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

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

The Ceramic Society of Japan
The 27th Fall Meeting
Program

■■ September 9 (Tue) (Room A) ■■

Frontiers of structural science and the development of novel materials

(9：00) (Chairman 分島亮)

1A01 ★Redox property control in layered manganese oxides for realizing oxygen-storage applications (Hokkaido University) ○Teruki Motohashi

1A03 Water-to-hydrogen conversion reactivity of double-perovskite type $BaLnMn_2O_{5+\delta}$ (*Ln* = Y, Gd, Nd, La) (Hokkaido University) ○Makoto Kimura・Teruki Motohashi・Yuji Masubuchi・Shinichi Kikkawa

1A04 High pressure Synthesis and Physical Properties of Novel Perovskite Oxide $FeCu_3V_4O_{12}$ (Kyoto University) ○Kazuya Taga・(Osaka Prefecture University) Ikuya Yamada・(Kyoto University) Koji Fujita・Naoaki Hayashi・Katsuhisa Tanaka

(10：40) (Chairman 本橋輝樹)

1A06 Crystal and magnetic structures of layered double perovskite $Ca_2FeMnO_6$with unusually high valent cations (ICR, Kyoto Univ.) ○Yoshiteru Hosaka・Noriya Ichikawa・Takashi Saito・(JASRI) Masaichiro Mizumaki・(ICR, Kyoto Univ.) Mitsutaka Haruta・Hiroki Kurata・(ISIS, RAL) Manuel Pascal・Khalyavin Dmitry・(University of Edinburgh) Attfield J. Paul・(ICR, Kyoto Univ.・JST-CREST) Yuichi Shimakawa

1A07 Characterization of Thermoelectric Properties of $LaCoO_3$ System (The University of Tokushima) ○Kei-ichiro Murai・Ken Nagai・Masaru Takahashi・Toshihiro Moriga

1A08 Identification of hydride ions from crystal parameters and NMR chemical shifts: Hydrogens in mayenite and apatite (Kyushu University) ○Katsuro Hayashi・(PNNL) Peter Sushuko・(Tokyo Institute of Technology) Hideo Hosono

1A09 Quantum Chemical Evaluation on the Mobility of the Surface Oxygen in the Rh/CeO_2 and Rh/ZrO_2 (Tohoku University) ○Ai Suzuki・Ryuji Miura・Nozomu Hatakeyama・Akira Miyamoto

(14：20) (Chairman 加藤丈晴)

1A17 ★Influence of Interlayer Interaction on Theraml Conduction and Stability of Layered Thermoelectric Oxides (Osaka University・JFCC) ○Masato Yoshiya・(Osaka University) Susumu Fujii・Akuto Yumura・Yohei Miyauchi・Masahiro Tada・Daisuke Kanayama・Tatsuya Yokoi・Tomoya Nagira・(Osaka University・Kyoto University) Hideyuki Yasuda

1A19 First-Principles Analyses of defect equilibria and ionic conduction mechanism in SnP_2O_7 (Nagoya University) ○Junya Terasaka・Kazuaki Toyoura・Atsutomo Nakamura・Katsuyuki Matsunaga

1A20 First-principles analyses of the proton conduction mechanism in hydroxyapatite (Nagoya university) ○Takuya Sugimoto・Kazuaki Toyoura・Atsutomo Nakamura・Katsuyuki Matsunaga

(15：40) (Chairman 吉矢真人)

1A21 First-principles analyses of pressure induced phase transition in Calcium Carbonate polymorphs (Nagoya University) ○Masaya Ukita・Kazuaki Toyoura・Atsutomo Nakamura・Katuyuki Matsunaga

1A22 First-principles calculation on atomic structure and diffusion behavior of yttrium doped Σ13 grain boundary in alumina (The University of Tokyo) ○Yannan Feng・Tetsuya Tohei・Tsubasa Nakagawa・Eita Tochigi・Naoya Shibata・Yuichi Ikuhara

1A23 Surface structure of LSAT crystal (Nagoya University) ○Kazuki Ohashi・Tomoharu Tokunaga・Katsuhiro Sasaki・Takahisa Yamamoto・(JFCC) Shunsuke Kobayashi

(17：00) (Chairman 井田隆)

1A25 Structural Fluctuation of Molecular Ferroelectric Trichloroacetamide (Hiroshima University) ○Chikako Moriyoshi・Yoshihiro Kuroiwa

1A26 First-Principles Calculation of the Phase Transition in Molecular Ferroelectric Trichloroacetamide (JFCC) ○Ayako Konishi・Hiroki Moriwake・Takafumi Ogawa・Craig A. J. Fisher・Akihide Kuwabara・Noriko Otani・(Hiroshima University) Chikako Moriyoshi・Yoshihiro Kuroiwa

1A27 Fabrication of high dielectric $BaTiO_3$ films and structure analysis by transmission electron microscopy (JFCC) ○Shunsuke Kobayashi・Takeharu Kato・Tsukasa Hirayama・(The University of Tokyo・JFCC) Yuichi Ikuhara・(The University of Tokyo・JFCC・Nagoya University) Takahisa Yamamoto

1A28 TEM characterization of magnetite twin boundaries (Tohoku University) ○Chunlin Chen・Zhongchang Wang・Mitsuhiro Saito・(Tohoku University・The University of Tokyo・JFCC) Yuichi Ikuhara

■■ September 9 (Tue) (Room B) ■■

Crystal Science

(9：00) (Chairman 岡田繁)

1B01 Preparation of Terbium hydroxide nanowires by hydrothermal method (Kochi University) ○Hongjuan Zheng・Ayumu Onda・Kazumichi Yanagisawa

1B02 Flux growth of thermodynamically metastable lithium manganate $LiMnO_2$ (Shinshu University) ○Fumitaka Hayashi・Syoichi Kurokawa・Hajime Wagata・Syuji Oishi・Katsuya Teshima

1B03 One-Step Growth of $LaTiO_2N$ Crystals by KCl Flux Method under NH_3 Gas Flow (Shinshu University) ○Kenta Kawashima・Hajime Wagata・Nobuyuki Zettsu・Katsuya Teshima・Shuji Oishi

1B04 Growth of Cr,Nd:Ca*RE*AlO_4 single crystals by floating zone method (*RE*=Y, La, Gd) (Hokkaido University) ○Mikio Higuchi・Aki Ueda・Daisuke Ikutame・(RIKEN) Takayo Ogawa・Satoshi Wada・(Hokkaido University) Kiyoharu Tadanaga

(10：20) (Chairman 是津信行)

1B05 Thermal conductivity of layered boride crystals: Anisotropy of AlB_2 and effect of building defects on $TmAlB_4$ (NIMS・University of Tsukuba) ○Takao Mori・(NIMS) Ryoji Sahara・(Tohoku University) Yoshiyuki Kawazoe・Kunio Yubuta・Toetsu Shishido・(Kokushikan University) Shigeru Okada・(Max Planck Institute for. Chemical Physics of Solids) Yuri Grin

1B06 Liquid-phase sintering of $Gd_2Si_2O_7$:Ce using SiO_2 as a self-flux and their scintillation performance for alpha-particles (Hokkaido University) ○Mami

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Nishikata・Mikio Higuchi・Aki Ueda・Youichi Tsubota・Junichi Kaneko・Kiyoharu Tadanaga・(Hitachi Chemical Co.) Hiroyuki Ishibashi

1B07 Development of Ceramics Scintillator prepared by the SPS method III (Tohoku University) ○Shunsuke Kurosawa・Koichi Harata・Pejchal Jan・Kei Kamada・Yuui Yokota・Akira Yoshikawa

1B08 ★Garnet single crystals for efficient optical isolator and phosphor applications (NIMS) ○Kiyoshi Shimamura・Encarnacion Garcia Villora

(14：20) (Chairman 樋口幹雄)

1B17 Ionic conduction of (Ba^{2+}, K^{+})-β-ferrite single crystals (Tokyo University of science) ○Toshiki Kawai・Yuki Yamaguchi・Shigeru Ito・Kenjiro Fujimoto

1B18 Structural analysis and electrical property of analcime giant crystals synthesized by bulk material dissolution method (Kumamoto University) ○Hiroto Shimomura・Motohide Matsuda

1B19 Crystal growth of $SrTiO_3$ by Flame-Fusion method and its color change by heat treatment (Nagoya Institute of Technology・Shinkosha) ○Shuichi Kawaminami・Yoshikazu Kameda・Shohei Asaka・Keisuke Mochizuki・(Shinkosha Co., Ltd) Nobuyasu Adachi・(Nagoya Institute of Technology) Toshitaka Ota

1B20 ★Development of large scale sapphire single crystal (Sumitomo Metal Mining Co., Ltd.) ○Toshio Kochiya・Toshiyuki Komi・Kenji Murashita・Ryota Yamaki・Taizou Kitagawa・Hiroshi Matsumoto・Tomio Kajigaya・Takayuki Iino

(16：20) (Chairman 柳澤和道)

1B23 Flux growth of $Li(Ni_{1/3}Co_{1/3}Mn_{1/3})O_2$ crystals (Shinshu University) ○Takeshi Kimijima・Nobuyuki Zettsu・(DENSO Corporation) Kenichiro Kami・(Shinshu University) Shuji Oishi・Katsuya Teshima

1B24 Low Temperature Synthesis of $SrAlSiN_3$:Ce^{3+} by ammonothermal method (Meiji University) ○Yuki Maruyama・Yuki Yanase・Tomoaki Watanabe

1B25 Preparation of plate-like $La_2Ti_2O_7$ particles by molten salt synthesis (Toyota Technological Institute) ○Aslihan Orum・(Toyota Central R&D Labs., Inc.) Kazumasa Takatori・(Toyota Technological Institute・Toyota Central R&D Labs., Inc.) Toshihiko Tani

1B26 ★Flux Growth of Oxide Single Crystals (Shinshu University) ○Shuji Oishi・Katsuya Teshima・Nobuyuki Zettsu・Hajime Wagata

■■ September 9 (Tue) (Room C) ■■

Synthesis and Functional Properties of Mixed Cation and Anion Compounds

(9：00) (Chairman 岸尾光二)

1C01 ◆Creation and Morphology Control of Functional Materials by Design of Glass Composition and Crystallization (Nagaoka University of Technology) ○Takayuki Komatsu

1C03 Facile room-temperature synthesis of long wavelength visible light responsive glycerol modified BiOX (Tohoku University) ○Xiaoyong Wu・Qiang Dong・Shu Yin・Tsugio Sato

(10：00) (Chairman 吉川信一)

1C04 ★Design of novel persistent phosphors by bandgap engineering of garnet solid-solutions (Kyoto University) ○Setsuhisa Tanabe・Jumpei Ueda

1C06 Optical properties of Mn^{2+}-Ln^{3+} (Ln=Eu, Yb) co-doped Enstatite oxide red phosphor (Kyoto University) ○Tomohiro Kayumi・Yumiko Katayama・Jumpei Ueda・Setsuhisa Tanabe

(11：00) (Chairman 殷シュウ)

1C07 ☆Photoluminescence properties of red-emitting silicate phosphors excited by blue light (Okayama University of Science) ○Yasushi Sato・(Tohoku University) Hiroki Kuwahara・Hideki Kato・Makoto Kobayashi・Masato Kakihana

1C08 Fabrication and luminescent properties of persistent transparent ceramic phosphors for white light-emitting diode (wLED) (Kyoto University) ○Jian Xu・Keisuke Kuroishi・Jumpei Ueda・Setsuhisa Tanabe

1C09 Color adjustment of perovskite-type oxynitrides by controlling cation and anion stoichiometries (The University of Tokushima) ○Takanori Hayashi・Minami Omune・Narendra Sarda・Kento Shimizu・Satoshi Kataoka・Katsuya Shiozaki・Kei-ichiro Murai・Toshihiro Moriga

(14：20) (Chairman 陰山洋)

1C17 ★Low temperature Sintered PZT piezopelectric ceramics by controlling B site ions and the application to vibration generators. (Panasonic Corporation) ○Hiroshi Kagata・Hidenori Katsumura

1C19 Temperature dependence of photoluminescence and capacitance in (Ca,Sr)TiO_3:Pr^{3+} perovskite phosphor (Kyoto University) ○Yumiko Katayama・Setsuhisa Tanabe

(15：20) (Chairman 溝口拓)

1C20 Development of new phosphor based on layered mixed anion compounds (The University of Tokyo) ○Hiraku Ogino・Makoto Tatsuda・Jun-ichi Shimoyama・(Tohoku University) Yutaka Fujimoto・(Kyushu Institute of Technology) Takayuki Yanagida・(The University of Tokyo) Kohji Kishio

1C21 Crystal structures and magnetic properties of hexagonal $Ba_6Ln_2Fe_4O_{15}$ related oxides (Ln = lanthanides). (Hokkaido University) ○Yoshihiro Doi・Kyosuke Abe・Tatsuyoshi Takahashi・Yukio Hinatsu

1C22 The synthesis of a novel layered hydride-pnictide (Kyoto University) ○Yasumasa Nozaki・(Kyoto University・The University of Tokyo) Takeshi Yajima・(Kyoto University) Wataru Yoshimune・Yoshihiro Goto・Cédric Tassel・Takafumi Yamamoto・Yoji Kobayashi・Hiroshi Kageyama

(16：20) (Chairman 荻野拓)

1C23 ☆Cation Substitution Effect on a Square Planar Iron Oxide (Kyoto University) ○Takafumi Yamamoto・Hiroshi Kageyama

1C24 Hydrization of La*M*As (M = 3d transition metal) (Tokyo Institute of Technology) ○Hiroshi Mizoguchi・Sang-Wong Park・Hideo Hosono・(Institute of Materials Structures Science) Haruhiro Hiraka・Kazutaka Ikeda・Toshiya Otomo

1C25 An oxyhydride perovskite $SrCrO_2H$ with a high magnetic transition temperature (Kyoto University) ○Yoshihiro Goto・Cédric Tassel・Yoshinori Kuno・(Bragg Institute, Australian Nuclear Science and Technology Organisation) James Hester・(National Institute of Standards and Technology) Mark Green・(Kyoto University) Hiroshi Kageyama

(17：20) (Chairman 土井貴弘)

1C26 Topochemical thin film synthesis of a novel perovskite (Kyoto University) ○Wataru Yoshimune・Cédric Tassel・Guillaume Bouilly・Takahito Terashima・Takafumi Yamamoto・Yoji Kobayashi・Hiroshi Kageyama

1C27 Searching for new bismuthide superconductors (Kyoto University) ○Taito Murakami・Takahumi Yamamoto・Wataru Yoshimune・Kousuke Nakano・Hiroshi Kageyama

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■■ September 9 (Tue) (Room D) ■■

Element-Blocks: Their Preparation and Polymerization Strategies

シルセスキオキサン

(10：20) (Chairman 渡瀬星児)

1D05 Preparation and characteristics of ionic liquid containing silsesquioxane framework (Kagoshima University) ○Takuhiro Ishii・(Hiroshima University) Toshiaki Enoki・Tomonobu Mizumo・Joji Ohshita・(Kagoshima University) Yoshiro Kaneko

1D06 Synthesis and Properties of Side-chain Functionalized Polysilsesquioxanes (Tokyo University of Science) ○Takahiro Gunji・Satoru Tsukada

シルセスキオキサン

(11：00) (Chairman 郡司天博)

1D07 Preparation of triethylene-bis[3-triethoxysilyl-propyl]-ether *via* hydrosilylation reaction and its application to an organic-inorganic hybrid material (Waseda University) ○Alip Firmansah・Julian Zapico・Naokazu Idota・(Universite Montpellier 2) Bruno Boury・(Waseda University) Yoshiyuki Sugahara

1D08 ★Preparation of Phosphorescent Thin Films by Hybridization of Silsesquioxane and Metal Complex (Osaka Municipal Technical Research Institute) ○Seiji Watase

POSS

(14：20) (Chairman 下嶋敦)

1D17 ★Thermal Properties of Alternate Siloxane Copolymers Bearing a Nano-Cage and Flexible Chain Units (Kumamoto University) ○Masashi Kunitake

1D19 Sol-gel synthesis of soluble polymer linking POSS units (Kagoshima University) ○Takahiro Tokunaga・(Hiroshima University) Sayako Koge・Tomonobu Mizumo・Joji Ohshita・(Kagoshima University) Yoshiro Kaneko

POSS

(15：20) (Chairman 國武雅司)

1D20 ★Development of functional materials using POSS (Kyoto University) ○Kazuo Tanaka・Yoshiki Chujo

1D22 Control of the Number of Reaction Sites on Cage-type Siloxanes (Waseda University) ○Shohei Saito・Hiroaki Wada・Kazuyuki Kuroda・Atsushi Shimojima

シリカ・シロキサン系元素ブロック

(16：40) (Chairman 田中一生)

1D24 ★Synthesis and Applications of Organically Modified Porous Silica Nanoparticles (Waseda University) ○Atsushi Shimojima

1D26 Preparation of ionic cyclic siloxane compound and its self-organization (Kagoshima University) ○Shota Kinoshita・Yoshiro Kaneko

1D27 Preparation of three-dimensional structures by crystallization of silica nanoparticle assemblies (Waseda University) ○Takamichi Matsuno・Atsushi Shimojima・Kazuyuki Kuroda

■■ September 9 (Tue) (Room E) ■■

Hybrid Materials for Next Generation

(9：00) (Chairman 増田佳丈)

1E01 ★Synthesis of silicate-and phosphate-based phosphors by aqueous solution method (Tohoku University) ○Masato Kakihana・Makoto Kobayashi・Minsung Kim・Hideki Kato・(Okayama University of Science) Yasushi Sato

1E03 Preparation of hydrophobic ladder-like polysilsesquioxanes and their hybridization (Kagoshima University) ○Hitomi Imamura・(Nippon Shokubai) Takuo Sugioka・Yasutaka Sumida・(Kagoshima University) Yoshiro Kaneko

(10：00) (Chairman 垣花眞人)

1E04 ★Flux Coating Fabrication of Inorganic Hybrid Crystal Layers (Shinshu University) ○Katsuya Teshima・Hajime Wagata・Nobuyuki Zettsu・Shuji Oishi

1E06 Electrical properties for composite of Al-doped SnP_2O_7 and PVA (Nagaoka University of Technology) ○Masaru Mukai・Tomoichiro Okamoto・(Salesian Polytechnic, Matida) Yuichiro Kuroki・(JFCC) Masasuke Takata

(11：00) (Chairman 手嶋勝弥)

1E07 ★Synthesis and functions in monolithic polysiloxane porous materials (Kyoto University) ○Kazuyoshi Kanamori

1E09 Preparation and gas permeation properties of organic – inorganic hybrid olefin separation membranes (The University of Kobe) ○Naoto Tani・Koji Kuraoka

(14：20) (Chairman 金森主祥)

1E17 ★Preparation and application of alternating oxo copolymers (Osaka Prefecture University) ○Masahide Takahashi

1E19 Preparation of mesoporous silica sheet and its application for metal ion adsorption (Mie University・National Institute of Advanced Industrial Science and Technology) ○Kazuma Nakanishi・(Mie University) Masahiro Tomita・(National Institute of Advanced Industrial Science and Technology) Katsuya Kato

1E20 Synthesis of SiAlON phosphor-silica glass composites by supercritical drying process (NIMS) ○Hiroyo Segawa・Naoto Hirosaki

(15：40) (Chairman 松下伸広)

1E21 ★Synthesis and design of metallic nanostructures for plasmonic laser (Kyoto University) ○Koji Fujita

1E23 Hybrid White Light Emitting Diode for Green&Energy Saving (WPI-MANA, NIMS・JST-PRESTO) ○Naoto Shirahata・(WPI-MANA, NIMS) Batu Ghosh

1E24 Surfacce Modification and Preparation of Lanthanide Phosphor Hollow Microspheres (AIST) ○Tetsuro Jin・Tomoyo Ochiishi・(University of Hyogo) Yuri Shibuya・Tetsuo Yazawa

(17：00) (Chairman 藤田晃司)

1E25 ★Composite magnetic core fabricated using metal powders encapsulated by ferrite layer (Tokyo Institute of Technology) ○Nobuhiro Matsushita・Masanori Abe・Masahiro Yoshimura・Kiyoshi Okada

1E27 Synthesis of Magnetically Responsive Smart Nanoparticles for Cancer Treatment with a Combination of Magnetic Hyperthermia and Chemotherapy (Nagoya University) ○Koichiro Hayashi・Wataru Sakamoto・Toshinobu Yogo

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■■ September 9 (Tue) (Room F) ■■

Soft-solution process for synthesis and fabrication of ceramics

(9：00) (Chairman　上川直文)

1F01　Preparation of ceramics in porous materials using aqueous solution process (Kobe University) ○Minoru Mizuhata・Satoru Matsumoto・Akinhito Katayama・Yuki Mineyama・Hideshi Maki

1F02　Optimization of synthesis condition of Ni/Al LDH on conductive Ni substrate by liquid phase deposition (Kobe University) ○Masashi Takigawa・Hideshi Maki・Minoru Mizuhata

1F03　Synthesis of ZnS thin films on pore walls of porous silicon and dependence on substrate forms of luminescence intensity from ZnS (Kobe University) ○Yuki Mineyama・Hideshi Maki・Minoru Mizuhata

(10：00) (Chairman　水畑穣)

1F04　Synthesis and upconversion fluorescence of $NaYF_4$ particles by a microwave solvothermal method (The University of Tohoku) ○Yohei Suzuki・Syu Yin・Tsugio Sato

1F05　Investigation of crystal phase and morphology of rare earth nitrate hydroxide (Ehime University) ○Fumiya Sato・Ryoji Takahashi・(Osaka Prefecture University) Ikuya Yamada

1F06　Hydrothermal synthesis of VO_2 nanoparticles and characterization of thermochromic property (Tohoku University) ○Hisaya Hama・Qiang Dong・Shu Yin・Tugio Sato

(11：00) (Chairman　林大和)

1F07　Synthesis of stable sol with dispersion of CeO_2 nanoparticles from ethylene glycol solution of cerium nitrate (III) (Chiba University) ○Kousuke Yoshida・Naohumi Uekawa・Takashi Kojima・Kazuyuki Kakegawa

1F08　Synthesis of sol of layered double hydroxide including Zn^{2+} by peptization of hydroxide precipitate with H_2O_2 aqueous solution (Chiba University) ○Takaaki Minamikawa・Naohumi Uekawa・Takasi Kojima・Kazuyuki Kakegawa

1F09　Morphology control of aragonite crystals using epitaxial growth. (Keio University) ○Monami Suzuki・Yuya Oaki・Hiroaki Imai

(14：20) (Chairman　水畑穣)

1F17　★Continuous process for supercritical hydrothermal synthesis of organic modified nanoparticles -toward functional hybrid materials- (Tohoku University) ○Tadafumi Adschiri

1F20　★Electrochemical Preparation of oxide semiconductor and the photovoltaic devices (Toyohashi University of Technology) ○Masanobu Izaki

(16：20) (Chairman　細川三郎)

1F23　Sonochemical synthesis and characterization of amorphous iron particles (Kyushu University) ○Shingo Hirata・Miki Inada・Naoya Enomoto・Katsuro Hayashi

1F24　Top-down fabrication of Graphene from Graphite Oxide using ultrasound irradiation (The University of Tohoku) ○Tomofumi Mochizuki・Yamato Hayashi・Jun Fukushima・Hirotsugu Takizawa

1F25　Effect of stabilizer for homogeneous IGZO film coating by sol-gel method (The University of Osaka) ○Takuro Matsuo・Toru Sugahara・Yukiko Hirose・Shijo Nagao・Katsuaki Suganuma

1F26　Low-temperature synthesis of α-alumina using aqueous alumina precursor solution with formic acid. (Gifu University) ○Yuta Kato・Yuta Imaeda・Michiyuki Yoshida・Yutaka Ohya・Osamu Sakurada・(JFCC) Makoto Tanaka・Satoshi Kitaoka・(Gifu Prefectural Ceramics Research Institute) Seizo Obata

■■ September 9 (Tue) (Room G) ■■

Chemical process- Key processes for fabrication of novel functional materials-

金属有機構造体 (MOF)

(9：00) (Chairman　岩本雄二)

1G01　Preparation and redox conversion of copper-based macroporous monoliths from an ionic precursor (Kyoto University) ○Shotaro Fukumoto・Kazuki Nakanishi・Kazuyoshi Kanamori

1G02　Full control of MOF orientation by hetero epitaxial growth on $Cu(OH)_2$ (Osaka Prefecture University) ○Takaaki Hara・Kenji Okada・Yasuaki Tokudome・Masahide Takahashi

レーザー支援合成法

(9：40) (Chairman　石垣隆正)

1G03　Preparation of Li-doped Na-Al-O films by laser CVD (Tohoku University) ○Chen Chi・Hirokazu Katsui・Takashi Goto

1G04　Preparation of oriented γ-Al_2O_3 films by laser chemical vapor deposition (Tohoku University) ○Akihiko Ito・Ming Gao・Takashi Goto

1G05　★Preparation of Highly Crystalline Nanoparticle Dispersed Solution by Combination of Sol-Gel Method and Laser Ablation in Liquid (Tokyo Institute of Technology) ○Hiroyuki Wada

ナノシート

(11：00) (Chairman　高橋雅英)

1G07　Production of Cobaltate Nanosheet/Porphyrin/Methylviologen Alternating Stacked Films and Investigation of the Photochemical Behavior. (Shimane University) ○Yuki Kato・Ryo Sasai

1G08　★Silicon version of graphene; Synthesis of functionalized silicon nanosheets (TOYOTA CENTRAL R&D LABS., INC.) ○Hidyeuki Nakano

ゾル-ゲル法 (エアロゲル・多孔体)

(14：20) (Chairman　内山弘章)

1G17　Preparation and Properties of Vinylsilsesquioxane Aerogels (Kyoto University) ○Taiyo Shimizu・Kazuyoshi Kanamori・Kazuki Nakanishi

1G18　Synthesis and mechanical properties of aerogels derived from bridged alkoxysilanes (Kyoto University) ○Yosuke Aoki・Taiyo Shimizu・Kazuyoshi Kanamori・Kazuki Nakanishi

1G19　Sol-gel Synthesis of Porous Metal Zirconium Phosphate Monoliths with Low Thermal Expansion (Kyoto University) ○Yang Zhu・Kazuki Nakanishi・Kazuyoshi Kanamori

1G20　Synthesis and Characterizations of Low-density Aerogels from Alumina Nanofibers (Kyoto University) ○Kazuya Nonomura・Gen Hayase・Kazuyoshi Kanamori・Kazuki Nakanishi

ゾルーゲル法 (構造制御)

(16：00) (Chairman 金森主祥)

1G22 ☆Spontaneous pattern formation on sol-gel coating films induced by Bénard-Marangoni convection (Kansai University) ○Hiroaki Uchiyama・Wataru Namba・Yuichiro Miki・Yuto Mantani・Tadayuki Matsui・Hiromitsu Kozuka

1G23 Preparation of thermoresponsive surface wrinkle structures on organosilica/poly(N-isopropylacrylamide) films (Osaka Prefecture University) ○Hiroki Kuniwaki・Yasuaki Tokudome・Masahide Takahashi

1G24 Symthesis and properties of novel organic-inorganic hybrid materials consisting of zirconium-oxygen coordination polyhedra modified by β-ketoester (Kansai University) ○Kota Suzuki・Hiroaki Uchiyama・Hiromitsu Kozuka

ゾルーゲル法 (構造制御)

(17：00) (Chairman 徳留靖明)

1G25 Effect of the surface tension of alkoxide solutions on the formation of sol-gel coating films (Kansai University) ○Takao Eiki・Hiroaki Uchiyama・Hiromitsu Kozuka

ゾルーゲル法 (ドーピング)

1G26 Rare-earth compositional dependence of sol-gel-derived silica glasses containing rare-earth orthophosphate nanocrystals (Tokyo metroporitan University) ○Shiori Yamaguchi・Kouichi Kajiwara・Kiyoshi Kanamura

1G27 Synthesis of rare-earth and aluminum codoped silica gels and glasses by an etylenediamine buffered sol-gel method (Tokyo metropolitan university) ○Kenji Moriyama・Kouichi Kajiwara・Kiyoshi Kanamura

■■ September 9 (Tue) (Room H) ■■

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

薄膜と界面

(8 ：40) (Chairman 長田晃)

1H00 Interface toughness evaluation for the (AlTi)N thin film/polyimide substrate (MITSUBISHI MATERIALS CORPORATION) ○Hitoshi Inaba・Noriaki Nagatomo・(Nagoya Institute of Technology) Nobuyuki Shishido・Shoji Kamiya

1H01 ★Influence of residual stress on the characteristics of coating films for cutting application (Hitachi Tool Engineering, Ltd.) ○Yuuzoh Fukunaga・Kazuyuki Kubota

1H03 ★Micro-area stress tensor measurement in ceramics (Tohoku University) ○Shun-ichiro Tanaka

機能性セラミックス

(10：40) (Chairman 榎本尚也)

1H06 Occurrence of damage in thermistor sensors and evaluation by impedance analysis (MITSUBISHI MATERIALS CORPORATION) ○Kazutaka Fujiwara・Noriaki Nagatomo

1H07 ★Internal strain and dielectric properties of microwave dielectrics (Nagoya Industrial Science Research Institute・Nagoya Institute of Technology) ○Hitoshi Ohsato・(Hoseo University) Kim Jeong-Seog・(Nagoya Institute of Technology) Takashi Ida・Isao Kagomiya

ガラス 1

(14：20) (Chairman 吉田智)

1H17 Influence of residual stress on photoluminescence property of Eu doped soda-lime-silicate glass (Tokyo University of Science) ○Daiki Tabei・Sayaka Yanagida・Atsuo Yasumori

1H18 Composite structure control of Al_2O_3-Nb seal by crystallization method of glass frit (Yokohama National University) ○Takuya Honma・Junichi Tatami・(Toshiba Lighting & Technology Corp) Hiroshi Kamata

1H19 ★Cutting Technology of Hard and Brittle Material by Scribing and Breaking (MITSUBOSHI DIAMOND INDUSTRIAL CO., LTD.) ○Naoko Tomei・Toshio Fukunishi・Shigekazu Hirano・Shohei Nagatomo・Kouji Yamamoto・Taichi Hashimoto

ガラス 2

(16：00) (Chairman 安盛敦雄)

1H22 ★The internal stress and the evaluation method of glass. (ORIHARA INDUSTRIAL CO., LTD.) ○Yoshio Orihara

1H24 Crack Propagation and Bifurcation Phenomena in Zone-Tempered Glass (GMS Laboratory・Teikyo University) ○Shin-ichi Aratani・(Central Glass Co. Ltd) Shin Ohmi・Masaki Tahara・Mizuki Nishi

■■ September 9 (Tue) (Room I) ■■

Novel Functional Ceramics derived from Nanocrystals

(14：20) (Chairman 冨田恒之)

1I17 ★Formation mechanism of iron oxide nanocrystal in magnetotactic bacteria (Tokyo University of Agriculture and Technology) ○Atsushi Arakaki・Tadashi Matsunaga

1I19 Optical Observation of Magnetic Orientation of Bismuth Nano-particles (National Institute of Advanced Industrial Science and Technology) ○Naoyuki Kitamura・(Tohoku University) Kohki Takahashi・Iwao Mogi・Satochi Awaji・Kazuo Watanabe

(15：20) (Chairman 和田智志)

1I20 Preparation and characterization of ultrathin layered transition metal disulfide solid-solution nanosheets. (Utsunomiya University) ○Kazushi Funaki・Keitaro Tezuka・Yue Jin Shan

1I21 Synthesis and analysis of needle-like shaped anatase nano crystal for dye-sensitized solar cell (Tokai University) ○Takahiro Kikuchi・Miwako Furue・Koji Tomita・Yuki Shimoyama・Yoshihito Kunugi・(Waseda University) Shinjiro Umezu・(Tohoku University) Masato Kakihana

1I22 Growth of $Gd_{0.2}Ce_{0.8}O_{1.9}$ nanocrystals aqueous dispersion (Gunma University) ○Manami Arai・Kazuyoshi Sato・(Toulon University) Jean-Christophe Valmalette・(Osaka University) Hiroya Abe

(16：20) (Chairman 佐藤和好)

1I23 Direction control of oriented self-assembly for ordered structures of Mn_3O_4 rectangular nanoblocks (Keio University) ○Yoshitaka Nakagawa・Hiroyuki Kageyama・Yuya Oaki・Hiroaki Imai

1I24 Synthesis and application of complex oxide up-conversion nanosheet phosphor (Tokai University) ○Soichi Takasugi・Riku Iida・Koji Tomita・(Hiroshima University) Kiyofumi Katagiri・(NIMS) Minoru Osada・(Tohoku University) Masato Kakihana

1I25 Synthesis of metal-oxide photocatalyst nano-crystals by solution process (The University of Tokai) ○Ryo Taniguchi・Soichi Takasugi・Koji Tomita・

（The University of Tohoku）Hideki Kato・Masato Kakihana

■■ September 9 (Tue) (Room J) ■■

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

MEMS

（9：00）（Chairman 安井伸太郎）

1J01 ★Piezoelectric property of PZT thin films integrated on piezoelectric MEMS devices（National Institute of Advanced Industrial Science and Technology）○Takeshi Kobayashi・Natsumi Makimoto・（National Institute of Advanced Industrial Science and Technology・Ibaraki University）Yasuhiro Suzuki・（Tokyo Institute of Technology）Hiroshi Funakubo・（National Institute of Advanced Industrial Science and Technology）Toshihiro Itoh・Ryutaro Maeda

1J03 ☆Electrical and Mechanical Properties of Piezoelectric MEMS Vibrational Energy harvesters using $BiFeO_3$ films（Osaka Prefecture University）○Takeshi Yoshimura・Kento Kariya・Norifumi Fujimura・（Technology Research Institute of Osaka Prefecture）Shuichi Murakami

圧電デバイス

（10：20）（Chairman 古川正仁）

1J05 ☆Lead-free piezoelectric ceramics and their applications to devices（AIST）○Ruiping Wang・Naoto Kikuchi・Yoshihiro Aiura・Kazuhiko Tonooka・Kazuhisa Kasukawa・Koichi Awazu

1J06 ☆Developmental status of Piezoelectric Single Crystals for Sensing Applications at Elevated Temperatures（Tokyo Institute of Technology）○Hiroaki Takeda・Kyohei Yoshida・Takuya Hoshina・Takaaki Tsurumi・（Keio University）Manabu Hagiwara・Shinobu Fujihara

単結晶

（11：00）（Chairman 野口祐二）

1J07 ☆Fabrication and Dielectric Properties of Single-crystalline Barium Titanate Nanocube Ordered Assembly Films（National Institute of Advanced Industrial Science and Technology）○Ken-ichi Mimura・Kazumi Kato

1J08 Thermoelectric property of hexagonal $BaTiO_3$ single crystal（Tokyo Institute of Technology）○Shintaro Yasui・Yusuke Ishimoto・Takao Shimizu・Tomoyasu Taniyama・Mitsuru Itoh

1J09 Electrical properties of Ga^{3+}–, Zr^{4+}– and Nb^{5+}-substituted single-crystalline $BaTi_2O_5$ by a FZ method（Institute for Materials Research）○Keiji Shiga・Hirokazu Katsui・Takashi Goto

評価解析 I

（14：20）（Chairman 谷口博基）

1J17 ★Micro-Raman spectroscopy for local crystal structures constituting functional dielectric films（FUJIFILM Corporation）○Yosuke Shiratori・Taiga Wada

1J19 ☆In Situ Observation of Sintering Process of Barium Titanate Ceramics using a High Temperature Environmental Scanning Electron Microscope（Canon Inc.）○kanako Oshima・Shunsuke Murakami・Takayuki Watanabe

材料設計

（15：20）（Chairman 永田肇）

1J20 ★Research on vertical MPB in lead-free piezoceramics（Toyama Prefectural University）○Tomoaki Karaki・Ryosuke Baba・Masatoshi Adachi

1J22 ☆Development of New Ferroelectric oxides Based on Oxygen Tetrahedra（Nagoya University）○Hiroki Taniguchi

圧電材料 I

（16：20）（Chairman 青柳倫太郎）

1J23 Piezoelectric properties of the KNN-multiple phase controlled lead-free piezoelectric ceramics（NGK SPARK PLUG CO., LTD.）○Takayuki Matsuoka・Hisashi Kozuka・Kazuaki Kitamura・Toshiaki Kurahashi・Hideto Yamada・Masato Yamazaki・Kazushige Ohbayashi

1J24 Etching process using ultraviolet irradiation for lead-free piezoelectric niobate ceramics（Nagoya Institute of Technology）○Yuta Sumiya・Ken-ichi Kakimoto

1J25 ☆Grain-oriented lead-Free (Ba,Ca)TiO_3 piezoelectric ceramics sintered under a low oxygen partial pressure and their properties（Nagoya University）○Wataru Sakamoto・Hiroki Ichikawa・Toshinobu Yogo・（RICOH CO.）Yoshikazu Akiyama・（Shonan Institute of Technology）Hiroshi Maiwa

1J26 Evaluation of Piezoelectric Properties for $BaTiO_3$ FFerroelectric Ceramics with Controlled Oxygen Vacancies（The University of Tokyo）○Yuki Ichikawa・Hiroyuki Asakura・Yuuki Kitanaka・Takeshi Oguchi・Yuji Noguchi・Masaru Miyayama

■■ September 9 (Tue) (Room K) ■■

Recent progress of ceramic sensor –Application to medical, healthcare or environmental issues

（15：00）（Chairman 上田太郎）

1K19 ★Uncooled infrared sensor development and application（National Institute of Advanced Industrial Science and Technology）○Tetsuo Tsuchiya・Tomohiko Nakajima・Kentaro Shinoda・（NEC）Seiji Kurashina・Shigeru Touyama・Masaru Miyoshi・Tokuhito Sasaki

（15：40）（Chairman 土屋哲男）

1K21 Design of combustion pressure sensor element in consideration of compressive strength of the artificial gehlenite（Tokyo Institute of Technology）○Kyohei Yoshida・Takuya Hoshina・Takaaki Tsurumi・Hiroaki Takeda

1K22 Synthesis of high T_c lead-free $BaTiO_3$-based semiconducting ceramics by alkali-earth element addition（Tokyo Institute of Technology）○Hiroaki Takeda・Hitomi Akutsu・Takuya Hoshina・Takaaki Tsurumi

（16：20）（Chairman 武田博明）

1K23 ★Development of Nobel Scintillator for Medical Imaging and Environment Monitoring（Tohoku University）○Akira Yoshikawa

1K25 Pressure-sensitive change in the electrical resistance depending on slit shapes introduced into ZnO ceramics by the superplastically foaming method（Okayama University）○Yuki Takamuro・Takashi Teranishi・Hidetaka Hayashi・Akira Kishimoto

1K26 Characterization of Forsterite Soild Solution（Ashikaga Institute of Technology）○Toshio Ogiwara・Yoshimasa Noda・Osamu Kimura

■■ September 9 (Tue) (Room L) ■■

Science and Technology on Engineering Ceramics ー Advanced materials and analysis for Safe and Reliable Society ー

セラミックスの熱的特性

（10：00）（Chairman 赤津隆）

1L04 Theoretical and Experimental Analyses of Thermal Conductivity of the Alumina-Mullite System（Kagoshima University）○Syota Ito・Yoshihiro Hirata・

Soichiro Sameshima・Taro Shimonosono

1L05 Effects of Sintering Additives on Thermal Conductivity of Sintered Reaction-Bonded Silicon Nitride Ceramics（National Institute of Advanced Industrial Science and Technology）○You Zhou・Hideki Hyuga・Yu-ichi Yoshizawa・Tatsuki Ohji・Kiyoshi Hirao

1L06 The Influence of Metal Impurity Content in Raw Si Powder on the Characteristics of Sintered Reaction Bonded Silicon Nitrides（Fine Ceramics Research Association）○Dai Kusano・（National Institute of Advanced Industrial Science and Technology）Hideki Hyuga・You Zhou・Kiyoshi Hirao

セラミックスの熱的特性

（11：00）（Chairman 篠田豊）

1L07 Development of h-BN filler which imparts high and isotropic thermal conductivity to its composites（Mitsubishi Chemical Group Science and Technology Research Center, Inc.）○Katsura Ikemiya・Masanori Yamazaki・Toshiyuki Sawamura・Tatsushi Isojima・（MCHC R&D Synergy Center, Inc.）Jun Endou

1L08 Thermomechanical Properties of Bi-2212 Ceramics as High Temperature Resistive Materials（National Institute of Advanced Industrial Science and Technology (AIST)）○Kentaro Shinoda・Hideaki Nagai・Tomohiko Nakajima・Tetsuo Tsuchiya・Norimitsu Murayama・（Fine Ceramics Research Association・KOA）Takeshi Shimizu・Kiyoshi Tanaka・（Fine Ceramics Research Association）Keiko Kohno・（The University of Tokyo）Yoshinobu Nakamura・Masaru Miyayama

1L09 Characterization of the aluminum metallized ceramics after thermal cycle tests（National Institute of Advanced Industrial Science and Technology）○Ken'ichiro Kita・Naoki Kondo

燃料電池最前線

（14：20）（Chairman 垣澤英樹）

1L17 ★Development of Small and High Efficiency SOFC System（Kyocera Corporation）○Takashi Ono

最先端モデリング・評価技術

1L19 Finite element analysis of stress intensity factor and compliance of micro-cantilever beam specimen for studying microscopic fracture（Tokyo Institute of Technology）○Fumihiro Wakai・Kimiko Yoshida・Yutaka Shinoda・Takashi Akatsu

1L20 Evaluation of R-curve of nano-polycrystalline stishovite using micro cantilever specimens（Tokyo Institute of Technology）○Kimiko Yoshida・（Deutsches Elektronen-Synchrotron）Norimasa Nishiyama・（Tokyo Institute of Technology）Fumihiro Wakai・Yutaka Shinoda・Takashi Akatsu・Masato Sone

最先端モデリング・評価技術

（15：40）（Chairman 周游）

1L21 Damage Evolution Behavior of Discontinuous Carbon Fiber-Dispersed SiC Matrix Composite under Tensile Loading Modes（The University of Tokyo）○Ryo Inoue・Hideki Kakisawa・（The University of Tokyo・NIMS (NIMS)）Yutaka Kagawa

1L22 Detection of local delamination in Al_2O_3・$2SiO_2$/Si/RB-SiC EBC system（The University of Tokyo）○Yutaro Arai・Ryo Inoue・Takaho Kuribara・Hideki Kakisawa・Yutaka Kagawa

1L23 Effect of elastic anisotropy on a nanoindentation behavior with a point-sharp indenter（Tokyo Institute of Technology）○Tatsuya Yamaguchi・Takashi Akatsu・Yutaka Shinoda・Fumihiro Wakai

1L24 High-strain-rate superplasticity of nanocrystalline silicon nitride ceramics（Tokyo Institute of Technology）○Raayaa Wananuruksawong・Yutaka Shinoda・Takashi Akatsu・Fumihiro Wakai

セラミックスの酸化挙動

（17：00）（Chairman 北憲一郎）

1L25 Oxidation behavior and mechanical properties of hafnia/silicon carbide composites（Tokyo Institute of Technology）○Yutaka Shinoda・Yusei Minoguchi・Takashi Akatsu・Fumihiro Wakai・（Colorado university）Rishi Raj

1L26 Oxidation Reaction and its mechanism of Al_4SiC_4（Okayama Ceramics Research Foundation）○Tomohiro Nishikawa・Tomoyuki Maeda・Yasuhiro Hoshiyama・Shigeyuki Takanaga

1L27 Oxidation behavior of monolithic $HfSi_2$（Tokyo Institute of Technology）○Toru Tsunoura・Yosuke Okubo・Katsumi Yoshida・Toyohiko Yano・（Japan Aerospace Exploration Agency）Toshio Ogasawara・Takuya Aoki

■■ September 9 (Tue) (Room M) ■■

Ceramics Processing through Energy Consumption Reduction (Green Processing)

薄膜

（9：00）（Chairman 増本博）

1M01 Densification of AlN film by AP-HCVD method（Shizuoka University）○Takaya Suzuki・Naonori Sakamoto・Naoki Wakiya・Hisao Suzuki

1M02 Modulation Structure and electrical properties of Novel $ZnIn_2O_4$ thin film by pulsed laser deposition（Shizuoka University）○Ryota Izawa・Kazuyuki Tanemura・Naonori Sakamoto・（Tokyo Institute of Technology）Kazuo Shinozaki・（Shizuoka University）Hisao Suzuki・Naoki Wakiya

1M03 Effects of doping on spontaneous superlattice formation and ferroelectric properties of $SrTiO_3$ thin films prepared using dynamic aurora PLD（Shizuoka University）○Tomoaki Kubota・Naonori Sakamoto・（Tokyo Institute of Technology）Kazuo Shinozki・（Shizuoka University）Hisao Suzuki・Naoki Wakiya

1M04 Fabrication of zirconium oxide thin films by supercritical fluid deposition using β-diketonate complexes（Sophia University）○Marina Shiokawa・Katsushi Izaki・Hiroshi Uchida

触媒材料

（10：20）（Chairman 松下伸広）

1M05 ★Preparation of the Alkoxide derived Catalysts for Steam Reforming Process（Kitami Institute of Technology）○Tomoya Ohno・Takeshi Matsuda・（Shizuoka University）Naonori Sakamoto・Naoki Wakiya・Hisao Suzuki

1M07 Synthesis of perovskite-type oxide catalysts by assisting with exothermic ligand oxidation of heteronuclear cyano complex and evaluation of their catalytic activities（Ehime University）○Hiroki Wada・Takahisa Okuwa・Syuhei Yamaguchi・Hidenori Yahiro

1M08 Cyanosilylation over perovskite-type oxide catalysts prepared from cyano metal complex precursors（Ehime University）○Syuhei Yamaguchi・Takahisa Okuwa・Hiroki Wada・Hidenori Yahiro

1M09 Room temperature synthesis of highly crystallized $SrTiO_3$ from hydroxide mixture and its reaction mechanism（Tokyo University of Science）○Yuki Yamaguchi・Shigeru Ito・Kenjiro Fujimoto・Yasushi Idemoto

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

液相プロセス

(14：20) (Chairman　青野宏通)

1M17 ★Chemistry and Applications of Graphene Oxide（Kumamoto University・JST-CREST）○Takaaki Taniguchi・Michio Koinuma・Yasumichi Matsumoto

1M19 Phase transition temperature control of vanadium dioxide nanoparticles by microemulsion method from molecular-designed precursors（Shizuoka University）○Takuya Okuda・Naonori Sakamoto・Naoki Wakiya・（Shimane University）Hidetoshi Miyazaki・（Shizuoka University）Hisao Suzuki

1M20 Effect of synthesis conditions on the crystallization of $12CaO \cdot 7Al_2O_3$ particles by solution plasma processing（Shizuoka University）○Shiori Maneyama・Naonori Sakamoto・Naoki Wakiya・（Kitami Institute of Technology）Tomoya Ohno・Takesi Matsuda・（Shizuoka University）Hisao Suzuki

1M21 Electrical properties of PZT thin film prepared on porous silicon substrate（Shizuoka University）○Kyohei Saito・Naonori Sakamoto・（Tokyo Institute of Technology）Kazuo Shinozaki・（Shizuoka University）Hisao Suzuki・Naoki Wakiya

微粒子合成プロセス

(16：20) (Chairman　鈴木久男)

1M23 Effect of addition of TiO_2 on electrical properties for $BaTiO_3$-based semiconductors fabricated by various firing conditions from powders synthesized by hydrothermal process（Kyoto Instiute of Technology）○Yuji Kitano・Nobuyuki Takeuchi・Hisayoshi Kobayashi

1M24 Preparation of Ag substituted X zeolites for application of fluorescent material and influence of heat-treatment（Ehime university）○Yohei Yamauchi・Yoshiteru Itagaki・Erni Johan・Naoto Matsue・Hiromichi Aono

1M25 Synthesis of composite materials of mordenite and magnetite and their Cs^+ adsorption ability（Ehime university）○Noriaki Kaji・Tafu Kunimoto・Yoshiteru Itagaki・Erni Johan・Naoto Matsue・Hiromichi Aono

1M26 Continuous hydrothermal synthesis of alkali niobate nanocrystals using a flow reaction system（National Institute of Advanced Industrial Science and Technology）○Hiromichi Hayashi・Takeo Ebina・（The University of Tohoku）Suguru Tooyama・Richard Smith

1M27 Cubic ferrite nanoparticles synthesized by surfactant modified hydrothermal method（Tokyo Institute of Technology）○Yuki Makinose・Ken-ichi Katsumata・Nobuhiro Matsushita・（Kumamoto University）Takaaki Taniguchi

■■ September 9 (Tue) (Room N) ■■

Advent and Development of Advanced Photonic Materials

酸化亜鉛

(9：40) (Chairman　藤原忍)

1N03 Dc-driven inorganic EL devices using a rare-earth and lithium added ZnO layer（Yamagata University）○Yuta Matsushima・Midori Yoshida・Tomoki Sato

1N04 Fabrication and Luminescent Property of ZnO-$LiGaO_2$ (s.s.) Phosphors without Rare Metal（Mie Industrial Research Institute）○Koji Inoue

薄膜

1N05 Luminescence of electron beam excitation in Perovskite Phosphor Films（AIST）○Hiroshi Takashima・Masayoshi Nagao

ペロブスカイト

1N06 Luminescence of Gd^{3+} Doped $YAlO_3$ under Vacuum Ultraviolet Irradiation（Kyushu Institute of Technology）○Yuhei Shimizu・Takuma Aoki・Kazushige Ueda・（Gakushuin University）Yoshiyuki Inaguma

薄膜

(11：00) (Chairman　高島浩)

1N07 Fabrication of luminescence-sensing thin films utilizing surface precipitation reaction of LDH:Eu^{3+}（Keio University）○Takashi Yagami・Manabu Hagiwara・Shinobu Fujihara

赤色蛍光体

1N08 Synthesis of Mn^{4+}-doped magnetoplumbite-related aluminate phosphors（Tohoku University）○Takuya Sasaki・Jun Fukushima・Yamato Hayashi・Hirotsugu Takizawa

薄膜

1N09 Luminescence-sensing properties of microstructure-controlled $CePO_4$:Tb^{3+} thin films（Keio University）Maemi Masuda・Mio Tanaka・Manabu Hagiwara・○Shinobu Fujihara

招待講演

(14：40) (Chairman　戸田健司)

1N18 ★Exploration for novel phosphors inspired by minerals：Crystal-site engineering approach（Tohoku University）○Masato Kakihana・Hideki Kato・Makoto Kobayashi・（Okayama University of Science）Yasushi Sato

赤色蛍光体

(15：20) (Chairman　松嶋雄太)

1N20 The effects of flux on emission properties of Eu^{2+}-activated Ca_2SiO_4 red phosphor（Tohoku University）○Hiroki Kuwahara・（Okayama University of Science）Yasushi Satou・（Tohoku University）Hideki Kato・Masato Kobayashi・Masato Kakihana

1N21 Synthesis and characterization of spinel type red phosphors with Mn dopant（Utsunomiya University）○Yoshinori Wakui・Yue jin Shan・Keitaro Tezuka

青色発光

1N22 Relationship of local structure and blue luminescence for copper doped hydronium alunite（Salesian Polytechnic）○Yuichiro Kuroki・（Nagaoka University of Technology）Shingo Kimura・Tomoichiro Okamoto・（JFCC）Masasuke Takata

酸化物

(16：20) (Chairman　黒木雄一郎)

1N23 Fabrication and characterization of $Ca_{1-x}Zr(Ti_{2-y}Al_y)O_7$:Eux phosphor（Saga University）○Takuya Matsuo・Takanori Watari・Tosio Torikai・Mitsunori Yada

1N24 The Effect of the substitution site of Mg ion on the luminescence of $CaAl_{12}O_{19}$: Gd.（Hyogo Prefectural Institute of Technology）○Tsuguo Ishihara・Hirokazu Izumi・（Dyden Inc.）Michio Obata・（YUMEX Inc.）Yoshitaka Chigi・Tetsurou Nishimoto・Hiroyuki Tanaka・Mikihiro Kobayashi

ノウハウ

(17：00) (Chairman　井上幸司)

1N25 Design and Synthesis of Phosphor Materials（Niigata University）○Kenji Toda

■■ September 9 (Tue) (Room O) ■■

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

(10：00) (Chairman 横川善之)

1O04 Morphological Control of Layered Double Hydroxide Crystals by Anionic Organic Molecules (Tohoku University) ○Taishi Yokoi・Sota Terasaka・Masanobu Kamitakahara・Hideaki Matsubara

1O05 Structural evaluation of fluorine substituted hydroxyapatite through dielectric characteristics (Tokyo Medical and Dental University・Tokai University) ○Juria Endo・(Tokyo Medical and Dental University) Naohiro Horiuchi・Kosuke Nozaki・Miho Nakamura・Akiko Nagai・(Tokai University) Keiichi Katayama・(Tokyo Medical and Dental University) Kimihiro Yamashita

1O06 Preparation of phosphate glasses in the CaO-rich region (Nagoya Institute of Technology) ○Sungho Lee・Hirotaka Maeda・Akiko Obata・Toshihiro Kasuga・(Tohoku University) Kyosuke Ueda・Takayuki Narushima

(11：00) (Chairman 城﨑由紀)

1O07 Coculture of endothelial cells and osteoblasts on three-dimensional apatite-fiber scaffold (Meiji University) ○Michiyo Honda・Mariko Nakamura・Mamoru Aizawa

1O08 Adsorption Behavior of Fibronectin on Hydroxyapatite and α-Alumina. (Tohoku University) ○Maki Hasegawa・Masakazu Kawashita・Tadaaki Kudo・Hiroyasu Kanetaka・(Kyushu Institute of Technology) Toshiki Miyazaki・(JFCC) Masami Hashimoto

1O09 Preparation of Magnetic TiO_2 Microspheres for Hyperthermia of Cancer and their Heat-Generating Ability under an Alternating Magnetic Field (Tohoku University) ○Gengci Liu・(Tohoku University・University of California) Solis Adriana Alejandra・(Tohoku University) Masakazu Kawashita・(Guangxi University) Zhixia Li・(Kyushu Institute of Technology) Toshiki Miyazaki・(Tohoku University) Hiroyasu Kanetaka

(14：20) (Chairman 生駒俊之)

1O17 ☆Function of collagen extracted from fish scales (TAKI CHEMICAL CO.,LTD) ○Isamu Yamaguchi

(14：40) (Chairman 内野智裕)

1O18 Proliferation and differentiation of chondrocyte-like ATDC5 cells three-dimensionally cultured on/in apatite-fiber scaffold with enhanced mechanical property (Meiji University) ○Yuta Uchimura・Yuta Miyazawa・Mariko Nakamura・Michiyo Honda・Mamoru Aizawa

1O19 Material property of bioresorbable β-tricalcium phosphate cements with pore-forming agents and their biological evaluation (Meiji Univesity) ○Tomoya Sawata・Kohei Nagata・Michiyo Honda・Masaki Nagaya・Gota Hayashida・Kazuaki Nakano・(Gunze Limited) Keishi Kiminami・Hidetoshi Arimura・(Meiji Univesity) Hiroshi Nagashima・Mamoru Aizawa

1O20 In *vivo* evaluation of chelate-setting β-tricalcium phosphate cements with anti-washout property (Meiji University) ○Kohei Nagata・Michiyo Honda・(Okayama University) Toshiisa Konishi・(Meiji University) Gota Hayashida・Masaki Nagaya・Hiroshi Nagashima・Mamoru Aizawa

(15：40) (Chairman 小西敏功)

1O21 Coating of hydroxyapatite onto the polyetheretherketone surface-modified by vacuum ultraviolet irradiation and its evaluation. (Sophia University) ○Naoto Suzuki・Tomohiro Umeda・Satoshi Horikoshi・Takuya Sumi・Hideki Kuwahara・(Toho University) Yoshirou Musha・(Nihon University) Takeshi Toyama・(Sophia University) Kiyoshi Itatani

1O22 Preparation of novel bone coating film with calcium phosphate/nanocellulose and their evaluations (Sophia University) ○Taisuke Nozaki・Tomohiro Umeda・(Toho University) Yoshiro Musha・(The University of Tokyo) Tuguyuki Saito・Akira Isogai・(Sophia University) Kiyoshi Itatani

(16：40) (Chairman 上高原理暢)

1O24 ★Scaffold designing optimized for jaw bone regeneration using stem cells (Kagoshima University) ○Masahiro Nishimura

■■ September 9 (Tue) (Room P) ■■

12：10～14：10

Frontiers of structural science and the development of novel materials

1PA01 Electrical and magmetic properties of pyrochlore-type transition metal oxides (HokkaidoUniversity) ○Makoto Wakeshima・(Kyushu Institute of Technology) Kazuyuki Matsuhira・(HokkaidoUniversity) Yukio Hinatsu

1PA02 Cryatal structure and oxide ion transport behavior of mixed-conductive $SrFeO_{3-\delta}$ (Nagoya Institute of Technology) ○Shiro Shirakawa・Isao Kagomiya・Ken-ichi Kakimoto

1PA03 Preparation and crystal structure of Ba_4GaN_3O (Tohoku University) Takayuki Hashimoto・Haruhiko Morito・○Hisanori Yamane

1PA04 Synthesis lithium niobate-type oxynitiride, $(1-x)Mn_4Ta_2O_9$-xMnTaO$_2$N (Tokai University) ○Chizuru Ohba・Atsushi Takeda・Tetsuhiro Katsumata・(Gakushuin Univ.) Akihisa Aimi・Daisuke Mori・Yoshiyuki Inaguma

1PA05 Crystal structure, superconductivity and magnetism in $Fe_{1-x}Sr_2YCu_{2+x}O_{6+\delta}$ solid solution (NIMS) ○Takashi Mochiku・(National Defense Academy) Yoshiaki Hata・(Ibaraki University) Akinori Hoshikawa・Toru Ishigaki・(National Defense Academy) Hiroshi Yasuoka・(NIMS) Kazuto Hirata

1PA06 Preparation and Characterization of $Ca_{1-x}Sr_xZnOS$ (Utsunomiya University) ○Keitaro Tezuka・Hiroaki Kinoshita・Yue Jin Shan

1PA07 Synthesis of new magnesium nitride in high pressure and temperature (Nagoya University) ○Ginji Sugiura・Ken Niwa・Yuichi Shirako・Masashi Hasegawa・(KEK) Takumi Kikegawa

1PA08 Crystal structures and crystallographic domain structures in the perovskite-type manganites (Nagoya Institute of Technology) ○Momoko Okabe・Toru Asaka・Koichiro Fukuda

1PA09 Synthesis and characterization of $ACu_3B_2Te_2O_{12}$ (A = Ca, Sr and B = Ca, Mg) (Utsunomiya University) ○Yukihiro Habe・Yue Jin Shan・Keitaro Tezuka

1PA10 Synthesis and Crystal Structure of Novel Bismuthate Including Bi^{5+} by Hydrothermal Reaction (University of Yamanashi) ○Ayumi Nakamura・Akira Miura・Takahiro Takei・Nobuhiro Kumada

1PA11 Optical Properties of $LaTiO_2N$ prepared by thermal ammonolysis method using urea or thiourea as co-nitriding agents (The University of Tokushima) ○Narendra Sarda・Minami Omune・Takanori Hayashi・Satoshi Kataoka・Kei-ichiro Murai・Toshihiro Moriga・(The University of Auckland) Geoffrey Waterhouse

1PA12 Synthesis of TiO_2-ReO_2 solid solution for improvement of photocatalytic properties (The Univercity of Nagoya) ○Yuichi Aki・Yuichi Shirako・Ken Niwa・Masashi Hasegawa

Crystal Science

1PB01 Growth of $CuInS_2$ crystals from a Mixed Chloride Flux (Shinshu University) ○Katusya Teshima・Kosuke Shimizu・Hajime Wagata・Nobuyuki Zettsu・Shuji Oishi

1PB02 Flux Growth of $LiNi_{0.5}Mn_{1.5}O_4$ Crystals and Their Electrochemical Properties (Shinshu University) ○Satoru Kida・(Shinshu University・CREST, Japan

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

Science and Technology Agency）Nobuyuki Zettsu・Hajime Wagata・Katsuya Teshima・（Shinshu University）Shuji Oishi

1PB03 Fabrication of ordered $LiNi_{0.5}Mn_{1.5}O_4$ crystal layers by flux coating approaches（Shinshu University・JST-CREST）○Nobuyuki Zettsu・（Shinshu University）Yuya Miyashita・（JST-CREST・DENSO CORPORATION）Shigeki Komine・ayaka Suzuki・Kenichiro Kami・（Shinshu University・JST-CREST）Hajime Wagata・（Shinshu University）Shuji Oishi・（Shinshu University・JST-CREST）Katsuya Teshima

1PB04 Phase Stability in Non-stoichiometric $LiNi_{0.5}Mn_{1.5}O_{4-\delta}$ using *Ab initio* DFT Calculations（Shinshu University・JST-CREST）○Hiromasa Shiiba・Nobuyuki Zettsu・（Nagoya Institute of Technology）Masanobu Nakayama・（Shinshu University）Shuji Oishi・（Shinshu University・JST-CREST）Katsuya Teshima

1PB05 Gel Fabrication of Hydroxyapatite Crystals / Collagen Composite（Shinshu Unviersity）○Hajime Wagata・Makoto Sawadaishi・Nobuyuki Zettsu・Shuji Oishi・Katsuya Teshima

1PB06 Fluoride flux growth of silicate-based rare-earth phosphors and their luminescence properties（Shinshu University）○Noriyuki Naruse・Nobuyuki Zettsu・Shuji Oishi・Katsuya Teshima

1PB07 Crystal growth of C12A7 electride by Bridgman method（University of Yamanashi）○Mizuki Yamada・Masanori Nagao・Satoshi Watauchi・Isao Tanaka

1PB08 Flux Growth of $LiCoO_2$ Crystals in Li_3BO_3—based Crystallized Grass Electrolytes and Their Interfaces Formation（Shinshu University）○Yusuke Mizuno・Nobuyuki Zettsu・（Toyota Motor Corporation）Takuya Sakaguchi・Toshiya Saito・（Shinshu University）Hajime Wagata・Shuji Oishi・Katsuya Teshima

1PB09 Determination of Product Phases during Cooling $Li_xLa_{(1-x)/3}NbO_3$ Melt（University of Yamanashi）○Risa Yoshihara・Chie Nakazawa・Masanori Nagao・Satoshi Watauchi・Isao Tanaka

1PB10 Structure refinement and single crystal growth of layered titanate $K_{0.8}Fe_{0.8}Ti_{1.2}O_4$（Tokyo University of Science）○Akifumi Suzuki・Kenjiro Fujimoto・Yuki Yamaguchi

1PB11 Determination of Product Phases during Cooling $KGd_{1-x}Nd_xW_2O_8$ Melt（University of Yamanashi）○Kouki Kubota・Masanori Nagao・Satoshi Watauchi・Isao Tanaka

1PB12 Low temperature synthesis of tungstates in water vapor atmosphere（Kochi University）○Yushi Qiu・Ayumu Onda・Kazumichi Yanagisawa

1PB13 Synthesis and characterization of MgF_2- and NaF-doped MgB_2 superconductors（University of Yamanashi）○Natsuumi Takahashi・Masanori Nagao・Satoshi Watauchi・Isao Tanaka

1PB14 Effect of hydrothermal conditions on formation of chalcopyrite（Kochi University）○Akane Uehara・Ayumu Onda・Kazumichi Yanagisawa

Hybrid Materials for Next Generation

1PE01 Synthesis and luminescence enhancement of Eu^{3+}, Sm^{3+} co-doped Li-Ta-Ti-O phosphor（Toyohashi University of Technorogy）○Shohei Furuya・Hiromi Nakano・（Nagoya Institute of Technology）Koichiro Fukuda・（DENKI KAGAKU KOGYO KABUSHIKI KAISHA）Suzuya Yamada

1PE02 Clogging of pores of mesoporous silica nanoparticles by the addition of alkoxysilane（Waseda University）Kenta Onishi・○Kouya Nagata・Chihiro Urata・Mitsumasa Homma・Shinji Takeoka・Atsushi Shimojima・Kazuyuki Kuroda

1PE03 Preparation of ultrathin hydrogel layre formed on CO_2 separation membrane by reactive LbL process（University of Hyogo）○Masatoshi Munenaga・Atsushi Mineshige・Shin-ichi Yusa・Tetsuo Yazawa・（Nagoya Institute of Technology）Yusuke Daiko

1PE04 Sol-gel synthesis of polysilsesquioxane containing ether side-chains（Kagoshima University）○Akito Nagatomo・（Hiroshima University）Toshiaki Enoki・Joji Ohshita・（Kagoshima University）Yoshiro Kaneko

1PE05 Photocatalytic Property of Au-TiO_2 photocatalyst under Simultaneous Irradiation of UV and Visible Light（Toyohashi University of Technology）○Teruhisa Okuno・Go Kawamura・Hiroyuki Muto・Atsunori Matsuda

1PE06 Development of Transparent Barium Titanate Nano Particles/Polymer Hybrid Bulk Materials（Fukuoka Industrial Technology Center）○Masashi Arimura・Koichi Suematsu・Naoyuki Uchiyama・Shingo Saita・Teruhisa Makino

1PE07 Development of $BaTiO_3$ nano-particles / polymer composite dielectric thin-film using the ink-jet technique（Fukuoka Industrial Technology Centor）○Koichi Suematsu・Masashi Arimura・Shingo Saita・Naoyuki Uchiyama・Teruhisa Makino

1PE08 Preparation and Evaluation of $BaTiO_3$/polymer hybrid Fibers by Electrospinning（University of Tsukuba）○Tasuku Kawashima・Ryosuke Maki・Yoshikazu Suzuki

Soft-solution process for synthesis and fabrication of ceramics

1PF01 Formed phase analysis and electrical conductivity of lanthanum germanate oxyapatite（Tokyo University of Science）○Yukihito Igarashi・（NIMS・Tokyo University of Science）Kiyoshi Kobayashi・（Tokyo University of Science）Tohru Higuchi・（NIMS）Yoshio Sakka

1PF02 Influence of pH and ultrasonic treatment on preparation of titanium phosphate white pigment（Kyoto Prefectural University）○Syohei Fujikado・Hiroaki Onoda

1PF03 Hydrothermal synthesis of $Bi_{12}TiO_{20}$ particles using various titanium source particles（Chiba University）○Kiwamu Sata・Takashi Kojima・Naofumi Uekawa・Kazuyuki Kakegawa

1PF04 Oriented Deposition of ZnO Nano Particles on ZnO Single Crystal Substrate in Ethylene Glycol Solvent（NIMS）○Noriko Saito・Isao Sakaguchi・Hajime Haneda

1PF05 Fabrication of highly sinterable powder of lanthanum silicate oxyapatite by a water-based wet process（Hosei university）○Kenya Hirai・Takaya Akashi・（NIMS）Kiyoshi Kobayashi・Yoshio Sakka

1PF06 Purification of natural silica sand using an aqueous solution process（University of Tsukuba）○Yoshikazu Suzuki・（NIMS）Masatomo Sumiya

1PF07 Characterization of Zinc Oxide thin films prepared by mild solution synthesis（Tohoku University）○Saki Fukui・Qiong Dong・Shu Yin・Tsugio Sato

1PF08 Effect of various additives on hydrothermal synthesis of aluminum doped zinc oxide（Gifu University）○Sumire Mizuno・（Gifu Pref. Ceram. Res. Inst.）Seizo Obata・（Gifu University）Michiyuki Yoshida・Osamu Sakurada・（KAWAI LIME INDUSTRY CO., LTD.）Kenji Kido

1PF09 Preparation of porous titania particles supporting Ag nanoparticles.（Chiba University）○Yuji Tahara・Takashi Kojima・Naofumi Uekawa・Kazuyuki Kakegawa

Chemical process- Key processes for fabrication of novel functional materials-

1PG01 Morphological control of TiO_2(B) Particles and Their Electrochemical Properties as an Anode Material in the Lithium-Ion Battery（Saga University）○Yukari Kimura・Karako Kadota・Yasuyuki Huruya・Hideyuki Noguchi・Yuko Inoue・Toshio Torikai・Takanori Watari・Mitsunori Yada

1PG02 Hydrogen adsorption-desorption property of Cu-doped amorphous aluminosilicate.（Nagoya Institute of Technology）○Keisuke Nauchi・Yusuke Daiko・Sawao Honda・Yuji Iwamoto

Novel Functional Ceramics derived from Nanocrystals

1PI01 Preparation of $KNbO_3$ Porous Ceramics by Solvothermal Solidification Method（The University of Yamanashi）○Kazuki Fukasawa・Shintaro Ueno・Kouichi Nakashima・Satoshi Wada

1PI02 Fabrication of $KNbO_3/BaTiO_3$ Ferroelectric Ceramics with Multi-Layered Structure by Solvothermal Soldification Method（University of Yamanashi）○Yuichi Endo・Shintaro Ueno・Kouichi Nakashima・Satoshi Wada

1PI03 Producing the ceramics complex three dimensional structure by using the two photons polymerization（Nagaoka University of Technology）○Hiroyuki Akiyama・Tadachika Nakayama・Hisayuki Suematsu・Tsuneo Suzuki・Tsutomu Takahashi・Noboru Yamada・Yumiko Yoshitake・Koichi Niihara

1PI04 Size and Structure Development of Barium Titanate Nanocubes During the Hydrothermal Process（National Institute of Advanced Industrial Science and Technology）Qiang Ma・Ken-ichi Mimura・Kazumi Kato

1PI05 Microwave synthesis of potassium niobate nanocubes（University of Yamanashi）○Kouichi Nakashima・Kenta Oshima・Shintaro Ueno・Satoshi Wada

1PI06 Preparation of $LaNiO_3$ Conductive Particles Covered by Insulator Oxide Layers（University of Yamanashi）○Yasunao Sakamoto・Shintaro Ueno・Hideto Kawashima・Kouichi Nakashima・Satoshi Wada

1PI07 Synthesis of Sodium Niobate by Solvothermal Method Using the Microwave Heating（Univertisty of yamanashi）○Kenta Ohshima・Kouichi Nakashima・Shintaro Ueno・Satoshi Wada

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

1PJ01 Preparation of $(KNaLi)NbO_3$-$BaZrO_3$-$(BiNa)TiO_3$ -based Thick Films by Screen Printing（Toyama Industrial Technology Center）○Yuichi Sakai・Tomoaki Futakuchi・（Toyama Prefectural University）Tomoaki Karaki・Masatoshi Adachi

1PJ02 Synthesis and characterization of low melting point oxide-added $(K,Na)NbO_3$ thin films（Nagoya University）○Mitsunori Iwata・Koichiro Hyashi・Wataru Sakamoto・Toshinobu Yogo・（National Institute of Advanced Industrial Science and Technology）Takashi Iijima・（Waseda University）Isamu Yuitoo・Teruaki Takeuchi

1PJ03 Fabrication of one-axis oriented bismuth ferrite thin film on metal substrate using metal oxide nanosheets（Sophia University）○Kohei Nagasaka・Hiroshi Uchida・（National Defence Academy of Japan）Kim Jin Woong・Hiromi Shima・Ken Nishida・（Tokyo Institute of Technology）Naoya Oshima・Hiroshi Funakubo

1PJ04 Growth and Magnetic Properties of Meta-stable $In_{2-x}Fe_xO_3$ Thin Films by PLD（Tokyo Institute of Technology）○Yousuke Hamasaki・Takao Shimizu・Shintaro Yasui・Tomoyasu Taniyama・Mitsuru Itoh

1PJ05 Synthesis and characterization of barium titanate—poly-L-lactic acid free-standing films（Kyushu Institute of Technology）○Hirokazu Shimooka・Shigemi Kohiki・（University of Tokyo・Kyushu University）Makoto Kuwabara

1PJ06 Dependence of Piezoelectric Property of BT-BMT-BF Ceramics on Starting Materials（University of Yamanashi）○Ryo Iizuka・Shintaro Ueno・Kouichi Nakashima・Satoshi Wada・（Ryukoku University）Ichiro Fujii

1PJ07 Effects of Ca Substitution on the Piezoelectric Properties of $BaTiO_3$ Single Crystals（The University of Tokyo）○Ryota Imura・Yuuki Kitanaka・Takeshi Oguchi・Yuji Noguchi・Masaru Miyayama

1PJ08 Dependence of Dielectric Properties of DC-bias-free BST-BMT-NN System Ceramics on Their Chemical Compositions（University of Yamanashi）○Haruki Maruyama・Shintaro Ueno・Kouichi Nakashima・Satoshi Wada

1PJ09 Enhancement in Dielectric Property of Paraelectrics/Ferroelectrics Nanocomplex Ceramics with Three-Dimensionally-Connected Structure Gradient Region（The University of Yamanashi）○Hideto Kawashima・Shintaro Ueno・Kouichi Nakashima・Satoshi Wasa・（The University of Hiroshima）Eisuke Magome・Chikako Moriyoshi・Yoshihiro Kuroiwa

1PJ10 Fabrication of $KNbO_3$ Nanocomposite Ceramics and Interface-Structure Dependence of Their Dielectric Properties（University of Yamanashi）○Yoshinobu Hirose・Shintaro Ueno・Kouichi Nakashima・Satoshi Wada

1PJ11 Effect of Mn doping to lead-free $NaNbO_3$-based piezoelectric ceramics（Nagoya University）○Tatsuro Murata・Koichiro Hayashi・Wataru Sakamoto・Toshinobu Yogo

1PJ12 Crystal structure analysis of $NaNbO_3$ synthesized by molten salt method.（Nagoya institute of technology）○Soichi Banno・Rintaro Aoyagi・Koichiro Fukuda

1PJ13 Grain-size Effect on Piezoelectric Properties of $BiFeO_3$-$BaTiO_3$ Ceramics（Keio University）○Yui Sudo・Manabu Hagiwara・Shinobu Fujihara

1PJ14 Crystallization of $BiFeO_3$ phase and its electric property in borosilicate system glasses（Tohoku University）○Teppei Takahashi・Yoshihiro Takahashi・Nobuaki Terakado・Takumi Fujiwara

1PJ15 Effects of element substitution on the ferroelectric phase transition of $Ca_8[Al_{12}O_{24}](WO_4)_2$ stuffed sodalite（Nagoya University）○Y. Maeda・R. Okazaki, I. Terasaki, and H. Taniguchi

1PJ16 *Ab-initio* Study on Face Azimuth Dependency of Surface Energy and Structure in Ferroelectric $PbTiO_3$（Nagoya University）○Yosuke Takagi・（Nagoya University・JST-PRESTO）Tomoaki Yamada・（Nagoya University）Masahito Yoshino・Takanori Nagasaki

1PJ17 Design and Fabrication of Matching Layer in Pb-free Ultrasonic Flowmeter（Tokyo Institute of Technology）○Mei Hotate・Daichi Yoshidome・Takahiro Kojima・Takuya Hoshina・Hiroaki Takeda・Takaaki Tsurumi

1PJ18 Development of Microscopic Measurement System for Electro-Optic Effect（Tokyo Institute of Technology）○Ryuta Yamamoto・Takuya Hoshina・Hiroaki Takeda・Takaaki Tsurumi

1PJ19 Electrical-field induced strain measurement by laser doppler vibrometer（Nagoya Institute of Tehnology）○Kenji Ogo・Ken-ichi Kakimoto

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

1PO01 Effect of copper ion on the osteoblast proliferation and its application to bone-graft substitute material（Okayama University）○Toshiisa Konishi・Tomohiko Yoshioka・Satoshi Hayakawa

1PO02 Evaluation of Zn-containing apatite cement in bone metabolism environment（Nihon University）○Tomohiro Uchino・Koho Abe

1PO03 Calcium phosphate formation on polyether ether ketone by a laser-assisted biomimetic process（National Institute of Advanced Industrial Science and Technology (AIST)）○Ayako Oyane・Ikuko Sakamaki・Maki Nakamura・（National Institute of Advanced Industrial Science and Technology (AIST)・Hokkaido University）Naoto Koshizaki

The technique and new development of ceramics materials useful for various environmental problems

1PQ01 Direct NO Decomposition Catalysis on Cubic Fluorite-type Rare Earth Oxides（Osaka University）○Ryosuke Nagai・Toshiyuki Masui・Nobuhito Imanaka

1PQ02 Oxidative catalytic properties of plate-like zeolites dispersed ceria nanoparticles（Industrial Technology Center of Tochigi Prefecture）○Sakae Kato・Takeshi Kaneda・（Yoshizawa Lime Industry Co.,Ltd.）Ken Tsurunaga・Tatsuya Okamura・Norihiro Kobayashi・（Industrial Technology Center of Tochigi Prefecture）Taiji Matsumoto

1PQ03 Exchange of carbonate ion between layered double hydroxide and ambient air（NIMS）Shinsuke Ishihara・○Nobuo Iyi・Shigeru Suehara

1PQ04 On-site determination of fluoride in gypsums based on binary color reaction（National Institute of Technology, Toyama）○Yuma Motira・Takeshi Toshima・Atsushi Manaka・Masamoto Tafu

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

1PQ05 Changing morphology of brushite crystals by process-controlling in aquarium solution synthesis（National Institute of Technology, Toyama）Saya Fujita・○Takeshi Toshima・Masamoto Tafu・Yuka Takemura・Saori Takamatsu・（Kyushu Institute of Technology）Ryo Hamai・（Tohoku University）Taishi Yokoi・（Hokkaido University）Satoshi Tanda・（Northeastern University）Song Li・Gaowu Qin

Research Topics on Advanced Ceramic Technology for Energy Conversion, Storage and Control Devices

1PR01 Thermoelectric properties of Sr doped $CaMnO_3$ ceramics（The University of Chiba）○Toshiaki Sawada・Shin Nishiyama

1PR02 Study on transport properties for a cathode material of lithium ion batteries（DENSO CORPORATION）○Yuta Shimonishi・Shigeki Komine・（TOKYO CITY UNIVERSITY）Syoko Iwasaki・Fumio Munakata

1PR03 Characterization of Thin Film Electrolyte for Low-Temperature Solid Oxide Fuel Cell（The University of Gifu）○Tsukasa Suzuki・（National Institute of Advanced Industrial Science and Technology）Toshio Suzuki・Shin Woosuck・Hirofumi Sumi・Yoshinobu Fujishiro

1PR04 Influence of Al substitution on the property of garnet related $Li_{6.5}La_3Zr_{1.5}Ta_{0.5}O_{12}$ solid electrolyte（Toyohasihi University of Technology）○Koji Kusakabe・Takayuki Okada・Tomohiro Tojo・Ryoji Inada・Yoji Sakurai

1PR05 Preparation and ionic conductivity of Na_2S-P_2S_5 solid electrolyte thin films using PLD（Osaka Prefecture University）○Yusuke Ito・Akitoshi Hayashi・Masahiro Tatsumisago

1PR06 Fabrication and evaluation of composite thick film electrodes composed of active material and solid electrolyte by aerosol deposition method（Toyohashi University of Technology）○Chiaki Masada・Masaru Tojo・Ryo Konishi・Yu Yamashita・Tomohiro Tojo・Ryoji Inada・Yoji Sakurai

1PR07 Lithium-ion conductivity for sol-gel derived (La, Li)TiO_3 film（The University of Okayama）○Yuki Ishii・Takashi Teranishi・Hidetaka Hayashi・Akira Kishimoto

1PR08 Effect of electrode property by carbon coating to $Li_2FeP_2O_7$ fine particles（Tokyo University of Science）○Akihiro Mori・Yuki Yamaguchi・Sigeru Ito・Kenjiro Hujimoto

1PR09 Synthesis and characterization of perovskite-type lithium-ion conductor $Li_{3/8}Sr_{7/16}Ta_{3/4}Zr_{1/4}O_3$（Toyohasi University of Technology）○Keisuke Kimura・Tomohiro Tojo・Ryouji Inada・Youji Sakurai

1PR10 Crystal structures and phase stability for $Sr_{1-y}Ti_{1-x}Ta_xO_3$ perovskites ($0 \le x \le 0.2$, $0 \le y \le 0.1$)（Central Research Institute of Electric Power Industry）○Masashi Mori・（The University of Tokushima）Yutaro Nomura・Maki Fujikawa・Toshihiro Moriga

1PR11 Cycle analysis of energy efficiency for the methanation system using co-electrolysis by SOEC（Yokohama National University）○Tatsuya Mizusawa・Takuto Araki・（Central Research Institute of Electric Power Industry）Masashi Mori・（National Institute of Advanced Industrial Science and Technology）Toshiaki Yamaguchi・Yoshinobu Fujishiro

1PR12 The influence of B-site substitution by transition metal element in the perovskite-type $SrTiO_3$（The University of Tokushima）○Yutaro Nomura・Masaki Fujikawa・Hiroki Ishikawa・Kei-ichiro Murai・Toshihiro Moriga・（Central Research Institute of Electric Power Industry）Masashi Mori

1PR13 Development of energy-carrier synthesis technologies with co-electrolysis cell（National Institute of Advanced Industrial Science and Technology・JST, CREST）○Hiroyuki Shimada・Toshiaki Yamaguchi・Unhi Honda・Yoshinobu Fujishiro

1PR15 Preparation and electrode property of oriented Nd_2NiO_4 cathode for low temperature solid oxide fuel cell（Kumamoto University）○Atsufumi Murata・Toshiyuki Koduka・Motohide Matsuda・（NIMS）Tetsuo Uchikoshi・Tohru Suzuki・Yoshio Sakka

1PR16 Cation diffusion behavior in LSCF/GDC/YSZ multilayers（AIST）Katherine Develos-Bagarinao・Peiling Lv・Jeffrey de Vero・Haruo Kishimoto・Katsuhiko Yamaji・Teruhisa Horita・（The University of Tokyo）Harumi Yokokawa

1PR17 Degradation of LSCF cathode performance by exposure to chromium and sulfur gas under SOFC operating condition（National Institute of Advanced Industrial Science and Technology）○Do-Hyung Cho・Peiling Lv・Haruo Kishimoto・Katherine Develos-Bagarinao・Katsuhiko Yamaji・Teruhisa Horita・（The University of Tokyo）Harumi Yokokawa

Advances in Powder Processing to control microstructure of materials

1PS01 Fabrication and mechanical properties of alumina-coated CNTs/alumina composites（Shinshu University）○Ayaka Suzuki・Yoshio Arai・Naoki Ueda・Tomohiko Yamakami・Tomohiro Yamaguchi・Seiichi Taruta

1PS02 Fabrication of Si_3N_4 ceramics using Si-Y_2O_3-Al_2O_3 nanocomposite particles prepared by mechanical treatment（Yokohama National University）○Kwangjin Jeong・Junichi Tatami・Motoyuki Iijima・（Kanagawa Academy of Science and Technology）Takumi Takahashi

1PS03 Synthesis of hollow-willemite particles for ceramic/polymer dielectric composite in high frequency（Meijo University）○Susumu Takahashi・（National Insitute of Advanced Industrial Science and Technology）Yusuke Imai・（Meijo University）Akinori Kan・（National Insitute of Advanced Industrial Science and Technology）Yuji Hotta・（Meijo University）Hirotaka Ogawa

1PS04 Synthesis of coarser h-BN particles from B_4C（Yokohama National University）○Midori Sotokawa・Junichi Tatami・Motoyuki Iijima・（Denki Kagaku Kougyou K.K）Junichi Susaki・Suzuya Yamada・Hideki Hiroturu

1PS05 Fabrication of rod-like β-Si_3N_4 particles by gas pressure sintering followed by rinsing away added sintering aids（Yokohama National University）○Nanako Sugimoto・Junichi Tatami・Motoyuki Iijima・（Kanagawa Academy of Science and Technology）Takuma Takahashi

■■ September 9 (Tue) (Room Q) ■■

The technique and new development of ceramics materials useful for various environmental problems

（9：00）（Chairman 亀島欣一）

1Q01 ◆Research on materials relative to the environment in ceramic field（Okayama University）○Michihiro Miyake

ゼオライト

1Q02 Synthesis of zeolite from perlite by hydrothermal treatment（MITSUI MINING & SMELTING CO., LTD.・Osaka Prefecture University）○Makoto Kasai・（MITSUI MINING & SMELTING CO., LTD.）Yosei Kobayashi・（Osaka Prefecture University）Atsushi Nakahira・（MAKINO CORPORATION）Masataka Kamitani・Mitsunori Kondo・Tomonori Hiki

1Q03 Fablication of c-axis oriented zeolite L film（Kumamoto University）○Shohei Nishida・Motohide Matsuda

1Q04 Synthesis and characterization of zeolite at the surface of waste LCD panel glass（Sharp Corporation）○Masato Tsujiguchi・Tadashi Kobashi・Yasuhiko Utsumi・Nobuaki Kakimori・（Osaka Prefecture University）Atsushi Nakahira

触媒

1Q05 Preparation and NO reduction property of Ca, Sr-containing apatite-type phosphate supported Pt catalysts（Akita University）○Sumio Kato・Yuki Sato・Masataka Ogasawara

触媒

（10：40）（Chairman 武井貴弘）

1Q06 Development of biogas reforming catalysts using lanthanum-gallate-based perovskite compounds（okayama university）○Kazuhito Iwamoto・Yoshikazu

Kamesima・Shunsuke Nishimoto・Michihiro Miyake

1Q07 Properties of stable chromium (VI) oxide quantum dots in silica matrix and application to a new type of catalyst（Tokyo Metropolitan Industrial Technology Research Institute）○Shouichi Somekawa・Hiroto Watanabe・（Keio University）Yuya Oaki・Hiroaki Imai

1Q08 Influence of particle morphology on soot oxidation activity of cerium oxide based catalyst and dynamic behavior of active oxygen species（Nagoya Institute of Technology）Rikiya Taguchi・Masatomo Hattori・○Masaaki Haneda

1Q09 Local structure analysis of zirconia-system composite consist of Zr-O material（Okayama University）○Yoshikazu Kameshima・Shunsuke Nishimoto・Michihiro Miyake

水浄化

（14：20）（Chairman 亀島欣一）

1Q17 ☆Application of nitrate ion-sieve adsorbent to water recycling technology（Chiba Institute of Science）○Satoko Tezuka

1Q18 Evaluation of ability to remove fluoride ion of carbonated hydroxyapatite（Tohoku University）○Sota Terasaka・Taishi Yokoi・Masanobu Kamitakahara・Hideaki Matsubara

合成

（15：00）（Chairman 橋本忍）

1Q19 Synthesis of alkali metal palladates exhibiting rapid dissolution in hydrochloric acid（National Institute of Advanced Industrial Science and Technology (AIST)）○Ryo Kasuya・Takeshi Miki・Hisashi Morikawa・Yutaka Tai

1Q20 Synthesis of Porous Strontium Titanate Particles by Hydrothermal Conversion of Hydrous Titania（Chiba University）○Kosuke Ota・Takashi Kojima・Naofumi Uekawa・Kazuyuki Kakegawa

1Q21 Novel Environmentally Friendly Inorganic Red Pigments Based on $Bi_4V_2O_{11}$（Osaka University）○Wendusu・Toshiyuki Masui・Nobuhito Imanaka

無機層状物質

（16：00）（Chairman 磯部敏宏）

1Q22 Temperature Evolution of Crystal Structure of Mg-Al-type Layered Double Hydrooxide（Hiroshima University）○Chikako Moriyoshi・（Shimane University）Eisaku Nii・（Hiroshima University）Hirokazu Hoashi・Yoshihiro Kuroiwa・（Shimane University）Ryo Sasai

1Q23 Characterization of Anion-Exchange Property of Layered Double Hydroxide Consisting of Li and Al（Shimane University）○Ryo Sasai・Eisaku Nii・M. Kubota・（Hiroshima University）Hirokazu Hoashi・Chikako Moriyoshi・Yoshihiro Kuroiwa

1Q24 Analysis of the anion-exchange reaction process of the layered double hydroxide of Al and Ni.（The University of Shimane）○Eisaku Nii・Ryo Sasai・（The University of Hiroshima）Hirokazu Hoashi・Tikako Moriyoshi・Yoshihiro Kuroiwa

1Q25 Thermal behavior of halogen ions in Ni-Al type layered double hydroxide（Hiroshima University）○Hirokazu Hoashi・（Shimane University）Eisaku Nii・（Hiroshima University）Chikako Moriyosi・Yoshihiro Kuroiwa・（Shimane University）Ryo Sasai

無機層状物質

（17：20）（Chairman 笹井亮）

1Q26 ☆A unique complex formation behavior of nano-layered materials（Tokyo Metropolitan University）○Shinsuke Takagi・（Hokkaido University）Yohei Ishida,・（Tokyo Metropolitan University）Tetsuya Shimada

■■ September 9 (Tue) (Room R) ■■

Research Topics on Advanced Ceramic Technology for Energy Conversion, Storage and Control Devices

蓄電池

（9：00）（Chairman 林晃敏）

1R01 Degradation mechanism by the reaction among garnet-type oxide $Li_7La_3Zr_2O_{12}$, CO_2 and H_2O.（Nagoya Inst. of Technology）○Takuya Horie・（Nagoya Inst. of Technology・The University of Kyoto ESCIB・JST-PRESTO）Masanobu Nakayama・（MITSUBISHI GAS CHEMICAL COMPANY,INC.）Genki Nogami・（Nagoya Inst. of Technology）Toshihiro Kasuga

1R02 Study on electrochemical characterization and synthesis of garnet-type $Li_{7-x}La_3Zr_{2-x}Ta_xO_{12}$ solid electrolyte（National Institute of Advanced Industrial Science and Technology）○Naoki Hamao・Kunimitsu Kataoka・Norihito Kijima・Junji Akimoto

1R03 Development of composite electrode based on $LiNi_{1/3}Co_{1/3}Mn_{1/3}O_2$ and Li_2S-P_2S_5 solid electrolytes（National Institute of Advanced Industrial Science and Technology）○Atsushi Sakuda・Tomonari Takeuchi・Hironori Kobayashi

蓄電池

（10：00）（Chairman 今西誠之）

1R04 Crystallization of Li_3BO_3-Li_2SO_4 glass electrolytes prepared by a mechanochemical technique（Osaka Prefecture University）○Akitoshi Hayashi・Ryohei Takano・Kenji Nagao・（Hokkaido University）Kiyoharu Tadanaga・（Osaka Prefecture University）Masahiro Tatsumisago

1R05 Development of All-Solid-State Lithium-Ion Rechargeable Batteries with LATP Ceramic Electrolyte Sheets（National Institute of Advanced Industrial Science and Technology）○Koichi Hamamoto・Hiroyuki Shimada・Hirofumi Sumi・Toshiaki Yamaguchi・Toshio Suzuki・Yoshinobu Fujishiro

1R06 Cathode property of $(La,Sr)(Co,Fe,Ti)O_3$ perovskite compound for metal-air battery（Kumamoto University）○Yoshiki Iwashita・（Kumamoto Industrial Research Institute）Yoshiro Ohgi・（Kumamoto University）Kohei Tanabe・Motohide Matsuda

1R07 ★Development of ceramic technology for new generation batteries（Tokyo Metropolitan University）○Kiyoshi Kanamura

蓄電池

（14：20）（Chairman 秋本順二）

1R17 Electrochemical operando soft X-ray emission spectroscopy of $LiMn_2O_4$ electrode in an aqueous electrolyte（National Institute of Advanced Industrial Science and Technology）○Eiji Hosono・Daisuke Asakura・（The University of Tokyo）Hideharu Niwa・Hisao Kiuchi・Jun Miyawaki・（National Institute of Advanced Industrial Science and Technology）Yusuke Nanba・Masashi Okubo・Hirofumi Matsuda・Haoshen Zhou・（The University of Tokyo）Masaharu Oshima・Yoshihisa Harada

1R18 First principles calculations of solid solution states and electrode properties in $LiNi_{0.5}Mn_{1.5}O_4$ spinel cathode（JFCC）○Akihide Kuwabara・Craig Fisher・Yumi Ikuhara・Hiroki Moriwake・（Toyota Motor Corporation）Keiichi Kohama・（The University of Tokyo・JFCC）Yuichi Ikuhara

1R19 Cathode performance of Pyroxene Type $Li(Fe, Ni, Co)Si_2O_6$ and Crystal Structure（Tokyo University of Science）○Kazumasa Sakatsume・Naoya Ishida・Naoto Kitamura・Yasushi Idemoto

1R20 Investigation on the charge-discharge reaction mechanism of Ni-substituted $LiCuO_2$ positive electrode for Li-ion battery（The University of Kansai）○Shohei Mitsui・Tomoyuki Ide・Yoshinori Arachi

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

蓄電池

(15：40) (Chairman 桑原彰秀)

1R21 The coarsening of $LiCoO_2$ crystal particles by flux method and the electrochemical properties.（kansai university）○Naoto Katada・Naoto Katada

1R22 Synthesis and characterization of spinel-type $LiCoMnO_4$ single-crystal particles as 5V cathode materials（National Institute of Advanced Industrial Science and Technology・Tokyo University of Science）○Yuki Hamada・（National Institute of Advanced Industrial Science and Technology）Kunimitsu Kataoka・（Tokyo University of Science）Naoya Ishida・Yasushi Idemoto・（National Institute of Advanced Industrial Science and Technology）Junji Akimoto

1R23 All-solid-state lithium secondary batteries using $LiNi_{0.5}Mn_{1.5}O_4$ coated with lithium phosphate thin films（Osaka Prefecture University）○So Yubuchi・Yusuke Ito・Takuya Matsuyama・Akitoshi Hayashi・Masahiro Tatsumisago

蓄電池

(16：40) (Chairman 濱本孝一)

1R24 Application of Li-rich cathode materials to all-solid-state rechargeable lithium batteries（Tokyo Metropolitan University）○Jungo Wakasugi・Keisuke Ando・Mao Shoji・Hirokazu Munakata・Kiyoshi Kanamura

1R25 Synthesis of inorganic titanate by impregnation of inorganic salts into porous titanium hydroxide（National Institute of Advanced Industrial Science and Technology）○Hideaki Nagai・Kunimitsu Kataoka・Junji Akimoto・（Ishihara Sangyo Kaisha）Tomoyuki Sotokawa・Yoshimasa Kumashiro

1R26 Synthesis and characterization of Ca_xSi_2(x＜1) fine particles derived from $CaSi_2$ by solid-state exfoliation reaction（Toyota Central R&D Labs., Inc.）○Haruo Imagawa・Song-Yul Oh・Hiroshi Itahara

■■ September 9 (Tue) (Room S) ■■

Advances in Powder Processing to control microstructure of materials

基調講演：材料組織・構造制御のための粉体プロセス

(14：40) (Chairman 内藤牧夫)

1S18 ◆Understanding of Microstructure Development in Ceramic Powder Processing（Kagoshima University）○Yoshihiro Hirata

粉体の複合構造制御

(15：40) (Chairman 目義雄)

1S21 ★Low Temperature Oxidation of Diesel Particulate Matter on Pr_6O_{11} coated with CeO_2（International Institute for Carbon Neutral Energy Research, Kyushu University）○Tatsumi Ishihara・（Faculty of Engineering, Kyushu University）Seiji Hamamoto・Koji Ogawa・Hidehisa Hagiwara・Shintaro Ida

(16：20) (Chairman 鮫島宗一郎)

1S23 One-step mechanical synthesis of $LiCoO_2$ using Li_2O powder and its characterization（Osaka University）○Eri Nakamura・Akira Kondo・Takahiro Kozawa・Mitsuaki Matsuoka・Hiroya Abe・Makio Naito・（Toyota Motor Corporation）Hideyuki Koga・Shinji Nakanishi・Hideki Iba

1S24 Synthesis and Characterization of NiO-ScSZ Nanocomposite for SOFCs Anode by Multicomponent Co-Precipitation（Osaka University Joining and Welding Research Institute）○Nobuhiro Kai・Kazuo Kuruma・Akira Kondo・Hiroya Abe・Makio Naito

1S25 Continuous synthesis of nickel-hydroxyapatite composite catalyst particles by a fluidized bed（Kagoshima University）○Tsutomu Nakazato・Tetsuya Hoshino・Takami Kai

■■ September 10 (Wed) (Room A) ■■

Frontiers of structural science and the development of novel materials

(9：00) (Chairman 森賀俊広)

2A01 ★New Material by Single Particle Diagnosis Approach（NIMS）○Takashi Takeda・Naoto Hirosaki・Shiro Funahashi・Rong-Jun Xie

2A03 High-Pressure Synthesis, Crystal Structures, Electronic States, and Physical Properties of $CeCu_3Fe_4O_{12}$（Osaka Prefecture University）○Ikuya Yamada・Tomonori Ozaki・Makoto Murakami・Shigeo Mori・（Ehime University）Hidenobu Etani・Ryoji Takahashi・Tetsuo Irifune・（Kyoto University）Naoaki Hayashi・（JASRI）Masaichiro Mizumaki・（NIMS）Shigenori Ueda・Hideki Abe・（Nihon University）Takateru Kawakami

2A04 Electronic Phase Diagram, Crystal Structures, and Physical Properties of Charge-Disproportionated $ACu_3Fe_4O_{12}$ Perovskites (A = Ca, Y, and Ce)（Osaka Prefecture University）○Makoto Murakami・Ikuya Yamada・Shigeo Mori・（Kyoto University）Naoaki Hayashi

(10：40) (Chairman 山田幾也)

2A06 High-Pressure Synthesis and Characterization of Novel Lithium-Niobate-Type $A^{3+}Fe^{3+}O_3$（Kyoto University）○Takahiro Kawamoto・Koji Fujita・（Osaka Prefecture University）Ikuya Yamada・（Kyoto University）Katsuhisa Tanaka

2A07 Oxygen vacancy formation and ionic transportation of layered perovsktie $(Sr,La)_3Fe_2O_{7-\delta}$（Nagoya Institute of Technology）○Isao Kagomiya・Keigo Jimbo・Ken-ichi Kakimoto・Masanobu Nakayama・（European ceramic center）Olivier Masson

2A08 Synthesis and magnetic properties of size-controlled $BaFe_{12}O_{19}$ and its composite powder with Fe_3O_4（Hokkaido University）○Yuta Tsugawa・Yuji Masubuchi・Teruki Motohashi・Shinichi Kikkawa

2A09 Crystal structure and magnetic properties of layered compounds $LnMTeO_6$ (Ln = lanthanides; M = transition metals)（Hokkaido University）○Takahiro Yamazaki・Yoshihiro Doi・Yukio Hinatsu

Inorganic Materials Innovation

(14：20) (Chairman 田中功)

2A17 ★Application of Electrospun Ceramics Nanowires to Photovoltaic and Photorechargeable Devices（Kagoshima University）○Yuji Horie・Shirong Guo・Teruaki Nomiyama

(15：00) (Chairman 稲熊宜之)

2A19 ★Synthesis and growth of novel materials and crystals in high pressures and temperatures（Nagoya University）○Masashi Hasegawa

(15：40) (Chairman 町田憲一)

2A21 ★Application of oxide ionic conductors to energy conversion devices（Kyoto Universiry）○Koichi Eguchi

■■ September 10 (Wed) (Room B) ■■

Nano-scale atomic correlation: New development of structural analysis using synchrotron radiation

(14：20) (Chairman 井上博之)

2B17 Structure of V_2O_5 glass（University of the Ryukyus・JASRI/SPring-8）Shuta Tahara・（JASRI/SPring-8）○Shinji Kohara・Koji Ohara・Akihiko Fujiwara・（Hitachi Ltd.）Takuya Aoyagi・（University of the Ryukyus）Takanori Fukami

2B18 ★Development and Structure Analysis of Low-melting Vanadate glass（Hitachi Ltd.）○Takuya Aoyagi・Takashi Naito・Daiko Takamatsu・Motomune Kodama・Taigo Onodera・Tadashi Fujieda・（JAEA）Kentaro Suzuya・（JASRI/SPring-8）Shinji Kohara・Koji Ohara・（Yamagata Univ.）Takeshi Usuki

（15：20）（Chairman　梅咲則正）

2B20 Preparation and Structural investigation of La_2O_3–WO_3 glass（The University of Tokyo）○Kohei Okamura・Takumi Umada・Atsunobu Masuno・Hiroyuki Inoue・（Japan Synchrotron Radiation Research Institute）Shinji Kohara・（The University of Tokyo）Yasuhiro Watanabe

2B21 Structure analysis of transition metal-containing phosphate glasses（The University of Tokyo）○Hiroyuki Inoue・Atunomu Masuno・Isaisa Oliva Torres・Syun Nakatubo・Yasuhiro Watanabe

（16：00）（Chairman　小野寺陽平）

2B22 Structure analysis of tin phosphate glasses by synchrotron radiation（Okayma University）○Satoshi Fukui・Shinichi Sakida・Yasuhiko Benino・Tokuro Nanba・（Japan Synchrotron Radiation Research Institute (JASRI)）Sinji Kohara・（Yamagata University）Takeshi Usuki

2B23 Structural analysis of ZnO-P_2O_5 glass（Kyoto University）○Hirokazu Masai・（Japan Synchrotron Radiation Research Institute / Spring-8）Shinji Kohara・（Ritsumeikan University）Akitoshi Koreeda・（Kyoto University）Shun Okumura・（Chiba University）Takahiro Okubo

2B24 The atomistic and electronic structure of CaO-Al_2O_3 glass（Japan Synchrotron Radiation Research Institute）○Shinji Kohara・（Tampere University of Technology）Jaakko Akola・（Japan Synchrotron Radiation Research Institute）Koji Ohara・Akihiko Fujiwara・（The University of Tokyo）Yasuhiro Watanabe・Atsunobu Masuno・（Yamagata University）Takeshi Usuki・（Osaka Prefecture University）Takashi Kubo・Atsushi Nakahira・（Materials Development Inc.）Richard Weber・（Argonne National Laboratory）Chris Benmore

（17：00）（Chairman　小原真司）

2B25 ★Structure and deformation behavior of oxide gel for nano-rheology printing（JAIST）○Tatsuya Shimoda・Daisuke Hirose

2B27 Molecular dynamics study of silicate gel growing on altered glass（Graduate School of Engineering, Chiba University）○Takahiro Ohkubo・Yasuhiko Iwadate

■■ September 10 (Wed) (Room C) ■■

Synthesis and Functional Properties of Mixed Cation and Anion Compounds

（9：00）（Chairman　佐藤次雄）

2C01 ★Facile synthesis of homogeneous composite oxides by atmospheric pressure solvothermal process（Toyota Central R&D Labs. Inc.）○Akihiko Suda・Toshio Yamamoto

2C03 Photocatalytic conversion of CO_2 using Ni-Al layered double hydroxide（Kyoto University・JST-PRESTO）○Kentaro Teramura・（Kyoto University）Shoji Iguchi・Saburo Hosokawa・Tsunehiro Tanaka

（10：00）（Chairman　石原達己）

2C04 Synthesis and photocatalytic activity of fibrous nitrogen-doped titanium dioxide by a solvothermal method（Tohoku University）○Kimie Imakawa・Qiang Dong・Shu Yin・Tsugio Sato

2C05 Complex vanadates as catalysts for SO_3 decomposition（Kumamoto University）Takahiro Kawada・Tonami Tajiri・Hiroaki Yamashita・Makiko Sueyoshi・Tetsuya Sato・Satoshi Hinokuma・○Masato Machida

2C06 Hydrogen emission from ammonia composites via layered double hydroxides（Nagoya University）○Shingo Kanehira・Tetsuya Nagasaki・Li Ximeng・Koichi Kikuta

（11：00）（Chairman　町田正人）

2C07 Oxide Ion Conductivity in Sr_2MTaO_6(M=In, Ga) double Perovskite Oxide（Kyushu University）○Tatsumi Ishihara・Misato Hatai・Keiko Fukamachi・Shintaro Ida

2C08 Electrochemical properties and valence state of iron in lithium iron silicate glasses（Nagaoka University of Technology）○Takuya Togashi・Tsuyoshi Honma・Takayuki Komatsu

2C09 Hyperthermia Therapy Application of Tungsten Based Nanoparticles（Tohoku University）○Shu Yin・Chongshen Guo・Tsugio Sato

■■ September 10 (Wed) (Room D) ■■

Advanced Materials Processing

（9：20）（Chairman　菅原義之）

2D02 ☆Creation of New Element-Blocks Based on Metal Complexes（Tokyo University of Science）○Satoru Tsukada

2D03 ◆Polymeric Materials Based on Element-Blocks as Development of Inorganic Polymers（Kyoto Institute of Technology）○Kensuke Naka

（10：40）（Chairman　岩本雄二）

2D06 ☆Spatial and Spectral shaping of the luminescence from the optical emitters by the combination with metallic nanoparticles（Kyoto University）○Shunsuke Murai・Koji Fujita・Katsuhisa Tanaka

2D07 ◆Ceramic processing for characteristic structure and chemical composition（Hokkaido University）○Shinichi Kikkawa

（14：20）（Chairman　蔵岡孝治）

2D17 ◆Formation of Fibrous Titanium Dioxide by Self-organization of Nanoparticles and Its Photocatalytic Property（Shimane University）○Yoko Suyama

2D20 ☆Hybrid materials composed of mesoporous oxides and metal nanoparticles for the light energy conversion（Toyohashi University of Technology）○Go Kawamura・Hiroyuki Muto・Atsunori Matsuda

（15：40）（Chairman　水畑穣）

2D21 ◆Thin film deposition by processes with gelation: issues and proposals（Kansai University）○Hiromitsu Kozuka

2D24 ☆ Synthesis of NASICON type lithium ion conductive thin-film by wet chemical process（Kyushu Institute of Technology）○Satoko Takase・Youichi Shimizu

■■ September 10 (Wed) (Room H) ■■

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

圧子圧入 1

（9：00）（Chairman　宮崎広行）

2H01 Activation volume of YSZ measured using an indentation method -Strain and ion conductivity-（Nagoya Institute of Technology）○Yusuke Daiko・（University of Hyogo）Eri Takahashi・Tetsuo Yazawa・（Toyohashi University of Technology）Hiroyuki Muto・Atsunori Matsuda

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

2H02 ★Indentation Technique for Evaluation of Mechanical Properties（Toyohashi University of Technology）○Hiroyuki Muto

圧子圧入 2

（10：00）（Chairman　大幸裕介）

2H04 Evaluation of deformation regions of glass using an indenter microscope（The University of Shiga Prefecture）○Satoshi Yoshida・Shohei Sasaki・Mitsuo Kato・Akihiro Yamada・Jun Matsuoka・Naohiro Soga

バイオセラミックス

（10：40）（Chairman　宇尾基弘）

2H06 ★Development and Characterization of Dental Biomaterials（Nihon University）○Yasuhiro Tanimoto

2H08 Fabrication and mechanical properties of machinable wollastonite/zirconia composites（Shinshu University）○Seiichi Taruta・Yuka Hongo・Tomohiko Yamakami・Tomohiro Yamaguchi

粉体プロセス 1

（14：20）（Chairman　田中諭）

2H17 ★Characterization of multi-components ceramics slurry-Dispersibility, degree of mixing, and dispersion stability-（Takeda Colloid Techno-Consulting Co.,Ltd.）○Shin-ichi Takeda

2H19 Hydration behavior of ground blast furnace slag (GBFS) powder evaluated by needle penetration test（Kyushu University）○Hirotatsu Ida・Miki Inada・Naoya Enomoto・Katsuro Hayashi・（Nippon Slag Association）Takashi Okamoto・Haruhiko Shinozaki

粉体プロセス 2

（15：40）（Chairman　安田公一）

2H21 ★Stress Analisys in Powder Compact and Drying Processes of Ceramic Materials using Powder Simulation（Doshisha University）○Jusuke Hidaka

2H23 Evaluation of Lattice Defects Introduced during Spark-Plasma-Sintering (SPS) Processing（NIMS）○Koji Morita・Byung-Nam Kim・Hidehiro Yoshida・Yoshio Sakka・（Kitami Institute of Technology）Keijiro Hiraga

粉体プロセス 3

2H24 Observation of structural changes associated with sintering by micro-focus X-ray computed tomography（Nagaoka University of Technology）○Tsuyoshi Hondo・Zenji Kato・Satoshi Tanaka

■■ September 10 (Wed) (Room I) ■■

Novel Functional Ceramics derived from Nanocrystals

（9：00）（Chairman　加藤一実）

2I01 ★Solution-Phase Preparation and Photochemical Properties of Novel Quantum Dots Composed of Low-Toxic Elements（Nagoya University）○Tsukasa Torimoto・Tatsuya Kameyama・（Osaka University）Susumu Kuwabata

2I03 Phase crossover within nano scale: Phase transition of Al_2O_3 from α to γ（National Institute of Advanced Industrial Science and Technology）○Yoshiaki Kinemuchi・Atsuya Towata

（10：00）（Chairman　山本和広）

2I04 Crystallization of ZnO and its defect structure in multicomponent system glass（Tohoku University）○Yoshihiro Takahashi・Mikio Kinoshita・Takamichi Miyazaki・（NIMS）Minoru Osada・（Tohoku University）Nobuaki Terakado・Takumi Fujiwara

2I05 Synthesis of carboxylic acid-modified CeO_2 nanoparticles using supercritical water（Chuo University）○Minori Taguchi・Naomi Yamamoto・Toshitaka Funazukuri・（NIMS）Takashi Naka

（10：40）（Chairman　長田実）

2I06 Fabrication of Ni-GDC nanocube cermet anode by liquid phase reduction method and the generation property（Osaka University）○Kazuhiro Yamamoto・（Kumamoto University）Takeshi Hashishin・（Osaka University）Nan Qiu・Zhenquan Tan・Satoshi Ohara

2I07 Growth of $La_XSr_{1-X}MnO_3/Y_XZr_{1-X}O_{2-X/2}$ composite nanocrystals driven by nanocrystals/aqueous medium interfacial energy（Gunma University）Kazuya Horiguchi・○Kazuyoshi Sato・（Osaka University）Hiroya Abe

2I08 Synthesis of $BaTiO_3/SrTiO_3$ mesocrystal nanocomposite by topotactic structural transformation reaction（Kagawa University）○Qi Feng・Dengwei Hu

Science and Technology for Densification –Powder Forming · Sintering, Development of Microstructure and Function-

フラッシュ焼結

（14：20）（Chairman　後藤孝）

2I17 Densification and mass transport phenomena during flash-sintering in polycrystalline yttria（NIMS）○Hidehiro Yoshida・Yoshio Sakka・（Nagoya University）Takahisa Yamamoto・（University of Colorado at Boulder）Jean-Marie Lebrun・Rishi Raj

2I18 Flash sintering of $BaTiO_3$（Nagoya University）○Akinori Uehashi・Katsuhiro Sasaki・Tomoharu Tokunaga・Takahisa Yamamoto・（NIMS）Hidehiro Yoshida

放電プラズマ焼結

（15：00）（Chairman　川原正和）

2I19 Black Dots in Transparent Oxide Ceramics Produced by Pulsed Electric Current SIntering（Nagaoka University of Technology）○Makoto Nanko・Hien Huu Nguyen

2I20 Effects of aging on microstructure of TiC-ZrC solid solution prepared by SPS（Institute for Materials Research, Tohoku University）○Ying Li・Hirokazu Katsui・Takashi Goto

2I21 Consolidation of Diamond/CVD-SiC core/shell powder by Spark Plasma Sintering（Tohoku University）○Hirokazu Katsui・Zhenhua He・Takashi Goto

粒界偏析

（16：20）（Chairman　南口誠）

2I23 Creation of nanocrystalline, ultra-degradation-resistant zirconia（Tosoh Corporation）○Koji Matsui・（NIMS）Hidehiro Yoshida・（The University of Tokyo）Yuichi Ikuhara

粒成長

2I24 Grain Growth of α-Fe_2O_3 in different sintering atmospheres（Tokyo University of Science）○Koji Kawasaki・Yuki Yamaguchi・Shigeru Ito・Kenjiro Fujimoto

■■ September 10 (Wed) (Room J) ■■

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

キャパシタ

(9：00) (Chairman 木村雅彦)

2J01 ★Processing Technology for State of the Art Multi-layer Ceramic Capacitors with Base Metal internal electrodes（Taiyo Yuden Co., Ltd.）○Youichi Mizuno

2J03 Enhancement in Electrical Properties of Metal/Insulator Composite Ceramic Capacitors by Microstructural Control（University of Yamanashi）○Shintaro Ueno・Yasunao Sakamoto・Kouichi Nakashima・Satoshi Wada

プロセス

(10：00) (Chairman 坂本渉)

2J04 La-doped $BaTiO_3$ prepared by a water soluble precursor method（Yamagata University）Arisa Maki・○Yuta Matsushima

2J05 Grain-Size Dependence of Piezoelectric Proprties of (111)-oriented Barium Titanate Ceramics Fabricated by an Electrophoretic Deposition in a High Magnetic Field（Yamanashi University）○Eigo Kobayashi・Shintaro Ueno・Kouichi Nakashima・Nobuhiro Kumada・Satoshi Wada・（NIMS）Tohru Suzuki・Tetsuo Uchikoshi・Yoshio Sakka

2J06 ☆A novel preparation method for highly grain-oriented ceramics by reactive diffusion technique（Nagoya Institute of Technology）○Koichiro Fukuda

マルチフェロイック

(11：00) (Chairman 吉村武)

2J07 Magnetoelectric effect and its anisotropy in ferroelectric and ferromagnetic alternative laminated composite（Nagoya Institute of Technology）○Hiroki Iwamizu・Isao Kagomiya・Ken-ich Kakimoto

2J08 Epitaxial growth and the electric/magnetic properties of magneto-electric multilayer: $Cr_2O_3/LiNbO_3/Cr_2O_3$（Nagoya Institute of Technology）○Takeshi Yokota・Izuna Tsuboi・Koji Ichikawa・Manabu Gomi

2J09 Synthesis and magnetoelectric effect of a calcium ferrite compound $CaFe_4O_7$（The University of Osaka）○Kohei Haruki・（Murata Manufacturing Co., Ltd.）Sakyo Hirose・（The University of Osaka）Tsuyoshi Kimura

Future Challenges in Dielectrics

(14：20) (Chairman 青柳倫太郎)

2J17 ◆Future Frontiers of Dielectric Materials with Interface Engineering（University of Yamanashi）○Satoshi Wada・Kouichi Nakashima・Shintaro Ueno

(15：00) (Chairman 山田智明)

2J19 ★Novel Function in Oxide Ferroelectrics －Photovoltaic Effect under Visible-Light Illuminations－（The University of Tokyo）○Yuji Noguchi・Ryotaro Inoue・Hiroki Matsuo・Atsushi Inuzuka・Syusuke Takahashi・Masaru Miyayama

(15：40) (Chairman 佐藤和好)

2J21 ★Bottom-Up Approach Using Single-Crystalline Nanocubes to Functional Devices（National Institute of Advanced Industrial Science and Technology）○Kazumi Kato・Ken-ichi Mimura・Qiang Ma・（NIMS）Minoru Osada・Hajime Haneda・（Keio University）Hiroaki Imai・（Yamanashi University）Satoshi Wada

(16：20) (Chairman 鈴木宗泰)

2J23 ★Botom-up Technology and Scaling（Waseda University）○Keishi Ohashi

(17：00) (Chairman 長田実)

2J25 ★Structure-Property Relationship in Functional Oxides revealed by TEM（Osaka Prefecture University・JST-ALCA）○Shigeo Mori

■■ September 10 (Wed) (Room K) ■■

Recent progress of ceramic sensor –Application to medical, healthcare or environmental issues

(10：00) (Chairman 増田佳丈)

2K04 Growth of WO_3 single crystals and hydrogen gas sensor properties（Tokyo University of Science）○Hiroki Mizuma・Yuki Yamaguchi・Shigeru Ito・Kenjiro Fujimoto

2K05 Influence of humidity on hydrogen gas sensing with Pt/WO_3 thin film prepared by sol-gel process（Tokyo University of Science）○Shunji Imamura・Yuki Yamaguchi・Kenjiro Fujimoto・Keishi Nishio

2K06 Polyol Synthesis of WO_3 particles and their NO_2 gas sensing properties（National Institute of Advanced Industrial Science and Technology）○Takafumi Akamatsu・Toshio Itoh・Noriya Izu・Woosuck Shin

(11：00) (Chairman 加藤且也)

2K07 Reducing gas sensing mechanism of Pd-loaded WO_3 gas sensors（Kyushu University）○Zhongqiu Hua・Masayoshi Yuasa・Testsuya Kida・Noboru Yamazoe・Kengo Shimanoe

2K08 ◆Semiconductor Gas Sensors for Medical Use（Kyushu University）○Kengo Shimanoe・Koichi Suematsu・Masayoshi Yuasa・（Kumamoto University）Tetsuya Kida

(14：20) (Chairman 西堀麻衣子)

2K17 Development of Tin Oxide Nanocrystals for a Nonanal Gas Sensor（National Institute of Advanced Industrial Science and Technology）○Yoshitake Masuda・Toshio Itoh・Woosuck Shin・Kazumi Kato

2K18 Sensing properties of tin oxide VOC sensors for isoprene（National Institute of Advanced Industrial Science and Technology）○Toshio Itoh・Takaomi Nakashima・Takafumi Akamatsu・Noriya Izu・Woosuck Shin

(15：00) (Chairman 島ノ江憲剛)

2K19 ★Trends in medical applications of gas sensors（Kagoshima University）○Akira Matsunaga・Yuichi Kanmura

2K21 CO sensing properties of noble metal loaded cobalt oxide catalysts on thermoelectric gas sensor（National Institute of Advanced Industrial Science and Technology）○Tomoyo Goto・Daisuke Nagai・Toshio Itoh・Woosuck Shin

(16：00) (Chairman 上田太郎)

2K22 Hydrogen detection techniques and their problems in oxide materials by means of a secondary ion mass spectrometry（NIMS）○Isao Sakaguchi・Minako Hashiguchi・Noriko Saito・Taku Suzuki・Shunichi Hishita

2K23 Pore structure of alumina supported Pd catalyst for gas sensor application（Kyushu University）○Maiko Nishibori・Shuhei Matsuo・Hisahiro Einaga・Yasutake Teraoka・（National Institute of Advanced Industrial Science and Technology）Noriya Izu・Toshio Itoh

2K24 Mesoporous zirconia for improvement of biosensing enzymes（National Institute of Advanced Industrial Science and Technology）○Kastuya Kato・

Fukue Nagata・Hitomi Nakamura・Masahiko Inagaki

■■ September 10 (Wed) (Room L) ■■

Science and Technology on Engineering Ceramics ー Advanced materials and analysis for Safe and Reliable Society ー

セラミックスの電気的特性

(9：00) (Chairman 高坂祥二)

2L01 Preparation of highly conductive carbon-alumina nanocomposite by using carbon-coated alumina nanoparticle (Tohoku University) ○Yasuto Hoshikawa・Keita Nomura・Takafumi Ishii・(Hitachi Research Laboratory) Makoto Okai・(Tokyo Institute of Technology) Takashi Akatsu・Yutaka Shinoda・(Tohoku University) Takashi Kyotani

2L02 Optical transparency and electrical conductivity of carbon nanofiber disperced glass composites (Tokyo Institute of Technology) ○Yuki Takiguchi・Takashi Akatsu・Yutaka Shinoda・Fumihiro Wakai

2L03 Influence of Yb_2O_3 on electrical characteristics of Si_3N_4 ceramics (Yokohama National Univercity) ○Daisuke Kawai・Junichi Tatami・Motoyuki Iijima・(Kanagawa Academy of Science and Technology) Takuma Takahashi

2L04 Development of yttrium oxide substrate for the electrostatic chuck (TOTO) ○Takayuki Ide・Masami Ando

耐環境・耐熱セラミックコーティングの新展開

(10：20) (Chairman 青木卓哉)

2L05 Structural changes of $3Al_2O_3 \cdot 2SiO_2$/Si/(SiC/SiC) EBC system under heat exposure (The University of Tokyo) ○Takaho Kuribara・Hideki Kakisawa・Yutaka Kagawa

2L06 Degradation behavior in $3Al_2O_3 \cdot 2SiO_2$/Si/(RB-SiC) EBC system under heat exposure at 1300 and 1414°C (The University of Tokyo) ○Yutaro Arai・Hideki Kakisawa・Yutaka Kagawa

2L07 Optimum design of high thermal radiation energy reflection EBCs with oxide ceramics multilayer structure (The University of Tokyo) ○Masahiro Yamazoe・Yutaka Kagawa

2L08 Structural stabilization of advanced EBC with excellent thermal energy reflection at high temperatures (Gifu University) ○Takuma Sassa・Shota Hori・(JFCC) Makoto Tanaka・Naoki Kawashima・Satoshi Kitaoka・(Gifu University) Michiyuki Yoshida・Osamu Sakurada・(Yokohama National University) Makoto Hasegawa・(The University of Tokyo) Yutaka Kagawa

2L09 Mass Transfer in Polycrystalline Alumina under Oxygen and Water Vapor Potential Gradients at High Temperatures (JFCC) ○Tsuneaki Matsudaira・(Kyoto University) Tsubasa Nakagawa・(JFCC) Satoshi Kitaoka・(The University of Tokyo) Naoya Shibata・Yuichi Ikuhara

最先端モデリング・評価技術

(14：20) (Chairman 吉田克己)

2L17 ★Compressive Strength, Gas Permeability and Thermal Conductivity of Porous Ceramic Compacts (Kagoshima University) ○Yoshihiro Hirata

繊維強化複合材料の新展開

2L19 Processing and characterization of SiC-fiber-reinforced Si-Ti alloy matrix composites (Composite Technology Research Center, Institute of Aeronautics, Japan Aerospace Exploration Agency) ○Takuya Aoki・Toshio Ogasawara

2L20 Fabrication of C/C-High Temperature Ceramic Composite by Melt Infiltration Process (Tokai University) ○Yuki Yano・Kazuya Wada・(Japan Aerospace Exploration Agency) Takuya Aoki・Toshio Ogasawara・(Tokai University) Akihiko Azetsu・(Waseda University) Shinjiro Umezu

繊維強化複合材料の新展開

(15：40) (Chairman 楠瀬尚史)

2L21 Development of SiC composite for light-water reactor accident tolerant fuels (Toshiba Corporation) ○Shoko Suyama・Masaru Ukai・Masayuki Uchihashi・Hideaki Heki

2L22 Surface modification of carbon fiber by superheated steam for improvement in adhesion between the fiber and resin (JFCC) ○Masashi Wada・Kazuhiko Kawai・(Aichi Science and Technology Foundation) Tomoyuki Suzuki・(Daido University) Hirohito Hira・(JFCC) Satoshi Kitaoka

2L23 Boron Nitride Interphase Formation of Unidirectional SiC_f/SiC Composites by Electrophoretic Deposition Method (Tokyo Institute of Technology) ○Katsumi Yoshida・Yuto Hattori・Akihiro Yamauchi・Toyohiko Yano・(Japan Aerospace Exploration Agency (JAXA)) Masaki Kotani・Toshio Ogasawara

飛躍的特性向上を目指した新しい微構造制御

(16：40) (Chairman 赤津隆)

2L24 Optimization of process for SiC ceramics fabricated through electrospinning method (Kagawa University) ○Takafumi Kusunose・Yui Inoue・Machi Kudo・(Osaka University) Tohru Sekino

2L25 Development of neutron shielding advanced ceramics from Ti-B-Cr-C system by various techniques (Faculty of Engineering, Division of Materials Science and Engineering, Hokkaido University, Sapporo, Japan) ○Marta Agnieszka Ziemnicka-Sylwester・(Faculty of Advanced Materials and Technology, Division of New Technology and Chemistry, WAT, Military Technical University, Warsaw, Poland) Przemyslaw Litwa・Tomasz Czujko

2L26 Effects of Strong Magnetic Field on the Alignment of SiC Nanowires in Alumina Matrix Composite (Tokyo Institute of Technology) ○Noppasint Jiraborvornpongsa・Masamitsu Imai・Katsumi Yoshida・(NIMS) Tohru S. Suzuki・Yoshio Sakka・(Tokyo Institute of Technology) Toyohiko Yano

■■ September 10 (Wed) (Room M) ■■

Ceramics Processing through Energy Consumption Reduction (Green Processing)

磁性材料

(9：00) (Chairman 安達信泰)

2M01 Synthesis of (La,Sr)MnO_3/$Ca_{10}(PO_4)_6(OH)_2$ (LSMO/HAp) hybrid nanoparticles by three steps method for magnetic hyperthermia application (The University of Shizuoka) ○Shuji Sugita・Harinarayan Das・Naonori Sakamoto・(The University of Ehime) Hiromichi Aono・(Tokyo Institute of Technology) Kazuo Shinozaki・(The University of Shizuoka) Hisao Suzuki・Naoki Wakiya

2M02 Effect of Composition of (La,Sr)MnO_3 Thin Films on Metal-Insulator Transition Temperature by RF Magnetron Sputtering. (Tokyo Institute of Technology) ○Ayato Watase・Yuko Mori・Tadashi Shiota・Akio Nishiyama・Jeffrey Cross S・Osamu Sakurai・Kazuo Shinozaki・(Japan Aerospace Exploration Agency) Sumitaka Tachikawa・(Shizuoka University) Naoki Wakiya

2M03 Structure and Properties of Co/HfN Multi-layered Thin Films (Tohoku University) ○Yang Cao・Yiwen Zhang・(Tohoku University・DENJIKEN) Shigehiro Ohnuma・(DENJIKEN) Nobukiyo Kobayashi・(Tohoku University) Hiroshi Masumoto

2M04 Structure and Properties of Co-$BaTiOs_3$ Nano-composite Films Prepared by Differential Pressure Sputtering (Tohoku University) ○Yiwen Zhang・

Masumoto Masumoto・(DENJIKEN) Nobukiyo Kobayashi・(Tohoku University・DENJIKEN) Shigehiro Ohnuma・(University of Toyama) Masateru Nose

磁性材料

(10：20) (Chairman 脇谷尚樹)

2M05 ★Multifunctional properties of the metal-ceramic nanogranular films prepared by sputtering (Research Institute for Electromagnetic Materials) ○Nobukiyo Kobayashi

電磁場励起プロセス

2M07 Formation of nanostructured $BiFeO_3$ on glass surface by laser irradiation (Tohoku University) ○Akie Kumagai・Teppei Takahashi・Yoshihiro Takahashi・Nobuaki Terakado・Takumi Fujiwara

2M08 Modification of AlN by Yb-fiber laser irradiation (Osaka Municipal Technical Research Institute) ○Hiroyasu Kido・Masanari Takahashi・Jun-ichi Tani

2M09 Synthesis of aluminacarbide using the microwave local site heating (Nagoya Institute of Technology) ○Yuki Nakashima・Takashi Shirai・(Advanced Ceramics Research Center) Chika Takai・(Nagoya Institute of Technology) Masayoshi Fuji

光学材料

(14：20) (Chairman 忠永清治)

2M17 ★Design of energy efficient composite windows using functional fine particles and transparent resins (Shimane University) ○Hidetoshi Miyazaki

2M19 Study on synthesis of Eu-doped beta-SiAlON by micro-wave heating (College of Industrial Technology) ○Masayuki Hirota・(National Institute of Advanced Industrial Science and Technology) You Zhou・Yu-ichi Yoshizawa・Kiyoshi Hirao

2M20 Crystallinity and Magneto-optical properties of Bismuth Iron Garnet on Amorphous Substrate (Nagoya Institute of Technology) ○Nobuyasu Adachi・Kazunari Hayashi・Saeko Fujiuchi・Toshikata Ota

2M21 Water-assisted Solid State Reactions (N-Luminescence Corporation) ○Kenjki Toda

省エネルギープロセス

(16：20) (Chairman 篠崎和夫)

2M23 The addition of $BaTiO_3$ or carbon nanoparticles to silica aerogel and its dielectric properties (Nagoya Institute of Technology・Rinnai Corporation) ○Naruhito Katagiri・(Nagoya Institute of Technology) Masahiko Ishikawa・Nobuyasu Adachi・Toshitaka Ota

2M24 Fabrication of ceramics thin film by electrochemical deposition method assisted by pulsed bias (University of Toyama) ○Atsushi Saiki・Tadashi Fujita・Takashi Hashizume

2M25 Fabrication and Characterization of $V_2O_5 - P_2O_5$ system glass based printable thermoelectric devices (Tokyo Institute of Technology) ○Akifumi Matsuda・Mengshen Liu・Mamoru Yoshimoto・(Hitachi) Takuya Aoyagi・Tadashi Fujieda・(Namiki Precision Jewel) Koji Koyama・(Tokyo Institute of Technology) Mitsuru Itoh・(Kanagawa Industrial Technology Center・Tokyo Institute of Technology) Satoru Kaneko

2M26 Solid-State Synthesis of Mg_2Si by Closed-Type Hydrogen Powder Metallurgy (Tokai University) ○Yoshihito Suzuki・Masashi Higuchi・Takashi Asaka・Wunderlich W・Masashi Sato

2M27 Low temperature sintering of sol-gel derived Nb-substituted $Li_7La_3Zr_2O_{12}$ (Hokkaido University) ○Kiyoharu Tadanaga・Resero Carolina・Taira Yamashita・Mikio Higuchi

■■ September 10 (Wed) (Room N) ■■

Advent and Development of Advanced Photonic Materials

招待講演

(9：00) (Chairman 早川知克)

2N01 ★Discovery of New Phosphor Using Single-Particle-Diagnosis Approach (NIMS) ○Shiro Funahashi・Naoto Hirosaki・Takashi Takeda・Rong-Jun Xie

窒化物

(9：40) (Chairman 戸田健司)

2N03 Preparation of Transparent fluorescent β-SiAlON bulk (Yokohama National University) ○Takehiro Tanaka・Junichi Tatami・Motoyuki Iijima・(Kanagawa Academy of Science and Technology) Takumi Takahashi・(Kanagawa Industrial Technology Center) masahiro Yokouchi

アップコンバージョン

(10：20) (Chairman 早川知克)

2N05 Search for rare earth tungstate up-conversion phosphors by solution process (Tokai University) ○Sayaka Tamura・Koji Tomita・(Hiroshima University) Kiyofumi Katagiri・(Tohoku University) Masato Kakihana

2N06 Preparation and characteristic of $ZnO\text{-}SiO_2$ upconversion phosphor (The University of Saga) ○Akiko Matsuo・Takanori Watari・Toshio Torikai・Mitsunori Yada

2N07 Fabrication and characterization of $Y_2O_3\text{-}Al_2O_3$ upconversion phosphor (The University of Saga) ○Maiko Mukai・Takanori Watari・Mitsunori Yada・Toshio Torikai

表面プラズモン

(11：20) (Chairman 赤井智子)

2N08 Synthesis and immobilization of Ag-coated Au nanoprisms (Nagoya institute of Technology) ○Yuta Noda・Tomokatsu Hayakawa

波長変換ガラス

2N09 Optical properties and prospective as photon converters of rare-earth doped transparent nanocrystalized glass-ceramics (Nagoya Institute of Technology) ○Tomokatsu Hayakawa・Ryo Ikeshita・Masato Furuta・(Limoges University) Duclere Jean Rene・Leconte Andre

招待講演

(14：40) (Chairman 濱上寿一)

2N18 ★Oxynitrides and Oxysulfides as Photocatalysts for Water splitting under Visible light (The University of Tokyo) ○Kazunari Domen

触媒

2N20 Photocatalytic property of nanosheet pn junction (Kyushu University・JST-PRESTO) ○Shintaro Ida・(Kyushu University) Akihide Takashiba・Tartsumi Ishihara

2N21 Syntheses and Application of Sub nanometer sized Transition Metal oxide Quantum Dots (Tokyo Metropolitan Industrial Technology Research Institute) ○Hiroto Watanabe・(Keio University) Shougo Ohta・Yuya Oaki・Hiroaki Imai

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

触媒

(16：00) (Chairman　伊田進太郎)

2N22　Evaluation of Fluoresent of Cabogenic Dots Synthesized in Subnano Pore.（Tokyo Metropolitan Industrial Technology Reserch Institute）○Kosei Hayashi・Hiroto Watanabe・(Keio University) Yuya Oaki・Hiroaki Imai

2N23　Influence of ctalytic metals on room-temperature optical hydrogen sensing properties of titnia coating（Kanto Gakuin University）○Jun-ichi Hamagami

シリカ

(16：40) (Chairman　増井敏行)

2N24　Luminescent property of a coated layear of nano silica containing Zn_2SiO_4:Mn nano crystal（National Institute of Advanced Industrial Science and Technology）○Tomoko Akai・Sachiko Matsumoto・Masaki Murakami・Masaru Yamashita

2N25　Periodic structure of silica gel on glass transfered from nano-inprinted film（National Institute of Advanced Industrial Science and Technology）○Tomoko Akai・Chialung Lee・Kanae Konno・Toshiyuki Mihara

単分散粒子

2N26　Fabrication of the three-demensional regular array using surface-modified and composited monodisperse particles via external driving force（Toyohasi University of Technology）○Takahito Amano・go Kawamura・Atsunori Matsuda・Hiroyuki Muto

■■ September 10 (Wed) (Room O) ■■

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

(10：00) (Chairman　石川邦夫)

2O04　*In vitro* evaluation of hydroxyapatite/collagen paste using sodium alginate and calcium compounds（NIMS・Meiji University）○Taira Sato・(NIMS・Shanmugha Arts Science Technology and Research Academy) Naga Vijaya Lakshmi Manchinasetty・(Meiji University) Mamoru Aizawa・(NIMS) Masanori Kikuchi

2O05　Fabrication of Graphene SPR Biosensor（Tokyo Institute of Technology）○Ryota Murai・Jeffrey S. Cross・Toshiyuki Ikoma・Junzo Tanaka

2O06　Preparation of organic-inorganic hybrid containing phosphate group and evaluation of apatite-forming ability in simulated body environment: effect of polymerization accelerator（Kyushu Institute of Technology）○Ryo Hamai・Yuki Shirosaki・Toshiki Miyazaki

(11：00) (Chairman　相澤守)

2O07　Carbon-assisted production of hydroxyapatite spheres by pulsed laser melting in liquid（National Institute of Advanced Industrial Science and Technology (AIST)）○Maki Nakamura・Ayako Oyane・Ikuko Sakamaki・(National Institute of Advanced Industrial Science and Technology (AIST)・Hokkaido University) Naoto Koshizaki

2O08　Synthesis method of nanoparticle aggregate mesocrystal vaterite for drug delivery systems（Waseda University）○Yuki Sugiura・(National Institute of Advanced Industrial and Science) Kazuo Onuma・(Waseda University) Atsushi Yamazaki

2O09　Effects of Poly-(ethylene glycol) diacrylate and Gamma-Ray Irradiation on Mechanical Property of Apatite/Collagen Composites（Tokyo Institute of Technology）○Masaya Minemoto・Tomohiko Yoshioka・Toshiyuki Ikoma・Junzo Tanaka

(14：20) (Chairman　横井太史)

2O17　Deposition of hydroxyapatite on SiC nanotubes in simulated body fluid（Japan Atomic Energy Agency）○Tomitsugu Taguchi・(Kyushu Institute of Technology) Toshiki Miyazaki・Satoshi Iikubo・(Japan Atomic Energy Agency) Naoki Igawa・Hidehito Asaoka

2O18　Inhibition of amyloid β fibrillation by using water-dispersible carbon nano-test-tube（Tohoku university）○Yasuto Hoshikawa・Keiji Goto・Takafumi Ishii・Takehiko Wada・Takashi Kyotani

(15：00) (Chairman　小幡亜希子)

2O19　The effects of polarized apatite on osteoclast behaviors（Tokyo Medical and Dental University）○Saki Namba・Miho Nakamura・Naohiro Horiuchi・Kosuke Nozaki・Akiko Nagai・(Nihon University) Takeshi Toyama・Nobuyuki Nishimiya・(Tokyo Medical and Dental University) Kimihiro Yamashita

2O20　Fabrication of Scaffold for Osteochondral Regeneration by Lamination of Hydroxyapatite/Collagen Nanocomposite and Collagen（NIMS・Ibaraki University）○Sho Oshima・(NIMS) Teruaki Yoshida・(Ibaraki University) Kazuhide Ozeki・(NIMS) Masanori Kikuchi

(16：00) (Chairman　大矢根綾子)

2O22　★Ubiquitous mechanoluminescent nanoparticle for in-vivo light source and mechanical stress mapping（National Institute of Advanced Industrial Science and Technology (AIST)）○Nao Terasaki・Yuki Fujio・Chao-Nan Xu

2O24　★Anterior cruciate ligament reconstruction using calcium phosphate-hybridized tendon graft（Ibaraki Prefectural University of Health Sciences）○Hirotaka Mutsuzaki・(University of Tsukuba) Akihiro Kanamori・Masataka Sakane・(Ichihara Hospital) Tomonori Kinugasa・Kotaro Ikeda

■■ September 10 (Wed) (Room P) ■■

12：10〜14：10

Others/General session(Only Poster session)

b. 電子材料・磁性材料関連

2P001　Development of low temperature gas barrier film formation technique using photoirradiation to polysilazane film（Shibaura Institute of Technology）○Tomoji Ohishi・Kazuya Yanagida・Hiromi Yamazaki・S. Sone

2P002　Electrochromic properties of WO_3 thin films prepared by sol-gel process（Tokyo University of Science）○Katsuhisa Ishida・Yuki Yamaguchi・Kenjiro Fujimoto・Keishi Nishio

2P003　Influences of oxide electrode on ferroelectric properties of (Bi,Pr) (Fe,Mn) O_3 thin film at high temperature（The University of Kanazawa）○Keisuke Nomura・Yuki Kondo・Akiharu Morimoto・takeshi Kawae

2P004　Novel Sintering Aid for the Preparation of Alkali Niobate Tantalate Piezoelectrics（EcoTopia Science Institute, Nagoya University）○Koichi Kikuta・Shunji Matsui・Shingo Kanehira・(Brother Industries Ltd.) Jun Isono・Yoshifumi Suzuki・Yasunori Kobayashi

2P005　Mössbauer spectra of Zn substituted Z-type strontium ferrite（University of Hyogo）○Takeyuki Kikuchi・Masafumi Kobune・(Okayama University) Makoto Nakanishi・Tatsuo Fujii・Jun Takada・(Institute of Production Deveropment) Yasunori Ikeda

c. ガラス・フォトニクス関連

2P006　Composition dependence of pH responsivity of Fe_2O_3-Bi_2O_3-B_2O_3 glasses（Mie Univ.）○Tadanori Hashimoto・Fumiya Murayama・Hiroyuki Nasu・Atsuhi Ishihara・(HORIBA) Yuji Nishio

2P007　Analysis of thermodynamics and reaction kinetics for the oxidation of $CuLaO_2$（Kochi University）Sayo Takaichi・○Fumito Fujishiro

2P008 Effect of CeF_3 addition on deposition of silver nano-particles in transparent mica glass-ceramics（Shinshu University）○Keita Yamamoto・Tomohiko Yamakami・Tomohiro Yamaguchi・Seiichi Taruta

2P009 Effect of HfO_2 addition on crystallization of ZnO-Al_2O_3-SiO_2 glass（Kyoto Institute of Technology）○Masato Ito・Takashi Yumura・Kohei Kadono・Takashi Wakasugi

d. 生体・医療関連

2P010 Microstructure of the high bioactivity scale formed by oxynitridation of Ti（JFCC）○Masami Hashimoto・Satoshi Kitaoka・Tsuneaki Matsudaira・（Nagoya University）Shunsuke Mutoh・Kazuyoshi Tatsumi

2P011 Preparation and characterization of magnesium substituted HA films using sputtering method and hydrothermal treatment（Ibaraki University）○Chinami Tadano・Kazuhide Ozeki・Toru Masuzawa・（International Apatite Co. Ltd.）Hideki Aoki

2P012 Development of F-Doped Hydroxyapatite Nanoparticles for Antibacterial Catheter（Kinki University・Osaka University）○Tsutomu Furuzono・（Kinki University）Yoshinao Azuma・（Osaka University）Yoshiki Sawa

2P013 Synthesis of Ag-doped Hydroxyapatite Nanoparticles and Effect of Anti-sintering Agent（Kinki University・Osaka University）○Tsutomu Furuzono・（Kinki University・SofSera Corporation）Motaharul Mazumder・（Kinki University）Yoshinao Azuma・（Osaka University）Yoshiki Sawa

2P014 Examination of composition control method for fluoroapatite thin film（Graduate School, Kinki University）○Naoki Fujita・Takayuki Makino・Masanobu Kusunoki

2P015 Examination of solubility for fluoroapatite thin film（Kinki University graduate school）○Takayuki Makino・Naoki Fujita・Masanobu Kusunoki

2P016 Effect of ultrathin amorphous calcium phosphate sheet attached on dentin permeability inhibition using an in vitro model of hypersensitive dentin（Kinki University）○Arata Isai・Ei Yamamoto・Nobuhiro Kato・Hiroaki Nishikawa・Sigeki Hontsu・（Osaka Dental University）Kenzou Yasuo・Kazushi Yoshikawa

2P017 Preparation of potassium-doped hydroxyapatite thin films using a pulsed laser deposition technique（Kinki University）○Yuka Hatoko・Ei Yamamoto・Nobuhiro Kato・Hiroaki Nishikawa・Tsutomu Furuzono・Shigeki Hontsu

e. センサー関連

2P018 Whisker-Reinforced RuO_2/Glass Composites for Force Sensor（TOYOTA CENTRAL R&D LABS.,INC）○Mitsuru Asai・Yasuyoshi Saito・Minako Uoshima・Yasuyuki Kageyama

2P019 Investigation of morphology dependence in tin oxide semiconductor gas sensor（Tohoku University）○Makoto Hamanaka・Shu Yin・Qiong Dong・Tsugio Sato

f. 環境・資源関連

2P020 New Separation Technique of Rear Metals Elements of X-ray tube Target（Hitachi）○Motoyuki Miyata・Hiroki Yamamoto

2P021 Synthesis and oxygen storage capacity of morphology controlled and alkali earth metal ion-doped SnO_2 particles（Tohoku University）○Mizuki Yoshida・Qiong Dong・Shu Yin・Tsugio Sato

2P022 Adsorption Properties of Carbon Materials（Aichi Center for Industry and Science Technology）○Shoji Yoshimoto・Kenichi Sugimoto・Hiroaki Hamaguchi

2P023 Evaluation of method to prepare silicate /HA composite and Sr ions and Cs ions adsorption（Ibaraki University）○Eri Oowada・Kazuhide Ozeki・Toru Masuzawa・（International Apatite Institute）Hideki Aoki

2P024 Synthesis and photocatalytic properties of manganese doped titanium oxide（University of Miyazaki）○Naoki Matsunaga・Kyohei Ono・Go Sakai

2P025 X-ray analysis of cesium absorption by clay minerals（Tokyo City University）○Hiromi Eba・Kyosuke Yabiki・Tsuyoshi Maeda・（NIMS）Samson Vallerie・Kenji Sakurai・Hirohisa Yamada

g. エネルギー・イオニクス関連

2P026 Synthesis of $Na_5FeSi_4O_{12}$-type ion-conducting glass-ceramics（Kogakuin University）○Chiaki Yokoyama・Naoya Yoshida・（Tokyo Medical and Dental University）Kimihiro Yamashita・（Kogakuin University）Toshinori Okura

2P027 Direct patterning of YSZ thin films from a precursor solution（The University of Toyama）○Kota Arisawa・Takashi Hashizume・Atsushi Saiki

2P028 Improved activity resulting from the addition of fine particles of hydrogen generation reaction employing iron and carbonated water（Tokyo City University）Takahiro Yamaguchi・○Hiromi Eba・Hitoshi Ooyama

2P029 Cathode properties of todorokite-type manganese oxide for magnesium rechargeable batteries（The University of Tokyo）○Hidetoshi Kawabata・Shinya Suzuki・（The University of Tokyo・CREST, JST）Masaru Miyayama

2P030 Development of Symmetric All-solid-state Thin-film Electrochemical Capacitors using stacked Nanosheets of α-zirconium hydrogenphosphate monohydrate as an Electrolyte（The University of Tokyo）○Syota Ito・Shinya Suzuki・（The University of Tokyo・CREST, JST）Masaru Miyayama

2P031 Composition dependence of electrode properties in layered $H(Ni_xCo_{0.5-x/2}Mn_{0.5-x/2})O_2$ for electrochemical capacitors（The University of Tokyo）○Yuta Matsuoka・Shinya Suzuki・Yuji Noguchi・（The University of Tokyo・CREST, JST）Masaru Miyayama

2P032 Synthesis of $Li_3Zn_{0.5}SiO_4$ by the liquid phase method（Tokai University）○Shougo Nakamura・Masashi Sato・Masashi Higuchi・Keiichi Katayama

2P033 Fabrication and Evaluation of Asymmetric Quasi-All-Solid-State Electrochemical Capacitors Using Ruthenium Oxides as Cathode Materials（The University of Tokyo）○Seiji Uchida・Shinya Suzuki・（The University of Tokyo・CREST, JST）Masaru Miyayama

2P034 Electrochemical properties of perovskite-related oxide on oxygen-excess-type solid electrolytes（Graduate School of Engineering, University of Hyogo）○Mika Tange・Atsushi Mineshige・Tetsuo Yazawa

h. プロセス関連

2P035 Influence of Sc/N ratio on the optical and electric properties of ScN films prepared by molecular beam epitaxy（NIMS）○Takeshi Ohgaki・Isao Sakaguchi・Naoki Ohashi・Hajime Haneda

2P036 Fabrication of Fe Nanowires on Oxide Substrates by Thermal CVD Method（Hokkaido University Graduate School of Chemical Sciences and Engineering）○Aiko Kawahito・（Hokkaido University FCC）Takashi Yanase・（(Hokkaido University Graduate School of Engineering）Takashi Endo・Junya Ishioka・Tamaki Shibayama・Seiichi Watanabe・Taro Nagahama・Toshihiro Shimada

2P037 A diffusion joint of electronic materials for power semiconductor module at non-vacuum atmosphere（Yamaguchi University）○Takeshi Fujimoto・Syokichi Kikugawa・Yuma Saito・Takuya Murata

2P038 Study for solid-liquid separation performance of ferrous-based polymeric flocculant by electrolyzed process（Yamaguchi University）Jun Notsu・Kohei Tajima・Kazuma Higashiyama・○Takuya Murata

2P039 Synthesis of Metal Ion-Containing Geopolymer and Their Investigation of Ion Elution.（Aichi Center for Industry and Science Technology）○Hayato Naganawa・Toru Hukuhara・Nobuhito Tanahashi

2P040 Synthesis of metal carbides nanoparticles by solution plasma（Gifu University）○Takuya Inishi・Takayuki Ban・Yutaka Ohya

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

2P041 Synthesis and MO calculation of Allophane–Pt nanocomposite（Toyota Technological Institute）○Shuichi Arakawa・Yoko Matsuura・Masami Okamoto

2P042 Synthesis of strontium oxide films with different carrier gases by atmospheric chemical vapor deposition techniques（Nagaoka University of Technology）○Keiji Komatsu・Shigeo Ohshio・Hidetoshi Saitoh

2P043 Synthesis of Y_2O_3 films with high thermal-shock resistance using metal-EDTA complex（Nagaoka University of Technology）Ayumu Toyama・Tomoyuki Shirai・Takao Iseki・○Keiji Komatsu・（Nagaoka University of Technology・Chubu Chelest Co., Ltd.）Atsushi Nakamura・（Nagaoka University of Technology）Shigeo Ohshio・Ikumi Toda・Hiroyuki Muramatsu・Hidetoshi Saitoh

2P044 PREPARATION AND CRYSTAL STRUCTURE OF PYROCHLORE-TYPE NIOBATES AND TANTALATES WITH Sn^{2+}（University of Yamanashi）○Octavianti Naa・Akira Miura・Takahiro Takei・Nobuhiro Kumada

2P045 Study of submicron patterning of $Pb(Zr,Ti)O_3$ thin films by environmentally friendly process（Kanazawa University）○Takahiro Niwa・Kazuhiro Nakanishi・S. Watanabe・S. Higashiura・Takeshi Kawae・Akiharu Morimoto・（Toyota Technological Institute）Shinya Kumagai・Minoru Sasaki

2P046 Synthesis of $(Co,Ni)Ti(Nb,Ta)_2O_8$ and Crystal Structure（University of Yamanashi）○Narumi Koike・Akira Miura・Takahiro Takei・Nobuhiro Kumada

2P047 Low Temperature Nitriding Reaction of Metal Oxide by Mechanochemical Method with h-BN（Kobe University）○Toshio Odani・Akihiko Kajinami・Hiroyuki Nariai

2P048 Magnesium titanate sphere fabrication by pulsed laser melting in liquid（National Institute of Advanced Industrial Science and Technology）○Yoshie Ishikawa・（Hokkaido University）Naoto Koshizaki

2P049 Size-selective synthesis of oxide spherical particles by pulsed laser melting（Hokkaido University）○Naoto Koshizaki・Shota Sakaki・（National Institute of Advanced Industrial Science and Technology）Yoshie Ishikawa

2P050 Synthesis of (Ca,Fe,Mn)O solid solution for analysis of converter slag（Tokyo City University）○Atsushi Ono・Sayuri Michikawa・Hiromi Eba

2P051 Relationship between steel slag basicity and property of solid solution in lime phase（Tokyo City University）○Sayuri Michikawa・Ippei Nishinohara・Atsushi Ono・Hiromi Eba

2P053 ESR of point defects in transparent alumina sintered with PECS（Yamaguchi University）Kouichi Matsuo・Junki Kurogi・○Ayako Kai

i. セメント・陶磁器関連

2P054 Lead-free red paints for pottery comprising red pigments made from bacterial iron oxide and lead-free glazes.（Kyoto Municipal Institute of Industrial Technology and Culture）○Hirofumi Inada・（Okayama Univ.）Hideki Hashimoto・Makoto Nakanishi・Tatsuo Fujii・（Kurashiki Univ. Sci. Arts）Yoshihiro Kusano・（KYOTO COLLEGE OF ARTS AND CRAFTS）Tadanori Yokoyama・（Kyoto Municipal Institute of Industrial Technology and Culture）Yuya Arakawa・Yuki Okazaki・Taigo Takaishi・Hajime Taguthi・Syozo Hashida・（Okayama Univ.・JST CREST）Jun Takada

2P055 Character of Clay Minerals Contained in Amakusa Pottery Stones as Porcelain Raw Materials（Kumamoto Industrial Research Institute）○Masanori Nagata・Hidenobu Matsuo

2P056 Comparative evaluation of Shirasu and Shirasu-balloon fine particles by A statistical particles image analysis（Malvern Instruments A division of Spectris Co., Ltd.）○Aiko Hayauchi・Daisuke Sasakura

2P057 The thermal expansion behavior of petalite and the microstructure after heating observed using polarizing microscope.（Ceramic Research Center of Nagasaki）○Koichi Takeuchi・Norio Yamaguchi・（Okayama University）Katsuyuki Kawamura

2P058 Simulation for heated petalite by molecular dynamics calculation（Ceramic Research Center of Nagasaki）○Norio Yamaguchi・（Okayama University）Katsuyuki Kawamura

2P059 Influence of addition of a small amounts of alite powder on growth behavior of alite crystals in firing cement clinker（Yamaguchi University）○Ryuichi Komatsu

2P060 Improving strength of Shirasuballoons by surface treatment（Kagoshima Prectural Institute of Industrial Technology）○Yukio Yoshimura・Kenichi Sodeyama・Shogo Tsukamoto・（KYUSHU HI-TECH Co.,ltd.）Saburo Nagano

2P061 Improvement of detergent property on porcelain with surface coating（Gifu Pref. Ceram. Res. Inst.）○Seizo Obata・Kenji Tateishi・Kazumasa Kurachi・（Faculty of Engineering Gifu Univ.）Michiyuki Yoshida・Osamu Sakurada

j. 解析・シミュレーション関連

2P062 Atomic distribution in heavily ion-implanted materials（NIMS）○Shunichi Hishita・Isao Sakaguchi

2P063 The possibility of the oxygen defects in $BaSnO_3$:Ho（Ryukoku University）○Hiroki Toda・Kazurou Kizaki・Chihiro Tani・Tastuya Shirakami

2P064 Evaluation of dynamic wettability on 2D inverse opal structure.（Kogakuin University）○Kazuto Fukasawa・Naoya Yoshida・Toshinori Okura

2P065 A Novel Classification of The Various Ceramics Raw Material Particles by A Statistical Raman Analysis Method.（Malvern Instruments Japan., A Division of Spectris Co.Ltd.,）○Daisuke Sasakura・Aiko Hayauchi

2P066 Electric state analyses of niobium oxide polymorphs by XPS and DFT calculations（Okayama University）○Chinatsu Ohki・（Okayama University・Takamatsu National College of Technology）Go Sajiki・（Okayama University）Shinichi Sakida・Yasuhiko Benino・Tokuro Nanba

Nano-scale atomic correlation: New development of structural analysis using synchrotron radiation

2PB01 Characterization of microstructures of white silicon oxycarbides with low carbon contents（Osaka Prefecture University）○Masaki Narisawa・Hiroki Hokazono・Akihiro Iwase・（Ristsumeikan University）Masahiro Ogawa・Chihiro Yogi・Toshiaki Ohta

Synthesis and Functional Properties of Mixed Cation and Anion Compounds

2PC01 Synthesis and properties of BiS_2-based mixed anion superconductor（The University of Tokyo）○Tomoyuki Okada・Hiraku Ogino・Jun-ichi Shimoyama・Kohji Kishio・（National Institute of Advanced Industrial Science and Technology）Akira Iyo・Hirosi Eisaki

2PC02 Luminescence properties of new layered mixed-anion compounds $Ba_3RE_2X_2O_5$（The University of Tokyo）○Makoto Tatsuda・Hiraku Ogino・Jun-ichi Shimoyama・（Tohoku University）Yutaka Fujimoto・（Kyushu Institute of Technology）Takayuki Yanagida・（The University of Tokyo）Kohji Kishio

2PC03 Structure and Luminescence Properties of Eu (II)-activated Mixed Alkaline-Earth Nitride Phosphors（Osaka University）○Yun An・Hiromasa Hanzawa・Ken-ichi Machida

2PC04 The preparation of novel oxygen storage materials for automotive three-way catalytic application via solution reaction routes（Tohoku University）○Qiang Dong・Shu Yin・Tsugio Sato

2PC05 Synthesis and characterization of $Sn_{1-x}(A_{2/3}B_{1/3})_xP_2O_{7-\delta}$ [A = Zn, Mg, Ni, B = Nb, Ta, Sb] solid proton conductor（The University of Meijo）○Yuki Yokoyama・Akinori Kan・（Aich Center for Industry and Science Technology）Masashi Suzuki・（Aichi Center for Industry and Science Technology）J. Umeda・（The University of Meijo）Hirotaka Ogawa

2PC06 Design of Complex Cation Superoxide Ionic Liquids（The University of Kyoto）○Daisuke Ishikawa・Atsushi Kitada・Kazuhiro Fukami・Kuniaki Murase

2PC07 Preparation of mixed cation cermets in a Si-Sn system by wet technique and their anode characteristic for lithium-ion secondary batteries（Osaka University）○Shoichi Ichikawa・Tatsuya Kawase・Ken-ichi Machida

2PC08 The solid phase synthesis of Li-Sn-Si alloy anode for lithium ion battery（Osaka University）Xiao Gao・○Ken-ichi Machida

Science and Technology on Engineering Ceramics ー Advanced materials and analysis for Safe and Reliable Society ー

2PL01 Basic study on the development of functional composite fiber prepared via electrostatic adsorption technique（Toyohashi University of Technology）○Naoto Kimura・Go Kawamura・Atsunori Matsuda・Hiroyuki Muto

2PL02 Development of thermally conductive boron nitride fillers synthesized by nitridation of mixtures of boron carbide, boron oxide, and oxide additives（Kagawa University）○Kazuhiro Katayama・Takafumi Kusunose・（Osaka University）Tohru Sekino

2PL03 Control of microstructure of crystal oriented strontium barium niobate（Nagaoka University of Technology）○Tomonori Tanaka・Zenji Kato・Takuma Takahashi・Satoshi Tanaka

2PL04 Sintering and mechanical strength of Al_2TiO_5（Graduate School of integrated Basic Sciences, Nihon University）○Satoshi Yamagata・（College of humanities and sciences, Nihon University）Takayuki Sugimoto・Hiroki Fujimori

Ceramics Processing through Energy Consumption Reduction (Green Processing)

液相プロセス

2PM01 Ion-exchange K^+ for Na^+ ion in $A_2Ta_2O_6$ material（University of Toyama）○Takashi Hashizume・Atsushi Saiki

2PM02 Characterization of $MgFe_2O_4$ prepared from a malic acid complex（Kyushu Institute of Technology）○Akane Doi・Yuki Obukuro・（Kyushu Institute of Technology・Kitakyushu National College of Technology）Shigenori Matsushima・（Kitakyushu National College of Technology）Kenji Obata・Atsushi Kajima

2PM03 Fabrication of WO_3 based photochromic composite films using peroxohetero polytungstic acid conjugated hetero elements.（Shimane University）○Takumi Ishigaki・Hidetoshi Miyazaki・（Nagoya Institute of Technology）Toshitaka Ota・（Shizuoka University）Hisao Suzuki

2PM04 Bioactive Surface Modification on TiNbTaZr Alloy by Hydrothermal-Electrochemical Process（Tokyo Institute of Technology）○Ryo Matsudo・Eri Takematsu・Ken-ichi Katsumata・（Tohoku University）Junko Hieda・Mitsuo Niinomi・（Tokyo Institute of Technology）Kiyoshi Okada・Nobuhiro Matsushita

薄膜

2PM05 Composition Control of Solution-processed Ferrite Films Using pH Buffer（Tokyo Institute of Technology）○Tetsuro Watanabe・Ken-ichi Katsumata・Kiyoshi Okada・Nobuhiro Matsushita

2PM06 Control of orientation for YSZ thin film using RF sputtering method（The University of Toyama）○Yuki Tsuchida・takashi Hashizume・Atsushi Saiki

2PM07 Optical properties and the production of rare earth doped CeO_2 thin films by mist deposition method（The University Toyama）○Yuto Yamashita・Takashi Hashizume・atushi saiki

2PM08 Fabrication of thermochromic $SmNiO_3$ films with controlling the transition temperature by Nd addition（The University of Mie）○Yusuke Maejima・Atushi Ishihara・Hiroyuki Nasu・Tadanori Hashimoto・（The University of Shimane）Hidetoshi Miyazaki・（The University of Nagoya Institute of Technology）Toshitaka Ohta・（The University of Shizuoka）Hisao Suzuki

Advent and Development of Advanced Photonic Materials

2PN01 Morphology of nanoholes in borate crystals and glasses fabricated by femtosecond laser ablation（Akita University）○Tomomi Sakashita・Tomoko Takahashi・Nobuhiro Kodama・（Osaka University）Masahiro Tsukamoto・Ryosuke Nishii・（National Institute for Materials Scince）Naoki Ikeda・Yoshimasa Sugimoto

2PN02 Synthesis and photocatalytic properties of perovskite oxides containing Sn^{2+} ion（Gunma National College of Technology）○Nobuyuki Taira・Kiliha Katayama

2PN03 Intrinsic Luminescence and Energy Transfer from Self-trapped Excitons in Binary Rare-earth Scandium Borates under Vacuum UV Excitation（Akita University）○Akari Abe・Tomoko Takhashi・Yuri Sugiyama・Haruka Kidachi・Nobuhiro Kodama

2PN04 Upconversion fluorescence property of crystallized glass containing $Gd^{3+}$with Tm^{3+} as luminescence element（University of Hyogo）○Yuri Shibuya・Atsushi Mineshige・Tetsuo Yazawa・（National Institute of Advanced Industrial Science and Technology）Tomoyo Ochiishi・Tetsurou Jin

2PN05 Fabrication and Optical Properties of Y_2O_3:Eu^{3+} Nanorod Assemblies（Keio University）○Yuya Hakamatani・Manabu Hagiwara・Shinobu Fujihara

2PN06 Magnesium reduction of silica glass -Dependence on reaction condition-（Kyoto Institute of Technology）○Yuki Tsuboi・Shogo Ura・Takashi Wakasugi・Arifumi Okada・Kohei Kadono

2PN07 Crystallization of GeS_2-Sb_2S_3(–CsCl) glasses –Effects of additives–（Kyoto Institute of Technology）○Keisuke Okumura・Takashi Wakasugi・Arifumi Okada・Kohei Kadono

2PN08 Lithium aluminate red-phosphors using Fe^{3+} as the luminescent center（Yamagata University）○Yuta Matsushima・Hideaki Takahashi・Keisuke Watanabe

2PN09 Optical properties of Au@Ag nanoparticles coated with ceramics（Nagoya Institute of Technology）○Yuta Noda・Tomokatsu Hayakawa

2PN10 The Influence of Crucible on Thermal and Optical properties of $85TeO_2$-$5TiO_2$-10ZnO glasses（Nagoya Institute of Technology）○Masato Shimoda・Jerome Lelievre・Tomokatsu Hayakawa・（Limoges university）Philippe Thomas

2PN11 Characterization of ScheeliteType Oxide Phosphor Thin Films（Tokyo Institute of Technology）○Takuro Dazai・Yosuke Hamasaki・Shintaro Yasui・Tomoyasu Taniyama・Mitsuru Itoh・（National Institute of Advanced Industrial Science and Technology）Hiroshi Takashima

2PN12 Near-infrared luminescence of lanthanide Tb(III)-Yb(III) clusters（Hokkaido university）○Takayuki Nakanishi・Yuki Suzuki・Kohi Fushimi・Yasuchika Hasegawa

■■ September 10 (Wed) (Room Q) ■■

The technique and new development of ceramics materials useful for various environmental problems

撥水・親水表面

（9：00）(Chairman 前田浩孝)

2Q01 Effect of ultrasonic treatment on underwater oil wettability of titanium dioxide surface（Okayama University）○Yuichi Mori・Shunsuke Nishimoto・Yoshikazu Kameshima・（Industrial Technology Center of Okayama Prefecture）Eiji Fujii・（Okayama University）Michihiro Miyake

2Q02 Wettability of porous titanium dioxide surface prepared by acid treatment（Okayama University）○Shunsuke Nishimoto・Misaki Ota・Yusuke Sawai・Yoshikazu Kameshima・Michihiro Miyake・（Industrial Technology Center of Okayama Prefecture）Eiji Fujii

2Q03 Preparation of hydrophilic-hydrophobic patterned films of by screen printing method and their water collection.（Nihon University）○Sadaaki Kato・Toshikazu Nishide

2Q04 Observation of droplet jumping on superhydrophobic coatings during dew condensation（Tokyo Institute of Technology・Kanagawa Academy of Science and Technology）○Akira Nakajima・Kousuke Yanagisawa・Toshihiro Isobe・Sachiko Matsushita・（Kanagawa Academy of Science and Technology）Munetoshi Sakai

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

材料開発

(10：20) (Chairman 伴隆幸)

2Q05 Novel coloring of geopolymers by the immersion in cupper solutions (Nagoya Institute of Technology) Hayami Takeda・○Shinobu Hashimoto・Sawao Honda・Yuji Iwamoto

2Q06 Materials design of calcium silicate hydrate gels for improving organic dye adsorption property (Nagoya Institute of Technology) ○Hirotaka Maeda・(Tohoku University) Toshiyuki Abe・Hideki Ishida・(Nagoya Institute of Technology) Toshihiro Kasuga

2Q07 Analysis of new heat insulation materials and heat loss for the development of heat and cool utilization system (The University of Tohoku) ○Shikiko Ohata・Yuko Suto・Hideki Ishida・Hideaki Matsubara

環境保全材料

(11：20) (Chairman 加藤純雄)

2Q08 ★Development of bricks for building intended to environmental conservation (Fukuoka Industrial Technology Center) ○Naotaka Sakamoto

環境科学技術

(14：20) (Chairman 袋布昌幹)

2Q17 ★Science and Technology for Ecomaterial Engineering—A study of soil washing treatment for radioactive Cesium contaminated soil— (Kagoshima National College of Technology) ○Tetsuji Chohji (National Institute of Technology, Toyama College) M. Tafu・E. Takada・(University of Toyama) M. Hara

資源

2Q19 Recycling of titanium from ilmenite by ball milling (Okayama University) ○Kouzi Yamamoto・Yoshikazu Kameshima・Shunsuke Nishimoto・Michihiro Miyake

2Q20 Fabrication and Charactalization of the Hardened Bodies from Volcanic Ash Using a Warm Pressing Method. (Nagoya Institute of Technology) ○Tatsuya Machino・Shinobu Hashimoto・Hayami Takeda・Sawao Honda・Yuji Iwamoto

2Q21 Raman analysis of the crystallized wood carbon by addition of $CaCl_2$ (Okayama Ceramics Reserch Foundation) ○Tomoyuki Maeda・Tomohiro Nishikawa・Yasuhiro Hoshiyama・Shigeyuki Takanaga・(The University of Shinshu) Yasushi Murakami・(Hitachi High-Technologies Corporation) Gen Matsuda

ガス吸着材料

(16：00) (Chairman 勝又健一)

2Q22 Fabrication of self heating CO_2 absorber Li_2CuO_2/CuO-Cu_2O/Cu composite (Chou University) ○Daiki Kotoh・Katuyosi Ohisi・(Tokyo Sity University) Ryouta Kobayasi

2Q23 Kinetics of CO_2 adsorption of $Ba_2(Fe_{1-x}In_x)_2O_5$ (Kochi University) ○Yuki Nakazawa・Fimito Fujishiro

2Q24 Preparation of carbon dioxide absorbent from layered double hydroxide (LDH) (Okayama University) ○Shunichi Watanabe・Yoshikazu Kameshima・Shunsuke Nishimoto・Michihiro Miyake

2Q25 Development of high heat-resistant pyrochlore type oxygen storage material pCP Part2 (TOYOTA Central R&D Labs., Inc.) ○Akira Morikawa・Kae Yamamura・Toshitaka Tanabe・Akihiko Suda・Naoki Takahashi・(TOYOTA Motor Corporation) Takeshi Nobukawa・(Cataler Corporation) Akiya Chiba

リサイクル

(17：20) (Chairman 三宅通博)

2Q26 ★Recycling examples and approach to an environmental problem (TOTO LTD.・NPO Environment Counselor Chiba Meeting) ○Tsutomu Miyata

■■ September 10 (Wed) (Room R) ■■

Research Topics on Advanced Ceramic Technology for Energy Conversion, Storage and Control Devices

蓄電池

(9：00) (Chairman 永井秀明)

2R01 Sodium air cells using nanoporous gold electrode and NASICON ceramic separator (Tokyo Institute of Technology) ○Taiju Hashimoto・(Tokyo Institute of Technology・Kyushu University) katsuro Hayashi

2R02 First-principles calculation of electronic structure of Na ion battery cathode material $Na_4Co_3(PO_4)_2P_2O_7$ (JFCC) ○Hiroki Moriwake・Akihide Kuwabara・(Toyota Motors) Masafumi Nose・Hideki Nakayama・Shinji Nakanishi・(JFCC・The University Tokyo) Yuichi Ikuhara

2R03 Fabrication of glass-ceramics composite by sodium niobium phosphate glass and NASICON (Nagaoka University of Technology) ○Tsuyoshi Honma・Masayoshi Okamoto・Takuya Togashi・Kenji Shinozaki・Takayuki Komatsu

蓄電池

(10：00) (Chairman 荒地良典)

2R04 Charge-discharge performance of sodium battery using $NaCoO_2$ (Central Research Institute of Electric Power Industry) ○Takeshi Kobayashi・Hiroyuki Yoshida・Yo Kobayashi・Hajime Miyashiro・(Electric Power Engineering Systems Co., Ltd.) Yasutaka Ohno

2R05 Synthesis, crystal structure and physical properties of tunnel-type $Na_xTi_4O_9$ (National Institute of Advanced Industrial Science and Technology) ○Kunimitsu Kataoka・Junji Akimoto

2R06 Preparation of the crystallography oriented Na-β''-alumina by Spark Plasma Sintering (Tokyo institute of technology・Center for Secure Materials) ○Kazuto Koganei・Toshihisa Oyama・(Tokyo institute of technology・Center for Secure Materials・Kyuushuu University) Katsuro Hayashi

熱・熱電変換 等

(11：00) (Chairman 藤代芳伸)

2R07 Development of new heat storage mediums using the oxide-based sealing glasses (Kyoto University) ○Hiroyuki Tei・Koji Nagashima・Masahiro Shimizu・Masayuki Nishi・Kazuyuki Hirao

2R08 ☆Development of Y_2O_3stabilized ZrO_2 monitoring sensor in high temperature water (Central Research Institute of Electric Power Industry) ○Yoshinori Hashimoto・Jun-ichi Tani

熱・熱電変換 等

(14：20) (Chairman 岩崎航太)

2R17 Synthesis of Mg_2Si compound by SPS and theoretical analysis of thermoelectric properties (Central Research Institute of Electric Power Industry) ○Kaoru Nakamura・Tomohisa Kumagai・Susumu Yamada・Toshiharu Ohnuma

2R18 Improvement in thermoelectric performance of TiS_2-baced inorganic/organic hybrid superlattice (Nagoya University) ○Mami Kondo・Tomohiro Ito・Chunlei Wan・Kunihito Koumoto

2R19 Effect of polymorphism for TiO_2 photo-electrode of dye-sensitized solar cell (Tokai University) ○Miwako Furue・koji Tomita・Yuki Shimoyama・

Yoshihito Kunugi・(Waseda University) Shinjiro Umezu・(Tohoku University) Masato Kakihana

2R20 Fabrication of zirconia glass-ceramics and effect of crystallization condition on photoluminescent property (The University of Tohoku) ○Yasuhiro Nobuta・Yoshihiro Takahashi・Nobuaki Terakado・Takumi Fujiwara

水素・燃料電池

(15：40) (Chairman 松田和幸 (藤代芳伸))

2R21 Effects of organic surface modification agents on platinum nanoparticles as electrocatalyst for oxygen reduction reaction of polymer electrolyte fuel cell (Japan Advanced Institute of Science and Technology・Shizuoka University) Keiko Miyabayashi・(Japan Advanced Institute of Science and Technology) Hiroki Nishihara・Zhongrong Shen・○Mikio Miyake

2R22 Hydrogen Generation Material with Al foil and Calcium Hydroxide: To start fuel cell for long-term (Kyoto University) ○Kohji Nagashima・Heidy Visbal・(Nagoya University) Shingo Kanehira・(Kyoto University) Masahiro Shimizu・Masayuki Nishi・Kazuyuki Hirao

2R23 Comparison between catalytic activities of barium ruthenate polymorphs (Nagoya University) ○Yuichi Shirako・Masashi Hasegawa・Katsutoshi Kobayashi・Masakuni Ozawa

2R24 Joining of yttria-stabilized zirconia and stainless alloy via NiO-dispersed Al interlayer and evaluation of an oxygen gas seal property (Hosei University) ○Naoto Someya・Takaya Akashi

2R25 Phase transformation and its related conductivity degradation of cubic stabilized zirconia under SOFC condition (National Institute of Advanced Industrial Science and Technology) ○Haruo Kishimoto・(Kagoshima University) Taro Shimonosono・(National Institute of Advanced Industrial Science and Technology) Katherine Bagarinao・Katsuhiko Yamaji・Teruhisa Horita・(The University of Tokyo) Harumi Yokokawa

水素・燃料電池

(17：20) (Chairman 森昌史)

2R26 Nano Ceria slurry with homogeneous particle morphology and well dispersion (Anan Kasei Co.Ltd.) ○Eisaku Suda・Manabu Yuasa・Takao Sekimoto・Jun Tokuda

2R28 Characterization of LSCF/Pr_2CuO_4 composite cathode for IT-SOFC (Okayama University) ○Hiromi Nagae・Shunsuke Nishimoto・Yoshikazu Kameshima・Michihiro Miyake

■■ September 10 (Wed) (Room S) ■■

Advances in Powder Processing to control microstructure of materials

セラミックス微粒子の表面改質

(10：00) (Chairman 福島学)

2S04 Dispersion control of non-aqueous suspensions by using polyethyleneimine associated with oleic acid (Yokohama National University) ○Motoyuki Iijima・Shiori Sueyasu・Naoki Okamura・Junichi Tatami

2S05 Surface Modification of SiAlON Phosphor Particles and Fabrication of its Deposit by Electrophoretic Deposition (EPD) Process (NIMS) ○Tetsuo Uchikoshi・Chenning Zhang・Toshiyuki Nishimura・Yoshio Sakka・Naoto Hirosaki

成形プロセスによる形態・構造付与

(10：40) (Chairman 多々見純一)

2S06 ★Three-dimensional microstereolithography and molding processes for MEMS applications (Yokohama National University) ○Shoji Maruo

(11：20) (Chairman 打越哲郎)

2S08 High strength alumina ceramics by gelcasting (Tokyo university of agriculture and technology・Shanghai institute of ceramics) ○Shunzo Shimai・(Shanghai institute of ceramics) Yi Sun・Xiang Peng・(Tokyo university of agriculture and technology) Hidehiro Kamiya・(Shanghai institute of ceramics) Shiwei Wang

2S09 Highly porous thermal insulators through gelation freezing route (National Institute of Advanced Industrial Science and Technology (AIST)) ○Manabu Fukushima・Yu-ichi Yoshizawa

微粒子とスラリーの新規評価法

(14：40) (Chairman 飯島志行)

2S18 Evaluation thickness of plate-like ceramic filler by slip casting method (National Institute of Advanced Industrial Science and Technology) ○Yuichi Tominaga・Diasuke Shimamoto・Kimiyasu Sato・Yusuke Imai・Yuji Hotta

2S19 Visualization and Analyses of Material Flow in Extrusion Process of Ceramics (kagoshima Prefecture Institute of Industrial Technology) ○Satoru Kuwaharada・Yuji Mure・(The University of Kagoshima) Kenji Nakanishi

2S20 Effect of coarse particles in concentrated slurry by direct observation (Nagaoka University of Technology) ○Yoshihiro Nagasawa・Zenji Kato・Satoshi Tanaka

粉体プロセスによる微構造制御と特性向上

(15：40) (Chairman 井須紀文)

2S21 ★Effect of raw powder and processing on the high thermal conductivity of silicon nitride ceramics (Denki Kagaku Kogyo) ○Hiroshi Yokota

(16：20) (Chairman 高橋拓実)

2S23 Study of thermal distribution on carbon fiber/thermoplastic composite with thermal conductive ceramic powder (National Institute of Advanced Industrial Science and Technology) ○Daisuke Shimamoto・Yuichi Tominaga・Yusuke Imai・Kimiyasu Sato・Yuji Hotta

2S24 Preparation of SiO_2 amorphous-crystalline composite by HIP sintering of silica gel powder (Tokyo University of Science) ○Shigeru Ito・Hiroki Akiyama・Yuki Yamaguchi・Kenjiro Fujimoto

(17：00) (Chairman 堀田祐司)

2S25 Tri-axial crystalline orientation of $MgTi_2O_5$ achieved by using strong magnetic field and geometric effect (NIMS) ○Tohru Suzuki・(University of Tsukuba) Yoshikazu Suzuki・(NIMS) Tetsuo Uchikoshi・Yoshio Sakka

2S26 Microstructure control of alumina ceramics using nanocomposite particles prepared by mechanical treatment (Yokohama National University) ○Junichi Tatami・Takuya Uoji

■■ September 11 (Thu) (Room A) ■■

Frontiers of structural science and the development of novel materials

(9 ：00) (Chairman 山田幾也)

3A01 ☆Mixed-valent chromiun oxides (Max-Planck-Institute for Solid State Research) ○Masahiko Isobe・Hidenori Takagi・(National Institute for Material

Science）Hiroya Sakurai

（9：20）（Chairman 山田高広）

3A02 Crystal Structure analysis of $BaTiO_3$-based solid solution by synchrotron radiation X-ray powder diffraction（Univesity of Yamanashi）○Keisuke Ogura・Nobuhiro Kumada・Takahiro Takei・Akira Miura・（Hiroshima University）Yoshihiro Kuroiwa・Chikako Moriyoshi・Eisuke Magome

3A03 Charge Transfer and Negative Thermal Expansion of $Bi_{1-x}Pb_xNiO_3$（Tokyo Institute of Technology）○Kiho Nakano・Koichiro Nabetani・Masaki Azuma・（Tokyo Institute of Technology・Chuo University）Kengo Oka・（JASRI）Masaichiro Mizumaki・（JAEA）Akane Agui・（NIMS）Shigenori Ueda

3A04 High pressure synthesis and physical property measurements of a new perovskite $SrFe_{0.5}Ni_{0.5}O_3$（Institute for Chemical Research, Kyoto University）○Hayato Seki・Takashi Saito・（Institute for Chemical Research, Kyoto University・JST-CREST）Yuichi Shimakawa

（10：40）（Chairman 籠宮功）

3A06 Effect of hydrothermal synthesis temperatures on superconducting properties of double perovskite bismuth oxides（Univesity of Yamanashi）○Rubel Mirza H.K.・Akira Miura・Takahiro Takei・Nobuhiro Kumada・（Tokyo Institute of Technology）Masaki Azuma・（Hiroshima University）Eisuke Magome・Chikako Moriyoshi・Yoshihiro Kuroiwa

3A07 Synthesis, crystal structure, and electrical properties of $Na_{52}Ag_{58}Sn_{48}$（Tohoku University）○Takahiro Yamada・Ryo Ishiyama・Hisanori Yamane

3A08 Crystal structure and physical properties of $GdBaMMnO_{5+d}$（*M*=Fe, Co）（Institute for Chemical Research, Kyoto University）○Keisuke Manabe・Noriya Ichikawa・Takashi Saito・（JASRI）Masaichiro Mizumaki・（Institute for Chemical Research, Kyoto University・JST-CREST）Yuichi Shimakawa

3A09 Thermodynamic analyses of structural phase transitions of electrical conducting oxides involving disorder of arrangement of oxide ion vacancies（Nihon University）○Takuya Hashimoto・Takashi Okiba・Eiki Niwa・（JEOL Co., Ltd.）Koji Okuda・（Tokai University）Masashi Yoshinaga・（Kochi University）Fumito Fujishiro

（13：00）（Chairman 加藤丈晴）

3A13 ☆Micro-scales structure and electronic state in electroceramics studied via electron microscopy and spectroscopy（Kyushu University）○Yukio Sato

（13：20）（Chairman 山根久典）

3A14 Phase transformation of yeelimite, $Ca_4[Al_6O_{12}]SO_4$, and its disordered crystal structure at 1073 K（Nagoya Institute of Technology）○Hiroki Banno・Daisuke Kurokawa・Seiya Takeda・Toru Asaka・Koichiro Fukuda

3A15 Orthorhombic-monoclinic structural change and magnetic propaties of quaternary rare earth oxides $Ba_3RFe_2O_{7.5}$（*R* = rare earths）（Hokkaido University）○Ryosuke Sakashita・Yoshihiro Doi・Yukio Hinatsu

3A16 Synthesis, structure, and physical properties of a novel perovskite oxide $LaAgFe_2O_6$（ICR, Kyoto Univ.）○Yasuhide Akizuki・Takashi Saito・（Japan Synchrotron Radiation Research Institute）Masaichiro Mizumaki・（ICR, Kyoto Univ.・JST-CREST）Yuichi Shimakawa

3A17 High-pressure synthesis, structure and magnetic property of Na_2CoPO_4F（Gakushuin University）○Daisuke Mori・（National Institute of Advanced Industrial Science and Technology）Hamdi Ben Yahia・Masahiro Shikano・Hironori Kobayashi・（Gakushuin University）Yoshiyuki Inaguma

（15：00）（Chairman 藤井孝太郎）

3A19 Room-temperature magnetoelectric effect with a reversal of electric polarization induced by a magnetic field in Y-type hexaferrite, $BaSrCo_{2-x}Zn_xFe_{11}AlO_{22}$ ceramics.（Murata Manufacturing Co., Ltd.）○Sakyo Hirose・（Osaka University）Kohei Haruki・（Murata Manufacturing Co., Ltd.）Akira Ando・（Osaka University）Tsuyoshi Kimura

3A20 Exploration for novel vanadium group nitrides by high pressure-temperature synthesis method（Nagoya University）○Ken Niwa・Kentaro Okuno・Masashi Hasegawa

3A21 Crystal structure and superconductivity in $Mo_xRe_{20-x}C$ prepared by solid state reaction（Chuo University）○Kenta Nagumo・Kazuya Tateishi・Katsuyoshi Oh-ishi・（Tokyo Sity University）Ryota Kobayashi

（16：00）（Chairman 森大輔）

3A22 High Pressure Synthesis of A-site Ordered Perovskite with Mn^{2+} in *A'*-site（Graduate School of Engineering, Nagoya Univ.）○Gen Shimura・Yuichi Shirako・Ken Niwa・Masashi Hasegawa

3A23 Crystal structure and electrical conductivity of the novel *AA'* BO_4-typed oxide-ion condctors（Tokyo Institute of Technology）○Kotaro Fujii・Yuichi Esaki・Chihiro Saito・Masatomo Yashima・Kazuki Omoto

3A24 Transmission electron microscopy study of $GdBa_2Cu_3O_y$ layers with $BaMO_3$ (M: Hf, Zr or Sn) nano-rods（JFCC）Daisaku Yokoe・○Takeharu Kato・Tsukasa Hirayama・（International Superconductivity Technology Center・Fujikura）Hiroshi Tobita・（International Superconductivity Technology Center）Akira Ibi・Masateru Yoshizumi・Teruo Izumi・Yuh Shiohara

■■ September 11 (Thu) (Room B) ■■

Nano-scale atomic correlation: New development of structural analysis using synchrotron radiation

（9：00）（Chairman 北村尚斗）

3B01 Structural refine of RMC model using interatomic potential for lead borate-based glasses（Okayama University）○Yasuhiko Benino・Yuya Hozaki・Shinichi Sakida・Tokuro Nanba・（JGC Corp.）Atsushi Mukunoki・Tamotsu Chiba・Takahiro Kikuchi・（RWMC）Tomofumi Sakuragi

3B02 Leaching behavior of sodium borosilicate glass and structural analysis of its alteration layer by solid-state NMR（Chiba University）○Yohei Osasa・Takahiro Ohkubo・（NIMS）Kenzo Deguchi・Shinobu Ohki・（Chiba University）Yasuhiko Iwadate

3B03 Structural analysis and physical property simulation of $La_4Ti_9O_{24}$ glass.（The University of Tokyo）○Takumi Umada・Hiroyuki Inoue・Atsunobu Masuno・（SPring-8）Shinij Kohara・（The University of Tokyo）Yasuhiro Watanabe

（10：00）（Chairman 増野敦信）

3B04 Relationship between coordination structure of Bi ions and optical absorption in Li_2O-Bi_2O_3-B_2O_3 glasses（AIST）○Naoyuki Kitamura・Kohei Fukumi・（Kansai University）Takatoshi Sugihara・Hiroaki Uchiyama・Hiromitsu Kozuka・（JASRI）Koji Ohara・Shinji Kohara

3B05 Local structural change in alkaline borosilicate glass with fictive temperature（University of Shiga Prefecture）○Akihiro Yamada・Takuya Naito・Satoshi Yoshida・Jun Matsuoka・（SR Center, Ritsumeikan University）Keisuke Yamanaka・Daiki Fujioka・Toshiaki Ohta

3B06 Structural analysis and application of iron oxide of bacterial origin（Okayama University）○Hideki Hashimoto・Tatsuo Fujii・（JASRI）Shinji Kohara・（Kurashiki University of Science and the Arts）Yoshihiro Kusano・（Okayama University）Makoto Nakanishi・Yasuhiko Benino・Tokuro Nanba・（Okayama University・JST, CREST）Jun Takada

（11：00）（Chairman 北村直之）

3B07 Sub-nano scale local structures of Fe atoms/ions in soda lime glass by nuclear resonant scattering and XAFS methods（SPring-8/JASRI）○Kyoko Okada・Yoshitaka Yoda・Hironori Ofuchi・（New SUBARU, Univ. Hyogo）Norimasa Umesaki・（SPring-8/JASRI）Yoshiharu Sakurai

3B08 ★Studies of local structures in chalcogenide glasses by anomalous x-ray scattering at European Synchrotron Radiation Facility（Kumamoto University）

○Shinya Hosokawa・(Univ. Marburg) Jens Stellhorn・Wolf-Christian Pilgrim・(CNRS-Grenoble) Jean-Francois Berar・Nathalie Boudet

無容器法

(13：00) (Chairman 正井博和)

3B13 Aluminum environment of La_2O_3-Al_2O_3 and Y_2O_3-Al_2O_3 glasses (The University of Tokyo) ○Yasuhiro Watanabe・Hiroyuki Inoue・Atsunobu Masuno・(SPring-8) Shinji Kohara

3B14 Structrure of liquid ZrO_2 revealed by a combination of synchrotron x-ray diffraction and DF-MD simulation (Japan Synchrotron Radiation Research Institute) ○Shinji Kohara・(Tampere University of Technology) Jakko Akola・Leonid Patrikeev・Matti Ropo・(Japan Synchrotron Radiation Research Institute) Koji Ohara・Masayoshi Itou・Akihiko Fujiwara・(Kyushu University) Jumpei Yahiro・(Japan Aerospace Exploration Agency) Junpei Okada・Takeshiko Ishikawa・(Gakushuin University) Akitoshi Mizuno・(The University of Tokyo) Yasuhiro Watanabe・Atsunobu Masuno・(Yamagata Univeristy) Takeshi Usuki

3B15 Structural effects on the mechanical properties of Al_2O_3-SiO_2 glasses fabricated by aerodynamic levitation (The University of Tokyo) ○Gustavo Alberto Rosales-Sosa・Atsunobu Masuno・Hiroyuki Inoue・(Japan Synchrotron Radiation Research Institute) Shinji Kohara

3B16 Local structure around Er^{3+} in Er^{3+}-doped BaO-SiO_2 glasses (The University of Tokyo) ○Atsunobu Masuno・Hiroyuki Inoue

イオン伝導体

(14：20) (Chairman 紅野安彦)

3B17 ★Visualization of conduction pathways of lithium ions in amorphous solid electrolytes (Kyoto University) ○Kazuhiro Mori・Tomoharu Ichida・Yohei Onodera・Toshiharu Fukunaga

3B19 Study of average and local structure of $La_2(Ni,Cu)O_{4+\delta}$-based mixed ionic-electronic conductor by neutron and synchrotron X-ray scattering (Tokyo University of Science) Naoto Kitamura・○Yasunori Mizoguchi・Naoya Ishida・Yasushi Idemoto

3B20 Atomic-configuration analysis on lanthanum silicate-based oxide-ion conductors by diffraction measurements (Tokyo University of Science) ○Naoto Kitamura・Kimihiro Kaneko・Naoya Ishida・Yasushi Idemoto

イオン伝導体

(15：40) (Chairman 橋本英樹)

3B21 Analysis of $LiNi_{0.5}Mn_{1.5}O_4$ cathode for lithium ion batteries by XAFS with first-principles calculation (Murata Manufacturing Co., Ltd.) ○Takashi Oyama・Atsushi Honda・Akira Tsubouchi・Toru Kawai

3B22 NMR study of Li^+ ion conduction in solid Li_2S-P_2S_5 electrolyte (Chiba University) ○Koki Nakagiri・Yasuhiko Iwadate・Shin Nishiyama・Takahiro Ohkubo・(National Institute of Materials Science) Tadashi Shimizu・Shinobu Ohki・Kenzo Deguchi

3B23 Ionic conduction pathway of Na-P-S superionic conductors revealed by neutron and synchrotron X-ray diffraction (Kyoto University Research Reactor Institute) ○Yohei Onodera・Hiroshi Nakashima・Kazuhiro Mori・Toshiharu Fukunaga・(High Energy Accelerator Research Organization) Toshiya Otomo

■■ September 11 (Thu) (Room D) ■■

Element-Blocks: Their Preparation and Polymerization Strategies

ハイブリッド元素ブロック

(9：00) (Chairman 松川公洋)

3D01 Synthesis of Inorganic-Organic Hybrids from Naphthalene-ring-bridged Diphosphonic Acids and a Copper(II) Salt *via* Hydrothermal Reactions (Waseda University) ○Hiroyoshi Tobise・Julian Zapico・(University of Yamanashi) Akira Miura・Nobuhiro Kumada・(Waseda University) Yoshiyuki Sugahara

3D02 ★Interfacial Structure and Dynamics of Polymers Containing Element-blocks (Kyushu University) Yukari Oda・Ryota Tsukamoto・Kentaro Yamamoto・Shinichiro Shimomura・Tomoyasu Hirai・Hisao Matsuno・○Keiji Tanaka

無機系元素ブロック

(10：00) (Chairman 渡辺明)

3D04 ★Concept of element-blocks in solid-state oxides-Physical properties of oxides based on structure and arrangement of oxygen-coordination polyhedra- (Kyoto University) ○Katsuhisa Tanaka・Koji Fujita

3D06 Ni-Co-Mn-Oxide Nanosheets with Vacancy Defects (The University of Tokyo) ○Shinya Suzuki・(The University of Tokyo・CREST, JST) Masaru Miyayama

無機系元素ブロック

(11：00) (Chairman 菅原義之)

3D07 ★Design of ZrO_2 Nano-Particles Based Organic-Ingorganic Hybrid Optical Materials (Yamagata University) ○Seigou Kawaguchi

3D09 ★Laser Processing of Element Blocks (Tohoku University) ○Akira Watanabe

■■ September 11 (Thu) (Room E) ■■

Hybrid Materials for Next Generation

(9：00) (Chairman 増田佳丈)

3E01 ★Novel Hybrid Materials Assembled from Oxide Nanosheets (WPI-MANA, NIMS) ○Minoru Osada・Takayoshi Sasaki

3E03 Syntheses of hydrophobic inorganic-organic composite nanosheets based on monolayers of transition metal oxides (The University of Keio) ○Masashi Honda・Yuya Oaki・Hiroaki Imai

(10：00) (Chairman 長田実)

3E04 ★Solution Plasma for Molecular Technology (Nagoya University) ○Nagahiro Saito

3E06 Metal ions suited to (3-mercaptopropyl) trimethoxysilane-derived oligomers for turning into gel monolithic (Kyoto University) ○Hiroshi Matsuura・Masayuki Nishi・Masahiro Shimizu・Kazuyuki Hirao

(11：00) (Chairman 齋篠永宏)

3E07 ★ Mesocrystals and Their Related Architectures as Structured Hybrid Materials (Keio Univeristy) ○Hiroaki Imai

3E09 Effects of solution compositions on the softening temperature of organically modified titanoxane bulk materials with thermoplastic properties and transparency (Kansai University) ○Shinya Oda・Hiroaki Uchiyama・Hiromitsu Kozuka

(13：00) (Chairman 今井宏明)

3E13 ★Creation of Nanohybrid Materials by Assembly of Oligosiloxanes (Waseda University) ○Atsushi Shimojima

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

3E15 Preparation of ladder-like polysilsesquioxanes containing imido side-chain groups and their hybridization（Kagoshima University）○Shunya Miyauchi・Tomoyuki Arake・（Nippon Shokubai）Takuo Sugioka・Yasutaka Sumida・（Hiroshima University）Toshiaki Enoki・Joji Ohshita・（Kagoshima University）Yoshiro Kaneko

（14：00）（Chairman 下嶋敦）

3E16 Fabrication of mesocrystal nanowires by electrospinning method（National Institute of Advanced Industrial Science and Technology）○Eiji Hosono・Satoshi Kajiyama・Masashi Okubo・Junichi Hoshino・Koichi Kageawa・Haoshen Zhou・（NIMS）Takuro Nagai・Koji Kimoto・Jun Kikkawa

3E17 Preparation and gas barrier property of silica/chitosan organic-inorganic hybrid gas barrier membranes（Kobe University）○Koji Kuraoka・Risako Yamamoto

■■ September 11 (Thu) (Room F) ■■

Soft-solution process for synthesis and fabrication of ceramics

（9：00）（Chairman 稲田幹）

3F01 Preparation of TiO_2 films by using titanic compound sol with peroxy group and investigation of effect of aggregated structure in films on their optical transparency（Chiba University）○Chunming Wen・Naofumi Uekawa・Takasi Kojima・Kazuyuki Kakegawa

3F02 Development of synthetic process for monodispersed nanocube particles of La-doped $SrTiO_3$（Nagoya University）○Kazuki Tsuruta・Chunlei Wan・Kunihito Koumoto・（Shandong University）Feng Dang

3F03 A Facile One-step Solvothermal Synthesis and Electrical Properties of Graphene/Rod- shaped Potassium Tungsten Bronze Nanocomposite（Tohoku University・Lanzhou University）○Bin Liu・（Tohoku University）Shu Yin・Qiang Dong・Tsugio Sato

（10：00）（Chairman 緒明佑哉）

3F04 Influence of Coexisting Metal Salts on Crystal Phase and Morphology of Calcium Carbonate（Shiraishi Central Laboratories Co., Ltd）○Kenichiro Eguchi・Kosuke Kawai・Masahiko Tajika・（Osaka Prefecture University）Atsushi Nakahira

3F05 Synthesis and Morphological control of cerium oxide particles using an aqueous hydrogen peroxide solution（Saga University）○Takashi Miyaguchi・Yukako Hayashi・Tatsuya Ayabe・Toshio Torikai・Takanori Watari・Mitsunori Yada

3F06 Study on Fabrication of Conductive Ceramics Film by Cast Method（Yamagata University）○Masato Sato・Shiro Kambe

3F07 Synthesis of Titanium Oxide Nanoparticles by the Solution Plasma Processing（Aichi Center for Industry and Science Technology）○Takaaki Murai・Hirofumi Nameki・Takanori Sugimoto・Toshiaki Nakao

（13：20）（Chairman 内山弘章）

3F14 ☆Hydrothermal Synthesis of Titania and Magnetite Crystals with Controlled Morphologies（Tohoku University）○Makoto Kobayashi・Junki Sato・（NIMS）Minoru Osada・（Tohoku University）Hideki Kato・Masato Kakihana

3F15 ☆Aqueous synthesis and tuning grwoth modes of ceria nanocrystals（Kumamoto University・JST, CREST）○Takaaki Taniguchi・Yasumichi Matsumoto

3F16 Preparation of Fine Particles of Rare Earth Niobate Solid Solutions via Hydrothermal Method（Aichi Institute of Technology）○Masanori Hirano・Hayato Dozono

（14：20）（Chairman 平野正典）

3F17 Synthesis of Nb_2O_5 nanopariticles by solvothermal method and its performance for selective photooxidation（Kyoto University ESICB・Kyoto University）○Saburo Hosokawa・（Kyoto University）Kazuki Tamai・（Kyoto University ESICB・Kyoto University・PRESTO）Kentaro Teramura・（Kyoto University ESICB・Tokyo Metropolitan University）Tetsuya Shishido・（Kyoto University ESICB・Kyoto University）Tsunehiro Tanaka

3F18 Synthesis of titanium oxide nanoparticles by hydrolysis reaction in ethylene glycol solution of Ti-alkoxides and characterization of surface characteristics by dye adsorption（Chiba University）○Naofumi Uekawa・Chunming Wen・K. Ishii・Takashi Kojima・Kazuyuki Kakegawa

3F19 Preparation of nanostructured SnO particles through crystal growth in the presence of biological polymers（Kansai University）○Hiroaki Uchiyama・Syunsuke Nakanishi・Hiromitsu Kozuka

■■ September 11 (Thu) (Room G) ■■

Chemical process- Key processes for fabrication of novel functional materials-

磁場配向

（9：00）（Chairman 成澤雅紀）

3G01 Fabrication of Textured Ti-doped Hematite Ceramics Using Magnetic Orientation Processing（Hosei University）○Shunji Fujita・Ayumu Yamasaki・Takamasa Ishigaki・（NIMS）Tetsuo Uchikoshi

3G02 Effect of applied strong magnetic field on hydrothermal synthesis of mordentie film（NIMS）○Chika Matsunaga・Tetsuo Uchikoshi・Noriyuki Hirota・Tohru Suzuki・Yoshio Sakka・（Kumamoto University）Motohide Matsuda・（Toyohashi University of Technology）Hiroyuki Muto・Atsunori Matsuda

酸化亜鉛

3G03 Fabrication of ZnO Thin Films by Electroplating or Electroless Plating（Kumamoto Industrial Research Institute）○Masanori Nagata・（Ogic Technologies Co., Ltd.）Katsuya Yukiya

3G04 Synergistic effect of Mg^{2+}-doping / quantum confinement for band gap of ZnO（Nagoya Institute of Technology）○Shunsuke Fujii・Kazuki Shirota・Yusuke Daiko・Yuji Iwamoto・（Friedrich-Alexander-Universitat Erlangen-Nurnberg）Doris Segets・Wolfgang Peukert

球状・多孔カーボン

（10：20）（Chairman 岩本雄二）

3G05 Structure and Capacitive Properties of Carbon Spheres by Hydrothermal Carbonization Process（Kyushu University）○Miki Inada・Syunsuke Shintani・Naoya Enomoto・Junichi Hojo・Katsuro Hayashi

3G06 Mesostructured carbon film with morphology-induced hydrophilic surface through a dewetting free coating process（Osaka Prefecture University）○Yasuaki Tokudome・Kohei Nakane・Masahide Takahashi

炭化ケイ素

3G07 Effect of Pyrolysis Atmosphere on Synthesis Process of Silicon Oxycarbides（Osaka Prefecture University）○Masaki Narisawa・Hiroki Hokazono・Takahumi Tai・Akihiro Iwase

炭化ケイ素

（11：20）（Chairman 成澤雅紀）

3G08 ☆Current status amd future prospect of SiC-based composite materials in energy/environmental fields（NIMS）○Kazuya Shimdoa

均一沈殿法

(13：00) (Chairman 大幸裕介)

3G13 (Lu,Gd)AG:Eu Phosphor Microspheres via Homogeneous Precipitation and Luminescence Properties (NIMS) ○Ji-Guang Li・(Northeastern University) Jinkai Li・Xudong Sun・(NIMS) Yoshio Sakka

コンビナトリアル手法

3G14 Establishment of olivine $LiFePO_4$-$LiMnPO_4$-$LiCoPO_4$ reaction phase diagram (Tokyo University of Science) ○Shuhei Enoki・Yuki Yamaguchi・Shigeru Ito・Kenjiro Fujimoto

水質浄化・光触媒

3G15 Synthesis of siloxane-containing vaterite nanoparticles with preferred crystal orientation towards water treatment (NIMS) ○Jin Nakamura・Yoshio Sakka・(Nagoya Institute of Technology) Toshihiro Kasuga

水質浄化・光触媒

(14：00) (Chairman 中村仁)

3G16 Environmental cleaning and visible-light responsible properties of titania nanotubes by cation doping (Osaka University) ○Tohru Sekino・Hisataka Nishida・(Tohoku University) Hiroaki Sugiyama・Hiroki Tsukamoto・Shun-Ichiro Tanaka

3G17 Mechanochemically-induced oxygen vacancy of ZnO and sulfur doping (Nagoya Institute of Technology) ○Yusuke Daiko・(Friedrich-Alexander-University) Jochen Schmidt・Doris Segets・Wolfgang Peukert・(Nagoya Institute of Technology) Yuji Iwamoto

■■ September 11 (Thu) (Room H) ■■

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

破壊と変形 1

(9：00) (Chairman 樽田誠一)

3H01 Evaluation of coarser defects and mechanical property of translucent alumina ceramics prepared by dry-pressing (Nagaoka University of Technology) ○Satoshi Tanaka・Shouta Goi・Zenji Kato

3H02 ★Control of residual stress in textured ceramics (NIMS) ○Tohru Suzuki

破壊と変形 2

(10：20) (Chairman 本多沢雄)

3H05 Microstructure and elastic deformation behavior of carbon materials (Tokyo Institute of Technology) ○Yutaka Shindoa・(NASA) Mrityunjay Singh

3H06 ★ Scale dependent adhesion strength of metal/ceramics interface – diagnosis on the nano-tech syndrome of small interface structures from the view point of mechanical engineering –(Nagoya Intitute of Technology) ○Shoji Kamiya

3H08 Measurement of fracture toughness of single grain boundary of c-axis oriented Si_3N_4 ceramics using single edge notched microcantilever beam specimens (Kanagawa Academy of Science and Technology) ○Takuma Takahashi・Tsukaho Yahagi・(Yokohama National University) Junichi Tatami・(Nagaoka University of Technology) Satoshi Tanaka

破壊と変形 3

(13：00) (Chairman 森田孝治)

3H13 Round Robin Test on Fracture Toughness of Ceramic Substrates (National Institute of Advanced Industrial Science and Technology) ○Hiroyuki Miyazaki・Yu-ichi Yoshizawa・Kiyoshi Hirao・Tatsuki Ohji

3H14 Effect of Grain Size on the Properties of Porous Alumina (Nagoya Institute of Technology) ○Sawao Honda・(Center Europeen de la Ceramique) Gaetan Grabarski・(Nagoya Institute of Technology) Yusuke Daiko・Shinobu Hashimoto・(Center Europeen de la Ceramique) Benoit Nait-Ali・David Smith・(Nagoya Institute of Technology) Yuji Iwamoto

破壊と変形 4

(14：00) (Chairman 篠田豊)

3H16 Evaluation of fracture properties near surface of Si_3N_4 ceramics by spherical indentation test (Yokohama National University) ○Junichi Tatami・Tatsushi Sugawara・Motoyuki Iijima・(Kanagawa Academy of Science and Technology) Takuma Takahashi

3H17 Round Robin Test on Bending Strength of Porous Ceramics (Tokyo Institute of Technology) ○Kouichi Yasuda・(Nagoya University) Hideki Kita・(Ehime University) Manabu Takahashi・(Noritake Company Limited) Yosuke Takahashi・(Yokohama National University) Junichi Tatami・(Nagoya Institute of Technology) Sawao Honda・(Nagaoka University of Technology) Satoshi Tanaka・(Toyohashi University of Technology) Hiroyuki Muto・(Asuzac) Shuichi Yamamoto

■■ September 11 (Thu) (Room I) ■■

Science and Technology for Densification –Powder Forming・Sintering, Development of Microstructure and Function-

シミュレーション

(9：00) (Chairman 若井史博)

3I01 ★Simulation of sintering and grain growth process by phase-field method (Kagawa University) ○Kazunari Shinagawa

シミュレーション

(9：40) (Chairman 吉田英弘)

3I03 Monte Carlo simulation of sintering and grain growth for the design of complex microstructure (Tohoku University・JFCC) ○Hideaki Matsubara

3I04 Finite element analysis of the sintering force for predicting shrinkage of a glass particle in viscous sintering (Tokyo Institute of Technology) ○Kota Katsura・Yutaka Shinoda・Takashi Akatsu・Fumihiro Wakai

複合材料

(10：20) (Chairman 西村聡之)

3I05 Fabrication of composite materials with ceramics filler percolation structure and their thermal conductivity (Toyohashi University of Technology) ○Taichi Kuroda・Go Kawamura・Atsunori Matsuda・Hiroyuki Muto

ハイブリッド材料

3I06 Densification and Microstructure of ZrB2-ZrCx-Zr Ceramic Hybrid Materials (NIMS) ○Shuqi Guo・(NIMS・The University of Tokyo) Yutaka Kagawa

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

■■ September 11 (Thu) (Room J) ■■

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

熱量効果

(9：00) (Chairman　渡邉隆之)

3J01 ☆Molecular Dynamics Simulations of Electrocaloric and Elastocaloric Effects in Ferroelectrics (Tohoku University) ○Takeshi Nishimatsu

3J02 ★Electrocaloric effects of ceramics, single crystals and polymers. (Shonan Institute of Technology) ○Hiroshi Maiwa

熱量効果

(10：00) (Chairman　天田英之)

3J04 ★Magnetocaloric materials and their applications (Toshiba Corporation) ○Akiko Saito

評価・解析 II

3J06 ☆A Study of oxygen vacancy in dielectric material for MLCC by theoretical calculations (Murata Manufacturing Co., Ltd) ○Hitoshi Nishimura・Tomotaka Hirata・Shinya Isota・Takashi Oyama・Harunobu Sano・Kosuke Shiratsuyu

評価・解析 II

(11：00) (Chairman　山田智明)

3J07 Investigation of Dielectric Materials Using Far-Infrared Ellipsometer (Tokyo Institute of Technology) ○Takuya Hoshina・Kazuki Kanehara・Motoharu Sakurai・Hiroaki Takeda・Takaaki Tsurumi

3J08 Dependence of average and local structures, electronic structure on composition for (Pb,RE)(Zr,Ti,Nb)O_3 (RE=La,Nd) (Tokyo University of Science) ○Takuya Tamura・Naoya Ishida・Naoto Kitamura・Yasushi Idemoto

3J09 Substitution effect on ferroelectric performances, crystal and electronic structures of $Bi_{0.5}(Na_{0.7}K_{0.25}Li_{0.05})_{0.5}TiO_3$ ferroelectric materials (Tokyo University of Science) Yasushi Idemoto・○Yu Onodera・Naoya Ishida・Naoto Kitamura

評価・解析 III

(13：00) (Chairman　保科拓也)

3J13 ★Inelastic Light Scattering and THz spectroscopy of Ferroelectrics (University of Tsukuba) ○Seiji Kojima

3J15 ☆High-rate characteristics and dielectric property on $BaTiO_3 - LiCoO_2$ as cathode material for Li-ion battery (Okayama University) ○Takashi Teranishi・Yumi Yoshikawa・Ryo Sakuma・Hideki Hashimoto・Hidetaka Hayashi・Akira Kishimoto・Tatsuo Fujii

薄膜材料

(14：00) (Chairman　横田壮司)

3J16 Polarization and Leakage Current Properties of self-supported Bismuth Titanate Thick Films prepared by AD method (National Institute of Advanced Industrial Science and Technology) ○Muneyasu Suzuki・Jun Akedo

3J17 ☆Ferroelectricity in HfO_2-based mateials (Tokyo Institute of Technology) ○Takao Shimizu・Tatsuhiko Yokouchi・Takahisa Shiraishi・Takahiro Oikawa・(Tohoku University) Takanori Kiguchi・Toyohiko Konno・(Tokyo Institute of Technology) Hiroshi Funakubo

3J18 Deposition of BTO Thin Films on Ge Substrates by Sputtering (Tokyo University of Science, Suwa) ○Yohei Otani・Yuichi Nakata・Takao Ishii・Yukio Fukuda

圧電材料 II

(15：00) (Chairman　鈴木宗泰)

3J19 Effects on polarization switching and piezoelectric properties of $BiFeO_3$-$(Bi_{0.5}K_{0.5})TiO_3$ ceramics (Keio University) ○Manabu Hagirawa・Shinobu Fujihara

3J20 Fabrication of Lead-free $(Bi_{1/2}Na_{1/2})TiO_3$-$BiFeO_3$ Piezoelectric Ceramics (Ryukoku University) ○Ichiro Fujii・Teppei Suzuki・Yutaka Ito・Takahiro Wada・(Hiroshima University) Chikako Moriyoshi・Yoshihiro Kuroiwa・(University of Yamanashi) Satoshi Wada

3J21 ☆Silver Diffusion behavior into $(Bi_{1/2}K_{1/2})TiO_3$ Lead-Free Ferroelectric Ceramics (Tokyo University of Science) ○Hajime Nagata・Naoki Iwagami・(NIMS) Isao Sakaguchi・(Tokyo University of Science) Tadashi Takenaka

■■ September 11 (Thu) (Room K) ■■

Recent progress of ceramic sensor –Application to medical, healthcare or environmental issues

(9：20) (Chairman　赤松貴文)

3K02 Analysis of ordered arrangement of mono-dispersed SiO_2 particles in cumulated film by small-angle X-ray scattering method (Kyushu University) ○Kazutaka Kamitani・Maiko Nishibori・Takeharu Sugiyama・Yasutake Teraoka

3K03 Synthesis and characterization of porous spheric powder of lanthanum-containing perovskite (JFCC) ○Seiji Takahashi・Satoshi Suehiro・Ryuji Yoshida・Hajime Okawa・(Nagasaki University) Taro Ueda

(10：00) (Chairman　伊藤敏雄)

3K04 ★Adsorption and Detection of Specific Molecule by Luminous Solid Materials and Its Application (Shimane University) ○Ryo Sasai

3K06 CO-sensing properties of potentiometric CO sensors using an anion-conducting polymer and oxide electrodes (Nagasaki University) Toshiyuki Goto・○Taro Ueda・(Figaro Engineering Inc.) Kazunari Kaneyasu・(Nagasaki University) Takeo Hyodo・Yasuhiro Shimizu

3K07 Effect of CeO_2 addition to noble-metal electrodes on VOC sensing properties of solid electrolyte type gas sensors (Nagasaki University) Hironari Abe・○Taro Ueda・Takeo Hyodo・Yasuhiro Shimizu

3K08 Solid-state impedancemetric NOx Sensor Using Lithium Ion Conductor as a Transducer (Kyushu Institute of Technology) ○Hikaru Nakano・Satoko Takase・Youichi Shimizu

■■ September 11 (Thu) (Room N) ■■

Advent and Development of Advanced Photonic Materials

ガラス

(9：00) (Chairman　柳田健之)

3N01 Local structure analysis of alkali ions in mixed alkali borate glasses by using solid state NMR (Kyoto University) ○Yuya Takahashi・Yomei Tokuda・Tomohiro Minami・Hirokazu Masai・Yoshikatsu Ueda・Toshinobu Yoko

3N02 Emission property of CaO- B_2O_3-based glasses containing Eu^{2+} prepared by mechanochemical and melt quenching techiniques (Osaka Prefecture University) ○Kosuke Tsuda・Akitoshi Hayashi・Masahiro Tatsumisago・(Hokkaido University) Kiyoharu Tadanaga・(SHARP Corporation) Masahiko Oki・Masato Tsujiguchi・Yoshihiko Utsumi・Nobuaki Kakimori

3N03 Composition dependence on physical properties in perfectly surface crystallized glass-ceramics with fresnoite-type $Sr_2TiSi_2O_8$ (Tohoku University) ○Kazuya Takano・yoshihiro Takahashi・Nobuaki Terakado・Takumi Fujiwara

ガラス

(10：00) (Chairman 片山裕美)

3N04 Crystallization mechanism of low SiO_2 glass in SrO-TiO_2-SiO_2 system (The University of Tohoku) ○Masahiro Yamagishi・Yoshihiro Takahashi・Nobuaki Terakado・Takumi Fujiwara

3N05 TL and PSL properties of Ce^{3+}-doped MgO-Al_2O_3-B_2O_3 based glasses (Tohoku University) ○Yutaka Fujimoto・Masanori Koshimizu・Keisuke Asai・(KIT) Takayuki Yanagida

3N06 Glass-ceramics based on the composition $Bi_{0.5}Nb_{0.5}Te_3O_8$: synthesis and characterizations (Nagoya Institute of Technology) ○Masato Shimoda・Tomokatsu Hayakawa・(Limoges University) Gaelle Delaizir・Jean-rene Duclere・Maggy Colas・Julie Carreaud・Julie Cornette・Philippe Thomas

シンチレーション

(11：00) (Chairman 早川知克)

3N07 Scintillation properties of transparent ceramic Bi-doped $La_2Zr_2O_7$ (Kyushu Institute of Technology) ○Takayuki Yanagida・(Murata Manufacturing Co., Ltd.) Satoshi Kuretake・Koji Murayama・Nobuhiko Tanaka

3N08 Analysis of excitation density effects on lithum glass scintillator (Tohoku University) ○Masanori Koshimizu・Yutaka Fujimoto・(Kyushu Institute of Technology) Takayuki Yanagida・(Japan Atomic Energy Agency) Satoshi Kurashima・Mitsumasa Taguchi・Atsushi Kimura・(The University of Tokyo) Kazuhiro Iwamatsu・(Nagoya University) Kenichi Watanabe・(Tohoku University) Keisuke Asai

■■ September 11 (Thu) (Room O) ■■

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

(9：00) (Chairman 川下将一)

3O01 Fabrication of bone cement with interconnected porous structure using α-TCP foam granules (Kyushu University) ○Kanji Tsuru・Anuar Shariff Khairul・Riki Toita・Kunio Ishikawa

3O02 In *vitro* evaluation of nitrogen-doped hydroxyapatite ceramics (Meiji University) ○Mamoru Aizawa・Ryo Umeda・Mariko Nakamura・Ryota Namiki・Satoshi Okumura・Chihiro Izawa・Michiyo Honda・Tomoaki Watanabe

3O03 Preparation of hydroxyapatite scaffold for microorganisms (Tohoku University) ○Masanobu Kamitakahara・Shohei Takahashi・Taishi Yokoi・Chihiro Inoue・(Keio University) Koji Ioku

(10：00) (Chairman 宮崎敏樹)

3O04 Preparation of organic-inorganic hybrid fibremat loaded with protein (Nagoya Institute of Technology) ○Akiko Obata・Norihiko Iwanaga・Hirotaka Maeda・Kentaro Ichiki・Toshihisa Mizuno・Toshihiro Kasuga

3O05 Cation exchange in MFI-Zeolite materials and their odor reducing properties (Osaka City University) ○Yoshiyuki Yokogawa・Showta Namba・Yutaro Yagi

3O06 Induction and suppression of *in vitro* apatite formation on titania layer by parallel alignment with various substrates (Okayama University) ○Satoshi Hayakawa・Keigo Okamoto・Jun Fujiwara・Yuko Matsumoto・Toshiisa Konishi・Tomohiko Yoshioka

■■ September 11 (Thu) (Room Q) ■■

The technique and new development of ceramics materials useful for various environmental problems

ガスフィルター

(9：20) (Chairman 西本俊介)

3Q02 Fabrication and characterization of VOC decomposition filter by using highly active hydroxyapatite (Nagoya Institute of Technology) ○Daisuke Asai・Takashi Shirai・Chika Takai・Harumitu Nishikawa・Masayoshi Fuji

3Q03 Preparation and Gas Permeation Properties of the Epoxy/Porous Silica Composites (Tokyo Institute of Technology) ○Toshihiro Isobe・Masaki Nishimura・Yasuhiro Takada・Sachiko Matsushita・Akira Nakajima

光化学・光触媒

3Q04 Photoreduction of Carbon Dioxide by Metal Hydroxides (Tokyo Institute of Technology) ○Ken-ichi Katsumata・Hao-yang Jiang・Nobuhiro Matsushita

3Q05 Formation of Titania on Metal Titanium Surface (Shinshu University) ○Hiromasa Nishikiori・Tetsuya Akaozeki・Taisuke Hizumi

光化学・光触媒

(10：40) (Chairman 笹井亮)

3Q06 Synthesis and characterization of N-doped TiO_2 particles with controlled nitrogen and vacancy contents (Utsunomiya University) ○Yuki Toda・Taki Matsumoto・(Hokkaido University) Bunsho Ohtani

3Q07 Effect of heat-treatment temperature of fibrous TiO_2 on the photocatalytic decomposition of formic acid (The University of Shimane) ○koyuki Sugiura・Yoko Suyam

3Q08 Structure of Ti doped WO_3 thin films prepared by sol-gel process and their photocatalytic property (Tokyo University of Science) ○Kouhei Hashimoto・Yuki Yamaguchi・Keishi Nishio・Shigeru Ito・Kenjiro Fujimoto

3Q09 Photocatalytic Phenol Degradation by Bi ion-exchanged Niobate Layered Perovskite (University of Yamanashi) ○Nan Xu・Takahiro Takei・Akira Miura・Nobuhiro Kumada・(Tokyo Institute of Technology) Ken-ichi Katsumata・Nobuhiro Matsushita・Kiyoshi Okada

■■ September 11 (Thu) (Room R) ■■

Research Topics on Advanced Ceramic Technology for Energy Conversion, Storage and Control Devices

水素・燃料電池

(8：40) (Chairman 森昌史)

3R00 Development of Intermediate Temperature Fuel Cell Using Proton Conductive Phosphate Glass Electrolyte (National Institute of Advanced Industrial Science and Technology) ○Hirofumi Sumi

3R01 Hydrogen potential profiles in $La_{0.9}Sr_{0.1}Yb_{0.8}In_{0.2}O_{3-\delta}$ and its application to proton ceramic fuel cell (University of Miyazaki) ○Yuji Okuyama・(Toho Gas Co., Ltd.) Kenji Okuyama・Yasunobu Mizutani・(Kyushu University) Takaaki Sakai・Hiroshige Matsumoto

3R02 Hydrogen permeation properties of Pd-Al_2O_3 composite (Nagoya Institute of Technology) ○Yuki Sugiyama・Isao Kagomiya・Ken-ichi Kakimoto

3R03 Development of tubular electrochemical cell with Ba(CeZr)O_3 proton conductor (National Institute of Advanced Industrial Science and Technology・

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

CREST, JST）○Hiroyuki Shimada・Toshiaki Yamaguchi・Unhi Honda・Yoshinobu Fujishiro

水素・燃料電池

（10：00）（Chairman　藤代芳伸）

3R04　Formation of Hydrogen from CO-H_2O System Using Porous Gd-doped Ceria Electrochemical Cell（Kagoshima University）○Koki Ueda・Yoshihiro Hirata・Soichiro Sameshima・Taro Shimonosono

3R05　★Hydrogen Production via Steam Electrolysis Using proton-Conducting Oxides（Kyushu University）○Hiroshige Matsumoto・Leonard Kwati

3R08　Relationship Between Oxygen Nonstoichiometry and Oxygen Permeability in $SrCoO_{3-\delta}$-based Solid Solutions（Nippon Steel & Sumitomo Metal Corp.）○Toru Nagai・Wataru Ito

3R09　Preparation of Nano-sized Perovskite-type Oxide and the ORR Activity in Alkaline Media（National Institute of Advanced Industrial Science and Technology）○Tsukasa Nagai・Naoko Fujiwara・Masafumi Asahi・Shin-ichi Yamazaki・Zyun Siroma・Tsutomu Ioroi