★ = Guest ☆ = Invited ◆ = Plenary ○ = presenter

Please note, Almost all presentation will be given in Japanese.

The Ceramic Society of Japan
The 26th Fall Meeting
Program

■■ September 4 (Wed) (Room A) ■■

Hot Topics of Ceramics Materials & Technologies for Clean-up, conservation, and renovation

(9：20) (Chairman 前田浩孝)

1A02 ◆Prsent and Future of Ceramics Research Group on Resource, Environments, and Energy (Shimane University) ○Ryo Sasai

1A03 Preparation of a Carbon-Alumina Composite Electrode for Metal Recovery (Nagano Prefecture General Industrial Technology Center) ○Tatsunori Azegami・(Nagano Prefecture Nagano Health and Welfare Office) Masanori Miyazawa・(Nagano Prefecture General Industrial Technology Center) Satoshi Kobayashi

1A04 Effect of Element Composition on Nd recovery by Wet Ball-Milling and Optimization of Acid and Precipitant (Shimane University) ○Naohiro Shimamura・Ryo Sasai

1A05 Development of asbestos detoxification technique using superheated vapor (Kochi University) ○Kazumichi Yanagisawa・Takahiro Kozawa・Ayumu Onda・(Toda Corporation) Kouya Sawada・(Nishimatsu Construction) Hiroyuki Ishiwata・(Daioh Shinyo) Tetsuo Takanami

(10：40) (Chairman 高井千加)

1A06 Effective utilization of unused amakusa pottery stone (Kumamoto University) ○Fumiya Jinnouchi・Motohide Matuda・Chunxi Hai

1A07 Fabrication and characterization of Kira (kaolin clay refining waste) - derived geopolymers (Nagoya Institute of Technology) ○Takeshi Miyake・Shinobu Hashimoto・Hayami Takeda・Sawao Honda・Yuji Iwamoto・(Sun Net Inc.) Yoshitaka Serizawa

1A08 Fabrication of volcanic ash-derived hardened body by geopolymerization (Nagoya Institute of Technology) ○Shinobu Hashimoto・Hayami Takeda・Haruka Kanie・Sawao Honda・Yuji Iwamoto

(14：40) (Chairman 袋布昌幹)

1A18 ★Self-Sustained Combustion. - Combustion Synthesis of Oxides, Hydrides, and Nitraides -(Hokkaido University) ○Tomohiro Akiyama

1A20 Rapid carbothermal synthesis of nanostructured silicon carbide from rice husk by microwave heating method (Nagoya Institute of Technology) ○Jin Li・Takashi Shirai・Tomoshi Kumazawa・Yuki Nakashima・Masayoshi Fuji

(15：40) (Chairman 橋本忍)

1A21 New method of zeolite synthesis and deposition on metallic substrate for adhesion heat pump system (Osaka Prefecture University) ○Takamasa Onoki

1A22 Synthesis reaction of zeolite A using aluminoborosilicate glass particle (Sharp Corporation・Osaka Prefecture University) ○Masato Tsujiguchi・(Sharp Corporation) Tadashi Kobashi・Masahiko Oki・Yasuhiko Utsumi・Nobuaki Kakimori・(Osaka Prefecture University) Atsushi Nakahira

1A23 Development and characterization of zeolite bulk bodies by one-pot hydrothermal method (Okayama University) ○Ayaka Sasaki・Eisaku Igi・Yoshikazu Kameshima・Shunsuke Nishimoto・Michihiro Miyake

(16：40) (Chairman 磯部敏宏)

1A24 Effect of the pore surface chemical properties and the shape for the capillary condensation phenomenon of water vapor (Tohoku University) ○Haruko Suzuki・Yuko Suto・Yoshinori Sato・(Tokyo Metropolitan University) Takashi Yanagishita・Hideki Masuda・(Tohoku University) Hideki Ishida

1A25 Structure control of calcium silicate hydrate gels for dye adsorbent (Tohoku University) ○Toshiyuki Abe・(Nagoya Institute of Technology) Hirotaka Maeda・Toshihiro Kasuga・(Tohoku University) Yuko Suto・Hideki Ishida

1A26 Effect of apatite (HA) coating for reactivity of calcium phosphate (DCPD) (Toyama National College of Technology) ○Yuka Takemura・Masamoto Tafu・Takeshi Toshima・Tetsuji Chohji

■■ September 4 (Wed) (Room B) ■■

Innovative Nanohybrid Materials — Materials Design for Fusion of Functions —

ゾルーゲル法

(9：00) (Chairman 大幸裕介)

1B01 Preparation of Zn-Al layered double hydroxide thin films intercalated with Eosin Y (Hokkaido University) ○Junichiro Oi・Mikio Higuchi・Kiyoharu Tadanaga

1B02 New polymer-free organic-titania hybrid materials with thermoplasticity and high refractive indices (Kansai University) ○Shinya Oda・Hiroaki Uchiyama・Hiromitsu Kozuka

1B03 ★Synthesis and hybridization of ionic silsesquioxanes with regular structures (Kagoshima University) ○Yoshiro Kaneko

(10：20) (Chairman 小幡亜希子)

1B05 Synthesis and characterization of luminescent center doped polysilylcarbodiimide organic-inorganic hybrid phophors (Nagoya Institute of Technology) ○Yohei Shimokawa・(Darmstadt University of Technology) Emanuel Ionescu・Gabriela Mera・(Nagoya Institute of Technology) Sawao Honda・Yuji Iwamoto・(Darmstadt University of Technology) Ralf Riedel

1B06 Preparation and gas permeation properties of organic-inorganic hybrid gas separation membranes (Kobe University) ○Daichi Nishimura・Koji Kuraoka

1B07 Preparation and properties of silica/starch organic-inorganic hybrid gas barrier films with cross-linked structure (Kobe University) ○Koji Kuraoka・Miyu Kanazawa

ピラー化 (ガス分離)

(11：20) (Chairman 忠永清治)

1B08 ★Preparation and unique intercalation behaviors of pillared carbon (University of Hyogo) ○Yoshiaki Matsuo

電場・磁場配向

(14：20) (Chairman 陶山容子)

1B17 Optical property of spherical and plate-like bismuth nano-particles dispersed compoites (National Institute of Advanced Industrial Science and Technology)

★ = Guest　☆ = Invited　◆ = Plenary　○ = presenter

○Naoyuki Kitamura・(Tohoku University) Kohki Takahashi・Iwao Mogi・Satoshi Awaji・Kazuo Watanabe

1B18 Structural analysis of barium ferrite filler of hybrid material that is oriented controlled by an electric field (Nagaoka University of Technology) ○Masanao Kanno・Takeshi Hujihara・Tadachika Nakayama・Tsuneo Suzuki・Hisayuki Suematsu・Jiang Weihua・Koichi Niihara

ハイブリッド電池材料

(15：00) (Chairman　松田厚範)

1B19 Graphene Oxide-Iron Phthalocyanine Hybrid Electrocatalyst for Oxygen Reduction Reaction (Kumamoto University・JST, CREST) ○Hikaru Tateishi・Shinsuke Miyamoto・Jun Kuroda・Chikako Ogata・Kazuto Hatakeyama・Kengo Gezuhara・Takaaki Taniguchi・Michio Koinuma・Yasumichi Matsumoto

1B20 Proton conducting materials derived from ZnO-P_2O_5-Nb_2O_5 glasses and benzimidazole (Nagoya Institute of Technology) ○Hiroshi Morikawa・Takahiro Oine・(Central Glass Co., Ltd) Tatsuya Tsuzuki・(Nagoya Institute of Technology) Hirotaka Maeda・Masanobu Nakayama・Toshihiro Kasuga

1B21 Fabrication of $LiMn_xFe_{1-x}PO_4$/VGCF nanowire by electrospinning (National Institute of Advanced Industrial Science and Technology) ○Eiji Hosono・Koichi Kagesawa・Masashi Okubo・(The University of Tokyo) Daisuke Hamane・(National Institute for Materials Science) Jun Kikkawa・(National Institute of Advanced Industrial Science and Technology・The University of Tokyo) Tetsuichi Kudo・(National Institute of Advanced Industrial Science and Technology) Haoshen Zhou

表面化学修飾

(16：20) (Chairman　片桐清文)

1B23 ★Syntheses and Photoproperties of Fusion Materials Based on Nanocarbons (Okayama University) ○Yutaka Takaguchi

1B25 PMMA – ITO Transparent Nanocomposite With Near Ir Adsorption (Toyohashi University Tech.) ○Eiji Etoh・Norio Hakiri・Go Kawamura・Atsunori Matsuda・Hiroyuki Muto

(17：20) (Chairman　細野英司)

1B26 Electrowetting of multilayer thin films with Flip-Flop Characteristics (Toyohashi University of Technology) ○Ikki Mogami・Go Kawamura・Hiroyuki Muto・Atsunori Matsuda

1B27 Evaluation of surface interaction during processing composite particles in organic solvents by colloid probe Afm method (Tokyo University of Agriculture and Technology) ○Kazuki Oguma・Aki Kurumiya・Motoyuki Iijima・Hidehiro Kamiya

■■ September 4 (Wed) (Room C) ■■

Chemical Processes –Recent Developments as Preparation Processes of Functional Materials–

導電性材料

(9：00) (Chairman　金森主祥)

1C01 Preparation of a lithium-ion conductive Ti-O-P hybrid containing oligomeric oxyethylene chains (Waseda University) ○Masataka Dobashi・Hitomi Saito・Hiroki Nara・Naokazu Idota・Toshiyuki Momma・Tetsuya Osaka・Yoshiyuki Sugahara

1C02 New synthesis route of lanthanum germanate oxyapatite and measurement of ion conductivity (Tokyo University of Science) ○Shouta Kitajima・(National Institute for Materials Science・Tokyo University of Science) Kiyoshi Kobayashi・(Tokyo University of Science) Toru Higuchi・(National Institute for Materials Science) Yoshio Sakka

1C03 Transparent thin film fabrication of NASICON-type lithium aluminum titanium phosphates by molecular precursor method (Kogakuin University) ○Soichiro Takano・Hiroki Nagai・Hiroki Hara・Mitsunobu Sato

1C04 Fabrication of thin-film lithium-ion-battery on ITO electrode and shape-controlled effects of electrode materials (Kogakuin University) ○Taishi Segawa・Hiroki Nagai・Hiroki Hara・Chihiro Mochizuki・Ichiro Takano・Mitsunobu Sato

(10：20) (Chairman　成澤雅紀)

1C05 ★Development of Ceramics Gas Separation Membranes (Noritake Co., Ltd・Nagoya Institute of Technology) ○Keita Miyajima・(Noritake Co., Ltd) Tomokazu Eda・(Nagoya Institute of Technology) Sawao Honda・Yuji Iwamoto

耐熱性材料

(11：00) (Chairman　岩本雄二)

1C07 Evaluation of Environmental Resistance of Si-O-C(-H) Ceramics at High Temperature Range (Osaka Prefecture University) ○Masaki Narisawa・(University of Colorado at Boulder) Kalvis Terauds・Rishi Raj・(Osaka Prefecture University) Akihiro Iwase

1C08 ★Research Activities on High-temperature Composites for Future Aerospace Vehicles (Japan Aerospace Exploration Agency) ○Aoki Takuya・Yuichi Ishida・Toshio Ogasawara

ハイブリッド・コンポジット

(14：20) (Chairman　中西和樹)

1C17 ★Design of organic/inorganic hybrids using metal alkoxides (SHOEI CHEMICAL) ○Shingo Katayama

1C19 Properties of ethyl-modified polysilsesquioxane glasses synthesized by cosolvent-free liquid-phase method (Tokyo Metropolitan University) ○Arata Sakuragi・Koichi Kajihara・Kiyoshi Kanamura

(15：20) (Chairman　梶原浩一)

1C20 Synthesis of organic-inorganic hybrid porous materials by copolymerization of organoalkoxysilanes (Kyoto University) ○Gen Hayase・Kazuyoshi Kanamori・Kazuki Nakanishi

1C21 Hard-coating performance of silica and organic-silica hybrid thin films prepared using polysilazane as silica source (Kansai University) ○Takayuki Kitano・Hiroaki Uchiyama・Hiromitsu Kozuka

1C22 Preparation of siloxane-containing calcium carbonate particles consisting of oriented vaterite crystals (Nagoya Institute of Techonology) ○Jin Nakamura・Hirotaka Maeda・Akiko Obata・Toshihiro Kasuga

層状物質

(16：40) (Chairman　幸塚広光)

1C24 Sol-Gel Synthesis of Macroporous Zirconium Phosphate Monolith and Its Ion Exchanger Behavior (Kyoto University) ○Yang Zhu・Kazuki Nakanishi・Kazuyoshi Kanamori

1C25 Synthesis of manganese oxide monolayers dispersed in a nonpolar organic medium (The University of Keio) ○Masashi Honda・Yuya Oaki・Hiroaki Imai

1C26 Temperature-dependent reversible exfoliation-reassembling of titanate nanosheets (Nagasaki University) ○Kai Kamada・Hisanori Kobayashi・Yu Fukuda

1C27 Preparation of nanosheets from an organic derivative of H-type layered perovskite $HCa_2NaNb_4O_{13}$ and their applications（Waseda University）○Takuya Takahashi・Yusuke Ariake・（Kagami Memorial Research Institute for Materials Science and Technology）Naokazu Idota・（Waseda University・Kagami Memorial Research Institute for Materials Science and Technology）Yoshiyuki Sugahara

■■ September 4 (Wed) (Room D) ■■

Explorer of soft-solution process for fabrication of ceramics — Reaction process in Condensed matter; water, non-aqueous solvent, ionic liquids —

酸化亜鉛

（9：00）（Chairman 水畑穣）

1D01 Growth of one-dimensional ZnO nanowire arrays on sol-gel derived ZnO thin films with controlled structures（National Defense Academy）○Nobuaki Kitazawa・Masami Aono・Yoshihisa Watanabe

1D02 ZnO Spherical Particles Grown in Ethylene Glycol and Water Solvent（National Institute for Materials Science）○Noriko Saito・Kenji Matsumoto・Ken Watanabe・Minako Hashiguchi・Isao Sakaguchi・Hajime Haneda

1D03 Fabrication of Transparent ZnO Thick Films by Chemical Bath Deposition Method and Their Improvement of Conductivity（Keio University）○Takahiro Morita・（National Institute of Advanced Industrial Science and Technology）Eiji Hosono・Haoshen Zhou・（Keio University）Manabu Hagiwara・Shinobu Fujihara

蛍光材料

（10：00）（Chairman 細野英司）

1D04 Synthesis of Eu^{2+}-doped $LiCaPO_4$ by a polymerizable complex method employing a novel water soluble PEG phosphate ester（Tohoku University）○Minsung Kim・Kobayashi Makoto・Hideki Kato・Masato Kakihana

1D05 Preparation of Fine Particles of Rare Earth Niobate by Hydrothermal Method（Aichi Institute of Technology）○Masanori Hirano・Hayato Dozono

機能性酸化物

1D06 Development of novel iron compounds aiming at synthesis of high-performance ceramics（Tohoku University）○Junki Sato・Makoto Kobayashi・Hideki Kato・Eunsang Kwon・Masato Kakihana

（11：00）（Chairman 牧秀志）

1D07 Morphology control and electrochemical properties of lithium iron silicate prepared through a hydrothermal method（Keio University）○Yasuo Hashimoto・Yuya Oaki・（National Institute of Advanced Industrial Science and Technology）Eiji Hosono・Haoshen Zhou・（Keio University）Hiroaki Imai

1D08 Synthesis of Zirconia Nanosheets by Ionothermal Method（Tokyo Institute of Technology）○Tetsuya Yamada・Ken-ichi Katsumata・Nobuhiro Matsushita・Kiyoshi Okada

1D09 Synthesis and characterization of vanadium dioxide particles by solvothermal reaction（Tohoku University）○Hisaya Hama・Qiang Dong・Shu Yin・Tugio Sato

薄膜材料

（14：20）（Chairman 緒明佑哉）

1D17 Water Collection on Hydrophilic-Hydrophobic Patterned Films Prepared by Screen Printing Processes（Nihon University）○Sadaaki Kato・Toshikazu Nishide

1D18 Hydrothermal Synthesis of Ceria Nanocrystals for Preparation of Ultrathin Films（Nagoya University）○Katsutoshi Kobayashi・Naoto Kamiuchi・（Nagoya Institute of Technology）Masaaki Haneda・（Nagoya University）Masakuni Ozawa

1D19 Preparation of 3d transition metal oxide by liquid phase deposition under equilibrium control（Kobe University）○Minoru Mizuhata・Hirotaka Ikuta・Hideshi Maki

結晶成長

（15：20）（Chairman 平野正典）

1D20 ☆Computer simulation on the dynamics of an organic molecule at a calcium carbonate crystal surface（National Institute of Advanced Industrial Science and Technology）○Hiroki Nada

1D21 Hydrothermal synthesis of SnO particles from $Sn_6O_4(OH)_4$（Kansai University）○Syunsuke Nakanishi・Hiroaki Uchiyama・Hiromitsu Kozuka

1D22 Preparation of nanostructured metal oxide particles from aqueous solutions containing organic polymers（Kansai University）○Hiroaki Uchiyama・Reiko Sakaue・Syunsuke Nakanishi・Hiromitsu Kozuka

層状化合物

（16：20）（Chairman 内山弘章）

1D23 ☆Synthesis of layered metallates with bulky interlayer cations by aqueous solution process（Gifu University）○Takayuki Ban

1D24 Fabrication of Ni/Al layered double hydroxide on conductive substrate by liquid phase depostion（Kobe University）○Hideshi Maki・Masashi Takigawa・Minoru Mizuhata

1D25 Preparation of Al^{3+}, Ga^{3+}-doped ZnO thin films with orientation by using layered double hydroxide nanoparticles（Chiba University）○Naofumi Uekawa・Takahiro Saito・Chun Ming Wen・Takashi Kojima・Kazuyuki Kakegawa

■■ September 4 (Wed) (Room E) ■■

Design, synthesis, and evaluation of biomaterials to induce cell functions

（9：00）（Chairman 大槻主税）

1E01 Design of DNA-lipid-apatite composite layers for efficient gene transfer（Waseda University・National Institute of Advanced Industrial Science and Technology）○Yushin Yazaki・（National Institute of Advanced Industrial Science and Technology）Ayako Oyane・Hiroko Araki・Yu Sogo・Atsuo Ito・（National Institute of Advanced Industrial Science and Technology・University of Tsukuba）Hideo Tsurushima・（Waseda University）Atsushi Yamazaki

1E02 Development of chelate-setting cement with enhanced osteocondutivity from Si-containing apatite and its living reaction（Meiji University・Kanagawa Academy of Science and Technology・Meiji University International Institute foe Bio-Resource Research）○Mamoru Aizawa・（Meiji University・Kanagawa Academy of Science and Technology）Yusuke Nakashima・Toshiisa Konishi・（Kanagawa Academy of Science and Technology）Minori Mizumoto・（Kanagawa Academy of Science and Technology・Meiji University International Institute foe Bio-Resource Research）Michiyo Honda・（Meiji University）Yoshikazu Arai・Kazuaki Nakano・（Meiji University International Institute foe Bio-Resource Research）Masaki Nagaya・（Meiji

University・Kanagawa Academy of Science and Technology・Meiji University International Institute foe Bio-Resource Research）Hiroshi Nagashima

（9：40）（Chairman 城﨑由紀）

1E03 Development of chelate-setting β-tricalcium phosphate cement with non-fragmentation ability and its materials property（Meiji University・Kanagawa Academy of Science and Technology）○Kohei Nagata・（Meiji University）Shuhei Takahashi・（Meiji University・Kanagawa Academy of Science and Technology）Toshiisa Konishi・（Kanagawa Academy of Science and Technology）Minori Mizumoto・Michiyo Honda・（Meiji University・Kanagawa Academy of Science and Technology）Mamoru Aizawa

1E04 *In vitro* and *in vivo* studies on biodegradability of chelate-setting calcium-phosphate cements（Kanagawa Academy of Science and Technology（KAST）・Meiji University）○Toshiisa Konishi・（Meiji University）Hiroki Manabe・（Kanagawa Academy of Science and Technology（KAST））Minori Mizumoto・Michiyo Honda・（Kanagawa Academy of Science and Technology（KAST）・Keio University）Ken Ishii・（Keio University）Haruki Funao・Hikaru Morisue・Yoshiaki Toyama・（Kanagawa Academy of Science and Technology（KAST）・Keio University）Morio Matsumoto・（Kanagawa Academy of Science and Technology（KAST）・Meiji University）Mamoru Aizawa

1E05 Development of antibacterial biomaterials by the capability of adsorption of hydroxyapatite（Kanagawa Academy of Science and Technology）○Michiyo Honda・（Kanagawa Academy of Science and Technology・Meiji University）Toshiisa Konishi・（Kanagawa Academy of Science and Technology）Minori Mizumoto・（Kanagawa Academy of Science and Technology・Meiji University）Mamoru Aizawa

（10：40）（Chairman 川下将一）

1E06 Microstrucure of strontium-doped hydroxyapatite formed on silicate glass（Okayama University）○Yusuke Oshita・Satoshi Hayakawa・Akiyoshi Osaka

1E07 Effects of a-tricalcium phosphate addition on material property and biocompatibility of chelate-setting cement（Kanagawa Academy of Science and Technology）○Minori Mizumoto・（Kanagawa Academy of Science and Technology・The University of Meiji）Toshiisa Konishi・（Kanagawa Academy of Science and Technology）Michiyo Honda・（Gunze Limited）Keishi Kiminami・Hidetoshi Arimura・（The University of Meiji）Yoshikazu Arai・Kazuaki Nakano・Masaki Nagaya・（Kanagawa Academy of Science and Technology・The University of Meiji）Hiroshi Nagashima・Mamoru Aizawa

1E08 Population of T, B and NK cells derived from spleen cultured with boron-containing apatite ceramics and its imunoassay（Meiji University）○Mariko Nakamura・（Keio University）Shigenori Nagai・（Meiji University）Mamoru Aizawa

（14：20）（Chairman 都留寛治）

1E17 ☆Study cases of QCM-D：Using Hydroxynanoapatite Sensor（Meiwafosis Co., Ltd.）○Ryushi Fukuda

（14：40）（Chairman 大矢根綾子）

1E18 ☆Observation of biomolecules using high-speed AFM（Research Institute of Biomolecule Metrology Co. Ltd.）○Norito Kotani・Takao Okada・Takashi Morii

（15：00）（Chairman 小幡亜希子）

1E19 In vitro Corrosion Behavior of Apatite coated Magnesium alloy by Hydrothermal Hot-pressing method（Osaka Prefecture University）○Yuki Inoue・（Osaka Prefecture University・Tohoku University）Atsushi Nakahira・（Osaka Prefecture University）Takamasa Onoki

1E20 Investigation of biocompatibility of porous titanium with a sodium titanate layer（Tokyo Metropolitan University）○orina Da・Hirokazu Munakata・Kiyoshi Kanamura

1E21 Three-dimensional Culture of ATDC5 Cells Using Apatite-fiber Scaffolds with Enhanced Mechanical Strength（Meiji University）○Yuta Uchimura・Yuta Miyazawa・Mariko Nakamura・Mamoru Aizawa

（16：00）（Chairman 石川邦夫）

1E22 Apatite-Biomolecule Composite Layers Control Endothelial Cell Adhesion, Retention and Growth（National Institute of Advanced Industrial Science and Technology）○Xiupeng Wang・Xia Li・Osamu Maruyama・Yu Sogo・Atsuo Ito

1E23 Evaluation of initial adhesion behaviors of microorganisms on the surface of hydroxyapatite.（Tohoku University）○Shohei Takahashi・Taishi Yokoi・Masanobu Kamitakahara・（Keio University）Koji Ioku

1E24 Creation of polyetheretherketone implants coated with silver-loaded hydroxyapatite and its anti-bacterial property（Meiji University）○Hiroaki Kakinuma・（Keio University）Ken Ishii・Hiroko Ishihama・Yoshiaki Toyama・Morio Matsumoto・（Meiji University）Mamoru Aizawa

（17：00）（Chairman 前田浩孝）

1E25 Surface property polarized dental glass-ceramics and inhibition of streptococcus mutans adhesion（Tokyo Medical and Dental University・Kogakuin University）○Hiroki Koizumi・（Tokyo Medical and Dental University）Kousuke Nozaki・Akiko Nagai・（Kogakuin University）Naoya Yoshida・Toshinori Okura・（Tokyo Medical and Dental University）Kimihiro Yamashita

1E26 Surface free energy of polarized hydroxyapatite affects osteocyte behaviors（Tokyo Medical and Dental University）○Saki Namba・Miho Nakamura・（Nihon University）Takeshi Toyama・Nobuyuki Nishimiya・（Tokyo Medical and Dental University）Kimihiro Yamashita

1E27 Inhibition of tetragonal-monoclinic transition on zirconia via polarization treatment（IV）（Tokyo Medical and Dental University）○Yu Tsuchiya・Naohiro Horiuchi・Kosuke Nozaki・Miho Nakamura・Akiko Nagai・（Chiba Institute of Technology）Kazuaki Hashimoto・（Tokyo Medical and Dental University）Kimihiro Yamashita

■■ September 4 (Wed) (Room F) ■■

Development of functional ceramics using Green Processing

低エネルギー消費プロセス

（9：00）（Chairman 大野智也）

1F01 Crystal growth mechanisms and orientation of pillar InN crystals fabricated by APHCVD（Shizuoka University）○Naonori Sakamoto・Tomohiro Murase・Tatsuya Kogane・（Tohoku University）Takanori Kiguchi・Toyohiko Konno・（Shizuoka University）Naoki Wakiya・Hisao Suzuki

1F02 Low Temperature Synthesis of Gd-doped-CeO_2 Thin Films by Atmospheric Pressure Chemical-Vapor-Deposition（Tokyo Institute of Technology）○Kensuke Mita・Tadashi Shiota・Jeffrey Cross・Osamu Sakurai・Kazuo Shinozaki・（Shizuoka University）Naoki Wakiya・（Kojundo Chemical Laboratory Co., Ltd）Shintaro Higashi

1F03 Synthesis and characterization of $12CaO \cdot 7Al_2O_3$ fine powder with oxygen radicals by sol-gel method（Shizuoka University）○Kenta Kamimura・Kotaro Ozawa・Naonori Sakamoto・Naoki Wakiya・Hisao Suzuki

1F04 Room temperature synthesis of ceramics using water（The University of Niigata）○Tatsurou Kaneko・Kazuyoshi Uematsu・Tadashi Ishigaki・Kenji Toda・Mineo Satou・（N-Luminescence Corporation）Junko Koide・Masako Toda・Yoshiaki Kudou

1F05 Temperature Synthesis of $Ba_2V_2O_7$ Films Using Liquid-Liquid Biphasic Systems and Their Luminescence Properties（Keio University）○Mami Takahashi・Manabu Hagiwara・Shinobu Fujihara

(10：40) (Chairman 村瀬琢)

1F06 Microwave synthesis of Fe-based layered multiple oxides for oxygen storage materials (Tohoku University) ○Takumi Nakajima・Yamato Hayashi・Jun Fukushima・Hirotsugu Takizawa

強誘電体薄膜

1F07 Atomic-resolution analysis of chemical ordered region in Pb-based relaxor thin films (Tohoku University) ○Takanori Kiguchi・Cangyu Fan・Toyohiko J. Konno・(Nagoya University) Jun Yasumoto・Takanori Nagasaki・(Nagoya University・JST-PRESTO) Tomoaki Yamada

1F08 Improved Electrical Properties of PMN-PT Relaxor Thin Films by Hybrid-Integration of Oxide Electrode Thin Films (Shizuoka University) ○Takashi Arai・Yasuyuki Goto・Naonori Sakamoto・(Kitami Institute of Technology) Tomoya Ohno・Takeshi Matsuda・(Shizuoka University) Naoki Wakiya・Hisao Suzuki

1F09 In-situ measurements of cross sectional microstructure and electrical properties for PZT/LNO/Si thin film using an AFM (Shizuoka Univesity) ○Shota Yamamoto・Naonori Sakamoto・(Tokyo Institute of Technology) Kazuo Shinozaki・(Shizuoka Univesity) Hisao Suzuki・Naoki Wakiya

環境・エネルギー関連材料

(14：20) (Chairman 脇谷尚樹)

1F17 ★Low Temperature Processing of Mesocarbon-Nanocrystalline MnO_2 Hybrids for Energy Storage (National University of Singapore) ○John Wang・Zhengchun Yang・(Institute of Materials Research and Engineering (IMRE)) Xu Li

(15：00) (Chairman 坂元尚紀)

1F19 Preparation of Composite Materials with Na-P1 Type Zeolite and Nano-sized Magnetite for Cs Decontamination in Soil (Ehime University) ○Yuki Mizoguchi・Yoshiteru Itagaki・Toru Yamamoto・Naoto Matsue・Teruo Henmi・Hiromichi Aono

1F20 Preparation of Mordenite and its Composite Materials from Diatomite for Cs Decontamination (Ehime University) ○Keizo Yamada・Yoshiteru Itagaki・Johan Erni・Toru Yamamoto・Naoto Matsue・Teruo Henmi・Hiromichi Aono

1F21 Synthesis of template-free ZnO hollow spheres and investigation of heat treatment (Tokyo Institute of Technology) ○Taiki Ihara・(Shinshu University) Hajime Wagata・(The University of Tokyo) Toshihiro Kogure・(Tokyo Institute of Technology) Ken-ichi Katsumata・Kiyoshi Okada・Nobuhiro Matsushita

(16：20) (Chairman 脇谷尚樹)

1F23 ★Environment-friendly CZTS thin-film solar cells (Osaka University) ○Toshihiko Toyama

環境・エネルギー関連材料

(17：00) (Chairman 松下伸広)

1F25 Fabrication of MoO_3-based photochromic composite films using peroxoisopolymolybdic acid and urethane resin (Nagoya Institute of Technology) ○Hiroaki Ichioka・(Shimane University) Hidetoshi Miyazaki・(Shizuoka University) Hisao Suzuki・(Nagoya Institute of Technology) Toshitaka Ota・Koichiro Fukuda

1F26 Nanocoating of Barium Titanate on the Nanoparticles by Chemical Solution Deposition (Kitami Institute of Technology) ○Tomoya Ohno・Takeshi Matsuda・(Shizuoka University) Naonori Sakamoto・Naoki Wakiya・Hisao Suzuki

1F27 Preparation and Sintering of stoichiometric $K_{0.5}Na_{0.5}NbO_3$ nano-particles by the solid-liquid reaction method (Shizuoka University) ○Da Li・Noriaki Sugita・(Keio University・Jozef Stefan Institute) Mamoru Senna・(Shizuoka University) Naoki Sakamoto・Naoki Wakiya・Hisao Suzuki・(Jozef Stefan Institute) Jernej Pavlic・Barbara Malic・Marija Kosec

■■ September 4 (Wed) (Room G) ■■

Advent and Development of Advanced Photonic Materials

蛍光体

(9：00) (Chairman 上田純平)

1G01 Low Voltage Cathodoluminescent Properties of Zinc Oxide (s.s.) Thin Films (Mie Prefecture Industrial Research Institute) ○Koji Inoue

1G02 $CeO_2:Sm^{3+}$ Smart Phosphors for Redox Monitoring (Keio University) ○Natsumi Kaneko・Manabu Hagiwara・Shinobu Fujihara

1G03 Photochromism and Photostimulated luminescence of $CaAl_2O_4:Eu^{2+},Nd^{3+}$ bluish purple and near infrared persistent phosphor (Kyoto University) ○Tatsuaki Shinoda・Jumpei Ueda・Setsuhisa Tanabe・Masayasu Taki・(Kyoto Prefectural University) Akito Ishida

(10：00) (Chairman 稲熊宜之)

1G04 Analysis of luminescence quenching in Ce^{3+}-doped garnet ceramics (Kyoto University) ○Jumpei Ueda・Setsuhisa Tanabe

1G05 Development of a yellow-emitting phosphate phosphor $Sr_9Sc(PO_4)_7:Eu^{2+}$ (The University of Tohoku) ○Akiko Saito・Hideki Kato・Makoto Kobayashi・Yasushi Sato・Masato Kakihana

1G06 Synthesis and Characterization of Eu^{3+} Doped ZrO_2 Highly Efficient Nanophosphor (Nagoya Institute of Technology) ○Ryo Ikeshita・Tomokatsu Hayakawa・(Limoges University) Jean Rene Duclere・Philippe Thomas

1G07 Study on luminescence mechanism of copper-doped hydronium alunite (Nagaoka University of Technology) ○Yuichiro Kuroki・Shingo Kimura・Tomoichiro Okamoto・(Nagaoka University of Technology・JFCC) Masasuke Takata

(11：20) (Chairman 早川知克)

1G08 ★Research and Development of UV phosphors for Xe-excimer light excitation (Tokyo Kagaku Kenkyusho) ○Shinji Okamoto

蛍光体

(14：40) (Chairman 小玉展宏)

1G18 Development of Alkaline earth silicate long-lasting phosphors (Tokai University) ○Masumi Sugita・Atsuko Suzuki・Noriyuki Naruse・Koji Tomita

1G19 Effects of A-site substitution on luminescence of copper-doped hydronium alunite (Nagaoka University of Technology) ○Shingo Kimura・Yuichiro Kuroki・Tomoichiro Okamoto・(Nagaoka University of Technology・JFCC) Masasuke Takata

1G20 Synthesis of Fluoride Phosphors using PTFE (Niigata University) ○Hiromi Mizobuchi・Kazuyoshi Uematsu・Tadashi Ishigaki・Kenji Toda・Mineo Sato

(15：40) (Chairman 濱上寿一)

1G21 Preparation of red-emitting barium calcium silicon oxynitride by spray pyrolysis – carbothermal reduction / nitridation (Sophia University) ○Hiroya Morishita・(Eindhoven University of Technology) Hubertus. T Hintzen・Anne. C.A Delsing・(Sophia University) Kiyoshi Itatani

1G22 Developement of UV phosphors based on phosphates and their luminescence properties (Gakushuin University) ○Raita Horiguchi・Yoshiyuki Inaguma・Shuhei Sasaki・Daisuke Mori

★ = Guest　☆ = Invited　◆ = Plenary　○ = presenter

蛍光体基礎

1G23　Rare-earth-free phosphors based on vanadate compounds and a synthetic strategy for red-emission（Yamagata University）○Akane Sato・Minori Shida・Masahiro Hirooka・Yuta Matsushima

（16：40）（Chairman　藤原忍）

1G24　Dynamics of energy transfer to Ln^{3+}（Ln^{3+} = Sm^{3+}, Tb^{3+}, Gd^{3+} from the self-trapped exciton in $LaSc_3(BO_3)_4$ upon VUV excitation（Akita University）Akari Abe・Tomoko Takahashi・Yui Morisawa・○Nobuhiro Kodama

1G25　Design of Red-emitting phopshors（Niigata University）○Kenji Toda

1G26　Study on the luminescence mechanism of the alumina phosphor prepared by a liquid method（Utsunomiya University）○Yue Jin Shan・Yoshinori Wakui・Keitarou Tezuka

（17：40）（Chairman　井上幸司）

1G27　★Photoluminescence properties of rare earth ion doped perovskite-type stannate phosphors（Kyushu Institute of Technology）○Kazushige Ueda

■■ September 4 (Wed) (Room H) ■■

Functional revelation and its understanding of ceramic transducers — sensors and actuators —

（9：40）（Chairman　西堀麻衣子）

1H03　Monitoring methane gas using micro thermoelectric gas sensor（National Institute of Advanced Industrial Science and Technology）Daisuke Nagai・toshio Itoh・takahumi akamatsu・Noriya Izu・○Woosuck Shin

1H04　A stable sensing-electrode material in reducing atmosphere at high temperature for zirconia-based NOx sensor（Nagasaki University）○Taro Ueda・（JFCC）Hajime Okawa・Seiji Takahashi

（10：20）（Chairman　申ウソク）

1H05　Gasochromic reaction analysis and temperature dependence of Pt/WO_3 thin films prepared by sol-gel process（Tokyo University of Science）○Yuki Yamaguchi・Shigeru Ito・Kenjiro Fujimoto・Keishi Nishio

1H06　Synthesis and characterization of mellite-type piezoelectric single crystals for high temperature use（Tokyo Institute of Technology）○Hiroaki Takeda・（Keio University）Manabu Hagiwara・（Tokyo Institute of Technology）Hiroaki Noguchi・Takuya Hoshina・（Keio University）Shinobu Fujiwara・（Tokyo Institute of Technology）Takaaki Tsurumi

1H07　Synthesis of barium titanate based PTCR ceramics with low room temperature resistivity（Tokyo Institute of Technology）○Kohei Matsuura・Takahiro Kojima・Takuya Hoshina・Hiroaki Takeda・Yukio Sakabe・Takaaki Tsurumi

（11：20）（Chairman　武田博明）

1H08　★Multilayer PTC thermistor with Ni electrode（Murata Manufacturing Co.,Ltd.）○Yumin Saigo

（14：20）（Chairman　粟津浩一）

1H17　★Maintenance-less and senstive methods for water analysis utilizing of photochemcial reactions（National Institute of Advanced Industrial Science and Technology）○Tetsuya Nakazato

1H19　Immobilization of formaldehyde dehydrogenase on functionalized mesoporous silica.（Aichi institute of technology・National Institute of Advanced Industrial Science and Technology）○Yuichi Masuda・（Aichi institute of technology）Shin-ichi Kugimiya・（Kyushu University）Akari Hayashi・（National Institute of Advanced Industrial Science and Technology）Katsuya Kato

1H20　Activity evaluation of immobilized enzyme on titanium dioxide films with different crystallinity（National Institute of Advanced Industrial Science and Technology）○Hitomi Nakamura・Katsuya Kato・Yoshitake Masuda・Kazumi Kato

（15：40）（Chairman　加藤且也）

1H21　★Nano-materials for signal transduction and Biosensors（Osaka University）○Eiichi Tamiya

1H23　Influence of density of $GdBa_2Cu_3O_{7-\delta}$-based ceramic rod on miniaturization of device exploiting hot spot phenomenon（Nagaoka University of Technology）○Tomoichiro Okamoto・Haruto Uchiyama・Yuichiro Kuroki・（Nagaoka University of Technology・JFCC）Masasuke Takata

（16：40）（Chairman　上田太郎）

1H24　Sensing properties of semiconductor gas sensor for low concentration NO gas（National Institute of Advanced Industrial Science and Technology）○Takafumi Akamatsu・Toshio Itoh・Noriya Izu・Woosuck Shin

1H25　Effects of Crystal Structure Changes of WO_3 Sensors Prepared by Hydrothermal Synthesis on Sensing Properties to NO_2（The Japan Society for the Promotion of Science・Ritsumeikan University）○Zhicong Meng・（Ritsumeikan University）Aya Fujii・（Osaka University）Takeshi Hashishin・（Ritsumeikan University）Tomoe Sanada・Jun Tamaki・Kazuo Kojima

（17：20）（Chairman　伊豆典哉）

1H26　Synthesis and powder properties of $La_{0.8}Sr_{0.2}MnO_3$ porous spheric powder by spray pyrolysis method（JFCC）○Seiji Takahashi・Hajime Okawa・（Nagasaki University）Taro Ueda

1H27　Response characteristics of catalytic combustion-type sensor for detection of diesel particulate matter（Kyushu University）○Maiko Nishibori・Tsutomu Itoh・Hisahiro Einaga・Yasutake Teraoka

■■ September 4 (Wed) (Room I) ■■

Science and Technology on Engineering Ceramics: Material Development for Realization of Safe and Reliable Society

窒化ケイ素系セラミックスの新展開

（10：40）（Chairman　樽田誠一）

1I06　Fracture Toughness Property of High-Thermal-Conductivity Silicon Nitride Ceramics（National Institute of Advanced Industrial Science and Technology）○You Zhou・Tatsuki Ohji・Hideki Hyuga・Yu-ichi Yoshizawa・Norimitsu Murayama・Kiyoshi Hirao

1I07　Thermal and Mechanical Properties of Si3N4 Ceramics Prepared from Si-Si3N4 Mixtures（Fine Ceramics Research Association）○Shoji Iwakiri・（National Institute of Advanced Industrial Science and Technology）You Zhou・Hideki Hyuga・Kiyoshi Hirao

1I08　Effect of Al Content on Mechanical Properties and Thermal Conductivities of Sintered Reaction-bonded Silicon Nitride（Fine Ceramics Reserach Association）○Dai Kusano・（National Institute of Advanced Industrial Science and Technology）Hideki Hyuga・You Zhou・Kiyoshi Hirao

接合技術による大型セラミックスの作製

（11：40）（Chairman　垣澤英樹）

1I09　Development of ceramics laser brainzing process technology（Toshiba Corp.）○Shoko Suyama・Wataru Kouno・Daijiro Fukuda・Akira Tanaka

飛躍的特性向上を目指した新しい微構造制御

(14：20) (Chairman　吉田克己)

1I17 ★Vision and Goals of Elements Strategy Initiative for Structure Materials (ESISM) (Kyoto University) ○Isao Tanaka・Shojiro Ochiai

1I19 Characterization of Willemite Solid Solution ($Zn_{2-x}Mg_xSiO_4$) (Ashikaga Institute of Technology) ○Toshio Ogiwara・(Ashikaga Institute of Technology AIT Collaborative Research Center) Yoshimasa Noda・(Ashikaga Institute of Technology AIT Collaborative Research Center) Osamu Kimura

(15：20) (Chairman　吉田克己)

1I20 Boron-based advanced ceramics by SHS-p-HIP for nuclear reactors (Hokkaido University) ○Marta Agnieszka Ziemnicka-Sylwester

飛躍的特性向上を目指した新しい微構造制御

(15：40) (Chairman　吉田克己)

1I21 Microstructural control and mechanical properties of ceramics with different oriented layers (National Institute for Materials Science) ○Tohru Suzuki・Tetsuo Uchikoshi・Yoshio Sakka

(16：00) (Chairman　周游)

1I22 TEM observation of hafnia/silicon carbide nanocomposite (Tokyo Institute of Technology) ○Yutaka Shinoda・Yusei Minoguchi・Takashi Akatsu・Fumihiro Wakai・(University of Colorado) Rishi Raj

1I23 Improvement of mechanical property of hafnia/silicon carbide nanocomposite by heat treatment (Tokyo Institute of Technology) ○Yusei Minoguchi・Yutaka Shinoda・Takashi Akatsu・Fumihiro Wakai

1I24 Fabrication of SiC with high resistivity by control of grain boundary phase (Kagawa University) ○Takafumi Kusunose・Takeshi Miyoshi・(Tohoku University) Tohru Sekino

1I25 Influence of CNFs distribution on electrical conductivity of the CNFs/alumina composites (Shinshu University) ○Naoki Ueda・Tomohiko Yamakami・Tomohiro Yamaguchi・Morinobu Endo・Naoto Saito・Seiichi Taruta

超塑性変形の科学

(17：20) (Chairman　田中諭)

1I26 High-strain-rate superplastic properties in Si SiO_2 doped Y-TZP (Kitami Institute of Technology・National Institute of Materials Science) ○Keijiro Hiraga・(Kitami Institute of Technology) Kohei Hukunishi・(National Institute of Materials Science) Koji Morita・Byung-Nam Kim・Hidehiro Yoshida・Yoshio Sakka

1I27 Microstructural evolution and dopant distribution in glassy phase of superplastic silicon nitride ceramics (Tokyo Institute of Technology) ○Raayaa wananuruksawong・Yutaka Shinoda・Takashi Akatsu・Fumihiro Wakai

■■ September 4 (Wed) (Room J) ■■

New Evolution of Dielectrics: Aiming at the Innovation in Materials, Processing and Devices

光学材料

(9：00) (Chairman　青柳倫太郎)

1J01 ★Optical beam-controlling devises based on $KTa_{1-x}Nb_xO_3$ single crystals (NTT Photonics Laboratories) ○Tadayuki Imai・Jun Miyazu・Yuzo Sasaki・Seiji Toyoda・Souhan Kawamura・Takashi Sakamoto・Yuichi Okabe・Masahiro Sasaura・Masahiro Ueno・Junya Kobayashi

1J03 Development of c-axis oriented $Ba_2TiSi_2O_8$ thin films via sol-gel method for active glass device (Tohoku University) ○Rie Ihara・Keito Sato・Yoshihiro Takahashi・Takumi Fujiwara・(Kyoto University) Hirokazu Masai

圧電材料Ⅰ

(10：00) (Chairman　柿本健一)

1J04 Structual observation and piezoelectric response of perfectly surface-crystallized glass in SrO-TiO_2-SiO_2 system (Tohoku University) ○Kazuya Takano・Kazuki Yamaoka・Yoshihiro Takahashi・Rie Ihara・Takumi Fujiwara

1J05 ☆Piezoelectric actuator operation based on ferroelectric domain control (The University of Tokyo) ○Takeshi Morita

1J06 Laser Scanning Microscopy Observation of Domain Switching in $NaNbO_3$ Epitaxial Film (Ryukoku University) ○Ichrio Fujii・Akihiro Kohori・Seiji Yamazoe・Takahiro Wada

薄膜材料Ⅰ

(11：00) (Chairman　山田智明)

1J07 Observation of piezoelectric behavior under electric field in epitaxial BSFO films with FE-AFE phase boundary (University of Maryland・Tokyo Institute of Technology) ○Shintaro Yasui・(Tokyo Institute of Technology) Yoshitaka Ehara・Takahisa Shiraishi・Takao Shimizu・Hiroshi Funakubo・Mitsuru Itoh・(JASRI/SPring-8) Yasuhiko Imai・Hiroo Tajiri・(NIMS/SPring-8) Osami Sakata・(University of Maryland) Ichiro Takeuchi

1J08 Vibrational energy harvesting using orientation controlled $BiFeO_3$ films (Osaka Prefecture University) ○Takeshi Yoshimura・Kento Kariya・Keisuke Wakazono・Norifumi Fujimura・(Technology Research Institute of Osaka Prefecture) Shuichi Murakami

1J09 ☆Retention properties of element-doped $BiFeO_3$ thin films for high temperature operation (Kanazawa University) ○Takeshi Kawae・Yukihiro Nomura・Keisuke Nomura・Akiharu Morimoto

薄膜材料Ⅱ

(14：20) (Chairman　吉村武)

1J17 ★Thickness Dependent Transport Properties of $SrMO_3$/(Sr, La)TiO_3/LSAT(M = Ti or Zr) Heterostructures (Fujitsu Laboratories Ltd.) ○John David Baniecki・Masatoshi Ishii・Hiroyuki Aso・(Harvard University) K. Kerman

1J19 Strain induced ferroelectric and antiferrodistortive phase transitions in $SrTiO_3$ thin films (Nagoya University・JST-PRESTO) ○Tomoaki Yamada・(Victoria University of Wellington) Wylie-van Eerd Benjamin・Trodahl Joe・(National Institute for Materials Science・Tokyo Institute of Technology) Osami Sakata・(Tokyo Institute of Technology) Hiroshi Funakubo・(Nagoya University) Masahito Yoshino・Takanori Nagasaki

圧電材料Ⅱ

(15：20) (Chairman　永田肇)

1J20 ☆Piezoelectric thick film devices developed by aerosol deposition method (NEC TOKIN Corporation) ○Yoshihiro Kawakami・Atsusi Sasaki・Koichi Okamoto・Syuji Aisawa

1J21 Enhanced Polarization Properties of Bismuth Sodium Titanate Ceramics Prepared by Aerosol Deposition Method (National Institute of Advanced Industrial Science and Technology) ○Muneyasu Suzuki・Jun Akedo

1J22 Synthesis and Electric Properties of (1-x)($Na_{0.5}Bi_{0.5}$)TiO_3-x$Ba(Mg_{0.5}W_{0.5})O_3$ by a Solvothermal Approach (Tohoku University) ○Takeshi Kimura・Qiang Dong・Shu Yin・(NEC Tokin Co.) Takatoshi Hashimoto・Atsushi Sasaki・Shuji Aisawa・(Tohoku University) Tsugio Sato

★ = Guest　☆ = Invited　◆ = Plenary　○ = presenter

1J23　☆Novel high temperature dielectric $NaNbO_3$-$NaTaO_3$ processed in reduced atmosphere（Taiyo Yuden Co., Ltd.）○Keisuke Kobayashi・Minoru Ryu・Yutaka Doshida・Youichi Mizuno・（The Pennsylvania State University）Randall Clive A.

圧電材料Ⅲ

（16：40）（Chairman　古川正仁）

1J24　Effects of element additive on the piezoelectric properties of niobate lead-free piezoelelctric ceramics（National Institute of Advanced Industrial Science and Technology）○Ruiping Wang・Hiroshi Bando・（University of Tsukuba）Seiji Kojima

1J25　Grain size effect in lead-free niobate piezoelectric ceramics（Nagoya Institute of Technology）○Kensuke Kato・Ken-ichi Kakimoto・（TAIYO YUDEN CO., LTD.）Keiichi Hatano・Keisuke Kobayashi・Yutaka Doshida

1J26　Low temperature sintering of $(1-x)NaNbO_3$-$xBaTiO_3$ lead-free piezoelectric ceramics（Nagoya Institute of Technology）○Rintaro Aoyagi・Souichi Banno・Masaki Maeda

1J27　☆Fabrication and High Power Piezoelctric Properties of Grain Oriented Bismuth Layer-Structured Ferroelectric Ceramics（Tokyo University of Science）○Hajime Nagata・Shun Endo・Tadashi Takenaka

■■ September 4 (Wed) (Room K) ■■

Research Trend of Ceramic Materials and Devise Technology on Energy Conversion and Storage

二次電池材料

（9：00）（Chairman　秋本順二）

1K01　Solid-state synthesis of $Li_7La_3Zr_2O_{12}$ from La-Zr complex oxide（JFCC）○Teiichi Kimura・Tetsushi Matsuda・Hiroshi Nomura・Tsukasa Hirayama

1K02　Materials design of lithium superionic conductors based on first-principles calculations and machine learning algorithms（JFCC・Kyoto University）○Koji Fujimura・（Kyoto University）Atsuto Seko・Yukinori Koyama・（JFCC）Akihide Kuwabara・（Osaka City University）Ippei Kishida・（Kyoto University）Kazuki Shitara・（JFCC）Craig Fisher・Hiroki Moriwake・（Kyoto University・JFCC）Isao Tanaka

1K03　Fabrication of all-solid-state rechargeable lithium-ion batteries using solid solution cathode materials（Tokyo Metropolitan University）○Keisuke Ando・Hirokazu Munakata・Kiyoshi Kanamura

（10：00）（Chairman　今西誠之）

1K04　Development of cathode fabrication method for all-solid-state batteries using garnet-type lithium-ion conducting oxides（Tokyo Metropolitan University）○Jungo Wakasugi・Hirokazu Munakata・Kiyoshi Kanamura

1K05　Combined experimental and computational study on Li ion exchange reaction at electrode/electrolyte interface（Nagoya Institute of TEchnology・JST-PRESTO・Kyoto University ESICB）○Masanobu Nakayama・（Nagoya Institute of TEchnology）Tomoaki Nakamura・Toshihiro Kasuga

1K06　Synthesis, ceystal structure analysis and electrochemical property of lithium manganese oxide（National Institute of Advanced Industrial Science and Technology）○Kunimitsu Kataoka・Hiroshi Hayakawa・（baraki University）Akinori Hoshikawa・Toru Ishigaki・（National Institute of Advanced Industrial Science and Technology）Toyoki Okumura・Hironori Kobayashi・Junji Akimoto

（11：00）（Chairman　棟方裕一）

1K07　Crystal-Electronic Structures and Thermodynamic Stability Accompanying Charge-Discharge of Li-rich Cathode Material（Tokyo University of Science）○Norihide Tamura・Naoya Ishida・Naoto Kitamura・Yasushi Idemoto

1K08　Analysis of Crystal and Electronic Structure of layered material during electrochemical cycling by Vacuum Reduction（Tokyo University of Science）○Seiji Nakayama・Naoya Ishida・Naoto Kitamura・Yasushi Idemoto

1K09　Crystal and Electron Structure of Initial Discharge Process in $0.4Li_2MnO_3$-$0.6LiMn_{1/3}Ni_{1/3}Co_{1/3}O_2$（Tokyo University of Science）○Yusuke Sera・Naoya Ishida・Naoto Kitamura・Yasushi Idemoto

（14：20）（Chairman　藤代芳伸）

1K17　★Development of All-Solid-State Batteries Using Sulfide-Based Solid Electrolytes（Osaka Prefecture University）Masahiro Tatsumisago・○Akitoshi Hayashi

（15：20）（Chairman　藤代芳伸）

1K20　Crystal structure analysis of CuO-Li_2MnO_3 composite electrodes for Secondary Lithium Ion Battery（Kansai University）○Yuushi Umekawa・Shinya Akiyama・Yoshinori Arachi

1K21　Investigation on Crystal Structures and Electrochemical Properties of $Li_{2x}FeSi_{1-x}P_xO_4$（Kansai University）○Yoshihiro Takagi・Ryota Nakamura・Yoshinori Arachi

1K22　Effects of Ni on Crystal Structure and Electrochemical Properties of Li_2CuO_2（Kansai University）○Shohei Mitsui・Tomoyuki Ide・yoshinori Arachi

（16：20）（Chairman　荒地良典）

1K23　Synthesis of MF_3（M = V, Fe）fluoride electrode materials using PTFE（The University of Niigata）○Hirotaka Torii・Kazuyoshi Uematsu・Tadashi Ishigaki・Kenzi Toda・Mineo Sato

1K24　High pressure synthesis of $Na_3M(PO_4)_2$（M = Fe, Cr）（Tokyo University of Science）○Hiroki Hamada・Kentaro Okudaira・Kenji Tanabe・Kazuyasu Tokiwa・（National Institute of Advanced Industrial Science and Technology）Mikito Mamiya・Jyunji Akimoto

1K25　Sodium insetion into P2 type-Na_xCoO_2 by solid-state reaction（Central Research Institute of Electric Power Industry）○Takeshi Kobayashi・（Electric Power Engineering Systems Co., Ltd.,）Yasutaka Ohno・（Central Research Institute of Electric Power Industry）Kumi Shono・Yo Kobayashi・Hajime Miyashiro

1K26　Synthesis of $H_2Ti_{12}O_{25}$ by soaking the solution into the porous titanium hydroxide powder（National Institute of Advanced Industrial Science and Technology）○Hideaki Nagai・Kunimitsu Kataoka・Junji Akimoto・（Ishihara Sangyo Kaisha, Ltd.）Tomoyuki Sotokawa・Yoshimasa Kumashiro

■■ September 4 (Wed) (Room L) ■■

Novel Powder Processing to Produce High-Performance and High-Quality Ceramics

基調講演

（14：20）（Chairman　目義雄）

1L17　◆Design of particle and powders for advanced materials（Osaka University）○Makio Naito・Hiroya Abe・Akira Kondo・Takahiro Kozawa

高機能・高信頼性化のための成形体構造制御

（15：00）（Chairman　川崎真司）

1L19　★Practical Application of Aerosol Deposition Method（TOTO Fine Ceramics LTD.）○Masakatsu Kiyohara

(15：40) (Chairman 福島学)

1L21 Fabrication of dense textured Ti_2AlN by slip cast in a strong magnetic field (National Institute for Materials Science) ○Kimitoshi Sato・(Tokyo University of Science) Shotaro Musya・(National Institute for Materials Science) Tohru Suzuki・(Tokyo University of Science) Kenjiro Fujimoto・(National Institute for Materials Science) Yoshio Sakka

1L22 Fabrication of c-axis oriented Si_3N_4 ceramics using a magnetic field orientation method (Kanagawa Academy of Science and Technology) ○Takuma Takahashi・(Yokohama National University) Junichi Tatami・(Nagaoka University of Technology) Satoshi Tanaka

(16：20) (Chairman 高橋拓実)

1L23 Preparation and characteristic of ceramics and carbon composites used different ceramic matrices (Nagoya Institute of Technology) ○Tomoshi Kumazawa・Takashi Shirai・Masayoshi Fuji・Chika Takai

1L24 Room-temperature gelcasting of alumina with a water soluble copolymer (Tokyo University of Agriculture and Technology・Shanghai Institute of Ceramics Chinese Academy of Science) ○Shunzo Shimai・(Alfred University) Yan Yang・(Shanghai Institute of Ceramics Chinese Academy of Science) Siwei Wang・(Tokyo University of Agriculture and Technology) Hidehiro Kamiya

1L25 Fabrication of highly porous ceramic thermal insulators prepared by gelation freezing route (National Institute of Advanced Industrial Science and Technology (AIST)) ○Manabu Fukushima・Yu-ichi Yoshizawa

(17：20) (Chairman 鈴木達)

1L26 Pore elimination process of Si_3N_4 ceramics in sintering (Yokohama National University) ○Yuki Sano・Junichi Tatami・(Kanagawa Academy of Science and Technology) Takuma Takahashi・(Kanagawa Industrial Technology Center) Masahiro Yokouchi

1L27 Improvement of strength of Si_3N_4 ceramics by using microgranules and cyclic CIP process (Yokohama National University) ○Junichi Tatami・Hiroaki Kayama・Shiori Sueyasu・(Kanagawa Academy of Science and Technology) Takuma Takahashi

■■ September 4 (Wed) (Room M) ■■

Frontiers of structural science and the development of novel materials

(9：00) (Chairman 分島亮)

1M01 ☆Structure-Property Relationship on $ACu_3Fe_4O_{12}$-type Perovskites Containing Unusual High Valence Iron (Osaka Prefecture University・JST-PRESTO) ○Ikuya Yamada

(9：20) (Chairman 岡研吾)

1M02 Effect of partial element substitution on unusual high valence iron Perovskites (Osaka Prefecture University) ○Shohei Marukawa・(Nanoscience and Nanotechnology Reseach Center, Osaka Prefecture University・JST-PRESTO) Ikuya Yamada・(GRC, Ehime University) Tetsuo Irifune・(JASRI) Masaichiro Mizumaki

1M03 The Synthesis and Crystal and Electronic Structures of a Nobel A-site Ordered Perovskite $AgCu_3V_4O_{12}$ (Kyoto University) ○Yasuhide Akizuki・(Osaka Prefecture University・JST-PRESTO) Ikuya Yamada・(Kyoto University) Koji Fujita・(Pennsylvania State University) Hirofumi Akamatsu・(Ehime University) Tetsuo Irifune・(Kyoto University) Katsuhisa Tanaka

(10：00) (Chairman 溝口拓)

1M04 High pressure synthesis, crystal structure and physical properties of A-site-ordered perovskites $AMn_3B_4O_{12}$ (Kyoto University) ○Takashi Saito・Takenori Tohyama・Shoubao Zhang・(Kyoto University・JST-CREST) Yuichi Shimakawa

1M05 Synthesis of a new layered double perovskite Ca_2FeMnO_6 with unusually high valent cations (Kyoto University) ○Yoshiteru Hosaka・Noriya Ichikawa・Takashi Saitou・(Kyoto University・JST-CREST) Yuichi Shimakawa

(11：00) (Chairman 齊藤高志)

1M07 High-pressure synthesis and characterization of novel compound in $BiFeO_3$-$MnTiO_3$ system (Nagoya University) ○Gen Shimura・Keiji Kusaba・Tetsuya Miyawaki・Ken Niwa・Hidefumi Asano・Masashi Hasegawa

1M08 The synthesis and physical properties of novel $LiNbO_3$-type $ScFeO_3$ (Kyoto University) ○Takahiro Kawamoto・Koji Fujita・(Osaka Prefecture University・JST-PRESTO) Ikuya Yamada・(Ehime University) Hidenobu Etani・(Kyoto University) Tomohiko Matoba・(University of Michigan) Sung Kim・Peng Gao・Xiaoquing Pan・(Ehime University) Tetsuo Irifune・(Kyoto University) Katsuhisa Tanaka

(11：40) (Chairman 山田幾也)

1M09 Preparation of epoxy resin/$BiNiO_3$ composites with reduced thermal expansion (Tokyo Institute of Technology) ○Yuya Muramatsu・Koichiro Nabetani・Kengo Oka・Masaki Azuma

1M10 Ferroelectric phase transition in A-site ordered double perovskite $MnCaTi_2O_6$ (Gakushuin University) ○Akihisa Aimi・Daisuke Mori・Yoshiyuki Inaguma・(Utsunomiya University) Yue Jin Shan

(14：20) (Chairman 溝口照康)

1M17 ★Theoretical Point Defect Energetics in Bioceramics (Nagoya University) ○Katsuyuki Matsunaga・Tomonori Kubota・Kazuaki Toyoura・Atsutomo Nakamura

1M19 First-principles analysis of conduction paths in $La_{10}(Ge/SiO_4)_6O_3$ (Nagoya University) ○Kouta Imaizumi・Kazuaki Toyoura・Atsutomo Nakamura・Katsuyuki Matsunaga

(15：20) (Chairman 松永克志)

1M20 ☆Structure analysis of amorphous and liquid using first principles calculation and core-loss spectroscopy (University of Tokyo) ○Teruyasu Mizoguchi

1M21 Structural study of Li-P-S superionic conductors by reverse Monte Carlo modeling combined with neutron/X-ray diffraction (Kyoto University) ○Yohei Onodera・Kazuhiro Mori・(High Energy Accelerator Research Organization) Toshiya Otomo・(Kyoto University) Toshiharu Fukunaga

(16：20) (Chairman 幾原裕美)

1M23 Structural analysis of ferroelectric nanodomains (Univerisity of Tokyo) ○Yukio Sato・(JFCC) Tsukasa Hirayama・(Univerisity of Tokyo・JFCC) Yuichi Ikuhara

1M24 Domain growth behavior in orthorhombic perovskite-type oxide film (The University of Tokyo) ○Shunsuke Kobayashi・(The University of Tokyo・JFCC) Yuichi Ikuhara・(The University of Tokyo・JFCC・Nagoya University) Takahisa Yamamoto

1M25 Structural variation of Pr (praseodymium) doped ZnO[0001] tilt grain boundaries (The University of Tokyo) ○Ji-Young Roh・Yukio Sato・(The University of Tokyo・Japanese Fine Ceramic Center・Tohoku University) Yuichi Ikuhara

(17：20) (Chairman 佐藤幸生)

1M26 Quantitative strain analysis for $LiFePO_4/FePO_4$ phase interface (The University of Tokyo) ○akiho nakamura・sho furutsuki・shinichi nishimura・tetsuya touhei・yukio sato・(The University of Tokyo・PRESTO, Japan Science and Technology Agency) naoya shibata・(The University of Tokyo)

atsuo yamada・(The University of Tokyo・JFCC) yuichi ikuhara

1M27 Processing and microstructure of cathode material for Li ion secondary batteries (Japan Fine Crramics Center) ○Yumi Ikuhara・Xiang Gao・Craig Fisher・Akihide Kuwabara・Hiroki Moriwake・(The University of Tokyo・Japan Fine Crramics Center) Yuichi Ikuhara・(Toyota Motor Corporation) Hideki Oki・Keiichi Kohama

■■ September 4 (Wed) (Room N) ■■

Synthesis and Functional Properties of Mixed Cation and Anion Compounds

(14：20) (Chairman 佐藤次雄)

1N17 ◆Characteristic local structure and property of mixed cationic and/or anionic nitrides (Hokkaido University) ○Shinichi Kikkawa

1N19 Synthesis of new layered nickel oxyhalides (National Institute for Materials Science) ○Yoshihiro Tsujimoto・Kazunari Yamaura・Tetsuo Uchikoshi

(15：20) (Chairman 垣花眞人)

1N20 Control of magnetic property in alpha"-$Fe_{16}N_2$ doped with different metals (Hokkaido University) Hiroaki Sato・Yuta Tsugawa・○Yuji Masubuchi・Teruki Motohashi・Shinichi Kikkawa

1N21 Crystal structure and magnetic property of the new melilite-type oxysulfides (Hokkaido University) ○Takashi Endo・Yoshihiro Doi・Makoto Wakeshima・Yukio Hinatsu

1N22 High pressure synthesis, crystal structure and properties of novel Ca_2BRuO_6 (B = Fe, Co) ceramics (Graduate School of Engineering) ○Subodh Ganesanpotti・Céderic Tassel・Naoaki Hayashi・Hiroshi Kageyama

(16：20) (Chairman 小松高行)

1N23 ★Structure of Tin-Phosphate Glass and its Application to Rechargeable Battery (Nippon Electric Glass) ○Akihiko Sakamoto

1N25 Control of electron trap depth in Ce^{3+}-doped garnet phosphors (Kyoto University) ○Keisuke Kuroishi・Jumpei Ueda・Setsuhisa Tanabe

(17：20) (Chairman 田部勢津久)

1N26 Synthesis of new sulfides $(Ba_{1-x}Sr_x)_4(Ga_{1-x}Al_x)_2S_7$: Eu and their luminescence properties (Tohoku University) ○Kohei Takeuchi・Takahiko Hasegawa・Hideki Kato・Makoto Kobayashi・Masato Kakihana

1N27 Microwave-assisted solvothermal synthesis and up-conversion luminescence properties of rare-earth phosphate nanocrystals (Tohoku University Institute of Multidisciplinary Research for Advanced Materials) ○Kentaro Abe・Qiang Dong・Shu Yin・Tsugio Sato

1N28 Tunable Up-conversion Luminescence from Er^{3+}/Yb^{3+} doped layered Metal Oxides (Kumamoto University・JST, CREST) ○Tomoaki Murakami・Asami Funatsu・Takaaki Taniguchi・Yasumichi Matsumoto

■■ September 4 (Wed) (Room O) ■■

Science and Technology of Densification — from Powder comapaction to sintering —

酸化物の焼結

(14：40) (Chairman 後藤孝)

1O18 ★Control of microstructure of alumina ceramics (NIKKATO CORPORATION) ○Hiroshi Ohnishi・Hironori Naka

1O20 Desification of non-stoichiometric CeO_{2-x} by the two step sintering (Nagaoka University of Technology) ○Hitoshi Abe・Makoto Nanko・(Japan Atomic Energy Agency) Shun Hirooka・Masato Kato

1O21 Effects of TiO_2 addition and atmosphere gas of heat treatment on sintering behavior of Y_2O_3 (Chuo University) ○Kenta Nagumo・Kazunari Okamoto・Ryota Kobayashi・Katsuyoshi Oh-Ishi

(16：20) (Chairman 若井史博)

1O23 Grain Boundary Segregation-Induced Phase Transformation in Y-TZP doped with a small amount of Al_2O_3 (Tosoh Corporation) ○Koji Matsui・(National Institute for Materials Science) Hidehiro Yoshida・(The University of Tokyo) Yuichi Ikuhara

1O24 c-t interphase boundary structure and grain boundary segregation induced phase transformation in 3mol% Y_2O_3-ZrO_2 (National Institute for Materials Science) ○Seiichiro Ii・Hidehiro Yoshida・(Tosoh Corporation) Koji Matsui・(The University of Tokyo) Yuichi Ikuhara

■■ September 4 (Wed) (Room P) ■■

12：10～14：10

b. Electro ceramics

1P001 Low-Temperature Fabrication of Ti Metal/Barium Titanate Composite Capacitors and Their Dielectric Properties (University of Yamanashi) ○Shintaro Ueno・Yasunao Sakamoto・Kouichi Nakashima・Satoshi Wada

1P003 Tunability and polarization behavior in (Ba, Sr)TiO_3-based ceramics (Okayama University) ○Takashi Teranishi・Tsuyoshi Sogabe・Riku Kanemoto・Hidetaka Hayashi・Akira Kishimoto

1P004 Influence of polar nano-regions on dielectric properties of nanograined barium titanate films (Kyushu Institute of Technology) ○Hirokazu Shimooka・Shigemi Kohiki・(The University of Tokyo) Makoto Kuwabara

1P005 Effect of Particle Size of TiO_2 Powder on Solid-Phase Reaction for $BaTi_2O_5$ (National Defense Academy) ○Yuuki Yamasaki・Keisuke Ishii・Shinjiro Tashiro

1P006 characterization and control of oriented body forming addition of $(Bi_{0.5}, Na_{0.5})_{1-x}$-$Ba_xTiO_3$ by rotary magnetic field (Nagaoka University of Technology) ○Keisuke Sano・Keizo Uematsu・Satoshi Tanaka・(Taiyo Yuden Co. Ltd) Tomohiro Harada・Yutaka Doshida

1P007 Domain-structure control and properties for Ca-substituted $BaTiO_3$ single crystals (The University of Tokyo) ○Ryota Imura・Yuuki Kitanaka・Takeshi Oguchi・Yuji Noguchi・Masaru Miyayama・(Hiroshima University) Chikako Moriyoshi・Yoshihiro Kuroiwa

1P008 Ferroelectric/piezoelectric properties of defect and polarization controlled $BaTiO_3$ single crystals (The University of Tokyo) ○Kiyotaka Hirano・Shotaro Ishikawa・Yuuki Kitanaka・Yuji Noguchi・Masaru Miyayama

1P009 In-situ Raman spectra of Barium titanate nanoparticles (National Institute of Advanced Industrial Science and Technology) ○Hiromichi Hayashi・Yasushi Hoshi・Takashi Nakamura・Takeo Ebina

1P010 Crystal structure refinement of $(Ba_{1-x}Bi_x)(Ti_{1-x}Yb_x)O_3$ $(0 \le x \le 0.04)$ (University of Yamanashi) ○Keisuke Ogura・Nobuhiro Kumada・Takahiro Takei・Akira Miura・(University of Hiroshima) Yoshihiro Kuroiwa・Chikako Moriyoshi・Eisuke Magome

1P011 Polarity of undoped ZnO films on ZnO single crystal substrates with Al buffer layers (National Institute for Materials Science) ○Yutaka Adachi・Isao Sakaguchi・Naoki Ohashi・Hajime Haneda

1P012 Study on defect chemistry by WO_3 addition into ZnO (National Institute for Materials Science) ○Isao Sakaguchi・Noriko Saito・Taku Suzuki・Yutaka

Adachi・Ken Watanabe・Minako Hashiguchi・Naoki Ohashi・Shunichi Hishita

1P013 Effect of MgO-Al_2O_3 system for oxygen defect in ZnO ceramics（National Institute for Materials Science（NIMS））○Minako Hashiguchi・Isao Sakaguchi・Yutaka Adachi・Ken Watanabe・Shunichi Hishita・Naoki Ohashi

1P014 Preparation and characterization of translucent photo-catalytic niobate sheet produced via tape casting process（Nagoya Institute of Technology）○Naoki Kato・Ken-ichi Kakimoto・（University of Erlangen-Nuremberg）Wegner Moritz・Roosen Andreas

1P015 Local structure analysis of lead-free（Li, Na, K）NbO_3 ceramics using solid-state NMR（Nagoya Institute of Technology）○Teppei Yamazaki・Kenichi Kakimoto

1P016 Synthesis and relationship between piezoelectric property and crystal structure of $(1-x)(K_{0.474}Na_{0.474}Li_{0.052})(Nb_{0.948}Sb_{0.052})O_3$–$xBaTiO_3$ ceramics（Meijo University）○Tohru Moriyama・Akinori Kan・Susumu Takahashi・Hirotaka Ogawa

1P017 Preparation and dielectric property of $(Na_{0.88}Ba_{0.12})(Nb_{0.88}Ti_{0.12})O_3$（The University of Yamanashi）○Naoko Ito・Nobuhiro Kumada・Akira Miura・Takahiro Takei・Satoshi Wada

1P018 Fabrication of Piezoelectric Rectangular Vibrator of $(Sr, Ca)_2NaNb_5O_{15}$ Ceramics Oriented in Thickness Direction（The National Defense Academy）○Emi Hashizume・Keisuke Ishii・Shinjiro Tashiro

1P019 Conductivity and Crystal Structure in $(Ca, RE)_2NbO_4$（RE = Y, La）（Tokyo University of Science）○Fumiko Hara・Naoto Kitamura・Naoya Ishida・Yasushi Idemoto

1P020 Preparation of (Ba^{2+}, K^+)-β-ferrite single crystals by ion exchange using molten salts and ion distributions（Tokyo University of Science）○Toshiki Kawai・Yuki Yamaguchi・Kenjiro Fujimoto・Shigeru Ito

1P021 Fabrication of tungsten hydroxide/porous silica composite by liquid phase deposition（Kobe University）○Yuki Mineyama・Hideshi Maki・Minoru Mizuhata

d. Bioceramics

1P022 Prepraration of spherical calcium phosphate particles using liposomes as templates（chiba institute of technology）○hikaru endo・masako takeyosi・hirabumi sibata・（Tokyo University of Science）keniti aburai・hideki sakai・masahiko abe・（chiba institute of technology）kazuaki hasimoto

1P023 Preparation of calcium orthophosphate agglomerates by double nozzle spray pyrolysis and its application to biocement（Sophia University）○Kiyoshi Itatani・Tomohiro Umeda・Kimiya Tanaka・（Toho University）Yoshiro Musha

1P024 Development of Self-Curable Carbonate Apatite Cement（Kyushu University）○Riki Toita・Cahyanto Arief・Kanji Tsuru・Kunio Ishikawa

1P025 Rlease properties of protein on various-ion containing apatites（Kitami Institute of Technology）○Gen-ichi Endo・Toru Kanno・Jun-ichi Horiuchi

1P026 Fabrication of cell arrays using hydroxyapatite（Kinki University）○Katsuya Asano・Masakazu Tamura・Naoki Fujita・Masanobu Kusunoki

1P027 Preparation of apatite coat quartz crystal microbalance sensor using Eclipse method（Kinki University）○Yasuhiro Sakoishi・Naoki Fujita・Masanobu Kusunoki

1P028 Evaluation of adhesive characteristic in the dentine-ultrathin apatite sheet interface（Kinki University）○Arata Isai・Akiko Matsumoto・Ei Yamamoto・Nobuhiro Katou・Hiroaki Nishikawa・Masanobu Kusunoki・Sigeki Hontsu・（Osaka Dental University）Kazushi Yoshikawa

1P029 Examination of the high efficiency production method of apatite sheetas dental treatment material（Kinki University）○Naoki Fujita・Hiroaki Nishikawa・Sigeki Hontsu・Masanobu Kusunoki

1P030 Preparation of HA sheet with through holes for dental application（Kinki University）Naoki Fujita・Taiyou Matsuda・○Tomoki Morita・Hiroaki Nishikawa・Shigeki Hontsu・Masanobu Kusunoki

1P031 Fabrication of the cell sheets using titania / silica composite film（Chiba Institute of Technology）○Ryota Shinozaki・Hirobumi Sibata・（Tokyo University of Science）Hideki Sakai・Masahiko Abe・（Chiba Institute of Technology）Gota Kawai・Kazuaki Hashimoto

1P032 Apatite-formation behavior in the presence of protein on surface-modified Ti（Kitami Institute of Technology）○Takeshi Yamauchi・Miku Hatakeyama・Toru Kanno・Jun-ichi Horiuchi

1P033 Responses of fibroblastic cell to oxynitrided titanium（JFCC）○Masami Hashimoto・Kazumi Hayashi・Satoshi Kitaoka・（Tohoku University）Hiroyasu Kanetaka

1P035 Enhancing Immune Responses by Mesoporous AlOOH Nanofibers（National Institute of Advanced Industrial Science and Technology）○Xiupeng Wang・Xia Li・Yu Sogo・Atsuo Ito

1P036 Adsorption and desorption properties of protein on montmorillonite and its surface charge（Kitami Institute of Technology）○Kasumi Kinoshita・Ryuya Makino・Toru Kanno・Jun-ichi Horiuchi

1P037 Preparation of a support for low-cost enzyme immobilization using a biomimetic（Aichi institute of technology）○Yuki Kawachi・Shin-ichi Kugimiya・（National Institute of Advanced Industrial Science and Technology）Hitomi Nakamura・Katsuya Kato

1P038 Potential of a Dimple as an anti-cell proliferation structure（National Institute of Advanced industrial Science and Technolpgy）○Kay Teraoka・Takao Saito・（Otake Seisakusyo, Co.）Kazuyoshi Ota

Hot Topics of Ceramics Materials & Technologies for Clean-up, conservation, and renovation

1PA01 Fabrication of Li_2CuO_2/CuO-Cu_2O/Cu composite material for self-heating CO_2 absorbent（Chuo University）○Ryota Kobayashi・Shotaro Ooki・Toru Makino・Katsuyoshi Oh-ishi

1PA02 Growth of spherical Si crystal on porous Si_3N_4 ceramic substrate that repels Si melt and its characterization（Yamaguchi University）Hironori Itoh・Hideyuki Okamura・Takashi Abe・Kouhei Ikemura・Masaharu Nakayama・○Ryuichi Komatsu

1PA03 Preparation and pore property of porous β-eucryptite using anisotropic particles of zeolite ABW（Industrial Technology Center of Tochigi Pref.）○Sakae Kato・Taiji Matsumoto・Kazutomo Iiduka・Kenichi Matsumoto・（Yoshizawa Lime Industry Co.,Ltd.）Takeshi Kawashima・Tatsuya Okamura・Wataru Sato・（Ashikaga Institute of Technology）Toshio Ogiwara・Takashi Yokomuro

1PA04 Solvothermal synthesis and photocatalytic properties of perovskite-type oxides containing tin ion（Gunma National College of Technology）○Nobuyuki Taira・Kiliha Katayama・Yuhei Fukazu

1PA05 Fabrication and photoelectrochemical characterization of permanganate – alkyl ammonium hybrid LB film（Shinshu University）○Ryo Nishizawa・Hisanao Usami

1PA06 Fabrication and photoresponse of iron oxide nanofilm originated in iron（III）-stearate hybrid LB film（Shinshu University）○Eiji Okuno・Hisanao Usami

1PA07 Effects of copper chloride addition on photochromic properties of silver chloride based composite films（Shimane University）○Hidetoshi Miyazaki・Hirochi Shimoguchi・Hiroki Nakayama・（Shizuoka University）Hisao Suzuki・（Nagoya Institute of Technology）Toshitaka Ota

Innovative Nanohybrid Materials — Materials Design for Fusion of Functions —

1PB01 Effect of MgO on photoluminescence property of phosphor excited near UV（Toyohashi University of Technology）○Shohei Furuya・Shiho Suehiro・

★ = Guest ☆ = Invited ◆ = Plenary ○ = presenter

Hiromi Nakano・(KRI, Inc.) Hiroyuki Hayasi・(DENKI KAGAKU KOGYO KABUSHIKI KAISHA) Suzuya Yamada

1PB02 Preparation of organic – inorganic hybrid olefin separation membranes (The University of Kobe) ○Naoto Tani・Shinji Matsuura・Kouji Kuraoka

1PB03 Preparation and Characterization of Silica-Based Functional Core-Shell Particles (Hiroshima University) ○Kaori Sako・Kiyofumi Katagiri・Kei Inumaru

1PB04 Adsorption and photocatalytic degradation of organic compounds by titania/surfactant hybrid particles in water (Shinshu University) ○Junki Inoue・Toshio Sakai

1PB05 Synthesis of monocarboxylic acid-modified CeO_2 nanoparticles by in-situ surface modification using supercritical water (Chuo University・National Institute for Materials Science) ○Naomi Yamamoto・(Chuo University) Minori Taguchi・Toshitaka Funazukuri・(National Institute for Materials Science) Takayuki Nakane・Takashi Naka

1PB06 Characterization of TiO_2 nanoparticles supported on carbon nanotubes using sol-gel method. (Tohoku University) ○Daisuke Kikuchi・Yoshinori Sato・(Nagoya Institute of Technology) Hirotaka Maeda・(Tohoku University) Yuko Suto・Hisamiti Kimura・Kenichi Motomiya・Kazuyuki Tohji・Hideki Ishida

1PB07 Characterization of CO_2 separation membrane prepared from silica-PEG nanohybrid with surface modification by LbL process (University of Hyogo) ○Masatoshi Munenaga・Atsushi Mineshige・Tetsuo Yazawa・(Nagoya Institute of Technology) Yusuke Daiko

1PB08 Photooxidation of 2-Propanol Using a Gold Nanoparticle-Doped Mesoporous SiO_2–TiO_2 Catalyst (Toyohashi University of Technology) ○Teruhisa Okuno・Go Kawamura・Hiroyuki Muto・Atsunori Matsuda

1PB09 Synthesis and characterization of luminescent center cation doped polymer-derived SiCN type phophors (Nagoya Institute of Technology) ○Yohei Shimokawa・(Darmstadt University of Technology) Emanuel Ionescu・Gabriela Mera・(Nagoya Institute of Technology) Sawao Honda・Yuji Iwamoto・(Darmstadt University of Technology) Ralf Riedel

1PB10 Nano-Micro assembly technique via electrostatic attractive force (Toyohashi University of Technology) ○Hideyo Yoshikawa・Norio Hakiri・Go Kawamura・Atsunori Matsuda・Hiroyuki Muto

1PB11 Control of hydrophobicity using silica-based porous films (shinshu university) ○Yuto Sonehara・Aya Naito・Masami Kobayashi・Yasushi Murakami

1PB12 Adhesive performance improvement by hybridization of polysilsesquioxane (Shinshu University) ○Kazuya Yumoto・Yasushi Murakami・Masami Kobayashi

1PB13 Fabrication of NASICON nanowires as cathode materials for Na rechargeable batteries by electrospinning (National Institute of Advanced Industrial Science and Technology) ○Satoshi Kajiyama・Eiji Hosono・Masashi Okubo・Junichi Hoshino・Daisuke Asakura・Haoshen Zhou・(National Institute for Materials Science) Jun Kikkawa

Chemical Processes –Recent Developments as Preparation Processes of Functional Materials–

1PC01 Synthesis of vanadium dioxide/silica composites for thermochromic window (The University of Hokkaido) ○Ikuya Hashimoto・Yuji Masubuchi・Teruki Motohashi・Shinichi Kikkawa

1PC02 Molecular Routes Synthesis and characterization of nano-structured C-N Compounds in High Pressure and Temperature (Nagoya University) Ken Niwa・Taishi Horibe・Yuki Jin・Keiji Kusaba・(Wakasa-wan Energy Research Center) Keisuke Yasuda・Ryoya Ishigami・(Nagoya University) ○Masashi Hasegawa

Explorer of soft-solution process for fabrication of ceramics — Reaction process in Condensed matter; water, non-aqueous solvent, ionic liquids —

1PD01 Effect of additive alkali on synthesizing zeolite A single crystals by Charnell's method (National Institute of Advanced Industrial Science and Technology) ○Tetsuya Kodaira・Chikako Sekiguchi

1PD02 Crystallization of Porous Hydrous Titania by Hot Water Treatment (Chiba University) ○Chieko Yukita・Tukasa Baba・Kouhei Inamoto・Takashi Kojima・Naofumi Uekawa・Kazuyuki Kakegawa

Design, synthesis, and evaluation of biomaterials to induce cell functions

1PE01 Preparation of bioactive alumina ceramics (Shinshu University) ○Ryota Fukui・Naoki Ueda・Tomohiro Yamaguchi・Naoto Saito・Seiichi Taruta

1PE02 Calcium phosphate coating on cobalt-chromium alloy substrates using a laser-assisted biomineralization process (National Institute of Advanced Industrial Science and Technology) ○Ayako Oyane・Maki Nakamura・Yoshie Ishikawa・Ikuko Sakamaki・Kenji Koga・Kenji Kawaguchi・(National Institute of Advanced Industrial Science and Technology・Hokkaido University) Naoto Koshizaki

New Evolution of Dielectrics: Aiming at the Innovation in Materials, Processing and Devices

1PJ01 Microwave dielectric properties and DC bias dependence of $NaNbO_3$-$SrTiO_3$ and $NaNbO_3$-$CaTiO_3$ solid solutions (TOYOTA CENTRAL R&D LABS., INC.) ○Kensuke Wada・Yasuyoshi Saito

1PJ02 Fabrication and Evaluation of the New Ferroelectric $KNbSi_2O_7$ Single Crystal (Tokyo Institute of Technology) ○Akira Sahashi・Takuya Hoshina・Hiroaki Takeda・Takaaki Tsurumi

1PJ03 Crystal structure analysis and characterization of (Bi, Na)TiO_3-$BaTiO_3$ ferroelectric single crystals (The University of Tokyo) ○Motohiro Ogino・Kiyotaka Hirano・Yuuki Kitanaka・Yuji Noguchi・Masaru Miyayama・(Hiroshima University) Chikako Moriyoshi・Yoshihiro Kuroiwa

1PJ04 Evaluation of oxygen vacancy concentration controlled $BaTiO_3$ ferroelectric ceramics (The University of Tokyo) ○Yuki Ichikawa・Yuuki Kitanaka・Takeshi Oguchi・Yuji Noguchi・Masaru Miyayama

1PJ05 Characterization of lead-free niobate piezoelectric ceramics using impedance spectroscopy (Nagoya Institute of Technology) ○Momoko Watanabe・Ken-ichi Kakimoto・Isao Kagomiya

1PJ06 Preparation of BKT-BMT-BF Ceramics Using Various Starting Materials and Their Piezoelectric Properties (University of Yamanashi) ○Haruumi Kamei・Kouichi Nakajima・Shintaro Ueno・Satoshi Wada・(Hiroshima University) Yoshihiro Kuroiwa・(Panasonic Healthcare Co., Ltd.) Hisashi Minemoto

1PJ07 Fabrication of lead-free piezoelectric $NaNbO_3$ ceramics using $NaNbO_3$ nanoparticle synthesized by solvothermal method (Ryukoku University・The Univesity of Tokyo・ESICB) ○Seiji Yamazoe・(Ryukoku University) Masaki Fukada・Kengo Shibata・Takehito Imai・(Kyoto University・ESICB) Saburo Hosokawa・(Ryukoku University) Takahiro Wada

1PJ08 Preparation of Grain-Oriented BT-BKT Ceramics Using EPD Method under a High Magnetic Field (The University of Yamanashi) ○Katsuya Inaba・Shintaro Ueno・Kouichi Nakashima・Nobuhiro Kumada・Satoshi Wada・(National Institute for Material Science) Tohru Suzuki・Tetsuo Uchikoshi・Yoshio Sakka

1PJ09 Fabrication and Piezoelectric Properties of Textured Ceramics using Hexagonal $BaTiO_3$ by EPD in a Strong Magnetic Field (Yamanashi University) ○Eigo Kobayashi・Shintaro Ueno・Kouichi Nakashima・Nobuhiro Kumada・Satoshi Wada・(National Institute for Materials Science) Tohru Suzuki・Tetsuro Uchikoshi・Yoshio Sakka・(Murata Manufacturing) Yasunari Miwa・Shinichiro Kawada・Suetake Omiya・Noriyuki Kubodera

1PJ10 Electrical properties of (Ba, Ca)(Ti, Zr)O_3 thin films fabricated by chemical solution deposition (Nagoya University) ○Masaya Kobayashi · Makoto Moriya · Wataru Sakamoto · (RICOH CO., LTD.) Yoshikazu Akiyama · (AIST) Takashi Iijima · (Nagoya University) Toshinobu Yogo

1PJ11 Effect of interface reaction on one-axis-oriented crystal growth of lead zirconate titanate films on metal substrates (Sophia University) ○Yoshiki Minemura · Hiroshi Uchida · (Tokyo Institute of Technology) Hiroshi Funakubo · (National Defense Academy of Japan) Ken Nishida · Jin Woong Kim

1PJ12 Orientation control of Pb(Zr, Ti)O_3 thin film using manganese oxide nanosheets. (Sophia University) ○Kohei Nagasaka · Yoshiki Minemura · Hiroshi Uchida

1PJ13 Fabrication and Photovoltaic Properties of $BiFeO_3$-based Ferroelectric Thin Film (The University of Tokyo) ○Hiroki Matsuo · Yuki Kitanaka · Ryotaro Inoue · Yuji Noguchi · Masaru Miyayama

1PJ14 Synthesis and characterization of $BiFeO_3$/transparent conductive oxide layered thin films by chemical solution deposition (Nagoya University) ○Takeshi Katayama · Makoto Moriya · Wataru Sakamoto · Toshinobu Yogo

1PJ15 Epitaxial growth and electric properties of magneto-electric material Cr_2O_3 thin film (Nagoya Institute of Technology) ○Koji Ichikawa · Takeshi Yokota · Manabu Gomi

1PJ16 Enhancement of room-temperature magnetoelectric properties in *c*-axis oriented polycrystalline $Sr_3Co_2Fe_{24}O_{41}$ (Osaka University) ○Kohei Haruki · Kohij Okumura · (Murata Manifactring) Sakyo Hirose · (Osaka University) Tsuyoshi Kimura

1PJ17 Laminating of Ferromagnetic-Ferroelectric Composite and Its Magnetoelectric effect (Nagoya Institute of technology) ○Satoshi Takahara · Isao Kagomiya · Kenichi Kakimoto

Research Trend of Ceramic Materials and Devise Technology on Energy Conversion and Storage

1PK01 Preparation of $LiVO_3$ from peroxo-polyvanadic acid and its electrochemical properties (Kanazawa Institute of Technology) ○Satoru Yamaki · Isao Tsuyumoto

1PK02 Diffusion of Li-ion in the direction normal to film plane for thin film of stacked nanosheets with various lateral sizes (The University of Tokyo) ○Shinya Suzuki · Masaru Miyayama

1PK03 Crystal and electronic structure analysis and electrochemical properties (Bi, Ce) of VO_4 synthesized (Tokyo University of Science) ○Kazuya Tashiro · Naoto Kitamura · Naoya Ishida · Yasushi Idemoto

1PK04 Fabrication and evaluation of $LiMn_2O_4$ thick films by aerosol deposition method (Toyohashi University of Technology) ○Yuta Nakanishi · Chiaki Masada · Kenta Shibukawa · Masaru Tojo · Ryoji Inada · Yoji Sakurai

1PK05 Fabrication and evaluation of $Li_{1.5}Al_{0.5}Ge_{1.5}(PO_4)_3$ thick films by aerosol deposition method (Toyohashi University of technology) ○Keiichi Ishida · Keisuke Kimura · Koji Kusakabe · Takayuki Okada · Syota Kudou · Ryoji Inada · Yoji Sakurai

1PK06 Characterization of carbon-coated $Ti_2Nb_{10}O_{29}$ anode materials (Toyohahi University of Technology) ○Toshiki Takashima · Yuta Imai · Ryuta Ito · Kengo Narumi · Ryoji Inada · Yoji Sakurai

1PK07 Photocatalytic decomposition of acetic acid on iron oxides MFe_2O_4 (M = Mg, Zn, Cd, Ca) (Utsunomiya University) ○Keitaro Tezuka · Masahiro Kogure · Yue Jin Shan

1PK08 Change of Local and Average Structures of Li-rich Cathode Material $Li_{7/6}Mn_{3/6}Ni_{1/6}Co_{1/6}O_2$ (Tokyo University of Science) ○Ryo Yamamoto · Naoya Ishida · Naoto Kitamura · Yasushi Idemoto

1PK09 Electrical conductivity of $Ba_{0.6}Sr_{0.4}Zr_{0.9}Y_{0.1}O_{3-\delta}$ measured by impedance spectroscopy (Nihon University) ○Takayuki Sugimoto · Takuya Hashimoto

1PK10 Stable region and sintering characteristics of perovskite-type $Sr_{1-y}Ti_{1-x}M_xO_3$ (M = Nb, Ta) (The University of Tokushima) ○Masaki Fujikawa · Yutaro Nomura · Kei-ichiro Murai · Toshihiro Moriga · (Central Research Institute of Electric Power Industry) Masashi Mori

1PK11 Electrical properties of Ag-containing glass sealants by heat reduction process (National Institute of Advanced Industrial Science and Technology) ○Takafumi Akamatsu · Toshio Itoh · Noriya Izu · Woosuck Shin · Toshiaki Yamaguchi · Yoshinobu Fujishiro

1PK12 Fracture toughness of the $LaGaO_3$ materials at high temperature (Tokyo City University) ○Masahiro Fukuda · (TOTO Co., Ltd) Yutaka Momiyama · (Tokyo City University Advanced Reserch Laboratories) Fumio Munakata

1PK13 The Effect of CTAB on the Formation of Nanostructured ZnO Films for Use in DSSC (Keio University) ○Leanddas Nurdiwijayanto · Takuya Yuki · Manabu Hagiwara · Shinobu Fujihara

1PK14 Generation of electricity by infrared rays using up-conversion phosphor and dye-sensitized solar cell (Tokai University) ○Chihiro Shoji · Koji Tomita

1PK15 Aqueous Hybrid Capacitor with 4.2 V Cell Voltage Using MnO_2 Positive Electrode and Multi-layered Li Negative Electrode (Shinshu University) ○Sho Makino · Wataru Shimizu · Wataru Sugimoto

1PK16 Synthesis conditions of $Mg_{1-x}Co_2O_4$ spinels by the co-precipitation method (Central Research Institute of Electric Power Industry) ○Masashi Mori · Kaoru Nakamura

Novel Powder Processing to Produce High-Performance and High-Quality Ceramics

1PL01 Mass production trial of *β*-SiAlON using combustion synthesis (Combustion Synthesis Co., Ltd.) ○Isao Nakatsugawa · Kazuto Harada · Toshitaka Sakurai · Shigeru Nakada · (Hokkaido University) Jing Niu · Tomohiro Akiyama

1PL02 Salt-assisted combustion synthesis of *β*-SiAlON and morphology control (Hokkaido University) ○Jing Niu · Tomohiro Akiyama · (Combustion Synthesis Co., Ltd.) Kazuto Harada · Isao Nakatsugawa · Shigeru Nakada

1PL03 Particle structure observation in monodispersity high viscosity slurry (Nagaoka University of Technology) ○Yoshihiro Nagasawa · Zenji Kato · Keizo Uematu · Satoshi Tanaka

1PL04 Cyclic CIP of Si_3N_4 microgranules (Yokohama National University) ○Shiori Sueyasu · Junichi Tatami · (Kanagawa Academy of Science and Technology) Takuma Takahashi

1PL05 Fabrication of Al_2O_3 based composites with high strength and electrical conductivity by networking of CNTs (Yokohama National University) ○Mitsuaki Matsuoka · Junichi Tatami

Frontiers of structural science and the development of novel materials

1PM01 Crystal structures and electrical properties of $Na_2Mg_3X_2$ (X = Sn, Pb) (Tohoku University) ○Ryo Ishiyama · Takahiro Yamada · Hisanori Yamane

1PM02 Synthesis, crystal structures and electrical properties of the compounds prepared in the Li-B-P-O system (Tohoku University) ○Toru Hasegawa · Hisanori Yamane

1PM03 Relationship between polarity and chemical properties of constituent ions in $LiNbO_3$-type compounds (Gakushuin University) ○Yoshiyuki Inaguma · Akihisa Aimi · Daisuke Mori · (Tokai University) Tetsuhiro Katsumata · (Nagoya Institute of Technology) Masanobu Nakayama

1PM04 Ta substitution effect on ion conductivity in (La, Sr)CoO_3 (Nagoya Institute of Technology) ○Isao Kagomiya · Yoshihito Shimono · Ken-ichi Kakimoto

1PM05 Maximum likelihood structure analysis from powder x-ray diffraction measurement (Nagoya Institute of Technology) ○Kiminori Hori · Hisashi

★ = Guest ☆ = Invited ◆ = Plenary ○ = presenter

Hibino・Nobuo Ishizawa・Takashi Ida

1PM06 Evaluation of crystallite size in sintered body by spinner-scan method（Nagoya Institute of Technology）○Hideto Funahashi・Hisashi Hibino・Takashi Ida

1PM07 Quantitative analysis of two-phase mixtures by powder x-ray diffraction method（Nagoya Institute of Technology）○Eiki Murakami・Kosuke Maruyama・Hisashi Hibino・Takashi Ida

Crystal Science

1PQ01 Syntheses of NiSi and $NiSi_2$ powders by mechanochemical method（Kokushikan University）○Shigeru Okada・Takashi Yamasaki・Kiyomi Kamamoto・（Kanagawa University）Kunio Kudou・（Tohoku University）Kunio Yubuta・Toetsu Shishido

1PQ02 Reduction of Praseodymium（IV）under Hydrothermal Conditions（Kochi University）○Hongjuan Zheng・Sachiko Tsutsui・Ayumu Onda・Kazumichi Yanagisawa

1PQ03 Phase relation of $GdCo_2B_2$ and $GdCo_2B_2C$ and their properties（Tohoku University）○Toetsu Shishido・Kunio Yubuta・（National Institute for Materials Science）Takao Mori・Masahiko Tanaka・（Kokushikan University）Shigeru Okada・（Tohoku University）Akiko Nomura・Takamasa Sugawara・（National Institute for Materials Science）Ryoji Sahara・（Tohoku University）Koichi Hayashi・（Kyushu Institute of Technology）Shigemi Kohiki・（Tokyo Polytechnic University）Yutaka Sawada・（Shinshu University）Katsuya Teshima・Shuji Oishi・（Tohoku University）Yoshiyuki Kawazoe・Akira Yoshikawa

1PQ04 Preparation of Bismuth-based cuprate Superconducting Films by MOCVD（Kanazawa Institute of Technology）○Tosiyuki Kaneko・（National Institute of Advanced Industrial Science and Technology）Hirofumi Yamasaki・（National Institute for Materials Science）Shunichi Arisawa・（Romania National Institute of Materials Physics）Badica Petre・（Kanazawa Institute of Technology）Noriaki Ikenaga・Takumi Moriguchi・Hirotaka Inoue・Isao Tsuyumoto・Hidehito Nanto・Yoshinori Takei・Kazuhiro Endo

1PQ05 Effects of Flux Growth Conditions on Morphology of Mg-Al Layered Double Hydroxide Crystals（Shinshu University）○Akemi Shirasaki・Hajime Wagata・（Yamaha Livingtec Corporation）Hideya Kamikawa・（Shinshu University）Nobuyuki Zettsu・Katsuya Teshima・Shuji Oishi

1PQ06 Direct Fabrication of Ta_3N_5 Crystal Layer on Ta Substrate by NaCl-Na_2CO_3 Flux Coating（Shinshu University）○Mugi Komatsu・Hajime Wagata・Nobuyuki Zettsu・Katsuya Teshima・Shuji Oishi

1PQ08 Chloride Flux Growth of La_2TiO_5 Crystals and Subsequent Partial Nitridation for $LaTiO_2N$ Crystals（Shinshu University）○Kenta Kawashima・Hajime Wagata・Nobuyuki Zettsu・Katsuya Teshima・Shuji Oishi

1PQ09 Flux Fabrication and Lithium-Ion Rechargeable Battery Characterization of Single Crystal $LiCoO_2$ Nanoplate Array（Shinshu University）○Yusuke Mizuno・Nobuyuki Zettsu・（Toyota Motor Corporation）Takuya Sakaguchi・Toshiya Saito・（Shinshu University）Hajime Wagata・Shuji Oishi・Katsuya Teshima

1PQ10 Flux Coating Fabrication of $Li_4Ti_5O_{12}$ Crystal Layer for Lithium-Ion Rechargeable Batteries（Shinshu University）○Hiroki Kojima・Nobuyuki Zettsu・Yusuke Mizuno・（Toyota Motor Corporation）Takuya Sakaguchi・Toshiya Saito・（Shinshu University）Hajime Wagata・Katsuya Teshima・Shuji Oishi

1PQ11 Li_3BO_3 Flux Coating Fabrication of $Li_4Ti_5O_{12}$ Crystal Layer on Surface of Lithium Ion Conductive Solid-Electrolyte（Shinshu University）○Shunpei Fujiwara・Nobuyuki Zettsu・Yusuke Mizuno・Wataru Shimizu・Wataru Sugimoto・Hajime Wagata・Katsuya Teshima・Shuji Oishi

1PQ12 Growth of $LiFePO_4$ Crystals Using Chloride Fluxes（Shinshu University）○Nobuyuki Handa・Nobuyuki Zettsu・Yusuke Mizuno・Hajime Wagata・Katsuya Teshima・Shuji Oishi

1PQ13 Chloride Flux Growth and Electrochemical Measurement of One-dimensional $LiCoO_2$ Crystals（Shinshu University）○Yuko Yamamoto・Nobuyuki Zettsu・Yusuke Mizuno・（National Institute for Materials Science）Kei Nishikawa・（Shinshu University）Hajime Wagata・Katsuya Teshima・Shuji Oishi

1PQ14 Fabrication of $LiNi_xMn_{2-x}O_4$ Crystal Layer by Flux Coating（Shinshu University）○Satoru Kida・Nobuyuki Zettsu・Yusuke Mizuno・（DENSO CORPORATION）Shigeki Komine・Kenichiro Kami・（Shinshu University）Hajime Wagata・Katsuya Teshima・Shuji Oishi

1PQ15 Fabrication of $LiCoO_2$Crystal Layers on $Li_7La_3Zr_2O_{12}$Ceramics by a K_2CO_3-Li_2CO_3 Flux Coating Method（Shinshu University）○Shota Nozaki・Nobuyuki Zettsu・Yusuke Mizuno・（Toyota Moter Corporation）Takuya Sakaguchi・Toshiya Saitou・（Shinshu University）Hajime Wagata・Katsuya Teshima・Shuji Oishi

■■ September 4 (Wed) (Room Q) ■■

Crystal Science

(10：00)（Chairman 田中功）

1Q04 Preparation of translucent$Gd_2Si_2O_7$:Ce polycrystalline thin plates and their scintillation performance for alpha-ray（Hokkaido University）○Mami Nishikata・Aki Ueda・Mikio Higuchi・Junichi Kaneko・Youichi Tsubota・（Hitachi Chemical Co., Ltd）Hiroyuki Ishibashi・（Hokkaido University）Kiyoharu Tadanaga

1Q05 Primary factor in determing the shape of image crystal（Japan Atomic Energy Agency）○Hiroyuki Serizawa・（Osaka University）Yuji Ohishi・（Japan Atomic Energy Agency）Yoshinori Haga・（Osaka University）Shinsuke Yamanaka・（Japan Atomic Energy Agency）Tomohito Tsuru・Yoshiyuki Kaji・（NIPPON NUCLEAR FUEL DEVELOPMENT CO., LTD.）Junji Matsunaga・Shinji Kashibe

1Q06 Transmittance of sapphire at UV region（Shinkosha Co., Ltd.・Nagoya Institute of Technology）○Shuichi Kawaminami・（Shinkosha Co., Ltd.）Tomotsugu Kinoshita・Shohei Asaka・Keisuke Mochizuki・（Nagoya Institute of Technology）Nobuyasu Adachi・Toshitaka Ota

1Q07 ★Growth and sensor application of phosphor crystals（Toyo University）○Toru Katsumata・Hiroaki Aizawa・Shuji Komuro

(14：00)（Chairman 樋口幹雄）

1Q17 ☆Materials Design of Oxide Ferroelectric Single Crystals by Defect-Polarization Control（RCAST, The University of Tokyo）○Yuji Noguchi・Shotaro Ishikawa・Motohiro Ogino・Kiyotaka Hirano・Yuuki Kitanaka・Masaru Miyayama・（Hiroshima University）Chikako Moriyoshi・Yoshihiro Kuroiwa・（KEK）Syuki Torii・Takashi Kamiyama・（RCAST, The University of Tokyo）Ryota Imura・Ken Yanai・Ryotaro Inoue

1Q19 Growth of high quality single crystals of Cu-substitued calcium aluminate by control of solid – liquid interface（University of Yamanashi）○Isao Tanaka・Kota Kakizawa・Masanori Nagao・Satoshi Watauchi

1Q20 Electrical property of zeolite giant crystal synthesized by bulk material dissolution method（Kumamoto University）○Yuki Okabe・Chunxi Hai・Motohide Matsuda

1Q21 ★Single Crystals Grown by Bridgman Method and Thier Device Applications（Shinshu Unversity）○Keigo Hoshikawa

(16：20)（Chairman 柳澤和道）

1Q24 Unexpectedly strong magnetic coupling in a novel dysprosium boron-cluster compound（National Institute for Materials Science・University of Tsukuba）

○Takao Mori・(National Institute for Materials Science) Ryoji Sahara・(Tohoku University) Yoshiyuki Kawazoe・Kunio Yubuta・Toetsu Shishido・(Kokushikan University) Shigeru Okada・(Max Planck Institute for. Chemical Physics of Solids) Yuri Grin

1Q25 Preparation of oriented crystalline CoN thin films by pulsed laser deposition (Hiroshima University) ○Tomohito Uno・Fumitaka Nishiyama・Kei Inumaru

1Q26 ★Hydrogen Production from Water by Visible-Light-Responsive (Oxy) nitride Photocatalysts (The University of Tokyo) ○Kazunari Domen

■■ September 4 (Wed) (Room R) ■■

Novel Functionalities and Materials Derived from Nanocrystals

(10：20) (Chairman 和田智志)

1R05 Deep-red emission in tetragermanate phase synthesized by nanocrystallization in stoichiometric glass (Tohoku University) ○Yoshihiro Takahashi・Jun Kunitomo・Kensaku Nakamura・(National Institute for Materials Science) Minoru Osada・(Tohoku University) Rie Ihara・Takumi Fujiwara

1R06 Incorporation of N in the nano-structure formed on the surface of titanium metal heated in N_2 gas after NaOH and HCl treatments (Chubu University) ○Alireza Valanezhad・Seiji Yamaguchi・Rohit Khanna・Tomiharu Matsushita・Tadashi Kokubo・(Kyushu University) Takehiro Ohta・(Chubu University) Yoshinori Naruta・Hiroaki Takadama

(11：00) (Chairman 阿部浩也)

1R07 Generation of carbon particle by femtosecond laser ablation in liquid (Kyoto University) ○Yuya Yamada・Yasuhiko Shimotsuma・Kiyotaka Miura

1R08 Collision Synthesisi of Ilmenite Nanoparticles with High Temperature and High Pressure Phase (Osaka University) ○Takeshi Hashishin・Zhenguan Tan・Kazuhiro Yamamoto・Nan Qiu・(Chiba University) Chiya Numako・(National Institute for Materials Science) Takashi Naka・(Osaka University) Satoshi Ohara

1R09 Preparation of $KNbO_3$ nanoparticles using gel-gel method (University of Yamanashi) ○Kouichi Nakashima・Kenta Oshima・Shintaro Ueno・Satoshi Wada

(14：20) (Chairman 加藤一実)

1R17 ★Semiconductor Nanocrystals; Synthesis and Device Fabrication (Osaka University) ○Takahisa Omata

1R19 New synthesis route to colloidal InAs quantum dots (Osaka University) ○Hideo Uesugi・Takahisa Omata・(Toyama College of Technology) Masao Kita

1R20 Preparation of CdTe-related quantum dots with long wavelength emission and their photoluminescence properties (National Institute of Advanced Industrial Science & Technology) ○Norio Murase・Shiquan Wang・Chunliang Li

(15：40) (Chairman 冨田恒之)

1R21 Hydrothermal Growth of Water Dispersible Yttria-Stabilized Zirconia Nanocrystals (Gunma University) ○Kazuya Horiguchi・Kazuyoshi Sato

1R22 Growth of SnO_2 nanocubes and their resembled array through hydrothermal method with TMAH (Gunma University) ○Kazuyoshi Sato・Yokoyama Yohei・(Universite du Sud Toulon Var) Jean-Christophe Valmalette・(Osaka University) Kazuo Kuruma・Hiroya Abe・(Gunma University) Takayuki Takarada

1R23 Hydrothermal synthesis of cerium oxide nanocrystals in the presence of amino acid using flow-type reactor (Tohoku University) Andrzej Litwinowicz・○Seiichi Takami・Daisuke Hojo・Nobuaki Aoki・Tadafumi Adschiri

1R24 Direct Synthesis of $Li_4Ti_5O_{12}$ Nanocrystals by Hydrothermal Method (Keio University) ○Hiroyuki Kageyama・Yuya Oaki・Hiroaki Imai

■■ September 5 (Thur) (Room A) ■■

Hot Topics of Ceramics Materials & Technologies for Clean-up, conservation, and renovation

(9：00) (Chairman 勝又健一)

2A01 Evaluation of ability to remove water contaminants of bone char fabricated under various heating conditions (Tohoku University) ○Sota Terasaka・Taishi Yokoi・Masanobu Kamitakahara・(Keio University) Koji Ioku

2A02 Controlling morphology of calcium phosphate (DCPD) for environmental applications (Toyama National College of Technology) ○Masamoto Tafu・(Kyushu Institute of Technology) Ryo Hamai・(Toyama National College of Technology) Takeshi Toshima・Tetsuji Chohji

2A03 Preparation of Porous Zirconia Particles by Hydrothermal Crystallization (Chiba University) ○Yuya Yanagihara・Takashi Kojima・Naohumi Uekawa・Kazuyuki Kakegawa

(10：00) (Chairman 小島隆)

2A04 Microstructure control and gas permeability of porous silicon carbide (Kagoshima University) ○Hikaru Maeda・Yoshihiro Hirata・Soichiro Samashima・Taro Shimonosono

2A05 Surface Modification of Porous Al_2O_3 by Boehmite and Its Gas Permeability (Tokyo Institute of Technology) ○Yasuhiro Takada・Toshihiro Isobe・Sachiko Matsushita・Akira Nakajima

2A06 Development of high heat-resistant pyrochlore type oxygen storage material pCP (TOYOTA CENTRAL R&D Labs., Inc.) ○Akira Morikawa・Kae Yamamura・Toshitaka Tanabe・Akihiko Suda・Naoki Takahashi・(TOYOTA MOTOR Co. Ltd.) Takeshi Nobukawa・(CATALER CORPORATION) Akiya Chiba

(11：00) (Chairman 笹井亮)

2A07 ★Preparation of carbon based materials with controlled interlayer spacings for energy storage applications (University of Hyogo) ○Yoshiaki Matsuo

2A18 Cation exchange properties of hectorite deposited on monodispersed silica spheres through a sacrificial template method (Shinshu University) ○Asuka Suzuki・Shiho Yoshido・Tomohiko Okada・Shozi Mishima

2A19 Decomposition of Hydroperoxide and Ozone by Layered Double Hydroxide (LDH) (The University of Okayama) ○Kana Nakamura・Yoshikazu Kameshima・Shunsuke Nishimoto・Michihiro Miyake

2A20 ★Application of nanospace materials for environmental problems (Waseda University) ○Makoto Ogawa

(16：00) (Chairman 西本俊介)

2A22 Radioprotective Ability of Layered Double Hydroxide and Anion Exchange Reaction of Iodide Anions (Shimane University) ○Ryo Sasai・Eisaku Nii・(Nagoya University) Jun Kumagai

2A23 Preparation of Pt loaded WO_3 and photocatalytic decomposition of Acetaldehyde (Ritsumeikan University) ○Aya Fujii・(Ritsumeikan University・Japan Socierty for The Promotion of Science) Shisou Yoshimura (MOU)・(Ritsumeikan University) Tomoe Sanada・Kazuo Kojima

2A24 Photocatalytic decomposition of formic acid and acetic acid by fibous TiO_2 (The University of Shimane) Yoko Suyama・○Koyuki Sugiura・Maki Ishibashi

★ = Guest　☆ = Invited　◆ = Plenary　○ = presenter

(17：00) (Chairman　武井貴弘)

2A25　photocatalytic decompositions of methanol and acetic acid on $SrTiO_3$-$LaFeO_3$ solid solution (Utsunomiya University) ○Kotaro Takahashi・Keitaro Tezuka・yue-jin Shan

2A26　Self-Cleaning Efficiency of TiO_2 Thin Film under Flowing Water (Okayama University) ○Sana Tomoishi・Syunsuke Nishimoto・Yoshikazu Kameshima・(Industrial Technology Center of Okayama Prefecture) Eiji Fujii・(Okayama University) Michihiro Miyake

2A27　Self-cleaning design inspired by snail shell (Nagoya Institute of Technology) ○hirotaka maeda・(Tohoku University) makoto takeda・hideki ishida・(Nagoya Institute of Technology) toshihiro kasuga

■■ September 5 (Thur) (Room B) ■■

Innovative Functional Materials via Exploration of Chemical Processing

(9：00) (Chairman　片桐清文)

2B01　★Control of orientations of mesostructured films by design of interfaces toward development of anisotropic properties (Canon Inc.) ○Hirokatsu Miyata

2B03　☆Ion conductive function of coordination framework crystals (Kyoto University・JST-PRESTO) ○Satoshi Horike

(10：00) (Chairman　高橋雅英)

2B04　☆Formation of nanoporous structures derived from intrinsic defect structures of amorphous oxides (Osaka Prefecture University) ○Ryusuke Nakamura

2B05　★Synthesis of high-performance photoceramics by aqueous solution method using water-dispersible inorganic clusters (Tohoku University) ○Masato Kakihana・Makoto Kobayashi・Hideki Kato

(11：00) (Chairman　水畑穣)

2B07　☆Preparation of Organic/Inorganic Composite Particles in an Ionic Liquid (Kobe University) ○Hideto Minami

2B08　★Preparation of nanoparticle dispersions and their application to organic-inorganic hybrid transparent materials (Osaka Municipal Technical Research Institute) ○Kimihiro Matsukawa

Innovative Nanohybrid Materials — Materials Design for Fusion of Functions —

ナノ粒子 (生体・イメージング)

(14：20) (Chairman　村井俊介)

2B17　Iodinated silica/porphyrin hybrid nanoparticles for photothermal/photodynamic combination therapy of cancer (The University of Tokushima) ○Koichiro Hayashi・Michihiro Nakamura・Kazunori Ishimura

2B18　Nano phosphorous fusion material containing boron for new cancer therapy (Tokai University) ○Koji Tomita・Noriyuki Naruse・(Hiroshima University) Kiyofumi Katagiri・(Osaka City University) Hiroko Yukawa・Takeshi Nagasaki

2B19　Liquid Phase Synthesis and Characterization of Oleate-Modified Rare-Earth Borate Nanoparticles (Hiroshima University) ○Takuya Sakata・Kiyohumi Katagiri・Kei Inumaru・(Tokai University) Koji Tomita・(Kyoto University) Yoshihiro Sasaki・Kazunari Akiyoshi

2B20　Photo-induced reaction of enzyme-semiconductor hybrids (Nagasaki Unviersity) ○Kai Kamada・(Saga Unviersity) Nobuaki Soh

融合 (ナノ粒子-酸化物)

(15：40) (Chairman　冨田恒之)

2B21　★Spatial control of electric field enhancement associated with the plasmonic-photonic hybrid mode (Kyoto University・FOM Institute AMOLF) ○Shunsuke Murai・(Philips Research) Marc Verschuuren・(FOM Institute AMOLF) Gabriel Lozano・Giuseppe Pirruccio・Said Rodriguez・Jaime Gomez-Rivas・(Kyoto University) Kosuke Yamanaka・Koji Fujita・Katsuhisa Tanaka

2B23　Morphology Control of Ag Nanoparticles in Mesoporous SiO_2-TiO_2 Film and the Optical Characteristics (Toyohashi University of Technology) ○Mitsuru Torigoe・Teruhisa Okuno・Go Kawamura・Hiroyuki Muto・Atsunori Matsuda

2B24　Preparation of Ag nanoparticle/TiO_2 nanotubes array complex and the application to dye-sensitized solar cell (Toyohashi University of Technology) ○Hayato Ohmi・Go Kawamura・LeClere Darren・Hiroyuki Muto・Atsunori Matsuda

ナノ粒子 (形態・サイズ制御)

(17：00) (Chairman　蔵岡孝治)

2B25　Fabrication of network structure of Ag nanoparticles in epoxy polymers by using aramid nanofibers as templates (Tokyo University of Agriculture and Technology) ○Motoyuki Iijima・Hidehiro Kamiya

2B26　Synthesis of CuO Quantum Dots Using Supermicroporous Silica Template (Keio University) ○Haruna Tamaki・(Keio University・Tokyo Metropolitan Industrial Technology Institute) Hiroto Watanabe・(Keio University) Yuya Oaki・Hiroaki Imai

2B27　Microstructure and color properties of hematite/amorphous-silicate nanocomposite prepared from bacterial iron oxide (Okayama University) ○Hideki Hashimoto・(Kurashiki University of Science and the Arts) Yoshihiro Kusano・(Okayama University) Hiromichi Ishihara・(Research Institute for Production Development) Yasunori Ikeda・(Okayama University) Makoto Nakanishi・Tatsuo Fujii・Tokuro Nanba・(Okayama University・JST, CREST) Jun Takada

■■ September 5 (Thur) (Room C) ■■

Chemical Processes –Recent Developments as Preparation Processes of Functional Materials–

ナノ粒子

(14：20) (Chairman　石垣隆正)

2C17　★Mass production system of nanoparticles in liquid – Chemical reduction and plasma in liquid (Hokkaido University) ○Tetsu Yonezawa

(15：00) (Chairman　高橋雅英)

2C19　Influence of H_2O_2 addition on the photoluminescence of Y_2O_3:Eu^{3+} nanophosphors prepared by laser ablation in water (Hosei University) Al-Mamun Sharif A.・○Takamasa Ishigaki

2C20　★Inorganic Nanoparticles with Unique Interfacial Functions (Kyoto University・CREST-JST) ○Toshiharu Teranishi

(16：20) (Chairman　菅原義之)

2C23　Synthesis and Applications of Micro- and Nanostructured Titanium Compounds (Saga University) ○Yuya Matsushita・Sayaka Matsuda・Toshio Torikai・Watari Takanori・Mitsunori Yada

多孔材料

2C24　Synthesis and catalytic property of mesoporous titania-silica (Kyushu Univesity) ○Shohei Kikkawa・Miki Inada・Naoya Enomoto・Junichi Hojo

2C25　Structural analysis and photocatalytic activity of mesoporous silica-titania (Kyushu University) ○Miki Inada・Yohei Katakami・Naoya Enomoto・Junichi Hojo

（17：20）（Chairman 石垣隆正）

2C26 Preparation of beta-spodumene / mullite composites by thermal transformation of（Li, NH_4）-zeolite EDI（Industrial Research Center of Tochigi Pref.）○Taiji Matsumoto・Sakae Kato・（Ryukoku University）Yoshiaki Goto

2C27 Behavior of metal（Au, Pt）deposition inside mesoporous silica（Waseda University）○Masaki Kitahara・Atsushi Shimojima・（Waseda University・Kagami Memorial Research Institute for Materials Science and Technology,）Kazuyuki Kuroda

2C28 Formation of MOFs（ZIF-8）from ZnO nanorods on flexible substrates（Osaka Prefecture University）○Kenji Okada・Yasuaki Tokudome・Masahide Takahashi・（Kansai University）Hiromitsu Kozuka

■■ September 5 (Thur) (Room D) ■■

Explorer of soft-solution process for fabrication of ceramics — Reaction process in Condensed matter; water, non-aqueous solvent, ionic liquids —

光触媒

（14：20）（Chairman 伴隆幸）

2D17 ☆Design of photocatalytic materials through the use of nano-structures controlled by solution process（Tokyo Institute of Technology）○Ken-ichi Katsumata

2D18 Microwave-assisted hydrothermal synthesis of $SrTiO_3$-based photocatalyst and its photocatalytic properties（Tohoku University）○Ryusuke Akita・Qiang Dong・Shu Yin・Tsugio Sato

2D19 UV, Visible and Near-infrared Lights Induced NO_x Destruction Activity of（Yb, Er）-$NaYF_4$/C-TiO_2 Composite（Tohoku University）○Xiaoyong Wu・Qiang Dong・Shu Yin・Tsugio Sato

チタン酸化物

（15：20）（Chairman 勝又健一）

2D20 Equilibrium reaction analysis of fluorotitanium complex in liquid phase deposition process（Kobe University）○Hideshi Maki・Yuzo Okumura・Minoru Mizuhata

2D21 Synthesis of titanic compound sol with peroxo group by dialysis and application for TiO_2 thin film preparation（Chiba University）○Chun Ming Wen・Naofumi Uekawa・Takashi Kojima・Kazuyuki Kakegawa

2D22 Titanium（IV）Oxide Nanosheet Prepared by Soft Solution Process（Kumamoto University・JST, CREST）○Asami Funatsu・Takaaki Taniguchi・Michio Koinuma・Yasumichi Matsumoto

（16：20）（Chairman 殷シュウ）

2D23 ★Structure Tuning and Multi-functionalization of Low-dimensional Nanostructured Oxides（Tohoku University）○Tohru Sekino・Hiroki Tsukamoto・Se Hoon Kim・Shun-Ichiro Tanaka・（Sunmoon University）Tae-Ho Kim・Soo Wohn Lee

（17：00）（Chairman 小林亮）

2D25 Fabrication of titanium oxide/porous silicon by anodization in titanium fluorocomplex solution（Kobe University）○Akihito Katayama・Hideshi Maki・Minoru Mizuhata

2D26 Bottom-up synthesis and morphology control of layered titanate nanocrystals by aqueous solution process（Gifu University）○Takuya Nakagawa・Takayuki Ban・Yutaka Ohya

2D27 Synthesis of Porous Strontium Titanate Particles Using Hydrous Titania as the Starting Material（Chiba University）○Takashi Kojima・Kosuke Ota・Naofumi Uekawa・Kazuyuki Kakegawa

■■ September 5 (Thur) (Room E) ■■

Design, synthesis, and evaluation of biomaterials to induce cell functions

（9：00）（Chairman 相澤守）

2E01 Fabrication of interconnected porous carbonate apatite based on the setting reaction of gypsum sphere（Kyushu University）○Kunio Ishikawa・Shunsuke Nomura・Kanji Tsuru

2E02 Production of calcium phosphate submicrometer spheres by a liquid-phase laser process（National Institute of Advanced Industrial Science and Technology）○Maki Nakamura・Ayako Oyane・Ikuko Sakamaki・Yoshie Ishikawa・Yoshiki Shimizu・Kenji Koga・Kenji Kawaguchi・（National Institute of Advanced Industrial Science and Technology・Hokkaido University）Naoto Koshizaki

2E03 Preparaiton of CaO-SO_2 glass-ceramic spheres by an electrospraying method（Nagoya Institute of Technology）○hirotaka maeda・（Tohoku University）tatsuya okuyama・（Nagoya Institute of Technology）yuki nakano・akiko obata・（Tohoku University）hideki ishida・（Nagoya Institute of Technology）tosihiro kasuga

（10：00）（Chairman 寺岡啓）

2E04 Evaluation of nanosized hydroxyapatite granules fabricated in hydrogel by electrophoresis（Tohoku University）○Kenshiro Kimura・Taishi Yokoi・Masanobu Kamitakahara・（Keio University）Koji Ioku

2E05 Behavior of FGF adsorption on carbonate apatite granular（Kyushu University）○Takako Yoshida・Riki Toita・Kanji Tsuru・Kunio Ishikawa

2E06 Preparation of microspheres derived from chitosan-silicate hybrids for drug delivery system（Kyushu Institute of Technology）○Yuki Shirosaki・（Okayama University）Kohei Okamoto・Satoshi Hayakawa・Akiyoshi Osaka

（11：20）（Chairman 早川聡）

2E08 ★Carbon nanotubes promote bone formation：development of new carbon nanotube/ceramic composite implant（Shinshu University）○Naoto Saito

（14：20）（Chairman 中村美穂）

2E17 Unilateral calcium phosphate coated chitosan film and its tensile strength（Osaka City University）○Yoshiyuki Yokogawa・Daichi Yamano・Ippei Kishida

2E18 Cell migration into organic-inorganic porous hybrids with different pores（Okayama University）○Manato Nakatsukasa・Satoshi Hayakawa・Akiyoshi Osaka・（Kyushu Institute of Technology）Yuki Shirosaki

2E19 In vivo long-term biopersistence of oxidized carbon nanotubes inside and outside macrophages in rat subcutaneous tissue（Tohoku University）○Yoshinori Sato・（Hokkaido University）Atsuro Yokoyama・（Hitachi High-Technologies）Eiko Nakazawa・（Horiba）Tomoko Numata・（National Institute of Advanced Industrial Science and Technology）Masako Yudasaka・（Tohoku University）Kenichi Motomiya・Kazuyuki Tohji

（15：20）（Chairman 横川善之）

2E20 Apatite deposition on polyphosphate/fish scale collagen fibrous membranes（Tokyo Institute of Technology）○Rena Watanabe・Zhefeng Xu・Tomohiko

★ = Guest　☆ = Invited　◆ = Plenary　○ = presenter

Yoshioka・Toshiyuki Ikoma・(Hokkaido University) Haruhiko Kashiwazaki・(Tokyo Institute of Technology) Junzo Tanaka

2E21 Effect of Flowing Fluid and Substrates on the Orientation of Tilapia Scale Collagen Fiber (Tokyo Institute of Technology) ○Sota Hirosawa・Tomohiko Yoshioka・Toshiyuki Ikoma・Junzo Tanaka

2E22 Fabrication of Functionally Gradient Porous Composites of Hydroxyapatite and Tilapia Scale Collagen (Tokyo Institute of Technology) ○Naoki Yamaoka・Toshiyuki Ikoma・Tomohiko Yoshioka・Junzo Tanaka

(16：40) (Chairman　大矢根綾子)

2E24 ★Research and development for approaching regulatory approval of medical devices and drug combination products (National Institute of Advanced Industrial Science and Technology) ○Atsuo Ito

■■ September 5 (Thur) (Room F) ■■

Development of functional ceramics using Green Processing

薄膜

(9 ：00) (Chairman　青野宏通)

2F01 Effect of stoichiometry on surface-directed spinodal decomposition in Nb-doped $SrTiO_3$ thin films by dynamic aurora PLD. (Shizuoka University) ○Hayato Ishii・Naonori Sakamoto・(Tokyo Institute of Technology) Kazuo Shinozaki・(Shizuoka University) Hisao Suzuki・Naoki Wakiya

2F02 Fabrication of LSMO thin film exhibiting metal-insulator transition around room temperature and its application to SRD (Tokyo Institute of Technology) ○Tadashi Shiota・Kenichi Sato・(Shizuoka University) Naoki Wakiya・(Tokyo Institute of Technology) Jeffrey S. CROSS・Osamu Sakurai・Kazuo Shinozaki・(Japan Aerospace Exploration Agency) Sumitaka Tachikawa

2F03 Electrical properties of (La, Sr)(Co, Ni)O_3 and Pt thin-film electrodes for YSZ oxygen sensor at low temperature (Tokyo Institute of Technology) ○Kazuto Nagahara・Junichi Hamasaki・Tadashi Shiota・(Shizuoka University) Naoki Wakiya・(Tokyo Institute of Technology) Jeffrey Cross・Osamu Sakurai・Kazuo Shinozaki

(10：00) (Chairman　増本博)

2F04 Properties of Adsorption Type Gas Sensor using Oxide Epitaxial Thin Films (Tokyo Institute of Technology) ○Kazuo Shinozaki・Yumi Arai・Soma Sato・Toru Harta・Tadashi Shiota・(Shizuoka University) Naoki Wakiya・(Tokyo Institute of Technology) Jeffrey Cross・Akio Nishiyama・Osamu Sakurai

磁性材料

2F05 Preparation of Magnetic Garnet Thick Film by MOD Technique II (Advanced Ceramics Research Center, Nagoya Institute of Technology) ○Nobuyasu Adachi・Toshitaka Ota

2F06 Low Temperature Synthesis of magneto-optical and ferroelectric composite film by MOD technique (Advanced Ceramics Research Center, Nagoya Institute of Technology) ○Yusaku Koba・Nobuyasu Adachi・Toshitaka Ota

(11：00) (Chairman　安達信泰)

2F07 Magnetic Property and Thermal Stability of CoPd-$SrTiO_3$ Nano-composite Films (Tohoku University) ○Yiwen Zhang・Syousuke Fukushi・Hanae Kijima・(Research Institute for Electromagnetic Materials) Nobukiyo Kobayashi・(Tohoku University・Research Institute for Electromagnetic Materials) Shigehiro Ohnuma・(Tohoku University) Hiroshi Masumoto

2F08 Preparation of $Y_3Fe_5O_{12}$ Having High Heat Generation Ability under AC Magnetic Field for Thermal Coagulation Therapy (Ehime University) ○Yuhi Yamano・Tadahiko Nishimori・Yoshiteru Itagaki・Takashi Naohara・Hiromichi Aono・(Niihama National College of Tech.) Hideyuki Hirazawa

2F09 Effect of ferrite nanoparticle on permeability of NiZnCu ferrite-$Ba_{0.7}Sr_{0.3}TiO_3$ composites (Hokkaido University) ○Hiroaki Kageyama・(Tokyo polytechnic University) Naoto Kitahara・(Hokkaido University) Kiyoharu Tadanaga・Junichi Takahashi・Mikio Higuchi

ナノ粒子・薄膜

(14：20) (Chairman　鈴木久男)

2F17 ★Development of Zeolite-Magnetite composite and application for Cs decontamination (Graduate School of Science and Engineering, Ehime University) ○Hiromichi Aono・(Ehime University) Toru Yamamoto・Naoto Matsue・Teruo Henmi

2F19 Fe_3O_4/SiO_2 コアシェル粒子の作製 (東京工業大学) ○尚模 金・健一 勝又・清 岡田・伸広 松下

2F20 Hydrothermal syntheses of Ceria nano particles from surfactant-metal complexes (Tokyo Institute of Technology) ○Yuki Makinose・(Kumamoto University) Takaaki Taniguchi・(Tokyo Institute of Technology) Ken-ichi Katsumata・Kiyoshi Okada・Nobuhiro Matsushita

2F21 Fabrication of potassium tantalite film by hydrothermal method (University of Toyama) ○Atsushi Saiki・Takashi Hashizume・Kiyoshi Terayama

(16：20) (Chairman　篠崎和夫)

2F23 ★Preparation of Cu-base delafossite nanopowders by green process and its applications (National Taipei University of Technology) ○Te-Wei Chiu

2F25 Fabrication of electro-conductive line on titanium oxide by Yb-fiber laser irradiation (Osaka Municipal Technical Research Institute) ○Hiroyasu Kido・Masanari Takahashi・Jun-ichi Tani

2F26 Preparation of tin oxide thin films by microwave heating (Shizuoka University) ○Takuya Ohashi・Sakae Muto・Masayuki Okuya

2F27 Investigation of formation process of ZnS phosphor sol obtained by peptization of sulfide with citrate ions (Chiba University) ○Mayumi Ouchi・Naohumi Uekawa・Takashi Kojima・Kazuyuki Kakegawa

■■ September 5 (Thur) (Room G) ■■

Advent and Development of Advanced Photonic Materials

蛍光体応用

(9 ：20) (Chairman　神哲郎)

2G02 Scintillation properties of lattice defects in undoped $Y_3Al_5O_{12}$ transparent ceramic and single crystal (Kyushu Institute of Technology) ○Yutaka Fujimoto・Takayuki Yanagida・(Konoshima Chemical Co., Ltd.) Hideki Yagi・Takagimi Yanagitani

2G03 Scintillation properties of ceramic $Gd_3(Ga, Al)_5O_{12}$ (Kyushu Institute of Technology) ○Takayuki Yanagida・Yutaka Fujimoto・(Konoshima Chemical) Hideki Yagi・Takagimi Yanagitani

2G04 Synthesis and characterization of emissive namatic liquid crystal (The University of Niigata) ○Mizuki Watanabe・Kazuyoshi Uematsu・Sun Woog Kin・Kenji Toda・Minwo Sato

(10：20) (Chairman　京免徹)

2G05 Surface modification and Preparation of Lanthanide Phosphor Hollow Microspheres (National Institute of Advanced Industrial Science and Technology (AIST)) ○Tetsuro Jin・Tomoyo Ochiishi・(Nagoya Institute of Technology) Yusuke Daiko・(University of Hyogo) Hiroaki Usui・Tetsuo Yazawa

2G06　Development of Scintillation material prepared by the SPS Method II（Tohoku University）○Shunsuke Kurosawa・Kouichi Harata・Jan Pejchal・Kei Kamada・Yuui Yokota・Akira Yoshikawa

エレクトロルミネッセンス

2G07　Powder EL devices using perovskite type nano sized oxide phosphors（Meiji University・National Institute of Advanced Industrial Science and Technology）○Yuuki Nakagawa・（meiji University）Noboru Miura・（National Institute of Advanced Industrial Science and Technology）Kouya Hakuta・Mitsuko Aoki・Hiroshi Takashima

（11：20）（Chairman　井上幸司）

2G08　★A novel phosphor for glareless white LEDs（KOITO MANUFACTURING CO., LTD.）○Hisayoshi Daicho

エレクトロルミネッセンス

（14：40）（Chairman　植田和茂）

2G18　Preparation of $NaNbO_3$:Pr/SnO_2:Sb and（Ca, Sr）TiO_3:Er/SnO_2:Sb multilayers and their electroluminescence properties（Gunma University）○Toru Kyomen・Miyu Seki・Sayaka Hasuko・Minoru Hanaya・（National Institute of Advanced Industrial Science and Technology）Hiroshi Takashima

2G19　Synthesis of the perovskite-type oxide fluorescent material nanoparticle for Powder-type EL（National Institute of Advanced Industrial Science and Technology）○Mitsuko Aoki・Hiroshi Takashima・Yukiya Hakuta

光エネルギー変換

2G20　Spectral conversion and electrical conductivity of Al-Yb codoped ZnO thin films（Kyoto University）○Naoshi Sano・Junpei Ueda・Setsuhisa Tanabe

光触媒等

（15：40）（Chairman　黒木雄一郎）

2G21　Synthesis and characterization of the high-refractive-index TiO_2 films with opal structure（Utsunomiya University）○Yui Ohmura・Taki Matsumoto・（National Institute for Materials Science）Hiroshi Fudouzi

2G22　Preparation and Optical H2 Sensing Properties of WO_3 Coating with Photodeposited Pd Catalyst（Kanto Gakuin University）○Jun-ichi Hamagami

（16：20）（Chairman　黒木雄一郎）

2G23　★Photonics Innovation for Next-Generation Devices（Japan Science and Technology Agency）○Katsuaki Sato

（17：00）（Chairman　戸田健司）

2G25　★Preperation of High Perfomence Rare-Earth Activated Phosphors by New Synthetic Rout（School of Advanced Materials Science and Engineering, Sungkyunkwan University・SKKU Advanced Institute of Nanotechnology（SAINT）, Sungkyunkwan University）○Yoon Dae-Ho・Masaki T.・Song Y. H.

■■ September 5 (Thur) (Room H) ■■

Functional revelation and its understanding of ceramic transducers — sensors and actuators —

（9：20）（Chairman　松嶋雄太）

2H02　Improvement of selectivity by Pt/alumina layer for SO_2 sensor using $V_2O_5/WO_3/TiO_2$（National Institute of Advanced Industrial Science and Technology（AIST）・University of Bayreuth）○Noriya Izu・（University of Bayreuth）Gunter Hagen・Franz Schubert・Daniela Schoenauer-Kamin・Ralf Moos

2H03　Effects of Pd loading on adsorption and desorption characteristics of CO on the surface of SnO_2 sensors（Nagasaki University）○Keita Tanaka・Takeo Hyodo・（FIS Inc.）Harumi Kuribayashi・Muneharu Shimabukuro・（Nagasaki University）Yasuhiro Shimizu

2H04　Investigation of nonanal-sensor response on tin oxide VOCs sensors（National Institute of Advanced Industrial Science and Technology）○Toshio Itoh・Takafumi Akamatsu・Noriya Izu・Woosuck Shin

（10：20）（Chairman　伊豆典哉）

2H05　Investigation on interaction between SnO_2 and H_2/N_2 gas via a thermogravimetric approach（Yamagata University）○Yuta Matsushima・Naoto Kakinuma・（Tokyo University of Agriculture and Technology）Atsushi Kondo・Kazuyuki Maeda

2H06　Material design of semiconductor gas sensors. [1] gas adsorption on the SnO_2 particle surface（Kyushu University）○Koichi Suematsu・Masayoshi Yuasa・Tetsuya Kida・Noboru Yamazoe・Kengo Shimanoe

（11：00）（Chairman　伊藤敏雄）

2H07　Material design of semiconductor gas sensors. [2] Gas response properties on Sb-doped SnO_2 sensor.（Kyushu University）○Miyuki Sasaki・Koichi Suematsu・Masayoshi Yuasa・Tetsuya Kida・Kengo Shimanoe

2H08　Material design of semiconductor gas sensors. [3] Water vapor effect on Pd-loaded SnO_2 nanoparticles gas sensor.（Kyushu University）○Nan Ma・（Kyushu University）Koichi Suematsu・Masayoshi Yuasa・Tetsuya Kida・Kengo Shimanoe

2H09　Material design of semiconductor gas sensors. [4] Gas adsorption behavior on Pd-loaded WO_3 nanoparticles gas sensor.（Kyushu University）○Zhongqiu Hua・Masayoshi Yuasa・Tetsuya Kida・Noboru Yamazoe・Kengo Shimanoe

Science and Technology on Engineering Ceramics: Material Development for Realization of Safe and Reliable Society

■■ September 5 (Thur) (Room I) ■■

耐環境セラミックコーティングの新展開

（9：40）（Chairman　篠田豊）

2I03　Low Thermal Conductivity and Structural Stability of Cation Deficit Perovskite-type Oxides（JFCC）○Tsuneaki Matsudaira・Naoki Kawashima・Satoshi Kitaoka・Craig A.J. Fisher・（Chubu Electric Power, Co., Inc.）Makoto Yamaura

2I04　Design of advanced EBCs with excellent thermal energy reflection and oxygen shielding capability（JFCC）○Makoto Tanaka・Tsuneaki Matsudaira・Masashi Wada・Satoshi Kitaoka・（Gifu University）Michiyuki Yoshida・Osamu Sakurada・（The University of Tokyo）Yutaka Kagawa

2I05　First-principles calculations of formation and diffusion of vacancies at an alumina grain boundary（JFCC）○Takafumi Ogawa・Akihide Kuwabara・Craig Fisher・Hiroki Moriwake・（Nagoya University）Katsuyuki Matsunaga・（Okayama University）Kenji Tsuruta・（JFCC）Satoshi Kitaoka

（10：40）（Chairman　小笠原俊夫）

2I06　Damage Behavior of Environmental Barrier Coating Coated on Woven Fabric Fiber/Nonoxide Ceramic Matrix Composites（Research Center for Advanced Science and Technology（RCAST））○Yuichi Motoyama・Hideki Kakisawa・Yutaka Kagawa

2I07　Interaction between oxide multilayer and thermal radiation: discussion on Mie scattering region（The University of Tokyo）○Masahiro Yamazoe・Hideki Kakisawa・Yutaka Kagawa・（JFCC）Satoshi Kitaoka・Makoto Tanaka

2I08　Structural design of oxide environmental barrier coating（The University of Tokyo）○Hideki Kakisawa・Yutaka Kagawa

2I09　Spalling behavior of TGO layer in thermal barrier coatings under thermal cycle condition（The University of Tokyo）○Hayato Suzuki・Yali Dong・

Yuuichi Motoyama・Hideki Kakisawa・Yutaka Kagawa

複合化によるセラミックスの信頼性向上

(14：20) (Chairman 赤津隆)

2I17 ★Multiscale effects for mechanical properties of ceramics: possibility of high strength and toughness (The University of Tokyo) ○Yutaka Kagawa

2I19 Mechanical properties and microstructure of SiC_f/SiC composite fabricated by advanced melt infiltration method (Tokyo Institute of Technology) ○Yosuke Okubo・Toyohiko Yano・Katsumi Yoshida・(Japan Aerospace eXploration Agency) Toshio Ogasawara・Takuya Aoki

2I20 Formation of Carbon- and BN-Interphases for SiC_f/SiC Composites by EPD Method and Their Mechanical Properties (Tokyo Insitute of Technology) ○Katsumi Yoshida・Hiroyuki Akimoto・Akihiro Yamauchi・Yuto Hattori・Toyohiko Yano・(Japan Aerospace Exploration Agency) Masaki Kotani・Toshio Ogasawara

最先端モデリング・評価技術

(15：40) (Chairman 堀田幹則)

2I21 Mechanical and Physical properties of carbon fiber-reinforced ultra-high temperature ceramic matrix composites (National Institute for Materials Science) ○Shuqi Guo・Toshiyuki Nishimura・(National Institute for Materials Science・The University of Tokyo) Yutaka Kagawa

2I22 Evolution of micro-damage in SiC/SiC composite under low applied load condition (The University of Tokyo) ○Yutaka Kagawa・Ryo Inoue・Yuichi Motoyama・Hideki Kakisawa

2I23 Creep deformation modeling of SiC-fiber/SiC matrix composites with microscopic damages (JAXA) ○Toshio Ogasawara・(Tokyo University of Science) Shinsuke Chikamatus・Shinji Ogihara・(JAXA) Takuya Aoki

2I24 Numerical analysis of transitional nanoindentation behavior on the inhomogeneous body with a bicylindrical model (Tokyo Institute of Technology) ○Wataru Kubota・Takashi Akatsu・Yutaka Shinoda・Fumihiro Wakai

接合技術による大型セラミックスの作製

(17：20) (Chairman 垣澤英樹)

2I26 Joining of alumina with alumina-zirconia insert at a low mechanical pressure (National Institute of Advanced Industrial Science and Technology) ○Mikinori Hotta・Naoki Kondo・Hideki Kita・(Mitsui Mining & Smelting Co., Ltd.) Yasuhisa Izutsu・Takashi Arima・Yasunori Matsumura

2I27 Low temperature joint of boron carbide, using Al-Si alloy (Nagoya University) ○Masatake Satou・Seiji Yamashita・(MINO Ceramic Corporation) Kiyoto Sekine・Takeshi Kumazawa・(Nagoya University) Hideki Kita

■■ September 5 (Thur) (Room J) ■■

New Evolution of Dielectrics: Aiming at the Innovation in Materials, Processing and Devices

材料設計

(9：00) (Chairman 野口祐二)

2J01 ★Study of Sn^{2+} doped $ATiO_3$ dielectric ceramics (Murata Manufacturing Co.,Ltd.) ○Shoichiro Suzuki

2J03 ☆Ferroelectricity and Annealing Effect in KF-substituted Barium Titanate (Shimane University) ○Shinya Tsukada・Yukikuni Akishige・(University of Tsukuba) Seiji Kojima

(10：00) (Chairman 森分博紀)

2J04 Synthesis and dielectric characterization of $CaTiSiO_5$ based ceramics (Tokyo Institute of Technology) ○Junichi Kimura・(Tokyo Institute of Technology・Nagoya University) Hiroki Taniguchi・(Tokyo Institute of Technology) Takao Shimizu・Shintaro Yasui・Mitsuru Itoh・Hiroshi Funakubo

2J05 Fabrication of multiferroic glass-ceramics (Tohoku University) ○Teppei Takahashi・Yoshihiro Takahashi・Rie Ihara・Takumi Fujiwara

理論・解析

2J06 ☆Fractal Dynamics in Relaxors (Ritsumeikan University・JST-PRESTO) ○Akitoshi Koreeda

(11：00) (Chairman 保科拓也)

2J07 ☆Recent developments of molecular dynamics simulations of ferroelectrics based on first-principles effective Hamiltonian (Tohoku University) ○Takeshi Nishimatsu

2J08 Electric-Field-Induced Strain Properties and Crystal Structural Analyses for Pb- and Bi-based Ferroelectric Crystals (The University of Tokyo) ○Yuuki Kitanaka・Takeshi Oguchi・Yuji Noguchi・Masaru Miyayama・Yutaka Kagawa・(Hiroshima University) Chikako Moriyoshi・Yoshihiro Kuroiwa・(Japan Atomic Energy Agency) Ryoji Kiyanagi・(Tohoku University) Hiroyuki Kimura

2J09 First-principles study of the defect formation and local ferroelectric structure in $AgNbO_3$ (JFCC) ○Hiroki Moriwake・Craig A. J. Fisher・Akihide Kuwabara・(Shizuoka University) Desheng Fu

Future Challenges in Dielectrics

(14：20) (Chairman 和田智志)

2J17 ◆Development and Future Challenges of Dielectric Ceramics (Tokyo Institute of Technology) ○Yukio Sakabe

2J20 ★Vibration energy harvesting using piezoelectric thin films (Kobe University) ○Isaku Kanno

(16：00) (Chairman 坂本渉)

2J22 ★R&D of flexible dye-sensitized solar cells for energy harvesting applications (Toin University of Yokohama) Tsutomu Miyasaka・(Toin University of Yokohama・Peccell Technologies, Inc.) ○Masashi Ikegami

2J24 ★Fe-based New Magnetostrictive Alloys and Applications for Vibration Energy Harvesting Device and Force Sensor (Hirosaki University) ○Yasuhumi Furuya・Teiko Okazaki

2J26 ★Potentials of Ferroelectric Crystals (National Institute for Mateirals Sceince) ○Kenji Kitamura・Takahiro Nagata・Minoru Osada・(University of Washington, Seattle) Xiaoyan Liu

■■ September 5 (Thur) (Room K) ■■

Research Trend of Ceramic Materials and Devise Technology on Energy Conversion and Storage

キャパシタ材料

(9：00) (Chairman 北憲一郎)

2K01 Capacitor properties of RuO_2 nanosheets in buffered solutions and application forward to 3.8 V aqueous hybrid capacitor (Shinshu University) ○Takayuki Ban・Wataru Shimizu・Sugimoto Wataru

太陽電池材料

2K02 Synthesis of TiO_2 polymorphs for dye-sensitized solar cell (Tokai University) ○Miwako Furue・Koji Tomita・Yuki Shimoyama・Yoshihito Kunugi・

Shinjiro Umedu・(Tohoku University) Masato Kakihana

熱電・蓄熱材料

(9：40) (Chairman 木村禎一)

2K03 Hot corrosion evaluation of Al_2O_3 and SiC in KCl-NaCl molten salt (National Institute of Advanced Industrial Science and Technology) ○Takaaki Nagaoka・Ken'ichiro Kita・Mikinori Hotta・Naoki Kondo

2K04 Technology of aluminum wiring on alumina by using polysiloxane (National Institute of Advanced Industrial Science and Technology) ○Ken'ichiro Kita・Naoki Kondo

2K05 Modification of molten salt for thermal storage by alumina filler mixing (National Institute of Advanced Industrial Science and Technology) ○Ken'ichiro Kita・Satoko Tasaki・Takaaki Nagaoka・Naoki Kondo

(10：40) (Chairman 岩崎航太)

2K06 Development of high energy density heat storage body with ceramic shell structure (Nagoya University) ○Masaya Yoshida・Seiji Yamasita・Hideki Kita

2K07 Thermoelectric performance of TiS_2-baced inorganic/organic hybrid superlattice structure (The University of Nagoya) ○Tomohiro Ito・Hitoshi Sasaki・Mami Kondo・(The University of Nagoya・JST-CREST) Chunlei Wan・Kunihito Koumoto

2K08 Thermoelectric properties of liquid-phase exfoliated two-dimensional TiS_2 nanosheets (Nagoya University) ○Noriyuki Oyaizu・(Nagoya University・JST-CREST) Chunlei Wan・Kunihito Koumoto

2K09 Thermoelectric properties of layered Mn-based perovskite oxides (Okayama University) ○Takafumi Nakatani・Syunsuke Nishimoto・Yoshikazu Kameshima・Mitihiro Miyake

Advanced technology for energy transducer

(14：20) (Chairman 上田太郎)

2K17 ★DEVELOPMENT AND PRACTICAL APPLICATION OF THICK FILM TYPE ZrO_2 NOx SENSOR (NGK INSULATORS, LTD.) ○Kunihiko Nakagaki・Sangje Lee・Takeya Miyasita

(15：20) (Chairman 西堀麻衣子)

2K20 ★Relationship between structure and function in disordered materials (Japan Synchrotron Radiation Research Institute) ○Shinji Kohara

(16：20) (Chairman 藤代芳伸)

2K23 ★Performance characteristics of vapor electrolysis system with SOFC (Yokohama National University) ○Takuto Araki・Tatsuya Mizusawa・Takafumi Muto・(Central Research Institute of Electric Power Industry) Masashi Mori

(17：20) (Chairman 森昌史)

2K26 ★Build-up synthesis of composite particles for developing SOFC active electrodes (Osaka University) ○Hiroya Abe・Akira Kondo・Makio Naito

■■ September 5 (Thur) (Room L) ■■

Novel Powder Processing to Produce High-Performance and High-Quality Ceramics

粉体構造制御による機能発現

(10：00) (Chairman 井須紀文)

2L04 ★Lithium Ion Batery and Ceramics Powder (Office of Society-Academia Collaboration fo Innovation・TOYOTA CRDL) ○Yoshio Ukyo

(10：40) (Chairman 高井千加)

2L06 Mechanical one-pot synthesis of $LiFePO_4$ composite particle (Osaka University) ○Noriaki Kataoka・Takahiro Kozawa・Akira Kondo・Eri Nakamura・Hiroya Abe・Makio Naito

2L07 New co-precipitation method utilizing Zr carbonate complex and synthesis of nanocomposite for SOFC electrodes (Joining and Welding Research Institute, Osaka University) Xiuan Xi・○Hiroya Abe・Kazuo Kuruma・Akira Kondo・Makio Naito

(11：20) (Chairman 阿部浩也)

2L08 Dielectric properties of h-BN filled polymer composites for high frequecy. (Meijo University) ○Susumu Takahashi・(National Institute of Advanced Industrial Science and Technology) Yusuke Imai・(Meijo University) Akinori Kan・(National Institute of Advanced Industrial Science and Technology) Yuji Hotta・(Meijo University) Hirotaka Ogawa

2L09 Addition effect of hexagonal boron nitride and microwave irradiation effect on carbon fiber/thermoplastics composite (National Institute of Advanced Industrial Science and Technology) ○Daisuke Shimamoto・Yusuke Imai・Yuji Hotta

セラミックスの高機能化・高信頼性化を支える粉体評価技術

(14：20) (Chairman 内藤牧男)

2L17 ★Introduction of the Latest Powder Characteristics Measurement Equipment (Hosokawa Micron Corporation) ○Shuji Sasabe・Yoshinori Tsuji・Masahiro Inoki

(15：00) (Chairman 堀田裕司)

2L19 Analysis of adsorption structure of commercial dispersant at the surfaces of $BaCO_3$ and of TiO_2 by ^{1}H-NMR spectroscopy. (Nothing) ○Koichiro Tsuzuku・(Gunma University) Takeshi Yamanobe

セラミックス粉体の液中構造制御

2L20 Fabrication of lanthanum-silicate oxyapatite by the colloidal process method (Hosei University・Materials Processing Unit, National Institute for Materials Science) ○Satoshi Takahashi・(Materials Processing Unit, National Institute for Materials Science) Tetsuo Uchikoshi・Kiyoshi Kobayashi・(Toyohashi University of Technology) Hiroyuki Muto・Atsunori Matsuda・(Hosei University) Takamasa Ishigaki

(15：40) (Chairman 飯島志行)

2L21 Research on action mechanism of superplasticizer in cement system (Tokyo Institute of Technology) ○Daiki Atarashi・Masahiro Miyauchi・Etsuo Sakai

2L22 Research of ultra-high concentrated paste; action of superplasticizer (Tokyo Institute of Technology) ○Miki Saito・Daiki Atarashi・Masahiro Miyauchi・Etsuo Sakai

2L23 Influence of molecular structure of superplasticizers on suspension of ultra fine inorganic particles (Tokyo Institute of Technology) ○Yuuta Nakagawa・Daiki Atarashi・(Denki kagaku kogyo kabushiki kaisya) Akitoshi Araki・(Tokyo Institute of Technology) Etsuo Sakai

(16：40) (Chairman 多々見純一)

2L24 Dispersibility Improvement of Titanium Oxide Powder in Organic Solvent by Atmospheric Pressure Glow Plasma Deposition (Sophia University) ○Ryunosuke Sato・(Shachihata Inc.) Masahiro Matsuoka・(Sophia University) Masuhiro Kogoma・Kunihito Tanaka

★ = Guest ☆ = Invited ◆ = Plenary ○ = presenter

2L25 Dispersion and Stabilization of Nanoparticle Aggregates by Using Different Types of High-Speed Rotor-Stator Mixer（PRIMIX Corporation・Tokyo University of Agriculture and Technology）○Kenjiro Kanazawa・（PRIMIX Corporation）Nobuhiko Moriyasu・（Tokyo University of Agriculture and Technology）Motoyuki Iijima・Hidehiro Kamiya

■■ September 5 (Thur) (Room M) ■■

Frontiers of structural science and the development of novel materials

（9：00）（Chairman 藤井孝太郎）

2M01 ★Visualization of electron density distributions by the computer programs Dysnomia and VESTA（National Museum of Nature and Science）○Koichi Momma

Inorganic Materials Innovation

（10：00）（Chairman 手嶋勝弥）

2M04 ★Solution Plasma Processing（Nagoya University・JST/CREST）○Nagahiro Saito

（10：40）（Chairman 稲熊宜之）

2M06 ★New materials development in 5d oxide system（National Institute for Materials Science・Hokkaido University）○Kazunari Yamaura

（11：20）（Chairman 岸尾光二）

2M08 ★Itinerant Magnetism and Superconductivity in Fe/Co Chalcogenide and Pnictide layered Systems（Kyoto University）○Kazuyoshi Yoshimura

Frontiers of structural science and the development of novel materials

（14：20）（Chairman 山田高広）

2M17 ★Preparation and properties of binary rare earth oxide fluorides（University of Fukui）○Susumu Yonezawa・Jae-ho Kim・Masayuki Takashima

2M19 ☆The real attraction of synthesis of new compounds（University of Yamanashi）○Nobuhiro Kumada

（15：20）（Chairman 長谷川正）

2M20 Electronic structure of main group oxides and implications for the design of transparent conducting oxides（Tokyo Institute of Technology）○Hiroshi Mizoguchi・（The Ohio State University）Patrick. M. Woodward・（Tokyo Institute of Technology）Hideo Hosono

2M21 Crystal structure and ferromagnetism of of Fe_xWN_2 with iron triangle lattice（University of Yamanashi）○Akira Miura・Takahiro Takei・Nobuhiro Kumada・（University of Hiroshima）Eisuke Magome・Chikako Moriyoshi・Yoshihiro Kuroiwa

2M22 High-pressure synthesis and magnetocaloric effect of intermetallic compound $SnCMn_3$（Tohoku University）○Shinji Orimo・Yamato Hayashi・Jun Fukushima・Hirotsugu Takizawa

（16：40）（Chairman 滝澤博胤）

2M24 Evaluation for bonding character of dinitrogen in marcasite-type RhN_2 inferred from Raman scattering measurements（Nagoya University）○Ken Niwa・Kentaro Suzuki・Masashi Hasegawa・（Max-Planck-Institut fur Chemie）Ivan Troyan・Mikhail Eremets・（Technische Universitat Darmstadt）Dmytro Dzivenko・Ralf Riedel

2M25 Crystal structure and phase transition of Na_2MgPb（Tohoku University）○Takahiro Yamada・（National Institute of Advanced Industrial Science and Technology）Takuji Ikeda・（Tohoku University）Hisanori Yamane

（17：20）（Chairman 三浦章）

2M26 Microstructure and hardness of ZrB_2-ZrC eutectic composite prepared by arc-melting（Institute for Materials Research, Tohoku University）○Jianfeng Cheng・Hirokazu Katsui・Takashi Goto

2M27 Preparation and Crystal Structures of Ca_4SiN_4 and $Ca_5Si_2N_6$（Tohoku University）○Hisanori Yamane・Haruhiko Morito

■■ September 5 (Thur) (Room N) ■■

Synthesis and Functional Properties of Mixed Cation and Anion Compounds

（14：20）（Chairman 吉川信一）

2N17 ★Dielectric Materials as Complex Ion Compounds（Murata Mfg. Co.）○Akira Ando・Shoichiro Suzuki

2N19 Phase transition and dilelctric properties for peorvskite-type oxyfluorides,（1-x）$KNbO_3$-$x$$KMgF_3$（Tokai University）○Tetsuhiro Katsumata・Ryousuke Kuraya・Nobuhiro Sawada・（Gakushuin University）Daisuke Mori・Yoshiyuki Inaguma

（15：20）（Chairman 森賀俊広）

2N20 Polymorphism control of oxygen order/disorder for interesting physics and chemistry（University of Tokyo・Kyoto University）○Yaoqing Zhang・（University of Tokyo）Yutaka Ueda・（Kyoto University）Takafumi Yamamoto・Cedric Tassel・Hiroshi Kageyama

2N21 superconducting properties of anionic solid solutions $BaTi_2Pn_2O$（Pn = As, Sb, Bi）（The University of Kyoto）○Yasumasa Nozaki・Takeshi Yajima・Kosuke Nakano・Fumitaka Takeiri・Takafumi Yamamoto・Yoji Kobayashi・Hiroshi Kageyama・（Japan Synchrotron Radiation Research Institute）Akihiko Fujiwara・Jungeun Kim・Naruki Tsuji・（Australian Nuclear Science and Technology Organisation）James Hester

2N22 Preparation and photocatalytic properties of N-doped $AE_2Ta_3O_{10}$（AE：Ca, Sr, Ba）nanosheets（Kyushu University・JST-PRESTO）○Shintaro Ida・（Kyushu University）Yohei Okamoto・Hidehisa Hagiwara・Tastumi Ishihara

（16：20）（Chairman 町田憲一）

2N23 ★Material Design of Highly-Dispersed Catalysts with Minimum Noble Metal Loadings（Kumamoto Univeristy・Kyoto University）○Masato Machida

2N25 Cation Composition and Luminescent Properties of $Ba_3Si_6O_{12}N_2$ Oxynitrides（The Unibersity of Tokushima）○Yuma Ogita・Hiroshi Fujigaki・Issei Muguruma・Kei-ichiro Murai・（Tokushima Prefectural Industrial Technology Center）Toshio Matsubara・（The Unibersity of Tokushima）Toshihiro Moriga

（17：20）（Chairman 陰山洋）

2N26 Optical properties of Ce^{3+} doped $Mg_3(Gd, Y, Lu)_2Ge_3O_{12}$ inverse-garnet phosphors（Kyoto University）○Takayuki Shimizu・Jumpei Ueda・Setsuhisa Tanabe

2N27 Synthesis and photoluminescence properties of red-emitting Ca_2SiO_4:Eu^{2+} phosphors（Tohoku University）○Yasushi Sato・Hideki Kato・Makoto Kobayashi・Masato Kakihana・（Sungkyunkwan University）Takaki Masaki

2N28 Effect of co-substitution of B^{3+} and F^- ions into Ca_2SiO_4:Eu phosphor（Tohoku University）○Jihong Min・Hideki Kato・Yasushi Sato・Makoto Kobayashi・Masato Kakihana

■■ September 5 (Thur) (Room O) ■■

Science and Technology of Densification — from Powder comapaction to sintering —

高密度化の理論

(9：00) (Chairman 西村聡之)

2O01 Tensor virial equation of evolving surfaces in sintering of aggregates of particles by diffusion (Tokyo Institute of Technology) ○Fumihiro Wakai・(Susquehanna University) Kenneth A Brakke

2O02 Theoretical analysis for the rate of hydration of Portland cement with size distribution (Tokyo Institute of Technology) ○Yutaka Aikawa・Daiki Atarashi・Etsuo Sakai

放電焼結

2O03 ★Application of Spark Sintering to Powders having a Low Sinterability and their Process Analyses (Hiroshima University) ○Kazuhiro Matsugi

爆発衝撃を利用したプロセス

2O05 Fabrication and interfacial observations of the metal-ceramics system clads by utilizing explosive welding techniques (Sojo University) ○Ryuichi Tomoshige・Mai Hakuya・Shota Momokita・Yoshihisa Maeda・Akihisa Mori・Masahiro Fujita

非酸化物の SPS

(10：40) (Chairman 伊藤暁彦)

2O06 Fabrication of alpha-silicon nitride with high hardness by high pressure SPS (Ryukoku university) ○Masataka Ijiri・Masakazu Mori・Yusuke Wakamatsu・Manshi Ohyanagi

2O07 R&D of ceramic micro-encapsulated fuel by sintering of SiC nanopowder (National Institute for Material Science・Kyoto University) ○Kazuya Shimoda・(Kyoto University) Tatsuya Hinoki・(National Institute for Material Science) Toshiyuki Nishimura・Hideyuki Murakami・(Oak Ridge National Laboratory) Yutai Katoh・Lance Snead

2O08 Fabrication and evaluation of AlN ceramics by using planetary ball milled raw powders (Chuo University) ○Yosuke Sakakura・Kentaro Iwai・Hiromasa Miyake・Ryota Kobayashi・Katsuyoshi Oh-ishi

複合粉末の SPS

(14：20) (Chairman 川原正和)

2O17 Synthesis of core-shell TiCN-WC composite powders by rotary CVD (Tohoku University) ○Hirokazu Katsui・Naoto Sato・Takashi Goto・(Sumitomo Electric Industries) Masato Michiuchi・Keiichi Tsuda

2O18 Consolidation of CVD SiO_2-coated SiC by spark plasma sintering (Tohoku University・Wuhan University of Technology) ○Zhenhua He・(Tohoku University) Hirokazu Katsui・(Wuhan University of Technology) Rong Tu・(Tohoku University) Takashi Goto

2O19 Coating of SiO_2 nanolayer on cBN by rotary chemical vapor deposition and its spark plasma sintering (International Advanced Research and Education Organization, Tohoku University・Institute for Materials Research, Tohoku University) ○Jianfeng Zhang・(Institute for Materials Research, Tohoku University) Takashi Goto

2O20 Densification of SiO_2/cBN-TiN-TiB_2 composites by SPS (Tohoku University) Kitiwan Mettaya・○Akihiko Ito・Jianfeng Zhang・Takashi Goto

酸化物の SPS

(16：00) (Chairman 南口誠)

2O22 Dynamic grain growth during spark plasma sintering of alumina (National Institute for Materials Science) ○Byung-Nam Kim・(Kitami Institute of Technology) Keijiro Hiraga・(National Institute for Materials Science) Koji Morita・Hidehiro Yoshida・Yoshio Sakka

2O23 Effect of carbon contamination on transparent $MgAl_2O_4$ spinel during the spark-plasma-sintering (SPS) process (National Institute for Materials Science (NIMS)) ○Koji Morita・Byung-Nam Kim・Hidehiro Yoshida・Yoshio Sakka・(Kitami Institute of Technology) Keijiro Hiraga

2O24 Spark plasma sintering of CNT-Al_2O_3 ceramics (Yokohama National University) ○Mitsuaki Matsuoka・Junichi Tatami

(17：20) (Chairman 吉田英弘)

2O26 Puled Electric Current Sintering of Nano-Ni particle Dipersed PSZ/Al_2O_3 Composites (Nagaoka University of Technology) ○Makoto Nanko・Hai Pham Vu・Tetsuo Tokizawa

■■ September 5 (Thur) (Room P) ■■

12：10～14：10

a. Structure ceramics

2P001 Pressureless sintering of SiC-coated carbon nanofiber / SiC composites and their properties (Shinshu University・ASUZAC Inc.) ○Guosheng Xu・(Shinshu University) Tomohiro Yamaguchi・Morinobu Endo・Seiichi Taruta・(ASUZAC Inc.) Isao Kubo

2P003 Aluminum nitride whiskers with high aspect ratio grown from multi-component melt (Nagoya University) ○Mingyu Chen・Hiroaki Matubara・Kohei Mizuno・Masashi Nagaya・Yukihisa Takeuchi・Shunta Harada・Toru Ujihara・(DENSO CORPORATION) Yuichi Aoki・Kimio Kohara・Toyohiro Kano

2P004 Sintering and mechanical properties of machinable zirconia ceramics fabricated by addition of wollastonite (Sinshu University) ○Yuka Hongo・Tomohiro Yamaguchi・Seiichi Taruta

2P005 Oxygen and water permeability of $Y_2Ti_2O_7$ at high temperature (Gifu University) ○Hayato Mukai・Takuma Sassa・(JFCC) Tsuneaki Matsudaira・Makoto Tanaka・Satoshi Kitaoka・(Gifu University) Michiyuki Yoshida・Osamu Sakurada

2P006 Fabrication of binder-less cemented carbide materials using nano WC powders/(National Institute of Advanced Industrial Science and Technology) ○Ryoichi Furushima・Kiyotaka Katou・Koji Shimojima・Hiroyuki Hosokawa・Akihiro Matsumoto

c. Glass and photonic materials

2P007 Growth of silicate phosphor single crystal using gas phase method (The University of Niigata) ○Shota Hasegawa・Sun Woog Kim・kazuyosi Uematsu・Tadasi Isigaki・Kenji Toda・Mineo Sato・(The University of Sungkyunkwan) Takaki Masaki・Dae Ho Yoon

2P008 Fabrication of photoluminescent ZrO_2-crystallized glass (Tohoku University) ○Yasuhiro Nobuta・Mikio Kinoshita・Kenichirou Iwasaki・Yoshihiro Takahashi・Rie Ihara・Takumi Fujiwara

2P009 Near-infrared scintillation of $LiAO_2$:Fe (A = Al, Ga) under X-ray irradiation (The Wakasa Wan Energy Research Center) ○Shigeru Nishio

2P010 Improvement of the quantum efficiency of $Ca_8Mg(SiO_4)_4Cl_2:Eu^{2+}$ by the optimization of firing conditions (Tokyo Kagaku Kenkyusho) ○Shinji Okamoto

2P011 Effect of *B* site ordering on PL properties of Ce-doped $(Ba_{1-x}Ce_x)Zn_{1/3}Ta_{2/3}O_3$ phosphor (Meijo University) ○Kenta Hashimoto・Akinori Kan・(Technical Administration Division, KICTEC INC.) Norihiro Ikeda・(Mie Prefecture Industrial Reserch Institute) Kouji Inoue・(Meijo University)

★ = Guest ☆ = Invited ◆ = Plenary ○ = presenter

Hirotaka Ogawa

2P012 Upconversion luminescence in Yb^{+3}, Er^{+3} codoped $YNbO_4$（NDA）○Shinya Sawai・Yuichi Nomoto・Hirokazu Tanaka・（Tokai University）Noriyuki Naruse・Koji Tomita

2P013 Morphological control and characterization of fluoride upconversion material by liquid methods（Tohoku University）○Yohei Suzuki・Qiang Dong・Shu Yin・Tsugio Sato

2P014 Optical properties of M（M = Y, Gd, Sm）added CeO_2 thin films by spray deposition method（The University of Toyama）○Yuto Yamashita・Takashi Hashizume・Atushi Saiki

2P015 Development of the formation technique of Cu micron wiring by using organic-inorganic hybrid and electroless Cu plating.（Shibaura Institute of Technology）○Masaya Eguchi・Tomoji Ohishi

2P016 Morphology of nanoholes in lithium borarte glass and crystal by femtosecond laser ablation（Akita University）Tomomi Sakashita・Tomoko Takahashi・○Nobuhiro Kodama・（Osaka University）Togo Shinonaga・Masahiro Tsukamoto・（National Institute for Materials Science）Naoki Ikeda・Yoshimasa Sugimoto

2P017 Development of Fe_2O_3-Bi_2O_3-B_2O_3 glasses with pH responsivity and hydrophobic property（Mie University）○Tadanori Hashimoto・Honami Ohta・Hiroyuki Nasu・Atsuhi Ishihara・（HORIBA）Yuji Nishio

2P018 Low-temperature heat-capacity of $Ba_2TiSi_2O_8$ phase via different synthetic routes（The University of Tohoku）○Kensaku Nakamura・Yoshihiro Takahashi・Rie Ihara・Takumi Fujiwara

2P019 Huge thermal shrinkage of anisotropic alkali metaphosphate glass（Tokyo Institute of Technology）○Seiji Inaba・Hideo Hosono・Setsuro Ito

2P020 $SrCuO_2$-Crystallized Glass-Ceramics: Phase Formation and Physical Properties（Tohoku University）○Yudai Yokochi・Yoshihiro Takahashi・Rie Ihara・Takumi Fujiwara

2P021 Incorporation of ions into glasses through a staining process and its application for chemical strengthening（Kyoto Institute of Technology）○Tomohiro Misawa・Takashi Wakasugi・Takeshi Shiono・Kohei Kadono

2P022 Precipitation of Ag nano-particles in transparent mica glass-ceramics doped with AgF（Shinshu University）○Aya Mizoguchi・Tomohiko Yamakami・Tomohiro Yamaguchi・Seiichi Taruta・（Tokyo Institute of Technology）Kiyoshi Okada

e. Cement

2P023 Growth behavior of alite crystals appearing during firing cement clinker by means of CSD measurement（Yamaguchi University）○Ryuichi Komatsu・Hideyuki Okamura・Hironori Itoh

f. Porcelain enamel

2P024 Ceramic powder injection molding from ternary system porcelain（Kyoto Municipal Institute of Industrial Technology and Culture・National Institute of Advanced Industrial Science and Technology）○Hirofumi Inada・（Kyoto Municipal Institute of Industrial Technology and CULTURE）Taigo Ttakaishi・masatoshi Sato・（National Institute of Advanced Industrial Science and Technology）saburo Sano・（Kyoto Municipal Institute of Industrial Technology and Culture）hajime taguchi・syozo hashida・tadanori yokoyama

g. Environment and energy related material

2P025 Chemical Interface Controlled Dispersion and High-speed Shearing Washing Techniques for Radioactive Contaminated Soil（Japan Atomic Energy Research Agency）○Shintaro Ishiyama・（Makino. Co.）Masatake Kamitani・Mistunori Kindo

2P026 Behavior of radioactive substance for material property of incineration refractory（National Institute for Environmental Studies）○Shinji Mizuhara・Katsuya Kawamoto・Masaaki Fukushima

2P027 Influence of ultraviolet irradiation intensity on scorodite crystal growth（Yamaguchi University）○Hideyuki Okamura・Hironori Itoh・Ryuichi Komatsu・（Godo-Shigen Sangyo Company Limited）Atushi Yamatodani・Norihiro Mizukoshi・Yasuhiko Otani

2P028 Investigation on the primary phase in growth of $KTaO_3$ crystals by directional solidification（Shinshu University）○Toshinori Taishi・Kazuya Hosokawa・Takayuki Takenaka・Noriko Bamba・Keigo Hoshikawa

2P029 Microwave synthesis of $LiNi_{0.5}Mn_{1.5}O_4$ using precursors by liquid-phase method（Tokai University）○Masashi Higuchi・Takumi Ose・Abdulrahman Alkhatib・Takehiro Saito・Keiichi Katayama

2P030 Fabrication and properties of all-solid-state oxide-ion rechargeable batteries using LaGaO3-based electrolyte thin films（The University of Tokyo）○Ayuko Matsunaga・Hiroki Matsuo・Yuuki Kitanaka・Inoue Ryotaro・Yuji Noguchi・Masaru Miyayama

2P031 Preparation and Characterization of olivine type $LiFe_{1-x}Mn_xPO_4$using electrostatic spray deposition method（Tokyo University of Science）○Shuhei Enoki・Yuki Yamaguchi・Shigeru Ito・Kenjiro Fujimoto

2P032 Cyclic voltammetry measurements of fluorinated $CaFe_2O_4$-type $Li(Mn, Ti)_2O_4$（Tokyo University of Science）○Kiichi Gondo・Kenji Tanabe・Kazuyasu Tokiwa・（National Institute of Advanced Industrial Science and Technology）Mikito Mamiya・Junji Akimoto

2P033 Preparation of Lepidocrocite-Type Layered Titanium Oxide Including Transition Metal and Its Electrochemical Property（University of Yamanashi）○Takuma Ohhashi・Takahiro Takei・Akira Miura・Nobuhiro Kumada

2P035 Photocurrent characteristics of Barium-Titanate-based Ferroelectric Single Crystals（The University of Tokyo）○Ryotaro Inoue・Shotaro Ishikawa・Ryota Imura・Takeshi Oguchi・Yuuki Kitanaka・Yuji Noguchi・Masaru Miyayama

2P036 Photoelectric conversion using-Zn complex of 8-hydroxyquinoline（Shinshu University）○Daichi Natori・Kenta Todoroki・Setiawan Rudi Agus・Hiromasa Nishikiori

2P037 Complex formation between 8-hydroxyquinoline and titania in sol-gel reaction system of titanium alkoxide（Shinshu University）○Kenta Todoroki・Setiawan Rudi Agus・Hiromasa Nishikiori

2P038 Photocatalytic preparation of zinc oxide form aqueous solution of zinc nitrate（Shinshu University）○Takumi Takikawa・（Shinshu University・Nagano Prefecture General Industrial Technology Center）Satosi Nagaya・（Shinshu University）Hiromasa Nishikiori

2P039 Influence of dispersibility of allophane into titania on photocatalytic properties of the allophane-dispersing titania（Shinshu University）○Koji Morita・Masaaki Ito・Hiromasa Nishikiori

2P040 Photocatalytic reaction on Cu-doped titania films prepared using double alkoxide（Shinshu Univesity）○Tomoaki Ikeda・Hiromasa Nishikiori・（Shinko Electric Industries Co., Ltd.）Ryuhei Katayama・Yuichiro Shimizu

2P041 Segregation behavior of organic matter in TiO_2 thin film used for dye-sensitized solar cells（Fukuoka Institute of Technology）○Yuta Tomiyasu・Yoshio Ota・Mikito Kitayama

2P042 Observation of conduction band edge level of titania in the dye-dispersing titania（Shinshu University）○Setiawan Rudi Agus・Hiromasa Nishikiori・Nobuaki Tanaka・（Nanogo Prefectural Institute of Technology）Tsuneo Fujii

2P043 Improved performance of dye-sensitized solar cells with MgO blocking layer（Tokyo City University）○Yosuke Suzuki・Satoshi Misawa・Yuji Tanaka・

Sho Igarashi・Masayuki Nagai

2P044 Fabrication and evaluation of dye-sensitized solar cells with high efficiency using light scattering effect（Tokyo City University）○Satosi Misawa・Yousuke Suzuki・Syou Igarasi・Yuuzi Tanaka・Masayuki Nagai

2P045 Fabrication and temperature distribution of internal reforming SOFC running on biogas（Saga Ceramics Research Laboratory）○Sachiko Furuta・（Kyushu University）Yusuke Shiratori

2P046 Development of the low-temperature sintering method for $Li_{0.35}La_{0.55}TiO_3$ solid electrolyte（TOYOTA CENTRAL R&D LABS., INC）○Mitsuru Asai・Yasuyosi Saito・Kensuke Wada

2P047 Synthesis and characterization of $Sn_{1-x}(Zn_{2/3}Sb_{1/3})_xP_2O_{7-x}$ solid proton conductor（The University of Meijo）○Yuki Yokoyama・Akinori Kan・（Aichi Center for Industry and Science Technology）Junji Umeda・（The University of Meijo）Hirotaka Ogawa

2P048 Reactivity and kinetics of garnet-type Li ion conductors with CO_2 and H_2O（Nagoya Institute of Technology）Takuya Horie・（Nagoya Institute of Technology・JST-PRESTO・Kyoto University ESICB）○MasanobU Nakayama・（Nagoya Institute of Technology）Toshihiro Kasuga

2P049 Evaluation of YSZ thin film deposited by RF sputtering by XRD（The University of Toyama）○Yuki Tsuchida・Takashi Hashizume・Atsushi Saiki

2P050 FABRICATION OF CeO_2/Al MULTILAYER THIN FILMS AND THE THERMAL BEHAVIOR（The University of Toyama）○Shumpei Kurokawa・Takashi Hashizume・Atsushi Saiki

2P051 Thermoelectric property of layered compound LaOCuS（Ngagoya University）○Takuya Tamura・Ryota Negishi・（Ngagoya University・JST-CREST）Chunlei Wan・Kunihito Kumoto

2P052 Fabrication of high thermoelectric performance 3D superlattice of La-$SrTiO_3$ nanocubes with Nb surface doping（Nagoya University）○Kazuki Tsuruta・（Nagoya University・JST-CREST）Feng Dang・Chunlei Wan・Kunihito Koumoto

2P053 Development of new p-type sulfide thermoelectric materials（Nagoya University）○Ryota Negishi・Takuya Tamura・（Nagoya University・JST-CREST）Chunlei Wan・Kunihito Koumoto

2P054 Oxygen Reduction Reaction of N-containing carbon synthesized from Polyallylamine on High Specific Surface Carbon（Tokyo University of Science・Tokyo Institute of Technology）○Takanori Ogiwara・（Tokyo University of Science・Shinshu University）Yusuke Ayato・（Tokyo University of Science）Kiyofumi Yamagiwa・（Tokyo National College of Technology）Hidenobu Shiroishi・（Tokyo University of Science）Jun Kuwano

2P055 The influence of heat-treated silicate on Cs ions adsorption（Ibaraki University）○Eri Oowada・Kazuhide Ozeki・（International Apatite Institute）Hideki Aoki・（Ibaraki University）Toru Masuzawa

2P056 Adsorption properties of rare earth metals by phosphate（Yamanashi University）○Kiyoaki Iiduka・Takahiro Takei・Akira Miura・Nobuhiro Kumada

2P057 Preparation and NO_x adsorption of $ZnFe_2O_4$ powder by citrate salts（Kokushikan University）○Kiyomi Kamamoto・Chizuru Tsukada・Shigeru Okada・（Tohoku University）Toetsu Shishido

2P058 Cabon dioxide adsorption properties of amine-impregnated spherical mesoporous silica（Tokai University）○Takehiro Saito・Masashi Sato・Masashi Higuchi・Keiichi Katayama

2P059 Fabrication of Fe Nanowires by Thermal Chemical Vapor Deposition（Hokkaido University）○Takashi Yanasw・Aiko Kawahito・Toshihiro Shimada・Taro Nagahama

2P060 Development of novel doping method to diamond by Polymer pyrolysis（Hokkaido University）○naoki Muraya・takashi Yanase・kosuke Omi・taro Nagahama・toshihiro Shimada

h. Process

2P061 Optical property of ITO thin films fabricated by magnetic-sputtering system with hybrid facing targets（Yamaguchi University）○Takuya Murata・Keita Usui・Naoyuki Harada・Shinichi Morohashi

2P062 Synthesis of diamond from carbon by arc discharge（Hachinohe National College of Technology）○Takayuki Saito

2P063 Preparation and characterization of $Ca_3(Co, M)_4O_9$ type thin films using electrostatic spray deposition method（Tokyo University of Science）○Takuto Isa・Yuki Yamaguchi・Sigeru Ito・Kenjiro Fujimoto

2P064 Direct patterning of YSZ thin films at film deposition from a precursor solution（The University of Toyama）○Kota Arisawa・Atushi Saiki・Takashi Hashizume

2P065 Synthesis and gas sensing property of tin oxide by a liquid phase method.（Tohoku Univerity）○Kimie Imakawa・Qiang Dong・Shu Yin・Tsugio Sato

2P066 The synthesis of the ferrite nano particle by the hydrothermal and solvothermal process（National Institute of Advanced Industrial Science and Technology）○Atsuya Towata・Kazuyuki Suzuki・Yoshiaki Kinemuchi・Masaki Yasuoka

2P067 Fabrication of Oriented Zeolite L Seed Layer on Porous Substrate by Electrophoretic Deposition in Strong Magnetic Field（National Institute for Materials Science）○Chika Matsunaga・Tetsuo Uchikoshi・Tohru Suzuki・Yoshio Sakka・（Kumamoto University）Motohide Matsuda

2P068 Development of Silicon Nitride Nano Filter（Fukuoka Institute of Technology）○Wataru Ueta・Yoshio Ohta・Mikito Kitayama

2P069 The new synthetic method of silicone rubber: low elasticity and high stretch（The University of Shinshu）○Yushi Kan・Yasushi Murakami・Masami Kobayashi・Tatsuei Hara

2P070 Synthesis of Na-taeniolite crystals in air using NaCl as a flux（Shinshu University）○Yusuke Arikai・Tomohiro Yamaguchi・Seiichi Taruta

2P071 Synthesis of large-sized pillared micas using coarse Ge-substituted swellable fluorine micas（Shinshu University）○Yasutaka Shimizu・Tomohiro Yamaguchi・Seiichi Taruta

2P072 Formation of manganese oxides in the interstices of colloidal silica crystals（Waseda University）○Takamichi Matsuno・Kaori Sekine・Kwang-Min Choi・Atsushi Shimojima・Kazuyuki Kuroda

2P073 Grain growth enhancement in Fe_2O_3 by recrystallization of starting mohr salt（Tokyo University of Science）○Kouji Kawasaki・Yuki Yamaguchi・Kenjiro Fujimoto・Shigeru Ito

2P074 Microstructural control of c-axis-oriented strontium barium niobate ceramics（Nagaoka Univeristy of Technology）○Tomonori Tanaka・Zenji Kato・Takuma Takahashi・Satoshi Tanaka

2P075 Surface Modification of Er^{3+}-doped LaOCl Nanophosphors with Hexanoyl Chloride（Anan National College of Technology）○Kota Kohama・（Kochi University of Technology）Nagatoshi Nishiwaki・（Anan National College of Technology）Shin Itami・Tomoya Konishi

2P076 Diffusion joining of AlN ceramics at non-vacuum atmosphere using hydrogen-charged metal（Yamaguchi University）Takeshi Fujimoto・○Shokichi Kikugawa・Takuya Murata

2P077 Interface observation and joining of metal foil to porcelain by anodic bonding process（Ceramic Research Center of Nagasaki）○Norio Yamaguchi・（Tohoku University）Zhiyong Qiu

★ = Guest ☆ = Invited ◆ = Plenary ○ = presenter

i. Analysis

2P078 Dopant effect of simulated nuclear fuel, ceria solid solution on electron density distribution (Japan Atomic Energy Agency) ○Tomitsugu Taguchi · Shuhei Miwa · Naoki Igawa · Atsushi Birumachi · Kenji Yamaguchi · Masahiko Osaka

Development of functional ceramics using Green Processing

2PF01 Decontamination of Radioactive Cs in Soil Using Composite Materials of Na-P1 Type Zeolite and Nano-sized Magnetite (Ehime University) ○Kazumasa Tamura · Hiromichi Aono · Toru Yamamoto · Naoto Matsue · Teruo Henmi

2PF02 Fabrication of magnetic resistance-type structure by hydrogen reduction of multi-layered epitaxial oxide thin films (Tokyo Institute of Technology) ○Akifumi Matsuda · Mamoru Yoshimoto · (Tokyo Institute of Technology · Kanagawa Industrial Technology Center) Satoru Kaneko · (Namiki Precision Jewel Co., Ltd.) Kenjiro Ikejiri · Koji Koyama

2PF03 Influence of an oxidant on fabrication of Silicon dioxide thin films using Supercritical fluid deposition (Sophia University) ○Katsushi Izaki · Marina Shiokawa · Hiroshi Uchida

2PF04 Synthesis of rare-earth doped $SrAlSiN_3$ phosphor by ammonothermal method (Meiji University) ○Yuki Yanase · Kazumichi Nonaka · Tomoaki Watanabe

2PF05 Fabrication and Luminescence Properties of $SrSi_2O_2N_2 : Eu^{2+}$ Phosphors using Si_2N_2O Powders (Shimane University) ○Shigeki Yoshida · Hidetoshi Miyazaki · (Shizuoka University) Hisao Suzuki · (Nagoya Institute of Technology) Toshitaka Ota

2PF06 Low temperature synthesis of $CaAlSiN_3:Ce^{3+}$ by ammonothermal method (Meiji University) ○Yuki Maruyama · Yuki Gohara · Tomoaki Watanabe

2PF07 Preparation of zirconium oxide films by supercritical fluid treatment sol-gel-derived precursor (Sophia university) ○Marina Shiokawa · Katsushi Izaki · Hiroshi Uchida

2PF08 Electrical properties of low thermal expansion ceramics in the system Al_2O_3-TiO_2-MgO (University of Tsukuba) ○Ryosuke Maki · Yoshikazu Suzuki

Advent and Development of Advanced Photonic Materials

2PG01 Synthesis and optical properties of rare-earth ion doped $CeVO_4$ (Keio University) ○Yuto Tsuchiya · Manabu Hagiwara · Shinobu Fujihara

2PG02 Development of bright complex oxide up-conversion phosphors by parallel synthesis (Tokai University) ○Sayaka Tamura · Noriyuki Naruse · Koji Tomita · (Hiroshima University) Kiyofumi Katagiri · (Tohoku University) Masato Kakihana

2PG03 Fabrication of Er^{3+}-doped LaOCl nano phosphors by spray dryer (Anan National College of Technology) ○Katsuya Minami · Ryuzaburo Sugino · Tomoya Konishi · (Tokyo University of Science) Kentaro Tanaka · Hiroshi Hyodo · Kohei Soga

2PG04 Synthesis and properties of UV emission phospor $SrAl_2O_4:Ag^+$. (Gakushuin University) ○Yasuaki Taira · Raita Horiguchi · Daisuke Mori · Yoshiyuki Inaguma

2PG05 Influence of Reduction Treatment in Fabrication of Eu^{2+} ion-Concentrated Faraday Rotation Glasses (Nagoya Institute of Technology) ○Ryota Nomura · Tomokatsu Hayakawa

2PG06 Synthesis and luminescence properties of cerium compound nanowires (Saga University) ○Takashi Miyaguchi · Seiya Higuchi · Toshio Torikai · Takanori Watari · Mitsunori Yada

Science and Technology on Engineering Ceramics: Material Development for Realization of Safe and Reliable Society

2PI01 Fabrication of electrically conductive ZrC ceramics with excellent plasma resistance (Kagawa University) ○Kentaro Yamamoto · Takafumi Kusunose · (Tohoku University) Tohru Sekino

2PI02 Development of thermally conductive boron nitride fillers synthesized from boron carbide (Kagawa University) ○Masanori Osada · Takafumi Kusunose · (Tohoku University) Tohru Sekino

2PI03 Effects of CNT content and sintering additives on thermal and mechanical properties of B_4C/CNTs composites (Tokyo Institute of Technology) ○Tomohiro Kobayashi · Katsumi Yoshida · Toyohiko Yano

2PI04 Effects of Starting Materials on the Formation of SiC Nanowires by Thermal Evaporation Method (Tokyo Institute of Technology) ○Noppasint Jiraborvornpongsa · Masamitsu Imai · Katsumi Yoshida · Toyohiko Yano

2PI05 Growth of Pt particles on the β-SiAlON surfaces (Yokohama National University) ○Yo Aketagawa · Junichi Tatami · (National Institute of Advanced Industrial Science and Technology) Akira Obuchi · Junko Uchisawa · (Kubota Corporation) Risa Katayama

2PI06 Thin glass and a stiff interlayer laminates for light weight glazing (DuPont Kabushiki Kaisha · Keio University) ○Yuki Shitanoki · (E.I. DuPont de Nemours & Co. Inc.) Stephen J Bennison · (Keio University) Yasuhiro Koike

2PI07 Improvement of water lift-off process of oxide thin films for high speed patterning by atmospheric pressure plasma jet (Kanazawa University) ○Takahiro Niwa · Kazuhiro Nakanishi · Yuko Imazawa · Tatsuo Ishijima · Takeshi Kawae · Akiharu Morimoto

Frontiers of structural science and the development of novel materials

2PM01 Ta-based perovskite-related oxynitrides: metal doping and optical properties (The University of Tokushima) ○Satoshi Kataoka · Takanori Hayashi · Minami Oomune · Kei-ichiro Murai · Toshihiro Moriga

2PM02 Electrical properties of layered transition metal oxyselenides (Hokkaido University) Akihiro Oyama · Shogo Ueda · ○Makoto Wakeshima · Yukio Hinatsu

2PM03 Synthesis, structure, and magnetic properties of $BiMnO_2Cl$ (Gakushuin University) ○Natsumi Ishikawa · Akihisa Aimi · Daisuke Mori · Yoshiyuki Inaguma

2PM04 Crystal structure and magnetic properties of rare-earth chromium borates $RCr(BO_3)_2$ (Hokkaido University) Tatsuya Satou · ○Yoshihiro Doi · Yukio Hinatsu

2PM05 High pressure synthesis and elastic properties of ruthenium nitride using high temperature nitrogen supercritical fluid (Nagoya University) ○Kentaro Suzuki · Ken Niwa · Keiji Kusaba · Masashi Hasegawa · (High Energy Accelerator Research Organization) Takumi Kikegawa

2PM06 High-pressure synthesis of pyrite-type $Ni_{1-x}Cu_xS_2$ and electronic structure (Nagoya University) ○Junya Iwasaki · Kensuke Usui · Keiji Kusaba · Ken Niwa · Masahiko Kato · Kazuo Soda · Masashi Hasegawa

2PM07 Electron holograph study for vortices trapped in $GdBa_2Cu_3O_y$ with $BaHfO_3$ nano-rods (JFCC) ○Takeharu Kato · Ryuji Yoshida · Keiichi Fukunaga · Daisaku Yokoe · Kazuo Yamamoto · Tsukasa Hirayama · (Kyushu University) Masataka Iwakuma · Masayoshi Inoue · Kohei Higashikawa · Takanobu Kiss · (International Superconductivity technology Center) Akira Ibi · Seiki Miyata · Masateru Yoshizumi · Teruo Izumi · Yuh Shiohara

Synthesis and Functional Properties of Mixed Cation and Anion Compounds

2PN01 Optical properties of layered mixed anion compounds with perovskite-type layers (The University of Tokyo) ○Hiraku Ogino · Makoto Tatsuda · Yu Katagi · Jun-ichi Shimoyama · Kohji Kishio · (Osaka University) Kohei Yamanoi · Mizuki Tsuboi · Tomoharu Nakazato · Toshihiko Shimizu · Nobuhiko Sarukura

2PN02 Development and Physical Properties of New Layered Mn Pnictides (The University of Tokyo) ○Soshi Watanabe · Hiraku Ogino · Yu Katagi ·

Akiyasu Yamaoto・Jun-ichi Shimoyama・Kohji Kishio・(National Institute of Advanced Industrial Science and Technology) Nao Takeshita

2PN03 High pressure synthesis of $M_XZn_{1-X}O$ (M = Mg, Co, Ni) solid solutions and electronic property (Nagoya University) ○Hiroki Shimada・Kenta Takahama・Masahiko Kato・Kazuo Soda・Keiji Kusaba・Ken Niwa・Masashi Hasegawa

2PN04 Development of new electron conductive lithium borate in reduced form and its applications (Kanazawa Institute of Technology) ○Kouhei Kameda・Isao Tsuyumoto

2PN05 Preparation and Characterization of Si/Mg_2Si Composites for Lithium Ion Secondary Battery Anode (Osaka University) ○Tatsuya Kawase・Masahiro Itoh・Ken-ichi Machida

2PN06 Activity enhancement on Pt-based deNOx catalysts by formation of complex cation compounds (Osaka University) ○Shoko Okumura・Masahiro Itoh・Katsuaki Ishiguro・Ken-ichi Machida

2PN07 Effective Use based on the Formation of Borides from Recoverd Rare Earth Compounds (Osaka University) ○Sung Hyun Jung・Masaru Uenohara・Masahiro Itoh・Ken-ichi Machida

2PN08 Synthesis and Luminescence Properties of Rare Earth-activated Nitride Phosphors (Osaka University) ○Hyo Sung Kim・Hiromasa Hanzawa・Ken-ichi Machida

2PN09 Preparation and Luminescence Properties of $Sr_2Si_5N_8:Eu^{2+}$ and $Sr_2SiO_4:Eu^{2+}$ Composite Phosphors (Osaka University) ○Yun An・Hyo Sung Kim・Hiromasa Hanzawa・Ken-ichi Machida

2PN10 Synthesis of $Y_2O_3:Eu^{3+}$ fine particles by the reversed micelle-solvothermal method (Osaka University) ○Shoichi Ichikawa・Hiromasa Hanzawa・Ken-ichi Machida

Novel Functionalities and Materials Derived from Nanocrystals

2PR01 Solvothermal Synthesis of Barium Titanate Nanocubes with narrow size distribution (University of Yamanashi) ○Seiya Amano・Kouichi Nakashima・Shintaro Ueno・Satoshi Wada

2PR02 synthesis of $NaNbO_3$ nanocubes by a solvothermal method (University of Yamanashi) ○Kenta Ooshima・Kouichi Nakashima・Shintaro Ueno・Satoshi Wada

2PR03 AAO-template assisted synthesis and evaluation of one-dimensional oxide nanomaterials (University of Tsukuba) ○Kazufumi Aisu・(National Institute for Materials Science) Tohru.S Suzuki・(Osaka University) Eri Nakamura・Hiroya Abe・(University of Tsukuba) Yoshikazu Suzuki

2PR04 Preparation of $BaTiO_3$-Based Nanocomposite Ceramics with Various Interface Structures and Their Dielectric Properties (The University of Yamanashi) ○Yoshinobu Hirose・Shintaro Ueno・Kouichi Nakashima・Satoshi Wada

2PR05 Enhancement of Dielectric and Piezoelectric Properties of KN/BT Ceramics with Three Dimensionally Connected of SGR (University of Yamanashi) ○Hideto Kawashima・Shintaro Ueno・Koichi Nakashima・Satoshi Wada

2PR06 Synthesis of nano carbon using supercritical carbon dioxide under ultra-high pressure and temperature (Nagoya University) ○Takashi Oda・Ken Niwa・Keiji Kusaba・Masashi Hasegawa

■■ September 5 (Thur) (Room Q) ■■

Innovative Materials Processing, Properties and Reliability of Bulk Ceramics based on Stress and Strain

結晶と応力・ひずみ

(9：00) (Chairman 安田公一)

2Q01 Internal strain and dielectric losses on the pseudo-tungstenbronze $Ba_{6-3x}R_{8+2x}Ti_{18}O_{54}$ with different R ions (Nagoya Industrial Science Reserach Institute・Nagoya Institute of Technology) ○Hitoshi Ohsato・(Hoseo University) Jeong-Seog Kim・(Nagoya Institute of Technology) Masaki Imaeda

2Q02 Control of crack formations by modulating laser-induced transient stress distribution inside a LiF single crystal (Kyoto University) ○Masaaki Sakakura・Yuki Ishiguro・(Kyoto University・Hitachi Zosen) Naoaki Fukuda・(Kyoto University) Yasuhiko Shimotsuma・Kiyotaka Miura

皮膜と応力・ひずみ

(10：00) (Chairman 長田晃)

2Q04 Thermal Stability and Residual Stress of Titanium or Zirconium doped κ-Al_2O_3 Coatings by Chemical Vapor Deposition (Mitsubishi Materials Corporation Central Research Institute) ○Masaki Okude・Kenji Yamaguchi・Akira Osada

2Q05 ★Residual stress and cutting performance of coated carbide tools (Sumitomo ELectric Hardmetal Corp.) ○Kazuo Yamagata

2Q07 ★Residual stress of hard-nitride coatings deposited by ionized PVD process for cutting tool application (Materials Research Laboratory, Kobe Steel Ltd.) ○Kenji Yamamoto

ガラスと応力・ひずみ

(14：40) (Chairman 安盛敦雄)

2Q18 ★Nanostructure of glass and its deformation and fracture behaviors (Tokyou Institute of Technology) ○Setsuro Ito

2Q20 ★Failure Analysis of Tempered Glass (Tokyo Metropolitan Industrial Technology Research Institute) ○Yuko Masuda・Takao Uwabe

2Q22 Direct observation of indentation deformation of glasses (The University of Shiga Prefecture) ○Satoshi Yoshida・Mitsuo Kato・Akiko Yokota・Jun Matsuoka・Naohiro Soga

エンジニアリングセラミックスと応力・ひずみ

(16：40) (Chairman 吉田智)

2Q24 ★International standardization of fracture resistance of ceramics by the indentation fracture (IF) method (National Institute of Advanced Industrial Science and Technology) ○Hiroyuki Miyazaki・Yu-ichi Yoshizawa

2Q26 ★Current state of the porous ceramic gas bearing and the reliability improvement (University of Hyogo) ○Tomohiko Ise・(Kobe Steel, Ltd.) Iwao Kawashima

■■ September 5 (Thur) (Room R) ■■

Novel Functionalities and Materials Derived from Nanocrystals

(9：00) (Chairman 長田実)

2R01 ★Characterization of metal oxide nano particle using XAFS technique (Chiba University) ○Chiya Numako・(Gumma University) Kazuyoshi Sato

2R03 Dielectric properties of single-crystalline barium titanate nanocube ordered assembly film with narrow size distribution (National Institute of Advanced Industrial Science and Technology) ○Ken-ichi Mimura・Kazumi Kato

2R04 Effect of Structure Gradient Region Control for Barium Titanate System Nano-composite Materials on Dielectric Properties (University of Yamanashi) ○Satoshi Wada・Yoshinobu Hirose・Hideto Kawashima・Shuhei Tsukamoto・Shintaro Ueno・Koichi Nakashima・Nobuhiro Kumada

★ = Guest ☆ = Invited ◆ = Plenary ○ = presenter

(10：20) (Chairman 佐藤和好)

2R05 Fabrication of anode for solid oxide fuel cell using rare earth doped ceria nanocube (osaka University) ○Kazuhiro Yamamoto・Takeshi Hashishin・Nan Qiu・Zhenquan Tan・Satoshi Ohara

2R06 Cesium Tungstate Nanosheet for Galvanic Coloration Device (Tokyo Institute of Technology) ○Akihiko Kondo・Masahiro Miyauchi・Daiki Atarashi・Etsuo Sakai

2R07 Synthesis of Ta-based complex oxide photocatalyst nano-crystals (The University of Tokai) ○Ryo Taniguchi・Soichi Takasugi・Koji Tomita・(The University of Tohoku) Hideki Kato・Masato Kakihana

2R08 Synthesis and photocatalytic property of Ba-Ta complex oxide nanocrystals (Tokai University) ○Soichi Takasugi・Koji Tomita・(Tohoku University) Hideki Kato・Masato Kakihana

2R09 Formation of $Bi_{0.5}Na_{0.5}TiO_3$ mesocrystal by solid state reaction and application to oriented ceramics (Kagawa University) ○Qi Feng・Dengwei Hu・Kotaro Mori・kazunari Shinagawa・(University of Yamanashi) Satoshi Wada

■■ September 6 (Fri) (Room A) ■■

Hot Topics of Ceramics Materials & Technologies for Clean-up, conservation, and renovation

(9：00) (Chairman 忠永清治)

3A01 The crystallization of anatase TiO_2 on the cement architectural material using hydrothermal synthesis method. (Tokyo Institute of Technology) ○Ryuichi Takabayashi・Daiki Atarashi・Masahiro Miyauchi・Etsuo Sakai

3A02 Synthesis of N-doped TiO_2 photocatalysts from the low-dimensional-growth titania sol and control of doping concentration (Utsunomiya University) ○Taki Matsumoto・Hiromichi Kobayashi・(Hokkaido University) Bunsho Ohtani

3A03 Synthesis and characterization of transition metal doped brookite-type TiO_2 (Tokyo City University) ○Shohei Ozu・Sho Igarashi・Masayuki Nagai

(10：00) (Chairman 松本太輝)

3A04 Photocatalytic water splitting over Zn-Cr layered double hydroxides (Osaka Prefecture University) ○Naoya Hirata・(Hokkaido University) Kiyoharu Tadanaga・(Osaka Prefecture University) Masahiro Tatsumisago

3A05 Photocatalytic water splitting on $Ca_2Nb_2O_7$ synthesized via solvothermal method (Kyoto University) ○Saburo Hosokawa・Akitoshi Nakamura・Masanobu Higashi・(Kagawa University) Kenji Wada・(Kyoto University) Ryu Abe

3A06 Photocatalytic watersplitting of WO_3 Nanotree thin film (Tokyo Institute of Technology) ○Yuya Nukui・(Tokyo Institute of Technology・PRESTO JST) Masahiro Miyauchi・(Tokyo Institute of Technology) Daiki Atarashi・Etsuo Sakai

(11：00) (Chairman 笹井亮)

3A07 Effect of chemical etching on photocatalytic activity of titania nano-crystallized glass (Tohoku University) ○Kazuki Yoshida・(Kyoto University) Hirokazu Masai・(Tohoku University) Yoshihiro Takahashi・Rie Ihara・Takumi Fujiwara・Hideki Kato・Masato Kakihana

3A08 Preparation of various wettability patterns on porous TiO_2 film (Okayama University) ○Shunsuke Nishimoto・Yoshikazu Kameshima・Michihiro Miyake

3A09 Photo-induced underwater superoleophobicity and application for oil/water separation of TiO_2 thin films (Okayama University) ○Yusuke Sawai・Syunsuke Nishimoto・Yoshikazu Kameshima・(Industrial Technology Center of Okayama Prefecture) Eiji Fujii・(Okayama University) Michihiro Miyake

■■ September 6 (Fri) (Room D) ■■

Explorer of soft-solution process for fabrication of ceramics — Reaction process in Condensed matter; water, non-aqueous solvent, ionic liquids —

ナノ構造材料

(9：00) (Chairman 上川直文)

3D01 Reaction process of titanium oxide on mesoporous silica in liquid phase deposition (Kobe University) ○Satoru Matsumoto・Hideshi Maki・Minoru Mizuhata

3D02 Mechanism on formation of Cu_2SnS_3 quantum dots by hot injection method (Keio University) ○Shin Okano・Satoru Takeshita・Tetsuhiko Isobe

3D03 Exfoliation of β-alumina into Ultrathin Spinel Nanosheets (Kumamoto University・JST, CREST) ○Takaaki Taniguchi・(Kumamoto University) Shintaro Takehara・(Kumamoto University・JST, CREST) Yasumichi Matsumoto

(10：00) (Chairman 小林亮)

3D04 ★Preparation of Highly Functional Ceramics Particles Based on Colloid and Interface Chemistry (Tokyo University of Science) ○Hideki Sakai・Takeshi Endo・Kanjiro Torigoe・Masahiko Abe

3D06 Crystal growth of microcrystals in water containing microbubbles (Kyoto University) ○Yomei Tokuda・Hiroaki Matsuki・Yoshikatsu Ueda・Hirokazu Masai・Toshinobu Yoko

(11：00) (Chairman 殷シュウ)

3D07 ☆Unconscious factors in aqueous solution processing (Kyushu University) ○Naoya Enomoto・Miki Inada・Junichi Hojo

3D08 Synthesis of Nanoparticles of metal oxides using the Solution Plasma Processing (Aichi Center for Industry and Science Technology) ○Hirofumi Nameki・Takaaki Murai・Toyokazu Nomoto・Yuuki Nakanishi・Takanori Sugimoto

3D09 Continuous synthesis of indium tin oxide nanoparticles in a micro-chemical process (Industrial Technology Center of Okayama Prefecture) ○Eiji Fujii・Koji Kawabata

■■ September 6 (Fri) (Room E) ■■

Design, synthesis, and evaluation of biomaterials to induce cell functions

(9：00) (Chairman 山本修)

3E01 Fabrication of and *in vivo* evaluation of βTCP foam bone replacement (Kyushu University) ○Kanji Tsuru・Taro Nikaido・(Fukuoka Dental College) Michito Maruta・Shigeki Matsuya・(Kyushu University) Seiji Nakamura・Kunio Ishikawa

3E02 Preparation of apatite/collagen/titanium composite materials for cell culture by the electro-spinning method (Hokkaido Research Organization) ○Toshiyuki Akazawa・(Health Sciences University of Hokkaido) Masaru Murata・Yasuhito Minamida・(Hokkaido University) Naoto Okubo・(Hokkaido Research Organization) Katsumi Konno・Takafumi Nomura・(Hokkaido University) Shunji Iida・Manabu Ito・(Ihara & Co., LTD) Satoru Miyazaki・(HOYA Corporation) Takehiko Nakajima

3E03 Responses of MC3T3-E1 and RAW264.7 cells to hydroxyapatite and alpha-type alumina adsorbed with bovine serum albumin（Tohoku University）○Masakazu Kawashita・Junpei Hayashi・Tada-aki Kudo・Hiroyasu Kanetaka・（Guangxi University）Zhixia Li・（Kyushu Institute of Technology）Toshiki Miyazaki・（JFCC）Masami Hashimoto

（10：00）（Chairman 生駒俊之）

3E04 ★Smart Apatite Crystals: Function Follows Crystal Design（Shinshu University）○Katsuya Teshima・Hajime Wagata・Nobuyuki Zettsu・Shuji Oishi

（10：40）（Chairman 宮崎敏樹）

3E06 Comparison of resorption ability of osteoclasts cultured on different bioceramics（Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University）○Miho Nakamura・Naoko Hori・（University of Turku, Finland）Teuvo Hentunen・Jukka Salonen・（Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University）Akiko Nagai・Kimihiro Yamashita

3E07 Osseointegration of the implant with Zn-releasing function（Yamagata University）○Osamu Yamamoto・Mitsuyoshi Iino・（Akita University）Masayuki Fukuda

3E08 *In vivo* observation of the skin burn healing by smectite powder（Yamagata University）○Yu Sasaki・Satoshi Migita・Osamu Yamamoto

3E09 Cell compatibility of poly（lactic acid）-based composite fibremats（Nagoya Institute of Technology）○Akiko Obata・Hiromasa Wakita・Hirotaka Maeda・Toshihiro Kasuga

■■ September 6 (Fri) (Room G) ■■

Advent and Development of Advanced Photonic Materials

ガラス・フォトニックス

（9：20）（Chairman 正井博和）

3G02 Evolution of parasitic amorphous nanoparticles on crystal domain in fresnoite-type glass-ceramics（Tohoku University）○Yoshihiro Takahashi・Kazuki Yamaoka・Rie Ihara・Takumi Fujiwara

3G03 Manipulation of self-assembled form birefringence in GeO_2 glass by femtosecond laser（Kyoto University）○Taiga Asai・Yasuhiko Shimotsuma・Masaaki Sakakura・Kiyotaka Miura

3G04 TSL and OSL properties of Ce^{3+}-doped $CaO\text{-}Al_2O_3\text{-}B_2O_3$ glasses（Kyushu Institute of Technology）○Yutaka Fujimoto・Takayuki Yanagida・（Nagoya University）Kenichi Watanabe

（10：20）（Chairman 本間剛）

3G05 Preparation and Optical Properties of $SrAl_2O_4$-based Glass-crystal Composite（Hokkaido University）○Takayuki Nakanishi・Kazune Watanabe・（Kyoto University）Jumpei Ueda・（Hokkaido University）Koji Fushimi・（Kyoto University）Setsuhisa Tanabe・（Hokkaido University）Yasuchika Hasegawa

3G06 Synthesis and characterization of cosolvent-free sol-gel-derived ytterbium-phosphorus codoped silica glasses（Tokyo Metropolitan University）○Shiori Yamaguchi・Kouichi Kajihara・Kiyoshi Kanamura

3G07 Control Space-selective distribution of glass composition by multispots' irradiation with femtosecond laser pulses（Kyoto University）○Kouhei Yoshimura・Masaaki Sakakura・Torataro Kurita・Masahiro Shimizu・Naoaki Fukuda・Yasuhiko Shimotsuma・Kiyotaka Miura

（11：20）（Chairman 戸田健司）

3G08 ★Novel single crystals for optical applications（National Institute for Materials Science）○Kiyoshi Shimamura

ガラス・フォトニックス

（13：00）（Chairman 高橋儀宏）

3G13 Emission property of oxide glasses contaning ns^2-type emission center（Kyoto University）○Hirokazu Masai・Shun Okumura・（Kyushu Institute of Technology）Takayuki Yanagida・Yutaka Fujimoto・（Kyoto University）Yasuhiro Yamada・Yoshihiko Kanemitsu・Yomei Tokuda・Toshinobu Yoko

3G14 Sealing of oxynitrides into the glass of $ZnO\text{-}B_2O_3$ system by hot isostatic pressing and its luminescence properties（Sophia University）○Kaori Abe・（Central Glass Co.,Ltd）Jun Hamada・Masamichi Miyazawa・Takahisa Kida・（Sophia University）Kiyoshi Itatani

3G15 Direct micromachining inside c-Si by using femtosecond laser（Kyoto University）○Masahiro Mori・Yasuhiko Shimotsuma・Masaaki Sakakura・Kiyotaka Miura

3G16 Fabrication of new oxyfluoride glass showing prominent photoluminescence（Nagaoka University Tech.）○Kenji Shinozaki・Tsuyoshi Honma・Takayuki Komatsu

■■ September 6 (Fri) (Room J) ■■

New Evolution of Dielectrics: Aiming at the Innovation in Materials, Processing and Devices

デバイス応用

（9：00）（Chairman 木村雅彦）

3J01 ★Organic materials for multi-layer ceramic electronic devices（SEKISUI CHEM.）○Motokuni Ichitani

3J03 ☆Low-Temperature-Sintering PZT and Crack Controlling Layer for Multilayer Piezoelectric Actuator in Diesel Fuel Injector（Kyocera Corporation・Automotive Components Develoment Division）○Tomohiro Kawamoto・Shigenobu Nakamura・Takami Sakamoto

（10：00）（Chairman 舟窪浩）

3J04 ☆Introduction of printable electronics（RICOH）○Yoshikazu Akiyama

3J05 ☆Development of a fabrication process for an all polymer piezoelectric film using reel-to-reel continuous fiber process（National Institute of Advanced Industrial Science and Technology）○Takahiro Yamashita

マルチフェロイック材料

3J06 Room-temperature magnetoelectric effect in Y-type hexaferrite（Murata manufacturing Co., Ltd.）○Sakyo Hirose・（Osaka University）Kohei Haruki・（Murata manufacturing Co., Ltd.）Akira Ando・（Osaka University）Tsuyoshi Kimura

（11：00）（Chairman 坂本渉）

3J07 Phase Control of $AlFeO_3$ films and evaluation of Physical Properties（Tokyo Institute of Technology）○Yosuke Hamasaki・Takao Shimizu・Hiroki Taniguchi・Tomoyasu Taniyama・Mitsuru Itoh

3J08 Magneto-transport properties of magneto-electric epitaxial multi-layered film $Cr_2O_3/LiNbO_3/Cr_2O_3$（Nagoya Institute of Technology）○Takeshi Yokota・Koji Ichikawa・Manabu Gomi

3J09 Preparation and the dielectric properties of $BiFeO_3\text{-}LaAlO_3$ thin films（Hyogo Prefectural Institute of Technology）○Hirokazu Izumi・（Osaka Prefecture University）Takeshi Yoshimura・Norifumi Fujimura

★ = Guest　☆ = Invited　◆ = Plenary　○ = presenter

材料解析

(13：00) (Chairman　天田英之)

3J13 ★Role of Defects on Properties of Oxides (National Institute for Materials Science・Tokyo Institute of Technology) ○Naoki Ohashi・(National Institute for Materials Science) Isao Sakaguchi・Ken Watanabe・Hajime Haneda

3J15 ☆Impedance characterization of MLCC under high electric field (Murata Manufacturing Co., Ltd.) ○Noriyuki Inoue・Tomoyuki Nakamura・Hiroshi Takagi・(Pennsylvania State University) Clive Randall

(14：00) (Chairman　鈴木宗泰)

3J16 Synthesis of Single Crystal and Electrical Property of $BaTi_2O_5$ (Tohoku University) ○Keiji Shiga・(Tohoku University) Hirokazu Katsui・(Tohoku University) Takashi Goto

誘電体材料

3J17 Role of rutile added in the millimeterwave dielectric forsterite with zero temperature coefficient of resonant frequency (Nagoya Institute of Technology・Nagoya Industrial Science Research Institute) ○Hiitoshi Ohsato・(Nagoya Institute of Technology) Tsutomu Tsunooka・Minato Ando・(Marusu-Graze Co. Ltd.) Sadahiko Susuki・(Yasufuku Ceramics Co. Ltd.) Yoshitoyo Yasufuku・(Nagoya Institute of Technology) Isao Kagomiya・Ken'ichi Kakimoto

3J18 Electron-phonon Interaction Explains Enhanced Quality factor of doped Pseudo-Tungsten-Bronze $Ba_{6-3x}R_{8+2x}Ti_{18}O_{54}$ (R = Rare Earth) Solid Solutions (Tokai University, Fac. Eng. Mat. Sci. Dep.) ○Wilfried Wunderlich・(Nagoya Institute of Technology) Hitoshi Ohsato

■■ September 6 (Fri) (Room K) ■■

Research Trend of Ceramic Materials and Devise Technology on Energy Conversion and Storage

燃料電池・電解・水素関連材料

(9：00) (Chairman　鷲見裕史)

3K01 Influence of pores on electrical conductivity of Gd-doped ceria (Kagoshima University) ○Sasuke Shiramomo・Yoshihiro Hirata・Soichiro Sameshima・Taro Shimonosono

3K02 Fabrication and enhanced performance of oriented La_2NiO_4 cathode for SOFC (Kumamoto University) ○Chunxi Hai・Miwa Hashimoto・Chika Matsunaga・(National Institute for Materials Science) Tetsuo Uchikoshi・Tohru S. Suzuki・Yoshio Sakka・(Kumamoto University) Motohide Matsuda

3K03 Influence of multilayer anode structuer for solid oxide fuel cells (Nagoya Institute of technology) ○Shunya Kaneko・Isao Kagomiya・Ken-ichi Kakimoto・(Sejong University) Park Kyeongsoon・(Samchun Pure Chemical Co., Ltd.) Cho Ki-hyun

(10：00) (Chairman　平田好洋)

3K04 Promoting effect of oxide nanosheets for Pt-based fuel cell catalysts (Shinshu University) ○Wataru Sugimoto・Lokesh Lokesh・Christophe Chauvin

3K05 Development of solid oxide fuel cells for using refomed biogas as fuel (Okayama University Graduate School) ○Kouki Morimoto・Syunsuke Nishimoto・Yoshikazu Kameshima・Michihiro Miyake・(Okyama prefectural technology center for agriculture, forestry and fisheries) Kenji Takatori・Makoto Shiraishi

3K06 Fabrication and Evaluation of the Electrodes for Intermediate Temperature Fuel Cell (Tokyo City University) ○Satoshi Suzuki・Masayuki Nagai

(11：00) (Chairman　森昌史)

3K07 ★Development of Reversible Solid Oxide Fuel Cell and Application for Metal-Air Battery (International Institute for Carbon-Neutral Energy Research) ○Tatsumi Ishihara・(Kyushu University) Atsushi Inoishi・Shintaro Ida

(13：00) (Chairman　松田元秀)

3K13 Development of Phosphate Glass Electrolytes for Intermediate Temperature Fuel Cells (National Institute of Advanced Industrial Science and Technology) ○Hirofumi Sumi・Yoshinobu Fujishiro・(Nagoya Institute of Technology) Yuki Nakano・Toshihiro Kasuga

3K14 Crystal structure and oxide-ion conductivity along c-axis of Si-deficient apatite-type lanthanum silicate (Nagoya Institute of Technology) ○Koichiro Fukuda・Shinji Hara・Masayuki Oyabu・Toru Asaka

3K15 Synthesis and electrical properties of Al-doped SnP_2O_7 (Nagaoka University of Technology) ○Masaru Mukai・Yuichiro Kuroki・Tomoichiro Okamoto・(Nagaoka University of Technology・JFCC) Masasuke Takata

(14：00) (Chairman　藤代芳伸)

3K16 Theoretical calculation and experimental measurement of electrode properties of NiTi spinel oxide (JFCC) ○Akihide Kuwabara・Yumi Ikuhara・Xiang Gao・Fisher Craig・Hiroki Moriwake・(Toyota Motor Corporation) Takeshi Toujigamori・Hideki Oki・Keiichi Kohama・(JFCC・The University of Tokyo) Yuichi Ikuhara

3K17 First-principles study of the precipitation in (Sr, La)TiO_3 (CRIEPI) ○Kaoru Nakamura・Masashi Mori・Toshiharu Ohnuma

3K18 First-principles analyses of proton conduction in lanthanum niobates (Nagoya University) ○Kazuaki Toyoura・Kunitada Kato・(Nagoya University・JFCC) Katsuyuki Matsunaga

(15：00) (Chairman　森昌史)

3K19 Evaluation of Hydrogen Generation for Fuel Cell by Aluminum Corrosion (Kyoto University) ○Kohji Nagashima・(Nagoya University) Shingo Kanehira・Koichi Kikuta・(Kyoto University) Kazuyuki Hirao

3K20 Study on the catalytic characterization of gamma alumina in Ammonia-borane solution (The University of Kyoto) ○Keita Hata・(The University of Nagoya) Shingo Kanehira・(The University of Kyoto) Masayuki Nishi・Kazuyuki Hirao

3K21 Dehydration of ammonia borane using zeolite/metal composite (Kyoto University) ○Kazuyuki Minami・(Nagoya University) Shingo Kanehira・(Kyoto University) Masayuki Nishi・Kazuyuki Hirao

■■ September 6 (Fri) (Room M) ■■

Frontiers of structural science and the development of novel materials

(9：00) (Chairman　浅香透)

3M01 Structural Basis for Emergence of the Ionic Conductivity in Na_xCoO_2 (RIKEN・JST/CREST) ○Kenichi Kato・Hidetaka Kasai・(RIKEN) Masaki Takata・Akihiro Hori・(Kyoto University・RIKEN) Susumu Kitagawa・(Tohoku University・JST/CREST) Nobuki Ozawa・(Tohoku University) Akira Kobayashi・Momoji Kubo・(Hokkaido University・JST/CREST) Hidekazu Arikawa・Tatsuya Takeguchi・(Kyushu University・JST/CREST) Masaaki Sadakiyo・Miho Yamauchi

3M02 The Mechanism of Emergence of the Ionic Conductivity by Intercalation in $LaSr_3Fe_3O_{10}$ (RIKEN・JST/CREST) ○Hidetaka Kasai・Kenichi Kato・

（RIKEN）Masaki Takata・Akihiro Hori・（Kyoto University・RIKEN）Susumu Kitagawa・（Hokkaido University・JST/CREST）Hidekazu Arikawa・Tatsuya Takeguchi・（Kyushu University・JST/CREST）Masaaki Sadakiyo・Miho Yamauchi

（9：40）（Chairman　加藤健一）

3M03　Crystal structures and electrical properties of novel mixed conductors *R*$BaInO_4$（*R*: Rare earths）（Tokyo Institute of Technology）○Kotaro Fujii・Yuichi Esaki・Chihiro Saito・Masatomo Yashima・Kazuki Omoto・（Ibaraki University）Akinori Hoshikawa・Toru Ishigaki・（Australian Nuclear Science and Technology Organisation）James Hester

3M04　Crystal structure and electrical properties of novel materials $Nd_{2-x}Ba_xInO_{4.5-x/2}$（Tokyo institute of technology）○Yuichi Esaki・Kotaro Fujii・Kazuki Omoto・Masatomo Yashima・（The University of Ibaraki）Toru Ishigaki・（KAERI）Kim Sue Jae・Kim Seongusu・（ANSTO）Hester James

（10：40）（Chairman　藤本憲次郎）

3M06　Crystal structure and electrical conduction of $LaSr_2Ga_{11}O_{20}$（Tokyo Institute of Technology）○Koshiro Ueda・Kazuki Omoto・Kotaro Fujii・Masatomo Yashima・（Ibaraki University）Toru Ishigaki・（Korea Atomic Energy Research Institute）Su Jae Kim・Seongsu Lee

3M07　Crystal structure and oxygen permeation properties of Ca-doped $SmFeO_3$（Nagoya Institute of Technology）○Yuki Hirota・Isao Kagomiya・Kenichi Kakimoto

3M08　Oxygen Contents and Crystal Structures of Ln_2CuO_4（Ln = Gd and Nd）Polycrystalline Samples（Chuo University）○Katsuyoshi Oh-ishi・Syuichirou Hamanaka・Kenji Ogawa・Ryota Kobayashi

（11：40）（Chairman　籠宮功）

3M09　☆Exploration of novel phosphor materials using single crystal X-ray structure analysis（National Institute for Materials Science）○Shiro Funahashi・Takashi Takeda・Yuichi Michiue・Naoto Hirosaki

（13：00）（Chairman　森賀俊広）

3M13　☆Study of Visible Light Reactive Photocatalyst N, S-doped TiO_2 Prepared with Thiourea（The University of Tokushima）○Kei-ichiro Murai・Taisuke Nakagawa・Toshihiro Moriga

（13：20）（Chairman　赤星大介）

3M14　Crystal structure and magnetic properties of new layered oxides A_nMTeO_6（n = 1, 2; A = Na, lanthanide; M = transition metal）（Hokkaido University）○Takahiro Yamazaki・Yoshihiro Doi・Yukio Hinatsu

3M15　Synthesis, crystal structure and magnetic propaties of quaternary oxides $Ba_3LnFe_2O_{7.5}$（*Ln* = lanthanides）（Hokkaido University）○Ryosuke Sakashita・Yoshihiro Doi・Yukio Hinatsu

（14：00）（Chairman　土井貴弘）

3M16　Synthesis, structure and magnetic property for $Li_2Mn_{1-x}Ru_xO_3$ layered oxide（Gakushuin University）○Daisuke Mori・（National Institute of Advanced Industrial Science and Technology）Hironori Kobayashi・（High Energy Accelerator Research Organization）Hiroaki Nitani・（Gakushuin University）ko-ichi Hiraki・Toshihiro Takahashi・Yoshiyuki Inaguma

3M17　*B*-site substitution effect on the magnetic properties of $EuTiO_3$（Toho University）○Daisuke Akahoshi・Hiroki Horie・Shingo Sakai・Toshiaki Saito

（15：00）（Chairman　森大輔）

3M19　Charge-discharge behavior of the flocculated $Li_xMn_{1-y}Co_yO_2$ nanosheet（Tokyo University of science）○Daiki Kumada・Yuki Yamaguchi・Shigeru Ito・Kenjiro Fujimoto

3M20　Exploration of pseudo-five-component Li（Ni, Co, Fe, Ti）O_2 using combinatorial electrostatic spray deposition apparatus（Tokyo University of Science）○Sho Shimotori・Yuki Yamaguchi・Shigeru Ito・Kenjiro Fujimoto

3M21　Ionic Conductivity in Gallo-titanogallate type $K_xGa_8Ga_{8+x}Sn_{16-x}O_{56}$（Tokyo University of Science）○Tomoyuki Ushiroyama・（National Institute for Materials Science）Hiroto Hirano・Yoshio Sakka・（Tokyo University of Science）Yuuki Yamaguchi・Shigeru Ito・Kenjiro Fujimoto

（16：00）（Chairman　籠宮功）

3M22　Disordered crystal structure and electron density distribution of 21*R*-AlON, $Al_7O_3N_5$（Nagoya Institute of Technology）○Hiroki Banno・（National Institute for Materials Science）Shiro Funahashi・Naoto Hirosaki・（Nagoya Institute of Technology）Toru Asaka・Koichiro Fukuda

3M23　Crystal structure of the magnetoelectric Z-type hexaferrite（Nagoya Institute of Technology）○Momoko Okabe・Daisuke Urushihara・Toru Asaka・（National Institute for Materials Science）Shiro Funahashi・Naoto Hirosaki・（Osaka university）Kohei Haruki・Koji Okumura・Tsuyoshi Kimura・（Nagoya Institute of Technology）Koichiro Fukuda

3M24　Particle statistics in powder x-ray diffractometry（Nagoya Institute of Technology）○Takashi Ida

■■ September 6 (Fri) (Room N) ■■

Synthesis and Functional Properties of Mixed Cation and Anion Compounds

（9：00）（Chairman　荻野拓）

3N01　☆Synthesis of weak visible light responsive anion doped photocatalysts and the construction of a full-time active system（IMRAM, Tohoku University）○Shu Yin・Huihui Li・Qiang Dong・Tsugio Sato

3N02　Oxygen intake/release characteristics and reducing reactivity of double-perovskite-type $BaLnMn_2O_{5+\delta}$（*Ln* = La, Nd, Y）（Hokkaido University）○Teruki Motohashi・Makoto Kimura・Taira Takahashi・Yuji Masubuchi・Shinichi Kikkawa

3N03　High temperature crystal structure under low oxygen partial pressures of double-perovskite type $BaYMn_2O_{5+\delta}$（$0 \le \delta \le 1$）（Hokkaido University）○Taira Takahashi・Teruki Motohashi・Yuji Masubuchi・Shinichi Kikkawa・（Osaka Prefecture University）Yoshiki Kubota・（Kyoto University）Yoji Kobayashi・Hiroshi Kageyama・（RIKEN・The University of Tokyo）Masaki Takata・（Kyoto University）Susumu Kitagawa・Ryotaro Matsuda

（10：00）（Chairman　伊田進太郎）

3N04　☆Formation effect of complex cation compounds on the surface of Pt-based NOx purification catalysts（Osaka University）○Masahiro Itoh・Makoto Saito・Koji Motoki・Masahiko Takehara・Katsuaki Ishiguro・Ken-ichi Machida

3N05　Preparation of Na-Al-O films by laser chemical vapor deposition（Institute for Material Research, Tohoku University）○Chen Chi・Hirokazu Katsui・Takashi Goto

3N06　Superconductivity in hydrogen-absorbed $YBa_2Cu_3O_{7-\delta}H_x$（Tohoku University）Hotaka Yagyu・○Masatsune Kato・Takashi Noji・Yoji Koike

（11：00）（Chairman　本橋輝樹）

3N07　☆Exploration of new materials and their functionalities in layered mixed anion compounds（The University of Tokyo）○Hiraku Ogino・Jun-ichi Shimoyama・Kohji Kishio

3N08　Pressure-Induced Phase Transiton in Layered Oxypnictide Superconductor $BaTi_2Sb_2O$（Kyoto University）○Takafumi Yamamoto・Takeshi Yajima・Kosuke Nakano・（Nihon University）Takateru Kawakami・（University of Tokyo）Taku Okada・（Ehime University）Takehiko Yagi・（KEK）Takumi

Kikegawa・(Kyoto University) Yoji Kobayashi・Hiroshi Kageyama

3N09　Study of fluorine doped Sm1111 arsenide oxide superconductors (The University of Tokyo) ○Shiv Jee Singh・Jun-Ichi Shimoyama・Akiyasu Yamamoto・Hiraku Ogino・Kohji Kishio

(12：00) (Chairman　伊東正浩)

3N10　☆Fabrication of active electrode materials for secondary batteries by glass-ceramics method (Nagaoka University of Technology) ○Tsuoshi Homma・Takayuki Komatsu

3N11　Self-powdering phenomenon in crystallization of rare-earth molybdate glasses (Nagaoka University of Technology) ○Yong Wang・Tsuyoshi Honma・Takayuki Komatsu

■■ September 6 (Fri) (Room Q) ■■

Innovative Materials Processing, Properties and Reliability of Bulk Ceramics based on Stress and Strain

粉体プロセスと応力・ひずみ 1

(9 ：00) (Chairman　田中論)

3Q01　★Ceramics coating technology by aerosol deposition (TOTO LTD.) ○Junichi Iwasawa

3Q03　★Residual Stress Control of Structural Ceramics by Sequential Electrophoretic Deposition Process (National Institute for Materials Science) ○Tetsuo Uchikoshi・Tohru Suzuki

粉体プロセスと応力・ひずみ 2

(10：40) (Chairman　本多沢雄)

3Q06　★Importance of loading schedule control on the fabrication of transparent oxide ceramics during SPS processing (NIMS) ○Koji Morita・Byung-Nam Kim・Hidehiro Yoshida・Yoshio Sakka・(Kitami Institute of Technology) Keijiro Hiraga

3Q08　Controlling microstructure of Al_2O_3-Nb seal formed by YAG laser radiation (Toshiba Lighting & Technology Corporation) ○Takuya Honma・Hiroshi Kamata・(Yokohama National University) Junichi Tatami

粉体プロセスと応力・ひずみ 3

(13：00) (Chairman　多々見純一)

3Q14　Fundamental study for designing high thermal conductive ceramic materials (Toyohashi U. Tech.) ○Hiroyuki Muto・Shinya Kusunoki・Taichi Kuroda・Norio Hakiri・Go Kawamura・Atsunori Matsuda

3Q15　Origin of large defects during fabrication of almina ceramics (Nagaoka University of Technology) ○Satoshi Tanaka・Tsuyoshi Hondo・Zenji Kato・Keizo Uematsu・(Tokyo Institute of Technology) Kouichi Yasuda

3Q16　Effect of Microstructure on Properties of Porous Alumina for Support Substrates of Permselective Ceramic Membranes (Nagoya Institute of Technology) ○Sawao Honda・Yusuke Daiko・Shinobu Hashimoto・(Noritake Corporation Limited) Tomokazu Eda・Hirokazu Watanabe・(Nagoya Institute of Technology・Noritake Corporation Limited) Keita Miyajima・(Center Europeen de la Ceramique) Benoit NAIT-ALI・David Smith・(Nagoya Institute of Technology) Yuji Iwamoto

粉体プロセスと応力・ひずみ 4

(14：20) (Chairman　武藤浩行)

3Q18　Strength measurement of Si_3N_4 ceramics using very small specimens (Yokohama National University) ○Masaki Katayama・Junichi Tatami・(Kanagawa Academy of Science and Technology) Takuma Takahashi・Tsukaho Yahagi・(Kanagawa Industrial Technology Center) Takahiro Horiuchi・Masahiro Yokouchi・(Tokyo Institute of Technology) Kouichi Yasuda

3Q19　Generalization of the model for estimating stress in ceramic laminates during sintering (Tokyo Institute of Technology) ○Kouichi Yasuda・(Nagaoka University of Technology) Tadachika Nakayama・Satoshi Tanaka