

# The Ceramic Society of Japan Annual Meeting 2013 Program

General (Presentation 10 min. Discussion 4 min. Alternation 1 min.)

Award/Invited (Presentation 25 min. Discussion 4 min. Alternation 1 min.)

## ★★ March 17 (Sun) (Room A) ★★

### Dielectric material / 強誘電性メカニズム

(13 : 00) (Chairman 山田智明)

- 1A17 Visualization of Electron Polarization of Pb Ion in Ferroelectric PbTiO<sub>3</sub>  
(Hiroshima University) ○Yoshihiro Kuroiwa · Satoshi Yasuda · Eisuke Magome · Chikako Moriyoshi · (Shimane University) Kaname  
Fukushima · Nao Taniguchi · Hiroshi Tanaka · (The University of Tokyo) Yuuki Kitanaka · Yuji Noguchi · Masaru Miyayama
- 1A18 Polarization rotation in a monoclinic perovskite BiFe<sub>1-x</sub>CoxO<sub>3</sub>  
(Tokyo Institute of Technology) ○Kengo Oka · Masaki Azuma · (Osaka Prefecture University) Tsukasa Koyama ·  
Tomoatsu Ozaki · Shigeo Mori · (Kyoto University) Yuichi Shimakawa
- 1A19 First-principles study of iso-structural phase transition of BiFeO<sub>3</sub>-PbTiO<sub>3</sub> system with large c/a ratio  
(Japan Fine Ceramics Center) ○Hiroki Moriwake · (Hiroshima University) Kazuaki Taji · Chikako Moriyoshi · Yoshihiro Kuroiwa

### Dielectric material / ドメイン制御

(13 : 45) (Chairman 山田智明)

- 1A20 Fabrication of artificial domain-walls using ferroelectric bicrystals  
(Nagoya University) ○Atsutomo Nakamura · Katsuyuki Matsunaga · (The University of Tokyo)  
Eita Tochigi · Yukio Sato · Teruyasu Mizoguchi · Yuichi Ikuhara · Naoya Shibata
- (14 : 00) (Chairman 保科拓也)
- 1A21 Effect of clamping on piezoelectric property of a tetragonal (111) Pb(Zr,Ti)O<sub>3</sub> thin film  
(Nagoya Univ.) ○Jun Yasumoto · (Nagoya Univ. · JST-PRESTO) Tomoaki Yamada · (NIMS · Tokyo Tech.) Osami Sakata ·  
(JASRI) Yasuhiko Imai · (Tohoku Univ.) Takanori Kiguchi · Toyohiko Konno · (Tokyo Tech.) Yoshitaka Ehara ·  
Takahisa Shiraishi · Takahiro Oikawa · Hiroshi Funakubo · (Nagoya Univ.) Masahito Yoshino · Takanori Nagasaki
- 1A22 New Development of High performance piezoelectric materials with Nano/Macro complex domain configurations  
(The University of Yamanashi) ○Ryuta Mitsui · Ichiro Hujii · Kouichi Nakashima · Nobuhiro Kumada · Satoshi Wada · (The University of  
Hiroshima) Yoshihiro Kuroiwa · (The Prefecture University of Osaka) Tomoatsu Ozaki · Shigeo Mori

### Dielectric material / 強誘電・圧電性評価

(14 : 30) (Chairman 保科拓也)

- 1A23 Electrical properties by variation of potassium amount on (Bi<sub>1/2</sub>K<sub>1/2</sub>)TiO<sub>3</sub> ceramics  
(University of Science) ○Kazuya Tabuchi · Hajime Nagata · Tadashi Takenaka
- 1A24 Dependences crystal structure and piezoelectric and ferroelectric on synthetic and polarization processes in BaTiO<sub>3</sub>  
(Tokyo Univ. of Science) ○Ryuhei Ifuku · Naoto Kitamura · Yasushi Idemoto

## ★★ March 17 (Sun) (Room B) ★★

### Magnetic material / キャラクターゼーション

(13 : 30) (Chairman 田中勝久)

- 1B19 Itinerant anti-ferromagnetism in LnCrAsO (Ln = La, Ce, Pr, Nd, Sm) with ZrCuSiAs-type structure  
(Tokyo Institute of Technology) SangWon Park · ○Hiroshi Mizoguchi · Satoru Matsuishi · Toshio Kamiya · Hideo Hosono ·  
(Japan Atomic Energy Agency) Katsuaki Kodama · Shin-ichi Shamoto · (KEK) Toshiya Otomo
- 1B20 Magnetic properties of layered transition metal oxyselenides  
(Hokkaido University) Yoji Sugimoto · ○Makoto Wakeshima · Yukio Hinatsu
- 1B21 Magnetic and electrical properties of a layered cobalt oxyfluoride  
(National Institute for Materials Science) ○Yoshihiro Tsujimoto · Clastin Sathish · Guo Yanfeng · Yoshitaka Matsushita · Kazunari Yamaura · Eiji  
Muromachi · (Korean Atomic Energy Research Insitute) Kun-Pyo Hong · (Tokyo Institute of Technology) Kengo Oka · Masaki Azuma

### Magnetic material / プロセッシング

(14 : 15) (Chairman 神谷利夫)

- 1B22 An unusually reduced cobalt oxide  
(Kyoto University) ○Guillaume Bouilly · Cedric Tassel · Yoji Kobayashi · Hiroshi Kageyama
- 1B23 Epitaxial growth of perovskite-type itinerant magnet containing Eu<sup>2+</sup>  
(Kyoto University) ○Masaharu Watanabe · Koji Fujita · Yoshiro Kususe · Shunsuke Murai · Katsuhisa Tanaka
- 1B24 High pressure synthesis of manganese intermetallic compounds Sn<sub>1-x</sub>M<sub>x</sub>CMn<sub>3</sub> (M=Cr, Zn, Al).  
(Tohoku University) ○Shinji Orimo · Yamato Hayashi · Jun Fukushima · Hirotsugu Takizawa

## ★★ March 17 (Sun) (Room C) ★★

### Vapor phase process / 溶射

(13 : 00) (Chairman 石垣隆正)

- 1C17 Porosity of thick films of yttria synthesized using flame spray apparatus  
(Nagaoka University of Technology) ○Ayumu Toyama · Shigeo Ohshio · Ikumi Toda · Hiroyuki Muramatsu · Hidetoshi Saitoh ·  
(Chubu Chelest Co., Ltd. · Nagaoka University of Technology) Atsushi Nakamura

- 1C18 Structure of erubia film deposited using flame spray apparatus  
(Nagaoka University of Technology) ○Ayumu Toyama · Shigeo Ohshio · Ikumi Toda · Hiroyuki Muramatsu · Hidetoshi Saitoh ·  
(Chubu Chelest Co.,Ltd. · Nagaoka University of Technology) Atsushi Nakamura
- 1C19 Metal oxide particles including mixture of yttria and erbia synthesized with metal-EDTA crystal  
(Nagaoka University of Technology) ○Tomoyuki Shirai · Yasuhiro Hasebe · Keiji Komatsu ·  
(Chubu Chelest Co., Ltd. · Nagaoka University of Technology) Atsushi Nakamura ·  
(Nagaoka University of Technology) Shigeo Ohshio · Ikumi Toda · Hiroki Akasaka · Hidetoshi Saitoh

#### Vapor phase process / 表面処理

(13 : 45) (Chairman 坂元尚紀)

- 1C20 Effect of transition metal additives on the formation of gallium oxynitride nanowires ( $Ga,M$ )(O,N) ( $M = Al, Zn$ )  
(Hokkaido University) ○Yuji Masubuchi · Atsuo Kamura · Ryohei Yamaoka · Teruki Motohashi · Shinichi Kikkawa
- 1C21 Synthesis of carbon nanofibers/graphite hybrid material  
(Tokyo University of Agriculture and Technology) ○Yosuke Nomura · Motoyuki Iijima · Hidehiro Kamiya ·  
(Aalto University) Ilya Anoshkin · Albert Nasibulin · Esko Kauppinen
- 1C22 Simplified Carbonitriding Treatment for Anodic Titanium Oxide Film  
(Kumabou Metal Co., Ltd.) ○mitsutaka Yoshimoto · (Kumamoto University) shinji Agawa ·  
(Kumamoto University) yasuihiro Morizono · (Kumamoto University) sadahiro Tsurekawa
- 1C23 Chemical modification of amorphous carbon thin films *via* 1,3-dipolar cycloaddition  
(The University of Ryukoku) ○Akihiro Tada · Tetsuo Iwasawa · Yoshifumi Aoi
- 1C24 Synthesis of Lithium Nitride Composite on the Lithium Surface by Ion Plantation Technique  
(Japan Atomic Energy Agency) ○Shintaro Ishiyama · Yuji Baba · (Cancer Intelligence Care Systems, Inc.)  
Ryo Fujii · Masaru Nakamura · Masaru Imahori

### ★★ March 17 (Sun) (Room D) ★★

#### Liquid phase process / ゼル・ゲル法

(13 : 00) (Chairman 高橋雅英)

- 1D17 Effects of  $H_2O$  on the crystallization of  $TiO_2$  films prepared from alkoxide solutions containing acetylacetone  
(Kansai University) ○Hiroaki Uchiyama · Momoto Okada · Hiromitsu Kozuka
- 1D18 Effect of Film Thickness on the Microstructure of Alumina Thin Films by Sol-Gel Method  
(Shizuoka University) ○Miyuki Tashiro · Naonori Sakamoto · (Tokyo Institute of Technology)  
Kazuo Shinozaki · (Shizuoka University) Naoki Wakiya · Hisao Suzuki
- 1D19 Fundamental study on the residual stress of  $Y_2O_3$  thin films prepared by sol-gel processing  
(Kansai University) Hiromitsu Kozuka · ○Yuki Nakahara · Hiroaki Uchiyama
- 1D20 Effect of preparation method of precursor and heating rate for synthesis of  $12CaO \cdot 7Al_2O_3$  powders by sol-gel method  
(Shizuoka University) ○Kenta Kamimura · Kotaro Ozawa · Naonori Sakamoto · Naoki Wakiya · Hisao Suzuki
- (14 : 00) (Chairman 緒明佑哉)
- 1D21 Spontaneous pattern formation on organic dye-doped silica-PVP films prepared at low substrate withdrawal speeds  
(Kansai University) Hiroaki Uchiyama · ○Ryosuke Sasaki · Hiromitsu Kozuka
- 1D22 Spontaneous pattern formation on sol-gel dip-coating films induced by Bénard-Marangoni convection  
(Kansai University) Hiroaki Uchiyama · ○Tadayuki Matsui · Hiromitsu Kozuka
- 1D23 Thermal transfer of sol-gel-derived ITO thin films onto plastic substrates  
(Kansai University) Hiromitsu Kozuka · ○Shohei Tsuboi · Hiroaki Uchiyama
- 1D24 Preparation of mesoporous silica film with surface wrinkle structures  
(Osaka Prefecture University) ○Genki Asakura · Kenji Okada · Kazumasa Suzuki · Yasuaki Tokudome · Masahide Takahashi

### ★★ March 17 (Sun) (Room E) ★★

#### Glass and photonic materials / 蛍光体 (Ⅱ-Ⅳ)

(13 : 00) (Chairman 黒木雄一郎)

- 1E17 Preparation-condition-dependent morphology of core-shell quantum dots ( $CdSe/Cd_{1-x}Zn_xS$ )  
(National Institute of Advanced Industrial Science and Technology) ○Norio Murase · Masanori Ando · Ping Yang · Shiquan Wang
- 1E18 Luminescent Property of the  $(Zn_{0.98}Al_{0.02}O)-(LiGaO_2)_{1/2}$  oxide (s.s.) Phosphors without Rare Metal  
(Mie Industrial Research Institute) ○Koji Inoue
- 1E19 Dependence of Annealing Temperature on Near-UV and Visible Photoluminescence of Hexagonal Plateletlike ZnO Particles  
(Nagoya Institute of Technology) ○Takaaki Sugiyama · Hayato Naganawa · (Nagoya Institute of Technology · NITech-NIL)  
Tomokatsu Hayakawa · (Nagoya Institute of Technology · Japan Fine Ceramics Center) Yukari Ishikawa
- 1E20 Effects of Anions on Nanostructures and Photoluminescent Properties of ZnO Particles in Liquid-Phase Synthesis  
(University of Yamanashi) ○Shintaro Ueno · (Keio University) Shinobu Fujihara

#### Glass and photonic materials / 蛍光体 (白色)

(14 : 00) (Chairman 藤原忍)

- 1E21 The Improvement of Moisture Resistance of Inorganic Phosphors Coated with Hydrophobic Materials  
(Sakai Chemical Industry Co., Ltd) ○Hisao Koizumi · Yasuhumi Fujimoto · Kenji Murata ·  
Tomonori Sakaguchi · Kenji Mori · Hiroshi Nakao · Keita Kobayashi
- 1E22 Influence of synthetic process on crystal structure and luminescence properties for Sr-SiAlON:Eu phosphor  
(Nagaoka University of Technology) ○Masayoshi Yokozeki · Yuichiro Kuroki · Tomoichiro Okamoto · Masasuke Takata ·  
(Kojundo Chemical Laboratory CO., LTD) Naoto Togashi · Masami Kawahara · Toshiya Shibata
- 1E23 Development of Silicate Phosphors with high Moisture-resistance  
(Sekisui Chemical Co., Ltd.) ○Rende Sun

- 1E24 Synthesis and crystal structure determination of rare earth-free phosphor, Ba<sub>2</sub>TiP<sub>2</sub>O<sub>9</sub>  
(Niigata University) ○Kenji Toda · Takuya Hasegawa · Tadashi Ishigaki · Shinnosuke Kamei · Kazuyoshi Uematsu · Mineo Sato

### ★★ March 17 (Sun) (Room F) ★★

#### Glass and photonic materials / 光触媒

(13 : 15) (Chairman 安盛敦雄)

- 1F18 Fabrication and chemical durability evaluation of titania crystallized glasses  
(Tohoku University) ○Kazuki Yoshida · (Kyoto University) Hirokazu Masai ·  
(Tohoku University) Yoshihiro Takahashi · Rie Ihara · Takumi Fujiwara
- 1F19F [Frontiers] Development of the anti-viral/-bacterial photocatalytic glass using sputtering technique (Nippon Sheet Glass Co., Ltd.) ○Tetsuo Minaai

#### Glass and photonic materials / ナノ粒子

(14 : 00) (Chairman 大幸裕介)

- 1F21 Morphology Control of Ag Nanoparticles in Mesoporous TiO<sub>2</sub> Film Template and the Optical Characteristics  
(Toyohashi University of Technology) ○Mitsuru Torigoe · Teruhisa Okuno · Go Kawamura · Hiroyuki Muto · Atsunori Matsuda
- 1F22 Enhancement of Faraday effect in iron oxide thin films deposited with metal nanoparticles.  
(Kyoto University) ○Makoto Aratani · Shunsuke Murai · Kouji Fujita · Katsuhisa Tanaka
- 1F23 Plasmonic enhancement of magneto-optical properties in metal-ferrite-nanocomposites fabricated inside glasses  
(Yokohama National University · Riken) ○Seisuke Nakashima

### ★★ March 17 (Sun) (Room G) ★★

#### Environment and energy related material / 除去・回収

(13 : 00) (Chairman 前田浩孝)

- 1G17 Development of new Cs<sup>+</sup> and Sr<sup>2+</sup> removal materials from blast furnace water-cooled slag  
(Okayama University) ○Takuma Tsutsumi · Shunsuke Nishimoto · Yoshikazu Kameshima · Michihiro Miyake
- 1G18S Preparation of Li<sub>2</sub>PtO<sub>3</sub> exhibiting high solubility in hydrochloric acid  
(National Institute of Advanced Industrial Science and Technology (AIST)) ○Ryo Kasuya · Takeshi Miki · Yutaka Tai
- 1G19 Effect of Treatment Solvent on Wet Ball-Milling for Nd Recovery from Nd-Fe-B Hard Magnets  
(Shimane University) ○naohiro Shimamura · Ryo Sasai

#### Environment and energy related material / 機能性粒子

(13 : 45) (Chairman 殷シュウ)

- 1G20S Glass Polishing with SrZrO<sub>3</sub>/CeO<sub>2</sub> Nano-composite Abrasive  
(Japan Fine Ceramics Center) ○Takayuki Honma · Koichi Kawahara · (Japan Fine Ceramics Center · Shizuoka University) Seichi Suda
- 1G21 Novel Environmentally Friendly Inorganic Yellow Pigments Based on Bismuth Vanadate  
(Osaka University) ○Taihei Honda · Dusu Wen · Toshiyuki Masui · Nobuhito Imanaka
- 1G22 Environmental-friendly Inorganic Red Pigments Based on Bismuth Oxide (Osaka University) ○Dusu Wen · Toshiyuki Masui · Nobuhito Imanaka

#### Environment and energy related material / 企業研究フロンティア講演

(14 : 30) (Chairman 三宅通博)

- 1G23F [Frontiers] Transparent incombustible glass fiber reinforced plastic with clay coating (Miyagi kasei CO.,LTD) ○yuuki Itou

### ★★ March 17 (Sun) (Room H) ★★

#### Engineering ceramics / 焼結

(13 : 15) (Chairman 多々見純一)

- 1H18 Mechanics of viscous sintering on the micro- and macro-scale (Tokyo Institute of Technology) ○Fumihiko Wakai
- 1H19 Synthesis of NaB<sub>5</sub>C bulk ceramics with Na vapor and their flexural strengths  
(Tohoku University) ○Takuma Kimura · Haruhiko Morito · Hisanori Yamane
- 1H20 Study on fabrication of transparent pyrochlore ceramics  
(Kyoto University) ○Shun Masui · Setsuhisa Tanabe · (Osaka University) Kana Fujioka · YASUISHI Fjimoto

(14 : 00) (Chairman 若井史博)

- 1H21 Grain-Growth Mechanism in Y-TZP during Grain Boundary Segregation-Induced Phase Transformation  
(Tosoh Corporation) ○Koji Matsui · (National Institute for Materials Science) Hidehiro Yoshida · (The University of Tokyo) Yuichi Ikuhara
- 1H22 Improvement of strength and electrical conductivity of Al<sub>2</sub>O<sub>3</sub> based composites by networking of CNTs  
(Yokohama National University) ○Mitsuaki Matsuoka · Junichi Tatami · Toru Wakihara
- 1H23A [The 67th CerSJ Awards] Development of alumina structural members with a conductivity (TOTO LTD.) ○Shogo Shimada

### ★★ March 17 (Sun) (Room I) ★★

#### Energy reference material / リチウムイオン二次電池

(13 : 15) (Chairman 井出本康)

- 1I18 Investigation of atmospheric conditions on sol-gel synthesis of Li<sub>7</sub>La<sub>3</sub>Zr<sub>2</sub>O<sub>12</sub> solid electrolyte  
(Tokyo Metropolitan University) ○Naoto Saito · Teruaki Nishioka · Hirokazu Munakata · Kiyoshi Kanamura
- 1I19 Synthesis of olivine-type LiMn<sub>x</sub>Fe<sub>1-x</sub>PO<sub>4</sub> by hydrothermal method and Structural analysis  
(The University of Osaka Prefecture) ○Masakazu Togo · Shintaro Hayashi · (Makino Co. Ltd.)  
Masataka Kamitani · (The University of Tohoku) Atsushi Nakahira
- 1I20 Cycle stability of three-dimensionally-structured LiFePO<sub>4</sub>/C composites cathode for lithium ion batteries  
(National Institute of Advanced Industrial Science and Technology) ○Koichi Hamamoto · Manabu Fukushima · Mikito Mamiya ·  
Yuichi Yoshizawa · Junji Akimoto · Toshio Suzuki · Toshiaki Amaguchi · Hirofumi Sumi · Yoshinobu Fujishiro

- (14 : 00) (Chairman 中山将伸)
- 1I21 Single-crystal X-ray investigation of  $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$  spinel as 5 V cathode materials  
(National Institute of Advanced Industrial Science and Technology) ○Naoya Ishida · Hiroshi Hayakawa · Junji Akimoto
- 1I22 Hydrothermal synthesis and characterization of Fe-substituted  $\text{MnO}_2$   
(Tokyo Metropolitan University) Jinhee Moon · ○Hirokazu Munakata · Kiyoshi Kanamura
- 1I23 Characteristics of Charge-Discharge process for  $\text{Li}_{6/5}\text{Mn}_{8/15}\text{Ni}_{2/15}\text{Co}_{2/15}\text{O}_2$  solid solution Material for Li ion Battery  
(Tokyo Univ.of Science) ○Norihide Tamura · Naoto Kitamura · Yasushi Idemoto
- 1I24 XRD and XANES study for charge-discharge mechanism of ruthenium substituted  $\text{Li}_2\text{MnO}_3$   
(Gakushuin University) ○Daisuke Mori · Yoshiyuki Inaguma · (National Institute of Advanced Industrial Science and Technology) Hironori Kobayashi · (High Energy Accelerator Research Organization) Hiroaki Nitani

### ★★ March 17 (Sun) (Room J) ★★

#### Bioceramics / リン酸カルシウム

- (13 : 15) (Chairman 中村美穂)
- 1J18 Protein release properties on zinc- and carbonate ion-containing apatite  
(Kitami institute of technology) ○Gen-ichi Endo · Toru Arauchi · Toru Kanno · Jun-ichi Horiuchi
- 1J19 Cell Evaluation of Beta-Tricalcium Phosphate Ceramic Doped with Vanadium Ion  
(Chiba Institute of Technology) ○Hiroki Inoe · Hirobumi Shibata · Kazuaki Hashimoto
- 1J20 *In vivo* evaluation of hydroxyapatite ceramics including bone minerals  
(Meiji University) ○Tomohiro Yokota · Takuya Miki · (Meiji University · Kanagawa Academy of Science and Technology) Yuki Chibu · Toshiisa Konishi · (Kanagawa Academy of Science and Technology) Minori Mizumoto · Michiyo Honda · (Keio University) Haruki Funao · Yoshiaki Toyama · (Kanagawa Academy of Science and Technology · Keio University) Ken Ishii · Morio Matsumoto · (Meiji University · Kanagawa Academy of Science and Technology) Mamoru Aizawa

#### Bioceramics / 生体骨・歯

- (14 : 00) (Chairman 菊池正紀)
- 1J21 Electrical properties of bone as reservoirs  
(Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University) ○Miho Nakamura · Rika Yokoo · (Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University · Kawakita General Hospital) Soichiro Itoh · (Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University) Wei Wang · Naohiro Horiuchi · Akiko Nagai · Kimihiro Yamashita
- 1J22 Microstructural Characterization of the Enameloid of Shark teeth  
(Tohoku University) ○ChunLin Chen · Susumu Tsukimoto · Yuichi Ikuhara · (The University of Tokyo) Tetsuya Tohei · (Tokyo Medical and Dental University) Yoshiro Takano

#### Bioceramics / チタン金属

- (14 : 30) (Chairman 菊池正紀)
- 1J23 Effect of shape and placement of NaOH and heat-treated titanium metal on apatite-forming ability in simulated body fluid  
(Tohoku University) ○Masakazu Kawashita · Naoko Matsui · (Kyushu Institute of Technology) Toshiki Miyazaki · (Tohoku University) Hiroyasu Kanetaka
- 1J24 Preparation of bioactive Ti metal with visible-light photocatalytic activity  
(Tohoku University) ○Masakazu Kawashita · Naoko Matsui · (Kyushu Institute of Technology) Toshiki Miyazaki · (Tohoku University) Hiroyasu Kanetaka

### ★★ March 17 (Sun) (Room K) ★★

#### Characterization / 構造解析

- (13 : 00) (Chairman 福田功一郎)
- 1K17 Lanthanoid Substitution for the Infinite Layer Iron Oxide  $\text{SrFeO}_2$   
(Kyoto University) ○Takafumi Yamamoto · Hiroshi Ohokubo · Shota Kawasaki · Tassel Cedric · Naoki Hayashi · Mikio Takano · Yoji Kobayashi · Hiroshi Kageyama · (NIMS) Yoshitaka Matsushita · (ANSTO) Hester James · Avdeev Maxim
- 1K18 Crystal Structure and Electron-Density Distribution of Perovskite-type Oxynitrides  $\text{ATaO}_2\text{N}$  ( $A = \text{Ba, Sr, Ca}$ )  
(Tokyo Institute of Technology) ○Tomohiro Sekikawa · Kazuki Omoto · Asobu Goto · Kazuho Shimada · Kotaro Fujii · Masatomoto Yashima

#### Characterization / ガラス・フォトリソ材料解析

- (13 : 30) (Chairman 福田功一郎)
- 1K19 Analysis of fluorescence and Raman spectroscopy in Sm and Ho doped  $\text{ZrO}_2$  and  $\text{CaZrO}_3$  (Ryukoku University) ○Kazuro Kizaki
- 1K20 Analysis for site Preference of  $\text{Eu}^{3+}$  in  $\text{ATiO}_3$  ( $A = \text{Ca, Sr, Ba}$ ): $\text{Eu}^{3+}$  phosphor with different crystal system  
(Ryukoku University) ○Chihiro Tani · Hiroaki Honda · Akihito Nakata · Yusuke Yamauchi · Tatsuya Shirakami
- (14 : 15) (Chairman 八島正知)
- 1K22 Electron density distribution and crystal structure of  $\text{Li}(\text{Ta}_{0.89}\text{Ti}_{0.11})\text{O}_{2.945}:\text{Eu}^{3+}$   
(Nagoya Institute of Technology) ○Tomohiro Uchida · (Toyoashi University of Technology) Shiho Suehiro · Hiromi Nakano · (Nagoya Institute of Technology) Toru Asaka · Koichiro Fukuda
- 1K23 Raman spectroscopy investigation of the coordination structure of sulfate ions in soda-lime glass melts  
(Tokyo Institute of Technology) ○Hiroataka Kamano · Tetsuji Yano · Tetsuo Kishi · Shuichi Shibata
- 1K24 Formation and Analysis of Vitrification of Glass Beads with Pseudo-Radioactive Wastes  
(Tokyo Institute of Technology) ○Keita Watanabe · Naoko Ikezi · Tomohiro Amagasa · Tetsuji Yano · Kenji Takeshita · (Japan Nuclear Fuel Limited) Kazuhiro Minami · Eiji Ochi

★★ March 17 (Sun) (Room P) ★★

Engineering ceramics

- 1P001 Optimized conditions for the layered zirconium hydroxides formation toward the zirconia nanosheets preparations  
(Tokyo Institute of Technology) ○Yuta Okaga · Ken-ichi Katsumata · Kiyoshi Okada · Nobuhiro Matsushita
- 1P002 Evaluation of carbon structure in conductive ceramics/carbon composite prepared by gelcasting method  
(Nagoya Institute of technology) ○Tomoshi Kumazawa · Takashi Shirai · Masayoshi Fuji · Chika Takai
- 1P003 Effects of Strong Magnetic Field and Sintering Methods on the Microstructure of  $Al_2O_3/SiC$  Nanowires Composites  
(Tokyo Institute of Technology) ○Noppasint Jirabornvongsa · Masamitsu Imai · Katsumi Yoshida · Toyohiko Yano · (National Institute for Materials Science) Tohru S. Suzuki · Yoshio Sakka
- 1P004 Compressive deformation behavior of  $Ti_3AlC_2$  fabricated by hot pressing  
(Gifu University) ○Masafumi Kasuya · Michiyuki Yoshida · (Gifu Prefectural Ceramics Research Institute) Seizo Obata · Kazumasa Kurachi · (Gifu University) Osamu Sakurada
- 1P005 Fabrication of  $SiC/TiB_2$  composites with low electrical resistivity by reaction sintering  
(Kagawa University) ○Kazuaki Furutani · Takafumi Kusunose · (Tohoku University) Tohru Sekino
- 1P006 Fabrication of Ceramic Nano-fibers by Catalyst-Assisted Pyrolysis in a Porous SiOC Derived from a Pre-ceramic Polymer  
(Japan Atomic Energy Agency) ○Akira Idesaki · (University of Padova) Paolo Colombo

Dielectric material / 産官学ミキシングセッション

- 1P007M Pseudo tetragonal structure in  $BaTiO_3$  thin film grown on (110)-oriented  $SrTiO_3$  substrate  
(Tokyo Institute of Technology) ○Takao Shimizu · Dai Suwama · Hiroki Taniguchi · Tomoyasu Taniyama · Mitsuru Itoh
- 1P008M  $Yb^{3+}$ -doped and  $Sm^{3+}$ -doped  $BaTiO_3$  prepared by a water soluble precursor method  
(Yamagata University) ○Yuta Matsushima · Takuya Tanaka · Shinnosuke Kasuga

Dielectric material

- 1P009 Retention characteristics in  $(Bi,Pr)(Fe,Mn)O_3$  thin films at high temperature  
(The University of Kanazawa) ○Keisuke Nomura · Yukihiro Nomura · Takashi Tachii · Takeshi Kawae · Akiharu Morimoto
- 1P010 Analysis of Mossbauer Spectra for  $^{57}Fe$ -enriched  $BiFeO_3$  Thin Films Fabricated on  $SiO_2/Si$  Substrates  
(Shizuoka Institute of Science and Technology) ○Kiyotaka Tanaka · Daichi Sano · Yoshinori Tsukamoto · Yutaka Yoshida · (Tokyo University of Science) Soichiro Okamura
- 1P011 Effect of  $Eu^{3+}$  doping electrical properties of Eu-substituted  $(Bi_{3.25}Nd_{0.75})Ti_3O_{12}$  nanoplates  
(University of Hyogo) ○Takuya Kugimiya · Masahumi Kobune · Ryo Kishimoto · Yusaku Kaneko · Satoshi Ueshima · Hiroshi Nishioka · Takeyuki Kikuchi
- 1P012 Fabrication and structural characteristics of  $Eu^{3+}$  substituted  $(Bi_{3.25}Nd_{0.75})Ti_3O_{12}$  nanoplates.  
(University of Hyogo) ○Yusaku Kaneko · Masahumi Kobune · Ryo Kishimoto · Takuya Kugimiya · Satoshi Ueshima · Hiroshi Nishioka · Takeyuki Kikuchi
- 1P013 Preparation and dielectric properties of  $Bi_{1-x}Sb_{1+x}O_4$   
(Tokyo University of science) ○Yuto Fujikura · Shigeru Ito · Kenjiro Fujimoto
- 1P014 Ferroelectric properties of  $Bi_{0.5-0.5x}Na_{0.5-0.5x}Sr_xTi_{1-x}Zr_xO_3$  ceramics  
(Meijo University) ○Tohru Moriyama · Hirotaka Ogawa · Akinori Kan
- 1P015 Giant electric-field-induced strain in  $(Bi,Na)TiO_3$ - $BaTiO_3$  ferroelectric single crystals  
(The University of Tokyo) ○Motohiro Ogino · Kiyotaka Hirano · Yuuki Kitanaka · Yuji Noguchi · Masaru Miyayama · (Hiroshima University) Chikako Moriyoshi · Yoshihiro Kuroiwa
- 1P016 Grain orientation of hot-forged  $Bi_{7-x}Sr_xTi_{3-3x}Fe_{3x}O_{21}$  ceramic  
(Meijo University) Hirotaka Ogawa · ○Tohru Moriyama · Akira Tomita · Akinori Kan
- 1P017 Microstructure control of Barium Titanate Nanoparticles with Necking Structure/Polymer Complex and Dielectric Properties  
(University of Yamanashi) ○Shuhei Tsukamoto · Eigo Kobayashi · Koichi Nakashima · Takahiro Takei · Nobuhiro Kumada · Satoshi Wada · (National Institute for Material Science) Tohru Suzuki · Tetsuro Uchikoshi · Yoshio Sakka
- 1P018 Property, ferroelectric characteristics and crystal structure of  $(K_xNa_{1-x})(Nb_{1-y}M_y)O_3$  ( $M=Mo,W$ ) ferroelectric ceramics  
(Tokyo Univ. of Science) ○Koji Miyoshi · Naoto Kitamura · Yasushi Idemoto
- 1P019 Preparation of  $Ba_{1-x}Sm_{2x/3}Nb_2O_6$  ceramics and second harmonic generation  
(Nagaoka National College of Technology) ○Yutaka Iwai · Syuhei Yamazaki · (Nagaoka University of Technology) Futoshi Suzuki · Tsuyoshi Honma · Takayuki Komtsu
- 1P020 Crystal structure and microwave dielectric properties of spinel-structured  $[Mg_{1-x}Ga_x](Mg,Ga_{2x})O_4$  ceramics  
(Meijo University) ○Akinori Kan · Hirotaka Ogawa · Tohru Moriyama
- 1P021 Preparation and dielectric property of  $(Na_{0.88}Ba_{0.12})(Nb_{0.88}Ti_{0.12})O_3$   
(University of Yamanashi) ○Naoko Ito · Nobuhiro Kumada · Akira Miura · Takahiro Takei · Satoshi Wada
- 1P022 Fabrication of high resistivity ceramics by chemical composition ratio control  
(The University of Yamanashi) ○Katsuya Inaba · Ichiro Fujii · Shintaro Ueno · Kouichi Nakashima · Satoshi Wada · (Konoshima Chemical Industry) Yuichi Yamamoto · (Hayashi Chemical Industry) Hiroshi Hayashi
- 1P023 Piezoelectric properties of ternary  $Pb(Mn_{1/3}Nb_{2/3})O_3$ - $PbZrO_3$ - $PbTiO_3$  system solid solutions  
(University of Hyogo) ○Haruka Okuda · Masafumi Kobune · Hiroshi Nishioka · Takeyuki Kikuchi
- 1P024 Crystal Growth and domain-structure control for Ca-substituted  $BaTiO_3$  single crystals  
(The University of Tokyo) ○Ryota Imura · Yuuki Kitanaka · Takeshi Oguchi · Yuji Noguchi · Masaru Miyayama · (Hiroshima University) Chikako Moriyoshi · Yoshihiro Kuroiwa
- 1P025 Defect control for Mn-doped  $BaTiO_3$   
(The University of Tokyo) ○Yuki Ichikawa · Shotaro Ishikawa · Yuuki Kitanaka · Takeshi Oguchi · Yuji Noguchi · Masaru Miyayama · (Japan Atomic Energy Agency) Yasuhiro Yoneda
- 1P026 Relationship between the average and local structure and the ferroelectric properties of  $(Pb,Lu)(Zr,Ti,Nb)O_3$   
(Tokyo University of Science) ○Takao Kanno · Naoto Kitamura · Yasushi Idemoto
- 1P027 Fabrication of oxide film capacitors by water lift-off process  
(Kanazawa University) ○Takahiro Niwa · Tomoki Nishimura · Takeshi Kawae · Akiharu Morimoto

- 1P028 Polarization Properties of Self-supported Bismuth Sodium Titanate Thick Films Prepared by Aerosol Deposition Method  
(National Institute of Advanced Industrial Science and Technology) ○Muneyasu Suzuki · Jun Akedo
- 1P029 Synthesis and optical properties of oxynitride  $\text{LaTi}_{1-x}\text{Nb}_x(\text{O},\text{N})_3$  aimed at new red-colored inorganic pigments  
(The University of Tokushima) ○Satoshi Kataoka · Yuuya Takahashi · Katsuya Shiozaki · Keiichiro Murai · Toshihiro Moriga
- 1P030 Abnormal Grain Growth Mechanism in  $\text{BaTiO}_3$  Ceramics  
(Department of Materials Science, National Sun Yat-Sen University) ○Chih-Hung Nien ·  
(Department of Materials Science, National Sun Yat-Sen University) Hong-Yang Lu
- 1P031 Ferroelectric characteristics, crystal structures of  $(1-x)\text{Bi}_{0.5}(\text{Na}_{0.7}\text{K}_{0.25}\text{Li}_{0.05})_{0.5}\text{TiO}_3$ - $x\text{KNbO}_3$  ferroelectric ceramics.  
(Tokyo University of Science) ○Hiroshi Sumida · Naoto Kitamura · Yasushi Idemoto
- 1P032 Crystal structure refinement of  $(\text{Ba}_{1-x}\text{Bi}_x)\text{Ti}_{1-x}\text{Yb}_x\text{O}_3$  ( $0 \leq x \leq 0.04$ )  
(Yamanashi University) ○Keisuke Ogura · Nobuhiro Kumada · Takahiro Takei · Akira Miura · Satoshi Wada ·  
(Hiroshima University) Yoshihiro Kuroiwa · Chikako Moriyoshi · Eisuke Magome

### Electroconductive material

- 1P033 Fabrication of Transparent and Conductive Zinc Oxide Films by Chemical Bath Deposition Method  
(Keio University) ○Takahiro Morita · (National Institute of Advanced Industrial Science and Technology)  
Eiji Hosono · Hao-shen Zhou · (Keio University) Shinobu Fujihara
- 1P034 Ga doping of spin-sprayed ZnO films for Lower Resistivity  
(Tokyo Institute of Technology) ○Naoki Sugimoto · Jonsu Hon · Kenichi Katsumata · Kiyoshi Okada · Nobuhiro Matsushita
- 1P035 Crystal structure and electrical conduction of La-doped  $\text{Ba}_{1-x}\text{Sr}_x\text{SnO}_3$   
(Kochi National College of Technology) ○Masahiro Yasukawa · (Kyushu Institute of Technology) Yuhei Shimizu · Kazushige Ueda
- 1P036 Deposition of IGZO thin films by DC facing targets sputtering method  
(The University of Tokushima) ○Masaya Nishimoto · Humiki Nishitani · Keiitiro Murai · Toshihiro Moriga
- 1P037 Optical Properties and Preparation of Niobium Oxides thin films by Sputtering Method  
(Kagawa-NcT) ○Go Sajiki · Msachi Yoda · Ryouya Morita · Hiroshi Okano · (Okayama Univ.) Yasuhiko Benino · Tokuro Nanba
- 1P038 Preparation of Cr-SiC/Cr/Cr-SiC high-temperature strain sensitive films  
(Technology Research Institute of Osaka Prefecture) ○Yoshiharu Kakehi · Kazuo Satoh · Takashi Matsunaga · Tadaoki Kusaka ·  
(Nippon Liniax Co. Ltd.) Mitsuteru Matsumoto · Hiroshi Takenaka · Mikio Sawamura
- 1P039 Effect of Carbon Addition on Electrical Properties of PTCR- $\text{BaTiO}_3$  Fabricated by Using  $\text{SiO}_2$  as Sintering Aids  
(Kyoto Institute of Technology) ○Kazuki Ymamoto · Nobuyuki Takeuchi · Hisayoshi Kobayashi
- 1P040 Effect of Gd Addition on the Electrical Properties of  $\text{BaTiO}_3$ - $(\text{Bi}_{1/2}\text{Na}_{1/2})\text{TiO}_3$   
(Kyoto Institute of Technology) ○Masaaki Furukawa · Nobuyuki Takeuchi · Hisayoshi Kobayashi
- 1P041 Study of dense sintered body preparation of gallo-titanogallate type  $\text{K}_x\text{Ga}_8\text{Ga}_{8-x}\text{Sn}_{16-x}\text{O}_{56}$   
(Tokyo University of Science) ○Tomoyuki Ushiroyama · Shigeru Ito · Kenjiro Fujimoto
- 1P042 Effect of Carbon Addition on Electrical Properties of PTCR- $\text{BaTiO}_3$  Fabricated by Using  $\text{TiO}_2$  as Sintering Aids  
(Kyoto Institute of Technology) ○Yuji Kitano · Nobuyuki Takeuchi · Hisayoshi Kobayashi
- 1P043 Conduction properties of carrier ion-exchanged NASICON-type glass-ceramics  
(Kogakuin University) ○Haruki Katou · Naoya Yoshida · (Tokyo Medical and Dental University)  
Kimihiro Yamashita · (Kogakuin University) Toshinori Ookura
- 1P044 Lithium ion-conducting properties for laminated thin films of montmorillonite nanosheets  
(The University of Tokyo) ○Kazuya Otsu · Shinya Suzuki · (The University of Tokyo · JST-CREST) Masaru Miyayama
- 1P045 Fabrication and characterization of graphene field effect transistor for detection of VOCs  
(Tokyo Institute of Technology) ○Takayuki Aoyagi · Cross Jeffrey S. · Yuhei Hayamizu · Tomohiko Yoshioka · Toshiyuki Ikoma · Junzo Tanaka
- 1P046 Broadband Conductivity Spectra on Al-Yb Co-doped Zirconia Ceramics  
(Okayama University) ○Nami Matsubara · Takashi Teranishi · Hidetaka Hayashi · Akira Kishimoto
- 1P047 Electrical property of YSZ oxygen sensor with  $(\text{La},\text{Sr})(\text{Co},\text{Ni})\text{O}_3$  thin-film electrode at low temperature  
(Tokyo Institute of Technology) ○Kazuto Nagahara · Taku Ebisawa · Junichi Hamasaki · Tadashi Shiota ·  
(Shizuoka University) Naoki Wakiya · (Tokyo Institute of Technology) Osamu Sakurai · Kazuo Shinozaki
- 1P048 Investigation of nitridation mechanism for indium oxide by ammonia  
(Shibaura Institute of Technology University) ○Takashi Miyahara · Hajime Kiyono
- 1P049 Li ion conductivity on Nd-doped  $(\text{Li}, \text{La})\text{TiO}_3$  ceramics  
(Okayama University) ○Michihiro Yamamoto · Takashi Teranishi · Hidetaka Hayashi · Akira Kishimoto

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- 1P050 Direct Patterning of Ferrite Pattern using Inkjet Method  
(Tokyo Institute of Technology) ○Toshiyuki Takahashi · Taiki Ihara · Kenichi Katsumata · Kiyoshi Okada · Nobuhiro Matsushita
- 1P051 Complex permeability of  $\text{Sr}_3\text{Co}_{2-x}\text{Zn}_x\text{Fe}_{24}\text{O}_{41}$   
(University of Hyogo) ○Takeyuki Kikuchi · Takuya Tainaka · Tatsuya Nakamura · Tohru Yamasaki · (Okayama University)  
Makoto Nakanishi · Tatsuo Fujii · Jun Takada · (Institute of Production Development) Yasunori Ikeda
- 1P052 Fabrication of and properties of  $\text{FeO}_x$  thin films grown by PLD method  
(Tokyo Institute of Technology) ○Kento Teraguchi · Yousuke Hamasaki · Takao Shimizu ·  
Hiroki Taniguchi · Tomoyasu Taniyama · Kouichi Yasuda · Mitsuru Itoh
- 1P053 Fabrication and magnetic properties of magnetic oxides with CB-type nanostructures  
(Osaka Prefecture University) ○Kazuhiro Yoneda · Shigeo Mori
- 1P054 High-pressure synthesis  $\text{BiFeO}_3$ - $\text{BiAlO}_3$  and  $\text{BiFeO}_3$ - $\text{MnTiO}_3$  solid solution  
(Nagoya University) ○Gen Shimura · Keiji Kusaba · Tetsuya Miyawaki · Ken Niwa · Hidefumi Asano · Masashi Hasegawa

### Glass and photonic materials

- 1P055 Synthesis of Layered Yttrium Hydroxide Films and Their Application as Photosensing Materials  
(Keio University) ○Takashi Yagami · Shinobu Fujihara

- 1P056 Fabrication of photochromic  $\text{WO}_3$  based composite films and effect of added metal ions on photochromic property  
(Shimane University) ○Hidetoshi Miyazaki · Masaya Inada · (Shizuoka University) Hisao Suzuki · (Nagoya Institute of Technology) Toshitaka Ota
- 1P057 Synthesis and fluorescence properties of  $\text{Tb}^{3+}$  doped magnesium silicate incorporated aluminate phosphor  
(Nihon University) Yoshiyuki Kojima · ○Sota Iwamura · Tetuso Umegaki
- 1P058 Influence of the Additive on Luminescence Properties of a Phosphor by utilizing a Scallop Shell  
(Hokkaido Industrial Technology Center) ○Isao Shimono · Maya Sawada · Shiro Takahashi · (Hakodate National College of Technology)  
Jyunya Kobayashi · (Hokkaido University) Yasuaki Takagi
- 1P059 Fabrication of thermochromic composite films using  $\text{VO}_2$  fine particles and translucency resin  
(Shimane University) ○Yusuke Iiguni · Hidetoshi Miyazaki · Youhei Yamauchi · (Shizuoka University) Hisao Suzuki ·  
(Nagoya Institute of Technology) Toshitaka Ota · Nobuyasu Adachi · (Kyusyu University) Yumi Tanaka
- 1P060 Low-temperature heat-capacity measurements of  $\text{ZnO-P}_2\text{O}_5$  glasses  
(The university of Tohoku) ○Shuta Ishizeki · Kensaku Nakamura · Rie Ihara · Yoshihiro Takahashi · Takumi Fujiwara
- 1P061 Photoluminescence properties of  $\text{Ba}_3\text{MgSi}_2\text{O}_8:\text{Eu}^{2+}$  under 405 nm light excitation (Tokyo Kagaku Kenkyusho Co., Ltd.) ○Shinji Okamoto
- 1P062 Synthesis and Luminescent properties of  $\text{Ba}_3\text{Si}_6\text{O}_{12}\text{N}_2$ -type Oxynitride phosphors  
(The University of Tokushima) ○Yuma Ogita · Hiroshi Fuzigaki · Fumika Bando · Keiichirou Murai · Toshihiro Moriga
- 1P063 Luminescence properties of  $\text{M}_3(\text{PO}_4)_2:\text{Gd}^{3+}$  ( $M = \text{Ca, Sr, Ba}$ ) and  $\text{Sr}_3(\text{PO}_4)_2:\text{Pb}^{2+}$  upon VUV excitation  
(The University of Gakushuin) ○Raita Horiguchi · Yoshiyuki Inaguma · Shuuhei Sasaki · Daisuke Mori
- 1P064 Fabrication of nanoimprinted glass using natural material molds  
(Tokyo Institute of Technology) ○Naoya Inoue · Geng Tan · (SCIVAX Corporation) Norimichi Okuda · (Kyodo International Incorporation)  
Hideo Oi · Masahiro Mita · (Tokyo Institute of Technology) Akifumi Matsuda · Mamoru Yoshimoto
- 1P065 Crystallization and physical property of  $\text{Bi}_2\text{O}_3\text{-Fe}_2\text{O}_3\text{-B}_2\text{O}_3\text{-SiO}_2\text{-BaO}$  system glasses  
(Tohoku University) ○Tepei Takahashi · Kosuke Meguro · Yoshihiro Takahashi · Rie Ihara · Takumi Fujiwara
- 1P066 Structure analysis of  $\text{Na}_2\text{O-BO}_{1.5}\text{-Re}_2\text{O}_3$  glasses by molecular dynamics method  
(Muroran Institute of Technology) ○Yoshitaka Itoh · Naoya Sawaguchi · Makoto Sasaki
- 1P067 Structural analysis of Li ion conductivity glasses by molecular dynamics method  
(Muroran Institute of Technology) ○Yuya Okawa · Naoya Sawaguchi · Makoto Sasaki
- 1P068 Relationship between hot-electron-Behavior and internal quantum efficiency on inorganic EL devices  
(Meiji University) ○Tomoki Horiguchi · Yuma Iwata · Noboru Miura · Hironaga Matsumoto
- 1P069 Devitrification of glass-ceramics with fresnoite-type  $\text{Sr}_2\text{TiSi}_2\text{O}_8$  in  $\text{SrO-TiO}_2\text{-SiO}_2$  system  
(Tohoku University) ○Kazuya Takano · Kazuki Yamaoka · Yoshihiro Takahashi · Rie Ihara · Takumi Fujiwara
- 1P070 Effect of Oxide Addition on Fluorescence and Water Durability of Tin Phosphate Glasses  
(Okayama university) ○Satoshi Fukui · Shinichi Sakida · Yasuhiko Benino · Tokuro Nanba
- 1P071 Crystallization behavior of rare-earth doped  $\text{Bi}_2\text{ZnB}_2\text{O}_7$  glasses  
(Nagaoka University of Technology) ○Xuyi Gao · Taisuke Inoue · Tsuyoshi Honma · Takayuki Komatsu
- 1P072 Synthesis of sodium ion rechargeable battery cathode active materials by glass crystallization method  
(Nagaoka University of Technology) ○Atsushi Sato · Tsuyoshi Honma · Takuya Togashi · Takayuki Komatsu
- 1P073 Preparation and optical properties of  $\text{MgGeO}_3:\text{Mn}^{2+}$  red phosphor thin films  
(Ritsumeikan University) ○Tomoe Sanada · Yuuki Kitagawa · (Industrial Research Center of Shiga Prefecture) Kazuhiro Yamamoto ·  
(Suzuka National College of Technology) Noriyuki Wada · (Ritsumeikan University) Kazuo Kojima
- 1P074 Temperature dependence of the density of  $x\text{Na}_2\text{O-(4-x)B}_2\text{O}_3\text{-8SiO}_2$  ( $x=4, 3, 2$ ) glass melts  
(University of Shiga Prefecture) ○Junki Katsuki · (Akita University) Toru Sugawara · (University of Shiga Prefecture)  
Jun Matsuoka · Satoshi Yoshida · (Japan Nuclear Fuel Limited) Kazuhiro Minami · Eiji Ochi
- 1P075 Crystal structure of  $(\text{Eu}_{1-x}\text{Y}_x)_2\text{WO}_6$  red phosphors by using fine crystals  
(National Defense Academy) ○Atsushi Aruga · Shinichiro Ozawa · (Rigaku Corp.) Hiroyasu Sato
- 1P076 Structural analysis of borate-based multicomponent glasses by X-ray and neutron diffractions and XAFS  
(Okayama University) ○Yuya Hozaki · Shinichi Sakida · Yasuhiko Benino · Tokuro Nanba · (Hiroshima University)  
Yoshio Takahashi · (JGC corporation) Atsushi Mukunoki · Tamotsu Chiba · Takahiro Kikuchi ·  
(Radioactive Waste Management Funding and Research Center) Tomofumi Sakuragi
- 1P077 Structural changes of borosilicate glass by Deep UV laser irradiation  
(The University of Shiga Prefecture) ○Hayato Matsumoto · Satoshi Yoshida · Jun Matsuoka · (Akita University) Toru Sugawara
- 1P078 Preparation and infrared luminescence property of plate-like nano-phosphors from ( $\text{Nd}^{3+}, \text{Ce}^{3+}$ ) exchanged zeolites  
(Industrial Technology Center of Tochigi Pref.) ○Sakae Kato · Taiji Matsumoto · Kenichi Matsumoto · (Yoshizawa Lime Industry Co., Ltd.)  
Takeshi Kawashima · Tatsuya Okamura · (Ryukoku University) Yoshiaki Goto
- 1P079 Synthesis and PL intensity of Li-M-Ti-O ( $M: \text{Nb}$  or  $\text{Ta}$ ) phosphor  
(Toyohashi University of Technology) ○Sshihō Suehiro · Hiromi Nakano · (KRI, Inc) Hiroyuki Hayashi ·  
(DENKA, Co., Ltd.) Suzuya Yamada · (Keio University) Shinobu Fujihara
- 1P080 Crystal structures and optical properties of new melilite-type oxides  $\text{Eu}_2\text{MSi}_2\text{O}_7$  ( $M = \text{Mg, Mn}$ )  
(Hokkaido University) ○Takashi Endo · Yoshihiro Doi · Makoto Wakeshima · Yukio Hinatsu ·  
Eri Sakuda · Noboru Kitamura · (Utsunomiya University) Keitarou Tezuka
- 1P081 Crystallization process and microstructure of Ag nano-particles precipitated transparent mica glass-ceramics  
(Shinshu University) ○Aya Mizoguchi · Tomohiko Yamakami · Tomohiro Yamaguchi ·  
Seiichi Taruta · (Tokyo Institute of Technology) Kiyoshi Okada
- 1P082 Optical properties of  $\text{La}_2\text{O}_3\text{-B}_2\text{O}_3$  glasses prepared by containerless processing  
(Shibaura Institute of Technology) ○Takashi Iwata · Katuhisa Nagayama · (The University of Tokyo) Atunobu Masuno · Hiroyuki Inoue
- 1P083 Effects of  $\text{B}_2\text{O}_3$  addition on red long-lasting afterglow of  $\text{Mn}^{2+}$ -doped  $\text{GeO}_2\text{-Li}_2\text{O-ZnO}$  glasses  
(Suzuka National College of Technology) Fumito Mizutani · Nobufumi Miyazaki ·  
○Noriyuki Wada · (Ritsumeikan University) Tomoe Sanada · Kazuo Kojima

## Bioceramics

- 1P084 Specific binding of immunoglobulin G to protein A-mesoporous silica composites for affinity column chromatography  
(Mie University) ○Kazuma Nakanishi · Masahiro Tomita · (National Institute of Advanced Industrial Science and Technology)  
Hitomi Nakamura · Katsuya Kato
- 1P085 Oxide Nanotube Fabrication on Ti-Nb-Ta-Zr Alloy Surface by Anodization and Apatite Induction  
(Tokyo Institute of Technology) ○Fumihiko Chimoto · Chun-Yi Chen · Ken-ichi Katsumata · Kiyoshi Okada ·  
Nobuhiro Matsushita · (Tohoku University) Junko Hieda · Masaaki Nakai · Mitsuo Niinomi
- 1P086 Encapsulation of enzymes inside aluminum silicate nanotube gel and their catalytic properties  
(National Institute of Advanced Industrial Science and Technology) Norito Morishita · ○Katsuya Kato ·  
Hitomi Nakamura · Keiichi Inukai · (Nagoya Institute of Technology) Kie Fujikura · Toshihiro Kasuga
- 1P087 Catalytic performance of bakers yeast and its cell free immobilized on sol-gel silica materials  
(National Institute of Advanced Industrial Science and Technology) ○Katsuya Kato · Hitomi Nakamura · Fukue Nagata
- 1P088 Fabrication of apatite – collagen composite fibers oriented by electrochemical method  
(Tokyo Institute of Technology) ○Noritsugu Teshiba · Tomohiko Yoshioka · Toshiyuki Ikoma · Junzo Tanaka
- 1P089 Deposition of calcium phosphate crystals onto polyphosphate/fish scale collagen fibrous membranes  
(Department of Metallurgy & Ceramics Science Tokyo Institute of Technology)  
○Rena Watanabe · Tomohiko Yoshioka · Toshiyuki Ikoma · Junzo Tanaka
- 1P090 Preparation of chitosan/silica composite monolith surfaces for osteoblast adhesion  
(Nagaoka University of Technology) ○Motohiro Tagaya · Tasuku Ikarashi · (Tokyo Institute of Technology)  
Toshiyuki Ikoma · Junzo Tanaka · (Nagaoka University of Technology) Takaomi Kobayashi
- 1P091 Cytotoxicity and Cancer Imaging Abilities of the Fluorescent Porous Silica Nanospheres Immobilized with Folic Acid  
(Nagaoka University of Technology) ○Motohiro Tagaya · (National Institute of Technology) Taro Takemura · Nobutaka Hanagata ·  
(Tokyo Institute of Technology) Toshiyuki Ikoma · Tomohiko Yoshioka · Zhefeng Xu · Satoshi Motozuka · Junzo Tanaka
- 1P092 Fabrication of biomimetic hydroxyapatite and tilapia scale collagen composite fibril  
(Tokyo Institute of Technology) ○Naoki Yamaoka · Tomohiko Yoshioka · Toshiyuki Ikoma · Junzo Tanaka
- 1P093 Preparation of calcium phosphate particles adsorbed bisphosphonates for inhibition of bone resorption  
(Tokyo Institute of Technology) ○Shusuke Akiyama · Junzo Tanaka · Toshiyuki Ikoma · Tomohiko Yoshioka
- 1P094 Collagen Adsorption on Apatite Nanocrystals with Different Carbonate Contents Analyzed by SPR Technique  
(Tokyo Institute of Technology) ○Yuri Minami · Tomohiko Yoshioka · Toshiyuki Ikoma · Junzo Tanaka
- 1P095 AC electrophoretic deposition of polyacrylic acid-titanium oxide composite coatings  
(Tokyo Institute of Technology) ○Tomohiko Yoshioka · (Katcon Institute for Innovation and Technology, KIIT)  
Alejandra Chavez-Valdez · (University of Erlangen-Nuremberg) Judith Roether · Dirk Schubert · Aldo Boccaccini
- 1P096 Immobilization of folic acid on Eu(III) doped hydroxyapatite nanocrystals for cancer diagnosis  
(Tokyo Institute of Technology) ○Ryohei Takeda · (Nagaoka University of Technology) Motohiro Tagaya ·  
(Tokyo Institute of Technology) Tomohiko Yoshioka · Toshiyuki Ikoma · Junzo Tanaka
- 1P097 Preparation for calcium phosphate/alginate porous body with amorphous calcium phosphate (Nihon University) ○Tomohiro Uchino · Yuu Yamato
- 1P098 Evaluation of anodized titanium photocatalyst with a different electrolytic solution (Chukyo University) ○Yuki Ito · Toru Nonami
- 1P099 Tensile test of Nano-apatite Composite Scaffold Sheets for Evaluation of Dynamic Cell Functions  
(Kinki University) ○Tsutomu Furuzono · Jin Kodama · Toshifumi Ohyabu · Yuji Miyazaki · Ei Yamamoto ·  
(Osaka Dental University) Yoshitomo Honda · Masahiro Okada · Shoji Takeda
- 1P100 Proliferation and morphology of chondrogenic ATDC5 cells cultured on hydroxyapatite ceramics  
(Meiji University) ○Yuta Miyazawa · Mamoru Aizawa
- 1P101 Promising adjuvants prepared by Zn/Mg-doped tricalcium phosphate and pathogen-associated molecular patterns  
(National Institute of Advanced Industrial Science and Technology) ○Xiupeng Wang
- 1P102 Assessment of protein-cell interaction with QCM-D on the hydroxyapatite thin film (The University of Tokyo) ○Natsuno Matsui
- 1P103 Evaluation on tensile strength and cell compatibility of siloxane-doped vaterite/poly(lactic acid) composite nonwovens  
(Nagoya Institute of Technology) ○Akiko Obata · Kie Fujikura · Hirota Maeda · Toshihiro Kasuga · (Aalto University) NOORA-MARIA Tujunen
- 1P104 Fabrication of oriented tilapia fish-scale collagen fiber membranes using flowing fluid  
(Tokyo Institute of Technology) ○Sota Hirotsawa · Junzo Tanaka · Toshiyuki Ikoma · Tomohiko Yoshioka
- 1P105 Adsorption and desorption properties of protein on montmorillonite  
(Kitami Institute of Technology) ○Kasumi Kinoshita · Toru Kanno · Jun-ichi Horiuchi
- 1P106 Control of a physical crosslinking in an Apatite-Collagen Composite by using Gamma-ray Irradiation  
(Tokyo Institute of Technology) ○Takashi Yoshida · Tomohiko Yoshioka · Toshiyuki Ikoma · Junzo Tanaka

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- 1P107S Synthesis and characterization of transition metal doped brookite-type TiO<sub>2</sub> (Tokyo City University) ○Shohei Ozu
- 1P108 Adsorption Property of the Rare Earth Metals by Inorganic Compounds  
(University of Yamanashi) ○Iiduka Kiyooki · Ayuka Sogo · Takahiro Takei · Akira Miura · Nobuhiro Kumada
- 1P109 Removal property of cesium ion using calcium silicate compounds (University of Hyogo) ○Tatsuo Inoue · Hiroshi Nishioka · Masafumi Kobune
- 1P110 Hydrophilic-Hydrophobic Patterned Films Fabricated by Screen Printing Processes using Metal Oxide Sols  
(Nihon University) ○Sadaaki Kato · Noriko Wada · Toshikazu Nishide
- 1P111 Photocatalytic Conversion of CO<sub>2</sub> over Co-catalyst Doped LDH  
(Tokyo Institute of Technology) ○Kei Ikeda · Ken-ichi Katsumata · Toshihisa Isobe · Nobuhiro Mastushita · Kiyoshi Okada
- 1P112 Synthesis of a novel oxynitride Ba<sub>3</sub>Ta<sub>5</sub>O<sub>14</sub>N with a tetragonal tungsten bronze structure and its photocatalytic properties  
(Tohoku University) ○Katsuya Shimizu · Hideki Kato · Makoto Kobayashi · Masato Kakihana
- 1P113 Preparation of High Hardened Alumina Films using Bridged Type Fibrous Sols with a Silicene Compound of Si-Si Structure  
(Nihon University) ○Yumi Matsukawa · Toshikazu Nishide · (Kawaken Fine Chemicals Co., Ltd.)  
Naofumi Nagai · (AIST) Yukiya Hakuta · Fujio Mizukami



- 1P114 Facile Synthesis of Marshmallow-like Gels and Their Application  
(Kyoto University) ○Gen Hayase · Kazuyoshi Kanamori · George Hasegawa · Ayaka Maeno · Hironori Kaji · Kazuki Nakanishi
- 1P115 Synthesis & Characterization of Photocatalytic Ti-Substituted Strontium Vanadate Hydroxyapatite  
(Fujitsu Laboratories Ltd.) ○Mineharu Tsukada · Masato Wakamura · Toshihisa Anazawa · Nawalage F. Cooray
- 1P116 The humic substances adsorption capacity of hydrogarnet with different surface properties  
(Nagoya Institute of Technology) ○Hiroataka Maeda · Tomoaki Nakamura · Masanobu Nakayama · Toshihiro Kasuga · (Tohoku University) Yuichi Kurosaki · Hideki Ishida
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(Tokyo Institute of Technology) ○Eitarou Tamaru · Kenichi Katsumata · Nobuhiro Matsushita · Kiyoshi Okada
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(University of Hyogo) ○Naoki Taruma · Hiroshi Nishioka · Masafumi Kobune
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(Tokai University) ○Ryo Taniguchi · Souiti Takasugi · Kouji Tomita · (Tohoku University) Hideki Kato · Masato Kakihana
- 1P120 Preparation of tridymite aluminum orthophosphate (AlPO<sub>4</sub>) on alumina and its catalytic activity  
(Taki chemical Co., Ltd.) ○Sadano Sumiya · Hitoyuki Idutsu
- 1P121 Evaluation of radioactive substance adsorption on silicate/apatite composite  
(The University of Ibaraki) ○Eri Oowada · Tomohiro Hoshino · Kazuhide Ozeki · Toru Masuzawa · (International Apatite Institute) Hideki Aoki
- 1P122 Synthesis and Water Splitting Activity of Co-catalyst Doped Niobium Oxide Nano-sheets  
(Tokyo Institute of Technology) ○Keisuke Kojima · KEN-ICHI Katsumata · (Shinsyu University) Hajime Wagata · (Tokyo Institute of Technology) Nobuhiro Matsushita · Kiyoshi Okada
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(Tokyo City University) ○Kohei Maki
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(Tokyo University of Science) ○Mika Ohki · Shigeru Ito · Kenjiro Fujimoto
- 1P125 Nitrogen monoxide adsorption property of aggregated titania nanosheet  
(Tokyo University of Tokyo) ○Ryota Imaki · Kenjiro Fujimoto · Shigeru Ito
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(University of Yamanashi) ○Takuma Ohhashi · Takahiro Takei · Akira Miura · Nobuhiro Kumada
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(University of Yamanashi) ○Maho Nakamura · Takahiro Takei · Akira Miura · Nobuhiro Kumada · (Ogihara INC.) Kiyohiko Ogihara
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(Kogakuin University) ○Ryo Kadokura · Naoya Yoshida · Toshinori Okura
- 1P129 PHOTOCATALYTIC ACTIVITIES OF RbLaNb<sub>2-2x</sub>Ti<sub>x</sub>W<sub>x</sub>O<sub>7</sub> LAYERED PEROVSKITE  
(University of Yamanashi) ○Nan Xu · Takahiro Takei · Akira Miura · Nobuhiro Kumada
- 1P130 Effects of heating and pressing on the geopolymerization  
(Nagoya Institute of Technology) ○Hiromu Matsui · Shinobu Hashimoto · Hayami Takeda · Sawao Honda · Yuji Iwamoto
- 1P131 Preparation of titanium oxide modified silica fiber by CVD method and its photocatalytic activity  
(Hachinohe National College of Technology) ○Masaki Naijo · Akira Hasegawa
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- 1P132 Preparation of Li<sub>7</sub>La<sub>3</sub>Zr<sub>2</sub>O<sub>12</sub> thin films with oxide sols.  
(Taki Chemical Co., Ltd) ○Taketoshi Kuroda · Izutsu Hiroyuki · (Osaka Prefecture University) Kiyoharu Tadanaga · Akitoshi Hayashi · Masahiro Tatsumisago
- 1P133 LaCoO<sub>3</sub> synthesis by citrate combustion method and the application to the apatite type solid electrolyte  
(The University of Hosei) ○Shunya Mihara · Takaya Akashi · (National Institute for Materials Science) Kiyoshi Kobayashi · Yoshio Sakka
- 1P134 Examination of the seed layer in a ZnO nanorod dye-sensitized solar cell  
(Tokyo City University) ○Yuji Tanaka · Yusuke Noguchi · Masayuki Nagai
- 1P135 Synthesis and battery property of partially substituted MnO<sub>2</sub> nanosheet  
(Tokyo University of Science) ○Daiki Kumada · Shigeru Ito · Kenjiro Fujimoto
- 1P136 Diffusion of Li-ion in the thin film of stacked oxide nanosheets in the direction perpendicular to the film plane  
(The University of Tokyo) ○Shinya Suzuki · Masaru Miyayama
- 1P137 Control of polymorph and particle size of TiO<sub>2</sub> for dye-sensitized solar cell  
(Tokai University) ○Miwako Furue · Yuma Matsumoto · Koji Tomita · Yuki Shimoyama · Yoshihito Kunugi · (Tohoku University) Masato Kakihana
- 1P138 Fabrication and characterization of Mg<sub>2</sub>Si thin films by RF magnetron sputtering  
(Osaka Municipal Technical Research Institute) ○Junichi Tani · Hiroyasu Kido
- 1P139 Preparation of MgB<sub>2</sub> containing ZnO thin films by PLD  
(Tokyo Institute of Technology) ○Noriko Kumagai · Geng Tan · Hirokazu Nakai · (TOSHIMA Manufacturing Co., Ltd) Nobuo Tsuchimine · Susumu Kobayashi · (Kanagawa Ind. Tech. Center) Satoru Kaneko · (Osaka Institute of Technology) Tokuo Yodo · (Tokyo Institute of Technology) Akihumi Matsuda · Mamoru Yoshimoto
- 1P140 Preparation and characterization of YSZ/GDC bi-layer electrolyte by ion beam sputtering method  
(Tokyo City University) ○Kenji Deguchi · Tatsuo Sugiyama · Masayuki Nagai
- 1P141 Growth mechanism of Pt thin film deposited on stepped various oxide substrates by PLD method  
(Tokyo Institute of Technology) ○Hiroki Ito · Tadashi Shiota · (Shizuoka University) Naoki Wakiya · (Tokyo Institute of Technology) Osamu Sakurai · Kazuo Shinozaki
- 1P142 Synthesis and evaluations of Li(Ni<sub>2/3</sub>Mn<sub>1/3</sub>)O<sub>2</sub> using NaCl Flux  
(The University of Tokushima) ○Ryo Ogawa · Junichi Nishiyama · Ko-taro Yoshioka · Kiichirou Murai · Toshihiro Moriga · Kouishi Nakamura
- 1P143 Electrochemical property improvement by ultrasonic-wave treatments for cathode active material of Li ion battery  
(Tokyo University of Science) ○Jun-ya Iino · Naoto Kitamura · Yasushi Idemoto

- 1P144 Thermoelectric Properties of TiN-added Titanium Oxide  
(Akita University) ○Tomoyoshi Shoji · (Akita Industrial Technology Center) Shigeaki Sugiyama · (Akita University) Kiyoshi Fuda
- 1P145 Composition dependence of performance, and change of crystal, electronic and local structure in charge-discharge process  
(Tokyo University of Science) ○Hiroshi Jo · Naoto Kitamura · Yasushi Idemoto
- 1P146 Stabilization of Perovskite Structure in Co-based Mixed Conductors Upon In<sup>3+</sup> substitution in B-site  
(Nippon Steel & Sumitomo Metal Co.) ○Toru Nagai · Wataru Ito
- 1P147 Redox stability of proton conducting phosphosilicate glasses  
(University of Hyogo) ○Ren Hashino · Yusuke Daiko · Atsushi Mineshige · Tetsuo Yazawa
- 1P148 Synthesis and photocatalytic properties of perovskite oxides containing Sn<sup>2+</sup> ion  
(Gunma National College of Technology) ○Kiliha Katayama · Nobuyuki Taira
- 1P149 Effects of Ba-site substitution on thermoelectric properties of Ba(Fe,Ti)O<sub>3-δ</sub> ceramics  
(Nagoya Institute of Technology) ○Tomofumi Yamada · Rintaro Aoyagi · Takeshi Yokota · Manabu Gomi
- 1P150 Fabrication of Si<sub>2</sub>N<sub>2</sub>O particles by the nitridation of mixtures of silicon dioxide powders for radiative cooling  
(Shimane University) ○Shigeki Yoshida · Hidetoshi Miyazaki · (Shizuoka University) Hisao Suzuki · (Nagoya Institute of Technology) Toshitaka Ota
- 1P151 Intermediate temperature fuel cell property of proton conducting phosphosilicate glass  
(University of Hyogo) ○Itaru Fukui · Yusuke Daiko · Atsushi Mineshige · Tetsuo Yazawa
- 1P152 Preparation of composite electrode active material films for lithium ion battery by the AD method  
(Osaka Municipal Technical Research Institute) Masanari Takahashi · (Osaka Municipal Technical Research Institute · Osaka Institute of Technology) ○Takahiro Aoki · (Fuji Titan Cooperation) Akira Mukai · (Rasa Industrial Cooperation) Yuko Nakao · (Osaka Municipal Technical Research Institute) Yasuyuki Kobayashi · Mari Yamamoto · Yukiyasu Kashiwagi · Masashi Saitoh
- 1P153 Thermoelectric power of homologous compounds (ZnO)<sub>3</sub>In<sub>2x</sub>A<sub>x</sub>O<sub>3</sub> (A=Fe,Mn) at high temperature (Tokyo City University) ○Shunsuke Wada
- 1P154 Fabrication and electrochemical properties of SOFC single cell using porous YSZ ceramic supporter  
(Chonbuk National University) ○Bok-Hee Kim · (Chonbuk National University) Jae-Hak Jeong · (Chonbuk National University) Zhao Kai · (Wuhan University of Technology) Qing Xu
- 1P155 Thermoelectric performance of TiS<sub>2</sub>-based inorganic/organic hybrid superlattice structure  
(Nagoya University) ○Tomohiro Ito · (Nagoya University · JST-CREST) Chunlei Wan · (Nagoya University) Hitoshi Sasaki · (Nagoya University · JST-CREST) Kunihito Koumoto
- 1P156 Oxide-ion conductivity of highly c-axis-oriented apatite-type lanthanum silicogermanate polycrystal (Nagoya Institute of Technology) ○Hiroki Mino
- 1P157 Preparation and Evaluation of the Young's Modulus of Dense Pellets of Li<sub>2</sub>SP<sub>2</sub>S<sub>3</sub> Solid Electrolytes  
(National Institute of Advanced Industrial Science and Technology) ○Atsushi Sakuda · (Osaka Prefecture University) Atsutaka Kato · Motohiro Nagao · Akitoshi Hayashi · (National Institute of Advanced Industrial Science and Technology) Tomonari Takeuchi · (Osaka Prefecture University) Masahiro Tatsumisago
- 1P158 Intercalation of LiPF<sub>6</sub> into graphite with high concentration electrolyte  
(Kyushu University) ○Hiroki Nagano · (Kyushu University · I2CNER) Hidehisa Hagiwara · Shintaro Ida · Tatsumi Ishihara
- 1P159 Preparation of a new Ti electrode with nano-network structure on its surface by NaOH, HCl and heat treatments  
(Chubu University) ○Hiroaki Takadama · Valanezhad Alireza · Seiji Yamaguchi · Rohit Khanna · Tomiharu Matsushita · Tadashi Kokubo · (Kyushu University) Takehiro Ohta · Yoshinori Naruta
- 1P160 Temperature dependence of the crystal structure of the YBaCo<sub>4</sub>O<sub>7</sub>-based mixed conductors  
(Tokyo Institute of Technology) ○Daiki Haratake · Yi-Ching Chen · Kazuki Omoto · Kotaro Fuji · Masatomo Yashima · (Australian Nuclear Science & Technology Organisation) James Hester · (Korea Atomic Energy Research Institute) Seongsu Lee · Su Jae Kim
- 1P161 Efficient Material Screening by *Ab Initio* Method + Neural Network Modeling  
(Nagoya Institute of Technology) ○Randy Jalem · Masanobu Nakayama

#### Others

- 1P162 Effect of LASER irradiation to organic-inorganic hybrid film and application for near-infrared absorption film  
(Shibaura Institute of Technology) ○Toma Sasaki · Tomoji Ohishi
- 1P163 Formation of the self-assembled monolayer on amorphous carbon thin films. (The University of Ryukoku) ○Hiroaki Hara · Yoshifumi Aoi
- 1P164 Interaction in the Ce-Sn-O Model Catalytic System (National Institute for Materials Science) ○Shunichi Hishita · Jan Beran
- 1P165 Functionalization of amorphous carbon thin films by adsorption of biopolymers (Ryukoku University) Takashi Okubo · ○Yoshifumi Aoi
- 1P166 Development of the formation technique of Cu micron wiring by using organic-inorganic hybrid and electroless Cu plating.  
(Shibaura Institute of Technology) ○Masaya Eguchi · Tomoji Ohoishi
- 1P167 Fabrication and ESR characterization of transparent Al<sub>2</sub>O<sub>3</sub> sintered by spark plasma sintering process  
(Yamaguchi University) ○Koichi Matsuo · Ayako Kai

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(University of Yamanashi) ○Kouichi Nakashima · Shintaro Ueno · Ichiro Fujii · Satoshi Wada
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(University of Yamanashi) ○Mirza Rubel · Akira Miura · Takahiro Takei · Nobuhiro Kumada
- 1P170 Relation between the ultrasonic frequency and the particle size in the synthesis of silver particles using ultrasound  
(National Institute of Advanced Industrial Science and Technology) ○Atsuya Towata · Kyuichi Yasui · Toru Tuziuti · Teruyuki Kozuka
- 1P171 Synthesis of iron nitrides by low-temperature nitridation of iron oxides using NaNH<sub>2</sub>  
(University of Yamanashi) ○Akira Miura · Takahiro Takei · Nobuhiro Kumada
- 1P172 Preparation of glass coated magnetic nanoparticles  
(National Institute of Advanced Industrial Science and Technology) ○Kazuyuki Suzuki · Yoshiaki Kinemuchi · Atsuya Towata · Masaki Yasuoka
- 1P173 Development of the film with high gas barrier and anti-reflection and low temperature process using ultraviolet method  
(Shibaura Institute of Technology) ○Shimpei Sone · Ohishi Tomoji

- 1P174 development of flexible substrate making of DAC-silica hybrid polymer and making of color filter using ink-jet method  
(shibaura institute of technology) ○Tsutomu Yoshida · (shibaura institute of technology) Tomoji Ohishi
- 1P175 Hydrothermal synthesis of  $ZnGa_2O_4:Mn^{2+}$  nanoparticles using a flow reaction system  
(Nat. Inst. Adv. Indus. Sci. Tech.) ○Hiromichi Hayashi · Atsuko Suino · (Bando Chemical Co. Ltd.)  
Kenji Shimoyama · Masafumi Takesue · (Tohoku Univ.) Suguru Tooyama · Richard Smith
- 1P176 Synthesis and luminescence properties of lanthanum compound nanowires  
(Saga University) ○Takafumi Miyaguchi · Seiya Higuchi · Yuko Inoue · Toshio Torikai · Takanori Watari · Mitsunori Yada
- 1P177 Calcium carbonate biomineralization utilizing a multifunctional  $\beta$ -sheet peptide template  
(Nagoya Institute of Technology) ○Kazuki Murai · Masahiro Higuchi · Takatoshi Kinoshita ·  
Kenji Nagata · (National Institute of Advanced Industrial Science and Technology) Katsuya Kato
- 1P178 Synthesis and evaluation of nanoporous materials from rice hulls  
(Osaka Prefecture University) Toru Tagami · (Yokohama National University) Takeshi Okutani ·  
(Osaka Prefecture University · Kansai Center, IMR, Tohoku Univ) ○Atsushi Nakahira
- 1P179 Solvothermal synthesis of  $Ca_2Nb_2O_7$  and its photocatalytic activity  
(Kyoto University) ○Akitoshi Nakamura · Saburo Hosokawa · Masanobu Higashi · Kenji Wada · Ryu Abe
- 1P180 Synthesis and characterization of tin oxide by a solvothermal method (Tohoku University) ○Kimie Imakawa · Qiang Dong · Shu Yin · Tsugio Sato
- 1P181 Synthesis of Pt-loaded allophane nanoparticles  
(Toyota Technological Institute) ○Shuichi Arakawa · Yoko Matsuura · Fumitoshi Iyoda ·  
Shuhei Hayashi · Masami Okamoto · (Tsuchiya Co., Ltd.) Hidetomo Hayashi
- 1P182 Preparation of an Ammonium form  $\gamma$ -Zirconium Phosphate by the Liquid-Phase Deposition Process  
(Waseda Univ.) ○Hajime Komiyama · Gaku Kohara · Atsushi Nakata · (Waseda Research Institute for Science and Engineering)  
Seiichi Tahara · (Waseda Univ. · Kagami Memorial Laboratory for Materials Science and Technology) Yoshiyuki Sugahara
- 1P183  $K_2Ta_2O_6$  film preparation by hydrothermal method and their optical characterization  
(University of Toyama) ○Atsushi Saiki · Tsuyoshi Matsuda · Takashi Hashizume
- 1P184 LSPR sensor property of  $TiO_2/Au$  nanoparticles multilayer film prepared by photo deposition and layer-by-layer methods  
(Tokyo University of Science) ○Ryu Kamada
- 1P185 Characterization of the zeolite-geopolymer hybrid materials  
(Nagoya Institute of Technology) ○Shinobu Hashimoto · Hayami Takeda · Sawao Honda · Yuji Iwamoto
- 1P186 Continuous synthesis of YOOH nanoparticles by flow-through hydrothermal method  
(National Institute of Advanced Industrial Science and Technology · The University of Nihon · Sumiju Plant Engineering) ○Takeshi Ono ·  
(National Institute of Advanced Industrial Science and Technology) Kiwamu Sue · Yukiya Hakuta · Hiromichi Hayashi ·  
Yoshihiro Takebayashi · Satoshi Yoda · Takeshi Furuya · (The University of Nihon) Toshiyuki Sato · Toshihiko Hiaki
- 1P187 Morphology Control of Zirconium Oxides by Ionothermal Method  
(Tokyo Institute of Technology) ○Tetsuya Yamada · Ken-ichi Katsumata · Nobuhiro Matsushita · Kiyoshi Okada
- 1P189 Solvothermal synthesis of  $VO_2$  particles and thermochromic properties (Tohoku University) ○Hisaya Hama · Qiang Dong · Shu Yin · Tsugio Sato
- 1P190 *In situ* observation of synthesizing self-standing orientated  $AlPO_4-5$  film in a reacting system with no substrates  
(National Institute of Advanced Industrial Science and Technology) ○Tetsuya Kodaira · Chikako Sekiguchi · Takuji Ikeda
- 1P191 Difference of electrode property for  $Li(Ni,Co,Mn,Ti)O_2$  (Tokyo University of Science) ○Ryosuke Takagi · Shigeru Ito · Kenjiro Fujimoto
- 1P192  $CO_2$  absorption ability and structural phase transition of Na-substituted  $LiFeO_2$   
(Saitama University) ○Jun Miura · Ikuo Yanase · Hidehiko Kobayashi
- 1P193 Syntheses and Properties of  $RE_2A_1B_6$  and  $REAlB_4$  ( $RE$ =Rare earth elements) Crystals by  $RE-Al-B$  System Flux  
(Kokushikan University) ○Shigeru Okada · Takashi Yamasaki · Kiyomi Kamamoto · (Kanagawa University)  
Kunio Kudou · (Tohoku University) Toetsu Shishido · Kunio Yubuta
- 1P194 Synthesis and characterization of aluminogermanate sodalites loaded with sodium  
(Gunma National College of Technology) ○Nobuyuki Taira · Kei Yabuki · Mutsuo Igarashi · (Toyohashi University of Technology) Hiromi Nakano
- 1P195 Effect of seeding on low-temperature formation of  $\alpha$ -alumina from polyhydroxoaluminium-hydroxy acid composite gels  
(Shinshu University) ○Kana Okuda · Tomohiro Yamaguchi · Seiichi Taruta · Kunio Kitajima
- 1P196 Effect of structural phase transition on thermal change in color phase of Co-substituted  $SrZr(PO_4)_2$   
(Saitama University) ○Kouki Ohmori · Ikuo Yanase · Hidehiko Kobayashi
- 1P197 Ag nanoparticles network prepared by a micro phase separation  
(Nagoya Institute of Technology) ○Chika Takai · Aya Tamura · Masayoshi Fuji · Takashi Shirai
- 1P198 Synthesis and characterization of zeolite RHO (Gunma National College of Technology) ○Kantaro Arai · Nobuyuki Taira
- 1P199 Effect of sintering additives on densification of cubic  $ZrV_2O_7$  compound with a negative thermal expansion property  
(Saitama University) ○Hiroshi Sakai · Ikuo Yanase · Hidehiko Kobayashi
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- 1P200 Preparation and magnetic properties of  $CoPd-SrTiO_3$  nano-composite films  
(Tohoku University) ○Hiroshi Masumoto · Shosuke Fukushi · Yiwen Zhang · (Research Institute for Electromagnetic Materials)  
Nobukiyo Kobayashi · (Tohoku University · Research Institute for Electromagnetic Materials) Shigehiro Ohnuma
- 1P201 Growth and Evaluation of Properties of Spinel-type  $FeAlO_3$  Thin-Films  
(Tokyo Institute of Technology) ○Yousuke Hamasaki · Takao Shimizu · Hiroki Taniguchi · Tomoyasu Taniyama · Mitsuru Itoh
- 1P202 Direct synthesis of one-dimensional silicon carbide nanostructures by pyrolysis of rice husks  
(Advanced Ceramics Research Center, Nagoya Institute of Technology) ○Jin Li · Takashi Shirai · Masayoshi Fuji
- 1P203 Room-temperature homoepitaxial growth by nano-scale controlling of sapphire substrate surface morphology  
(Tokyo Institute of Technology) ○Daishi Shiojiri · Ryosuke Yamauchi · Geng Tan · (Tokyo Institute of Technology ·  
Kanagawa Industrial Technology Center) Satoru Kaneko · (Tokyo Institute of Technology) Akifumi Matsuda · Mamoru Yoshimoto

## Process of powder

- 1P204 One-step hydrothermal synthesis and photocatalytic performance of  $\text{ZnWO}_4/\text{Bi}_2\text{WO}_6$  composite photocatalyst  
(Tokyo Institute of Technology) ○Mirabbos Hojamberdiev · (Tokyo Institute of Technology) Ken-ichi Katsumata ·  
(Tokyo Institute of Technology) Nobuhiro Matsushita · (Tokyo Institute of Technology) Kiyoshi Okada
- 1P205 Ceramic powder injection molding using porcelain raw material  
(Kyoto Municipal Institute of Industrial Technology and Culture) ○Taigo Takaishi · Hirofumi Inada · Masatoshi Sato · Hajime Taguchi ·  
Shozo Hashida · Tadanori Yokoyama · (National Institute of Advanced Industrial Science and Technology) Saburo Sano
- 1P206 Synthesis and characterization of gallium oxide powders of energy saving process  
(KYOTO MUNICIPAL INSTITUTE OF INDUSTRIAL TECHNOLOGY AND CULTURE ·  
National Institute of Advanced Industrial Science and Technology) ○Hirofumi Inada ·  
(KYOTO MUNICIPAL INSTITUTE OF INDUSTRIAL TECHNOLOGY AND CULTURE)  
Taigo Takaishi · Masatoshi Sato · (National Institute of Advanced Industrial Science and Technology)  
Saburo Sano · Yasumasa Takao · (YAMANAKA HUTECH Corp.) Munataka Kishi
- 1P207 Orientation Control of  $(\text{Sr,Ca})_2\text{NaNb}_5\text{O}_{15}$  Ceramics Using Needle-like Templates Fabricated By Two-step Flux Method  
(The National Defense Academy) ○Emi Hashizume · Keisuke Ishii · Shinjiro Tashiro
- 1P208 Preparation of stabilized zirconia ceramics by cooling-gelcasting method using gelatin as a binder  
(Akita University) ○Shigeo Hayashi · Satoru Takeuchi · Fumito Kagaya
- 1P209 Fabrication of Nano Porous Titanium Dioxide Films using Aerosol Deposition Method  
(Doshisha University) ○Kazuo Yuki · Yuuki Sato · Shinzo Yoshikado
- 1P210 Preparation of the oriented lanthanum-silicate bulk ceramics by the strong magnetic field colloidal process method  
(Hosei University) ○Satoshi Takahashi · (Materials Processing Unit, National Institute for Materials Science) Kiyoshi Kobayashi · Tohru Suzuki ·  
(Hokkaido University) Yuji Masubuchi · (Materials Processing Unit, National Institute for Materials Science) Yoshio Sakka ·  
(Hosei University) Takamasa Ishigaki · (Materials Processing Unit, National Institute for Materials Science) Tetsuo Uchikoshi
- 1P211 Low temperature sintering of cubic zirconia through slip-casting of nano-slurry  
(Gifu University) ○Michiyuki Yoshida · Keisuke Iwama · Osamu Sakurada
- 1P212 Development of Silicon Nitride Nano Filter  
(Fukuoka Institute of Technology) ○Wataru Ueta · Yoshio Ohta · Mikito Kitayama
- 1P214 Fabrication of BN-resin composite particles prepared by mechanical treatment  
(Yokohama National University) ○Nanako Sugimoto · Junichi Tatami · Toru Wakihara · Akio Takahashi · (DENKA) Masahiro Ibukiyama
- 1P215 Powder characteristics of smaller granules prepared by spray drying technique  
(Yokohama National University) ○Shiori Sueyasu · Junichi Tatami · Toru Wakihara
- 1P216 Preparation of nano-sized zeolite Y using bead milling and post-processing  
(Yokohama National University) ○Yuta Amano · Toru Wakihara · Junichi Tatami

## Other process

- 1P217 Single crystal growth of perovskite-type phosphor  $\text{La}_{1/3}\text{NbO}_3\text{:Pr}^{3+}$   
(Gakushuin University) ○Yasuaki Mano · Yoshiyuki Inaguma · Syuhei Sasaki · Raita Horiguchi · Daisuke Mori
- 1P218 Preparation of highly grain-oriented ceramics by reactive diffusion technique  
(Nagoya Institute of Technology) ○Tomohiro Uchida · (Toyohashi University of Technology)  
Hiromi Nakano · (Nagoya Institute of Technology) Toru Asaka · Koichiro Fukuda
- 1P219 Synthesis and evaluation of nanomaterials for phytoremediation process  
(Osaka Prefecture University · IMR, Tohoku Univ) ○Atsushi Nakahira · (IMR, Tohoku Univ)  
Mitsutaka Sato · (Kyoto Institute of Technology) Hisato Katayama · Yukio Sugimura
- 1P220 A Non-Stick Surface Treatment Using Teflon<sup>®</sup> AF Coating and Hot Pressing with Anodic Aluminum Oxide  
(Toyohashi University of Technology) ○Xing Wei · Go Kawamura · Hiroyuki Muto · Atsunori Matsuda
- 1P221 Synthesis of metal hydrides using supercritical water in ultra-high pressure and temperatures  
(Nagoya University) Tatsuhito Shiraki · Hiroki Kondo · Kanta Yamaguchi · ○Ken Niwa ·  
Masashiko Kato · Kazuo Soda · Keiji Kusaba · Masashi Hasegawa
- 1P222 Diffusion joining at non-vacuum atmosphere between metals or alloy using hydrogen-charged metal  
(Yamaguchi University) ○Shokichi Kikugawa · Yoshiyuki Ueda · Takeshi Fujimoto · Takuya Murata
- 1P223 Synthesis and intercalation of swellable Na-taeniolite mica crystals using NaCl as a flux  
(Shinshu University) ○Takehiko Noda · Tomohiro Yamaguchi · Seiichi Taruta · Kunio Kitajima

## Characterization

- 1P224 The surface condition analysis of AlN filler.  
(Tokuyama Corporation) ○Tomohiro Kawamura · Yasuko Takeda · Yukihiro Kanechika
- 1P225 Crystal structure and oxide-ion conductivity along *c*-axis of apatite-type lanthanum silicate with excess oxide ions  
(Nagoya Institute of Technology) ○Daisuke Urushihara · Masayuki Oyabu · Toru Asaka · Koichiro Fukuda
- 1P226 In-situ observation of crack propagation behavior of Terfenol-D by magnetic force microscope  
(Yokohama national University) ○Tatsushi Sugawara · Junichi Tatami · Toru Wakihara
- 1P227 Numerical Definition of phosphor particle size and shape by statistical particle image analysis.  
(Malvern Japan ,Div of Spectris Co.Ltd.,) ○Daisuke Sasakura
- 1P228 Structural characterization of *c*-axis-oriented apatite-type lanthanum silicate polycrystals formed by reactive diffusion  
(Nagoya Institute of Technology) ○Momoko Okabe · Toru Asaka · Koichiro Fukuda
- 1P229 Crystal structure analysis of novel mixed conductors  $\text{Ba}_x\text{Nd}_{2-x}\text{InO}_{4.6}$   
(Tokyo Institute of Technology) ○Yuichi Esaki · Kotaro Fuji · Kazuki Omoto · Masatomo Yashima
- 1P230 Diffusion pathway of oxide ion in  $\text{La}_{0.8}\text{Sr}_{0.2}\text{Ga}_{0.8}\text{Mg}_{0.2}\text{O}_{2.8}$  and  $\text{La}_{1.54}\text{Sr}_{0.46}\text{Ga}_3\text{O}_7$  by bond valence sum  
(Tokyo Institute of Technology) ○Kazuki Omoto · Masatomo Yashima
- 1P231 Synthesis and disordered crystal structure of a new aluminum oxycarbide,  $\text{Al}_3\text{O}_{3.5}\text{C}_{0.5}$   
(Nagota Institute of Technology) ○Ryosuke Kotani · Toru Asaka · (The University of Tokyo)  
Hideto Yoshida · (Nagota Institute of Technology) Koichiro Fukuda

- 1P232 Crystal structure of Perovskite-type Oxynitrides  $ANbO_{2.5}N$  ( $A = Ba, Sr$ )  
(Tokyo Institute of Technology) ○Kazuho Shimada · Asobu Goto · Tomohiro Sekikawa · Kazuki Omoto · Kotaro Fujii · Masatomo Yashima
- 1P233 Crystal structure and electrical conduction of  $Sr_2GeO_4$   
(Tokyo Institute of Technology) ○Koshiro Ueda · Masatomo Yashima · Kotaro Fujii · Kazuki Omoto

## ★★ March 18 (Mon) (Room A) ★★

### Dielectric material / 強誘電体薄膜

- (9 : 00) (Chairman 加藤一美)
- 2A01 Orientation control and characterization of CSD-derived PMN-PT thin films  
(Shizuoka University) ○Takashi Arai · Yasuyuki Goto · Naonori Sakamoto · Desheng Fu · Naoki Wakiya · Hisao Suzuki · (Kitami Institute of Technology) Tomoya Ohno · Tsuyoshi Matsuda
- 2A02 Microstructure analysis for  $LaNiO_3$  porous oxide electrodes fabricated by chemical solution deposition  
(Shizuoka University) ○Naonori Sakamoto · Kotaro Ozawa · (Kitami Institute of Technology) Tomoya Ohno · (Tohoku University) Takanori Kiguchi · (Kitami Institute of Technology) Takeshi Matsuda · (Tohoku University) Toyohiko Konno · (Shizuoka University) Naoki Wakiya · Hisao Suzuki
- 2A03 Growth and characterization of ferroelectric  $(Bi_{1/2}Na_{1/2})TiO_3$  thin films under ozone atmosphere  
(The University of Tokyo) ○Yuuki Kitanaka · Yuji Noguchi · Masaru Miyayama · Yutaka Kagawa
- 2A04 Domain orientation controlled KN family piezoelectric materials with hydrothermal powders  
(The University of Tokyo) ○Yukiko Fujiuchi · Takafumi Maeda · Takeshi Morita
- 2A05S Low Temperature Preparation of  $KNbO_3$  Films by Hydrothermal Method and Their Characterization  
(Tokyo Institute Of Technology) ○Noriyuki Kaneko · Takahisa Shiraishi · (Toin Yokohama University) Mutsuo Ishikawa · (Tokyo Institute Of Technology) Minoru Kurosawa · Hiroshi Funakubo
- 2A06 Uniaxially-crystal growth of lead zirconate titanate films on metal substrates buffered by metal-oxide nanosheet layers  
(Sophia University) Yoshiaki Minemura · Kohei Nagasaka · (Tokyo Institute of Technology) Hiroshi Funakubo · (Sophia University) ○Hiroshi Uchida

### Dielectric material / 機能性膜・材料

- (10 : 30) (Chairman 北中佑樹)
- 2A07 Thickness dependent anisotropy of structural and electrical properties of a-ZnO films grown on r-sapphire substrates  
(NIMS) ○Yutaka Adachi · Naoki Ohashi · Isao Sakaguchi · Hajime Haneda
- 2A08 The relationship between formation of cubic particles and change in the microstructure of the Ni wire by ECH  
(Nagaoka University of Technology) ○Yoshiko Niki · Yuichiro Kuroki · Tomoichiro Okamoto · Masasuke Takata

### Dielectric material / 機能性薄膜

- (11 : 00) (Chairman 北中佑樹)
- 2A09 Synthesis of electronic ferroelectric  $YbFe_2O_4$  films by liquid phase coating  
(Okayama university) Naoya Okamura · Maki Tanago · Katsuhiko Ogasawara · ○Tatsuo Fujii · Makoto Nakanishi · Jun Takada · Jun Kano · Naoshi Ikeda
- 2A10 Preparation of New Photosensitive MgO Gel Films and their Patterning Properties  
(Kinki University) ○Naoki Noma · Yuta Negoro

### Dielectric material / マイクロ波誘電体

- (14 : 00) (Chairman 溝口照康)
- 2A21F [Frontiers] Downsizing of the dielectric resonator using the composite dielectrics resonator.  
(NGK SPARK PLUG CO., LTD.) ○Takashi Kasashima · Kazusige Ohbayashi · (Utsunomiya University) Yoshinori Kogami
- 2A23 Si/Al ordering on cordierite and indialite estimated by volume and covalency of Si/Al octahedron  
(Nagoya Industrial Science Research Institute · Nagoya Institute of Technology) ○Hitoshi Ohsato · (Hoseo Univeristy) Jeong-Seog Kim · Chae-Il Cheon · (Nagoya Institute of Technology) Isao Kagomiya

### Dielectric material / ナノ粒子合成

- (14 : 45) (Chairman 森田剛)
- 2A24 Preparation of Barium Titanate Nanocubes by Solvothermal Method Using Cocktail of Barium Sources  
(The University of Yamanashi) ○Seiya Amano · Kouiti Nakashima · Shintaro Ueno · Itiro Hujii · Satoshi Wada
- 2A25 Preparation of Barium Titanate/Bismuth Ferrite Nano-Structured Ceramics by Solvothermal Method  
(Yamanashi University) ○Yoshinobu Hrose · Kouichi Nakashima · Shintaro Ueno · Ichiro Fujii · Satoshi Wada
- 2A26 Synthesis and Piezoelectric Properties of  $(1-x)(Na_{0.5}Bi_{0.5})TiO_3-xBa(Mg_{0.5}W_{0.5})O_3$  by a Solvothermal Approach  
(Tohoku University) ○Takeshi Kimura · Qiang Dong · Shu Yin · (NEC Tokin Co.) Takatoshi Hashimoto · Atsushi Sasaki · Shuji Aisawa · (Tohoku University) Tsugio Sato
- 2A27 Solvothermal Synthesis of Potassium Niobate/Barium Titanate complex Ceramics with Configuration of Structure-gradient  
(Univ. of Yamanashi) ○Hideto Kawashima · Shintaro Ueno · Ichiro Fujii · Koichi Nakashima · Satoshi Wada

## ★★ March 18 (Mon) (Room B) ★★

### Electroconductive material / 透明電極

- (9 : 30) (Chairman 吉門進三)
- 2B03 Effect of Uniaxial Compression during Annealing on Solid-phase Crystallization of Transparent Conducting Oxide Thin Film  
(Tokyo Institute of Technology) ○Geng Tan · Naoya Inoue · (Kyodo International Inc.) Hideo Oi · Masahiro Mita · (SCIVAX Corp.) Norimichi Okuda · (Tokyo Institute of Technology) Akifumi Matsuda · Mamoru Yoshimoto

### Electroconductive material / 太陽電池

- (9 : 45) (Chairman 吉門進三)
- 2B04 Composition dependent optical and electrical properties of amorphous oxide semiconductor Cd-Ga-O thin films  
(University of Yamanashi) ○Chiyuki Sato · Hiroshi Yanagi · (Osaka University) Issei Suzuki · Takahisa Omata · (Tokyo Institute of Technology) Toshio Kamiya · Hideo Hosono

2B05 Electrical properties of Cu<sub>2</sub>O/Cu interface formed by controlled atmosphere annealing  
(Tokyo Institute of Technology) ○Daisuke Tokura · Manabu Hagiwara · Takuya Hoshina · Hiroaki Takeda · Takaaki Tsurumi

**Electroconductive material / ガスセンサ**

(10 : 15) (Chairman 松田晃史)

2B06 NO<sub>2</sub> or NO sensing properties for semiconductor gas sensor and observation of adsorption reaction  
(National Institute of Advanced Industrial Science and Technology) ○Takafumi Akamatsu · Toshio Itoh · Noriya Izu · Woosuck Shin

2B07 Investigation of sensor response on noble metals added tin oxide VOCs sensors  
(Institute of Nagoya Technology · National Institute of Advanced Industrial Science and Technology) ○Daiheon Lee ·  
(National Institute of Advanced Industrial Science and Technology) Toshio Itoh · Noriya Izu ·  
Takafumi Akamatsu · Woosuck Shin · (Institute of Nagoya Technology) Toshihiro Kasuga

2B08 Response increase for gas sensor using ceria thick film by noble metal addition  
(National Institute of Advanced Industrial Science and Technology (AIST)) ○Noriya Izu · Toshio Itoh · Ichiro Matsubara · Woosuck Shin

**Electroconductive material / 導電性薄膜**

(11 : 00) (Chairman 松田晃史)

2B09 Temperature Dependence of Resistivity of MoSi<sub>2</sub>-Si Composite Thin Films  
(Graduate School of Science and Engineering, Doshisha University) ○Ryo Kanai · (Department of science and engineering, Doshisha University)  
Ryosuke Kitani · (Graduate School of Science and Engineering, Doshisha University) Yuki Sato · Sinzo Yoshikado

2B10 Fabrication and plasmonic characterization of single-crystalline conductive nitride thin films  
(Kyoto University) ○Ryuichiro Yasuhara · Koji Fujita · Shunsuke Murai · Katsuhisa Tanaka

**Education / 教育実践・手法**

(11 : 30) (Chairman 櫻井修)

2B11 Attempts of Experimental Class about Ceramics  
(Okayama University) ○Mika Yoneda · Makoto Nakanishi · Toshiyuki Oshiki · Kazuo Onoyama · Isao Harada · Seiji Suga · Jun Takada

2B12 U.S. Base High Schools-University of Tsukuba Collaborative Project: Internship Seminar on Ceramics (University of Tsukuba) ○Yoshikazu Suzuki

2B13 Open lecture hosted by a university ~ the great east Japan earthquake and nukes ~  
(Okayama University) ○Yoshikazu Kameshima · Michihiro Miyake

2B14 Preparation of colored glasses and enamels as a practice for university first-year students (Shonan Institute of Technology) ○Nobuo Kieda

(12 : 30) (Chairman 木枝暢夫)

2B15 Problem-based-learning classes to teach teamwork and one way to evaluate the results  
(Kanagawa Inst. of Tech.) ○Minoru Takemoto · Yasuro Ikuma

2B16 Computer exercises using computer programs VESTA and RIETAN-FP in the "Structural analytics" class  
(Ryukoku University) ○Tatsuya Shirakami · (National Institute of Advanced Industrial Science and Technology) Katsuhiko Nomura

2B17 Making apparatus of measuring the angle-dependent of reflectance for student lab.  
(Tokyo Institute of Technology) ○Hidemi Yoshikawa · Tetsuo Kishi · Tomohiko Yoshioka · Tadashi Shiota

**Electroconductive material / ZnO バリスタ**

(14 : 00) (Chairman 大橋直樹)

2B21A [The 67th CerS] Awards] Researches on microstructure-property relationship in electroceramics (The University of Tokyo) ○Yukio Sato

2B23 Effects of Heat Treatment on Electrical Properties and Grain Boundary Structure for Ba, Si-added Bi-Based ZnO Varistors  
(Doshisha University) ○Atsuko Kubota · Yuuki Sato · Shinzo Yoshikado

2B24 Electrical Characteristics of Tin oxide-added Bismuth-based Zinc Oxide Varistors  
(Doshisha University) Yosuke Tokoro · ○Ryusuke Nagata · Yuuki Sato · Shinzo Yoshikado

(15 : 00) (Chairman 安達裕)

2B25 Effects of Adding Yttrium and Antimony Oxides on the Electrical Characteristics of Bi-based Zinc Oxide Varistors  
(Doshisha University) ○Yuuya Kojima · Yuuki Sato · Shinzo Yoshikado

**Electroconductive material / ZnO 半導体**

(15 : 15) (Chairman 安達裕)

2B26 Band Gap Narrowing of ZnO by Alloying with β-AgGaO<sub>2</sub>  
(Osaka University) ○Issei Suzuki · Yuta Arima · (Toyama National College of Technology) Masao Kita · (Osaka University) Takahisa Omata

2B27 Photoinduced electron transport properties of dye-dispersing ZnO films prepared by a wet process  
(Shinshu University) ○Hiromasa Nishikiori · Takumi Takikawa · Setiawan Rudi Agus · Kazuki Ito

★★ March 18 (Mon) (Room C) ★★

**Process of powder / メカノケミカル・粉砕**

(9 : 00) (Chairman 渡辺友亮)

2C01 Improvement of alkali solubility of kaolin powder using mechanochemical treatment  
(Nagoya institute of technology) ○Naomi Ban · Takashi Shirai · Chika Takai · Masayoshi Fuji

2C02 Interfacial Characterization of Iron/Graphite Composite Particles Prepared by Mechanochemical Reaction  
(Tokyo Institute of Technology · Gifu National College of Technology) ○Satoshi Motozuka · (Nagaoka University of Technology)  
Motohiro Tagaya · (Nagoya University) Masahiko Morinaga · (Tokyo Institute of Technology)  
Toshiyuki Ikoma · Tomohiko Yoshioka · Zhefeng Xu · Junzo Tanaka

2C03 DEM simulation of particle breakage behavior in grinding machine  
(Tohoku University) ○Shingo Ishihara · (JSPS) Rikio Soda · (Tohoku University) Qiwu Zhang · Junya Kano

**Other process / その他のプロセス**

(9 : 45) (Chairman 白井孝)

- 2C04 Synthesis of porous zirconia with fine closed pores by microwave irradiation  
(Nagoya Institute of Technology) ○Shinobu Hashimoto · (Nagoya Institute of Technology · National Institute of Advanced Industrial Science and Technology (AIST)) Tomoya Umeda · (Nagoya Institute of Technology) Aawao Honda · Yuji Iwamoto · (National Institute of Advanced Industrial Science and Technology (AIST)) Kiyoshi Hirao · Naoki Kondo · Hideki Hyuga · You Zhou

- 2C05 Effect of atmosphere on laser modification of titanium oxide  
(Osaka Municipal Technical Institute) ○Hiroyasu Kido · Masanari Takahashi · Jun-ichi Tani · (Kinki University) Yoshinori Sawairi · Mitsunobu Iwasaki

- 2C06 High-Temperature X-ray CT imaging of Vitrification Process of Glass Beads and Pseudo-Radioactive Waste  
(Tokyo Institute of Technology) ○Tomohiro Amagasa · Keita Watanabe · Naoko Ikeji · Ryo Nakata · Tetsuo Kishi · Shuichi Shibata · Tetsuji Yano · Kenji Takeshita · (Japan Nuclear Fuel Limited) Kazuhiro Minami · Eiji Ochi

- 2C07 Degassing Effects on Crystal Growth of Lithium Tetraborate by Applied Strong Magnetic Field  
(University of Yamanashi) ○Isao Tanaka · Ryuta Sako · Masanori Nagao · Satoshi Watauchi

(10 : 45) (Chairman 吉岡朋彦)

- 2C08 Development of ceramic coating technology on silicon carbide  
(TOCALO CO.,Ltd.) ○Yuhei Ohide · Yoshiyasu Ito · Tatsuo Suidzu · Takeshi Takabatake

- 2C09 Synthesis and elastic properties of Marcasite-type rhodium nitride by a direct nitriding method at high pressures  
(Nagoya University) ○Ken Niwa · Kentaro Suzuki · Masashi Hasegawa · (Max-Planck-Institut für Chemie) Mikhail Eremets · (Technische Universität Darmstadt) Dmytro Dzivenko · Ralf Riedel

- 2C10 Electromagnetic wave absorption properties on concentration-graded ferrite-polymer composite materials  
(Osaka University) ○Masahiro Itoh · Ken-ichi Machida

**Process of powder / パウダープロセス**

(14 : 00) (Chairman 戸田健司)

- 2C21 Preparation of porous Si grains by heating Mg<sub>2</sub>Si grains  
(Tohoku University) ○Takahiro Yamada · (Toyota Central R&D Labs., Inc.) Hiroshi Itahara · (Tohoku University) Hisanori Yamane

- 2C22 Pressure-less sintering of Ti<sub>3</sub>SiC<sub>2</sub> ceramics using Si / Al liquid phase  
(National Institute for Materials Science) ○Kimitoshi Sato · Yoshio Sakka · (The University of Tsukuba) Mrinalini Mishra · (Hosei University) Hiroto Hirano · Takamasa Ishigaki

- 2C23 Influence of granules characteristics on coarser defects in translucent alumina ceramics  
(Nagaoka University of Technology) ○Satoshi Tanaka · Shouta Goi · Zenji Kato · Keizo Uematsu

- 2C24 Effect of SiO<sub>2</sub>-coated cBN on densification and mechanical properties of cBN-TiN-TiB<sub>2</sub> prepared by SPS  
(Institute for Materials Research, Tohoku University) ○Mettaya Kitiwan · Akihiko Ito · Takashi Goto · (Institute for Synergistic Interdisciplinary Research) Jianfeng Zhang

(15 : 00) (Chairman 田中諭)

- 2C25 Synthesis of silicate phosphor using SiO powder as a silica source and a reducing agent  
(Niigata University) ○Kenji Toda · Takeshi Abe · Kazuyoshi Uhematsu · Tadashi Ishigaki · Mineo Sato · (Sungkyunkwan University) Bong Sung Kim · Su Jo Deok · Takaki Masaki · Dae Ho Yoon · (N-luminescence Corporation) Junko Koide · Masako Toda · Yoshiaki Kudo

- 2C26 Estimation Method for Internal Stress in Laminates during Sintering  
(Tokyo Institute of Technology) ○Kouichi Yasuda · Peiling Lv

- 2C27 Influence of Ethyl-cellulose molecular weight on the rheological properties of Perovskite oxide pastes  
(Nagoya Institute of Technology · Noritake Co., Limited) ○Koji Inukai · (Noritake Co., Limited) Yosuke Takahashi · (Nagoya Institute of Technology · National Institute of Advanced Industrial Science and Technology) Woosuck Shin

**★★ March 18 (Mon) (Room D) ★★****Liquid phase process / 多孔質体**

(9 : 00) (Chairman 内山弘章)

- 2D01 Preparation of Porous Titanium Oxide Particles using Organic Monolith Templates and the Capacitance Properties  
(Tokyo Institute of Technology) ○Tomoki Kobayashi · Toshihiro Isobe · Sachiko Matsushita · Akira Nakajima

- 2D02 Structural Control of Colloidal Mesoporous Silica Nanoparticles by Using Trialkylbenzenes  
(Waseda University) ○Hiroto Ujiie · Hironori Yamada · Chihiro Urata · (Waseda University · Kagami Memorial Research Institute for Materials Science and Technology) Kazuyuki Kuroda

- 2D03 Synthesis and characterization of Ba ferrite-Silica Aerogel Nanocomposite  
(Nagoya Institute of Technology) ○Kenzi Hattori · Nobuyasu Adachi · Toshitaka Ota · (Nagoya Institute of Technology · Rinnai Corporation) Naruhito Katagiri

- 2D04 Influence of Mixed Solvents on Fabrication of SnO<sub>2</sub> Micro Pattern Gas Sensors with Macro Pores and Gas Sensing Properties  
(Nagoya Institute of Technology) ○Takuya Imaeda · Tomokatsu Hayakawa · Yohei Ishikawa · (Nagoya Institute of Technology · National Institute for Materials Science) Hiroshi Fudouzi · (National Institute for Materials Science) Tsutomu Sawada

**Liquid phase process / 受賞講演**

(10 : 00) (Chairman 幸塚広光)

- 2D05A [The 67th CerS Awards] Chemical Processes for Ceramic and Hybrid Materials  
(Waseda University) ○Yoshiyuki Sugahara

**Liquid phase process / 有機・無機ハイブリッド**

(10 : 45) (Chairman 菅原義之)

- 2D08 Preparation and thermoplasticity of organic-inorganic hybrids comprising lanthanum coordination polyhedra and b-diketone  
(Kansai University) Hiromitsu Kozuka · ○Kota Suzuki · Hiroaki Uchiyama

- 2D09 Proton conductivity of organic-inorganic hybrid titanophosphate membranes under dry conditions  
(Kyoto University) ○Akinori Horii

2D10 Spontaneous formation of wrinkle patterns on ZnO films prepared from Zn(CH<sub>3</sub>COO)<sub>2</sub> aqueous solutions  
(Kansai University) Hiroaki Uchiyama · ○Takao Eiki · Hiromitsu Kozuka

**Liquid phase process / 受賞講演**

(14 : 00) (Chairman 今井宏明)

2D21A [The 67th CerSJ Awards] Morphology Control and Application of Ceramics Synthesized in Aqueous Solutions  
(Yamagata University) ○Hidero Unuma

**Liquid phase process / 薄膜**

(14 : 30) (Chairman 今井宏明)

2D23 Synthesis and Electric Property of (Nb,K)NbO<sub>3</sub> Film by Water-based Citrate Precursor  
(Nagoya Institute of Technology) ○Kotaro Hattori · Ken-ichi Kakimoto · Isao Kagomiya

2D24 Synthesis of Nb surface doped La-SrTiO<sub>3</sub> nanocubes and evaluation of self-assembled films  
(Nagoya University) ○Kazuki Tsuruta · (Nagoya University · JST-CREST) Feng Dang · Nam-hee Park · Chunlei Wan · Kunihito Koumoto

(15 : 00) (Chairman 藤本憲次郎)

2D25 Liquid phase of ITO nanoparticles and their application for IR cut coatings.  
(Hiroshima University) ○Ryuichi Takabatake · Kiyofumi Katagiri · Kei Inumaru

**Liquid phase process / 受賞講演**

(15 : 15) (Chairman 藤本憲次郎)

2D26A [The 67th CerSJ Awards] Surface Morphology Control of Thin Films Prepared by Solution Processes and its Application  
(Osaka Prefecture University) ○Kiyoharu Tadanaga

**★★ March 18 (Mon) (Room E) ★★**

**Glass and photonic materials / 非線形光学**

(9 : 00) (Chairman 河村剛)

2E01 Patterning of β-BaB<sub>2</sub>O<sub>4</sub> crystal lines in the inside of glass by laser irradiation  
(Nagaoka University of Technology) ○Akihito Nishii · Futoshi Suzuki · Tsuyoshi Honma · Takayuki Komatsu

2E02 Crystallization of Bi<sub>2</sub>O<sub>3</sub>-MO-B<sub>2</sub>O<sub>3</sub> (M=Zn,Ca,Sr) glasses and resulting nonlinear optical property  
(Okayama University) ○Keita Kanenishi · Shinichi Sakida · Yasuhiko Benino · Tokuro Nanba

**Glass and photonic materials / 蛍光体 (青色)**

(9 : 30) (Chairman 河村剛)

2E03 Luminescence property of blue emitting La<sub>1-x</sub>Ce<sub>x</sub>Al(Si<sub>6-z</sub>Al<sub>z</sub>)N<sub>10-z</sub>O<sub>2</sub> by UV/Violet LED's excitation  
(National Institute for Materials Science) ○Takuya Kitabatake · Naoto Hirosaki

2E04 Temperature dependence of emission on high-pressure phase of SrO:Eu<sup>2+</sup> blue phosphor  
(Nagaoka University of Technology) ○Keiji Komatsu · (Chubu Chelest Co., Ltd. · Nagaoka University of Technology) Atsushi Nakamura ·  
(Nagaoka University of Technology) Ariyuki Kato · Shigeo Ohshio · Ikumi Toda · Hiroyuki Muramatsu · Hidetoshi Saitoh

(10 : 00) (Chairman 崎田真一)

2E05 Structural behavior on high-pressure phase of SrO:Eu<sup>2+</sup> blue phosphor  
(Nagaoka University of Technology) ○Keiji Komatsu · Tomoyuki Shirai · (Chubu Chelest Co., Ltd. · Nagaoka University of Technology)  
Atsushi Nakamura · (Nagaoka University of Technology) Shigeo Ohshio · Ikumi Toda · Hiroyuki Muramatsu · Hidetoshi Saitoh

**Glass and photonic materials / アップコンバージョン**

(10 : 15) (Chairman 崎田真一)

2E06 Structural Characterization of Nd-Doped Oxyfluoride Glass-Ceramics Phosphor  
(Toyoashi University of Technology) ○Kazunari Ota · Go Kawamura · Hiroyuki Muto · Atsunori Matsuda

2E07 Phase-Selective Synthesis and Up-conversion Photoluminescence Properties of NaGdF<sub>4</sub>:Tm<sup>3+</sup>,Yb<sup>3+</sup> Nanocrystals  
(Nagoya Institute of Technology) ○Hayato Ota · Tomokatsu Hayakawa

2E08 Synthesis and characterization of cerium(IV) oxide up-conversion phosphors  
(Tokai University) ○Satoshi Ogawa · Yu Oyanagi · Noriyuki Naruse · Koji Tomita ·  
(Hirosima University) Kiyofumi Katagiri · (Tohoku University) Masato Kakhana

**Glass and photonic materials / 応力発光・残光**

(14 : 00) (Chairman 上田純平)

2E21S Effect of Decarbonization Condition on Long-Lived PL Appearance in Si-O-C(H) Ceramics  
(Graduate School of Engineering, Osaka Prefecture University) ○Masaki Narisawa · Yasushi Kawamoto · Toshiyuki Matsui ·  
Akihiro Iwase · (Osaka Municipal Technical Research Institute) Seiji Watase · Kikmihiro Matsukawa

2E22 Effect of Grinding Raw Materials on Synthesis of Mechanoluminescent Materials  
(Sakai Chemical Industry Co., Ltd) ○Kenji Mori · Tomonori Tojo · Hiroshi Nakao · Keita Kobayashi

2E23 Mechanoluminescent characteristics of SrAl<sub>2</sub>O<sub>4</sub>:Eu prepared by nitrate decomposition method  
(National Institute of Advanced Industrial Science and Technology) ○Yuki Fujio · Chao-Nan Xu

2E24 Intensive red mechanoluminescence properties from Mn<sup>2+</sup> doped MZnOS (M= Ca, Ba) phosphors  
(Kyushu University) ○Dong Tu · (Kyushu University · National Institute of Advanced Industrial Science and Technology)  
Chao-Nan Xu · (National Institute of Advanced Industrial Science and Technology) Yuki Fujio

(15 : 00) (Chairman 成澤雅紀)

2E25 Evaluation and Prediction of Photoluminescence Performance on the Blue Phosphor by Analysis of the Trap  
(Kyushu University) ○Yujin Terasawa · (National Institute of Advanced Industrial Science and Technology) Yuki Fujio ·  
(Kyushu University · National Institute of Advanced Industrial Science and Technology · WPI-I2CNER) Cano-Nan Xu

2E26 Synthesis of red-emitting long afterglow phosphor by irradiating visible light  
(Nihon University) Yoshiyuki Kojima · ○Aoi Takahashi · Tetsuo Umegaki

2E27 Synthesis and optical characterization of Ce<sup>3+</sup>-doped Y-In-Al-Ga-O garnet phosphors  
(The University of Kyoto) ○Keisuke Kuroishi · Jumpei Ueda · Setsuhisa Tanabe



## ★★ March 18 (Mon) (Room F) ★★

### Glass and photonic materials / フォトニック結晶

(9 : 00) (Chairman 村井俊介)

- 2F01 Modification of local electric conductive properties of polymer using focused femtosecond laser pulse  
(The University of Kyoto) ○Naoki Morita · Yasuhiko Shimotsuma · Masayuki Nishi · Masaaki Sakakura · Kiyotaka Miura · Kazuyuki Hirao
- 2F02 Synthesis of monodispersed colloidal mesoporous silica nanoparticles and fabrication of colloidal crystals  
(Waseda University) Masaki Kitahara · ○Eisuke Yamamoto · Takuya Tsumura · (Waseda University · Kagami Memorial Research Institute for Materials Science and Technology, Waseda University) Kazuyuki Kuroda
- 2F03 Fabrication of TiO<sub>2</sub> photonic crystal with a two-dimensional complete photonic band gap  
(Tokyo Institute of Technology) ○Yasushi Morii · Mikiro Hayashi · (Tokyo Institute of Technology Semiconductor and MEMS Processing Center) Akihiro Matsutani · Kunio Nishioka · (Tokyo Institute of Technology) Toshihiro Isobe · Sachiko Matsushita · Akira Nakajima

### Glass and photonic materials / ガラス構造

(9 : 45) (Chairman 北村直之)

- 2F04 Comparison between enthalpy relaxation and volume relaxation for glasses with different void ratio  
(The University of Shiga prefecture) ○Kimiyasu Okumura · (The University of Akita) Toru Sugawara · (The University of Shiga prefecture) Satoshi Yoshida · Jun Matsuoka
- 2F05 Relationship between low-temperature excess heat capacity and composition in oxide glass  
(Tohoku University) ○Kensaku Nakamura · Yoshihiro Takahashi · Rie Ihara · Takumi Fujiwara
- (10 : 15) (Chairman 高橋儀宏)
- 2F06 Relationship between structure and transmission characteristics in bismuth borophosphate glass  
(National Institute of Advanced Industrial Science and Technology) Kohei Fukumi · (Kansai University) ○Ryohei Otsuka · (National Institute of Advanced Industrial Science and Technology) Naoyuki Kitamura · (Kansai University) Hiromitsu Kozuka · Hiroaki Uchiyama
- 2F07 HAADF-STEM observation of Er atom in optical glass fiber  
(The University of Tokyo) ○Teruyasu Mizoguchi · Yuichi Ikuhara · Atsunobu Masuno · Hiroyuki Inoue · (Monash University) Scott Findlay
- 2F08 Optical Properties and Raman Scattering Spectra of BaO-Nb<sub>2</sub>O<sub>5</sub>-P<sub>2</sub>O<sub>5</sub> Glass  
(National Institute of Advanced Industrial Science and Technology) ○Naoyuki Kitamura · (Hokkaido University) Jyunji Nishii
- (11 : 00) (Chairman 吉田智)
- 2F09 Formation of nano-structures using electrostatic glass imprint  
(Hokkaido University) ○Naoki Ikutame · Hiroshi Ikeda · Junji Nishii · (Kitami Institute of Technology) Daisuke Sakai · Kenji Harada
- 2F10 Effects of alkyl chain length on the viscosity of alkylpolysilsesquioxanes prepared by a cosolvent-free method  
(Tokyo Metropolitan University) ○Yuko Fukuda · Arata Sakuragi · Koichi Kajihara · Kiyoshi Kanamura

### Glass and photonic materials / 紫外線カットガラス

(14 : 00) (Chairman 吉田智)

- 2F21A [The 67th CerSJ Awards] High performance UV cut tempered automotive glass (ASAHI GLASS Co., LTD. Research Center) ○Hirokazu Kodaira

### Glass and photonic materials / ガラス融液

(14 : 30) (Chairman 正井博和)

- 2F23 Observation of Bubble Refining in Soda-Lime-Silica Glass melts Prepared by In-Flight Melting Technique  
(Tokyo Institute of Technology) ○Yutaka Koshizawa
- 2F24 Absorption spectra of Co<sup>2+</sup>-doped sodium borate glass melts  
(The University of Shiga Prefecture) ○Tasaku Morimoto · Satoshi Yoshida · Jun Matsuoka · (Akita University) Toru Sugawara

### Glass and photonic materials / プロトン伝導

(15 : 00) (Chairman 角野広平)

- 2F25 Amount of the incorporated proton and proton conductivity in binary phosphate glasses  
(The University of Hyogo) ○Yawara Takamatsu · Yusuke Daiko · Atsushi Mineshige · Tetsuo Yazawa · (JASRI) Shinji Kohara · (J-PARC) Kentaro Suzuya
- 2F26AS [The 67<sup>th</sup> CerSJ Awards] Proton conduction in glasses (Univ. Hyogo) ○Yusuke Daiko

## ★★ March 18 (Mon) (Room G) ★★

### Environment and energy related material / 活性炭

(9 : 00) (Chairman 塩野剛司)

- 2G01 Investigation of development of micro-pore structure in carbon activated using mixture of NaOH and KOH  
(Nagaoka University of Technology) ○Takumi Yamada · Hiroe Toda · Ikumi Toda · Shigeo Ohshio · Hiroyuki Muramatsu · Syuji Himeno · Hidetoshi Saitoh
- 2G02 Evaluation of iodine adsorption property on activated carbon fabricated from rice husk ashes  
(Nagaoka University of Technology) Hiroe Toda · ○Ikumi Toda · Shigeo Ohshio · Shuji Himeno · Hidetoshi Saitoh
- 2G03 Pressure-temperature-dependency of CO<sub>2</sub> adsorption phase on activated carbon fabricated from rice husk ashes  
(Nagaoka University of Technology) Taka-aki Tsuchiya · ○Ikumi Toda · Takumi Yamada · Hiroe Toda · Shigeo Ohshio · Hiroyuki Muramatsu · Shuji Himeno · Hidetoshi Saitoh
- 2G04 XRD analysis of activated carbon under H<sub>2</sub>O adsorption  
(Nagaoka University of Technology) ○Takumi Yamada · Hiroe Toda · Ikumi Toda · Shigeo Ohshio · Hiroyuki Muramatsu · Syuji Himeno · Hidetoshi Saitoh

### Environment and energy related material / 触媒

(10 : 00) (Chairman 磯部敏宏)

- 2G05 Pt-supported Rare Earth Oxide Catalysts for Complete Oxidation of Volatile Organic Compounds  
(Osaka University) ○Toshiyuki Masui · Keisuke Yasuda · Nobuhito Imanaka

- 2G06 Preparation of Mn catalyst supported on hexagonal YbFeO<sub>3</sub> and its catalytic property  
(Kyoto University) ○Saburo Hosokawa · Tatsuya Nishimura · Kenji Wada · Masashi Inoue · Ryu Abe
- 2G07 NO reduction property of apatite-type phosphate supported Pt catalyst  
(Akita University) ○Sumio Kato · Atsunori Ono · Masataka Ogasawara · Shinichi Nakata
- 2G08 Oxygen storage capacity and catalytic property of CeO<sub>2</sub>-Mn<sub>3</sub>O<sub>4</sub> mixed metal oxides  
(Tohoku University) ○Qiang Dong · Taro Sakanakura · Shu Yin · Tsugio Sato

**Environment and energy related material / 企業研究フロンティア講演**

(11 : 00) (Chairman 佐藤次雄)

- 2G09F [Frontiers] Nanotechnology in an exhaust gas catalyst (Toyota Central R&D Labs. Inc.) ○Akihiko Suda

**Environment and energy related material / 多孔体**

(14 : 15) (Chairman 藤正督)

- 2G22 Preparation and Characterization of Porous Al<sub>2</sub>TiO<sub>5</sub> toward Diesel Particle Filter Application  
(University of Tsukuba) ○Hitodhi Nishijima · (Malvern Jpn. Div. Spectris) Naoya Inoue · Masafumi Morimoto · (University of Tsukuba) Yoshikazu Suzuki
- 2G23 Influence of Macrostructure on Thermal and Mechanical Properties in Ceramics Thermal Insulators  
(Mino Ceramic Co., Ltd.) ○Ayumi Tsujino · Kiyoto Sekine · Takeshi Kumazawa · (National of Advanced Industrial Science and Thecnology) Manabu Fukushima · Yuichi Yoshizawa
- 2G24 Applying Porous Al<sub>2</sub>TiO<sub>5</sub> to Water Purification Filter  
(University of Tsukuba) ○Taiki Hono · (Malvern Japan Division of Specrtris Co., Ltd) Noaya Inoue · Masafumi Morimoto · (University of Tsukuba) Yoshikazu Suzuki
- 2G25 Microstructure Control and Gas Permeability of Porous Alumina Compacts  
(Kagoshima University) ○Hatsuki Shirasaka · Yoshihiro Hirata · Souichirou Sameshima

**Environment and energy related material / 受賞講演**

(15 : 15) (Chairman 岡田清)

- 2G26A Evaluation and Control of Interaction between Ceramic Particles and Application for Environment Functional materials  
(Tokyo Institute of Technology) ○Toshihiro Isobe

**★★ March 18 (Mon) (Room H) ★★**

**Engineering ceramics / 焼結**

(9 : 30) (Chairman 大司達樹)

- 2H03 Effects of sintering temperature on fabrication of SiC with rotary CVD deposited SiO<sub>2</sub> nano-layer by SPS  
(IMR Tohoku University · Wuhan University of Technology) ○Zhenhua He · (IMR Tohoku University) Hirokazu Katsui · (Wuhan University of Technology) Rong Tu · (IMR Tohoku University) Takashi Goto
- 2H04 Fabrication of Al<sub>5</sub>C<sub>3</sub>N ceramics by spark plasma sintering technique  
(Yokohama National University) ○Junichi Tatami · Masaki Hironaka · Toru Wakihara · (Tohoku University) Akihiko Ito · Takashi Goto
- (10 : 00) (Chairman 堀田幹則)
- 2H05 Effect of particle size of talc on the microstructure of sintered cordierite ceramics  
(Aichi institute of technology) ○Masaki Katayama · Yuichi Kobayashi
- 2H06 Reactive sintering and evaluation of MgO-doped Al<sub>2</sub>TiO<sub>5</sub> (University of Tsukuba) ○Ryosuke Maki · Yoshikazu Suzuki

**Engineering ceramics / コーティング**

(10 : 30) (Chairman 桐原聡秀)

- 2H07 Mechanical, electrical and thermal conduction properties of dense alumina coatings by plasma spraying  
(FUJIMI INCORPORATED) Junya Kitamura · ○Kazuto Sato · Yoshitomo Kobayashi · Toshihiko Tosaki · Kyohei Ota
- 2H08 Behavior of Thermal Sprayed Ceramics Coatings Under the Plasma Environment  
(TOCALO Co.,Ltd) ○Hiroki Yokota · Yoshiyasu Ito · (Tsinghua University) Yuchao Cao · Jing-Feng Li · Ke Wang
- 2H09 Preparation and microstructure of Al-Ti-O thick films by laser chemical vapor deposition using CO<sub>2</sub> laser  
(Institute for Materials Research, Tohoku University) ○Ming Gao · Akihiko Ito · Takashi Goto

**Engineering ceramics / 接合**

(14 : 15) (Chairman 武藤浩行)

- 2H22 Joining of alumina by the use of polysiloxane and aluminum foil  
(AIST, National Institute of Advanced Industrial Science and Technology) ○Ken' ichiro Kita · Naoki Kondo
- 2H23 Development of SiC laser brazing technology (Toshiba Corp.) ○Shoko Suyama · Wataru Kouno · Daijiro Fukuda · Akira Tanaka
- 2H24 Effect of joining temperature on microstructure and joining strength of joined Si<sub>3</sub>N<sub>4</sub> long pipes  
(National Institute of Advanced Industrial Science and Technology) ○Mikinori Hotta · Naoki Kondo · Hideki Kita · (Mitsui Mining & Smelting Co., Ltd.) Yasuhisa Izutsu · Takashi Arima

**Engineering ceramics / インデンテーション**

(15 : 00) (Chairman 須山章子)

- 2H25 Change in Mechanical Properties of Silica Gel during the Gelation by Indentation Technique  
(Toyoashi U. Tech.) ○Hiroyuki Muto · Shyouhei Muri · Norio Hakiri · Go Kawamura · Atsunori Matsuda
- 2H26 GPa order high pressure impedance measurement utilizing an indentation technique  
(University of Hyogo) ○Eri Takahashi · Yusuke Daiko · Atsushi Mineshige · Tetsuo Yazawa · (University of Technology) Norio Hakiri · Hiroyuki Muto · Atsunori Matsuda
- 2H27 Effect of friction between an indenter and specimen surface on nanoindentation on a film/substrate bilayer system  
(Tokyo Institute of technology) ○Keisuke Yokota · Takashi Akatsu · Yutaka Shinoda · Fumihiko Wakai

★★ March 18 (Mon) (Room I) ★★

Energy reference material / PEFC

(9 : 15) (Chairman 山口十志明)

- 2I02 Hybridization of benzimidazole with phosphates using glasses  
(Nagoya Institute of technology) ○Takahiro Oine · Kei Handa · Hiroshi Morikawa · Hirota Maeda · Masanobu Nakayama · Toshihiro Kasuga · (Central Glass Co., Ltd.) Tatsuya Tsuzuki
- 2I03 The effect of heat treatment on the structure of hybrid materials derived from zinc phosphate glass and benzimidazole  
(Nagoya Institute of Technology) ○Kei Handa
- 2I04 High temperature protonic conduction and crystal structure of eulytite-type phosphates  
(Tokyo Univ. of Science) ○Yuki Yamada · Naoto Kitamura · Yasusi Idemoto
- 2I05 Electrodes and Assembling Method for Intermediate Temperature Fuel Cell Using Phosphoric Acid Treated Gypsum  
(Tokyo City University) ○Satoshi Suzuki · Masayuki Nagai
- 2I06 Effect of defect association in proton conductive BaZrO<sub>3</sub>  
(Japan Fine Ceramics Center · Kyoto University) ○Akihide Kuwabara · (Japan Fine Ceramics Center) Fisher Craig · Hiroki Moriwake · (Nagoya University) Kazuaki Toyoura · (Japan Fine Ceramics Center · Nagoya University) Katsuyuki Matsunaga · (Kyoto University) Yukinori Koyama · Fumiyasu Oba · (Japan Fine Ceramics Center · Kyoto University) Isao Tanaka

Energy reference material / SOFC 電極

(10 : 30) (Chairman 棟方裕一)

- 2I07 Co-sintering process of SOFC anode and electrolyte  
(National Institute of Advanced Industrial Science and Technology) ○Toshiaki Yamaguchi · Hirofumi Sumi · Koichi Hamamoto · Toshio Suzuki · Yoshinobu Fujishiro
- 2I08 Evaluation of crystal structure and electrochemical properties of (Bi, RE)VO<sub>4</sub>-based electrode material for SOFC  
(Tokyo University of Science) ○Kazuya Tashiro · Naoto Kitamura · Yasushi Idemoto
- 2I09 Mechanism of the oxide-ion diffusion in K<sub>2</sub>NiF<sub>4</sub>-type oxide Pr<sub>1.9</sub>NiO<sub>4.3</sub>  
(Tokyo Institute of Technology) ○Daiki Haratake · Masatomo Yashima · Mio Saito · Kotaro Fuji · Yi-Ching Chen · (Kyushu University) Nuansaeng Sirikanda · Tatsumi Ishihara
- 2I10 Structural Origin of the Thermal Expansion Anisotropy of AA'BO<sub>4</sub> (A = Ca, Sr; A' = Rare earths; B = Al, Ga)  
(Tokyo Inst. Tech.) ○Keishi Kawamura · Kazuki Omoto · Kotaro Fujii · Masatomo Yashima

Energy reference material / SOFC 電解質

(14 : 00) (Chairman 藤代芳伸)

- 2I21A [The 67th CerS] Awards] Oxide Ion Conductivity in Perovskite Related Oxide and its application to Solid Oxide Fuel Cell  
(Kyushu University) ○Tatsumi Ishihara
- 2I23 Oxide-ion conductivity of highly *c*-axis-oriented apatite-type lanthanum silicate polycrystal with excess La<sub>2</sub>O<sub>3</sub> content  
(Nagoya Institute of Technology) ○Koichiro Fukuda · Masayuki Oyabu · Daisuke Urushihara · Toru Asaka
- 2I24 Crystal structure and ion-conductivity of melilite-type structure La<sub>1.54</sub>Sr<sub>0.46</sub>Ga<sub>3</sub>O<sub>7.27</sub>  
(Tokyo Institute of technology) ○Naoto Kaneko · Kazuki Omoto · Kotaro Fujii · Masatomo Yashima · (Korean Atomic Energy Research Institute) Seongsu Lee · Su Jae Kim

Energy reference material / SOFC 発電特性

(15 : 00) (Chairman 石原達己)

- 2I25 Fabrication and characterization of micro cone-shaped solid oxide fuel cells  
(The University of Nagoya) ○Kenta Yasue · Masahiro Huruhashi · Chikara Ohtsuki · Koichi Kikuta
- 2I26 Evaluation of Electric Power of SOFC Using Simulated Biogas  
(Kagoshima university) ○Naoki Furukawa · Yoshihiro Hirata · Souitirou Sameshima

Energy reference material / その他の発電システム

(15 : 30) (Chairman 石原達己)

- 2I27 Properties of hydroxyapatite electret power generator  
(Tokyo Medical and Dental University) ○Norio Wada · (Tokyo Medical and Dental University · Kogakuin University) Katsuyuki Mukougawa · (Tokyo Medical and Dental University) Naohiro Horiuchi · Tetsuo Hiyama · Miho Nakamura · Akiko Nagai · (Kogakuin University) Toshinori Okura · (Tokyo Medical and Dental University) Kimihiro Yamashita

★★ March 18 (Mon) (Room J) ★★

Bioceramics / セメント

(9 : 30) (Chairman 石川邦夫)

- 2J03 Fabrication of calcium-phosphate cement with non-fragmentation property and its evaluation method  
(Meiji university · Kanagawa Academy of Science and Technology) ○Kei Fujioka · Kouhei Nagata · Toshiisa Konishi · (Kanagawa Academy of Science and Technology) Minori Mizumoto · Michiyo Honda · (Meiji university · Kanagawa Academy of Science and Technology) Mamoru Aizawa
- 2J04 Effect of additive on properties of injectable hydroxyapatite/collagen paste using sodium alginate  
(National Institute for Materials Science · Meiji University) ○Taira Sato · (Meiji University) Mamoru Aizawa · (National Institute for Materials Science) Masanori Kikuchi
- 2J05 Effect of Different Particle Sizes of Raw Materials on the Mechanical Properties of Calcium Phosphate Cement  
(Osaka City University) Yoshiyuki Yokogawa · ○Kentaro Fujii · Hiroki Yamada · Kentaro Tone · Ipeei Kishida

**Bioceramics / 日中賞受賞講演**

(10 : 15) (Chairman 横川善之)

- 2J06A (国際交流奨励賞 日中セラミックス科学・技術交流奨励賞) Synergistic effects of cell penetrating peptides and fusogenic peptide enhance cellular internalization and gene transduction of organosilica nanoparticles  
(Xiamen University) ○Ren Lei · Wang Tian-xiao · Shang Ting · Wang Zu-yong · Wang Jun

**Bioceramics / ナノマテリアル**

(10 : 45) (Chairman 川下将一)

- 2J08 Synthesis of Superparamagnetic Nanoparticle Clusters for Cancer Theranostics Combining MRI and Hyperthermia Treatment  
(The University of Tokushima) ○Koichiro Hayashi · Michihiro Nakamura · Kazunori Ishimura
- 2J09 Synthesis of silica nanotubes as multifunctional materials for biomedical applications  
(Japan Society for the Promotion of Science (JSPS)) ○Song Chen · (National Institute for Materials Science) Notutaka Hanagata
- 2J10 Preparation of aluminium silicate nanotube / poly(ethylene glycol) composite gels  
(Nagoya Institute of Technology) ○Kie Fujikura · Hirotaka Maeda · Akiko Obata · (National Institute of Advanced Industrial Science and Technology) Keiichi Inukai · Katsuya Kato · (Nagoya Institute of Technology) Toshihiro Kasuga

**Bioceramics / 企業研究フロンティア講演**

(14 : 00) (Chairman 相澤守)

- 2J21F [Frontiers]Development of a novel hydroxyapatite/collagen composite for clinical application  
(HOYA Co.Ltd.) ○Daisuke Shoji · Mikio Shibasaki · Yuko Kozaka · Tomoji Takayama · Naomi Mochizuki · Shingo Shiotani · Katsumi Kawamura · Masahiro Hirano

**Bioceramics / 複合材料**

(14 : 30) (Chairman 相澤守)

- 2J23 Effect of carbonate addition on the dissolution behaviour of calcium-salted poly ( $\gamma$ -glutamic acid) / silica hybrid  
(Nagoya Institute of Technology · Imperial College London) ○Jin Nakamura · (Imperial College London) Gowsihan Poologasundarampillai · Julian Jones · (Nagoya Institute of Technology) Toshihiro Kasuga
- (14 : 45) (Chairman 小幡亜希子)
- 2J24 Effects of Hydrothermal Hot-pressing time on hardness of novel chitosan/apatite composite  
(Osaka Prefecture University) ○Tomoyuki Tago · Takamasa Onoki · (Kansai Center IMR, Tohoku University) Mitsutaka Sato · (Osaka Prefecture University · Kansai Center IMR, Tohoku University) Atsushi Nakahira
- 2J25 Fabrication of medicinal agent-calcium phosphate composite layers by a laser-assisted biomimetic process.  
(The University of Yamagata) ○Nao Matsuoka · (National Institute of Advanced Industrial Science and Technology) Ayako Oyane · Kenji Kawaguchi · Kenji Koga · Atsuo Ito · Yu Sogo · Naoto Koshizaki · (The University of Yamagata) Hidero Unuma
- 2J26 Study on Chemical State and Property Change of the Novel Calcium Phosphate Composite Material Synthesized by Wet Method  
(Chukyo University) ○Yuto Nomura · Hiroko Hase · Toru Nonami
- 2J27 NMR Spectra of Octacalcium Phosphate with Suberic and Succinic Acids Co-incorporated in the Interlayers  
(Yamaguchi University) ○Hirotaka Fujimori · Yoshiaki Miyamoto · (Nagoya University) Taishi Yokoi · Chikara Ohtsuki

**★★ March 18 (Mon) (Room K) ★★****Pottery, Porcelain enamel / 陶磁器**

(9 : 00) (Chairman 勝又哲裕)

- 2K01 Preparation of low-temperature sinterable porcelain by partial melt and strengthening  
(Aichi institute of technology) ○Masaki Katayama · Yuichi Kobayashi · (Seto seido) Ryojiro Taniguchi
- 2K02 Development of lightweight tableware by amakusa pottery clay blended with tridymite  
(Ceramic Research Center of Nagasaki) ○Masaaki Kohno · Norio Yamaguchi · Koichi Takeuchi

**Characterization / 構造解析**

(9 : 30) (Chairman 勝又哲裕)

- 2K03 Freezing Points at Ultra-High Temperatures in the  $ZrO_2$ -GdO<sub>1.5</sub> System by an Arc-Image Furnace and a Radiation Pyrometer  
(Yamaguchi University) ○Hirotaka Fujimori · Ryosuke Sasaki · Hiroshi Mizumoto · Masashi Nakashima · (National Cheng Kung University, Taiwan) Masahiro Yoshimura
- 2K04 Crystal Structure Change and Oxide-Ion Diffusion of Nano-Crystalline Ceria-Zirconia  $Ce_{0.5}Zr_{0.5}O_2$   
(Tokyo Institute of Technology) ○Masatomo Yashima · Tomohiro Sekikawa · Daisuke Sato · Kazuki Omoto · (Toyohashi University of Technology) Hiromi Nakano
- (10 : 15) (Chairman 藤森宏高)
- 2K06 Oxygen nonstoichiometry analysis of CeO<sub>2</sub> grain boundaries by STEM and EELS  
(The University of Tokyo) ○Bin Feng · Yukio Sato · Naoya Shibata · Tetsuya Tohei · Teruyasu Mizoguchi · (Tokyo Institute of Technology) Hajime Hojo · (Hokkaido University) Hiromichi Ohta · (The University of Tokyo · Tohoku University · JFCC) Yuichi Ikuhara
- 2K07 Domain and domain boundary structures in  $La_{2/3x}Li_{3x}TiO_3$   
(Japan Fine Ceramics Center) ○Xiang Gao · Craig A. J. Fisher · Yumi H. Ikuhara · Teiichi Kimura · Hiroki Moriwake · Akihide Kuwabara · (Toyota Motor Corporation) Hideki Oki · Takeshi Tojigamori · Kohama Keiichi · (Japan Fine Ceramics Center · The University of Tokyo) Yuichi Ikuhara
- 2K08 Tailoring Cation-Ordering by Sr content  $x$  in Perovskite-type Mixed Conductors  $PrBa_{1-x}Sr_xCo_2O_{6\delta}$  ( $0 \leq x \leq 1$ )  
(Tokyo Inst. Tech.) ○Emi Kitagawa · Yi-Chin Chen · Uhi Fumi · Kazuki Omoto · Masatomo Yashima · (ANSTO) James Hester · (Toyohashi Univ. Tech.) Hiromi Nakano
- 2K09 Discovery of a novel mixed conductor  $BaNdInO_4$  with a new type of crystal structure  
(Tokyo Institute of Technology) ○Kotaro Fujii · Yuichi Esaki · Kazuki Omoto · Masatomo Yashima

(14 : 00) (Chairman 戸田育民)

- 2K21 Determination of pore sizes of  $(\text{NH}_4)_x\text{H}_{4-x}\text{SiW}_{12}\text{O}_{40}$  sponge crystals by molecular probe method  
(The University of Hiroshima) ○Yusuke Morita · Tomoya Ishikawa · Kei Inumaru
- 2K22 Structure and formation mechanism of  $(\text{NH}_4)_x\text{H}_{4-x}\text{SiW}_{12}\text{O}_{40}$  sponge crystals  
(Hiroshima University) Tomoya Ishikawa · Takeshi Uyama · Yusuke Morita · ○Kei Inumaru
- 2K23 Crystal structure, electron-density distribution and proton conduction of hydroxyapatite and carbonated hydroxyapatite  
(Tokyo Institute of Technology) ○Naoyuki Kubo · Masatomo Yashima · Yukihiko Yonehara · Kazuki Omoto · Kotaro Fujii ·  
(Yamaguchi University) Hirotaka Fujimori · (Keio University) Koji Ioku · (TOHOKU UNIVERSITY) Masanobu Kamitakahara ·  
Woonkyoung Park · (Tokyo Institute of Technology) Toshiyuki Ikoma · Junzo Tanaka

#### Characterization / ガラス・フォトニクス材料解析

(14 : 45) (Chairman 犬丸啓)

- 2K24 Characterization of In-Flight Melted technology soda lime glasses using electrochemical techniques  
(Tokyo Institute of Technology) ○Yugo Saeki · Tetsuji Yano · Tetsuo Kishi · (TOYO Glass Co. Ltd.) Keizo Satoh ·  
Masanori Iwamoto · Ysunori Ebihara · (NIMS) Satoru Inoue · (Tokyo Institute of Technology) Syuichi Shibata
- 2K25 Electrical and optical properties of hydrogenated amorphous carbon films  
(Nagaoka University of Technology) ○Hisashi Yoshioka · Shigeo Ohshio · Ikumi Toda · Hiroyuki Muramatsu · Hidetoshi Saitoh
- 2K26 Effect of soft X-ray radiation on refractive index and extinction coefficient of hydrogenated amorphous carbon film  
(Nagaoka University of Technology) ○Hisashi Yoshioka · Shigeo Ohshio · Keiji Komatsu · Ikumi Toda ·  
Hiroyuki Muramatsu · Hidetoshi Saitoh · (University of Hyogo) Ryo Imai · Kazuhiro Kanda
- 2K27 Synthesis and crystal structure of  $\text{Li}_3\text{BP}_2\text{O}_8$   
(Tohoku University) ○Toru Hasegawa · Hisanori Yamane

### ★★ March 18 (Mon) (Room L) ★★

#### Cement / 硬化体その1

(9 : 30) (Chairman 佐川孝広)

- 2L03 Measurement of the time-dependent diffusivity of Cl using  $\text{AgNO}_3$  spray tests  
(Taiheiyo Cement Corporation) ○Yoshifumi Hosokawa
- 2L04 Study on Inhibition of Chloride Ion Invasion for Cement Paste Hardened Body  
(Nihon University) ○Koshiro Koizumi · Naomitsu Tsuyuki

#### Cement / 流動性・化学混和剤

(10 : 00) (Chairman 大宅淳一)

- 2L05 The quality control system by the calorimetry in the cement recycling system using sodium gluconate  
(Tokyo Institute of Technology) ○Tetsuji Kamio · Daiki Atarashi · Yutaka Aikawa · Masahiro Miyauchi · Etsuo Sakai
- 2L06 The influence of  $\text{K}_2\text{SO}_4$  and KF on fluidity of cement paste with comb-type superplasticizer  
(Tokyo Institute of Technology) ○Kazuki Matsuzawa · Daiki Atarashi · Masahiro Miyauchi · Etsuo Sakai
- 2L07 Influence of molecular structure of superplasticizer in blended cement  
(Tokyo institute of technology) ○Tomofumi Sasabe · Daiki Atarashi · (TAKEMOTO OIL & FAT Co., Ltd)  
Shinji Tamaki · (Tokyo institute of technology) Masahiro Miyauchi · Etsuo Sakai
- 2L08 Reaction of a  $\text{Ca}(\text{OH})_2$ -spherical  $\text{SiO}_2$  slurry, and dispersion of sub-micron particles  
(Tokyo Institute of Technology) ○Yuuta Nakagawa · Daiki Atarashi · (DENKA) Akitoshi Araki ·  
Hideaki Ishida · (Tokyo Institute of Technology) Masahiro Miyauti · Etsuo Sakai

#### Cement / 企業研究フロンティア講演

(11 : 00) (Chairman 浅賀喜与志)

- 2L09F [Frontiers] Improvement in Durability of Cementitious Material Using The Carbonation Reaction  
(Kajima corporation) ○Kenzo Watanabe

#### Cement / 混和材・高炉スラグ

(14 : 00) (Chairman 小泉公志郎)

- 2L21 Theoretical analysis for void fraction of cohesive particles with size distribution  
(Tokyo Institute of Technology) ○Yutaka Aikawa · Daiki Atarashi · Etsuo Sakai
- 2L22 Strengthening of High Volume Blast-furnace Slag Cement Considering Packing Fraction of Particles  
(Tokyo Institute of Technology) ○Takuya Nakazawa · Daiki Atarashi · Yutaka Aikawa ·  
Masahiro Miyauchi · Etsuo Sakai · (D.C. CO.,LTD.) Nobukazu Nito · Kiyoshi Koibuchi
- 2L23 Effect of Anhydrite Content on Strength and Adiabatic Temperature Rise of High Volume of Blast-furnace Slag Cement  
(Nippon Steel and Sumikin Cement) ○Takahiro Sagawa · (Nippon Steel and Sumikin Cement) Tsukasa Ogura
- 2L24 Effect of Fineness of High Volume Blast-furnace Slag Cement on Strength and Adiabatic Temperature Rise  
(Nippon Steel&Sumikin Blast-Furnace Slag Cement Co.,Ltd,Japan) ○Yusuke Ohtsuka ·  
(Nippon Steel&Sumikin Blast-Furnace Slag Cement Co.,Ltd,Japan) Yasutomo Ueki

#### Cement / 硬化体その2

(15 : 00) (Chairman 細川佳史)

- 2L25 Synthesis of AFm phase in OPC-CaO ·  $2\text{Al}_2\text{O}_3$  system and its immobilization of Iodine  
(Tokyo Institute of Technology) ○Kazuma Kuroiwa · Daiki Atarashi · (Nihon University) Junichi Ooya ·  
(DENKA) Minoru Morioka · (Tokyo Institute of Technology) Masahiro Miyauchi · Etsuo Sakai
- 2L26 Characterization of the hardened cement pastes with additives with large water cement ratio for long time curing  
(Teikyo University of Science) ○Kiyoshi Asaga · (Yamaguti University) Seishi Goto
- 2L27 3D observation of texture of hydrated cements  
(yamaguchi university) ○Seishi Goto · (teikyou university of science) Kiyoshi Asaga

### ★★ March 19 (Tue) (Room A) ★★

#### Dielectric material / ナノ構造制御

(9 : 00) (Chairman 和田智志)

- 3A01A [The 67th CerSJ Awards] Study on the electrical resistance degradation of multi-layer ceramic capacitors  
(Taiyo Yuden Co.,Ltd.) ○Shinsuke Takeoka

- 3A03 Influence of Ca Substitution on Size Effect of BaTiO<sub>3</sub>-based Ceramics  
(Tokyo Institute of Technology) ○Takahiro Yamazaki · Takuya Hoshina · Hiroaki Takeda · Takaaki Tsurumi
- 3A04 Contribution of ferroelectric domains to the tunability on (Ba, Sr)TiO<sub>3</sub>  
(Okayama University) ○Takashi Teranishi · Tsuyoshi Sogabe · Hidetaka Hayashi · Akira Kishimoto

(10 : 00) (Chairman 寺西貴志)

- 3A05 Development of New High-performance Dielectric Materials by Nanodomain Engineering  
(Yamanashi University) ○Kaito Sasaki · Harumi Kamei · Ichirou Fujii · Shintarou Ueno · Kouichi Nakashima · Satoshi Wada
- 3A06 Fabrication of dielectric SrTaO<sub>2</sub>N ceramics  
(Faculty of Engineering, Hokkaido University) ○Shi-Kuan Sun · Ya-Ru Zhang · Yuji Masubuchi · Teruki Motohashi · Shinichi Kikkawa

#### Dielectric material / 産官学ミキシング

(10 : 45) (Chairman 舟窪浩)

- 3A08M (ユーザーサイド 2013) 電子セラミックスの今日的課題  
(Tokyo Institute of Technology) ○Yukio Sakabe
- 3A10M Interaction between Mn and oxygen vacancy in BaTiO<sub>3</sub>; Investigation by ESR measurements and theoretical calculations  
(Murata Manufacturing Co., Ltd.) ○Shunsuke Chikada · Teppei Kubota · Atsushi Honda · Shin'ichi Higai · Yasuhiro Mototyoshi · Nobuyuki Wada · Kosuke Shiratsuyu
- 3A11M Fabrication and characterization of BaTiO<sub>3</sub> nanocube ordered assembly by dip-coating on various substrates  
(National Institute of Advanced Industrial Science and Technology) ○Ken-ichi Mimura · Kazumi Kato
- 3A12M Relation of the dielectric breakdown strength and dielectric constant of CaZr<sub>1-x</sub>Ti<sub>x</sub>O<sub>3</sub> ceramics  
(Tokyo Institute of Technology) ○Tatsuya Izumi · Mikio Yamazaki · Takuya Hoshina · Hiroaki Takeda · Takaaki Tsurumi

#### Dielectric material / 圧電・焦電性評価

(13 : 00) (Chairman 永田肇)

- 3A17 Investigation of high-temperature electrical properties of piezoelectric silicate single crystals  
(Tokyo Tech) ○Hiroaki Noguchi · Manabu Hagiwara · Takuya Hoshina · Hiroaki Takeda · Takaaki Tsurumi
- 3A18 Determination of piezoelectric constant by an AC capacitive displacement technique  
(Shizuoka University) ○Desheng Fu · Hisao Suzuki
- 3A19 Pyroelectric properties and electrocaloric effects of BaTiO<sub>3</sub>-based and PLZT ceramics  
(Shonan Institute of Technology) ○Hiroshi Maiwa

#### Dielectric material / 欠陥・構造制御

(13 : 45) (Chairman 武田博明)

- 3A20 Electrical resistivity of F-doped BaTiO<sub>3</sub>(Bi<sub>1/2</sub>Na<sub>1/2</sub>)TiO<sub>3</sub> Ceramics  
(Tokyo Institute of Technology) ○Kazuki Kanehara · Satoshi Koyasu · Takuma Naito · Ryota Murai · Takahiro Isobe · Daiki Atarashi · Takuya Hoshina
- 3A21 Preparation of Potassium Niobate Porous Ceramics by Introduction of Nano Pores and the Piezoelectric Properties  
(Univ. of Yamanashi) ○Kazuki Maeda · Ichiro Fujii · Kouichi Nakashima · Sintaro Ueno · Satoshi Wada · (Honda R&D Co. Ltd) Gakuyo Fujimoto · Kazuhiro Suma · Toru Sukigara

#### Dielectric material / 配向プロセッシング

(14 : 15) (Chairman 野口祐二)

- 3A22 Fabrication of Textured Ceramics using Various Barium Titanate by Deposition in a Strong Magnetic field  
(Yamanashi University) ○Eigo Kobayashi · Takahiro Takei · Nobuhiro Kumada · Shintaro Ueno · Ichiro Fujii · Kouichi Nakashima · Satoshi Wada · (National Institute for Materials Science) Tohru Suzuki · Tetsuro Uchikoshi · Yoshio Sakka · (Murata Manufacturing) Yasunari Miwa · Shinichiro Kawada · Suetake Omiya · Noriyuki Kubodera · (Hiroshima University) Yoshihiro Kuroiwa
- 3A23 Crystal-oriented (Bi<sub>0.5</sub>Na<sub>0.5</sub>)<sub>1-x</sub>Ba<sub>x</sub>TiO<sub>3</sub> prepared by colloidal processing in rotating magnetic field  
(Nagaoka University of Technology) ○Keisuke Sano · Satoshi Tanaka · Mitsuru Imai · Keizo Uematsu · (Taiyo Yuden Co. LTD.) Tomohiro Harada · Yutaka Doshida
- 3A24 Influence of orientation and porosity on transparency in c-axis oriented strontium barium niobate ceramics  
(Nagaoka University of Technology) ○Takuma Takahashi · Zenji Kato · Keizo Uematsu · Satoshi Tanaka
- 3A25 Orientation Control of (K,Nb)NbO<sub>3</sub> Ceramics Using plate-like NaNbO<sub>3</sub> Particles Made by Single-step Molten Salt Synthesis  
(The National Defense Academy) ○Keisuke Ishii · Shinjiro Tashiro

#### Dielectric material / マルチフェロイック・新材料

(15 : 15) (Chairman 岡研吾)

- 3A26 Effect of Sc substitution in LuFeO<sub>3</sub>  
(The University of Tokyo) ○Atsushi Ishimoto · Atsunobu Masuno · Hiroyuki Inoue · (Hiroshima University) Chikako Moriyoshi · Yoshihiro Kuroiwa
- 3A27 Synthesis and characterizations of the novel oxides Pb-Co-Te-O  
(Utsunomiya University) ○Yue Jin Shan · Yukihiko Habe · Keitarou Tezuka
- 3A28 Multiferroic properties of BiFeO<sub>3</sub>-BaTiO<sub>3</sub> based thick films  
(Toyama Industrial Technology Center) ○Tomoaki Futakuchi · Tatsunori Kakuda · Yuichi Sakai
- 3A29 High-pressure synthesis, structure and physical properties of novel polar A-site ordered double perovskite MnCaTi<sub>2</sub>O<sub>6</sub>.  
(Gakushuin University) ○Akihisa Aimi · Daisuke Mori · Ko-ichi Hiraki · Toshihiro Takahashi · (Utsunomiya University) Yue Jin Shan

### ★★ March 19 (Tue) (Room B) ★★

#### Electroconductive material / 酸化物半導体

(9 : 15) (Chairman 篠崎和夫)

- 3B02 Electrical Conduction Control on (La, AE) (Cr,Mn)O<sub>3</sub> (AE= Ca, Sr) NTC Thermistor Materials with A- site substitution  
(Mitsubishi Materials Corporation) ○Toshiaki Fujita · Kazutaka Fujiwara · Yoshihiro Higuchi · Noriaki Nagatomo
- 3B03 Thermoelectric properties of complex structure oxides  
(Nagoya University) ○Shinya Yamamoto · (Nagoya University · JST) Chunlei Wan · Kunihito Koumoto

**Electroconductive material / 酸化物キャラクタリゼーション**

(9 : 45) (Chairman 篠崎和夫)

- 3B04 Control of vacancy arrangement in  $\text{La}_{1-x}\text{TiO}_3$  and its physical properties  
(Toho University) ○Daisuke Akahoshi · Shingo Sakai · Maiko Naya · Toshiaki Saito

(10 : 00) (Chairman 松石聡)

- 3B05 Structural phase transition and electrical conductivity of  $\text{Ba}_{2-x}\text{La}_x\text{Fe}_2\text{O}_{5.6}$   
(Nihon University) ○Takuya Hashimoto · Takashi Ohkiba · Eiki Niwa · (Tohoku University) Fumito Fujishiro

**Electroconductive material / 複合アニオン**

(10 : 15) (Chairman 松石聡)

- 3B06 A triple anion oxide  $\text{BaTi}(\text{O},\text{H},\text{F})_3$   
(Kyoto University) ○Naoya Masuda · Hajime Suzuki · Takafumi Yamamoto · Yoji Kobayashi · Hiroshi Kageyama
- 3B07 Anion Manipulation in  $\text{ReO}_3$ - and  $\text{VF}_3$ -type structures  
(Kyoto University) ○Yoji Kobayashi · Shingo Mitsuoka · Takafumi Yamamoto · Hiroshi Kageyama

**Electroconductive material / 超伝導体**

(11 : 00) (Chairman 田中功)

- 3B09 Synthesis of iron-based superconductor  $\text{SmFeAsO}_{1-x}\text{H}_y$  single crystals  
(Tokyo Institute of Technology) ○Takashi Muramoto · Soshi Iimura · Satoru Matsuishi · Shuichi Shibata · Hideo Hosono
- 3B10 Superconductivity in oxygen-deficient  $(\text{RE},\text{Ca})\text{Ba}_2\text{Cu}_3\text{O}_6$   
(Tohoku University) Keon Kim · ○Masatsune Kato · Takashi Noji · Yoji Koike
- 3B11 Novel superconductor  $\text{BaTi}_2\text{Sb}_2\text{O}$  with a  $d^1$  square lattice  
(Kyoto University) ○Takeshi Yajima · Kousuke Nakano · Fumitaka Takeiri · Yoji Kobayashi · Hiroshi Kageyama ·  
(Osaka Prefecture University) Toshio Ono · Yuko Hosokoshi · (NIMS) Yoshitaka Matsushita · (ANSTO) James Hester
- 3B12 Structure and Superconductivity of  $\text{Mo}_7\text{Re}_{13}\text{C}$  prepared by solid state method using planetary ball mill machine  
(Chuo University) ○Katsuyoshi OH-ISHI · Kazuya Tateishi · Hiromasa Miyake · Ryota Kobayashi

**Electroconductive material / イオン伝導体**

(13 : 00) (Chairman 林克郎)

- 3B17 Electrical properties of  $\text{Zr}_{0.89}\text{Sc}_{0.10}\text{M}_{0.01}\text{O}_\alpha$  (M=Ce, Nd, Sm)  
(Niihama National College of Technology) ○Makoto Takata · Ryushiro Tokunaga · Susumu Nakayama ·  
(Daiichi Kigenso Kagaku Kogyo Co. Ltd.) Fuminori Tamazaki · Yasushi Nakajima
- 3B18 Decarbonation and ionic conduction behaviors of Fluoride-substituted Carbonated apatite  
(Kyushu University) ○Marina Kawaji
- 3B19 Conduction characteristics of  $\text{La}_{9-33}\text{M}_6\text{O}_{26}$  (M=Si, Ge) single-crystals grown from sintered ceramics by a seeding method  
(Niihama National College of Technology) ○Susumu Nakayama · (Yamagata University) Masatomi Sakamoto
- (13 : 45) (Chairman 小林亮太)
- 3B20 Evaluation of polarization in yttria doped zirconia using thermally stimulated depolarization current measurements  
(Tokyo Medical and Dental University) ○Naohiro Horiuchi · Yu Tsuchiya · Norio Wada · Kosuke Nozaki ·  
Miho Nakamura · Akiko Nagai · Kimihiro Yamashita · (Chiba Institute of Technology) Kazuaki Hashimoto
- 3B21 Li-ion introduction into organo-modified  $\text{Mo}_6\text{S}_8$  and their reactivity  
(Hiroshima University) ○Teruhiko Hanaoka · (Mazda Motor Corporation) Hiroyuki Kai · Yoshinori Tshushio · (Hiroshima University) Kei Inumaru
- 3B22 Synthesis of  $\text{Ca}_2\text{Nb}_3\text{O}_{10}$  nanosheets with a large size and their conductivity  
(The University of Kyushu) ○Shota Koga · Youhei Okamoto · (The University of Kyushu ·  
JSTsakigake · International Institute for Carbon-Neutral Energy Research) Shintaro Ida ·  
(The University of Kyushu) Hidehisa Hagiwara · (The University of Kyushu ·  
International Institute for Carbon-Neutral Energy Research) Tatsumi Ishihara

**★★ March 19 (Tue) (Room C) ★★****Vapor phase process / 受賞講演**

(9 : 15) (Chairman 熊田伸弘)

- 3C02A [The 67th CerSJ Awards] Proposal and demonstration of a superelastically foamed ceramics  
(Okayama University) ○Akira Kishimoto

**Vapor phase process / レーザー**

(9 : 45) (Chairman 岡元智一郎)

- 3C04 Epitaxial growth of anatase and rutile  $\text{TiO}_2$  films by laser chemical vapor deposition  
(Tohoku University) ○Akihiko Ito · Takashi Goto
- 3C05 High-rate growth of  $\text{Li}_7\text{La}_9\text{Zr}_2\text{O}_{12}$  film by laser CVD  
(Tohoku University) ○Hirokazu Katsui · Ryosuke Shimizu · Takashi Goto · (Toyota Motor Corp.) Toshiya Saito · Keiichi Kohama
- 3C06 High-speed deposition of (110)-oriented  $\text{LiAl}_5\text{O}_8$  films by laser chemical vapor deposition  
(Tohoku Univ. IMR) ○Chi Chen · Katsui Hirokazu · (WuHan Univ. Tech.) Tu Rong · (Tohoku Univ. IMR) Goto Takashi
- 3C07 Effects of aging for spontaneously formed superlattice period in  $\text{Nb-SrTiO}_3$  thin films prepared using dynamic aurora PLD  
(Shizuoka University) ○Hayato Ishii · Naonori Sakamoto · (Tokyo Institute of Technology)  
Kazuo Shinozaki · (Shizuoka University) Hisao Suzuki · Naoki Wakiya

**Vapor phase process / CVD/エピタキシャル**

(10 : 45) (Chairman 後藤孝)

- 3C08 Amorphous hydrogenated carbon films deposited with benzene by PECVD method  
(Nagaoka University of Technology) ○Xiaolong Zhou · Ikumi Toda · Shigeo Ohshio · Hiroyuki Muramatsu · Hidetoshi Saitoh
- 3C09 Morphology of  $\text{MgO}$  epitaxial films  
(Nagaoka University of Technology) ○David Pineda Marulanda · Keiji Komatsu ·  
Shigeo Ohshio · Ikumi Toda · Hiroyuki Muramatsu · Hidetoshi Saitoh
- 3C10 Fabrication of  $\text{InN}$  films on a-plane sapphire substrate and  $\text{YSZ}(111)$  substrate by AP-HCVD  
(Shizuoka University) ○Tatsuya Kogane · Hiroaki Yokoo · Naonori Sakamoto · Naoki Wakiya · Hisao Suzuki

3C11 Influence of initial Pt layer for crystal growth of  $\text{Cr}_2\text{O}_3/\text{LiNbO}_3/\text{Cr}_2\text{O}_3$  multilayer  
(Nagoya Institute of Technology) ○Koji Ichikawa · Takeshi Yokota · Rempei Imura · Manabu Gomi

**Liquid phase process / 薄膜**

(13 : 00) (Chairman 橋本忍)

3C17 Preparation of IZO transparent conductive thin film by microwave heating.  
(Shizuoka University) ○Masayuki Okuya · Sakae Muto · Yosuke Kawabata

3C18 Preparation of LATP solid electrolyte thin film by spray pyrolysis method.  
(Osaka Municipal Technical Research Institute · Osaka Institute of Technology) ○Kazuki Ohno ·  
(Osaka Municipal Technical Research Institute) Masanari Takahashi · (Konan University) Nobuya Machida ·  
(Osaka Municipal Technical Research Institute) Mari Yamamoto · Yukiyasu Kashiwagi · Masashi Saitoh

**Liquid phase process / 受賞講演**

(13 : 30) (Chairman 林滋生)

3C19A [The 67th CerSJ Awards] Ceramics Shaping Based on Electrophoretic Phenomenon of Colloidal Particles  
(National Institute for Materials Science) ○Tetsuo Uchikoshi

**Liquid phase process / ナノシート**

(14 : 00) (Chairman 林滋生)

3C21 Temperature-controlled reversible exfoliation-reassembling of titanate nanosheets  
(Nagasaki University) ○Kai Kamada · Hisanori Kobayashi · Suguru Tsukahara

3C22 Electrophoretic Deposition Using Aqueous Titanium Oxide Nanosheet Colloid  
(Shinshu University) ○Shoji Ikuta · Wataru Sugimoto

**Liquid phase process / 受賞講演**

(14 : 30) (Chairman 増田佳丈)

3C23A [The 67th CerSJ Awards] Redox solution route to functional ceramics  
(Kyoto University) ○Masayuki Nishi

**Liquid phase process / ナノ粒子**

(15 : 00) (Chairman 増田佳丈)

3C25 Role of solvent in selective growth of gold nanoparticles on induced amorphous silicon  
(Kyoto University) ○Hiroki Itasaka · Masayuki Nishi · Kazuyuki Hirao

(15 : 30) (Chairman 奥谷昌之)

3C27 Hydrothermal Synthesis of Carboxylate-modified Ceria Nanocrystals  
(Nagoya Institute of Technology) ○Katsutoshi Kobayashi · Masaaki Haneda · Masakuni Ozawa

3C28 Synthesis process of  $\alpha\text{-Al}_2\text{O}_3$  nanoparticles in solution plasma.  
(Gifu University) ○Yuta Imaeda · Michiyuki Yoshida · (Gifu Prefectural Ceramics Research Institute)  
Seizo Obata · (Gifu University) Yutaka Ohya · Osamu Sakurada

3C29 Synthesis of highly dispersed and homogeneous nanoparticles of titanium oxide by solvothermal method with polymer gel  
(University of Yamanashi) ○Kenta Ohshima · Kouichi Nakashima · Shintaro Ueno · Ichiro Fujii · Satoshi Wada

3C30 Synthesis of gamma-alumina large grain particles for dispersion medium  
(National Institute of Advanced Industrial Science and Technology (AIST)) ○Toshio Itoh · Toshio Uchida · Ichiro Matsubara ·  
Noriya Izu · Woosuck Shin · (New Cosmos Electric Co. Ltd.) Hirosho Miyazaki · Hiromasa Tanjo · Keisen Kanda

3C31 Uniform deposition of YSZ nanoparticles on NiO powders  
(Tokyo University of Science) ○Sayaka Nakamura · Kenjiro Fujimoto · Shigeru Ito · (Tokyo Institute of Technology)  
Shin Mimuro · Ken-ichi Katsumata · Kiyoshi Okada · Nobuhiro Matsushita

★★ March 19 (Tue) (Room D) ★★

**Liquid phase process / 酸化チタン**

(9 : 00) (Chairman 細野英司)

3D01 Photo-oxidation of ethanol on acid-leached titanium oxide / apatite composite  
(Kanagawa Industrial Technology Center) ○Yosuke Ono · Takeshi Rachi · Masahiro Yokouchi ·  
Yoshihito Kamimoto · (Tokyo Institute of Technology) Akira Nakajima · Kiyoshi Okada

3D02 The effect of ionic liquid for formation of highly crystalline anatase nanoparticles in solution  
(KRI, Inc. · Keio University) ○Ayami Suzuki · (KRI, Inc.) Hideki Yamaguchi · (Keio University) Hiroyuki Kageyama · Yuya Oaki · Hiroaki Imai

3D03 Low temperature synthesis of porous titanium oxide using water soluble titanium complexes  
(Hiroshima University) ○I. Shimizu · K. Katagiri · K. Inumaru

3D04 Feasibility of Megahertz Ultrasound for Sonoprocess of Ceramic Materials  
(Kyushu University) ○Naoya Enomoto · Toshikazu Miyajima · Miki Inada · Yumi Tanaka · Junichi Hojo

(10 : 00) (Chairman 榎本尚也)

3D05 Titanate nanotube brushes for superhydrophobic adhesive surface  
(Osaka Prefecture University) ○Kenji Okada · Atsushi Nakahira · Yasuaki Tokudome · Masahide Takahashi

3D06 Photocatalytic properties of Nd and C codoped  $\text{TiO}_2$  in the whole visible light range  
(Tohoku University) ○Xiaoyong Wu · Qiang Dong · Shu Yin · Tsugio Sato

**Liquid phase process / 受賞講演**

(10 : 45) (Chairman 片桐清文)

3D08A Precise and accurate synthesis of high-performanced photo-functional materials by chemical solution processes  
(Tokai University) ○Koji Tomita

**Liquid phase process / 酸化亜鉛**

(11 : 15) (Chairman 片桐清文)

3D10 Synthesis of Cubic-Shaped Porous ZnO via Morphology Control of Metal-Organic Frameworks (MOFs)  
(National Institute of Advanced Industrial Science and Technology) ○Eiji Hosono · (Keio University) Yu Kimitsuka · (University of Yamanashi)  
Shintaro Ueno · (National Institute of Advanced Industrial Science and Technology) Haoshen Zhou · (Keio University) Shinobu Fujihara



- 3D11 Investigation of formation process of ZnO nanoparticles in ethylene glycol solution with sugar  
(Chiba University) ○Naofumi Uekawa · Tatsuya Fujino · Takashi Kojima · Kazuyuki Kakegawa
- 3D12 Growth of Zinc Oxide Crystals by Flux Thermal Decomposition method using choline chloride and urea based DES  
(Shinshu University) ○Hajime Wagata · Takuya Nagashima · Shuji Oishi · Katsuya Teshima

#### Liquid phase process / リン酸カルシウム

- (13 : 00) (Chairman 小林亮)
- 3D17 Formation mechanism of rod arrays of hydroxyapatite crystal on borosilicate glass  
(Okayama University) ○Takahiro Miyake · Satoshi Hayakawa · Akiyoshi Osaka
- 3D18 Calcium phosphate coating on ceramic substrates by a laser-assisted biomimetic process.  
(The National Institute of Advanced Industrial Science and Technology (AIST)) ○Ayako Oyane · Ikuko Sakamaki · Yoshiki Shimizu · Kenji Kawaguchi · Atsuo Ito · Yu Sogo · Naoto Koshizaki
- 3D19 Effects of the intermittent flow of a simulated body fluid on the production of calcium phosphate in a confined space  
(Niigata University) Hiroaki Sato · Yoshinari Taguchi · ○Isao Kimura

#### Liquid phase process / 水熱プロセス

- (13 : 45) (Chairman 小林亮)
- 3D20 Synthesis of nanostructured titanate and titanium dioxide particles synthesized using titanium phosphate particles  
(Saga University) ○Yuko Inoue · Yuya Matsushita · Toshio Torikai · Takanori Watari · Mitsunori Yada
- (14 : 00) (Chairman 矢田光徳)
- 3D21 Hydrothermal synthesis of monodisperse BiFeO<sub>3</sub> microspheres with core-shell structure  
(Osaka Prefecture University) ○Kazumasa Suzuki · Yasuaki Tokudome · Masahide Takahashi
- 3D22 Synthesis and characterization of Ba-Ta complex oxides by hydrothermal method  
(Tokai University) ○Soichi Takasugi · Yuma Matsumoto · Koji Tomita · (Tohoku University) Hideki Kato · Masato Kakihana
- 3D23 Preparation of Fine Particles Consisting of Europium Niobate and Zirconia by Hydrothermal Method  
(Aichi Institute of Technology) ○Masanori Hirano · Hayato Dozono
- 3D24 Synthesis and characterization of a crystalline aluminum fluoroorganophosphonate  
(Tokyo University of Agriculture and Technology) ○Tetsufumi Kawai · Atsushi Kondo · Kazuyuki Maeda
- 3D25 Growth mechanism of amphiphatic ceria nanoparticles synthesized by oleate modified hydrothermal growth method  
(Tokyo Institute of technology) ○Yuki Makinose · (Kumamoto University) Takaaki Taniguchi · (Tokyo Institute of technology) Ken-ichi Katumata · Kiyoshi Okada · Nobuhiro Matusita

#### Liquid phase process / ナノ粒子

- (15 : 15) (Chairman 松下伸広)
- 3D26 Preparation of Copper Nitride Particles in Alcohol Solvent and Its Thermal Decomposition Property  
(National Institute of Advanced Industrial Science and Technology) ○Takashi Nakamura · Takeo Ebina · Hiromichi Hayashi · Takaaki Hanaoka
- 3D27 Solid-liquid Sustainable Fabrication of Clean Platinum Nanoparticle Featuring by Water solvent and Dispersant-free  
(Tohoku university) ○Yamato Hayashi · Jun Fukushima · Hirotugu Takizawa · (Shikoku Instrumentation) Katsuyuki Kunii
- 3D28 Syntheses and assembly of Mn<sub>3</sub>O<sub>4</sub> rectangular nanoblocks  
(keio university) ○Yoshitaka Nakagawa · Hiroyuki Kageyama · Yuya Oaki · Hiroaki Imai

#### Liquid phase process / 錯体プロセス

- (16 : 00) (Chairman 鶴沼英郎)
- 3D29 Synthesis of Li<sub>2</sub>Mn<sub>0.8</sub>Fe<sub>0.2</sub>SiO<sub>4</sub> by using propylene glycol modified silane  
(Sumitomo Metal Mining Co., Ltd.) ○Ryosuke Okamoto · Ryozo Ushio · (DENSO CORPORATION) Yoshinori Satoh · Shigeki Komine · (Tohoku University) Satoko Tezuka · Masato Kakihana
- 3D30 Synthesis and Classification of WC and W metals via Organic-Inorganic Complex Precursors  
(Osaka Prefecture University) ○Takamasa Onoki
- 3D31 Electrospinning of ferroelectric (Na,K)NbO<sub>3</sub> fiber through citrate precursor route  
(Nagoya Institute of Technology) ○Minato Kato · Ken-ichi Kakimoto · Isao Kagomiya
- 3D32 Development of a novel iron compound by a thermal treatment of an aqueous solution of an iron-picolinate complex  
(Tohoku University) ○Junki Sato · Makoto Kobayashi · Hideki Kato · Masato Kakihana

### ★★ March 19 (Tue) (Room E) ★★

#### Glass and photonic materials / 蛍光体 (可視 Mn)

- (9 : 00) (Chairman 井原梨恵)
- 3E01 Synthesis and characterization of Mn-activated lithium aluminate red phosphors  
(Nagoya Institute of Technology) ○Masahiro Aoyama · Yusuke Amano · (Mie Industrial Research Institute) Koji Inoue · (Nagoya Institute of Technology) Sawao Honda · Shinobu Hashimoto · Yuji Iwamoto
- 3E02 Photoluminescence and Photoluminescence Excitation Properties of Mn<sup>4+</sup>-doped Mg<sub>1.8</sub>R<sub>0.2</sub>TiO<sub>4</sub> (R = B, Al, Ga)  
(Nagoya Institute of Technology) ○Naohiro Okumura · Tomokatsu Hayakawa

#### Glass and photonic materials / 蛍光体 (可視 Eu)

- (9 : 30) (Chairman 井原梨恵)
- 3E03 Luminescent Properties of Lanthanide Oxide Phosphor Modified by Biocompatible Organic Compounds  
(National Institute of Advanced Industrial Science and Technology (AIST)) ○Tetsuro Jin · Tomoyo Ochiishi · (University of Hyogo) Yusuke Daiko · Tetsuo Yazawa
- 3E04 Sol-Gel Synthesis and Photoluminescence Properties of Eu<sup>3+</sup>-doped GdF<sub>3</sub>·SiO<sub>2</sub> Nanocomposites  
(Nagoya Institute of Technology) ○Kei Nishisita · Tomokatsu Hayakawa
- (9 : 45) (Chairman 西正之)
- 3E05 Deposition of GdBO<sub>3</sub>:Eu<sup>3+</sup> crystal in alkali borosilicate glass  
(University of Hyogo) ○Hiroaki Usui · Yusuke Daiko · Atsushi Mineshige · (National Institute of Advanced Industrial Science and Technology) Tomoyo Ochiishi · Tetsuro Jin · (University of Hyogo) Tetsuo Yazawa

- 3E06 The relation between the sites substituted by  $\text{Eu}^{3+}$  cations and PL properties of  $\text{CaZrO}_3$ -based perovskite phosphors  
(Nagoya Institute of Technology) ○Satoshi Sakaida · Toru Asaka · Akikazu Fujiwara · Yohei Shimokawa · Sawao Honda · Yuji Iwamoto  
(10 : 30) (Chairman 田部勢津久)
- 3E07 Synthesis and luminescence properties of orange-red phosphor  $\text{SrCaSiO}_4:\text{Eu}^{2+}$  using propylene glycol-modified silane  
(Sumitomo Metal Mining Co., Ltd) ○Tetsufumi Komukai · Yuji Takatsuka · Jun Yokoyama · Shoji Takanashi · Naomi Suzuki · Ryozi Ushio · (Tohoku University) Masato Kakahana · Satoko Tezuka · Yasushi Sato · Hideki Kato
- 3E08 Luminescence properties of a new phosphate phosphor  $\text{KSrY}(\text{PO}_4)_2:\text{Eu}^{2+}$   
(Tohoku University) ○Akiko Saito · Hideki Kato · Makoto Kobayashi · Masato Kakahana

#### Glass and photonic materials / 蛍光体 (可視 Pr)

- (11 : 00) (Chairman 田部勢津久)
- 3E09 Preparation, characterization and optical properties of Pr-doped chalcogenide glasses  
(Kyoto Institute of Technology) ○Kuniyoshi Kuroda · Takashi Wakasugi · Kohei Kadono · (Osaka University) Yasushi Fujimoto  
(11 : 15) (Chairman 早川知克)
- 3E10 Variation of optical properties in  $\text{Pr}^{3+}$  doped  $\text{Y}_2\text{O}_3$  ceramics by Zr doping (Kyoto University) Hideki Tomimoto · Junpei Ueda · ○Setsuhisa Tanabe
- 3E11 Electroluminescence properties of multilayers in which  $\text{Ca}_{0.6}\text{Sr}_{0.4}\text{TiO}_3:\text{Pr}$  and  $\text{SnO}_2:\text{Sb}$  are alternately stacked  
(Gunma University) ○Toru Kyomen · Minoru Hanaya · (National Institute of Advanced Industrial Science and Technology) Hiroshi Takashima

#### Glass and photonic materials / 蛍光体 (可視 Ag)

- (11 : 45) (Chairman 早川知克)
- 3E12 Fluorescence spectra of silver incorporated into aluminoborosilicate glasses through ion exchange  
(Kyoto Institute of Technology) ○Noriyuki Akiyama · Takashi Wakasugi · Kohei Kadono

#### Glass and photonic materials / 蛍光体 (可視 Tb)

- (13 : 00) (Chairman 植田和茂)
- 3E17 The Relationship between Structure and Luminescence Switching Properties of  $\text{CePO}_4:\text{Tb}^{3+}$   
(Keio University) ○Shinobu Fujihara · Yuina Takano · Mami Kitsuda
- 3E18 Preparation of  $\text{Tb}^{3+}$ -doped  $\text{HfO}_2$  phosphor powders by urea hydrolysis coprecipitation  
(Ritsumeikan University) ○Yuichiro Takeshita · Tomoe Sanada · Kazuo Kojima · (Suzuka National College of Technology) Noriyuki Wada
- 3E19 Synthesis and characterization of sol-gel-derived monolithic silica glasses containing  $\text{TbPO}_4$  nanocrystallites  
(Tokyo Metropolitan University) ○Shiori Yamaguchi · Ken Kaneko · Kouichi Kajihara · Kiyoshi Kanamura

#### Glass and photonic materials / 蛍光体 (紫外)

- (13 : 45) (Chairman 梶原浩一)
- 3E20 Preparation and UV Emission of  $\text{Gd}^{3+}\text{-Pr}^{3+}$  Codoped  $\text{YAlO}_3$  Perovskite Thin Film  
(Kyushu Institute of Technology) ○Yuhei Shimizu · Yasukazu Takano · Kazushige Ueda

#### Glass and photonic materials / 蛍光体 (シンチレータ)

- (14 : 00) (Chairman 梶原浩一)
- 3E21 Evaluation of scintillation properties of Nd-doped  $\text{Y}_3\text{Al}_5\text{O}_{12}$   
(KIT) ○Takayuki Yanagida · (Tohoku Univ.) Yutaka Fujimoto · (Konoshima Chemical) Hideki Yagi · Takagimi Yanagitani
- 3E22 Optical and scintillation properties of  $\text{CaO-Al}_2\text{O}_3\text{-B}_2\text{O}_3$  glasses  
(Tohoku University) ○Yutaka Fujimoto · (Kyushu Institute of Technology) Takayuki Yanagida · (Tohoku University) Shingo Wakahara · (Kyoto University) Hirokazu Masai · (Tohoku University) Yoshisuke Futami · Akira Yoshikawa

### ★★ March 19 (Tue) (Room F) ★★

#### Glass and photonic materials / 結晶化ガラス

- (9 : 30) (Chairman 本間剛)
- 3F03 Thermal and crystallization properties of  $\text{Bi}_2\text{O}_3\text{-ZnO-B}_2\text{O}_3\text{-SiO}_2$  glasses for sealing materials  
(Tohoku University) ○Hironobu Takahashi · Rie Ihara · Yoshihiro Takahashi · Takumi Fujiwara
- 3F04 Isothermal crystallization kinetics of stoichiometric glass-ceramics based on the degree of crystallization evaluations  
(Okayama University) ○Shunsuke Sakamoto · Shinichi Sakida · Yasuhiko Benino · Tokuro Nanmba  
(10 : 00) (Chairman 増野敦信)
- 3F05 Basic study on phosphate-based  $\text{Sr}_{0.5}\text{Ba}_{0.5}\text{Nb}_2\text{O}_6$  glass-ceramics  
(Kyoto University) ○Hirokazu Masai · Ryota Shirai · Yomei Tokuda · Toshinobu Yoko
- 3F06 Effect of heat treatment on crystallinity and microstructure of  $\text{Cu}_2\text{O}$  thin film prepared by electric current heating  
(Nagaoka University of Technology) ○Ko Yamazaki · Yuichiro Kuroki · Tomoichiro Okamoto · Masasuke Takata
- 3F07 Fabrication and crystallization behavior of rare earth tungsten borate glasses  
(Nagaoka University of Technology) ○Yukina Taki · Tsuyoshi Honma · Takayuki Komatsu

#### Glass and photonic materials / 無容器法

- (11 : 00) (Chairman 岸哲生)
- 3F09 Fluorescence line narrowing spectroscopy of  $\text{Eu}^{3+}$  in  $\text{La}_2\text{O}_3\text{-B}_2\text{O}_3$  glasses  
(The University of Tokyo) ○Atsuki Saito · Atsunobu Masuno · Hiroyuki Inoue
- 3F10 Rare-earth alumina glasses prepared by aerodynamic levitation method  
(The University of Tokyo) ○Yasuhiro Watanabe · Atsunobu Masuno · Hiroyuki Inoue
- 3F11 Optical properties of high refractive index  $\text{La}_2\text{O}_3\text{-WO}_3$  glasses prepared by containerless processing  
(The University of Tokyo) ○Atsunobu Masuno · Kohei Yoshimoto · Hiroyuki Inoue · Yasuhiro Watanabe

★★ March 19 (Tue) (Room G) ★★

Environment and energy related material / プロセス

(9 : 00) (Chairman 勝又健一)

- 3G01 Characterization of Geopolymer including Cupper  
(Nagoya Institute of Technology) ○Hayami Takeda · Shinobu Hashimoto · Sawao Honda · Yuji Iwamoto
- 3G02 Growth of calcite single crystals for stress sensor  
(Kochi University) ○Tomomi Gotoda · Ayumu Onda · Kazumichi Yanagisawa ·  
(Japan Agency for Marine-Earth Science and Technology) Arito Sakaguchi · Hide Sakaguchi
- 3G03 Characteristics and Applications of Iron Oxide Produced by Bacteria  
(Okayama University) ○Ryo Sakuma · Hideki Hashimoto · Hiroshi Asaoka · (Kurashiki University of Science and the Arts) Yoshihiro Kusano ·  
(Research Institute for Production Development) Yasunori Ikeda · (Okayama University) Makoto Nakanishi ·  
Tatsuo Fujii · (Kyoto University) Mikio Takano · (Okayama University · JST CREST) Jun Takada
- 3G04 Formation of Silica Hollow Nanoparticles by Block Copolymers Bearing Amino Groups  
(The University of Tokyo) ○Sachio Tsuboike · Ayae SUGAWARA-NARUTAKI · Atsushi Shimojima ·  
Tatsuya Okubo · (Osaka University) Yukari Oda · Sadahito Aoshima

Environment and energy related material / 酸素吸蔵

(10 : 00) (Chairman 伊東洋典)

- 3G05 Oxygen storage capacity of CuFeO<sub>2</sub>-Pt nanocomposite particles synthesized by microwave irradiation  
(The University of Tohoku) ○Takumi Nakajima · Yamato Hayashi · Jun Fukushima · Hirotsugu Takizawa
- 3G06 Effects of temperature and atmosphere on the oxygen intake behavior of brownmillerite-type Ca<sub>2</sub>AlMnO<sub>5+δ</sub>  
(Hokkaido University) ○Teruki Motohashi · Yuka Hirano · Yuji Masubuchi · Shinichi Kikkawa

Environment and energy related material / 水熱合成

(10 : 30) (Chairman 伴隆幸)

- 3G07 Structure control of C-SH gels and its water purification ability  
(Tohoku University) ○Toshiyuki Abe · (Nagoya Institute of Technology) Hirotaka Maeda ·  
Toshihiro Kasuga · (Tohoku University) Yuko Suto · Hideki Ishida

Environment and energy related material / ゼオライト

(10 : 45) (Chairman 伴隆幸)

- 3G08 Orientation Control of Mordeinite Zeolite in Strong Magnetic Field -Effect of Applied Static or Rotating Magnetic Field-  
(Kumamoto University) ○Chika Matsunaga · Motohide Matsuda · (National Institute for Materials Science)  
Tetsuo Uchikoshi · Tohru Suzuki · Yoshio Sakka
- 3G09 Hydrothermal Transformation of Oriented-Controlled Mordeinite Precursor into Oriented Dense Film  
(Kumamoto University) ○Chika Matsunaga · Motohide Matsuda · (National Institute for Materials Science)  
Tetsuo Uchikoshi · Tohru Suzuki · Yoshio Sakka
- (11 : 15) (Chairman 松田元秀)
- 3G10 Synthesis and Characterization of Humidity Conditioning of Consolidated Zeolite from Rice Husk Ash  
(Kyoto Institute of Technology) ○Kosuke Marutani · Takeshi Shiono · Yasunori Okamoto · (SK Mineral Co.,Ltd.)  
Umeo Sofue · (Marusen Ceramic Material Co.,Ltd.) Shigenobu Maki · (Sekisui Chemical Co.,Ltd.) Hiroyuki Takihana
- 3G11 Synthesis of Zeolite from LCD panel glass  
(Sharp Corporation · Osaka Prefecture University) ○Masato Tsujiguchi · (Sharp Corporation) Tadashi Kobashi ·  
Junji Kanbara · Yasuhiko Utsumi · Nobuaki Kakimori · (Osaka Prefecture University) Atsushi Nakahira
- 3G12 Preparation and evaluation of bulk-like zeolites with machinability  
(Okayama University) ○Eisaku Igi · Synnsuke Nishimoto · Yoshikazu Kameshima · Michihiro Miyake

Environment and energy related material / 層状複水酸化物

(13 : 00) (Chairman 亀島欣一)

- 3G17 Preparation of Transition Metal – Contained Layered Double Hydroxide – Polyaniline Hybrid  
(University of Yamanashi) ○Takahiro Takei · Masatoshi Kera · Akira Miura · Nobuhiro Kumada
- 3G18 Effect of Ni/Al ratio on nitrate selective ability of Ni/Al-type layered double hydroxide  
(Shimane University) ○Ryo Sasai · Hiroaki Sato · (Hiroshima University) Kouichi Hoashi · Chikako Moriyoshi · Yoshihiro Kuroiwa
- 3G19 Relationship between crystal structure and anion selectivity of Mg/Al-type layered double hydroxide  
(Hiroshima University) ○Chikako Moriyoshi · Hirokazu Hoashi · Yoshiki Matsuoka ·  
Yoshihiro Kuroiwa · (Shimane University) Hiroaki Sato · Ryo Sasai
- 3G20 Preparation and gas barrier properties of organic-inorganic hybrid gas barrier films using layered double hydroxide  
(Kobe University) ○Koji Kuraoka · Tsuyoshi Shiono · Kazuto Yamashiro · (Tayca Corporation) Takeshi Okumiya

Environment and energy related material / 光触媒 (新材料)

(14 : 00) (Chairman 笹井亮)

- 3G21 Photocatalytic conversion of CO<sub>2</sub> over Zn-Cr layered double hydroxides  
(Tokyo Institute of Technology) ○Ken-ichi Katsumata · Kei Ikeda · Kazuya Sakai ·  
Yuki Makinose · Toshihiro Isobe · Nobuhiro Matsushita · Kiyoshi Okada
- 3G22 Photocatalytic property evaluation of glass-ceramics containing anatase type TiO<sub>2</sub>  
(Niihama National college of Technology) ○Atsumi Nitta · Yuki Sakamoto · Chikara Tsutsumi · Tadashi Ohuchi · Shin Kira
- 3G23 Effect of thermal treatment for photocatalytic property of nitrogen doped TiO<sub>2</sub> sol/clay composite  
(Okayama University) ○Yoshikazu Kameshima · Jiannan Hsing · Ryosuke Yoshioka · Takayuki Mano · Shunsuke Nishimoto · Michihiro Miyake
- 3G24 Interfacial modification for CaFe<sub>2</sub>O<sub>4</sub>/WO<sub>3</sub> photocatalyst  
(Tokyo Institute of Technology · PRESTO, JST) ○Yuuya Nukui

**Environment and energy related material / 光触媒 (ナノ構造)**

(15 : 00) (Chairman 西本俊介)

- 3G25 Development of  $\text{Ag}_2\text{Mo}_2\text{O}_7$  nanowire photocatalyst  
(Niigata University) ○Shotaro Kazama · (Niigata University · PRESTO/JST) Kenji Saito ·  
(Niigata University) Tatsuto Yui · (Niigata University · PRESTO/JST) Masayuki Yagi
- 3G26 Preparation of Ag nanoparticle/ $\text{TiO}_2$  nanotube array complex and the photo-chemical characteristics  
(Toyoashi University of Technology) ○Hayato Ohmi · Go Kawamura · Hiroyuki Muto · Atsunori Matsuda
- 3G27 Influence of Cr addition on catalytic function of titanium oxide nanotubes  
(Tohoku University) ○Hiroki Tsukamoto · Tohru Sekino · Koki Kaga · Se-hoon Kim · Shun-ichiro Tanaka
- 3G28 AAO-template assisted synthesis and evaluation of  $\text{TiO}_2$  nanomaterials  
(University of Tsukuba) ○Kazufumi Aisu · (National Institute for Materials Science) Tohru S. Suzuki · (University of Tsukuba) Yoshikazu Suzuki
- (16 : 00) (Chairman 松下祥子)
- 3G29 Photocatalytic water treatment combined with ozonation using porous  $\text{TiO}_2$  photocatalyst powder  
(Okayama University) ○Syun Ishibashi · Syunsuke Nishimoto · Yoshikazu Kameshima · Michihiro Miyake
- 3G30 Modified  $\text{TiO}_2$ -based nanotubes synthesized by hydrothermal route and its optical and photocatalytic properties  
(Tohoku University) ○Se Hoon Kim · Tohru Sekino · Satoshi Tsukuda · Shun-Ichiro Tanaka
- 3G31 Continuous decomposition of acetaldehyde by a full-time active type composite photocatalyst  
(IMRAM, Tohoku University) ○Shu Yin · Huihui Li · Qiang Dong · Tsugio Sato
- 3G32 Micro-structure formation of titania nano-dots by rapid solidification of titania/silica binary liquid phase  
(Nihon University) ○Hiroshi Iwano · (Nihon University) Shunkichi Ueno

**★★ March 19 (Tue) (Room H) ★★****Engineering ceramics / 機械的性質**

(9 : 15) (Chairman 楠瀬尚史)

- 3H02 Hardness and fracture toughness of arc-melted  $\text{TiB}_2\text{-TiC}_x\text{N}_{1-x}$  eutectic composite  
(Tohoku University) ○Jianfeng Cheng · Hirokazu Katsui · Rong Tu · Takashi Goto
- 3H03 Hardness-fracture toughness relationship in WC-FeAl hard materials  
(National Institute of Advanced Industrial Science and Technology) ○Ryoichi Furushima ·  
Kiyotaka Katou · Koji Shimojima · Hiroyuki Hosokawa · Akihiro Matsumoto
- 3H04 Measurements of Fracture Toughness of Thin Ceramic Substrates for Power Modules  
(National Institute of Advanced Industrial Science and Technology) ○Hiroyuki Miyazaki · Yu-ichi Yoshizawa · Kiyoshi Hirao · Tatsuki Ohji
- (10 : 00) (Chairman 宮崎広行)
- 3H05 Influence of carbon nanofiber content on microstructure development and fracture toughness of CNFs/alumina composites  
(Shinshu University) ○Naoki Ueda · Tomohiko Yamakami · Tomohiro Yamaguchi · Morinobu Endo · Naoto Saito · Seiichi Taruta
- 3H06 Mechanical and Thermal Properties of Boron Carbide/Carbon Nanotubes Composites  
(Tokyo Institute of Technology) ○Tomohiro Kobayashi · Katsumi Yoshida · Toyohiko Yano
- 3H07 Synthesis of BN Fillers Heat Treated with Oxide Additives and Thermal Conductivity of Their Epoxy Hybrid Materials  
(Kagawa University) ○Takafumi Kusunose · (National Institute of Advanced Industrial Science and Technology)  
Takashi Yagi · (Tohoku University) Tohru Sekino

**Engineering ceramics / 熱的性質**

(11 : 00) (Chairman 吉田克己)

- 3H09 Thermal conductivity and fabrication of  $\text{ZrO}_2\text{-La}_2\text{Zr}_2\text{O}_7$  composites by SPS  
(National Institute for Materials Science) ○Byung-Koog Jang · Yoshio Sakka
- 3H10 Effect of Additives on Gas Shielding Properties of  $\text{Al}_2\text{TiO}_5$  Ceramics  
(Japan Fine Ceramics Center) ○Tsuneaki Matsudaira · Masashi Wada · Satoshi Kitaoka · (Gifu University) Osamu Sakurada · Yutaka Ohya

**Engineering ceramics / 破壊**

(11 : 30) (Chairman 安田公一)

- 3H11 Microstructures and Fatigue Properties of Porous Alumina for Support Substrates of Ceramic Membranes  
(Nagoya Institute of Technology) ○Sawao Honda · (Noritake Co., Ltd.) Tomokazu Eda · Hirokazu Watanabe · (Nagoya Institute of Technology ·  
Noritake Co., Ltd.) Keita Miyajima · (Nagoya Institute of Technology) Shinobu Hashimoto · Yuji Iwamoto
- 3H12 Fracture Criterion of Discontinuous Carbon Fiber-Dispersed SiC Matrix Composite under I+II Mixed Mode Loading Condition  
(The University of Tokyo) ○Ryo Inoue · Hideki Kakisawa · (The University of Tokyo · National Institute for Materials Science)  
Yutaka Kagawa · (The University of Tokyo · University of California, Los Angeles) Jenn-Ming Yang

**Engineering ceramics / 高温特性**

(13 : 00) (Chairman 塩野剛司)

- 3H17 In-situ observation of Rumpling Behavior of TGO Layer at high temperature by UV illumination  
(The University of Tokyo) ○Hayato Suzuki · Yali Dong · Hideki Kakisawa · Yutaka Kagawa
- 3H18 Strain Measurement of Ceramics at High Temperature Using DIC  
(The Department of Engineering, The university of Tokyo) ○Yali Dong · (Research center for advanced science and technology (rcast),  
the University of Tokyo, 4-6-1 komaba, Meguro-ku, Tokyo) Hideki Kakisawa · Yutaka Kagawa
- 3H19 Effect of carbon concentration on the crack propagation in MgO-C bricks  
(Tokyo Institute of Technology) ○Yusuke Minami · Takasshi Akatsu · Yutaka Shinoda · Fumihiko Wakai

(13 : 45) (Chairman 赤津隆)

- 3H20A [The 67th CerS] Awards] The Properties of Lightweight Castable used Glass balloon as Aggregates  
(NIHON TOKUSHU ROZAI Co., Ltd.) ○Koji Nishijima

- 3H22 Thermal annealing behavior of neutron irradiated-Si<sub>3</sub>N<sub>4</sub> and SiAlON ceramics  
(Department of Nuclear Engineering, Tokyo Institute of Technology) ○Areerak Rueanngoen · (Research Laboratory for Nuclear Reactors, Tokyo Institute of Technology) Masamitsu Imai · Katsumi Yoshida · Toyohiko Yano
- (14 : 30) (Chairman 塩田忠)
- 3H23 Study of oxidation behavior and mechanical property of nanocrystalline HfO<sub>2</sub>-SiC composite (Tokyo institute of Technology) ○Yusei Minoguchi
- 3H24 High-temperature Deformation Mechanism of Y-TZP -Al<sub>2</sub>O<sub>3</sub> Composites  
(Kyoto Institute of Technology) ○Shun Enomoto · Yuki Kaneda · Yasunori Okamoto · Takeshi Shiono

### ★★ March 19 (Tue) (Room I) ★★

#### Energy reference material / 電極触媒

- (9 : 00) (Chairman 打越哲郎)
- 3I01F [Frontiers] Metal/Ceramic Nano Composite Catalyst for Hydrogen Production Fabricated by Partial Reduction Reaction  
(Toshiba Corporation) ○Takayuki Fukasawa · Norikazu Osada · Kenji Essaki · Tomohiro Suetsuna
- 3I03 Preparation and evaluation of V-Mg Catalyst from layered double hydroxides (LDHs)  
(Okayama University) ○Sosuke Kobashi · Yoshikazu Kameshima · Shunsuke Nishimoto · Michihiro Miyake

#### Energy reference material / 水素吸蔵

- (9 : 45) (Chairman 打越哲郎)
- 3I04 Structural change of activated carbon fabricated from rice husk ashes on hydrogen adsorption phenomenon  
(Nagaoka University of Technology) ○Ikumi Toda · Hiroe Toda · Takuhiro Watanabe · Shigeo Ohshio · Hiroyuki Muramatsu · Shuji Himeno · Hidetoshi Saitoh

#### Energy reference material / サーマルマネジメント

- (10 : 00) (Chairman 万春磊)
- 3I05 Thermoelectric Properties of A, B site co-doped BiFeO<sub>3</sub> ceramics  
(Nagoya Institute of Technology) ○Takeshi Yokota · Koji Ichikawa · Manabu Gomi · (Friedrich-Alexander-Universita" t Erlangen-Nu" rnberg) Mirosław Batenschuk · Andres Osvet · Christoph Brabec
- 3I06 Reduction of lattice thermal conductivity in heavy element doped TiS<sub>2</sub>  
(National Institute of Advanced Industrial Science and Technology) ○Yoshiaki Kinemuchi · (Laboratoire CRISMAT) Emmanuel Guilmeau
- 3I07 Verification of the roll of Mg for the synthesis of AlN by the nitridation of molten Al  
(Nagoya University) ○Kohei Mizuno · Hiroaki Matsubara · Masashi Nagaya · Yukihiisa Takeuchi · Toru Ujihara · (DENSO CORP.) Toyohiro Kanou · Yuuichi Aoki · Kimio Kohara
- 3I08 Development of Adsorption Heat Pump Using Waste Heat  
(Fujitsu Laboratories Ltd.) Noriyasu Aso · Toshio Manabe · Hiroaki Yoshida · ○Masao Kondo

#### Energy reference material / ナトリウムイオン二次電池

- (11 : 00) (Chairman 井手本康)
- 3I09S Defect Structure of Layered ACrO<sub>2</sub> (A = Li, Na) Oxides by First-principles DFT Calculations  
(Nagoya Institute of Technology) ○Hiromasa Shiiba · Shota Hotta · Tomoaki Nakamura · Suguru Chizawa · (Nagoya Institute of Technology · JST-PRESTO · Kyoto University Elements Strategy Initiative for Catalysts and Batteries) Masanobu Nakayama · (Tokyo University of Science · Kyoto University Elements Strategy Initiative for Catalysts and Batteries) Naoaki Yabuuchi · Shinichi Komaba
- 3I10S Fabrication of Na<sub>2</sub>FeP<sub>2</sub>O<sub>7</sub> glass-ceramics cathode active materials and their battery performance for sodium ion batteries  
(Nagaoka University of Technology) ○Tsuayoshi Honma · Takuya Togashi · Noriko Ito · Atsushi Sato · Takayuki Komatsu

#### Energy reference material / キャパシタ

- (11 : 30) (Chairman 井手本康)
- 3I11 Ruthenium oxide nanosheets as positive electrodes for 4-V Electrochemical capacitors  
(Shinshu University) ○Wataru Sugimoto · Takayuki Ban · Wataru Shimizu
- 3I12 Fabrication of Mesoporous RuO<sub>x</sub> Micro-supercapacitor Using IDA Electrode  
(Shinshu University) ○Sho Makino · (NIMS) Yusuke Yamauchi · (Shinshu University) Wataru Sugimoto

### ★★ March 19 (Tue) (Room K) ★★

#### Characterization / 計算科学

- (9 : 15) (Chairman 齋藤光浩)
- 3K02 Simulation of Disconnection of Particles during Sintering by PFM/DEM Combined Method (Kagawa University) ○Kazunari Shinagawa
- 3K03 Structure analysis and electronic structure calculation of a non-Chevre type molybdenum sulfide Mo<sub>3</sub>S<sub>4</sub>  
(Hiroshima University) ○Hiroshi Fukuoka · Kumi Masuoka · Teruhiko Hanaoka · Kei Inumaru

#### Characterization / 構造解析

- (9 : 45) (Chairman 齋藤光浩)
- 3K04 High-pressure and high-temperature synthesis, structure, and physical property of CeSn<sub>x</sub>Ge<sub>3-x</sub> (0 ≤ x ≤ 3)  
(Hiroshima University) ○Yutaka Horino · Hiroshi Fukuoka · Kei Inumaru
- (10 : 15) (Chairman 佐藤幸生)
- 3K06 Preparation, crystal structure and electrical property of a novel plumbide, Na<sub>2</sub>MgPb  
(Tohoku University) ○Takahiro Yamada · (National Institute of Advanced Industrial Science and Technology) Takuji Ikeda · (Tohoku University) Hisanori Yamane
- 3K07 S ynthesis and crystal structure of bronze-type Sodium titanium oxide Na<sub>x</sub>TiO<sub>2</sub>  
(National Institute of Advanced Industrial Science and Technology (AIST)) ○Kunimitsu Kataoka · Junji Akimoto

Characterization / 透過型電子顕微鏡

(10 : 45) (Chairman 山田高広)

3K08 Atomic-Scale Imaging of Structural Modulation by Annealing at TiO<sub>2</sub> Grain Boundary

(University of Tokyo) ○Rong Sun · (Tohoku University) Mitsuhiro Saito · Chunlin Chen · Zhongchang Wang · Susumu Tsukimoto ·  
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3K09 Local Atomic Structure of a Near-Sigma 5 Tilt Grain Boundary in MgO

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3K10 Size-dependent high-temperature behavior of bismuth oxide nanoparticles

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