chemical Systems Engineering Program TODA Laboratory	Japan
1-P-12	Development of ceramic sintering process monitoring technology using nanosecond pulses	Tadachika Nakayama, Hiroyuki Saito, Wataru Mita, Hisayuki Suematsu and Koichi Niihara	Nagaoka Univ of Tech	Japan
1-P-13	Glass Coating Process on Ceramic Substrate by Electrophoretic Deposition Method	Mio Takakura (Science Tokyo), Katsumi Yoshida (Science Tokyo), Takehiro Yonezawa (Mitsubishi Materials Corporation)	Institute of Science Tokyo	Japan
1-P-14	Fast Charge Transfer Architecture via Dielectric Interfaces for Lithium Ion Batteries	Kana Fujisawa, Takashi Teranishi, Yusuke Higaki, Aya Yoshioka, Akira Kishimoto, Chinatsu Sasaoka, Hikaru Hirabaru, Shingo Katayama	Okayama university	Japan
1-P-15	Cold Sintering of SiC Ceramics using Planetary Ball-Milled SiC Powder	Haruki Setogawa, Anna Gubarevich, Katsumi Yoshida	Institute of Sience Tokyo	Japan
1-P-16	Voltage-Applied Aerosol Deposition Enabling Faster Ceramic Film Fabrication	Yuya Kinoshita, Miyuki Sakakura, Takeshi Yajima, Yasutoshi Iriyama	Department of Materials Design Innovation Engineering, Graduate School of Engineering, Nagoya University, Furo-cho, Chikusa-ku, Nagoya, Aichi, 464-8603, Japan	Japan

1-P-17	Fabrication of Low-Power Consumption Hydrogen Sensor Based on TiOx/Pt Nanocontacts via Local Atom Migration	Y. Naitoh, H. Shima, H. Akinaga	AIST	Japan
1-P-18	Stabilization of Semiconductor Photoelectrode by Metal Oxide Nanosheet Coating	Steven Novianto Tanjaya, Ken-ichi Katsumata, Takaaki Taniguchi	National Institute for Materials Science	Japan
1-P-19	Synthesis and Semiconductor Characterization of Monolayer p-type Nb-doped MoS_2	Masaya Toyota, Ken-ichi Katsumata, Takaaki Taniguchi	National Institute for Materials Science(NIMS)	Japan
1-P-20	Synthesis of TiNb2O7 Particle with Enhanced Monodispersity for Anode Material	Kensuke Matsumura, Muneyasu Suzuki*, Shohei Kodama, Ikuo Yanase, Hiroaki Takeda	Department of Materials and Chemistry Nanocarbon Material Research Institute Nano-Device and Characterization Research Group	Japan
1-P-21	Grain Size-Optimized Tuning of Piezoelectric Properties in Barium Titanate Ceramics Through AC Field Poling Above the Curie Temperature	Shibiru Adisu Tsige, Ichiro Fujii, Piyush Sapkota, Hyunwook Nam, Shintaro Ueno, Satoshi Wada	University of Yamanashi	Japan
1-P-22	Microstructural engineering of forsterite ceramics for low-loss/low-latency substrate applications	Nayeon Kwon, Junwon Lee, Tae Yeong Song, Do-kyun Kwon	Korea Aerospace University	South Korea
1-P-23	Low-temperature sintering and improvement of ionic conductivity of LATP prepared via the glass-crystallization method	Tatsuya Tezuka, Ikuo Yanase	Saitama University	Japan
1-P-24	Enhancing Deposition Efficiency of Polymer–Ceramic Composites via Powder Aerosol Deposition: Effects of Powder Composition and Process Parameters	Yannic Wagner, Marc Christopher Thiel, Karen Lienkamp, Joe Posner	Saarland University, Department of Materials Science and Engineering, Chair of Polymer Materials (Prof. Dr. Karen Lienkamp)	Germany
1-P-25	Rapid Posttreatment of Powder Aerosol Deposited Functional Ceramics Using LED Radiation	Jürgen Schneider. Jaroslaw Kita, Ralf Moos	University of Bayreuth	Germany
1-P-26	Preparation and Evaluation of BT-BMT-BF ceramics at Low sintering temperature using citrate method	Shota Nakagawa, Ichiro Fujii, Hyunwook Nam, Shintaro Ueno, Satoshi Wada	University of Yamanashi	Japan

1-P-27	Prototyping of Multilayer Ceramic Components Using Cold Sintering Process	Satoshi Yokomizo, Shuichi Funahashi, Julian Fanghanel, Clive A. Randall, Masahiko Kimura	Murata Manufacturing	Japan
1-P-28	Aerosol Deposited Piezoelectric Films with Corona Poling at Room Temperature for Integrated Energy Harvesting and Wireless Transmission	Kohei Maruyama, Yoshihiro Kawakami, Fumio Narita	Tohoku University	Japan
1-P-29	Revealing a new room temperature deposition mechanism for materials with layered-type crystal structure by a synchrotron study	Daniel Paulus, Jürgen Schneider, Daniela Schönauer-Kamin, Ralf Moos	University of Bayreuth	Germany

Poster Prensentation

■■ Tue, Oct 7, 2025 (3rd day) 17:00-18:30 ■■

Poster No.	Presentation Title	Authors	Affiliation	Country
2-P-1	Interface enhancement and engineering in solid-state kinetic spray deposition	Kentaro Shinoda, Mitsugu Sato, Takashi Nagoshi	National Institute of Advanced Industrial Science and Technology (AIST)	Japan
2-P-2	Non-firing solidification of ceramics using mechanochemical activation method and its applications	Kento Ishii, Masayoshi Fuji	Nagoya Institute of Technology	Japan
2-P-3	Li dendrite suppression effect of Li6.25Ga0.25La3Zr2O12-chloride composite solid-electrolyte	Daisuke MORI, Ryota Katsu, Takuya Wada, Kazuki Yonezawa, Sou Taminato, Nobuyuki Imanishi, Kota Suzuki, Masaaki Hirayama	Mie University	Japan
2-P-4	Aerosol deposition of insulating ceramic coatings for electrical conductors	Yongxian Ma, Ilkan Calisir, Chuxing Jiang, Ian Cotton and David Hall	University of Manchester	United Kingdom
2-P-5	High heat dissipation circuit mounting using an AD alumina insulating layer	○Hiroki Tsuda, Jun Akedo, Yasuhito Matsubayashi, Taku Goto, Satoshi Yoshida, Yoichi Higashi	National Institute of Advanced Industrial Science and Technology	Japan

2-P-6	Development of a hexavalent chromium functional plating alternative technology using the AD method	Ryotaro Imaizumi , Noriaki Kaneko , Teruichi Watanabe ,	Hojitsu Seiko Co.,Ltd	Japan
2-P-7	Fracto-emission during aerosol deposition of alumina films	Yasuhito Matsubayashia, Tsuyohito Itob, Kentaro Shinodaa, Kazuo Terashimab and Jun Akedoa	National Institute of Advanced Industrial Science and Technology	Japan
2-P-8	Cold crystallization, morphology control, and facet control of metal oxide nano-materials in aqueous solutions for gas sensors and chemical sensors	Yoshitake Masuda	National Institute of Advanced Industrial Science and Technology (AIST)	Japan
2-P-9	Fabrication and Biological Evaluation of Biodegradable CaSiO3/ β-TCP Coatings on PEEK via Vacuum Cold Spraying Technology	Kai Ma, Chang-Jiu Li, Cheng-Xin Li	School of Materials Science and Engineering, Xi'an Jiaotong University	China
2-P-10	Fabrication of aluminum nitride thick film by aerosol deposition method	Masakazu Mori, Takeki Ninomiya, Takeshi Takagi, Masaaki Niwa, Tadahiro Kuroda	Faculty of Advanced Science and Technology, Ryukoku University	Japan
2-P-11	Enhanced energy storage in lead zirconate titanate (PZT) thick film deposited by Aerosol Deposition Method	Sewoong Oh, Hiroki Tsuda, Jun Akedo	ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY (AIST)	Japan
2-P-12	Improvement for electrical properties and reduction of variation in their properties of Aerosol deposition(AD)films by using Robust Design	Sewoong OH, Jun Akedo	ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY (AIST)	Japan
2-P-13	Multiscale Synchrotron X-ray Observation of Microstructural Heterogeneity and Defect Evolution in Ceramics during Sintering	Gaku Okuma	National Institute for Materials Science	Japan
2-P-14	No-firing Ceramic Coatings Using Electrophoretic Deposition Process	Tetsuo Uchikoshi	National Institute for Materials Science	Japan
2-P-15	Development of transparent ceramics through colloidal process and SPS methods	Tohru S. Suzuki, Kiyoshi Kobayashi	National Institute for Materials Science	Japan
2-P-16	Cold sintering process for densification of Zr2SP2O12 with negative thermal expansion	Tsuyoshi Aburano, Yasuhide Mochizuki, Akira Nakajima, Toshihiro Isobe	Institute of Science Tokyo	Japan
2-P-17	Additive Manufactured Solid Oxide Electrochemical Stacks for Power Generation	Toshio Suzuki, Christian Junaedi and Subir Roychoudhury	Precision Combustion, Inc	USA

2-P-18	Low-Environmental-Impact Synthesis of LED Phosphor Materials via Microwave Heating	HIROTA Masayuki, ZHOU You, HIRAO Kiyoshi	College of Industrial Technology	Japan
2-P-19	Creation of a YSZ film with a spiny surface that combines antibacterial properties and biocompatibility	Masami Hashimoto, Norio Yamaguchi, Soma Hashimoto, Satoshi Kitaoka, Hiroyasu Kanetaka	Japan Fine Ceramics Center	Japan
2-P-20	Preparation of orientation map of perovskite type compounds on fluorite structure oxides on Si(001)	Naoki Wakiya, Takahiko Kawaguchi, Naonori Sakamoto	Shizuoka University	Japan
2-P-21	LiOH-flux LPE growth of Li-ion solid electrolyte LLZTO epitaxial thin films	Takahiko Kawaguchi, Mayu Moriya, Akito Machino, Naonori Sakamoto, Naoki Wakiya	Shizuoka University	Japan
2-P-22	Pseudo-reversal phase transformation of hexacelsian in a purified kaolinite system	Shingo Machida	Japan Fine Ceramics Center	Japan
2-P-23	Development and application of nano-coating technology to particles with sub-micron size diameter	Tomoya Ohno, Jeevan Kumar Padarti, Naonori Sakamoto, Shigeto Hirai	Kitami Institute of Technology	Japan
2-P-24	Investigation of robustness in Ni-Al spinel oxide catalysts	Yoshinobu Nagashima, Shimpei Yamaguchi	Osaka Research Institute of Science and Technology	Japan
2-P-25	Application of spinel oxides for energy storages	Shimpei Yamaguchi, Yoshinobu Nagashima	Osaka Research Institute of Industrial Science and Technology	Japan
2-P-26	Investigation of lower process temperature for SiC ceramics diffusion bonding using insert material	Tomoatsu Ozaki, Hiroshi Tsuda, Shigeo Mori	Osaka Research Institute of Industrial Science and Technology	Japan
2-P-27	Producing Solid-State Batteries by the Powder Aerosol Deposition Method: Overview and Recent Progress	Ralf Moos, Lukas Hennerici, Mutlucan Sozak, Daniel Paulus, Jürgen Schneider, Nils Donker, Daniela Schönauer-Kamin	University of Bayreuth	DE
2-P-28	Powder Aerosol Deposition and Polymers	Marc C. Thiel, Yannic Wagner, Joe Posner, Rabeya Ijas, and Karen Lienkamp	Saarland University, Saarbrücken - Polymer Materials	Germany