Fifth International Conference on Optical, Optoelectronic and Photonic Materials and Applications 2012

Fifth International Conference on
Optical and Optoelectronic Properties of Materials and Applications

ICOOPMA 2012

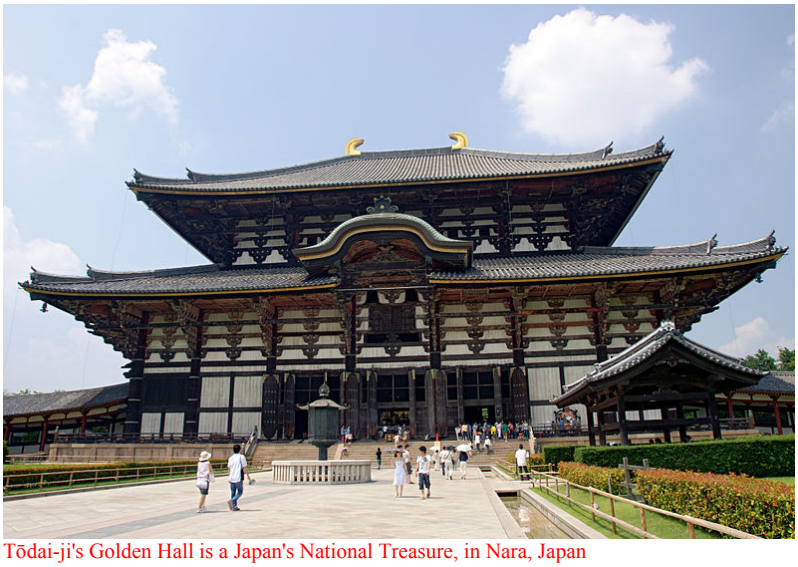
http://www.icoopma12.org

ICOOPMA2012

3 - 7 June 2012
Nara, Japan

Nara is one of the most beautiful cities in Japan, not far from Kyoto. It is the capital of the Nara Prefacture in the Kansai region. It was the ancient imperial capital of Japan from 701 to 784. According to the legendary history of Kasuga Shrine, a mythological god Takemikazuchi arrived in Nara on a white deer to guard the newly built capital of Heijō-kyō. Since then the deer have been regarded as heavenly animals, protecting the city and the country. The dear wander around the city and add to its beauty; visitors enjoy feeding the deer. June is a perfect season to visit Nara with the day-time average temperatures around 22 °C. Nara can be easily reached from Osaka (Kansai International Airport) or Kyoto.

An international conference on optical, optoelectronic and photonic materials for a wide range of applications from telecommunications to photovoltaics; and optical, optoelectronic and electro-optic properties of all classes of materials and material systems.



Tōdai-ji's Golden Hall is a Japan's National Treasure, in Nara, Japan

Entrance of to Kofukuji Temple, Nara Prefecture, Japan

CONFERENCE CHAIRS AND LOCAL ORGANIZING AND PROGRAM COMMITTEES

Hiroyoshi Naito
Conference Chair and Program Chair
Osaka Prefacture University, Japan
Setsuhisa Tanabe
Conference Co-Chair, Kyoto University, Japan

SCOPE

Optical and optoelectronic properties of a wide range of materials and materials systems, such as single crystals, polycrystalline bulk and film samples, amorphous materials, organics, polymers, photonic crystals and nanostructures, quantum wells, wires and dots
Excitonic processes
Luminescence, Phosphors, Scintillators and Applications
Photoinduced effects
Electro-optic properties and applications
Nonlinear optical properties and applications
Materials for optoelectronics and photonics
Nano-optoelectronics and Nanophotonics
Photoconductivity, photogeneration, quantum efficiency
Optically induced processes
Optical fibers
Materials for optical storage
Photovoltaic materials
Experimental techniques
Optoelectronic and photonic devices
Optical components for telecommunications
Applications of materials in photonics and optoelectronics

SESSIONS

Optical properties of materials
- General
- Crystals
- Polycrystalline bulk and film
- Amorphous and organics

Nanostructures, including photonic crystals
Quantum Dots
Quantum Wires
II-VI and Related Semiconductors Including Alloys
III-V and Related Semiconductors Including Alloys
Oxide Semiconductors
Silicon Photonics
a-Si:H, a-SiN:H, a-SiC:H, a-SeGe:H
Nonoxide Glasses and Chalcogenide Glasses
ZBLAN and Oxyfluoride Glasses
Excitonic Processes
Luminescence, Phosphors and Applications
Photoinduced Effects and Applications
Photoconductivity and Photogeneration
Nonlinear Optical Effects and Applications
Electro-Optic Effects and Applications
- Semiconductors for Optoelectronics (including wide bandgap materials) for applications in lasers, photodetectors, waveguides, modulators etc.

Light Emitting Devices (including organics)
Photonic and Optoelectronic Materials and Devices
- Quantum Wells, Quantum Wires, Quantum Dots, Nanophotonics and Nano-Optoelectronics

Optical Storage
Photovoltaics (materials and devices, and their properties)
Waveguides and Fibers
Integrated Photonics
Experimental Techniques
Photoreflectance
Photonic Bandgap Materials and Nonlinear Photonic bandgap materials
Defect Spectroscopy
Femtosecond Spectroscopy
Optical Fibers and Fiber Sensors
Plasmons and Surface Plasmons
Selected Topics (e.g. Photocatalysis in Materials, Materials for Energy Conversion etc)

ICOOPMA HISTORY

ICOOPMA12 is the fifth in the ICOOPMA series, an International Conference on Optical, Optoelectronic and Photonic Materials and Applications, which was held for the first time in Darwin, Australia, in 2006. ICOOPMA07, 08 and 10 were held in London, England (2007), Edmonton, Canada (2008), and Budapest, Hungary (2010), and each had over 250 participants and several plenary lectures from world's top researchers. The ICOOPMA series arose from a need for such a conference for those researchers who sought a truly international conference that covered a wide range of materials and applications in optics, optoelectronics and photonics. The International and Local Organizing Committees have the responsibility of ensuring an in-depth scientific coverage with invited and contributed papers from various countries and in various disciplines; and ensuring an enjoyable scientific program. By tradition, the conference has a large number of invited papers from top researchers in various fields to review the advances and bring the audience up-to-date. The plenary and invited talks are the most exciting part of the scientific program; and for finding out the advances, challenges and the current problems. http:// icoopma.org

VENUE AND CONTACTS

Nara-Ken New Public Hall, Nara, Japan

http://www.icoopma12.org

Hiroyoshi Naito, Chair: naito@pe.osakafu-u.ac.jp
Setsuhisa Tanabe, Co-Chair
stanabe@gls.mbox.media.kyoto-u.ac.jp>

IMPORTANT DATES

Oral abstract Submission: 10 February 2012
Poster abstract submission, 1 April 2012
Early registration: 17 March 2012

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Yomei Tokuda, Kyoto University, Japan

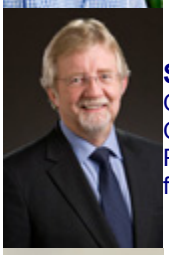
Takashi Uchino, Kobe University, Japan

Kazuki Wakita, Chiba Institute of Technology, Japan

Plenary Lectures

Chihaya Adachi
Kyushu University, Japan
Organic light-emitting diodes employing efficient reverse intersystem crossing for triplet to singlet state conversion

Benjamin J. Eggleton
University of Sydney, Australia
Nonlinear photonic circuits transforming the new information age: Faster, smaller and smarter



Stephen W.S. McKeever
Oklahoma State University, USA
Optically Stimulated Luminescence: Principles and recent developments for use in radiation dosimetry

Takashi Asano and Susumu Noda
Kyoto University, Japan
Recent Progress and Future Prospects of Photonic Crystals

Invited Speakers

Sergei Baranovski, Philipps University Marburg, Germany, *Theory to charge generation, transport and recombination in organic solar cells*

Kokwai Cheah, Hong Kong Baptist University, China, *Novel plasmonic materials and devices*

Chun-Wei Chen, National Taiwan University, Taiwan, *Nanomaterials in organic solar cells*

David G. Cooke, McGill University, Canada, *Ultra-broadband THz spectroscopy revealing sub-picosecond mobile charge dynamics in conjugated polymers*

Andy Edgar and Nicola Winch, Victoria University of Wellington, New Zealand, *Third generation cesium bromide storage-phosphors for radiation imaging*

Giovanni Fanchini, University of Western Ontario, Canada, *Transparent and conducting graphene thin films and nanocomposites for optoelectronic and solar applications*

Michael Fokine, Royal Institute of Technology, Stockholm, Sweden, *Photosensitivity and index changes in silica based fibers*

Yasufumi Fujiwara, Osaka University, Japan, *Current status of environment-friendly red light-emitting diodes with Eu-doped GaN*

Fuji Funabiki, Tokyo Institute of Technology, Japan, *Optical properties of rare-earth-doped B2O3 glasses: Effect of high pressure*

Tom Gregorkiewicz, University of Amsterdam, Netherlands, *Using Si and Si nanocrystals for the 1.5um emission from Er3+ ions*

Chunlei Guo, University of Rochester, USA, *The black and colored metals and applications*

Liyuan Han, National Institute for Materials Science, Japan, *Highly efficient dye-sensitized solar cells*

Mark Hopkinson, University of Sheffield, UK, *Advances in the growth and fabrication of III-V Semiconductors for photonics*

Linhua Hu and Songyuan Dai, Chinese Academy of Sciences, China, *Mechanism of surface pretreatments and modification for dye-sensitized solar cells*

Jørn M. Hvam, Technical University of Denmark, Denmark, *Advances in silicon nanophotonics*

Peter Uhd Jepsen, Technical University of Denmark, Denmark, *Correlation between THz AC conductivity and DC conductivity mapping of large-area graphene*

Animesh Jha, University of Leeds, UK, *Nanoscale engineering of dissimilar materials using Pulsed Laser Deposition for integrated optics*

Koichi Kajihara, Tokyo Metropolitan University, Japan, *Photoluminescence study of oxygen exchange at the internal surface of amorphous SiO2*

Yoshihiko Kanemitsu, Kyoto University, Japan, *Multicarrier recombination dynamics in semiconductor nanomaterials*

Christian A. Kaufmann, Helmholtz-Zentrum Berlin, Germany, *CIGSe thin film solar cells on poylimide substrates*

Anthony Kenyon, University College London, UK, *Nanocluster-sensitised luminescence from rare-earth ions: perspectives and prospects*

Tadamasa Kimura, University of Electro-Communications, Tokyo., Japan, *High optical gain in ErxY2-xO5 slot waveguides and possibility for compact light amplifiers and optical sources*

Takashi Kita, Kobe University, Japan, *Extremely uniform excitonic states in nitrogen delta-doped GaAs*

Krisztian Kohary, University of Exeter, UK, *Arithmetic and biologically-inspired computing using phase-change materials*

Nobuyoshi Koshida, Tokyo University of Agriculture and Technology, Japan, *Photonic and related functional applications of quantum-sized nanosilicon*

Sandor Kugler, Budapest University of Technology and Economics , Hungary, *Photoinduced volume changes in obliquely and flatly deposited amorphous chalcogenide glasses -Universal description of the kinetics*

Roger Lewis, University of Wollongong, Australia, *Monte Carlo simulations of the emission of terahertz-frequency electromagnetic radiation from semiconductors*

Hao-Wu Lin, National Tsing Hua University, Taiwan, *Efficient organic solar cells based on push-pull small molecules*

Chao Liu and Jong Heo, Wuhan University of Technology and Pohang University of Science and Technology, Korea, *Building quantum dots inside glasses*

David J. Lockwood, National Research Council of Canada, Canada, *Fast light-emitting silicon-germanium nanostructures*

Pierre Lucas, University of Arizona, USA, Long-wave infrared-transmitting glasses: *Optical and electrical properties for sensing applications*

Barry Luther-Davies, Australian National University, Australia, *Optimizing chalcogenide glasses for nanophotonics*

Maurizio Martino, University of Salento, Italy, *Pulsed laser deposition of high-k dielectric Y2CuTiO6 thin films*

Hirokazu Masai, Kyoto University, Japan, *White light emission of rare earth-free phosphate glass*

Peter Mascher, McMaster University, Canada, *Visible light emission from rare-earth doped silicon-based* nanostructures

Atsunobu Masuno and Hiroyuki Inoue, University of Tokyo, Japan, *High refractive index glasses prepared by containerless processing*

Younes Messaddeq, Laval University, Canada, *Progress on photoinduced effect on chalcogenide glasses*

Alexander Moewes, University of Saskatchewan, Canada, *Anion ordering and tunable band gap in Spinel nitrides: α-, β-, and γ-phase of Si3N4, γ-Ge3N4, γ-GeSi2N4, γ-Sn3N4 and Ga3O3N*

Martin Nikl, Institute of Physics, ASCR, Czech Republic, *New material concepts in complex oxide phosphors and scintillators*

Yutaka Noguchi, Chiba University, Japan, *Interface charges in organic light-emitting diodes: The origin and impacts on device properties*

Hideo Ohkita, Kyoto University, Japan, *Near-IR dye sensitization of polymer/fullerene solar cells*

Ci-Ling Pan, National Tsing Hua University, Taiwan, *THz conductivities of indium-tin-oxide nanowhiskers as a graded-refractive-index structure*

Dirk Poelman, Ghent University, Belgium, *Persistent luminescence: traps in materials and in research*

Mogens Poulsen, Technical University of Denmark, Denmark, *Micro- and nanoscale patterning and characterisation of materials for improved materials and device characteristics*

Jianrong Qiu, South China University of Technology, China, Novel glasses and glass-ceramics for broadband optical amplification

Alla Reznik, Lakehead University, Canada, *Recent advances in avalanche amorphous selenium technology and its applications in optical and gamma-ray imaging*

Harry Ruda, University of Toronto, Canada, *Influence of defects on optoelectronic response of nanowires*

Ramaswami Sammynaiken, University of Saskatchewan, Canada, *Ultra-violet light emitting nanoparticles for clean water technology*

Heinz von Seggern, University of Darmstadt, Germany, *Recent progress in the understanding of the x-ray storage phosphor CsBr:Eu2*

Jai Singh, Charles Darwin University , Australia, *Recipe for attaining optimal energy resolution in inorganic scintillators*

Aasmund S. Sudbo, University of Oslo, Norway, *Photonic crystals for light trapping in solar cells*

Stephen John Sweeney, University of Surrey, UK, *New semiconductor approaches to energy efficient integrated photonics*

Takahiro Wada, Ryukoku University, Japan, *Cu-chalcogenide photovoltaic materials from CuInSe2 to Cu2ZnSnS4 and other ternary and multinary compounds*

Richard Williams, Wake Forest University, USA, *The importance of excitation diffusion in scintillators*

Robert Withnall, Brunel University, UK, *Nanophosphors for displays and lighting*

Christian Wolpert and Markus Lippitz, Max Planck Institute for Solid State Research, Germany, *Nonlinear spectroscopy of single quantum dots*

Chih-I Wu, National Taiwan University, Taiwan, *Investigation of the diffusion length of cathodes in OLEDs through the impedance characteristics*

Hiroyuki Yoshida and Masanori Ozaki, Osaka University, Japan, *Tunable lasing from a nano-sized polymer-dispersed cholesteric liquid crystal*

Akira Yoshikawa, Tohoku University, Japan, *Crystal growth and scintillation properties of colquiriite (6LiCaAlF6, 6LiSrAlF6) single crystal, as a candidate for neutron scintillator alternatives to 3He*

Furong Zhu, Hong Kong Baptist University, Hong Kong, *Semitransparent organic solar cells*

Conference Proceedings

Papers will be peer reviewed for publication in Physica Status Solidi C. Papers that are found to be of high quality, presenting original and novel work will be further considered for a higher impact publication in Physica Status Solidi A: Applications and Materials science.

Manuscript submission deadline: June 30, 2012.

Authors of accepted abstracts were invited to submit a paper. For the paper to be considered for publication in the Proceedings of ICOOPMA2012, it must have been presented at the conference (either orally or as a poster).

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この助成金は、日本万国博覧会の収益を基にしています。

Registration Information

Early registration: Before 17th March

Standard registration: After 18th March

Early	Standard	Onsite
Regular		
60,000 JPY	65,000 JPY	70,000 JPY
Student		
30,000 JPY	35,000 JPY	40,000 JPY

Registration fee includes: Conference participation, Conference bag, Program & Abstract, Welcome reception, Lunch, Open bar at the poster sessions, Coffee/Tea breaks, Free use wireless internet.