

Symposium 7: Optical Ceramics

Main Organizers

- Shinichi Kikkawa, Hokkaido University, Japan
- Franck Tessier, CNRS-University of Rennes 1, France
- Setsuhisa Tanabe, Kyoto University, Japan

Co-Organizers

- John Ballato, Clemson University, USA
- Marco Bettinelli, University of Verona, Italy
- Alexandr Gektin, Institute for Scintillation Materials, NAS, Ukraine
- Akio Ikesue, World Lab Co., Japan
- Ludmila I. Isaenko, Institute of Geology and Mineralogy, Russia
- Bert Hintzen, Eindhoven University of Technology, Netherlands
- Masayoshi Mikami, Mitsubishi Chemical Group, Japan
- Jianbei Qiu, Kunming University of Science and Technology, China
- Kiyoshi Shimamura, NIMS, Japan
- Frédéric Smektala, University of Bourgogne, France
- Masahide Takahashi, Osaka Prefecture University, Japan
- Kenji Toda, Niigata University, Japan
- Mikio Higuchi, Hokkaido University, Japan
- Dae Ho Yoon, Sungkyunkwan University, Korea

Oral Session

Monday, November 15

Room: 804

14:15 - 16:00: Transparent Ceramics

Chairs: John Ballato (Clemson University, USA) and Akio Ikesue (World-Lab Co., Ltd., Japan)

14:15 - 15:00

S7-001 Progress In Ceramic Nd:YAG Laser (Invited)

A. Ikesue, Y. L. Aung; World-Lab Co., Ltd., Japan

15:00 - 15:15

S7-002 Stoichiometry Control for Fabricating High Optical Quality YAG Ceramics

J. Zhang^{1,2}, H. Gong¹, D. Tang¹, J. Ma¹, S. Wang²; ¹Nanyang Technological University, Singapore, ²Chinese Academy of Sciences, China

15:15 - 15:30

S7-003 Sintering and Microstructure in Exceptionally Dense, Fine Grained Transparent Nd:YAG Ceramics

G. L. Messing, A. Stevenson; The Pennsylvania State University, USA

15:30 - 16:00

S7-004 Fabrication of Sub-Micrometer-Grain Size Transparent Sesquioxide Ceramics (Invited)

J. Ballato, K. Serivalsatit; Clemson University, USA

16:00 - 16:15 **Break**

16:15 - 17:45: Nitrides and Oxynitrides

Chairs: Setsuhisa Tanabe (Kyoto University, Japan) and Jianbei Qiu (Kunming University of Science and Technology, China)

16:15 - 16:45

S7-005 Development of (oxy)Nitrides as Photocatalysts for Overall Water Splitting under Visible Light (Invited)

K. Domen; The University of Tokyo, Japan

Symposium 7

16:45 - 17:00

S7-006 Tuning of the Band-gap of LaSi₃N₅ Ternary Nitrides via Eu-doping: Experimental and DFT Study
Z. Lencses³, L. Benco³, P. Sajgalik³, Y. Zhou², K. Hirao², D. Velic³; ¹Slovak Academy of Sciences, Slovakia,
²National Institute of Advanced Industrial Science and Technology, Japan, ³International Laser Center, Slovakia

17:00 - 17:15

S7-007 Luminescence Properties of Eu²⁺:SrCN₂ and its Use for the Synthesis of New Green/Orange Phosphors.
S. Yuan^{1,2}, Y. Yang², F. Chevire¹, F. Tessier¹, X. Zhang¹, G. Chen²; ¹Université de Rennes 1, France,
²East China University of Science and Technology, China

17:15 - 17:30

S7-008 Luminescent Properties of Orange-Red Emitting SrAlSi₄N₇:Eu²⁺ Nitride Phosphors Synthesized by Gas Pressure Sintering
J. Ruan, R.-J. Xie, N. Hirotsaki, T. Takeda; National Institute for Materials Science, Japan

17:30 - 17:45

S7-009 Layer Type Rare Earth Doping in AlN Based Phosphor
T. Takeda¹, N. Hirotsaki¹, R.-J. Xie¹, K. Kimoto¹, M. Saito²; ¹National Institute for Materials Science, Japan,
²Tohoku University, Japan

Tuesday, November 16

Room: 804

9:15 - 10:30: Chalcogenides

Chairs: Kiyoshi Shimamura (National Institute for Materials Science, Japan) and
Frederic Smektala (ICB Laboratoire Interdisciplinaire Carnot de Bourgogne, France)

9:15 - 9:45

S7-010 Chalcogenides for Optical Sensor Applications (Invited)
V. Nazabal¹, F. Charpentier¹, M.-L. Anne¹, P. Camy², J.-L. Doualan², J. Troles¹, H. Lhermite¹, J. Charrier¹, L. Brilland³, C. Boussard-Pledel¹, L. Quétel⁴, K. L. Pierres⁵, J. L. Adam¹, B. Bureau¹; ¹Université de Rennes 1, France, ²Université de Caen, France, ³PERFOS France, ⁴IDIL, Lannion, France, ⁵BRGM, France

9:45 - 10:15

S7-011 Demonstration of Experimental Infrared Spectral Broadening in Chalcogenide As₂S₃ Suspended Core Microstructured Optical Fibers (Invited)
F. Smektala¹, M. El-Amraoui¹, J. C. Jules¹, G. Gadret¹, J. Fatome¹, B. Kibler¹, F. Desevedavy¹, G. Qin², T. Suzuki², Y. Ohishi², C. Polacchini³, I. Skryatchev³, Y. Messaddeq³, G. Renversez⁴, M. Szpulak⁵; ¹ICB Laboratoire Interdisciplinaire Carnot de Bourgogne, France, ²Toyota Technological Institute, Japan, ³Instituto de Quimica, UNESP, Brazil, ⁴Institut Fresnel, France, ⁵Institute of Physics Wroclaw University, Poland

10:15 - 10:30

S7-012 Powdered and Bulk (Oxy) Sulfides Processing for Optical Applications
C. Chlique, O. M. Conanec, X. H. Zhang, F. Tessier; Université de Rennes 1, France

10:30 - 10:45 Break

10:45 - 11:45: Functional Materials I

Chairs: Masahide Takahashi (Osaka Prefecture University, Japan) and Franck Tessier (CNRS - University of Rennes, France)

10:45 - 11:15

S7-013 Luminescent Micro-Composites on Patterned Ferroelectrics (Invited)
J. V. García-Santizo¹, P. Molina¹, M. O. Ramírez¹, K. Lemanski², W. Strek², P. J. Dereń², L. E. Bausá¹;
¹Universidad Autónoma de Madrid, Spain, ²Polish Academy of Science, Poland

11:15 - 11:30

S7-014 Characterization of Induced Structures in LiTaO₃ Using Femtosecond Laser Pulses

M. Kumatoriya¹, M. Nakabayashi², K. Miura², K. Hirao², A. Ando¹; ¹Murata Manufacturing Co., Ltd., Japan, ²Kyoto University, Japan

11:30 - 11:45

S7-015 Czochralski Growth of Tb₃Sc_{2-x}Lu_xAl₃O₁₂ Single Crystals for the Optical Isolators

A. Latynina¹, A. Funaki^{1,2}, T. Hatanaka^{1,2}, K. Naoe², E. G. Villora¹, K. Shimamura¹; ¹National Institute for Materials Science, Japan, ²Fujikura Co, Ltd., Japan

14:15 - 16:00: Functional Materials II

Chairs: Setsuhisa Tanabe (Kyoto University, Japan) and Jianbei Qiu (Kunming University of Science and Technology, China)

14:15 - 14:45

S7-016 Photoluminescence Properties of Eu³⁺ Doped LaPO₄ Inverse Opal Photonic Crystals (Invited)

J. Qiu¹, Z. Yang¹, J. Zhou², X. Huang², Z. Song¹, D. Zhou¹, Z. Yin¹; ¹Kunming University of Science and Technology, China, ²Tsinghua University, China

14:45 - 15:15

S7-017 Glass-ceramics for IR Applications (Invited)

L. Calvez, X.-H. Zhang, J. Lucas; Université de Rennes 1, France

15:15 - 15:30

S7-018 Preparation and Optical Property of Glass Ceramics Containing Ruby Crystals

J. Ueda¹, S. Tanabe^{1,2}; ¹Kyoto University, Japan, ²Japan Science and Technology Agency-PRESTO, Japan

15:30 - 15:45

S7-019 Optical Properties and Photoactivity of The Pigmentary TiO₂ Doped with P₂O₅, K₂O, Al₂O₃ and Sb₂O₃

M. Glen, B. Grzmil; West Pomeranian University of Technology, Poland

15:45 - 16:00

S7-020 Nonstoichiometry and Valence State of Ti or Ta in the Colored Oxynitrides LaTiO₂N and LaTaON₂

K. Shinnou¹, Y. Masuda¹, H. Ando¹, T. Kawasaki¹, H. Fujito¹, M. Mito¹, K. Murai¹, G. I. N. Waterhouse², J. B. Metson², T. Moriga¹; ¹The University of Tokushima, Japan, ²University of Auckland, New Zealand

16:00 - 16:15 Break

16:15 - 17:45: Functional Materials 3

Chairs: John Ballato (Clemson University, USA) and Masahide Takahashi (Osaka Prefecture University, Japan)

16:15 - 16:30

S7-021 Transparent Polycrystalline Alumina Ceramics By Magnetic – Field – Assisted Slip Casting

S. Wang, X. Mao, S. Shimai, H. Yi, J. Guo; Chinese Academy of Sciences, China

16:30 - 16:45

S7-022 Surface Roughness Effect on Mechanical and Elastic Moduli of Polycrystalline Scandia, Erbium and Yttria as Determined by Nanoindentation

I. C. Albayrak¹, M. W. Barsoum¹, O. Yeheskel^{1,2}; ¹Drexel University, USA, ²Nuclear Research Center Negev, Israel

16:45 - 17:00

S7-023 Sb-doped SnO₂ Thin Films as Transparent Electrodes for Inorganic Electroluminescence Devices

K. Ueda, Y. Kishigawa, Y. Takano; Kyushu Institute of Technology, Japan

17:00 - 17:15

S7-024 Spectral Modification from Yb³⁺ Doped ZnO with Li⁺ Addition for Silicon Solar Cell

S. Ye¹, S. Tanabe¹, J. Qiu²; ¹Kyoto University, Japan, ²South China University of Technology, China

Symposium 7

17:15 - 17:30

S7-025 Plasmon Enhanced Fluorescence Microscopy Using Silver Coated Grating

J. Nishii¹, K. Kinkata², K. Tawa²; ¹Hokkaido University, Japan, ²National Institute of Advanced Industrial Science and Technology, Japan

17:30 - 17:45

S7-026 Rewritable Holographic Structures Formed in Organic-Inorganic Hybrid Materials by Photothermal Processing

M. Takahashi; Osaka Prefecture University, Japan

Wednesday, November 17

Room: 804

9:00 - 10:30: President-Designated Lecture and Phosphors I

Chairs: Dae Ho Yoon (Sungkyunkwan University, Korea) and
Masayoshi Mikami (Mitsubishi Chemical Group Science and Technology Research Center, Inc., Japan)

9:00 - 9:30

S7-027 Oxynitrides as Emerging Functional Materials (President - Designated)

S. Kikkawa¹, Y. Masubuchi¹, T. Motohashi¹, T. Takeda²; ¹Hokkaido University, Japan, ²National Institute of Materials Science, Japan

9:30 - 10:00

S7-028 Theoretical Approach for White-LED Phosphors : from Crystal Structures to Optical Properties (Invited)

M. Mikami, N. Kijima; Mitsubishi Chemical Group Science and Technology Research Center, Inc., Japan

10:00 - 10:30

S7-029 Synthesis of Oxynitride Phosphor for White LEDs (Invited)

D. H. Yoon; Sungkyunkwan University, Korea

10:30 - 10:45 Break

10:45 - 11:45: Phosphors II

Chairs: Dae Ho Yoon (Sungkyunkwan University, Korea) and
Masayoshi Mikami (Mitsubishi Chemical Group Science and Technology Research Center, Inc., Japan)

10:45 - 11:00

S7-030 The Effect of Flux Addition on the Morphology and Size of Yellow-emitting Ca- α -SiAlON Phosphor

S.-H. Lee, Y.-J. Park; Korea Institute of Materials Science, Korea

11:00 - 11:15

S7-031 Photoluminescence and Cathodoluminescence of Nitride Phosphors

R.-J. Xie, N. Hirotsaki, T. Takeda, B. Dierre, T. Sekiguchi; National Institute for Materials Science, Japan

11:15 - 11:30

S7-032 Luminescence Properties of YAG:Ce Powder Prepared by Mechanochemical Doping of Nitrogen

M. Sopiccka-Lizer¹, D. Michalik¹, J. Plewa²; ¹Silesian University of Technology, Poland, ²Fachhochschule Muenster, Germany

11:30 - 11:45

S7-033 Preparation and Optical Properties of Transparent Ce³⁺:GdYAG Ceramic Phosphors for White LED

S. Nishiura¹, S. Tanabe¹, K. Fujioka², Y. Fujimoto²; ¹Kyoto University, Japan, ²Osaka University, Japan

13:15 - 14:30: Phosphors III

Chairs: Kenji Toda (Niigata University, Japan) and Jianbei Qiu (Kunming University of Science and Technology, China)

13:15 - 13:30

S7-034 Aluminum Addition Effect on BaCa₂MgSi₂O₈: Eu²⁺ Phosphor Material

Y. Yonesaki, N. S. Bmohama, T. Takei, N. Kumada, N. Kinomura; University of Yamanashi, Japan

13:30 - 13:45

S7-035 Synthesis and Luminescence Properties of Eu²⁺-activated Sr₃SiO₅ Phosphors

Y. Nakamura, T. Watari, T. Torikai, M. Yada; Saga University, Japan

13:45 - 14:00

S7-036 Photoluminescence Properties of Novel BaLa₂WO₇: Eu³⁺ Phosphors

S.-A. Yan, C.-S. Hwang¹, Y.-S. Chang², Y.-H. Chang¹, M. Yoshimura¹; ¹National Cheng Kung University, Taiwan, ²National Formosa University, Taiwan

14:00 - 14:15

S7-037 Synthesis of (Gd_{0.95}Eu_{0.05})(OH)₃ Nanomaterials and Their Transformation into Single Crystalline (Gd_{0.95}Eu_{0.05})₂O₃ with Enhanced Photoluminescence Properties

Q. Zhu^{1,2}, J.-G. Li^{1,2}, X. Li¹, X. Sun¹; ¹Northeastern University, China, ²National Institute for Materials Science, Japan

14:15 - 14:30

S7-038 Origin of Blue Luminescence for (H₃O)Al₃(SO₄)₂(OH)₆:Cu Synthesized under Hydrothermal Condition

Y. Kuroki, N. Iwata, T. Okamoto, M. Takata; Nagaoka University of Technology, Japan

14:30 - 14:45 Break

14:45 - 16:00: Phosphors IV

Chairs: Kenji Toda (Niigata University, Japan) and Kiyoshi Shimamura (National Institute for Materials Science, Japan)

14:45 - 15:00

S7-039 Growth and Optical Characterization of the New Single Crystal Gd_{1-x}Yb_xF₃

V. Vasyliiev¹, E. G. Villora¹, P. Molina¹, N. Shiran², K. Shimamura¹; ¹National Institute for Materials Science, Japan, ²Institute for Scintillation Materials, Ukraine

15:00 - 15:15

S7-040 Afterglow Characterization of CaTiO₃: Pr³⁺ Prepared by Solar Furnace

Y. Katayama, S. Tanabe; Kyoto university, Japan

15:15 - 15:30

S7-041 Luminescence Switching in CePO₄:Tb³⁺ by Redox Reaction

M. Kitsuda, S. Fujihara; Keio University, Japan

15:30 - 15:45

S7-042 Synthesis and Luminescent Properties of Sr₂SiO₄ Phosphors

H. Nishioka, T. Watari, T. Eguchi, M. Yada; Saga University, Japan

15:45 - 16:00

S7-043 Direct Preparation of Strontium Aluminate Phosphor Plate by Reactive Infiltration Method

T. Watari, K. Ikeue, T. Torikai, M. Yada; Saga University, Japan



Symposium 7

Poster Session

Monday, November 15

Room: Event Hall

12:00 - 14:00

- S7-P001 Fabrication of a White Light Emitting Diode by Doping Gallium into ZnO Nanowire on p-GaN Substrate**
C.-H. Chen¹, S.-P. Chang¹, C.-Y. Lu¹, S.-J. Chang¹, C.-L. Hsu²; ¹National Cheng Kung University, Taiwan, ²National University of Tainan, Taiwan
- S7-P002 Enhanced Field Emissions Ability of Well-aligned ZnO Nanowire Arrays Based on UV Illumination**
C.-H. Chen¹, C.-Y. Lu¹, S.-P. Chang¹, S.-J. Chang¹, C.-L. Hsu²; ¹National Cheng Kung University, Taiwan, ²National University of Tainan, Taiwan
- S7-P003 Investigation of Influence of Stress and Heat on Luminescence Property of EL Phosphors ZnS**
R. Kawanishi, N. Sawaguchi, M. Sasaki; Muroran Institute of Technology, Japan
- S7-P004 Thin-Film Electroluminescence Device Utilizing In-doped Y₂O₃ by RF Magnetron Sputtering**
M. Hayakawa, H. Ogawa, A. Kan; Meijo University, Japan
- S7-P005 Synthesis and Electroluminescence Properties of In-doped Zn₂SiO₄ Thin Film by RF Sputtering**
A. Kan¹, H. Ogawa¹, N. Ikeda², Y. Terakura²; ¹Meijo University, Japan, ²KICTEC INC., Japan
- S7-P006 Preparation of Indium and Cobalt Doped ZnGa₂O₄ Thick Films by Spray Deposition Technique**
Y. Terakura¹, N. Ikeda¹, H. Ogawa², A. Kan², K. Inoue³, A. Fujita²; ¹KICTEC INC., Japan, ²Meijyo University, Japan, ³Mie Prefecture Industrial Reserch Institute, Japan
- S7-P007 Sol-Gel Deposition and Characterization of In- and Co-doped MgGa₂O₄ Phosphor Films**
N. Ikeda¹, Y. Terakura¹, H. Ogawa², A. Kan², K. Inoue³, A. Fujita²; ¹KICTEC INC., Japan, ²Meijyo University, Japan, ³Mie Prefecture Industrial Reserch Institute, Japan
- S7-P008 Shape Control of Nd-Doped YVO₄ Single Crystals by AHFZ Growth**
D. H. Kwon, M. Nagao, S. Watauchi, I. Tanaka; University of Yamanashi, Japan
- S7-P009 Float Zone Growth and Spectral Properties of Nd:LaVO₄ Single Crystals**
S. Yomogida¹, M. Higuchi¹, T. Ogawa², S. Wada², J. Takahashi¹; ¹Hokkaido University, Japan, ²RIKEN, Japan
- S7-P010 Study of Blue Photoluminescence in Titanium Doped Al₂O₃ Single-Crystals**
T. Daimon, H. Naruse, H. Watanabe, H. Oda, A. Yamanaka; Chitose Institute of Science and Technology, Japan
- S7-P011 Effect of Transition Metals on Optical Properties of β-Ga₂O₃: Time-Resolved Spectroscopy**
D. Yasukawa, H. Wakai, H. Oda, A. Yamanaka; Chitose Institute of Science and Technology, Japan
- S7-P012 High-crystalline Upconverting Layers Fabricated by Environmentally Friendly Solution Methods**
T. Wakabayashi, K. Teshima, S. H. Lee, S. Oishi; Shinshu University, Japan
- S7-P013 Crystal Growth of Gallium Oxynitride Nanofibers in Sub-mm Length**
Y. Masubuchi, R. Yamaoka, T. Motohashi, S. Kikkawa; Hokkaido University, Japan
- S7-P014 Photoluminescence Property and Crystal Structure of Layered Aluminium Oxynitride Prepared through Citrate Route**
T. Hata, Y. Masubuchi, T. Motohashi, S. Kikkawa; Hokkaido University, Japan
- S7-P015 Synthesis of AgTaN₂ by Exchange Reaction**
A. Miura¹, M. Lowe², B. M. Leonard², Y. Masubuchi³, S. Kikkawa³, R. Dronskowski¹, F. J. DiSalvo²; ¹Aachen RTWH University, Germany, ²Cornell University, USA, ³Hokkaido University, Japan

- S7-P016 Light Propagation through Femtosecond Laser Induced Waveguide inside Lithium Tantalate Single Crystal**
M. Nakabayashi¹, M. Kumatoriya², K. Miura¹, M. Sakakura³, M. Nishi¹, Y. Shimotsuma³, K. Hirao¹; ¹Kyoto University, Japan, ²Murata Manufacturing Co., Ltd., Japan, ³Kyoto University, Japan
- S7-P017 The Evolution of The Dielectric Properties of Ca₁₂Al₁₄O₃₃ with Temperature**
E. Castel¹, T. I. Shin¹, M. Maglione², E. G. Villora¹, K. Shimamura¹; ¹National Institute for Materials Science, Japan, ²Institut de Chimie de la Matière Condensée de Bordeaux, France
- S7-P018 Dielectric Films Formed by Aerosol Deposition and its Theoretical Consideration for Optical Filters**
S. Hirose, H. Tsuda, Y. Ezuka, M. Kobiyama, J. Akedo; National Institute of Advanced Industrial Science and Technology, Japan
- S7-P019 High Pressure Spark Plasma Sintering of Transparent Zirconia and its Optical Properties**
H. B. Zhang, B.-N. Kim, K. Morita, H. Yoshida, K. Hiraga; National Institute for Materials Science, Japan
- S7-P020 Fabrication of Transparent Y₂O₃ Ceramics by N₂-HIP Sintering**
C. Kikkawa, S. Tsurumaki, N. H. Khusaini, T. Gomisawa, N. Hotta; Niigata University, Japan
- S7-P021 Fabrication of Transparent Y₂O₃ Ceramics by Ar-HIP Sintering**
N. H. B. Khusaini, K. Akimoto, N. Rokuta, N. Hotta; Niigata University, Japan
- S7-P022 Transmittance of AlN Ceramics Sintered with Ca₃Al₂O₆ and Carbon**
M. Kamitamari, T. Honma, Y. Kuroki, T. Okamoto, M. Takata; Nagaoka University of Technology, Japan
- S7-P023 Effect of Sintering Atmosphere on Translucency of AlN Ceramics**
T. Honma, M. Kamitamari, Y. Kuroki, T. Okamoto, M. Takata; Nagaoka University of Technology, Japan
- S7-P024 Investigation into Na_{1-x}Sr_xTaO_{3-x}N_x Solid Solution Photocatalysts Aiming at Water Splitting Under Visible Light**
K. Ueda, H. Kato, M. Kakihana; Tohoku University, Japan
- S7-P025 Photocatalytic Property of Metal Ion-Substituted BiVO₄**
R. Yanagisawa, H. Kato, M. Kakihana; Tohoku University, Japan
- S7-P026 Synthesis and Characterization of Na – Ta – O – N Photocatalyst Compounds By Soft Chemistry Method**
H. Hatakeyama, M. Nishiyama, K. Uemitsu, T. Ishigaki, K. Toda, M. Sato; Niigata University, Japan
- S7-P027 Water Splitting into H₂ and O₂ on MgTa₂O₆ Photocatalyst with Trirutile Structure**
T. Yokota, H. Kato, M. Kakihana; Tohoku University, Japan
- S7-P028 Doped Lutetium Silicates Scintillators Prepared by Sol-Gel Method. The Effect of Stoichiometry on Phase Relations and Luminescent Properties**
D. Niznasky¹, A. Begnamini², R. Kucerkova³, M. Niki³; ¹Charles University, Czech Republic, ²Università degli Studi di Pavia, Italy, ³Institute of Physics AS CR v. v. i., Czech Republic
- S7-P029 Preparation and Fluorescence Properties of Ti⁴⁺-Doped Lithium Silicates and Germanates**
T. Sato, M. Higuchi, K. Katsura, Y. Tsubota, J. H. Kanek, J. Takahashi; Hokkaido University, Japan
- S7-P030 Synthesis, Crystal Structure and Photoluminescence of Ti⁴⁺-Doped Magnesium Tin Oxyborate Solid Solutions, Mg₅Sn_{1-x}Ti_xB₂O₁₀**
T. Kawano, H. Yamane; Tohoku University, Japan
- S7-P031 Photoluminescent and Long-Lasting Phosphorescence in Bazirite-Type Crystals**
K. Iwasaki¹, Y. Takahashi¹, H. Masai², R. Ihara¹, T. Fujiwara¹; ¹Tohoku University, Japan, ²Kyoto University, Japan
- S7-P032 Long Persistent Properties of Calcium Germanate CaGe₂O₅**
H. Shimizu, T. Ishigaki, K. Uematsu, K. Toda, M. Sato; Niigata University, Japan



Symposium 7

- S7-P033 White Light Emitting Mesoporous Carbon-Silica Nanocomposites**
A. Matsumura¹, Y. Ishii¹, Y. Ishikawa^{1,2}, S. Kawasaki¹; ¹Nagoya Institute of Technology, Japan, ²Japan Fine Ceramics Center, Japan
- S7-P034 Synthesis of White Light Emitting Mesoporous Carbon-silica Nanocomposite**
K. Sato¹, Y. Ishikawa^{1,2}, A. Matsumura², Y. Ishii², S. Kawasaki²; ¹Japan Fine Ceramics Center, Japan, ²Nagoya Institute of Technology, Japan
- S7-P035 Preparation of Light Emitting Materials by Thermal Treatment of Rice Husks**
Y. Ishikawa¹, A. Matsumura¹, Y. Ishii¹, S. Kawasaki¹; ¹Nagoya Institute of Technology, Japan, ²Japan Fine Ceramics Center, Japan
- S7-P036 Preparation of YAG:Ce-Dispersed Transparent CaF₂ Ceramics and Application to White LEDs**
H. Ishizawa, Y. Ezura; Nikon Corporation, Japan
- S7-P037 Synthesis of Novel Borophosphate Phosphors for White Light LEDs**
N. Sato, K. Uemtsu, T. Ishigaki, K. Toda, M. Sato; Niigata University, Japan
- S7-P038 Emission Color Tuning of SrSi₂O₂N₂:Eu²⁺ Phosphor for White Light Emitting Diodes**
T. Y. Choi, Y. H. Song, D. H. Yoon; Sungkyunkwan University, Korea
- S7-P039 Color Tuning of Ca_{0.9-x}Si₂O₂N₂:Eu²⁺ Oxynitride Phosphor as a Function of Mn⁴⁺ Concentration**
Y. H. Song¹, T. Y. Choi¹, D. H. Yoon^{1,2}; ¹Sungkyunkwan University, Korea
- S7-P040 Glass-Ceramic Phosphors for White Light Generation Using Blue LED**
S. Yi, J. Heo; Pohang University of Science & Technology, Korea
- S7-P041 Synthesis of Phosphorescence Material By Modified Sol-Gel Process**
 C. Karakaş, N. Solak, S. Aydın; Istanbul Technical University, Turkey
- S7-P042 Synthesis of Transition Metal Oxide Doped SrAl₂O₄:Eu²⁺, Dy³⁺ Phosphors**
 M. O. Arkan, N. Solak, S. Aydın; Istanbul Technical University, Turkey
- S7-P043 Preparation and Optical Properties of Tb³⁺-doped GeO₂-ZrO₂ Thin Films by Sol-Gel Method**
T. Sanada¹, M. Abe¹, K. Yamamoto², N. Wada³, K. Kojima¹; ¹Ritsumeikan University, Japan, ²Industrial Research Center of Shiga Prefecture, Japan, ³Suzuka National College of Technology, Japan
- S7-P044 Investigation of Temperature Dependence on Emission Properties of Sr-Al-O:Eu²⁺ Phosphor Synthesized Using Elemental Diffusion from Substrate**
K. Komatsu¹, A. Nakamura^{1,2}, A. Kato¹, S. Ohshio¹, H. Akasaka¹, H. Saitoh¹; ¹Nagaoka Univ. Tech., Japan, ²Chubu Chelest Co., Ltd., Japan
- S7-P045 Luminescence Properties of Ga₂O₃-ZnO-MnO with Various Oxide Additives**
N. Wada¹, T. Okuno¹, Y. Nishimura¹, Y. Noda¹, K. Kojima²; ¹Suzuka National College of Technology, Japan, ²Ritsumeikan University, Japan
- S7-P046 Preparation of Plate-like Nano-phosphors with Infrared Luminescence from Nd³⁺ exchanged Zeolites**
S. Kato¹, T. Matsumoto¹, H. Itoh², T. Okamura², T. Yamada², Y. Goto³; ¹Industrial Technology Center of Tochigi Prefecture, Japan, ²Yoshizawa Lime Industry CO., LTD., Japan, ³Ryukoku University, Japan
- S7-P047 Photoluminescence of (YGd)₂O₃: Eu Phosphors Produced by Nanoparticle-seeded Flame-assisted Spray Pyrolysis**
R. Kubrin¹, J. Huang^{1,2}, F. Moglia³, K. Petermann³, W. Bauhofer¹; ¹Hamburg University of Technology, Germany, ²Fraunhofer Institute for Integrated Systems and Device Technology, Germany, ³University of Hamburg, Germany
- S7-P048 Crystal Chemistry of Silicate Phosphors**
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- S7-P049 Photoluminescence Properties of Rare-Earth Ion Doped Glass and Glass-Ceramics in the System $\text{Na}_2\text{O}-\text{Y}_2\text{O}_3-\text{SiO}_2$**
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- S7-P050 Synthesis of High Efficiency $\text{NaSi}_x\text{AlO}_{4+2x}:\text{Eu}_{0.1}$ ($x=1, 2, 3, 4, 5$) Phosphors for UV-LED**
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- S7-P051 Studies on Photoconductive Property of Eu^{2+} Activated SrAl_2O_4 as a Function of Excitation-Wavelength and Temperature**
T. Nakanishi¹, S. Tanabe²; ¹Nagaoka University of Technology, Japan, ²Kyoto University, Japan
- S7-P052 Pre-evaluation Method for the Spectroscopic Properties of YAG Bulk Materials by Sol-gel Synthetic Powder**
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- S7-P053 Synthesis and Characterization of Perovskite Type Phosphors**
Y. Shimokawa¹, K. Inoue², S. Iwata¹, S. Sakaida¹, S. Honda¹, Y. Iwamoto¹; ¹Nagoya Institute of technology, Japan, ²Mie Prefecture Industrial Research Institute, Japan
- S7-P054 Synthesis and Characterization of Low-Voltage Cathodoluminescent Gadolinium Oxide-based Red Phosphors**
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- S7-P055 Effect of Annealing Temperature on the Photoluminescence Properties of $(\text{Y}_{0.5}\text{Gd}_{0.5})\text{VO}_4:\text{Eu}$ Phosphors**
M. H. Heo¹, K. Y. Kim¹, Y. Kim², K. Park¹; ¹Sejong University, Korea, ²Dankook University, Korea
- S7-P056 Crystal Structure Dependence on the Photoluminescence Properties of $(\text{Y}_{0.5}\text{Gd}_{0.5})\text{PO}_4:\text{Eu}$ Phosphors Synthesized by Solution Combustion Method**
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- S7-P057 Compositional Dependence on the Photoluminescence Properties of $(\text{Y}_{1-x}\text{Gd}_x)_{0.94}\text{Eu}_{0.06}\text{PO}_4$ ($0 \leq x \leq 1.0$) Phosphors Synthesized by Solution Combustion Method**
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- S7-P058 Development of Zeolite-derived Novel Phosphors**
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- S7-P059 Wet Chemical Synthesis and Photoluminescence Properties of $\text{YVO}_4:\text{Bi}^{3+}, \text{Eu}^{3+}$ Nanophosphors**
H. Ogata¹, T. Watanabe¹, S. Takeshita¹, T. Isobe¹, T. Sawayama², S. Niikura²; ¹Keio University, Japan, ²SINLOIHI Company Limited, Japan
- S7-P060 Yttrium and Terbium Doped Zirconia Nanopowders with Photoluminescent Properties Prepared via Microwave-hydrothermal Route**
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- S7-P061 5 nm Structures in Photosensitive Glass-Ceramic Produced by Direct Laser Writing**
S. Jinga¹, E. Pavel², E. Andronescu¹, C. Jinga¹, B. S. Vasile¹; ¹University "Politehnica" of Bucharest, Romania, ²Storex Technologies, Romania
- S7-P062 Near Infrared Quantum Cutting In Yb^{3+} Doped $\text{Tb}_{0.81}\text{Ca}_{0.19}\text{F}_{2.81}$ Single Crystal**
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