

**Plenary Lectures****Date: Thursday, November 21<sup>st</sup> / Place: Small Hall****Chair: Hyungsun KIM (Inha University)**

Plenary Talk 1 9:50-10:30	<b>Enhanced Dielectric Properties of (Ba<sub>0.7</sub>Sr<sub>0.3</sub>)(Ti<sub>0.9</sub>Zr<sub>0.1</sub>)O<sub>3</sub>-Based Ceramics</b> <u>Eung Soo KIM</u> (President of Korean Ceramic Society, Kyonggi University)
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**Chair: Hisao SUZUKI (Shizuoka University)**

Plenary Talk 2 10:30-11:10	<b>Structure Derived New Functionalities of Ceramics for Future Electronics</b> <u>Akira ANDO</u> (Murata Manufacturing Co., Ltd.)
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**Plenary Lectures****Date: Friday, November 22<sup>nd</sup> / Place: Small Hall****Chair: Shu YIN (IMRAM, Tohoku University)**

Plenary Talk 3 9:30-10:10	<b>Crystallization Studies of Ceramic Materials</b> <u>Dongfeng XUE</u> (Changchun Institute of Applied Chemistry, Chinese Academy of Sciences)
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**Chair: Tokuro NANBA (Okayama University)**

Plenary Talk 4 10:10-10:50	<b>Synthesis of Inorganic Materials by Solution Process Using Inorganic Clusters</b> <u>Masato KAKIHANA</u> (Tohoku University)
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## Keynote, Invited, and Oral Sessions

**Session A: Ceramics for Renewable and Sustainable Energy (Fuel cells, Batteries, Secondary cells, Solar cell, Thermoelectrics, etc.)**

**Date: Friday, November 22<sup>nd</sup> / Place: Conference Room 1**

**Chair: Hiroshige MATSUMOTO (Kyushu University)**

**Chair: Tae Ho SHIN (Korea Institute of Ceramic Engineering & Technology)**

A-01 11:10-11:25	<b>Magnetic Orientation Behavior of <math>\text{Nd}_{2-x}\text{La}_x\text{NiO}_4</math> Applicable to Cathode in Low Temperature Solid Oxide Fuel Cell</b> Suguru TAJIMA <sup>1</sup> , Tohru S. SUZUKI <sup>2</sup> , Takayuki NAKANE <sup>2</sup> , Takashi NAKA <sup>2</sup> , Tetsuo UCHIKOSHI <sup>2</sup> , <u>Motohide MATSUDA</u> <sup>1</sup> (1.Kumamoto University, 2.NIMS)
A-02-I 11:25-11:45	<b>Spatial Investigation of Electronic Properties in Composite Electrolytes for Solid Oxide Fuel Cells Using Embedded Probes</b> <u>Hyung-Tae LIM</u> <sup>1</sup> (1.Changwon National University)
A-03-I 11:45-12:05	<b>Low Temperature Operation of Ceramic Electrochemical Devices Under Millimeter-wave Irradiation</b> <u>Akira KISHIMOTO</u> <sup>1</sup> (1.Okayama University, Graduate School of Natural Science and Technology )
A-04-I 12:05-12:25	<b>Innovative Approach on Robust Nano-particles for the Next Generation Electrochemical Devices</b> <u>Tae Ho SHIN</u> <sup>1</sup> , Young Wook LEE <sup>1</sup> (1.Korea Institute of Ceramic Engineering & Technology)
	Lunch

**Chair: Michitaka OHTAKI (Kyushu University)**

**Chair: Hyung-Tae LIM (Changwon National University)**

A-05-K 13:50-14:20	<b>Hydrogen Production via Steam Electrolysis Using Proton-Conducting Perovskites</b> <u>Hiroshige MATSUMOTO</u> <sup>1</sup> (1.Kyushu University)
A-06 ★ 14:20-14:35	<b>Efficient <math>\text{MoS}_2</math> Hydrogen Evolution Reaction Electrocatalyst Grown by Pulsed Laser Deposition in Vacuum Atmosphere</b> <u>Hojoong CHOI</u> <sup>1</sup> , Sehun SEO <sup>1</sup> , Seungkyu KIM <sup>1</sup> , Sanghan LEE <sup>1</sup> (1.Gwangju Institute of Science and Technology)
A-07 14:35-14:50	<b>Reforming of Biogas with Air Using a Porous Electrochemical Cell : Effect of Reaction Temperature</b> Yoshihiro HIRATA <sup>1</sup> , Wataru OHISHI <sup>1</sup> , Taro SHIMONOSONO <sup>1</sup> , <u>Soichiro SAMESHIMA</u> <sup>1</sup> , Katsuhiko YAMAJI <sup>2</sup> (1.Kagoshima University, 2.National Institute of Advanced Industrial Science and Technology (AIST))
A-08 ★ 14:50-15:05	<b>Photoelectrochemical Selective Oxidation of Glycerol using Fe doped <math>\text{ZnS/ZnO}</math> Heterostructure</b> <u>Seungkyu KIM</u> <sup>1</sup> , Yubin LEE <sup>1</sup> , Sanghan LEE <sup>1</sup> (1.GIST (Gwangju Institute of Science and Technology))

A-09-I 15:05-15:25	<b>Enhanced Thermoelectric Properties of FeTe<sub>2</sub> Nanoparticle Incorporated Bi-Te Materials</b> <u>Weon Ho SHIN</u> <sup>1</sup> , Jung Young CHO <sup>2</sup> , Woo Hyun NAM <sup>2</sup> , Soonil LEE <sup>3</sup> , Won Seon SEO <sup>2</sup> (1.Kwangwoon University, 2.Korea Institute of Ceramic Engineering and Technology, 3.Changwon National University)
15:25-15:45	Coffee Break
<b>Chair: Akira KISHIMOTO (Okayama University)</b> <b>Chair: Hyungsun KIM (Inha University)</b>	
A-10 15:45-16:00	Cancelled
A-11 16:00-16:15	<b>Positive and Negative Electrocaloric Effects in (Pb,La)(Zr,Ti)O<sub>3</sub> Ceramics</b> <u>Hiroshi MAIWA</u> <sup>1</sup> (1.Shonan Institute of Technology)
A-12 16:15-16:30	<b>High Thermoelectric Performance of Porous Nb- and Ni-doped SrTiO<sub>3</sub> Containing Highly Dispersed Exsolved Ni Nanoparticles</b> <u>Michitaka OHTAKI</u> <sup>1</sup> , Shinji HIRATA <sup>1</sup> , Koichiro SUEKUNI <sup>1</sup> (1.Kyushu University)
A-13 16:30-16:45	<b>Preparation of Li-PAA Garnet Electrolyte Composite Films for Sinterless All Solid State Li Batteries</b> <u>Jeevan Kumar PADARTI</u> <sup>1</sup> , Kazuo SUGIYAMA <sup>2</sup> , Taruna Teja JUPALLI <sup>1</sup> , Tomaya OHNO <sup>3</sup> , Takahiko KAWAGUCHI <sup>2</sup> , Naonori SAKAMOTO <sup>1</sup> , Naoki WAKIYA <sup>1</sup> , Hisao SUZUKI <sup>1</sup> (1. Research Institute of Electronics, Shizuoka University, 2.Graduate School of Engineering, Shizuoka University, 3.Department of Materials Science, Kitami Institute of Technology)

★ Candidate for Young Ceramist Best Presentation Award

**Session B: Electroceramics and Applications (Electronic ceramics, Magnetic ceramics, Piezoelectrics, Sensor materials, etc.)**

**Date: Thursday, November 21st / Place: Small Hall**

**Chair: Kenji TODA (Niigata University)**

**Chair: Jong-Sook LEE (Chonnam National University)**

B-01-K 11:30-12:00	<b>Development of Silicon-based Negative Electrodes for Advanced Lithium-ion Battery</b> Hiroki SAKAGUCHI <sup>1,2</sup> (1.Department of Chemistry and Biotechnology, Graduate School of Engineering, Tottori University, 2.Center for Research on Green Sustainable Chemistry, Tottori University)
B-02 12:00-12:15	<b>Synthesis of <math>\alpha</math>-LiAlO<sub>2</sub> with Layered NaCl-type Structure by PVP-assisted Sol-gel Method and the Electrochemical Property</b> Yoshinori ARACHI <sup>1</sup> , Ayaka SHIBATA <sup>1</sup> (1.Kansai University)
B-03 ★ 12:15-12:30	<b>Synthesis, Crystal Structure and Properties of Lithium-Ion Conducting LiTa<sub>2</sub>PO<sub>8</sub></b> Norikazu ISHIGAKI <sup>1</sup> , Kunimitsu KATAOKA <sup>1</sup> , Daisuke MORIKAWA <sup>2</sup> , Masami TERAUCHI <sup>2</sup> , Kikuko HAYAMIZU <sup>3</sup> , Junji AKIMOTO <sup>1</sup> (1.National Institute of Advanced Industrial Science and Technology (AIST), 2.Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, 3.Institute of Applied Physics, Tsukuba University)
	Lunch
	Poster Session

**Chair: Yoshinori ARACHI (Kansai University)**

**Chair: Wook JO (Ulsan National Institute of Science and Technology)**

B-04-I 15:00-15:20	<b>Synthesis of Sm<sub>2</sub>Fe<sub>17</sub>N<sub>x</sub> Particles using Reduction Reaction of Metal Oxides</b> Yuji MASUBUCHI <sup>1</sup> , Kenta UCHIDA <sup>1</sup> , Mikio HIGUCHI <sup>1</sup> (1.Hokkaido University)
B-05-I 15:20-15:40	<b>Synthesis of Ultrafine Particles of Crystalline Solid Solution with a Single Nano-metric Dimension for Photooxidation of Water</b> Etsushi TSUJI <sup>1</sup> (1.Tottori University)
B-06-I 15:40-16:00	<b>Abnormally Accelerated Solid-State Reaction, Water-Assisted Solid-State Reaction</b> Kenji TODA <sup>1</sup> (1.Niigata University)
B-07-I 16:00-16:20	<b>Control of Crystallographic Orientation in Ceramics by External Fields</b> Tohru S. SUZUKI <sup>1</sup> , Kiyoshi KOBAYASHI <sup>1</sup> (1.National Institute for Materials Science)
B-08 16:20-16:35	<b>Effects of Te Substitution on the Microwave Dielectric Properties of CaMo<sub>1-x</sub>Te<sub>x</sub>O<sub>4</sub> (0.01 ≤ x ≤ 0.05) Ceramics</b> JooHyeon KIM <sup>1</sup> , Eung Soo KIM <sup>1</sup> (1.Kyonggi University)
	Coffee Break

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**Chair: Yuji MASUBUCHI (Hokkaido University)**

**Chair: Jo Woong HA (Inocera Co.)**

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B-09 ★ 16:50-17:05	<b>Effect of Non-stoichiometric Substitution on Microwave Dielectric Properties of <math>\text{Mg}_{2+x}\text{Ti}_{0.95}(\text{Mn}_{1/3}\text{Sb}_{2/3})_{0.05}\text{O}_4</math> (<math>-0.02 &lt; x &lt; 1</math>) Ceramics</b> <u>Yunsik PARK</u> <sup>1</sup> , Eungsoo KIM <sup>1</sup> (1.Kyonggi University)
B-10 ★ 17:05-17:20	<b>Improvement of Piezoelectric Properties of (Li,Na,K)(Nb,Sb)O<sub>3</sub>-CaZrO<sub>3</sub> Ceramics using Polymorphic Phase Boundary Engineering for Piezo-actuator and Energy Harvester</b> <u>Dae Su KIM</u> <sup>1</sup> , Seok June CHAE <sup>1</sup> , Tae Gon LEE <sup>2</sup> , Sahn NAHM <sup>1</sup> (1.Department of Materials Science and Engineering, Korea University, 2.KU-KIST Graduate School of Converging Science and Technology, Korea University)
B-11 ★ 17:20-17:35	<b>Piezoelectric Energy Harvesting Characteristics of Inorganic Halide Perovskite Thin Films</b> <u>Da Bin KIM</u> <sup>1</sup> , Kwan Hyun PARK <sup>1</sup> , Sun Jae PARK <sup>1</sup> , Yong Soo CHO <sup>1</sup> (1.Department of Materials Science and Engineering, Yonsei University)

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**Session B: Electroceramics and Applications (Electronic ceramics, Magnetic ceramics, Piezoelectrics, Sensor materials, etc.)**

**Date: Friday, November 22nd / Place: Small Hall**

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**Chair: Shintaro IDA (Kumamoto University)**

**Chair: Byung-Koog JANG (Kyushu University)**

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B-12-I 11:10-11:30	<b>Synthesis and Characterization of Novel Oxide Ion Conductors <math>\text{GdNb}_{1-x}\text{W}_x\text{O}_{4+\delta}</math></b> <u>Yuejin SHAN</u> <sup>1</sup> (1.Material and Environmental Chemistry, Research Division of Functional Materials Design, Utsunomiya University)
B-13-I 11:30-11:50	<b>Single-Crystalline Nanoparticles of Impurity-Element-Doped Rutile TiO<sub>2</sub> as Novel Anode Materials for Na-Ion Batteries</b> <u>Hiroyuki USUI</u> <sup>1</sup> , Yasuhiro DOMI <sup>1</sup> , Kunihiro TAKAMA <sup>1</sup> , Hiroki SAKAGUCHI <sup>1</sup> (1.Tottori University)
B-14 ★ 11:50-12:05	<b>O<sub>2</sub> Plasma Modified 1T/2H-MoS<sub>2</sub> for Room Temperature Gas Sensing</b> <u>Ardiansyah TAUFIK</u> <sup>1</sup> , Yusuke ASAKURA <sup>1</sup> , Shu YIN <sup>1</sup> (1.IMRAM, Tohoku University)
B-15-I 12:05-12:25	<b>Synthesis and Characterization of Morphology Controllable Aluminum Nitride by Direct Nitridation of <math>\gamma\text{-AlOOH}</math></b> Angga HERMAWAN <sup>1</sup> , Yusuke ASAKURA <sup>1</sup> , <u>Shu YIN</u> <sup>1</sup> (1.IMRAM, Tohoku University)
B-16 12:25-12:40	<b>Hexagonal Boron Nitride as an Auxiliary Electrode of Hydrogen Sensor</b> <u>Yoshiteru ITAGAKI</u> <sup>1</sup> , Eri SARUMARU <sup>1</sup> , Hiromichi AONO <sup>1</sup> (1.Ehime University)
	Lunch

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**Chair: Hiroyuki USUI (Tottori University)**

**Chair: Yoonsoo HAN (Korea Institute of Ceramic Engineering & Technology)**

B-17-I 13:50-14:10	<b>Development of Automotive Catalyst Using Perovskite-related Oxide</b> <u>Saburo HOSOKAWA</u> <sup>1</sup> (1.Kyoto University)
B-18 ★ 14:10-14:25	<b>Catalytic Combustion of Toluene over Novel Catalysts Based on Apatite-type Lanthanum Silicate</b> <u>Kenji MATSUO</u> <sup>1</sup> , Naoyoshi NUNOTANI <sup>1</sup> , Nobuhito IMANAKA <sup>1</sup> (1.Osaka University)
B-19 ★ 14:25-14:40	<b>Catalytic Liquid-phase Oxidation of Phenol in Facile Condition Using Pt/CeO<sub>2</sub>-ZrO<sub>2</sub>-SnO<sub>2</sub>/SBA-16</b> Abdul Rohman SUPANDI <sup>1</sup> , Naoyoshi NUNOTANI <sup>1</sup> , Nobuhito IMANAKA <sup>1</sup> (1.Osaka University)
B-20 ★ 14:40-14:55	<b>Gas Sensing Properties of Nanosheet-Type Structure of Tin Oxide with (101) Crystal Facet</b> <u>Pil Gyu CHOI</u> <sup>1</sup> , Yoshitake MASUDA <sup>1</sup> (1.National Institute of Advanced Industrial Science and Technology (AIST))
B-21 ★ 14:55-15:10	<b>Novel Inorganic Black Pigments Based on Ca<sub>2</sub>MnO<sub>4</sub> for High Near-infrared (NIR) Reflectance</b> <u>Ryohei OKA</u> <sup>1</sup> , Senri IWASAKI <sup>2</sup> , Toshiyuki MASUI <sup>2,3</sup> (1.Graduate School of Engineering, Tottori University, 2.Faculty of Engineering, Tottori University, 3.Center for Research on Green Sustainable Chemistry, Tottori University)
B-22 ★ 15:10-15:25	<b>Synthesis and Characterization of Sr<sub>1-x</sub>Eu<sub>x</sub>Al<sub>2</sub>O<sub>4</sub> (0 ≤ x ≤ 1)</b> <u>Mizuki WATANABE</u> <sup>1</sup> , Noriko KOBAYASHI <sup>1</sup> , Kengo OKA <sup>2</sup> , Katsuyoshi OH-ISHI <sup>1</sup> (1.Chuo University, 2.Kindai University)
	Coffee Break

**Chair: Saburo HOSOKAWA (Kyoto University)**

**Chair: Kyoon CHOI (Korea Institute of Ceramic Eng & Tech)**

B-23-I 15:45-16:05	<b>Photoelectrochemical Property of Ultrathin Nanosheet pn-Junction</b> <u>Shintaro IDA</u> <sup>1</sup> (1.Kumamoto University)
B-24 16:05-16:20	<b>Molecular Dynamics Simulation on a Host Material for Deep Red Phosphors Based on Fluorine Doped Lithium Aluminate</b> <u>Yuta MATSUSHIMA</u> <sup>1</sup> , Chika SATO <sup>1</sup> , Joichiro ICHIKAWA <sup>1</sup> , Hiroko KOMINAMI <sup>2</sup> , Kazuhiko HARA <sup>2</sup> , Masato KAKIHANA <sup>3</sup> (1.Yamagata University, 2.Shizuoka University, 3.Tohoku University)
B-25-I 16:20-16:40	<b>Defects-induced Enhancement of Photocatalytic Activity of Ga<sub>2</sub>O<sub>3</sub> Studied by Time-resolved Visible to Mid-IR Absorption Spectroscopy</b> <u>Akira YAMAKATA</u> <sup>1</sup> , Junie Jhon M. VEQUIZO <sup>1</sup> , Yoshihisa SAKATA <sup>2</sup> (1.Toyota Technological Institute, 2.Yamaguchi University)

★ Candidate for Young Ceramist Best Presentation Award

**Session C: Engineering Ceramics (Structural and 3D printing, including powder processing etc.)**

**Date: Thursday, November 21st / Place: Conference Room 2**

**Chair: Masashi WADA (Japan Fine Ceramics Center)**

**Chair: Yoonsoo HAN (Korea Institute of Ceramic Engineering & Technology)**

C-01-I 11:30-11:50	<b>Control of Morphology and Oxidation State of Metal Oxides, Using Ionic Liquids/Deep Eutectic Solvent Assisted Synthesis</b> <u>Omar GOMEZ</u> <sup>1</sup> (1.University of Bristol)
C-02-I 11:50-12:10	<b>Stereolithographic Additive Manufacturing of Ceramic Components with Dimensionally Modulated Functional Geometries</b> <u>Soshu KIRIHARA</u> <sup>1</sup> (1.Osaka University)
C-03-I 12:10-12:30	<b>Slurry Designs for Directed Colloidal Assembly of 3D Ceramics Structures</b> <u>Hiroya ABE</u> <sup>1</sup> (1.Osaka University)
	Lunch
	Poster Session

**Chair: Omar GOMEZ (University of Bristol)**

**Chair: Byung-Koog JANG (Kyushu University)**

C-04-K 15:00-15:30	<b>Direct Laser Sintering of Ceramics</b> <u>Teiichi KIMURA</u> <sup>1</sup> (1.Japan Fine Ceramics Center)
C-05 ★ 15:30-15:45	<b>Reaction Sintering of SiC by Laser Direct Heating</b> <u>Satoshi SUEHIRO</u> <sup>1</sup> , <u>Teiichi KIMURA</u> <sup>1</sup> (1.Japan Fine Ceramics Center)
C-06-I 15:45-16:05	<b>Design of Al<sub>2</sub>O<sub>3</sub>-based Composite Particles for Selective Laser</b> <u>Wai Kian TAN</u> <sup>1</sup> , <u>Takaya KUWANA</u> <sup>1</sup> , <u>Atsushi YOKOI</u> <sup>1</sup> , <u>Go KAWAMURA</u> <sup>1</sup> , <u>Atsunori MATSUDA</u> <sup>1</sup> , <u>Hiroyuki MUTO</u> <sup>1</sup> (1.Toyohashi University of Technology)
C-07 16:05-16:20	<b>Additive Manufacturing of Transparent Glass using a Fused Deposition Modeling</b> <u>Yoonsoo HAN</u> <sup>1</sup> , <u>Hye-Ji LEE</u> <sup>1</sup> , <u>Hyun-Been LEE</u> <sup>1</sup> , <u>Kyung-Ho KIM</u> <sup>1</sup> , <u>Hyeong-Jun KIM</u> <sup>1</sup> (1.Korea Institute of Ceramic Engineering & Technology)
C-08 16:20-16:35	<b>Non-Uniform Sintering Behavior during Spark Plasma Sintering of Y<sub>2</sub>O<sub>3</sub></b> <u>Byung-Nam KIM</u> <sup>1</sup> , <u>JiHwoan LEE</u> <sup>2</sup> , <u>Koji MORITA</u> <sup>1</sup> , <u>Tohru S SUZUKI</u> <sup>1</sup> , <u>Byung-Koog JANG</u> <sup>2</sup> (1.National Institute for Materials Science, 2.Kyushu University)
	Coffee Break

**Chair: Teiichi KIMURA (Japan Fine Ceramics Center)**

**Chair: Hyung-Tae KIM (Korea Institute of Ceramic & Engineering Technology)**

C-09 17:05-17:20	<b>Mechanical Properties of CNTs Reinforced Ceramic Composites</b> <u>Byung-Koog JANG</u> <sup>1</sup> , <u>Young-Hwan HAN</u> <sup>2</sup> (1.Kyushu University, 2.Wuhan University of Technology)
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C-10 ★ 17:20-17:35	<b>Effect of MCAS-Y<sub>2</sub>O<sub>3</sub>-YSZ Co-additives on the Properties of AlN Ceramics</b> <u>Suhyun BAEK</u> <sup>1,2</sup> , Hyeondeok JEONG <sup>1</sup> , Kyungmin KIM <sup>1,2</sup> , Youngdo KIM <sup>2</sup> , Sungsoo RYU <sup>1</sup> (1.Engineering Ceramic Center, Korea Institute of Ceramic Engineering and Technology, 2.Department of Materials Science and Engineering, Hanyang University)
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**Session C: Engineering Ceramics (Structural and 3D printing, including powder processing etc.)**

**Date: Friday, November 22nd / Place: Conference Room 2**

**Chair: Yamato HAYASHI (Tohoku University)**

**Chair: Seongwon KIM (Korea Institute of Ceramic Engineering and Technology)**

C-11-I 11:10-11:30	<b>Porous Ceramics Design for Energy and Environment Applications</b> <u>Yoshikazu SUZUKI</u> <sup>1</sup> , Kazuki FUKUI <sup>1</sup> , Yoko KAMATO <sup>1</sup> (1.University of Tsukuba)
C-12 11:30-11:45	<b>Characteristics of Ytterbium Disilicate-based EBCs By Using Suspension Plasma Spraying</b> <u>Seongwon KIM</u> <sup>1</sup> , Yoon-Suk OH <sup>1</sup> , Sung-Min LEE <sup>1</sup> , Hyung-Tae KIM <sup>1</sup> , Yoo Jung SOHN <sup>2</sup> , Olivier GUILLON <sup>2</sup> , Robert VABEN <sup>2</sup> (1.Korea Institute of Ceramic Engineering and Technology, 2.Juelich Research Center)
C-13 11:45-12:00	<b>Effect of pH Control on the Formation of Silica Layer using Sodium Silicate on Fe<sub>3</sub>O<sub>4</sub> Particle Surface</b> <u>JaeUk HUR</u> <sup>1</sup> , Ji Hyun CHA <sup>1</sup> , Ah Hyun OH <sup>1</sup> , Sung-Churl CHOI <sup>1</sup> , Gye Seok AN <sup>1</sup> (1.Division of Materials Science and Engineering, Hanyang University)
C-14 ★ 12:00-12:15	<b>Verification of Repeated Self-healing by Oxidation Treatment and Nitrogen Reduction Treatment on Y<sub>2</sub>Ti<sub>2</sub>O<sub>7</sub> Sintered Ceramics</b> <u>Hirokazu IWASAWA</u> <sup>1</sup> , Ayahisa OKAWA <sup>1</sup> , Yuma NAKAZAWA <sup>1</sup> , Kota ARAI <sup>1</sup> , Takashi GOTO <sup>1</sup> , Koichi NIIHARA <sup>1</sup> , Tadachika NAKAYAMA <sup>1</sup> (1.Nagaoka University of Technology)
C-15 ★ 12:15-12:30	<b>Y doped (Pb, Ba, La)(Zr, Sn, Ti)O<sub>3</sub> Lead Based Pyroelectric Materials for Low-grade Waste Heat Harvesting</b> <u>Nguyen Chi Trung NGO</u> <sup>1</sup> , Hironari SUGIYAMA <sup>1</sup> , Juan Paolo WIFF <sup>1</sup> , Tsuneo SUZUKI <sup>1</sup> , Hisayuki SUEMATSU <sup>1</sup> , Tadachika NAKAYAMA <sup>1</sup> (1.Nagaoka University of Technology)
C-16 12:30-12:45	<b>Synthesis of Silicon Carbide Particles by Spark Plasma Sintering (SPS) Method from Recovered Photovoltaic Cell</b> <u>Jae Rok SHIN</u> <sup>1</sup> , Ah Hyun OH <sup>1</sup> , Jin Uk CHOI <sup>1</sup> , Sung-Churl CHOI <sup>1</sup> , Gye Seok AN <sup>1</sup> (1.Hanyang University)
	Lunch



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**Chair: Tadachika NAKAYAMA (Nagaoka University of Technology)**

**Chair: Tae Young NA (Kunsan National University)**

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C-17-I 13:50-14:10	<b>Fabrication Concept of Nanomaterial for Sustainable Development of Goals (SDGs)</b> <u>Yamato HAYASHI</u> <sup>1</sup> (1.Tohoku University)
C-18 14:10-14:25	<b>Synthesis of Porous Hydroxyapatite Microspheres via Sol-gel Method</b> <u>Guobin ZHENG</u> <sup>1</sup> , Koki NAKAO <sup>1</sup> , Mai MIYAGAWA <sup>1</sup> , Hideaki SANO <sup>1</sup> (1.Nagasaki University)
C-19-I 14:25-14:45	<b>Oxygen Shielding Properties of Yb-Silicates under Oxygen Potential Gradients at High Temperatures</b> <u>Masashi WADA</u> <sup>1</sup> , Tsuneaki MATSUDAIRA <sup>1</sup> , Norio YAMAGUCHI <sup>1</sup> , Naoki KAWASHIMA <sup>1</sup> , Takafumi OGAWA <sup>1</sup> , Daisaku YOKOE <sup>1</sup> , Satoshi KITAOKA <sup>1</sup> , Masasuke TAKATA <sup>1</sup> (1 Japan Fine Ceramics Center)

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★ Candidate for Young Ceramist Best Presentation Award

**Session D: Bio and Environmental Ceramics****Date: Thursday, November 21st / Place: Conference Room 1****Chair: Chikara OHTSUKI (Nagoya University)****Chair: Tae Young NA (Kunsan National University)**

D-01 17:35-17:50	<b>Preparation and Clinical Test of Calcium Phosphate Bone Cement for Dental Patients</b> <u>MyungChul CHANG</u> <sup>1</sup> , KyungHee LEE <sup>2</sup> , TaeYoung NA <sup>3</sup> (1.Kunsan National University, 2.Korea Open National University, 3.Na's Dental Clinic)
D-02 17:50-18:05	<b>3D Ordered Microcrystalline Oxides with Nano-, Micro-, Meso-pores; FCC, HCP → Gyroid Lattice Close Packed Crystal</b> <u>MyungChul CHANG</u> <sup>1</sup> , KyungHee LEE <sup>2</sup> (1.Kunsan National University, 2.Korea Open National University)

**Session D: Bio and Environmental Ceramics****Date: Friday, November 22nd / Place: Conference Room 5,6****Chair: Toshihiro KASUGA (Nagoya Institute of Technology University)****Chair: Sang-Yeup PARK (Gangneungwonju National University)**

D-03-K 13:50-14:20	<b>Zero Emissions Approach in Ceramic Industry for Environment Sustainability</b> <u>Sang-Yeup PARK</u> <sup>1</sup> (1.Department of Ceramics Engineering, Gangneungwonju National University)
D-04-I 14:20-14:40	<b>Color Removal in Water Using Calcium Aluminosilicate Hydrates</b> <u>Hiroataka MAEDA</u> <sup>1</sup> (1.Nagoya Institute of Technology)
D-05 ★ 14:40-14:55	<b>Chelate Functionalization on the Magnetic Nanoparticle via Acidic, Basic Modification</b> <u>Jin Soon HAN</u> <sup>1</sup> , Ji Hyun CHA <sup>1</sup> , Jin Uk CHOI <sup>1</sup> , Sung-Churl CHOI <sup>1</sup> , Gye Seok AN <sup>1</sup> (1.Division of Material Science and Engineering, Hanyang University)
D-06 ★ 14:55-15:10	<b>Bioactive Sol-gel Glasses with Controlled Ion-release for Skin Wound Healing</b> <u>Daisuke ISHIHARA</u> <sup>1</sup> , Elizabeth NORRIS <sup>2</sup> , Julian R JONES <sup>2</sup> , Akiko OBATA <sup>1</sup> , Toshihiro KASUGA <sup>1</sup> (1.Nagoya Institute of Technology, 2.Imperial College London)
D-07 ★ 15:10-15:25	<b>Solvothermal Synthesis of Organically Modified Calcium Silicate Hydrate and Investigations of Drug Adsorption Property</b> <u>Hina KATO</u> <sup>1</sup> , Jin NAKAMURA <sup>2</sup> , Ayae SUGAWARA-NARUTAKI <sup>2</sup> , Chikara OHTSUKI <sup>2</sup> (1.School of Engineering, Nagoya University, 2.Graduate School of Engineering, Nagoya University)
	Coffee Break

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**Chair: Chikara OHTSUKI (Nagoya University)**

**Chair: Sang-Yeup PARK (Gangneungwonju National University)**

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D-08-I

15:45-16:05

**Effect of Sub-millimeter Gap on In Vitro Apatite Formation on Hydrothermally Treated Ti-Substrate**

Satoshi HAYAKAWA<sup>1</sup>, Tomohiko YOSHIOKA<sup>1</sup> (1.Okayama University)

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**Session E: Basic Science of Ceramics****Date: Thursday, November 21st / Place: Conference Room 1****Chair: Kei INUMARU (Hiroshima University)****Chair: Seongwon KIM (Korea Institute of Ceramic Engineering and Technology)**

E-01-K 11:30-12:00	<b>The Origins of Anion-Exchange Properties of Layered Double Hydroxide</b> <u>Ryo SASAI</u> <sup>1</sup> (1.Graduate School of Natural Science and Technology, Shimane University)
E-02 ★ 12:00-12:15	<b>The Relationship Between Acidity and Water Vapor Adsorption Property of Mesoporous Silica-titania</b> <u>Shingo HIRATA</u> <sup>1</sup> , Miki INADA <sup>1</sup> , Junichi HOJO <sup>1</sup> (1.Kyushu University)
E-03 12:15-12:30	<b>Unique Properties of Nanospaces of Mesoporous Silica – TiO<sub>2</sub> Particles Composite Photocatalysts for Decomposition of Organic Molecules in Water</b> Saki SADAMORI <sup>1</sup> , Yusuke KUNISAKI <sup>1</sup> , Kiyofumi KATAGIRI <sup>1</sup> , <u>Kei INUMARU</u> <sup>1</sup> (1.Hiroshima University)
	Lunch
	Poster Session

**Chair: Ryo SASAI (Shimane University)****Chair: Kyoon CHOI (Korea Institute of Ceramic Eng & Tech)**

E-04-I 15:00-15:20	<b>Atomic and Electronic Structures of Heterogenous Catalysts and Relation to their Catalytic Activity</b> <u>Hajime HOJO</u> <sup>1</sup> , Satoru YOSHIZAKI <sup>1</sup> , Miki GONDO <sup>1</sup> , Kazuki HIROTA <sup>1</sup> , Hisahiro EINAGA <sup>1</sup> (1.Kyushu University)
E-05 15:20-15:35	<b>Catalytic Properties of Perovskite-type Oxides for VOC Oxidation under Electromagnetic Fields</b> <u>Hisahiro EINAGA</u> <sup>1</sup> , Yusaku NASU <sup>1</sup> , Hajime HOJO <sup>1</sup> (1.Kyushu University)
E-06-I 15:35-15:55	<b>Application of CFD Simulation to Fabrication of Ceramic Matrix Composites (CMCs) via CVI Process</b> <u>Kyoon CHOI</u> <sup>1</sup> , Kyung-Mi KIM <sup>1</sup> , Jae-Moon LEE <sup>1</sup> (1.Korea Institute of Ceramic Eng & Tech)
E-07 ★ 15:55-16:10	<b>Hetero-nanointerfaced Microparticles Composed of Metal Hydroxide Nanocrystals toward Improved Electrochemical Properties</b> <u>Naoki TARUTANI</u> <sup>1</sup> , Yasuaki TOKUDOME <sup>1</sup> , Matías JOBBAGY <sup>2</sup> , Galo J. A. SOLER-ILLIA <sup>3</sup> , Masahide TAKAHASHI <sup>1</sup> (1.Osaka Prefecture University, 2.Universidad de Buenos Aires, 3.Universidad Nacional de General San Martín)
E-08-I 16:10-16:30	<b>New Manufacturing Process of Al<sub>3</sub>Ni Ceramic Particles Reinforced Composite</b> <u>Yongbum CHOI</u> <sup>1</sup> , Kazuhiro MATSUGI <sup>1</sup> (1.Graduate School of Engineering, Hiroshima University)
	Coffee Break

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**Chair: Hajime HOJO (Kyushu University)**

**Chair: Yong Soo CHO (Yonsei University)**

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E-09 ★ 16:50-17:05	<b>In-plane Oriented Covalent Organic Framework (COF) Films Grown on Copper-hydroxides</b> <u>Ken IKIGAKI</u> <sup>1</sup> , Kenji OKADA <sup>1</sup> , Yasuaki TOKUDOME <sup>1</sup> , Paolo FALCARO <sup>2</sup> , Andrew TARZIA <sup>3</sup> , Christopher COLEMAN <sup>4</sup> , Christian DOONAN <sup>4</sup> , Masahide TAKAHASHI <sup>1</sup> (1.Osaka Prefecture University, 2.Graz University of Technology, 3.Imperial College London, 4.The University of Adelaide)
E-10 ★ 17:05-17:20	<b>Enhanced Dielectric Properties and Grain Boundary Potentials in Sulfurized CaCu<sub>3</sub>Ti<sub>4</sub>O<sub>12</sub> Thin Films</b> <u>Ye Seul JUNG</u> <sup>1</sup> , Jae Woo PARK <sup>1</sup> , Yong Soo CHO <sup>1</sup> (1.Department of Materials Science and Engineering, Yonsei University)
E-11 ★ 17:20-17:35	<b>Effect of YSZ with Different Y<sub>2</sub>O<sub>3</sub> Contents on Toughening Behavior of Al<sub>2</sub>O<sub>3</sub>/Ba-β-Al<sub>2</sub>O<sub>3</sub>/ZrO<sub>2</sub> Composites</b> <u>Lei LIU</u> <sup>1</sup> , Kensaku MAEDA <sup>1</sup> , Tetsuhiko ONDA <sup>1</sup> , Zhong-Chun CHEN <sup>1</sup> (1.Department of Mechanical and Aerospace Engineering, Graduate School of Engineering, Tottori University)

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**Session F: Glass****Date: Thursday, November 21st / Place: Conference Room 5,6****Chair: Tokuro NANBA (Okayama University)****Chair: Woon Jin CHUNG (Kongju National University)**

F-01-K 15:00-15:30	<b>Versatile Phosphor-in-glass for White LED Applications</b> <u>Won Bin IM</u> <sup>1</sup> (1.Hanyang University)
F-02 ★ 15:30-15:45	<b>Afterglow Effect by Adding RF<sub>2</sub>(R = Ba, Ca, Sr) of Eu<sup>2+</sup> Ions in Eu<sup>2+</sup> Doped Oxy-fluoride Glass Ceramic for an Efficient UV-LED Color Converter</b> <u>Hansol LEE</u> <sup>1</sup> , <u>Yong Gyu CHOI</u> <sup>2</sup> , <u>Woon Jin CHUNG</u> <sup>1</sup> (1.Kongju National University, 2.Korea Aerospace University)
F-03 15:45-16:00	<b>Color Gamut Improvement of Cd-S-Se Quantum Dot Embedded Glasses for White LED</b> <u>Karam HAN</u> <sup>1</sup> , <u>Jong HEO</u> <sup>2</sup> , <u>Woon Jin CHUNG</u> <sup>1</sup> (1.Div. of Advanced Materials Eng., Kongju National University, 2.Dept. of Materials Sci. and Eng., Pohang University of Sci. and Tech.)
F-04 16:00-16:15	<b>X-ray Absorption Near Edge Structure of Ag Cations in RPL Phosphate Glass for Personal Monitoring</b> <u>Hirokazu MASAI</u> <sup>1</sup> , <u>Masanori KOSHIMIZU</u> <sup>2</sup> , <u>Hiroki KAWAMOTO</u> <sup>2</sup> , <u>Takahiro OHKUBO</u> <sup>3</sup> , <u>Akitoshi KOREEDA</u> <sup>4</sup> , <u>Yasuhiro FUJII</u> <sup>4</sup> , <u>Koji OHARA</u> <sup>5</sup> , <u>Hironori OFUCHI</u> <sup>5</sup> , <u>Hiroyuki SETOYAMA</u> <sup>6</sup> (1.National Institute of Advanced Industrial Science and Technology, 2.Tohoku University, 3.Chiba University, 4.Ritsumeikan University, 5.Japan Synchrotron Radiation Research Institute, 6.Kyushu Synchrotron Light Research Center)
F-05 ★ 16:15-16:30	<b>Simultaneous Enhancement of Up- and Down-conversion Emission via Plasmonic Structure</b> <u>Yuan GAO</u> <sup>1</sup> , <u>Shunsuke MURAI</u> <sup>1</sup> , <u>Sayaka TAMURA</u> <sup>2</sup> , <u>Koji TOMITA</u> <sup>2</sup> , <u>Katsuhisa TANAKA</u> <sup>1</sup> (1.Kyoto University, 2.Tokai University)
	Coffee Break

**Chair: Hirokazu MASAI (National Institute of Advanced Industrial Science and Technology)****Chair: Yong Gyu CHOI (Korea Aerospace University)**

F-06 16:50-17:05	<b>A Single Average Harmonic Oscillator Approach to Correlate Infrared Transmission Edge and Chemical Composition of Chalcogenide Glasses</b> <u>Yong Gyu CHOI</u> <sup>1</sup> , <u>Hyun KIM</u> <sup>1</sup> , <u>Jun Ho LEE</u> <sup>1</sup> (1.Korea Aerospace University )
F-07 ★ 17:05-17:20	<b>Low-temperature Sintering Process of Bioactive Glass Nanoparticles via Biomimetic Route</b> <u>Yeongjun SEO</u> <sup>1</sup> , <u>Tomoyo GOTO</u> <sup>1</sup> , <u>Sung Hun CHO</u> <sup>1</sup> , <u>Tohru SEKINO</u> <sup>1</sup> (1.The Institute of Scientific and Industrial Research, Osaka University)
F-08-I 17:20-17:40	<b>Soret Effect in Glass-forming Binary Oxide Melts</b> <u>Masahiro SHIMIZU</u> <sup>1</sup> , <u>Tsubasa FUKUYO</u> <sup>1</sup> , <u>Kento NAKASHIMA</u> <sup>1</sup> , <u>Jun MATSUOKA</u> <sup>2</sup> , <u>Yasuhiko SHIMOTSUMA</u> <sup>1</sup> , <u>Kiyotaka MIURA</u> <sup>1</sup> (1.Kyoto University, 2.The University of Shiga Prefecture)

F-09 17:40-17:55	<b>Apparent Relaxation of In-plane Residual Stress in Sol-gel-derived Oxide Coating Films</b> <u>Hiromitsu KOZUKA</u> <sup>1</sup> , Sosuke KITANO <sup>1</sup> , Yuta KOIZUMI <sup>1</sup> , Yuki NISHIMURA <sup>1</sup> (1.Kansai University)
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### **Session F: Glass**

**Date: Friday, November 22nd / Place: Conference Room 5,6**

**Chair: Yasuhiko BENINO (Okayama University)**

**Chair: Woon Jin CHUNG (Kongju National University)**

F-10-I 11:10-11:30	<b>Dissolution Mechanisms of H<sub>2</sub>O and CO<sub>2</sub> in Silicate Melts (Glasses): Insight from NMR Spectroscopy</b> <u>Xianyu XUE</u> <sup>1</sup> , Masami KANZAKI <sup>1</sup> (1.Institute for Planetary Materials, Okayama University)
F-11 ★ 11:30-11:45	<b>Refining Structural Evolution of Ternary Ge-Ga-Se Glass upon Compositional Change across the Stoichiometric Tie-Line</b> <u>Hyun KIM</u> <sup>1</sup> , Jun Ho LEE <sup>1</sup> , Woo Hyung LEE <sup>1</sup> , Yong Gyu CHOI <sup>1</sup> (1.Department of Materials Science and Engineering, Korea Aerospace University)
F-12 ★ 11:45-12:00	<b>Chemical Strengthening of Thin Sodium Alumino-Silicate Glass Using Kaolinite-Based Particles</b> <u>Se Young KO</u> <sup>1</sup> , Woo Hyung LEE <sup>1</sup> , Hyun KIM <sup>1</sup> , Ji In LEE <sup>1</sup> , Yong Gyu CHOI <sup>1</sup> (1.Korea Aerospace University)

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**Session G: Nanoceramics (Nanoparticles, Nanostructured materials, etc.)**

**Date: Thursday, November 21st / Place: Conference Room 4**

**Chair: Atsushi SAIKI (University of Toyama)**

**Chair: Sang-Yeup PARK (Gangneungwonju National University)**

G-01-I 11:30-11:50	<b>Preparation of Metal Oxide Nanomaterials and Their Surface Modification</b> <u>Yoshiyuki SUGAHARA</u> <sup>1,2</sup> (1.Department of Applied Chemistry, School of Advanced Science and Engineering, Waseda University, 2.Kagami Memorial Institute for Materials Science and Technology, Waseda University)
G-02-I 11:50-12:10	<b>Anomalous Piezoelectric Response of Ferroelectric Mesocrystalline Nanocomposites Designed by Strain Engineering</b> <u>Qi FENG</u> <sup>1</sup> , Wenxiong ZHANG <sup>1</sup> , Weixing ZHAO <sup>1</sup> (1.Kagawa University)
G-03-I 12:10-12:30	<b>Gas Sensors Fabrication with Nano-Structure Oxide Synthesized by Metal Organic Decomposition Method</b> <u>Tohru SUGAHARA</u> <sup>1</sup> , Yukiko HIROSE <sup>1</sup> , Katsuaki SUGANUMA <sup>1</sup> (1.Osaka University)
	Lunch
	Poster Session

**Chair: Yoshiyuki SUGAHARA (Waseda University)**

**Chair: Yong Soo CHO (Yonsei University)**

G-04-I 15:00-15:20	<b>Fabrication of Brookite-Type Titanium Oxide Nanocrystal and HAp by Hydrothermal Synthesis</b> <u>Atsushi SAIKI</u> <sup>1</sup> , Takashi HASHIZUME <sup>1</sup> , Atsuki SHIBATA <sup>1</sup> (1.University of Toyama)
G-05-I 15:20-15:40	<b>The Relationship Between TiO<sub>2</sub> Crystalline Phase and OH Group in Self-Hydrolysis Process</b> <u>Miki INADA</u> <sup>1</sup> , Katsuhiro ESAKI <sup>1</sup> (1.Kyushu University)
G-06-I 15:40-16:00	<b>Cation Sorption on Titania Nanotubes from Aqueous Solution</b> <u>Tomoyo GOTO</u> <sup>1</sup> , Sung Hun CHO <sup>1</sup> , Tohru SEKINO <sup>1</sup> (1.The Institute of Scientific and Industrial Research, Osaka University)
G-07 16:00-16:15	<b>Synthesis and Properties of Conductive Polymer Immobilized Titania Nanotubes</b> Kota TSUKATANI <sup>1</sup> , Satoshi TSUKUDA <sup>2</sup> , Sung Hun CHO <sup>1</sup> , Tomoyo GOTO <sup>1</sup> , <u>Tohru SEKINO</u> <sup>1</sup> (1.ISIR, Osaka University, 2.IMRAM, Tohoku University)
G-08 16:15-16:30	<b>Plasmonic Enhancements of Light Extraction in Planar Phosphor-LED Structure</b> <u>Oh Hyeon KWON</u> <sup>1</sup> , Jin Woo JANG <sup>1</sup> , Young Eun KIM <sup>1</sup> , Yong Soo CHO <sup>1</sup> (1.Yonsei University)

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**Session H: Thin Films and Coatings (PLD, Sputtering, CSD, Aerosol Deposition, etc.)**

**Date: Thursday, November 21st / Place: Conference Room 4**

**Chair: Kentaro SHINODA (National Institute of Advanced Industrial Science and Technology (AIST))**

**Chair: Yoon Suk OH (Korea Institute of Ceramic Engineering and Technology )**

H-01-I 16:50-17:10	<b>Fabrication of Functional Ceramic Coatings by Cold Spray</b> <u>Motohiro YAMADA</u> <sup>1</sup> , Masahiro FUKUMOTO <sup>1</sup> (1.Toyohashi University of Technology)
H-02-I 17:10-17:30	<b>Lead-free Tetragonal Ferroelectric Material: Bi(Zn<sub>1/2</sub>Ti<sub>1/2</sub>)O<sub>3</sub>-based</b> <u>Shintaro YASUI</u> <sup>1</sup> , Hiroshi FUNAKUBO <sup>1</sup> (1.Tokyo Institute of Technology)
H-03 17:30-17:45	<b>Electrical and Thermal Properties of AD-Al<sub>2</sub>O<sub>3</sub> Thick Films on Metal Substrate</b> <u>Rintaro AOYAGI</u> <sup>1</sup> , Hiroki TSUDA <sup>1</sup> , and Jun AKEDO <sup>1</sup> (1.Advanced Coating Technology Research Center National Institute of Advanced Industrial Science and Technology (AIST))
H-04 ★ 17:45-18:00	<b>Growth of Single Crystalline Orthorhombic Phase Hf<sub>0.5</sub>Zr<sub>0.5</sub>O<sub>2</sub> via Pulsed Laser Deposition</b> <u>Jun-Cheol PARK</u> <sup>1</sup> , Sehun SEO <sup>1</sup> , Jongmin LEE <sup>1</sup> , Sanghan LEE <sup>1</sup> (1.Gwangju Institute of Science and Technology (GIST))

**Session H: Thin Films and Coatings (PLD, Sputtering, CSD, Aerosol Deposition, etc.)**

**Date: Friday, November 22nd / Place: Conference Room 4**

**Chair: Jun AKEDO (National Institute of Advanced Industrial Science and Technology (AIST))**

**Chair: Yoon Suk OH (Korea Institute of Ceramic Engineering and Technology )**

H-05-K 11:10-11:40	<b>Unique-arc-plasma-assist Coating Method to Achieve Advanced Functional ZnO- and In<sub>2</sub>O<sub>3</sub>-based Transparent Conductive Films</b> <u>Tetsuya YAMAMOTO</u> <sup>1</sup> , Yutaka FURUBAYASHI <sup>1</sup> (1.Kochi University of Technology)
H-06-I 11:40-12:00	<b>Effects of Excimer Laser Irradiation on the Properties of Magnetron Sputtered Transparent Conductive Oxide Films</b> <u>Junichi NOMOTO</u> <sup>1</sup> , Tomohiko NAKAJIMA <sup>1</sup> , Iwao YAMAGUCHI <sup>1</sup> , Tetsuo TSUCHIYA <sup>1</sup> (1.Advanced Coating Technology Research Center, National Institute of Advanced Industrial Science and Technology (AIST))
H-07 12:00-12:15	<b>YSZ Based Thermal Protection Coatings with Nano Porous Structure Prepared by Suspension Plasma Spray</b> <u>Yoonsuk OH</u> <sup>1</sup> , Hak-Beom JEON <sup>1</sup> (1.Korea Institute of Ceramic Engineering and Technology )

H-08 ★ 12:15-12:30	<b>Advanced Directions for Fine Ceramic Coatings Deposition</b> <u>Mohammed SHAHIEN</u> <sup>1</sup> , Kentaro SHINODA <sup>1</sup> , Masato SUZUKI <sup>1</sup> , Jun AKEDO <sup>1</sup> (1.Advanced Coating Technology Research Center, National Institute of Advanced Industrial Science and Technology (AIST-Tsukuba))
	Lunch

**Chair: Rintaro AOYAGI (National Institute of Advanced Industrial Science and Technology (AIST))**

**Chair: Yoon Suk OH (Korea Institute of Ceramic Engineering and Technology )**

H-09-I 14:00-14:20	<b>Aerosol Deposition and Anti-Scratch Coating</b> <u>Jae-Hyuk PARK</u> <sup>1</sup> , Dae-Gun KIM <sup>1</sup> , Kyung-Min LEE <sup>1</sup> , Hye-Won SEOK <sup>1</sup> (1.IONES Co.,Ltd.)
H-10-I 14:20-14:40	<b>Dielectric Layer Coating onto Electrode Materials for Li Batteries with Ultrahigh Power Density</b> <u>Takashi TERANISHI</u> <sup>1</sup> , Kaisei KOZAI <sup>1</sup> , Sou YASUHARA <sup>2</sup> , Shintaro YASUI <sup>2</sup> , Akira KISHIMOTO <sup>1</sup> , Mitsuru ITOH <sup>2</sup> (1.Okayama University, 2.Tokyo Institute of Technology)
H-11 14:40-14:55	<b>Direct Laser Sintering of Ceramic Compacts with RTIC Phenomenon</b> <u>Jun AKEDO</u> <sup>1</sup> , So BABA <sup>1</sup> (1.National Institute of Advanced Industrial Science & Technology)
H-12 14:55-15:10	<b>Hybrid Aerosol Deposition: Linkage Between Thermal Spray and Cold Spray of Ceramics</b> <u>Kentaro SHINODA</u> <sup>1</sup> , Mohammed SHAHIEN <sup>1</sup> , Jun AKEDO <sup>1</sup> (1.AIST)
H-13 15:10-15:25	<b>Low Temperature and Fast Growth of One-directionally Grown AlN Film by Atmospheric Pressure Halide CVD Method</b> <u>Naonori SAKAMOTO</u> <sup>1</sup> , Takaya SUZUKI <sup>1</sup> , Takahiko KAWAGUCHI <sup>1</sup> , Naoki WAKIYA <sup>1</sup> , Hisao SUZUKI <sup>1</sup> (1.Shizuoka University)
	Coffee Break

**Chair: Takashi TERANISHI (Okayama University)**

**Chair: Byung-Koog JANG (Kyushu University)**

H-14-I 15:45-16:05	<b>Optical and Mechanical Properties of HfO<sub>2</sub> Films Prepared Using Metal-organic Chemical Vapor Deposition</b> <u>Akihiko ITO</u> <sup>1</sup> , Shogen MATSUMOTO <sup>1</sup> (1Yokohama National University)
H-15-I 16:05-16:25	<b>Effect of the Surface Oxide Film in Metallic Solid Phase Particle Deposition</b> <u>Yuji ICHIKAWA</u> <sup>1</sup> , Kazuhiro OGAWA <sup>1</sup> (1.Tohoku University)

★ Candidate for Young Ceramist Best Presentation Award

**Session I: Industry, Pottery, Porcelain, and Refractory materials**

**Date: Friday, November 22nd / Place: Conference Room 2**

**Chair: Naotaka SAKAMOTO (Fukuoka Industrial Technology Center)**

**Chair: Hyung-Tae KIM (Korea Institute of Ceramic & Engineering Technology)**

I-01-K 14:45-15:15	<b>Origin of Porcelain China, Korea, Japan and Europa: Kaolin Mining Place</b> <u>Hitoshi OHSATO</u> <sup>1</sup> (1.University of Oulu/Nagoya Industrial Science Research Institute)
I-02 ★ 15:15-15:30	<b>Improvement in Properties of Amorphous Ceramic Fiber Products Using Silica Sol and Ceramic Powder</b> <u>Naoya TAKAHASHI</u> <sup>1</sup> , Shinobu HASHIMOTO <sup>1</sup> , Yusuke DAIKO <sup>1</sup> , Sawao HONDA <sup>1</sup> , Yuji IWAMOTO <sup>1</sup> (1.Nagoya Institute of Technology)
	Coffee Break
I-03-I 15:45-16:05	<b>Synthesis of Aluminum Silicon Carbide</b> <u>Hatsuo TAIRA</u> <sup>1</sup> (1.Okayama Ceramics Research Foudation)
I-04 16:05-16:20	<b>Terahertz Spectroscopic Study and Imaging of Ceramic Tiles Fired at Various Temperatures</b> <u>Seiji NIIJIMA</u> <sup>1,2</sup> , Hiroaki TANIGUCHI <sup>1</sup> , Kodo KAWASE <sup>2</sup> (1.Mie Prefecture Industrial Research Institute, 2.Nagoya University)
I-05 16:20-16:35	<b>Current Status of the Japanese Roof Tile Industry and New Initiatives</b> <u>Naotaka SAKAMOTO</u> <sup>1</sup> (1.Fukuoka Industrial Tech. Ctr.)

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