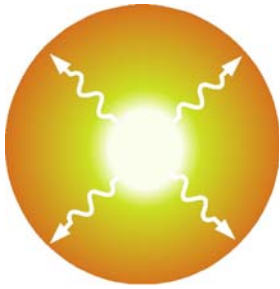


International Conference on Optical and Optoelectronic Properties of Materials and Applications 2006

ICOOPMA 2006

<http://icoopma2006.cdu.edu.au/>



ICOOPMA06

Darwin, Australia
15 - 22 July 2006

Workshop 13 - 14 July 2006



International Conference on Optical, Optoelectronic and Photonic Materials and Applications 2006

An international conference on optical, optoelectronic and electro-optic properties of all classes of materials and material systems, and their applications



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Robert Glosser, University of Texas, Dallas, USA
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Asim Ray, Queen Mary University of London, UK
Younus Messaddeq, UNESP, Brazil
Armando Luches, Lecce University, Italy

Hideo Hosono, Tokyo Institute of Technology, 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 and Applications
Photoinduced effects
Electro-optic properties and applications
Nonlinear optical properties and applications
Materials for optoelectronics and photonics
Nano-optoelectronics and Nanophotonics
Photoconductivity
Optically induced processes
Optical fibers
Materials for optical storage
Materials for photovoltaics
Photogeneration, quantum efficiency
Experimental techniques
Optoelectronic and photonic devices
Applications of materials in photonics and optoelectronics

PROCEEDINGS

Editors: Jai Singh (Australia), K. Shimakawa (Japan),
T. Aoki (Japan), Harry Ruda (Canada)

Presented papers will be refereed and will be published in a special issue of the

*Journal of Materials Science:
Materials in Electronics*



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PLENARY LECTURES

Springer Plenary Lecture I

Hideo Hosono, Tokyo Institute of Technology, Japan,
Novel Type Oxide Semiconductors

Springer Plenary Lecture II

Robert Glosser, University of Texas at Dallas, *Perspectives on Experimental Techniques in the Optical Characterization of Materials*

INVITED SPEAKERS

Vik Dalal, Iowa State University, USA *Optoelectronic Properties of Nanocrystalline Si for Photovoltaic Applications*

Martin Green, University of New South Wales, Australia,
Thin Film Materials for Photovoltaics

C. Jagadish and H. Tan, Australian National University, Australia, *Quantum Dots and Nanowires for Optoelectronic Device Applications*

Mark G. Kuzyk, Washington State University, USA,
Nonlinear-Optical and Photomechanical Properties of Polymer Fibers

Takayoshi Kobayashi, University of Tokyo, Japan
Ultrafast Processes in Bio and Synthetic Polymers

Klaus H. Ploog, Paul Drude Institute for Solid State Electronics, Berlin Germany, *GaN Quantum Dots and Quantum Wires With Novel Optoelectronic Properties*

Sergei Baranovski, Philipps University Marburg, Germany,
The Effect of Disorder on Optical Excitations in Semiconductor Quantum Structures

Nobuya Mori, Osaka University, Japan, *Carrier Dynamics in Semiconductors Measured with a Free-Electron Laser*

Heinz von Seggern, Technische Universität Darmstadt, Germany, *Progress in Phosphors: From Fundamentals to Applications*

Sandor Kugler, Budapest Univ. of Technology, Hungary,
Modeling of Photoinduced Changes in Glasses: a-Se

Keiji Tanaka, Hokkaido University, Japan, *Optical Nonlinearity in Photonic Glasses*

Peter Hess, Universität Heidelberg, Germany, *Real-Time Detection of Optical Properties: Ultrathin Silicon-Oxide Films*

Peter Thomas and Peter Bozsoki, Philipps Marburg University, Germany, *Microscopic Modeling of Photoluminescence of Strongly Disordered Semiconductors*

Jørn M. Hvam, Technical University of Denmark, Copenhagen, Denmark, *Advances in Nanophotonics*

C.T. Chan, Hong Kong University of Science and Technology, Hong Kong, *Some Subtle Optical Properties of Negative Refractive Index Materials*

Joseph Salzman, Boris Meyler and Shai Zamir, Technion, Israel, *White Light Emitting Diodes - From Material Science to a Technological Revolution*

Kenkichi Tanioka, NHK, Japan, *The HARP: The Ultra Sensitive TV Pickup Tube from Conception to Recent Developments*

Yongchun Zhong and Kam Sing Wong, and D.C. Look, The Hong Kong University of Science and Technology, Hong Kong, and Wright State University, Ohio, USA, *Surface and Bulk Exciton Recombination Dynamics in GaN Freestanding Film via One- and Two-Photon Excitation*

Frank Hegmann and David Cooke, University of Alberta, Canada, *Ultrafast Carrier Dynamics and Terahertz Conductivity in Nanocrystalline Silicon*

Junji Tominaga and Alex Kolobov, National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan, *Phase-Change Optical Memories: Past, Present, Future*

Andrea Ferrari, A.G. Rozhin and Bill Milne, University of Cambridge, England, *Carbon Nanotubes for Photonic Devices*

Zhengkong Lu, University of Toronto, Canada,
Superluminescent Organic Light-emitting diodes

Jacque Lucas, Université de Rennes, France, *Chalcogen Based Glasses For Infrared Applications*

Richard Blaikie, University of Canterbury and MacDiarmid Institute, New Zealand, *Near-Field Imaging Through Plasmonic and Negative-Index Materials*

Furong Zhu, Institute of Materials Research and Engineering, Singapore, *Towards Novel Flexible Display-Design and Fabrication of OLEDs on Plastic Substrates*

Miloslav Frumar, University of Pardubice, Czech Republic,
Phase Change Memory Materials, Composition, Structure and Properties

Rodrigo Martins and Elvira Fortunato, The New University of Lisbon and Uninova, Portugal, *Transport Properties in Single and Multicomponent n-Type Oxide Semiconductors*

I.C. Khoo, Pennsylvania State University, USA, *Tunable Low Loss Negative Index Liquid-Crystal-Cladded Optical Frequency Selective Structures*

Peter Tanner, City University of Hong Kong, *Developments and Applications of Ultraviolet and Vacuum Ultraviolet Luminescence of Lanthanide Ions*

Animesh Jha University of Leeds, England, *Rare-Earth Doped Glass Waveguides for Visible, Near-IR and Mid-IR Lasers and Amplifiers*

Setsuhisa Tanabe, Kyoto University, Japan, *Development of Glass Materials for Broad Band Amplifiers in Wavelength-Division-Multiplexing*

M. Henini, University of Nottingham, England, *Self-Organised Quantum Dots for Advanced Applications in Optoelectronics*

Hiroyoshi Naito, Osaka Prefecture University, Japan, *Impedance Spectroscopy for Polymer Light-Emitting Diodes*

Chao Zhang, University of Wollongong, Australia, *Photon Absorption and Collective Excitations in Spintronic Systems Tuned by Spin-Orbit Interaction*

Nobuyoshi Koshida, Tokyo University of Agriculture & Technology, Japan, *Luminescence in Porous Silicon*

Christoph Boehme, University of Utah, USA, *Ultra-Sensitive Defect Spectroscopy with Coherent, Pulsed Optically and Electrically Detected Magnetic Resonance Techniques*

Stefan Zukotynski, S.Costea and Nazir Kherani, University of Toronto, Canada, *Metastable Defect Creation in Tritiated Hydrogenated Amorphous Silicon and the Staebler-Wronski Effect*

Jong Heo, Pohang University of Science and Technology, Korea, *PbS Quantum-Dots in Glass Matrix for Universal Fiber-Optic Amplifiers*

Noboru Yamada, Matsushita Electric Industrial Co Ltd., Japan, *Optical Data Storage: Technology and Recent Advances*

Pierre Ruterana, SIFCOM, UMR, France, *Er-Doped GaN by Ion Implantation*

Stephen Sweeney and Alfred Adams, University of Surrey, England, *Thermally Stable 1.3 - 1.6 μ m Semiconductor Lasers: Physics and Materials Challenges*

Victor Tikhomirov and Angela Seddon, University of Nottingham, England, *Rare Earth Doped Ultra-Transparent, Oxyfluoride Nano-Glass-Ceramics for Active Applications*

SESSIONS

A Optical properties of materials

- A1 General
- A2 Crystals
- A3 Polycrystalline bulk and film
- A4 Amorphous and organics
- A5 Nanostructures, including photonic crystals

B Excitonic Processes

C Luminescence, Phosphors and Applications

D Photoinduced Effects and Applications

E Photoconductivity and Photogeneration

F Nonlinear Optical Effects and Applications

G Electro-Optic Effects and Applications

H Semiconductors for Optoelectronics (including wide bandgap materials)

I Light Emitting Devices (including organics)

J Photonic and Optoelectronic Materials and Devices Quantum Wells, Quantum Wires, Quantum Dots, Nanophotonics and Nano-Optoelectronics

K Optical Storage

L Photovoltaics (materials and devices, and their properties)

M Waveguides and Fibers

N Experimental Techniques

O Selected Topics (e.g. Photocatalysis in Materials, Materials for Energy Conversion etc)

REGISTRATION

ICOOPMA-2006 Conference

16 July – 20 July, 2005

Regular conference activity from Monday (17 July), to Thursday afternoon (20 July). Reception on Sunday (16 July). Registration starts on Sunday (16 July) and runs through the conference. Light lunch provided.

Conference Registration Fees

Very rough conversion rates are

A\$1 = US\$ 0.73 = Eu 0.62 = GBP 0.41 = JY 86

Full A\$ 575 Before May 15, 2006

Student A\$ 325 Before May 15, 2006

Full A\$ 675 After May 15, 2005

Student A\$ 385 After May 15, 2006

Coffee breaks and light lunch included. A\$120 for banquet and A\$90 for the sunset BBQ

Venue

The venue for the symposium is the Mal Nairn Auditorium of the Charles Darwin University. There is a regular bus service to the conference.



Darwin, Accommodation, Maps

There are many good and reasonably priced hotels near the university. There is a regular bus service between downtown Darwin and the university.

Student accommodation will also be available at a very reasonable rate.

Tourist information for NT, maps, and hotels in Darwin can be found at

<http://www.tourismtopend.com.au/welcome.htm>

<http://www.northernterritory.com>

<http://www.atn.com.au/nt.htm>

<http://www.atn.com.au/nt/north/nt-a.htm>

North Flinders International House

(University Residence on Campus, walking distance)
A\$55/night. Clean room with air conditioning, refrigerator, and ensuite bathroom shared with one neighbor only.

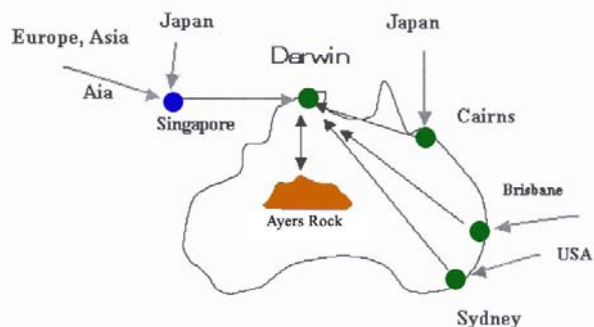
Other hotels from A\$88 to \$165 (with Cullen Bay view)
See website for details: <http://icoopma2006.cdu.edu.au/>

Further information: <http://icoopma2006.cdu.edu.au/>

How to get there

International: International flights can connect from Singapore, Cairns, Brisbane or Sydney.

Routes to Darwin



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