

PROGRAM

【 July 22 (Thu.) 】

Oral Presentation (Presentation: 8min , Discussion: 3min , for the next speaker: 1min)

Room A

13:00 ~ 14:00 Chairperson: Mr. K. Mori (Nihon U.)

- A01 Tin oxide films prepared by surface discharge technique
M. Iyoda, K. Nabeta, M. Shikatani, M. Okuya (Shizuoka U.)
- A02 Studies of the formation of TiO₂ thin films and N doping to the films by rf magnetron sputtering
K. Suda, T. Kyomen, M. Hanaya (Gunma U.)
- A03 Preparation and characterization of La_{1-x}Sr_xMnO₃ oxide electrode thin films by Chemical Solution Deposition
M. Ishizuka, N. Nukina, N. Samamoto, D.S. Fu, N. Wakiya, H. Suzuki (Shizuoka U.)
- A04 Fabrication of multiple oxide thin films by spray pyrolysis using polystyrene template
S. Endo, K. Teshima, SH. Lee (Shinshu U.), S. Fujii (Osaka Inst. Tech.),
S. Oishi (Shinshu U.)
- A05 Fabrication of two-dimensional closed-packed shell structure of ceramic thin film
R. Usami, N. Sakamoto, H. Suzuki, N. Wakiya (Shizuoka U.)

14:00 ~ 14:48 Chairperson: Mr. K. Suda (Gunma U.)

- A06 Preparation of MgIn₂O₄ thin films with spinel structure and their thermal stability
A. Wada, N. Sakamoto, H. Suzuki, N. Wakiya (Shizuoka U.)
- A07 Transparent conducting ITO films prepared by microwave heating technique
Y. Kawabata, M. Ikeba M. Okuya (Shizuoka U.)
- A08 Microstructural control of TiO₂ electrode layers for dye-sensitized solar cells
S. Hatano (Ibarki U.), Y. Hasegawa (ART), O. Abe (Ibarki U.)
- A09 Fabrication of solid type dye-sensitized solar cells with high conversion efficiency
R. Fujii, T. Nonaka, M. Okuya (Shizuoka U.)

14:48 ~ 15:36 Chairperson: Mr. K. Kakiage (Gunma U.)

- A10 Synthesis of oxide ion conductor (Ba_{1-x}Ca_x)₂In₂O₅ system and electrical property
M. Watanabe, S. Ito, M. Saito, H. Yamamura (Kanagawa U.)
- A11 Relationship between oxide-ion conduction and dielectric properties of (Zr_{1-x}Ce_x)_{0.84}Y_{0.16}O_{2-δ}
K. Suzuki, J. Kawamoto, Y. Yagi, M. Saitou, H. Yamamura (Kanagawa U.)

- A12 Effect of LaNiO_3 thin film electrode on electric properties of ferroelectric $(\text{Ba,Ca})\text{TiO}_3$ thin film
K. Fukamachi, N. Sakamoto, D. Fu, N. Wakiya, H. Suzuki (Shizuoka U.)
- A13 Preparing and evaluation $(\text{Ba, Sr})\text{TiO}_3$ thin films by the partial hydrolysis method
M. Nagasaka, D. Iwasaki, N. Sakamoto, N. Wakiya, H. Suzuki (Shizuoka U.)

15:48 ~ 15:50

Break

15:50 ~ 16:38 Chairperson: Mr. S. Kamei (Nihon U.)

- A14 Fabrication of BaTiO_3/Ag composites by spark plasma sintering
S. Kondo, T. Kojima, M. Sugihara, Y. Hosoi, N. Uekawa, K. Kakegawa (Chiba U.)
- A15 Evaluation of thermoelectric properties for TE module based on p-type NaCo_2O_4 and n-type Mg_2Si prepared by spark plasma sintering
K. Arai (Tokyo U. Sci.), H. Akimoto, T. Iida,
T. Kineri (Tokyo U. Sci., Yamaguchi), K. Nishio (Tokyo U. Sci.)
- A16 Microstructure control of Ce-TZP/Ba ferrite composites using a coprecipitated powder
Y. Shimada, T. Kojima, S. Oori, T. Watanabe, S. Noro, N. Uekawa,
K. Kakegawa (Chiba U.)
- A17 Effect of structural refinement on ZnO varistor characteristics
N. Adachi, S. Ohira, O. Abe (Ibaraki U.), T. Iwai, J. Miyake,
K. Tsuda (Japan AE Power Systems)

16:38 ~ 17:26 Chairperson: Ms. S. Yoshio (Yokohama National U.)

- A18 Low temperature preparation and in-situ microstructure control of Ce-TZP/ $\text{BaAl}_{12}\text{O}_{19}$ composite
S. Oori, T. Kojima, N. Uekawa, K. Kakegawa (Chiba U.)
- A19 Examination of factor for improvement of cathode property on Pt- CeO_x / Carbon Black(CB) composite cathode in PEFC
K. Fugane, T. Mori (NIMS, Hokkaido U.), A. Suzuki, F. Ye, N. Nakamura (NIMS)
- A20 Preparation of directly Europium(II)-activated calcium silicate phosphor using reduce agent by liquid state method
S. Kamei, Y. Kojima, N. Nishimiya (Nihon U.)
- A21 Chemical surface modifications of nano-porous alumina membrane by silyl-substituted bipyridines
K. Kakiage, T. Tsukahara, M. Unno, T. Kyomen, M. Hanaya (Gunma U.)

Room B

13:00 ~ 14:00 Chairperson: Mr. C. Mori (Shinshu U.)

- B01 Sintering behavior and mechanical properties of hydroxyapatite ceramics in sealed atmosphere
Y. Moriguchi, T. Yamaguchi, K. Kitajima, N. Saito, S. Taruta (Shinshu U.)
- B02 Fabrication of hydroxyapatite - β -calcium orthophosphate composite ceramics and its high-temperature plastic deformation
Y. Asano (Sophia U.), Y. Sakka (NIMS), S. Koda, K. Itatani (Sophia U.)
- B03 Fabrication and superplastic deformation of hydroxyapatite ceramic material with B_2O_3 addition fabricated by pulse current pressure sintering
K. Tsuchiya (Sophia U.), Y. Sakka (NIMS), Ian J. Davies (Curtin Univ. Technol.), S. Koda and K. Itatani (Sophia Univ.)
- B04 Fabrication and evaluation of porous whisker-like hydroxyapatite - alginate composite
S. Tsukuda, T. Umeda, S. Koda and K. Itatani (Sophia U.)
- B05 Evaluation of novel bone coating film fabricated by the combination of hydroxyapatite and oxidized cellulose
A. Shimizu (Sophia U.), A. Isogai, T. Saito (Tokyo U.), S. Koda, K. Itatani (Sophia U.)

14:00 ~ 14:48 Chairperson: Mr. K. Matsuzaki (Saitama U.)

- B06 Morphological control of flower-like microsphere hydroxyapatite particles by microwave heating
H. Yoshida, T. Toyama, Y. Kojima, N. Nishimiya (Nihon U.)
- B07 Photocatalyst decomposition for organic polymeric material by titania pore wire
K. Oshika, S. Yanagida (Tokyo U. Sci.), T. Kishi (Tokyo Inst. Tech.), A. Yasumori (Tokyo U. Sci.)
- B08 Preparation of TiO_2 -zeolite-porous glass composite photocatalyst by sol-gel and hydrothermal methods
J. Sawada, S. Yanagida (Tokyo U. Sci.), T. Kishi (Tokyo Inst. Tech.), A. Yasumori (Tokyo U. Sci.)
- B09 Fabrication of $12CaO \cdot 7Al_2O_3$ powders with high specific surface area by Sol-Gel and ballmilling method
K. Ozawa, N. Sakamoto, N. Wakiya, H. Suzuki (Shizuoka U.)

14:48 ~ 15:36 Chairperson: Mr. T. Nishibun (Saitama U.)

- B10 Synthesis of B-substituted swellable micas and interlayer pillared microporous solids
R. Ozawa, T. Yamaguchi, S. Taruta, K. Kitajima (Shinshu U.)
- B11 Synthesis of porous silica materials by sol-gel process with composite templates
Y. Naito, Y. Chiba, H. Shibata (Tokyo U. Sci.), T. Kineri (Tokyo U. Sci., Yamaguchi), T. Gunji, R. Tamura, K. Nishio (Tokyo U. Sci.)
- B12 Preparation and sensing property of Pt- WO_3 particles dispersed PVA membranes application for

H₂ gas sensor

K. Iwamoto, Y. Yamaguchi (Tokyo U. Sci.), T. Kineri (Tokyo U. Sci., Yamaguchi),
K. Nishio (Tokyo U. Sci.)

B13 Environmental friendly process preparation of titanate crystal/activated carbon composites and their application to water treatment

C. Mori, K. Teshima (Shinshu U.), H. Kamikawa (Yamaha Motor Co.),
S. Lee, S. Oishi (Shinshu U.)

15:36 ~ 15:50

Break

15:50 ~ 16:38 Chairperson: Mr. A. Shimizu (Sophia U.)

B14 Hydrothermal syntheses of oxides of alkali and tellurium

A. Bat-Erdene, H. Imoto, Y. J. Shan, K. Tezuka (Utsunomiya U.)

B15 Synthesis and characterization of calcium sulfate fiber

N. Imazawa, T. Takei, N. Kumada, Y. Yonesaki, N. Kinomura (U. Yamanashi),
K. Ogihara (Ogihara INC.)

B16 Synthesis of calcium carbonate using monoethanolamine and carbon dioxide

Y. Kojima, K. Yoshitake, T. Toyama, N. Nishimiya (Nihon.U)

B17 Synthesis of needle-like calcite type calcium carbonate using supercritical carbon dioxide

Y. Tsuruoka, T. Toyama, Y. Kojima, N. Nishimiya (Nihon U.)

16:38 ~ 17:26 Chairperson: Mr. J. Sawada (Tokyo U. Sci.)

B18 Synthesis of Cs-deficient pollusite compounds with low thermal expansion

T. Nishibun, I. Yanase, H. Kobayashi (Saitama U.)

B19 Synthesis of Na-substituted pollusite compounds with low thermal expansion property

K. Matsuzaki, T. Yanase, H. Kobayashi (Saitama U.)

B20 Growth of calcium aluminate (Ca₁₂Al₁₄O₃₃) single crystal by tilted-mirror type floating zone method

R. Hada, M. Nagao, S. Watauchi, I. Tanaka (U. Yamanashi)

B21 Synthesis and thermal expansion property of (Nb,Y)-substituted ZrV₂O₇ compound

T. Kojima, I. Yanase, H. Kobayashi (Saitama U.)

Room C

13:00 ~ 14:00 Chairperson: Mr. M. Matsuoka (Yokohama National U.)

C01 Upconversion luminescence of NaYF₄:Ln crystals grown by environmentally friendly flux method

- T. Wakabayashi, K. Teshima, S. Lee, S. Oishi (Shinshu U.)
- C02 Luminescence properties of Cu ion doped alkali borosilicate glasses
F. Tada, S. Yanagida (Tokyo U. Sci.), T. Kishi (Tokyo Inst. Tech.),
A. Yasumori (Tokyo U. Sci.)
- C03 Preparation and luminescence properties of Ce-doped transparent lithium-mica glass-ceramics
Y. Iwasaki, T. Yamaguchi, K. Kitajima, S. Taruta (Shinshu U.)
- C04 Synthesis and luminescence properties of gadolinium silicon oxynitride with cuspidine structure
S. Mihara, K. Yamaguchi (Sophia U.), H. T. Hintzen (Eindhoven U. Tech.),
S. Koda, K. Itatani (Sophia U.)
- C05 Synthesis of SrAl₂O₄:Eu (SAOE) using Mechanochemical process
S. Aoki (Ibaraki U.), S. Mitachi, T. Yamada (Hokko Chem.), O. Abe (Ibaraki U.)

14:00 ~ 14:48 Chairperson: Ms. T. Wakabayashi (Shinshu U.)

- C06 Sintering of aluminum nitride nanopowder
K. Sekine (Hosei U.), T. Nishimura, Y. Yamamoto, N. Hirosaki (NIMS),
T. Ishigaki (Hosei U.)
- C07 Fabrication of high strength AlN joined body by using eutectic composition as joining aids
K. Kubota, J. Tatami, T. Wakihara, K. Komeya, T. Meguro (Yokohama National U.)
- C08 Analysis of the phase reaction between Si₃N₄, YAG and MnO, Fe
A. Ito, J. Tatami, T. Wakihara, K. Komeya, T. Meguro (Yokohama National U.)
- C09 Development of CNT-dispersed Si₃N₄ ceramics with high strength and electrical conductivity
by adding HfO₂ as a sintering aid
M. Matsuoka, S. Yoshio, T. Yamakawa, J. Tatami, T. Wakihara, K. Komeya,
T. Meguro (Yokohama National U.)

14:48 ~ 15:36 Chairperson: Mr. R. Hada (U. Yamanashi)

- C10 Low temperature synthesis of boron carbide powder from boric acid-glycerin condensation
product
N. Tahara, M. Kakiage, I. Yanase, H. Kobayashi (Saitama U.)
- C11 Low-temperature synthesis of carbon nanofiber/ α -alumina composite powders using
polyhydroxoaluminum complex gels
K. Miyazawa, T. Yamaguchi, S. Taruta, M. Endo, K. Kitajima (Saitama U.)
- C12 Formation of eutectic-like microstructure by crystallization of amorphous substance
Y. Takahashi, T. Kojima, N. Uekawa (Chiba U.), J. Yun (Kyungnam U.),
K. Kakegawa (Chiba U.)
- C13 Control of Al₂O₃-YAG-ZrO₂ eutectic-like microstructure by a crystallization of an amorphous
substance
T. Makino, D. Toyama, N. Uekawa, T. Kojima, K. Kakegawa (Chiba U.)

15:36 ~ 15:50

Break

15:50 ~ 16:38 Chairperson: Mr. S. Tsukuda (Sophia U.)

- C14 Fabrication and mechanical properties of acid treated-carbon nanofiber/alumina composites
N. Ueda, T. Yamakami, T. Yamaguchi, K. Kitajima, M. Endo, N. Saito,
S. Taruta (Shinshu U.)
- C15 Fabrication and characterization of the inorganic fiber dispersion composite material
R. Oda, T. Takei, Y. Yonesaki, N. Kumada, N. Kinomura (U. Yamanashi),
R. Oki (Asktechnica Corp)
- C16 Wear damage of Al₂O₃, YTZ and NiAl-Al₂O₃ composites
T. Kawana, S. Ohnuki, O. Abe

16:38 ~ 17:26 Chairperson: Mr. R. Oda (U. Yamanashi)

- C17 The improvement of the charge - and discharge cycle characteristics of
Li[Ni_{0.18}Li_{0.20}Co_{0.03}Mn_{0.58}]O₂ for lithium ion batteries by the electrochemical pre-treatment at the
discharge process
M. Abe, M. Saito, H. Yamamura, Y. Sato (Kanagawa U.), D. Li (Suzhou U.),
A. Ito, Y. Ohsawa (Nissan Motor Co.)
- C18 Low temperature flux growth of LiCo and LiMn system oxide crystals for lithium ion
secondary battery
H. Inagaki, K. Teshima, S. Lee (Shinshu U.), M. Hozumi,
K. Kohama (Toyota Motor Corp.), S. Oishi (Shinshu U.)
- C19 Mechanochemical synthesis of rare-earth vanadate powders
K. Sakane (Ibaraki U.), S. Mitachi, T. Yamada (Hokko Chem.), O. Abe (Ibaraki U.)
- C20 Structure transformation between perovskite-type and B-type rare earth structures
N. Okita, A. Higashide, M. Saito, H. Yamamura (Kanagawa U.)
- C21 Solid solutions in rare-earth oxide-CeO₂ systems synthesized by mechanochemical process
M. Arai (Ibaraki U.), S. Mitachi, T. Yamada (Hokko Chem.), O. Abe (Ibaraki U.)

【 July 23 (Fri.) 】

Room A

9:15 ~ 9:45

Special Lectures

(Professor Emeritus, Shinshu University) Prof. Nobuo Takusagawa

Room B

Poster Presentation

- P01 Electrical conductivity of perovskite-type oxide systems $\text{Ca}(\text{Mn,Nb})\text{O}_3$
M. Tsuchiya, H. Kawakami, M. Anzai, M. Saito, H. Yamamura (Kanagawa U.)
- P02 Structural transformation and electrical properties of $(\text{La}_2\text{O}_3)_x(\text{Y}_2\text{O}_3)_{1-x}$ system
A. Higashide, N. Okita, M. Saito, H. Yamamura (Kanagawa U.)
- P03 Electrical properties of SrCeO_3 systems containing A-site vacancy
T. Shinoda, K. Honma, M. Saito, H. Yamamura (Kanagawa U.)
- P04 Doping effect of Ta and Nb on sintering behavior of SnO_2
S. Narahara, T. Shinohara, M. Saitou, H. Yamamura (Kanagawa U.)
- P05 Proton conductivity of new complex perovskite related compound $\text{Ba}_2(\text{Zn}_{1+x}\text{W}_{1-x})\text{O}_{6-\delta}$
T. Sakurai, M. Saito, S. Ito, M. Watanabe, H. Yamamura (Kanagawa U.)
- P06 NIR spectra of methanol solution after irradiation of MR-ray
T. Hamana, T. Aoki, K. Niwa, Y. Ikuma (Kanagawa I.T.)
- P07 Formation of $(\text{Ba,Ca})\text{TiO}_3$ thin films by sputtering
Y. Kobayashi, T. Kogure, T. Kyomen, M. Hanaya (Gunma U.)
- P08 Thermoelectric characteristics of layered cobalt oxide system $\text{Ca}_{3-x}\text{Ln}_x\text{Co}_4\text{O}_9$ (Ln=La, Gd)
M. Kiuchi, M. Anzai, H. Kawakami, M. Saito, H. Yamamura (Kanagawa U.)
- P09 Control of electrical resistivity of CNT dispersed Si_3N_4 ceramics by double percolation
S. Yoshio, J. Tatami, T. Wakihara, T. Yamakawa, K. Komeya,
T. Meguro (Yokohama National U.)
- P10 Synthesis of cerium oxide film from hexamethylene tetramine solution by laser irradiation
N. Suzuki, C. Seki, A. Tsushima, K. Niwa, Y. Ikuma (Kanagawa I.T.)
- P11 Raman spectroscopic analysis of rutile TiO_2 single crystals
M. Kikuchi, K. Niwa, Y. Ikuma, K. Ishiguro, (Kanagawa I.T.),
H. Tajiri, O. Sakata (SPring-8)
- P12 Synthesis of mesoporous carbon as one of electrode materials in ethanol fuel cell
T. Satoh, T. Hiraishi, K. Niwa, Y. Ikuma (Kanagawa I.T.)
- P13 Improvement of catalytic performance of electrode in ethanol fuel cell
S. Akisawa, I. Suzuki, K. Niwa, Y. Ikuma (Kanagawa I.T.)
- P14 Removal of binder for metal injection molding with the aid of microwave irradiation
H. Koshiraki, Y. Endo, K. Niwa, Y. Ikuma (Kanagawa I.T.)
- P15 Synthesis of mesoporous TiO_2 and evaluation of photocatalytic activity by the decomposition of methylene blue
R. Kuramoto, Y. Miyauchi, K. Niwa, Y. Ikuma (Kanagawa I.T.), S. Anandan (AIST)

- P16 Decomposition of salad oil on TiO₂ surface during u.v. irradiation
S. Ogoe, K. Niwa, Y. Ikuma (Kanagawa I.T.), H. Tajiri, O. Sakata (SPring-8)
- P17 Toughening of ceramics by tri-layer structure
H. Suzuki, O. Abe (Ibaraki U.)
- P18 Synthesis of new borwnmillerite type-compounds Ca₂(Fe,M³⁺)₂O₅ systems (M³⁺=Al, Ga, In, Sc)
H. Sato, M. Watanabe, S. Ito, M. Saito, H. Yamanura (Kanagawa-U.)
- P19 Relationship between oxide-ion conduction and dielectric properties of
SiO₂ doped ZrO₂-CaO systems
T. Satou, K. Suzuki, Y. Yagi, M. Saitou, H. Yamamura (Kanagawa-U.)