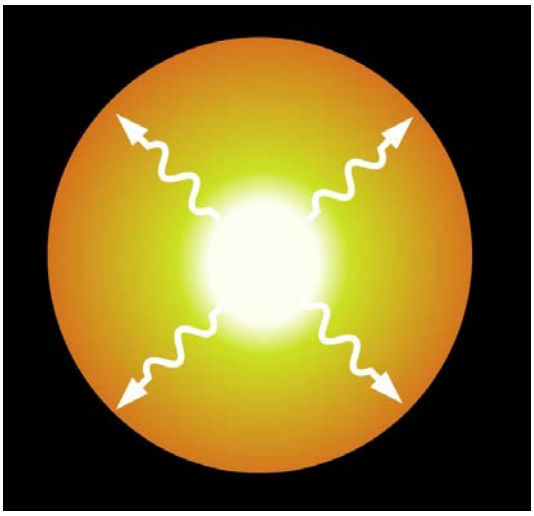
HISTORY OF ICOOPMA



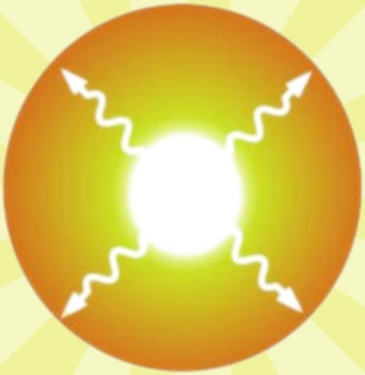
International Conference on Optical, Optoelectronic and Photonic Materials and Applications

Also known as

International Conference on Optical and Optoelectronic Properties of Materials and Applications

ICOOPMA ***is a non-profit conference that is run by scientists for scientists without any institutional constraints and restrictions***

http://www.icoopma.org



ICOOPMA2018

8th International Conference on Optical, Optoelectronic and Photonic Materials and Applications

August 26-31

Maresias-SP, Brazil

Program Book

FOREWORD

Welcome to the 8th International Conference on Optical, Optoelectronic and Photonic Materials and Applications (ICOOPMA2018).

ICOOPMA is a non-profit conference that is run by scientists for scientists without any institutional constraints and restrictions. It is an international conference series 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. The previous seven ICOOPMA conferences were held in Darwin, Australia (2006), London, UK (2007), Edmonton, Canada (2008), Budapest, Hungary (2010), Nara, Japan (2012), Leeds, UK (2014) and Montréal, Canada (2016).

We are delighted to have you for this meeting at Beach Hotel Maresias, in Maresias-SP, one of the most beautiful beaches of the São Paulo State coast, located at ~180kms from São Paulo International Airport.

The 2018 ICOOPMA edition will run from Sunday (August 26) night until Friday (August 31). An exciting scientific program will be covered by 203 contributions. The scientific program includes 8 plenary lectures, 37 invited lectures, 51 oral presentations and 107 poster presentations. Two poster sessions that will be held on Monday (August 27) and Tuesday (August 28) designed to encourage interaction among participants.

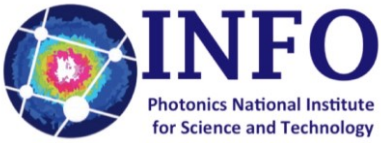
We offer special thanks to the São Paulo State University- UNESP, the Local Organizing Committee, the Advisory Board and the many on-site assistants for their tireless efforts in preparing this world-class event.

We hope you will enjoy Maresias and our country and you experience a valuable and memorable meeting.

On behalf of the Organizing Committee

Sidney J.L. Ribeiro, Marcelo Nalin, Rogéria R. Gonçalves Hernane Barud and Anderson Gomes.

SUPPORT



Instituto de Química – UNESP
Araraquara

Center for Research, Technology and Education in Vitreous Materials

PROGRAM SCHEDULE

26 Sunday August, 2018	**17:00 - 19:00**	Registration
	19:00 - 21:00	Welcome cocktail
27 Monday August, 2018	**08:45 - 09:00**	Opening session
	09:00 - 09:40	**Plenary session** **Exploring new Optical fibers for prevention and sensing in Medicine** Younes Messaddeq, University Laval, Canada.
	09:40 - 10:20	**Plenary session** **Modelling the luminescence due to 4f – 4f transitions in rare earth based materials: recent advances** Oscar Loureiro Malta, Universidade Federal de Pernambuco, Brazil.
	10:20 - 10:50	Coffee Break
	10:50 - 12:50	Invited Lectures: G, K, Q, T
	12:50 - 14:20	Lunch
	14:20 - 16:20	Invited Lectures: G, K, Q
	16:20 - 16:50	Coffee Break
	16:50 - 18:30	Oral Sessions: B, G, K, L, O, Q, T
	19:00 - 21:00	1st Poster Session: A, B, C, D, E, G, H, I, K, N, O, P, Q, R, T
28 Tuesday August, 2018	**07:00**	Registration
	09:00 - 09:40	**Plenary session** **Nonlinearity management of metal-dielectric nanocomposites and nanostructures** Cid B. de Araújo, Universidade Federal de Pernambuco, Brazil.

09:40 - 10:20	**Plenary session** **Nanoparticles for enhanced cardiovascular imaging** Jose Antonio Garcia-Sole, Universidad Autónoma de Madrid, Spain.
10:20 - 10:50	Coffee Break
10:50 - 12:50	Invited Lectures: B, F, G, H, N, O, Q
12:50 - 14:20	Lunch
14:20 - 16:20	Invited Lectures: B, G, H, I, K, Q, T
16:20 - 16:50	Coffee Break
16:50 - 18:30	Oral Sessions: G, H, I, N, O, Q, T
19:00 - 21:00	2nd Poster Session: B, D, E, G, H, I, K, M, O, P, Q, R, T

29 Wednesday August, 2018

07:00	Registration
09:00 - 09:40	**Plenary session** **Highly efficient and stable hybrid solar cells of nanostructures and bulk heterojunction semiconductors** Jai Singh, Charles Darwin University, Australia.
09:40 - 10:20	**Plenary session** **Shedding light on luminescent nanothermometry** Luis Dias Carlos, University of Aveiro, Portugal.
10:20 - 10:50	Coffee Break
10:50 - 12:30	Oral Sessions: C, D, G, H, I, K, R, U
19:00 - 22:00	Conference banquet

30 Thursday August, 2018	**07:00**	Registration
	09:00 - 09:40	**Plenary session** **Near-Infrared persistent luminescence: the quest for traps** Dirk Poelman, Ghent University, Belgium.
	09:40 - 10:20	**Plenary session** **Advances in the development of III-V semiconductors for photonic applications** Stephen J. Sweeney, University of Surrey, UK.
	10:20 - 10:50	Coffee Break
	10:50 - 12:50	Invited Lectures: G, I, Q
	12:50 - 14:20	Lunch
	14:20 - 16:20	Oral Sessions: C, D, G, N, O, Q
	16:20 - 16:50	Coffee Break
	16:50 - 18:30	Oral Sessions: A, B, D, G, M, N, O, V
31 Friday August, 2018	**10:00 - 11:00**	Closing session

INDEX

ORAL PRESENTATIONS

TUESDAY , AUGUST 28 16

WEDNESDAY, AUGUST 29 22

THURSDAY , AUGUST 30 25

MONDAY , AUGUST 27

SESSION S1
09:00 - 10:20 - Room Maresias

09:00 **S1.1** **(Plenary Lecture)**

Exploring new Optical fibers for prevention and sensing in Medicine

Younes Messaddeq[1]; [1]Université Laval

09:40 **S1.2** **(Plenary Lecture)**

Modelling the luminescence due to 4f – 4f transitions in rare earth based materials: recent advances

Oscar Loureiro Malta[1]; [1]Universidade Federal de Pernambuco

SESSION INV1-A
10:50 - 12:50 - Room Maresias

10:50 **INV1-A.1** **(Invited Lecture)**

Samarium-based Radio-photoluminescence Materials and Applications for Microbeam Radiation Therapy

Go Okada[1], Jumpei Ueda[2], Setsuhisa Tanabe[2], Farley Chicilo[3], George Belev[3], Cyril Koughia[3], Tomasz Wysokinski[4], Dean Chapman[4], Takayuki Yanagida[1], Andy Edgar[5], Safa Kasap[3]; [1]Nara Institute of Science & Technology, [2]Kyoto University, [3]University of Saskatchewan, [4]Canadian Light Source, [5]Victoria University of Wellington

11:20 **INV1-A.2** **(Invited Lecture)**

Assessment of 4H-SiC epitaxial layers and high resistivity bulk crystals for radiation detectors

Krishna C. Mandal[1], Joshua W. Kleppinger[1], Yuriy V. Pershin[1], Towhid A. Chowdhury[1], Mohsin Sajjad[1]; [1]University of South Carolina

11:50 INV1-A.3 (Invited Lecture)

Photoluminescence spectroscopy study of excited-state structures of thermally activated delayed-fluorescence emitters

Hiroyoshi Naito[1], Takashi Kobayashi[1], Kenichi Goushi[2], Chihaya Adachi[2]; [1]Osaka Prefecture University, [2]Kyushu University

12:20 INV1-A.4 (Invited Lecture)

Structure-Property Relationship of the X-Ray Storage Phosphor CsBr:Eu^{2+}

Elmar Kersting[1], Heinz von Seggern[1]; [1]Technische Universität Darmstadt

SESSION INV1-B
10:50 - 12:50 - Camburi Room

10:50 INV1-B.1 (Invited Lecture)

Rare Earth Activated Glasses: Exploratory Investigation Toward New Scintillators

Luiz G Jacobsohn[1], Ugur Akgun[2]; [1]Clemson University, [2]Coe College

11:20 INV1-B.2 (Invited Lecture)

On the Role of Graphene in Ultrafast Fiber Lasers

Hugo Luis Fragnito[1]; [1]Universidade Presbiteriana Mackenzie

11:50 INV1-B.3 (Invited Lecture)

The ultimate performance of ultralong optical fibre Bragg gratings

Raman Kashyap[1]; [1]Polytechnique Montreal

12:20 INV1-B.4 (Invited Lecture)

Femtosecond fiber Bragg gratings for the development of innovative sensors and lasers

Martin Bernier[1]; [1]Université Laval

SESSION INV2-A
14:20 - 16:20 - Room Maresias

14:20 INV2-A.1 (Invited Lecture)

Organic devices for near-infrared emission and up-conversion

Marco Cremona[1], Rian Esteves Aderne[1], Zubair Ahmed[1], Cristiano Legnani[2], Sandra Jenatsch[3], Roland Hany[3], Frank Nüesch[3]; [1]Pontifícia Universidade Católica do Rio de Janeiro, [2]Universidade Federal de Juiz de Fora, [3]Swiss Federal Laboratories for Materials Science and Technology

14:50 INV2-A.2 (Invited Lecture)

Tin(II)2,3-naphtalocyanine molecule used as near-infrared sensitive layer in Organic Up-Conversion Devices

Cristiano Legnani[1], Welber Gianini Quirino[1], Mônica Cristina Melquiades[1], Marco Cremona[2], Rian Esteves Aderne[2]; [1]Universidade Federal de Juiz de Fora, [2]Pontifícia Universidade Católica do Rio de Janeiro

15:20 INV2-A.3 (Invited Lecture)

Synthesis of luminescent rare earth materials as light converting devices

Hermi Felinto Brito[1], Oscar Loureiro Malta[2], Maria Claudia França da Cunha Felinto[3], Ercules Teotonio[4]; [1]Universidade de São Paulo, [2]Universidade Federal de Pernambuco, [3]Instituto de Pesquisas Energéticas e Nucleares, [4]Universidade Federal da Paraíba

15:50 INV2-A.4 (Invited Lecture)

Efficient luminescent colloidal nitride semiconductor nanocrystals

Richard Curry[1]; [1]Photon Science Institute, University of Manchester

SESSION INV2-B
14:20 - 16:20 - Camburi Room

14:20 INV2-B.1 (Invited Lecture)

Twenty-five years of optically stimulated research of artificial materials: a personal perspective

Eduardo G. Yukihara[1,2]; [1]Oklahoma State University, [2]Paul Scherrer Institute

14:50 **INV2-B.2** **(Invited Lecture)**

Optical properties of rare-earth-doped amorphous chalcogenides

Tomas Wagner[1], Lukas Strizik[1], Vit Prokop[1], Jan Hrabovsky[1], Veronika Mouckova[1], Takeshi Aoki[2], Cyril Koughia[3], Safa Kasap[3]; [1]University of Pardubice, [2]Tokyo Polytechnic University, [3]University of Saskatchewan

15:20 **INV2-B.3** **(Invited Lecture)**

Direct Measurements of Energy Levels in Next Generation Nitride Phosphors

Alexander Moewes[1]; [1]University of Saskatchewan

15:50 **INV2-B.4** **(Invited Lecture)**

Second order non linear optical properties induced by thermal poling in microstructured tantalum germanate glasses and glass-ceramics

Gael Yves Poirier[1], Marc Dussauze[2], Vincent Rodriguez[2], Thierry Cardinal[2], Evelyne Fargin[2]; [1]Universidade Federal de Alfenas, [2]Université de Bordeaux

SESSION ORAL1A
16:50 - 18:30 - Room Maresias

16:50 **ORAL1A.1** Photovoltaic Materials

Anomalous Capacitive Features of Perovskite Solar Cells

Osbel Almora Rodríguez[1], Gebhard J. Matt[1], Germà Garcia-Belmonte[2], Christoph J. Brabec[1]; [1]Friedrich-Alexander-Universität Erlangen-Nürnberg, [2]Universitat Jaume I

17:10 **ORAL1A.2** Photonic materials and devices

Femtosecond laser fabrication of cladding waveguides in aminoacid crystal for second harmonic generation

Gustavo Foresto B. Almeida[1], Renato Juliano Martins[1], Jonathas Paula Siqueira[1], Juliana M. P. Almeida[1], José Joatan Rodrigues Jr.[2], Cleber R. Mendonça[1]; [1]Universidade de São Paulo, [2]Universidade Federal de Sergipe

17:30 **ORAL1A.3** Photovoltaic Materials

Bimolecular Recombination in Organic Bulk-Heterojunction Solar Cells

Roberto Mendonça Faria[1], Daniel Roger Amorim[1], Francineide Araujo[1], Douglas José Coutinho[2]; [1]Universidade de São Paulo, [2]Universidade Tecnológica Federal do Paraná

17:50 **ORAL1A.4** Non-oxide glasses Plasmonics

Periodic pattern in Laser induced forward transfer of chalcogenide glass

Juliana M. P. Almeida[1], Kelly Tasso Paula[1], Craig Arnold[2], Cleber R. Mendonça[1]; [1]Universidade de São Paulo, [2]Princeton University

18:10 **ORAL1A.5** Non-linear effects

Zinc selenide optical nonlinearities measured by nonlinear ellipse rotation

Emerson Cristiano Barbano[1], Tiago Gualberto Bezerra de Souza[1], Lino Misoguti[1]; [1]Universidade de São Paulo

SESSION ORAL1B
16:50 - 18:30 - Camburi Room

16:50 **ORAL1B.1** Luminescent materials

Direct femtosecond laser printing of silk fibroin microstructures.

Molíria Vieira dos Santos[1], Kelly Tasso Paula[1], Sidney J.L. Ribeiro[2], Cleber R. Mendonça[1]; [1]Universidade de São Paulo, [2]Universidade Estadual Paulista Júlio de Mesquita Filho

17:10 **ORAL1B.2** Photonic materials and devices

Chalcogenide microstructured optical fibers for Mid-IR Quantum Cascade Laser pigtailing

Johann Troles[1], Celine Caillaud[1,2], Laurent Brilland[2], Sebastien Venck[2], Jean-Luc Jean-Luc.Adam[1], Maxime Duris[1,3], Damien Deubel[3], Loic Bodiou[1], Joel Charrier[1], Mathieu carras Carras[4], Mickael Brun[4]; [1]University of Rennes 1, [2]SelenOptics, [3]Kerdry, [4]Mirsense

17:30 **ORAL1B.3** Semiconductors for optoelectronics

Novel organic semiconductors and their use in ultrafast photo-switching and near-infrared phototransistors

Jesse Thomas Ernest Quinn[1,2]; [1]Universidade de São Paulo, [2]University of Waterloo

17:50 **ORAL1B.4** Luminescent materials

Excitonic luminescence of new mixed-anion compounds

Yuki Iwasa[1], Hiraku Ogino[1], Dongjoon Song[1], Kohei Yamanoi[2], Toshihiko Shimizu[2], Jumpei Ueda[3], Setsuhisa Tanabe[3], Nobuhiko Sarukura[2]; [1]National Institute of Advanced Industrial Science and Technology, [2]Osaka University, [3]Kyoto University

18:10 **ORAL1B.5** Semiconductors for optoelectronics

Large Area $Cd_{0.9}Zn_{0.1}Te$ Pixelated Detector: Fabrication and Characterization

Mohsin Sajjad[1], Joshua W. Kleppinger[1], Towhid A. Chowdhury[1], Krishna C. Mandal[1]; [1]University of South Carolina

TUESDAY , AUGUST 28

SESSION S2
09:00 - 10:20 - Room Maresias

09:00 **S2.1** **(Plenary Lecture)**

Nonlinearity management of metal-dielectric nanocomposites and nanostructures

Cid B. de Araújo[1]; [1]Universidade Federal de Pernambuco

09:40 **S2.2** **(Plenary Lecture)**

Nanoparticles for enhanced cardiovascular imaging

Jie Hu[1], Francisco Sanz Rodriguez[1], Fernando Rivero[1], Dirk Ortgies[1], Rio Aguilar Torres[1], Emma Martín Rodriguez[1], Fernando Alfonso[2], Daniel Jaque[1], Jose Antonio Garcia-Sole[1]; [1]Universidad Autónoma de Madrid, [2]Instituto Ramón y Cajal

SESSION INV3-A
10:50 - 12:50 - Room Maresias

10:50 INV3-A.1 (Invited Lecture)

Recent advances in femtosecond laser writing of mid-infrared waveguides in chalcogenide glasses

David Le Coq[1], Pascal Masselin[2]; [1]University of Rennes 1, [2]University of Littoral Côte d'Opale

11:20 INV3-A.2 (Invited Lecture)

New composites with Potential Random Laser Application

Caroline Cássia Alves[1], Sidney J.L. Ribeiro[2], Cleber R. Mendonça[1], Leonardo De Boni[1], José Maurício Almeida Caiut[1]; [1]Universidade de São Paulo, [2]Universidade Estadual Paulista Júlio de Mesquita Filho

11:50 INV3-A.3 (Invited Lecture)

High intensity femtosecond lasers at IPEN: tools for modification and characterization of materials High intensity femtosecond lasers at IPEN: tools for modification and characterization of materials

Ricardo Elgul Samad[1], Edison Puig Maldonado[1], Lilia Coronato Courrol[2], Wagner de Rossi[1], Denise Maria Zezell[1], Sonia Licia Baldochi[1], Nilson Dias Vieira Junior[1]; [1]Instituto de Pesquisas Energéticas e Nucleares, [2]Universidade Federal de São Paulo

12:20 INV3-A.4 (Invited Lecture)

Synthesis of aminolevulinic acid with metal nanoparticles for Non-noncommunicable diseases diagnosis and therapy

Lilia Coronato Courrol[1], Karina de Oliveira Gonçalves[1], Daniel Perez Vieira[2]; [1]Universidade Federal de São Paulo, [2]Instituto de Pesquisas Energéticas e Nucleares

SESSION INV3-B
10:50 - 12:50 - Camburi Room

10:50 **INV3-B.1** **(Invited Lecture)**

Materials for the Optimization of Solar Energy Harvesting

Carlos FO Graeff[1]; [1]Universidade Estadual Paulista Júlio de Mesquita Filho

11:20 **INV3-B.2** **(Invited Lecture)**

Carbon-based nanostructures in nanoporous films: materials design for optical applications

Luca Malfatti[1,2]; [1]Department of Chemistry and Pharmacy, [2]University of Sassari

11:50 **INV3-B.3** **(Invited Lecture)**

Towards Optically Controlled Quantum Bits in Rare Earth Doped Nanoparticles

Diana Serrano[1], Jenny Karlsson[1], Alexandre Fossati[1], Alban Ferrier[1], Philippe Goldner[1]; [1]Chimie ParisTech

12:20 **INV3-B.4** **(Invited Lecture)**

Morphological Engineering of Bio-Minerals Using Near-IR Mode-locked Lasers – a new approach for integrative manufacturing of hard-soft tissues for in-theatre use!

Animesh Jha[1], Christian Thomas Brown[2], Monty S Duggal[3], Antonios D Anastasiou[1]; [1]University of Leeds, [2]University of St. Andrews, [3]National University of Singapore

SESSION INV4-A
14:20 - 16:20 - Room Maresias

14:20 **INV4-A.1** **(Invited Lecture)**

Second Harmonic Scattering: from liquids to interfaces and bulk materials

Vincent Rodriguez[1]; [1]University of Bordeaux

14:50 INV4-A.2 (Invited Lecture)

Recent developments in Mid-Infrared Fiber Lasers

Réal Vallée[1]; [1]Université Laval

15:20 INV4-A.3 (Invited Lecture)

Innovative Chemical Sensors Based on Optical Polymers

Robert Lieberman[1]; [1]Lumoptix LLC

15:50 INV4-A.4 (Invited Lecture)

Semiconductor nanowires for 3D nano-LEDs and hybrid optoelectronic devices

Tobias Voss[1]; [1]Technische Universität Braunschweig

SESSION INV4-B
14:20 - 16:20 - Camburi Room

14:20 INV4-B.1 (Invited Lecture)

Exciting host-guest luminescent materials for photonic and biophotonic applications

Andrea Simone Stucchi de Camargo[1]; [1]Instituto de Física de São Carlos

14:50 INV4-B.2 (Invited Lecture)

Nanoporous Anodic Alumina: a versatile material for biomedical applications

Lluis F. Marsal[1], Elisabet Xifre-Perez[1], Laura Karen Acosta[1], Laura Pol[1], Josep Ferre-Borrull[1]; [1]Universitat Rovira i Virgili

15:20 INV4-B.3 (Invited Lecture)

Nanophotonic structures for enhanced light-sound interaction

Gustavo S Wiederhecker[1]; [1]Universidade Estadual de Campinas

15:50 **INV4-B.4** **(Invited Lecture)**

Rare Earth Smart Nanomaterials And Their Biological Application

Maria Claudia França da Cunha Felinto[1], Hermi Felinto Brito[2], Ercules Teotonio[3], Oscar Loureiro Malta[4]; [1]Instituto de Pesquisas Energéticas e Nucleares, [2]Universidade de São Paulo, [3]Universidade Federal da Paraíba, [4]Universidade Federal de Pernambuco

SESSION ORAL2A
16:50 - 18:30 - Room Maresias

16:50 **ORAL2A.1** Photovoltaic Materials

Critical analysis of the performance of $In_xGa_{1-x}N$ based solar cells

Carlos Hernández-Gutierréz[1], Arturo Morales-Acevedo[1], Dagoberto Cardona[2], Gerardo Contreras-Puente[3], Máximo López-López[1]; [1]CINVESTAV, [2]ITESO Universidad Jesuita de Guadalajara, [3]Instituto Politécnico Nacional

17:10 **ORAL2A.2** Semiconductors for optoelectronics

Prediction of electrical response of solution-processed thin-film transistors using multifactorial analysis

João Paulo Braga[1], Lucas Augusto Moises[1], Giovani Gozzi[1], Lucas Fugikawa Santos[1]; [1]Universidade Estadual Paulista Júlio de Mesquita Filho

17:30 **ORAL2A.3** Luminescent materials

Highly luminescent microstructures tailored by direct laser writing (DLW) technique in Ag nanoclusters doped fluorophosphate glass: application in 3D waveguide and second harmonic generation (SHG)

Tarcio Castro Silva[1], Alain Abou Khalil[2], Hssen Fares[1], Jean-Charles Desmoulin[2], Sophie Rouzet[2], Clement Strutynski[2], Yannick Petit[2], Sylvain Danto[2], Véronique Jubera[2], Lionel Canioni[2], Marcelo Nalin[1], Sidney J.L. Ribeiro[1], Thierry Cardinal[2]; [1]Universidade Estadual Paulista Júlio de Mesquita Filho, [2]Institute de Chimie de la Matière Condensée de Bordeaux

17:50 **ORAL2A.4** Nanostructures including photonic crystals

Broad-spectrum UV-to-NIR-active photocatalyst based on semiconductors and lanthanides-doped upconversion crystals

Sajjad Ullah[1], Chanchal Hazra[1], Elias Paiva Ferreira Neto[2], Ubirajara Pereira Rodrigues-Filho[2], Sidney J.L. Ribeiro[1]; [1]Universidade Estadual Paulista Júlio de Mesquita Filho, [2]Universidade de São Paulo

18:10 **ORAL2A.5** Photonic materials and devices

Random Laser emission from Rhodamine B-doped disordered fibers network

Lucas Fiocco Sciuti[1], Nathália Tomazio[1], Cleber R. Mendonça[1], Luíza Mercante[2], Daniel Souza Corrêa[2], Leonardo De Boni[1]; [1]Universidade de São Paulo, [2]Nanotechnology National Laboratory for Agriculture

SESSION ORAL2B
16:50 - 18:30 - Camburi Room

16:50 **ORAL2B.1** Nanophotonics

A study of optical power induced spectral shift in Si photonics

Stefan Tenenbaum[1], Roberto Ricardo Panepucci[1]; [1]Centro de Tecnologia da Informação Renato Archer

17:10 **ORAL2B.2** Photonic materials and devices

X-ray Induced Sm-Valence Conversion in Fluoroaluminate Glasses as a Tool for Investigating Dose Distributions in Microbeam Radiation Therapy

Farley Chicilo[1], Go Okada[2], Cyril Koughia[1], George Belev[1], Tomasz Wysokinski[3], Dean Chapman[3], Andy Edgar[4], Fred Geisler[1], Albert Hanson[1], Safa Kasap[1]; [1]University of Saskatchewan, [2]Nara Institute of Science & Technology, [3]Canadian Light Source, [4]Victoria University of Wellington

17:30 **ORAL2B.3** Non-linear effects

Molecular second order process with optical polarization control: effect of chirality in the Hyper-Rayleigh scattering

Raian G Westin[1], Ruben Fonseca Rodriguez[2], Marcelo G. Vivas[3], Cleber R. Mendonça[4], Leonardo De Boni[4]; [1]Instituto de Física de São Carlos, [2]Departamento de Ciencias Básicas, Universidad de la Costa, [3]Universidade Federal de Alfenas, [4]Universidade de São Paulo

17:50 **ORAL2B.4** Photonic materials and devices

Rare-earth Yb^{3+}-doped MoS_2 grown using femtosecond pulsed laser deposition for photonics applications

Chiranjeevi Maddi[1], Aparna P[2], Adarsh KV[2], Animesh Jha[1]; [1]University of Leeds, [2]Indian Institute of Science Education and Research

18:10 **ORAL2B.5** Photoinduced effects

Luminescence of rare earth doping and interface related electrical transport properties of SnO_2 thin films based heterostructures

Luis Vicente de Andrade Scalvi[1], Cristina de Freitas Bueno[1], Diego Henrique Machado Olliveira[1]; [1]Universidade Estadual Paulista Júlio de Mesquita Filho

WEDNESDAY, AUGUST 29

SESSION S3
09:00 - 10:20 - Room Maresias

09:00 **S3.1** **(Plenary Lecture)**

Highly efficient and stable hybrid solar cells of nanostructures and bulk heterojunction semiconductors

Kiran Sridhar Ram[1], Jai Singh[1]; [1]Charles Darwin University

09:40 **S3.2** **(Plenary Lecture)**

Shedding light on luminescent nanothermometry

Luis Dias Carlos[1]; [1]University of Aveiro

SESSION ORAL3A
10:50 - 12:30 - Room Maresias

10:50 **ORAL3A.1** Luminescent materials

X-ray induced persistent luminescence: How and why?

Lucas Carvalho Veloso Rodrigues[1], Danilo Ormeni Almeida Santos[1], Miguel Aguirre Stock Grein Barbará[1], Douglas Lourenço Fritzen[1], Veronica de Carvalho Teixeira[2]; [1]Universidade de São Paulo, [2]Centro Nacional de Pesquisa em Energia e Materiais

11:10 **ORAL3A.2** Quantum dots

Green Aqueous Synthesis of Fluorescent Ag-In-Zn-S Quantum Dot/Biopolymer Nanomaterials for Potential Applications in Solar Energy Harvesting

Herman Sander Mansur[1], Camila Tabare[1], Alexandra A. P. Mansur[1]; [1]Universidade Federal de Minas Gerais

11:30 **ORAL3A.3** Nanophotonics

Multicolour Emissions through Bi-directional Energy Transfer in Nd^{3+}-Sensitized Gd^{3+}-based Core/Shell/Shell Upconverting Nanoparticles

Chanchal Hazra[1], York Estewin Serge Correales[1], Sajjad Ullah[1], Lais Roncalho Lima[1], Sidney J.L. Ribeiro[1]; [1]Universidade Estadual Paulista Júlio de Mesquita Filho

11:50 **ORAL3A.4** Silicon photonics

Rare-earth doped chalcogenide thin film on SOI plat form for Mid-IR integrated silicon photonic applications

Mehrdad Irannejad[1], Sandra Helena Messaddeq[1], Mohammed El Amraoui[1], Philippe Jean[1], Wei Shi[1], Younes Messaddeq[1]; [1]Université Laval

12:10 **ORAL3A.5** Nanostructures including photonic crystals

Compact switchable power divider based on 2D photonic crystal with chalcogenide $Ge_2Sb_2Te_5$ resonator

Daimam Darlam Zimmer[1], Victor Dmitriev[1], Wagner Ormanes Palheta Castro[1]; [1]Universidade Federal do Pará

SESSION ORAL3B
10:50 - 12:50 - Camburi Room

10:50 **ORAL3B.1** Nanostructures including photonic crystals

Controllable graphene W-shaped three-port THz circulator

Wagner Ormanes Palheta Castro[1], Victor Dmitriev[1], Geraldo Melo[1], Daimam Darlam Zimmer[1], Cristiano Braga[1]; [1]Universidade Federal do Pará

11:10 **ORAL3B.2** Energy conversion in Rare Earths doped materials

Optical and dielectric properties of Nd and Sm-doped $Bi_5Ti_3FeO_{15}$ phases

Jeferson Almeida Dias[1], Lia Mara Marcondes[2], Rosario Elida Suman Bretas[1], Márcio Raymundo Morelli[1]; [1]Universidade Federal de São Carlos, [2]Universidade Federal de Alfenas

11:30 **ORAL3B.3** Nanostructures including photonic crystals

The behavior of the deformation vibration of NH3 in semi-organic crystals under high pressure studied by Raman spectroscopy

André Luís de Oliveira Cavaignac[1], Ricardo Jorge Cruz Lima[2]; [1]Universidade Ceuma, [2]Universidade Federal do Maranhão

11:50 **ORAL3B.4** Electro-optic effects

Bi-functional electro-optical material based on ureasil-polyether hybrid

Gustavo Palacio[1,2], Sandra Helena Pulcinelli[1], Rachid Mahiou[2], Damien Boyer[2], Celso Valentim Santilli[1]; [1]Instituto de Química - UNESP / Campus de Araraquara, [2]Institut de Chemie de Clermont-Ferrand - Université Clermont Auvergne

12:10 **ORAL3B.5** Luminescent materials

The relationship between structural and optical properties of Eu^{3+} doped B_2O_3-Al_2O_3 compounds through soft chemical process

Lauro June Queiroz Maia[1], Fausto Melo Faria Filho[2], Rogéria Rocha Gonçalves[3], Sidney J.L. Ribeiro[4]; [1]Universidade Federal de Goiás, [2]Instituto Federal Goiano, [3]Universidade de São Paulo, [4]Instituto de Química - UNESP / Campus de Araraquara

12:30 **ORAL3B.6** Photonic materials and devices

Nano-optofluidics for Surface Modification Sensing in Porous Anodic Alumina

Josep Ferre-Borrull[1], Chris Eckstein[1], Elisabet Xifre-Perez[1], Lluis F. Marsal[1]; [1]Universitat Rovira i Virgili

THURSDAY , AUGUST 30

SESSION S4
09:00 - 10:20 - Room Maresias

09:00 **S4.1** **(Plenary Lecture)**

Near-Infrared persistent luminescence: the quest for traps

Dirk Poelman[1], Olivier Q De Clercq[1], Jiaren Du[1], Katleen Korthout[1]; [1]Ghent University / Universiteit Gent

09:40 **S4.2** **(Plenary Lecture)**

Advances in the development of III-V semiconductors for photonic applications

Stephen J. Sweeney[1]; [1]University of Surrey

SESSION INV5-A
10:50 - 12:20 - Room Maresias

10:50 **INV5-A.1** **(Invited Lecture)**

Germanium and tellurium oxide glasses based metal-nanocomposites: fabrication and optical applications – a review of recent results.

Luciana Reyes Pires Kassab[1], Cid B. de Araújo[2], Davinson Mariano da Silva[1]; [1]Faculdade de Tecnologia de São Paulo, [2]Universidade Federal de Pernambuco

11:20 **INV5-A.2** **(Invited Lecture)**

Optics in two-dimensional materials and nanocomposites

Christiano J.S. de Matos[1]; [1]Universidade Presbiteriana Mackenzie

11:50 **INV5-A.3** **(Invited Lecture)**

Tunning the optical parameters in nanocomposites: electromagnetic modeling for "custom sized" structures

María Luz Martínez Ricci[1]; [1]Universidad de Buenos Aires

SESSION INV5-B
10:50 - 12:50 - Camburi Room

10:50 **INV5-B.1** **(Invited Lecture)**

Random Laser materials: from ultrahigh efficiency to Anderson localization transition

Niklaus Ursus Wetter[1], Ernesto Jimenez-Villar[1]; [1]Instituto de Pesquisas Energéticas e Nucleares

11:20 **INV5-B.2** **(Invited Lecture)**

Surface decontamination by UV emission of rare-earth phosphors

Bruno Caillier[1], José Maurício Almeida Caiut[2], Cristina Muja[1], Philippe Guillot[1]; [1]Institut National Universitaire Champollion, [2]Universidade de São Paulo

11:50 **INV5-B.3** **(Invited Lecture)**

Rare-earth doped ceramic nanophosphors for applications in nanomedicine

Karina Nigoghossian[1]; [1]Tokyo University of Science

12:20 **INV5-B.4** **(Invited Lecture)**

Photochromism of PMMA - phosphotungstic acid and luminescence of elastomeric copolymer - Eu (III) - b-Diketone

Celso Molina[1], Fernanda Ferraz Camilo[1], Ariane Espindola[1], Pamela Corradi Silva[1], Norberto Sanches Gonçalves[1], Rute A.S. Ferreira[2], Luis Dias Carlos[2]; [1]Universidade Federal de São Paulo, [2]University of Aveiro

SESSION ORAL4A
14:20 - 16:20 - Room Maresias

14:20 **ORAL4A.1** Electro-optic effects

Super-resolution Imaging and Photothermal Combustion of Nanoparticles on Plasmonic Gratings

Biyan Chen[1], Naadaa G. Zakiyyan[1], Aaron Wood[1], Keshab Gangopadhyay[1], Jacob McFarland[1], Matthew R. Maschmann[1], Shubhra Gangopadhyay[1,2]; [1]University of Missouri Columbia, [2]National Science Foundation

14:40 **ORAL4A.2** Energy conversion in Rare Earths doped materials

Energy transfer in Eu^{3+}-Tb^{3+} co-doped a-SiN_x thin films

Diego Silva Oliveira[1], Leandro R. Tessler[1]; [1]Universidade Estadual de Campinas

15:00 **ORAL4A.3** Energy conversion in Rare Earths doped materials

High quantum yield of infrared-to-visible upconversion in Er^{3+}/Yb^{3+} co-doped germanate based materials

Rogéria Rocha Gonçalves[1], Fábio José Caixeta[1], Anderson Aparecido Alves Tostes[1], Vítor Santos Souza[1], Leonardo Sousa Rosa[1], Ramon Josef Nicolete Nascimento[1], Felipe Thomaz Aquino[1], Alban Ferrier[2], Philippe Goldner[2]; [1]Universidade de São Paulo, [2]Chimie ParisTech

15:20 **ORAL4A.4** Photovoltaic Materials

Simplified and quick electrical modeling for dye sensitized solar cells: An experimental and theoretical investigation

Rocelito Lopes Andrade[1], Emerson Kohlrausch[1], Matheus Costa Oliveira[1], Marcos Jose Leite Santos[1]; [1]Universidade Federal do Rio Grande do Sul

15:40 **ORAL4A.5** Photoinduced effects

Study of the photothermal effect in conjugated polymers

Deize Corradi Grodniski[1], Lucimara Stolz Roman[1], Marlus Koehler[1]; [1]Universidade Federal do Paraná

16:00 **ORAL4A.6** Photonic materials and devices

Inverse ridge waveguide platform for optical material development

Roberto Ricardo Panepucci[1], Gilliard Nardel Malheiros-Silveira[2], Celio Antonio Finardi[1], Eliana Van Etten[3], Talita S. Burger[3], Ricardo C. G. Silva[3], André M. Daltrini[3]; [1]Centro de Tecnologia da Informação Renato Archer, [2]Universidade Estadual Paulista Júlio de Mesquita Filho, [3]CEITEC S. A. Semiconductors

SESSION ORAL4B
14:20 - 16:20 - Camburi Room

14:20 **ORAL4B.1** Energy conversion in Rare Earths doped materials

Luminescent Solar Concentrators based on europium complexes utilizing commercially available solar protectors as primary ligands

Helmut Isaac Padilla Chavarría[1], Ian Werner[1], Marcelo Folhadella Azevedo[1], Jiang Kai[1]; [1]Pontifícia Universidade Católica do Rio de Janeiro

14:40 **ORAL4B.2** Luminescent materials

Photonic properties of Yb3+ doped binary glasses and glass ceramics for optical refrigeration

Jyothis Thomas[1], Lauro June Queiroz Maia[2], Wonji Park[3], Yannick Ledemi[3], Denis Seletskiy[1], Younes Messaddeq[3], Raman Kashyap[1]; [1]Polytechnique Montreal, [2]Universidade Federal de Goiás, [3]Université Laval

15:00 **ORAL4B.3** Biophotonics

Magneto-Luminescent Nanoprobe of Fe_3O_4 with Engineered Surface Chemistry by Calixarene and Eu^{3+} TTA Complex for Blood Plasma Protein Detection

Latif Ullah Khan[1,2], Diego Stefani Teodoro Martinez[1], Romana Petry[1]; [1]Centro Nacional de Pesquisa em Energia e Materiais, [2]Laboratório Nacional de Nanotecnologia

15:20 **ORAL4B.4** Photoinduced effects

Periodic structures in Ag- based Chalcogenide thin films produced by laser dewetting

Sandra Helena Messaddeq[1], Alexandre Douaud[1], Younes Messaddeq[1]; [1]Université Laval

15:40 **ORAL4B.5** Luminescent materials

Photoluminescence of β-Ga_2O_3 nanostructures: controlled phase synthesis with promising optoelectronic and gas sensor applications

Aline Varella Rodrigues[1], Naira Linhares Sabino[2], Marcelo Ornaghi Orlandi[2]; [1]Instituto de Química - UNESP / Campus de Araraquara, [2]Universidade Estadual Paulista Júlio de Mesquita Filho

SESSION ORAL5A
16:50 - 18:30 - Room Maresias

16:50 **ORAL5A.1** Luminescent materials

Time-resolved Photoluminescence (TRPL) Spectroscopy – a Macroscopic and Microscopic approach from HORIBA Scientific

Joao Lucas Rangel[1], Linda Casson[1], Francis Ndi[1], Igor Carvalho[1]; [1]Horiba Scientific

17:10 **ORAL5A.2** Energy conversion in Rare Earths doped materials

Efficient energy transfer in transparent nanostructured RE3+ doped sol-gel SiO_2-LaF_3 glass-ceramics

Francisco Javier del Castillo Vargas[1], Angel Carlos Yanes Hernández[1]; [1]Universidad de La Laguna

17:30 **ORAL5A.3** Photoinduced effects

Phototinduced Charge Shifts And Electron Transfer In Tetra(aryl)borate Systems: Dynamics Of Radical-Pair, Spintronics Properties And Polymerization Kinetics

Willy Glen Santos[1], Sidney J.L. Ribeiro[2]; [1]Instituto de Química - UNESP / Campus de Araraquara, [2]Universidade Estadual Paulista Júlio de Mesquita Filho

17:50 **ORAL5A.4** Biophotonics

FRET-based communication for Photodynamic Therapy

Cesar Roberto de Souza[1], Walter Jaimes Salcedo[1]; [1]Universidade de São Paulo

18:10 **ORAL5A.5** Waveguides

Ultrafast pulse generation by the use of 2D materials in fiber lasers

Eunézio Antônio Thoroh de Souza[1]; [1]Universidade Presbiteriana Mackenzie

SESSION ORAL5B
16:50 - 18:30 - Camburi Room

16:50 **ORAL5B.1** Photoconductivity

Gelatin electrospun nanofibers filled with Ag/POSS composite for electrically conductive biodegradable films

Ali Riaz[1], Sidney J.L. Ribeiro[2]; [1]Instituto de Química - UNESP / Campus de Araraquara, [2]Universidade Estadual Paulista Júlio de Mesquita Filho

17:10 **ORAL5B.2** Bioimaging

Synthesis and Characterization oZnSe:xMn^{2+} Quantum Dots. Analysis of their Toxicity and kindetic of uptake in vitro (RAW 264-7) as a first step in the development of a Diagnostic Nanoprobe

Zahid Ullah Khan[1,2], Hermi Felinto Brito[1], Latif Ullah Khan[1,3], Hiro Goto[1], Eduardo Sanchez[1], Magnus Ake Gidlund[1,3]; [1]Universidade de São Paulo, [2]Instituto Ciências Biomédicas/ Imunologia, [3]Instituto Ciências Biomédicas

17:30 **ORAL5B.3** Photovoltaic Materials

High efficiency room temperature binder free TiO_2 paste for flexible dye sensitized solar cells

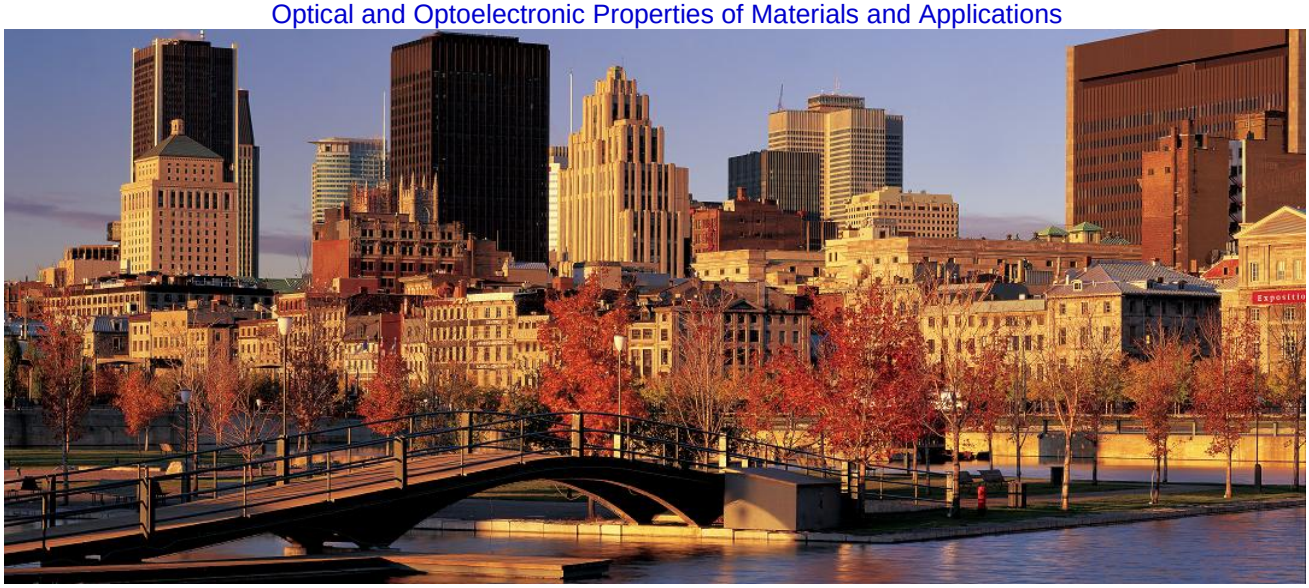
Kishore Kumar Devarepally[1], Younes Messaddeq[2]; [1]Universidade Estadual Paulista Júlio de Mesquita Filho, [2]Université Laval

POSTER PRESENTATIONS

Seventh International Conference on Optical, Optoelectronic and Photonic Materials and Applications 2016

Montreal, 12 – 18 June 2016

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



© Montreal Tourism

ICOOPMA 2016

http://www.icoopma.org **http://icoopma16.org**

POLYTECHNIQUE MONTRÉAL
LE GÉNIE EN PREMIÈRE CLASSE

ICOOPMA is 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. The conference will be held at Polytechnique Montréal, which is rated as among the top universities in Canada in engineering. It is located on the northern slope of Mount Royal in the very heart of Montreal. It is easily accessible by buses or the metro. Montreal is one of the most attractive and lively cities in Northern America with a strong francophone heritage, beautiful historical buildings and churches, parks, museums, lively cafes, and some of the best cuisine in North America.

CONFERENCE CHAIRS, LOCAL ORGANIZING COMMITTEE

Younes Messaddeq, Université Laval, Chair
Raman Kashyap, École Polytechnique de Montréal, Co-Chair
Carlos Silva, Co-Chair, Université de Montréal
Victor Lambin Iezzi, École Polytechnique de Montréal, Conference Secretary and Manager
Sébastien Loranger, École Polytechnique de Montréal, Conference Assistant Manager
Jean-Sébastien Boisvert, École Polytechnique de Montréal, Conference Assistant Manager
Diane Déziel, Université Laval, Conference Assistant Manager
Sandra Helena Messaddeq, Université Laval, Conference Assistant Manager
Robert Johanson, University of Saskatchewan
David Cooke, McGill University
Ramaswami (Sammy) Sammynaiken, University of Saskatchewan
Mojtaba Kahrizi, Concordia University
Dayan Ban, University of Waterloo
Jayshri Sabarinathan, Western University
Stephen O'Leary, UBC-Kelowna
Fiorenzo Vetrone, Université de INRS
Michael Bradley, University of Saskatchewan
Peter Mascher, McMaster University
Derek Oliver, University of Manitoba
Ishiang Shih, McGill University
Ayse Turak, McMaster University
Zetian Mi, McGill University

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 eeffects 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 and terahertz spectroscopy
Optical fibers and fiber Sensors
Plasmons and surface plasmons
Selected topics (e.g. photocatalysis in materials, materials for energy conversion etc)

ICOOPMA HISTORY

ICOOPMA16 is the seventh 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. 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. ICOOPMA *is a non-profit conference that is run by scientists for scientists without any institutional constraints and restrictions*. http:// icoopma.org

VENUE AND CONTACTS

Polytechnique Montreal

http://icoopma.org

IMPORTANT DATES

Oral abstract Submission: 1 March 2016
Poster abstract submission: 1 May 2016 (Latest)
Early registration: 31 March 2016
Late abstracts will be considered at the discretion of the Conference Chairs, based on content, quality and scheduling availability

PLENARY

Setsuhisa Tanabe University of Kyoto, Japan, Glass and Rare-Earth Elements: A Personal Perspective
Frank Hegmann, University of Alberta, Canada, Nanoscale imaging with ultrafast terahertz scanning tunneling microscopy
Paul N Stavrinou, Imperial College London, UK, Photonics with Solution Processable Materials
Ursula Keller, ETH Zurich, Switzerland, Attosecond Ionization Dynamics and Time Delays

INVITED

Mathieu Allix, Conditions Extrêmes et Matériaux: Haute Température et Irradiation, France, Application to transparent polycrystalline ceramics and nanostructured glass-ceramics
Gaetano Assanto, University di Roma Tre, Italy, Solitons, Nematicons
Jean-Louis Auguste, Laboratoire Science des Procédés Céramiques et de Traitements de Surface, France, Photonique fibre: Fibres micro/nanostructurées et matériaux innovants pour la photoniqueJose Azana, INRS, Canada, 'Green' ultrafast optical signal processing
NatalieFrank, Fribourg University, Switzerland, The Photophysics of Polythiophenes - From Solar Cells to Biological Sensors
Rana, Iowa State University, USA, Photo-structural changes in organic semiconductors - experiment and simulation
Eric, University of Houston, USA, Quantum dynamics simulations of materials for energy conversion
Cid B. de Araujo, Universidade Federal de Pernambuco, Brazil, High-order optical nonlinearities in condensed matter
Thierry Cardinal, lnstitut de Chimie de la Matière Condensée de Bordeaux, France, to be confirmed
Luiz Carlos Dias, Aveiro University, Portugal, Hybride Materials
Richard Curry, University of Surrey, UK, ‘Non-Equilibrium Doped Amorphous Chalcogenides’ or 'High-Perfomance Hybrid Organic-Inorganic PbS Nanocrystal Photodetectors'
Jan Dubowski, Université de Sherbrooke, Canada, Laser tuning of emission wavelength of InAs quantum dots
Heike Ebendorff-Heidepriem, University Adelaide, Australia, Special optical fibers
Andy Edgar, Victoria University of Wellington, New Zealand, Optical Materials for High-Resolution X-ray Imaging
Mahmood Fallahi, University of Arizona, USA, High power lasers results
Vassili Fedotov, University of Southampton, UK, Exploiting the full potential of liquid crystals in tunable and re-configurable metamaterials
Marty Fejer, Stanford University, USA, PPLN
Maurizio Ferrari, Institute for Photonics and Nanotechnologies, Italy, Photonic Glass-Ceramics
Hugo, University of Campinas, Brazil, graphene on fibres
Tigran, Université Laval, Canada, The physics of angularly correlated molecular complexes in the service of medicine
Senthil Ganapathy, University of Southampton, UK, Chalcogenide Waveguides on Silicon for Mid-infrared Sensing Applications
Leonid B. Glebov, University of Central Florida, USA, Volumetric grating on glass
Anderson Gomes, Federal University, Recife, Brazil, Random lasers
Mohammed Gondal, King Fahd University, Saudi Arabia, Synthesis of colloidal nanocrystal-based nanocomposites semiconductors for photonic applications using advanced pulsed laser ablation in liquids technique
Frank Heggman, University of Alberta, Canada, Nanoscale imaging with ultrafast terahertz scanning tunneling microscopy
Jong Heo, Pohang University of Science and Technology, Korea, Photoluminescence from quantum dots dictated by the host glass compositions
Dan Hewak, University of Southampton, UK, Advancing the applications of chalcogenide glass
Matthias C. Hoffmann, Slac National Accelerator Laboratory, USA, to be confirmed
Chennupati Jagadish, Australian National University, Australia, Semiconductor nanowires as photonics platform
Himanshu Jain, Lehigh University, Pennsylvania, USA, to be confirmed
Peter Jepsen, Technical University of Denmark, Denmark, to be confirmed
Animesh Jha, University of Leeds, UK, Ultrafast pulsed laser induced phase transformation and densification in phosphate biominerals - its consequences in dental/bone tissue engineering.
Micheal Johnston, Oxford, UK, Ultrafast THz spectroscopy on III-V semiconductors
Nicolas Joly, Max Plank Institute for the Science of Light, Germany, to be confirmed
Saulius Juodkazis, Centre for Micro-Photonics, Australia, to be confirmed
Pat Kambhampati, McGill University, Montreal, Canada, to be confirmed
Ajoy Kumar Kar, Herriot Watt, UK, fs laser writing of stuff
Ursula Keller, Institute of Quantum Electronics, Zurich, Switzerland, Attosecond Ionization Dynamics and Time Delays

Tony Kenyon, UCL, UK, Integrating photonics and resistance switching: light-triggered non-volatile memory and neuromorphic systems

Sanjay Kher, Raja Ramanna Centre for Advanced Technology, India, Radiation sensing in hazardous environments using long period gratings

Anna Köhler, Bayreuth, Organic semiconductor materials

Jacob Krich, University of Ottawa, Canada, Presentation en Thursday, June 16th : title to be confirmed

Sanjay Krishna, University of New Mexico, USA

Roger Lewis, University of Wollongong, Australia, Progress in terahertz characterization of materials

James Lloyd-Hughes, University of Warwick, UK, Spin-orbit coupling probed in 2D materials using terahertz time-domain spectroscopy

Oscar Loureiro Malta, Universidade Federal de Pernambuco, Brazil, Spectroscopy theory and applications

Andre Luiton, University of Adelaide, Australia, Electronic Combs: Next Generation Spectroscopic Tools

Krishna Mandal, University of South Carolina, USA, High resolution radiation detectors based on widebandgap 4H-SiC (epitaxial and bulk) semiconductors

Marian Marciniak, National Institute of Telecommunications, Poland, Mechanically tunable 2D and 3D photonic crystals for strain sensing and structural health monitoring

Walter Margulis, European Optical Society, Sweden, Poled fibers and applications

Lluis Marsal, Universitat Rovira i Virgili, Spain, Nanoporous anodic alumina photonic structures for biosensing

Richard Martel, Université de Montréal, Canada,

Peter Mascher, McMaster University, Canada, The role of rare earth doping in silicon photonics

Patrick McNally, Nanomaterials Processing Laboratory, Ireland, X-ray diffraction imaging for real-time in situ monitoring of future 3-D photonics system packages.

Andrei Melloni, Politechnico di Milano, Italy, Ring resonators, Chalcogenide waveguides

Paul Meredith, The University of Queensland, Australia, Organohalide perovskite photodetectors

Bill Milne, University of Cambridge, UK,

Maria Mitkova, Boise State University, USA, Optically induced processes in chalcogenide glasses - from visible light to x-rays

Roberto Morandotti, INRS, Canada, Quantum pair generation

David N Payne, Optoelectronics Research Centre, University of Southampton, UK, to be confirmed

Hiroyoshi Naito, Osaka Prefacture University, Japan, Time-resolved photoluminescence and photoinduced absorption spectroscopies in thermally activated delayed fluorescence emitters - contribution of higher triplet states to efficient delayed fluorescence

Singo Nakane, Nippon Electric Glass CO.,Ltd, Japan, Li2O-Al2O3-SiO2 glass ceramics for optical application

Edouardo, Unifran University, Brazil, Influence of dysprosium incorporation on the structure and luminescence properties of LaNbO4 white phosphor

Arokia Nathan, University of Cambridge, UK, persistent photoconductivity

Virginie Nazabal, Equipe Verres et Céramiques, France, Optical waveguides

Jenny Nelson, Imperial College, UK, polymer solar cells

Yasutake Ohishi, Toyota Technological Institute, Japan, Special optical fibers

Annamaria Petrozza, Italian Institute of Technology, Italy, Photovoltaics based on organolead perovskites

Dirk Peolman, University of Ghent, Belgium, Near-infrared persistent luminescence for medical imaging

Annie Pradel, l'Institut Charles Gerhardt, Ge-based chalcogenide amorphous films: structural investigation and first steps towards the fabrication of CO2 gas microsensors

Xiong Quihua, Nanyang Technology University, Singapore, Semiconductors- a game changer for optical cooling

Alla Reznik, Lakehead University, Canada, Advanced in x-ray photoconductors

Sidney Ribeiro, UNESP, Brazil, To be confirmed

Lucas, Unifran University, Brazil, Synthesis of crystalline Nd:YVO4 nanoparticles obtained by the non-hydrolytic sol-gel process

Harry Ruda, University of Toronto, Canada, Toward fundamental limits on the optoelectronic characteristics of single nanowires

Garry Rumbles, National Renewable Energy Laboratory, USA, to be confirmed

Christian Rüssel, Laboratory of Glass Science, Germany,

Pierre Ruterana, CIMAP UMR, France, Strain relaxation mechanisms in InGaN/GaN heterostructures and emission in InGaN/GaN quantum wells

Mohammed Saad, Thorlabs, Fluoride Glasses and Fibers for mid-Infrared applications

Markus Schmidt, Institute of Photonic Technology and Abbe Center of Photonics, Germany, Chalcogenide and liquid nanowires in fibers: a new base for supercontinuum generation

Angela Seddon, Institute of Chemistry of High-Purity Substances of the Russian Academy of Sciences, Russia, Progress towards -mid-infrared (MIR) supercontinuum lasers for biomedical application and the MIR optical biopsy

Denis Seletskiy, University of Konstanz, Germany, THz vacuum, single quantum dots - ultrafast, exciton-phonon

Jack Silver, Brunel University, UK, Phosphors and Scintillators: Recent Progress

Igor Skripachev, King Fahd University of Petroleum, Saudi Arabia, Saudi Arabia, Chalcogenide glasses

Ajay R Srimath Kandada, Istituto Italiano di Tecnologia, Italy, Photophysics of hybrid perovskites

Paul Stavrinou, Imperial College, UK, Photonics with Solution Processable Materials

Lukas Strizik, University of Pardubice, Pardubice, Czech Republic, Quadrature frequency resolved spectroscopy (QFRS) of upconversion photoluminescence in GeGaS: Er3+; discrimination between excited state absorption (ESA) and energy transfer upconversion (ETU)

Stephen Sweeney, University of Surrey, UK, to be confirmed

Setsuhisa Tanabe, University of Kyoto, UK, Glass and Rare-Earth Elements: A Personal Perspective

Philippe Thomas, Science of Ceramic Processing and Surface Treatments laboratory, France, Synthesis, structure,

non-linear optical and lasing properties of tellurium oxide based glasses and glass-ceramics
Dmitry Turchinovich, Max Plank Institute of Polymer Research, Germany, Ultrafast electron transport in graphene and magnetic nanostructures
Réal, COPL, Canada, Development of laser sources addressing the new challenges of the Mid-infrared
Valy, Utah, Spintronics on organic semiconductor materials
Heinz von Seggern, University of Darmstadt, Germany, Germany, Influence of hydration on structure, sensitivity and spatial resolution of the X-Ray storage phosphor CsBr:Eu
Lei Wei, Nanyang technological University, Singapore, Recent development and perspectives of multimaterial fibers
Richard Williams, Wake Forest University, USA, Using extra information encoded in the pulse shape to improve proportionality of scintillators
Lothar Wondraczek, Advanced Glasses and Glass-Ceramics, Otto-Schott-Institute, Germany,
Takayuki Yanagida, Nara Institute of Science and Technology, Japan, Development of scintillator materials and scintillation detectors
Long Zhang, China, China, Microstructure-composited materials for high-power lasers

INTERNTIONAL PROGRAM COMMITTEE

Amin Abdolvand, University of Dundee, UK
Rolindes Balda, University of the Basque Country, Spain
Dayan Ban, University of Waterloo, Canada
David Binks, University of Manchester, UK
Michael P Bradley, University of Saskatchewan, Canada
David Cooke, McGill University, Canada
Richard J Curry, University of Surrey, UK
Jan Dubowski, University of Sherbrooke, Canada
George Fern, Brunel University, UK
Shubhra Gangopadhyay, University of Missouri-Columbia, USA
Anderson S L Gomes, Federal University of Pernambuco, Brazil
Dan Hewak, University of Southampton, UK
Richard Hogg, University of Sheffield, UK
Stuart Jackson, University of Sydney, Australia
Animesh Jha, University of Leeds, UK
Gin Jose, University of Leeds, UK
Mojtaba Kahrizi, Concordia University, Canada
Raman Kashyap (Co-Chair, 2016), Polytechnique Montréal, Canada
Anthony J Kenyon, University College London, UK
Sandor Kokenyesi, University of Debrecen, Hungary
Jayanta Kumar Sahu, University of Southampton, UK
Paolo Laporta, Polytecnic di Milano, Italy
Byoungho Lee, Seoul National University, Korea
Hans Georg Limberger, Swiss Federal Institute of Technology, Switzerland
Krishna Mandal, University of South Carolina, USA
Kevin Macdonald, University of Southampton, UK
Christopher F McConville, University of Warwick, UK
Younes Messaddeq (Chair, 2016), Université Laval, Canada
Hiroyoshi Naito, Osaka Prefecture University, Japan
Marcelo Nalin, UNESP Araraquara, Brazil
Yasutake Ohishi, Toyota Technological Institute, Japan
Derek Oliver, University of Manitoba, Canada
Sidney J L Ribeiro, Sao Paulo State University, Brazil
Jayshri Sabarinathan, Western University, Canada
Jayanta Kumar Sahu, University of Southampton, UK
Peyman Servati, University of British Columbia, Canada
Ishiang Shih, McGill University, Canada
Carlos Silva (Co-Chair, 2016), Université de Montréal, Canada
Stephen Sweeney, University of Surrey, UK
Setsuhisa Tanabe, Kyoto University, Japan
James R Taylor, Imperial College London, UK
Fiorenzo Vetrone, INRS, Canada
Furong Zhu, Hong Kong Baptist University, Hong Kong

INTERNTIONAL ADVISORY COMMITTEE

John Ballato, Clemson University, USA
David Binks, University of Manchester, UK
Mikhail Brik, University of Tartu, Estonia
Ray DeCorby, University of Alberta, Canada
Michael Fokine, KTH Royal Institute of Technology, Stockholm, Sweden
Senthil Ganapathy, University of Southampton, UK
Anderson S L Gomes, Federal University of Pernambuco, Brazil
Chris Haugen, National Institute for Nanotechnology, Canada
Jorn M. Hvam, Technical University of Denmark, Denmark
Animesh Jha (Conference Chair, 2014), University of Leeds, UK
Hironori Kaji, University of Kyoto, Japan
Safa Kasap (Chair), University of Saskatchewan, Canada
Raman Kashyap (Co-Chair, 2016), Polytechnique Montréal, Canada
Tony Kenyon, University College London, UK
Sandor Kugler, Budapest University of Technology, Hungary
Roger Lewis, University of Wollongong, Australia
Marian Marchiniak, National Institute of Telecommunications, Poland
Liuis Marsal, Universitat Rovira i Virgili, Spain
Maurizio Martino, Universita del Salento, Italy

Peter Mascher, McMaster University, Canada
Patrick McNally, Dublin City University, Ireland
Younes Messaddeq (Conference Chair 2016), Université Laval, Canada
Steve Moffatt, Applied Materials Inc, USA
Hiroyoshi Naito, Osaka Prefecture University, Japan
Marcelo Nalin, UNESP Araraquara, Brazil
Taiichi Otsuji, Tohoku University, Japan
Aaron Peled, HAIT, Israel
Dirk Poelman, Ghen University, Belgium
Asim Ray, Brunel University, UK
Sidney José Lima Ribeiro, UNESP Araraquara, Brazil
Andrei Sazonov, University of Waterloo, Canada
Jack Silver, Brunel University, UK
Jai Singh, Charles Darwin University, Australia
Stephen Sweeney (Conference Co-Chair, 2014), University of Surrey, UK
Setsuhisa Tanabe, Kyoto University, Japan
Ashok Vaseashta, Institute for Advanced Sciences Convergence and Int'l Clean Water Institute, USA
Tomas Wagner, Pardubice University, Czech Republic

Mitsuo Yamaga, Gifu University, Japan

STEERING COMMITTEE

Safa Kasap (Chair), University of Saskatchewan, Canada (Conference Chair, 2008)
Raman Kashyap (Vice-Chair), École Polytechnique de Montréal, Universite de Montreal, Canada (Conference Co-Chair, 2016)
Animesh Jha, University of Leeds, UK (Conference Chair, 2014)
Asim Ray (Emeritus), Brunel University (Conference Chair, 2007)
Hiroyoshi Naito, Osaka Prefecture University, Japan (Conference Chair, 2012)
Jai Singh (Emeritus), Charles Darwin University, Australia (Conference Chair, 2006)
Sandor Kugler, Budapest University of Technology, Hungary (Conference Chair, 2010)
Setsuhisa Tanabe, University of Kyoto, Japan (Conference Co-Chair, 2012)
Stephen Sweeney, University of Surrey, UK (Conference Co-Chair, 2014)

CONFERENCE PAPERS

Papers that represent complete works may be submitted to a special issue of the *Journal of Materials Science:*

Journal of Materials Science: Materials in Electronics

Springer

A special issue dedicated to this conference
Impact Factor: 1.97 (2013), 1.57 (2014)

SPECIAL ISSUE
Materials for Optoelectronics and Photonics

GUEST EDITORS
Younes Messaddeq, Raman Kashyap and Carlos Silva

POLYTECHNIQUE MONTRÉAL
LE GÉNIE EN PREMIÈRE CLASSE

OZ Optics LIMITED
OZ Optics
www.ozoptics.com

CST

APPLIED MATERIALS®

Springer
the language of science

THORLABS

WILEY
Publishers Since 1807


Mc
Graw
Hill


PEARSON
Education

Sixth International Conference on Optical, Optoelectronic and Photonic Materials And Applications 2014

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

ICOOPMA 2014

http://www.icoopma14.org

Located in beautiful West Yorkshire in northern England, Leeds is the third largest city in the UK. It is considered to be an important cultural, financial and commercial center in northern England with striking architecture, numerous restaurants, theaters, galleries and museums. The University of Leeds was founded in 1904 and is among the top universities in the UK and among the top 100 in the world. William Henry Bragg (Nobel Laureate, 1915 shared with his son, William Lawrence Bragg) carried out his pioneering X-ray diffraction experiments while he was the Cavendish Chair at the University Leeds. The conference will be held in the Faculty of Engineering at the University of Leeds, one of the largest universities in the UK situated on the edge of the city center.

ICOOPMA2014

27th July – 1st August

Leeds, UK

UNIVERSITY OF LEEDS

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.

The University of Leeds

The University of Leeds

CONFERENCE CHAIRS AND LOCAL ORGANIZING AND PROGRAM COMMITTEES

Animesh Jha
Conference Chair and Program Chair
University of Leeds, UK
Stephen Sweeney
Conference Co-Chair, University of Surrey, UK

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 sixth 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, 10, 12 were held in London, England (2007), Edmonton, Canada (2008), Budapest, Hungary (2010), and Nara, Japan and each had over 200 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. ICOOPMA is a non-profit conference run by scientists for scientists without any institutional constrains and restrictions: http:// icoopma.org

VENUE AND CONTACTS

The conference will be held in the Faculty of Engineering at the University of Leeds
http://www.icoopma14.org
For general enquiries and registration enquiries please contact the ICOOPMA14 Conference Secretariat at:
E: ICOOPMA14@leeds.ac.uk
T: +44 (0)113 343 8104
F: +44 (0)113 343 2511

IMPORTANT DATES

Call for abstract: Opens Friday 1 November 2013
Oral abstract Submission: Monday 17 March 2014
Poster abstract submission, Friday 30 May 2014
Abstract acceptance: Thursday 10 April 2014

Full paper submission: Sunday 31 August 2014
Registration: Opens Monday 27 January 2014
Early registration: Before Friday 30 May 2014

INTERNATIONAL PROGRAM COMMITTEE

Animesh Jha (Chair) University of Leeds, UK
Amin Abdolvand, University of Dundee, UK
Rolindes Balda, University of the Basque Country, Spain
Dayan Ban, University of Waterloo, Canada
David Binks, University of Manchester, UK
Dr Michael P Bradley, University of Saskatchewan, Canada
Richard J Curry, University of Surrey, UK
Maurizio Ferrari, IFN-CNR CSMFO Lab. Trento, Italy
Shubhra Gangopadhyay, University of Missouri-Columbia, USA
Dan Hewak, University of Southampton, UK
Richard Hogg, University of Sheffield, UK
Stuart Jackson, University of Sydney, Australia
Animesh Jha, University of Leeds, UK
Gin Jose, University of Leeds
Raman Kashyap, Ecole Polytechnique de Montreal, Montreal
Anthony J Kenyon, University College London, UK
Sandor Kökenyesi, University of Debrecen, Hungary
Paolo Laporta, Polytecnic di Milano, Italy
Byoungho Lee, Seoul National University, Korea
Hans Georg Limberger, Swiss Federal Institute of Technology Lausanne (EPFL)
Kevin Macdonald, University of Southampton, UK
Christopher F McConville, University of Warwick, UK
Hiroyoshi Naito, Osaka Prefecture University, Japan
Yasutake Ohishi, Toyota Technological Institute, Japan
Sidney J L Ribeiro, São Paulo State University, Brazil
Jayshri Sabarinathan, Western University, Canada
Jayanta Kumar Sahu, University of Southampton, UK
Angela B Seddon, University of Nottingham, UK
Peyman Servati, University of British Columbia, Canada
Jack Silver, Brunel University, UK
Stephen Sweeney, University of Surrey, UK
Setsuhisa Tanabe, Kyoto University, Japan
James R Taylor, Imperial College London, UK
Furong Zhu, Hong Kong Baptist University, Hong Kong\

INTERNATIONAL ADVISORY COMMITTEE

Safa Kasap (Chair), University of Saskatchewan, Canada
Raman Kashyap (Vice Chair), Ecole Polyetchnique, Universite de Montreal, Canada
John Ballato, Clemson University, USA
Mikhail Brik, University of Tartu, Estonia
Ray DeCorby, University of Alberta, Canada
Michael Fokine, KTH Royal Institute of Technology, Stockholm, Sweden
Senthil Ganapathy, University of Southampton, UK
Chris Haugen, National Institute for Nanotechnology, Canada
Jørn M. Hvam, Technical University of Denmark, Denmark
Animesh Jha (Conference Chair, 2014), University of Leeds, UK
Hironori Kaji, University of Kyoto, Japan
Tony Kenyon, University College London, UK
Sandor Kugler, Budapest University of Technology, Hungary
Roger Lewis, University of Wollongong, Australia
Lluis Marsal, Universitat Rovira i Virgili, Spain
Maurizio Martino, Università del Salento, Italy
Peter Mascher, McMaster University, Canada
Patrick McNally, Dublin City University, Ireland
Younes Messaddeq, University of Laval, Quebec, Canada
Steve Moffatt, Applied Materials Inc, USA
Hiroyoshi Naito, Osaka Prefecture University, Japan
Taiichi Otsuji, Tohoku University, Japan
Aaron Peled, HAIT, Israel
Dirk Poelman, Ghen University, Belgium
Asim Ray, Brunel University, UK
Andrei Sazonov, University of Waterloo, Canada
Jai Singh, Charles Darwin University, Australia
Stephen Sweeney (Conference Co-Chair, 2014), University of Surrey, UK
Setsuhisa Tanabe, Kyoto University, Japan
Ashok Vaseashta, Institute for Advanced Sciences Convergence and Int'l Clean Water Institute, Herndon, VA USA
Tomas Wagner, Pardubice University, Czech Republic
Ralph Whaley, Ohio University, Athens, USA
Mitsuo Yamaga, Gifu University, JapanSteering Committee

STEERING COMMITTEE

Safa Kasap (Chair), University of Saskatchewan, Canada (Conference Chair, 2008)
Raman Kashyap (Vice-Chair), Ecole Polyetchnique, Universite de Montreal, Canada (Conference Vice Chair, 2008)
Animesh Jha, University of Leeds, UK (Conference Chair, 2014)
Sandor Kugler, Budapest University of Technology, Hungary (Conference Chair, 2010)
Hiroyoshi Naito, Osaka Prefecture University, Japan (Conference Chair, 2012)
Asim Ray (Emeritus), Brunel University (Conference Chair, 2007)
Jai Singh, Charles Darwin University, Australia (Conference Chair, 2006)
Stephen Sweeney, University of Surrey, UK (Conference Co-Chair, 2014)
Setsuhisa Tanabe, University of Kyoto, Japan (Conference Co-Chair, 2012)

LOCAL ORGANIZING COMMITTEE

Animesh Jha (Conference Chair), University of Leeds
Stephen Sweeney (Conference Co-chair), University of Surrey
Alison Whiteley, University of Leeds, Conference Secretary
Senthil Ganapathy, University of Southampton
Dan Hewak, University of Southampton
David Binks, University of Manchester
Tom Brown, University of St Andrews
Richard A Hogg, University of Sheffield
Gin Jose, University of Leeds
Tony Kenyon, University College London
Asim Ray, Queen Mary & Westfield
Billy Richards, University of Leeds
Angela Seddon, University of Nottingham

Keynote Speaker

Sir David Neil Payne
Professor at the University of Southampton and Director of the Optoelectronics Research Centre

Plenary Lectures

Neil Greenham
Professor, Department of Physics, University of Cambridge, UK

James Harris,
James and Ellenor Chesebrough Professor, Department of Electrical Engineering, Stanford University, USA

Ortwin Hess
Leverhulme Chair in Metamaterials, Co-Director, Centre for Plasmonics & Metamaterials; The Blackett Laboratory and Department of Physics, Imperial College London, London, UK

Stephen Elliott
Professor, Department of Chemistry, University of Cambridge, UK

Jerry R Meyer
Navy Senior Scientist for Quantum Electronics (ST) and Acting Head of the Quantum Optoelectronics Section, Naval Research Laboratory, Washington DC

C. Kumar N Patel
President and CEO of Pranalytica, Santa Monica, California, USA

Wolfgang Stolz
Professor and Co-Head of the Structure and Technology Research Laboratory in the Material Sciences Center at Philipps-University of Marburg (Germany)

INVITED SPEAKERS

Jean-Luc Adam, University of Rennes 1, France
Amin Abdolvand, University of Dundee, UK
Dominique Ausserre, The Institute of Molecules and Materials of Le Mans, France
David Binks, University of Manchester, Manchester UK
Rana Biswas, Iowa State University & AMes Laboratory, USA
Alain Braud, CIMAP Lab., University of Caen, France
Guilio Cerullo, Dipartimento di Fisica, Politecnico di Milano, Italy
Monica Craciun, Centre for Graphene Science, University of Exeter, UK
Giuseppe Della Valle, Politecnico di Milano, Italy
Heike Ebendorff-Heidepriem, The University of Adelaide, Australia
Vassili Fedotov, ORC, University of Southampton, UK
Toney Fernandez, CSIC Madrid, Spain
Miloslav Frumar, University of Pardubice, Czech Republic
Boris Galagan, Russian Academy, Moscow
Malte C. Gather, University of St Andrews, UK
Jose Gonzalo, Laser Processing Group, Instituto de Optica, CSIC, Spain
James Greer, PVD Products, USA
Duncan Hand, Heriot-Watt University, Edinburgh
Olav Gaute Hellesø, University of Tromsø, Norway
Jong Heo, POSTECH, Pohang, South Korea
Sven Höfling, University of St Andrews, Scotland
Richard Hogg, University of Sheffield , UK
Chung-Che Huang, Southampton University, UK
Raman Kashyap, Ecole Polytechnique de Montreal,
Andrey Kazanskii, M.V. Lomonosov Moscow State University, Russia
Nazir Kherani, University of Toronto, Canada
Jonathan Knight, The University of Bath, UK
Roger Lewis, Wollongong, Australia
Huiyun Liu, University College London, UK
James Lloyd-Hughes, University of Warwick, UK
David Lockwood, NRC, Canada
Marian Marcinak, National Institute of Telecommunications, Department of Transmission and Optical technologies
Andrew Marshall, Lancaster University, UK
Maurizio Martino, Università del Salento, Lecce, Italy
Peter Mascher, McMaster University, Canada
Younes Messaddeq, University of Laval, Quebec, CA
Benjamin Metcalf, University of Oxford, UK
Daniel Milanese, Politecnico di Torino, Italy
Kohki Mukai, Yokohama National University, Japan
Hiroyoshi Naito, Osaka Prefecture University, Japan
Jayakrupakar Nallala, University of Exeter, UK
Geoffrey Nash, University of Exeter, UK
Yasutake Ohishi, Toyota Technological Institute, Nagoya, Japan
Derek Oliver, University of Manitoba, Canada
Yannick Petit, Université Bordeaux, France
Mihai Popescu, University of Bucharest
Annie Pradel, Université Montpellier, France
Debabrata Pradhan, Indian Institute of Technology, Kharagpur, India
Gaddam Vijaya Prakash, Indian Institute of Technology Delhi, India

Pierre Ruterana, CNRS/CIMAP, Caen, France
Jayanta Kumar Sahu, University of Southampton, UK
Gaetano Scamarcio, University of Bari, Italy
Angela Seddon, University of Nottingham, UK
Brandon Shaw, Naval Research Laboratory
Mark Silver, Thales UK, UK
Jai Singh, Charles Darwin University, Australia
Samuel Shutts, Cardiff University, UK
Mitsuru Sugawara, QD Laser, Japan
Yohihiro Takahashi, Tohoku University, Japan
Setsuhisa Tanabe, Kyoto University, Japan
Lucia Torsi, University of Bari Aldo Moro, Italy
Yuen Hong Tsang, The Hong Kong Polytechnic University, Hong Kong
Tao Wang, The University of Sheffield, UK
Ji Wang, Corning Inc, USA
Tomas Wagner, Univerzita Pardubice, Czech Republic
Rafal J Wiglusz, Polish Academy of Sciencs, Wroclaw
James Wilkinson, University of Southampton, UK
Masahiro Yoshimoto, Kyoto Institute of Technology, Japan

ICOOPMA14 WORKSHOP

Chair: Dan Hewak, University of Southampton

Introduction to Advanced Photonic Materials

University of Leeds

Sunday 27 July 2014, 13:00 – 17:30

Topics

Graphene – University of Exeter Graphene Centre

Organic Optoelectronic Complexes – Advanced Technology Institute – University of Surrey

Amorphous Semiconductors – University of Cambridge

Metamaterials – Centre for Nanostructured Photonic Metamaterials – University of Southampton

Speakers

Introduction to Organic Optoelectronic Complexes, Richard Curry, Advanced Technology Institute, University of Surrey

Introduction to Metamaterials, Vassili Fedotov, Centre for Nanostructured Photonic Metamaterials, University of Southampton

Introduction to Graphene, Monica Craciun, University of Exeter Graphene Centre

Introduction of Amorphous Semiconductors, Jiri Orava, Department of Materials Science & Metallurgy at the University of Cambridge and the Advanced Institute for Materials Research, Tohoku University, Japan

CONFERENCE PROCEEDINGS

General Conference Proceedings is

J. Physics: Conference Series
(Open Access)

Selected papers will be published in

Semiconductor Science and Technology (Institute of Physics)

REGISTRATION FEES

Early Registration Fee – on or before Friday 23 May 2014

Regular	£542.00
Student	£307.00
Invited Speaker	£487.50

Standard Registration Fee - from Saturday 24 May 2014

Regular	£642.00
Student	£352.00
Invited Speaker	£578.50

On-site registration fee

Regular	£677.00
Student	£407.00

Conference fee includes: Attendance at all the sessions; Book of Abstracts; refreshments and lunches; registration and poster session buffets; conference banquet and keynote address; and conference excursion.

Workshop Registration fee £100.00
Workshop fee includes: Attendance at the workshop; relevant workshop materials; and afternoon refreshments.
Bookings and payment, by credit or debit card, should be completed through our secure Online Store.
For online booking queries, other enquiries, or potential delegates who have any special requirements, please contact the ICOOPMA 2014 Conference Secretariat as soon as possible:
ICOOPMA14 Secretariat
T: + 44 (0)113 343 8104
E: ICOOPMA14@leeds.ac.uk

CONFERENCE SPONSORS AND SUPPORTERS

UNIVERSITY OF LEEDS

APPLIED MATERIALS

BRUKER

MId- to NEaR infrared spectroscopy
for improVed medical diAgnostics

A European Commission
Framework Seven (FP7) Project (317803)
www.minerva-project.eu

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

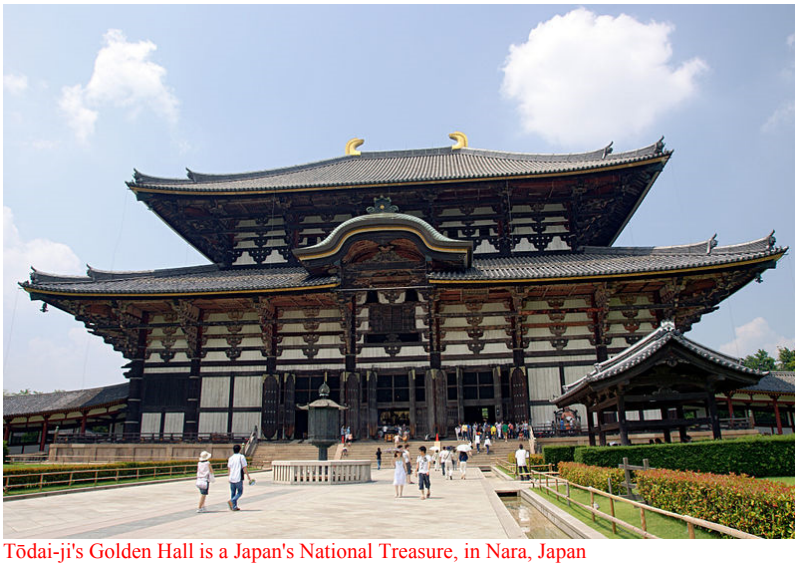
ICOOPMA2012

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

International Advisory Committee

Safa Kasap, Chair, University of Saskatchewan, Canada

Hiroyoshi Naito, Osaka Prefecture University, Japan (ICOOPMA12 Chair)

Setsuhisa Tanabe, Kyoto University, Japan (ICOOPMA12 Co-Chair)

Jai Singh (ICCOPMA06 Chair), Charles Darwin University, Australia

Koichi Shimakawa, Gifu University, Japan

Tomas Wagner, Pardubice University, Czech Republic

Sandor Kugler (ICOOPMA10 Chair), Budapest University of Technology, Hungary

Asim Ray (ICOOPMA07 Chair), The Wolfson Centre for Materials Processing, Brunel University, UK

Takeshi Aoki (Honorary), Tokyo Polytechnic University, Japan

Raman Kashyap, Ecole Polyetchnique, Universite de Montreal, Canada

Aaron Peled, HAIT, Israel

Ray DeCorby, University of Alberta, Canada

Chris Haugen, National Institute for Nanotechnology, Edmonton, Canada

Jørn M. Hvam, Technical University of Denmark, Denmark

Ashok Vaseashta, Institute for Advanced Sciences Convergence and International Clean Water Institute, Herndon, VA, and US Department of State, USA

Patrick McNally, Dublin City University, Ireland

Stephen Sweeney, University of Surrey, UK

Animesh Jha, University of Leeds, UK

Ralph Whaley, Ohio University, Athens, USA

John Ballato, Clemson University, USA

Andrew Edgar, Victoria University, New Zealand

Ivan Blonsky, NASU Center, Laser Femtosecond Complex Kiev, Ukrain

Hans Georg Limberger, Ecole Polytechnique Fédérale de Lausanne, Switzerland

Roger Lewis, University of Wollongong, Australia

Peter Mascher, McMaster University, Canada

Kenkichi Tanioka, NHK, Japan

Taiichi Otsuji, Tohoku University, Japan

Hironori Kaji, Institute for Chemical Research, Kyoto University, Japan

Martin Mika, Institute of Chemical Technology, Prague, Czech Republic

Maurizio Martino, Lecce University, Italy

Tony Kenyon, University College London, UK

Steve Moffatt, Applied Materials Inc, USA

Dirk Poelman, Ghent University, Belgium

Lluis Marsal, Universitat Rovira i Virgili, Spain

Andrei Sazonov, University of Waterloo, Canada

Sidney Ribeiro, UNESP, Brazil

International Program Committee

Hiroyoshi Naito, Chair (2012) and Coordinating Editor, Proceedings, Osaka Prefecture University, Japan

Setsuhisa Tanabe, Kyoto University, Japan

Sandor Kökenyesi (Chair, 2010), University of Debrecen, Hungary

Sandor Kugler, Budapest University of Technology and Economics, Budapest, Hungary

Safa Kasap, University of Saskatchewan, Canada

Frank Hegmann, University of Alberta, Canada

Sadao Adachi, Gunma University, Japan

Mark Kuzyk, Washington State University, USA

Younes Messaddeq, University of Laval, Canada

Hideo Hosono, Tokyo Institute of Technology, Japan

Ajoy Kar, Hariot-Watt University, Scotland, UK

Jong Kyu Kim, Pohang University of Science and Technology (POSTECH), Korea

Alex Kolobov, National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan

Jianrong Qiu, Zhejiang University, China

Dagou Zeze, University of Durham, UK

Michael Fokine, Royal Institute of Technology (KTH), Sweden

Senthil Ganapathy, Optoelectronics Research Centre, University of Southampton, UK

Shubhra Gangopadhyay, University of Missouri - Columbia, USA

Jayshri Sabarinathan, University of Western Ontario, Canada

Peyman Servati, University of British Columbia, Canada

Zheng-Hong Lu, University of Toronto, Canada

Mikhail Brik, University of Tartu, Estonia

Mitsuo Yamaga, Gifu University, Japan

Dayan Ban, University of Waterloo, Canada

Gurinder K. Ahluwalia, College of the North Atlantic, Canada

Furong Zhu, Hong Kong Baptist University, Hong Kong

Himanshu Jain, Lehigh University, USA

Maria Mitkova, Boise State University, USA

Arunas Krotkus, Semiconductor Physics Institute, Vilnius, Lithuania

Takumi Fujiwara, Tohoku University, Japan

Che Ting Chan, Hong Kong University of Science and Technology, Hong Kong

Taiichi Otsuji, Tohoku University, Japan

Hideyuki Murata, Japan Advanced Institute of Science and Technology (JAIST), Nomi, Japan

Spyros Yannopoulos, Foundation for Research and Technology Hellas (FORTH), Patras, Greece

Byoungho Lee, Seoul National University, Korea

Jack Silver, Brunel University, UK

Andy Y-G Fuh, National Cheng Kung University, Taiwan

Steering Committee

Safa Kasap (Chair), University of Saskatchewan, Canada

Raman Kashyap (Vice-Chair), Ecole Polyetchnique, Universite de Montreal, Canada

Hiroyoshi Naito (Conference Chair, 2012), Osaka Prefecture University, Japan

Jai Singh, Charles Darwin University, Australia

Asim Ray, The Wolfson Centre for Materials Processing, Brunel University, UK

Koichi Shimakawa, Gifu University, Japan

Takeshi Aoki (Honorary) Tokyo Polytechnic University, Japan

Local Organizing Committee

Hiroyoshi Naito, Osaka Prefecture University, Japan (Chair)

Setsuhisa Tanabe, Kyoto University, Japan (Co-chair)

Shingo Fuchi, Nagoya University, Japan

Takumi Fujiwara, Tohoku University, Japan

Tamihiro Gotoh, Gunma University, Japan

Tomokatsu Hayakawa, Nagoya Institute of Technology, Japan

Takuya Iida, Osaka Prefecture University, Japan

Takashi Itoh, Gifu University, Japan

Koichi Kajihara, Tokyo Metropolitan University, Japan

Yoichi Kawakami, Kyoto University, Japan

Takashi Kobayashi, Osaka Prefecture University, Japan

Kouji Maeda, Miyazaki University, Japan

Hirokazu Masai, Kyoto University, Japan

Shuichi Murakami, Technology Research Institute of Osaka Prefecture, Japan

Takashi Nagase, Osaka Prefecture University, Japan

Chisato Ogihara, Yamaguchi University, Japan

Yonggu Shim, Osaka Prefecture University, Japan

Koichi Shimakawa, Gifu University, Japan

Kousaku Shimizu, Nihon University, Japan

Katsuhisa Tanaka, Kyoto University, Japan

Keiji Tanaka, Hokkaido University, Japan

Yomei Tokuda, Kyoto University, Japan

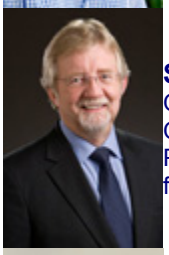
Takashi Uchino, Kobe University, Japan

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).

Conference Sponsors

AMERICAN ELEMENTS

APPLIED MATERIALS

ASAHI SPECTRA USA

COHERENT

HAMAMATSU Japan

JLC JAPAN LASER 株式会社日本レーザー

講談社 サイエンティフィク

NF NF Corporation

仁木工芸株式会社

SHARP

SILVACO

THORLABS

TOKYO ELECTRON

TII TOKYO INSTRUMENTS, INC.

TOYO Corporation

WAVE FRONT

WILEY-BLACKWELL

WITec
focus innovations

Support Center for Advanced Telecommunications Technology Research
SCAT

公益財団法人 村田学術振興財団
The Murata Science Foundation

JAPAN SOCIETY FOR THE PROMOTION OF SCIENCE · FOUNDED 1932 ·

助成 独立行政法人 日本万国博覧会記念機構
Supported by the Commemorative Organization for the Japan World Exposition('70).
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.

Fourth International Conference on Optical, Optoelectronic and Photonic Materials and Applications 2010

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

ICOOPMA 2010

http://www.icoopma.org
http://icoopma10.org

ICOOPMA2010
15 - 20 August 2010
Budapest, Hungary

Budapest is the capital of Hungary in the middle of Europe where the Blue Danube separates the city into two parts, Buda and Pest. Its beautiful harmony is not only due to its location on the Danube but also its historical heritage with some of the best architectures in Europe. Visitors to Budapest leave with deep nostalgia and beautiful memories. Budapest has always been an important center for scientific meetings between the East and West. The conference will take place at the Conference Center in Budapest. Friday is the conference excursion.

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.

The treasure of Nagyszentmiklós

http://www.virtourist.com/europe/budapest/

Conference Proceedings to be published in Physica Status Solidi A and C

CONFERENCE CHAIRS AND LOCAL ORGANIZING AND PROGRAM COMMITTEES

Sandor Kugler, Chair, Budapest University of Technology and Economics; *Sandor Kökenyesi*, Co-Chair and Program Chair, University of Debrecen; Jozsef Gyulai, Research Institute for Technical Physics and Materials Science, Budapest; Istvan Barsony, Research Institute for Technical Physics and Materials Science, Budapest; Peter Richter, Budapest University of Technology and Economics; Gabor Szabo, University of Szeged, Szeged; Istvan Rajta, Institute of Nuclear Research, Debrecen; Aladar Czitrovszky, Research Institute for Solid State Physics and Optics, Budapest; Andras Pungor, BAY-NANO Institute for Nanotechnology, Miskolc; Miklos Veres, Secretary, Research Institute for Solid State Physics and Optics, Budapest

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

ICOOPMA10 is the fourth 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 and 08 were held in London, England (2007), and Edmonton, Canada (2008), and each had over 260 participants and seven plenary lectures. 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

Budapest Conference Center

http://icoopma10.org

Sandor Kugler, Chair: kugler@eik.bme.hu
Sandor Kökenyesi, Co-Chair: kiki@tigris.klte.hu
Secretariat: icoopma@asszisztencia.hu

IMPORTANT DATES

Oral abstract Submission: 26 March 2010
Poster abstract submission, 24 June 2010
Early registration: 14 May 2010

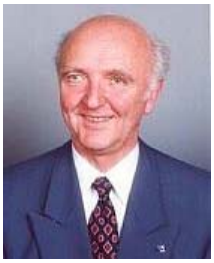
PLENARY TALKS

Hideo Hosono
Tokyo Institute of Technology
Japan

Progress in Doping Issues for Optoelectronic Transparent Crystalline and Amorphous Oxides

Mark Kuzyk
Washington State University, USA

Reversing the Arrow of Time via Photonics Using Polymer-Dye Interactions



Norbert Kroo
Hungarian Academy of Sciences
Budapest, Hungary

There is light at the bottom

Michael Petty
Durham University, UK

Electronic and Optoelectronic Devices Based on Thin Organic Films

Stephan Koch
Philipps University Marburg
Germany

Microscopic simulation of semiconductor laser devices

Thomas Krauss
University of St. Andrews, UK

Enhanced light-matter interaction with photonic nanostructures

INVITED TALKS

Jean-Luc Adam
Universite de Rennes (France)
Progress in nonoxide photonic glasses

Valery Barachevsky
Russian Academy of Sciences, Moscow (Russia)
Light-sensitive organic recording media for 3D optical memory

Sergei Baranovski
Philipps University Marburg (Germany)
Generalized Onsager-Frenkel recombination of optically generated electron-hole pairs

Nikolay Dmitruk
ISP NAS Ukraine, Kijev (Ukraine)
Plasmonic photovoltaics: relief-induced transparency & photocurrent enhancement by metal nanoparticles on solar cell interface

Andrew Edgar
Victoria University of Wellington (New Zealand)
New Materials and Structures for Optical Detection of Ionising Radiation

Mike Gal
University of New South Wales (Autralia)
High quality optical devices made from porous silicon

Harold Haugen
McMaster University, Hamilton (Canada)
Femtosecond Laser Ablation and Micromachining of Semiconductors and Dielectrics

Jong Heo
Pohang University of Science and Technology (Korea)
Multiphase Semiconductor Quantum Dots in Glasses

Animesh Jha and Gin Jose
University of Leeds (UK)
Rare-earth doped tellurite glass near and mid-IR fibre lasers

Andrew Knights
McMaster University, Hamilton (Canada)
Sub-micron Silicon Photonic Device Structures

Joseph Salzman
Israel Institute of Technology, Haifa (Israel)

Nano-cavities in Diamond for Quantum Electrodynamic Experiments

Krisztian Kohary
University of Exeter (UK)
Crystallisation kinetics of phase-change materials

Giancarlo Righini and Simone Berneschi
CNR, Insitute of Applied Physics, Firenze and Institute of Photonics & Nanotechnologies, Trento (Italy)
Erbium-doped glass-ceramic materials and waveguides

Roger Lewis
University of Wollongong (Australia)
Optical Rectification for Terahertz Generation

David Lockwood
NRC, Ottawa (Canada)
Self-assembled silicon-germanium nanostructures for CMOS compatible light emitters

Pal Andor Maak
Budapest University of Technology and Economics (Hungary)
Novel acousto-optic devices targeting applications of high standard

Maria Mitkova
Boise State University, Idaho (USA)
Optically induced processes in chalcogenide glasses - from visible light to x-rays

Kazuo Morigaki, University of Tokyo (Japan) and **Harumi Hikita,** Meikai University, Chiba (Japan)
Stretched Exponential Relaxation Processes in Hydrogenated Amorphous Silicon and Hydrogenated Polymorphous Silicon

Hiroyoshi Naito
Osaka Prefecture University (Japan)
Localized-state distributions and charge carrier mobilities of organic bulk heterojunction solar cells

Arokia Nathan
University College London University (UK)
Advances in Nanocrystalline Silicon Devices for Optoelectronics Applications

Diana Nesheva
Bulgarian Academyc of Sciences, Sophia (Bugaria)
Photoluminescence from SiOx layers containing amorphous silicon nanoparticles

Annie Pradel
Université Montpellier (France)
IR waveguide based upon chalcogenide thick films deposited by co-thermal evaporation

Victor Ralchenko
Prokhorov General Physics Institute RAS (Russia)
Chemical vapor deposited (CVD) diamond - the material for optics and optoelectronics

Ramaswami Sammynaiken
University of Saskatchewan (Canada)
Secondary optical processes and application of x-ray excited optical luminescence in medicinei

Jai Singh
Charles Darwin University (Australia)
Advances in organic and polymeric light emitting devices

Oleh Shpotyuk
Institute of Materials of SRC, "Karat" , Lviv (Ukraine)
Pseudo-self-adaptive topological phases in glassy selenides for IR photonics

Stephen Sweeney
University of Surrey (UK)
Novel III-V semiconductors for next generation photonic devices

Keiji Tanaka
Hokkaido University (Japan)
Photodeformations in As_2S_3: from atomic, nano, to macroscopic

Janis Teteris
University of Latvia, Riga (Latvia)
Photoinduced Mass Transfer in Soft Materials

Heinz von Seggern
University of Darmstadt (Germany)
Oxygen in CsBr:Eu, its influence on photostimulated luminescence

Rui Almeida
Instituto Superior Tecnico, Lisbon (Portugal)
Properties and applications of sol-gel derived active photonic crystals

Lluis Marsal
Universitat Rovira i Virgili (Spain)
Template-assisted fabrication and characterization of photoluminescent conducting polymer nanopillars

Lorenzo Pavesi and Paolo Bettotti
University of Trento (Italy)
Nanosilicon: a new platform for photonics

Emanuele Pelucci
Tyndall National Institute (Ireland)
Fabrication and Characteristics of Site-controlled (111)B quantum dots by high purity MOVPE

Robert Horvath
Research Institute for Technical Physics and Materials Science, Budapest (Hungary)
Optical waveguide biosensors for proteins and cells

Harry Ruda
University of Toronto (Canada)
Toward fundamental limits on the optoelectronic characteristics of single nanowires

Janos Volk
Research Institute for Technical Physics and Materials Science, Hungarian Academy of Sciences, Budapest (Hungary)
Highly ordered ZnO nanostructures for UV photonic devices

Janos Veres
PolyPhotonix (UK)
Organic semiconductors and light emitting diodes in applications

Darren Bagnall
University of Southampton University (UK)
Plasmonic and photonic light-trapping for photovoltaics

Andriy Kryuchyn
Institute for Information Recording, National Academy of Sciences of Ukraine
Application of thin films of chalcogenide vitreous semiconductors in optical recording systems

Peter Domaschuk
University of Sydney (Australia)
Silk Photonics: Biopolymer Optofluidics and Applications

Alla Reznik
Thunderbay Regional Health Sciences Centre and Lakehead University (Canada)
Recent advances in x-ray photoconductors: selected examples on PbO and a-Se

Yoonchan Jeong
Optoelectronics Centre, Univ. of Southampton (UK)
Recent advances in high power optical fibers

Mihail Trunov
Uzhgorod National University (Ukraine)
Photoplastic effect, giant photodeformation and mass-transport phenomena in amorphous chalcogenides

Taiichi Otsuji
Tohuku University (Japan)
Observation of amplified stimulated terahertz emission from optically pumped graphene

Wieslaw Krolikowski
Australian National University (Australia)
Second and Third Harmonic Generation in Nonlinear Crystals with Random Distribution of Ferroelectric Domains

Peter Brodie
Advantechus, Pittsburgh (USA)
Historical and Conceptual Roots of Active Matrix Technology: Science to Technology and AMOLEDs

Volkan Demir
Bilkent University, Ankara (Turkey)
Förster resonance energy transfer (FRET) enhanced white LEDs using semiconductor quantum dot nanophosphors

Nobuyoshi Koshida
Graduate School of Engineering, Tokyo University of A&T, Koganei, Tokyo (Japan)
Photonic and Related Applications of Quantum-sized Nanosilicon

Geza Mark
MFA Research Institute for Technical Physics and Materials Science, Budapest (Hungary)
Ordered and disordered biological and biomimetic photonic nanoarchitectures

Osamu Wada
Kobe University (Japan)
Quantum Dot Photonic Devices for Ultrafast Signal Transmission and Processing Systems

Q. Y. Zhang
South China University of Technology (China)
Broadband sensitization of near infrared emission through energy transfer from transition metal to rare-earth ions in LiYbMo2O8 phosphors

ICOOPMA2010

International Advisory Committee

Safa Kasap, Chair University of Saskatchewan, Canada

Sandor Kugler, Conference Chair, Budapest University of Technology, Hungary

Koichi Shimakawa, Gifu University, Japan

Tomas Wagner, Pardubice University, Czech Republic

Jai Singh, Charles Darwin University, Australia

Asim Ray, The Wolfson Centre for Materials Processing, Brunel University, UK

Takeshi Aoki, Tokyo Polytechnic University, Japan

Raman Kashyap, Ecole Polyetchnique, Universite de Montreal, Canada

Aaron Peled HAIT, Israel

Ray DeCorby, University of Alberta, Canada

Michael Gal, University of New South Wales, Australia

Andrei Sazonov University of Waterloo, Canada

Chris Haugen, National Institute for Nanotechnology, Edmonton, Canada

Ashok Vaseashta, Marshall University, USA

Paul Stradins, NREL, Colorado, USA

Patrick McNally, Dublin City University, Ireland

Setsuhisa Tanabe, Kyoto University, Japan

Hiroyoshi Naito, Osaka Prefecture University, Japan

Stephen Sweeney, University of Surrey, UK

Animesh Jha, University of Leeds, UK

Anderson Gomes, UFPE, Brazil

John Ballato, Clemson University, USA

Andrew Edgar, Victoria University, New Zealand

Ivan Blonsky, NASU Center, Laser Femtosecond Complex Kiev, Ukraine

Istvan Barsony, Research Institute for Technical Physics and Materials Science, Hungary

Kanatingal Sivasankaran Sangunni, Indian Institute of Science, Bangalore, India

Hans Georg Limberger, Ecole Polytechnique Fédérale de Lausanne, Switzerland

Roger Lewis, University of Wollongong, Australia

Peter Mascher, McMaster University, Canada

Gilles Pauliat, Laboratoire Charles Fabry de l'Institut d'Optique, France

Kenkichi Tanioka, NHK, Japan

Hironori Kaji, Institute for Chemical Research, Kyoto University, Japan

Joaquin Fernández, Escuela Superior de Ingenieria de Bilbao, University of the Basque Country, Spain

International Program Committee

Sandor Kökenyesi, Chair, University of Debrecen, Hungary

Sandor Kugler, Co-Chair, Budapest University of Technology and Economics, Budapest, Hungary

Safa Kasap, University of Saskatchewan, Canada

Frank Hegmann, University of Alberta, Canada

Sadao Adachi, Gunma University, Japan

Stephen McKeever, Oklahoma State University

Mark Kuzyk, Washington State University, USA

Younes Messaddeq, UNESP, Brazil

Hideo Hosono, Tokyo Institute of Technology, Japan

Chris McConville, University of Warrick, UK

Helge Weman, Norwegian University of Science and Technology (NTNU), Norway

Himanshu Jain, International Materials Institute for New Functionality in Glass, Lehigh University, USA

Valery Barachevsky, Photochemistry Center, Russian Academy of Sciences, Russia

Jozsef Gyulai, Research Institute for Technical Physics and Materials Science, Budapest, Hungary

Ajoy Kar, Hariot-Watt University, Scotland, UK

Jong Kyu Kim, Pohang University of Science and Technology (POSTECH), Korea

Alex Kolobov, National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan

Jianrong Qiu, Zhejiang University, China

Dagou Zeze, University of Durham, UK

Michael Fokine, Royal Institute of Technology (KTH), Sweden

Jørn M. Hvam, Technical University of Denmark, Denmark

Senthil Ganapathy, Optoelectronics Research Centre, University of Southampton, UK

Doriana Dimova-Malinovska, Bulgarian Academy of Sciences, Sofia, Bulgaria

Shubhra Gangopadhyay, University of Missouri - Columbia, USA

Martin Mika, Institute of Chemical Technology, Prague, Czech Republic

Zheng-Hong Lu, University of Toronto, Canada

Mikhail Brik, University of Tartu, Estonia

Mitsuo Yamaga, Gifu University, Japan

Mauro Tonelli, Scuola Normale Superiore di Pisa and Instituto Naziole per la Fisica della Materia, Italy

Ralph Whaley, Ohio University, Athens, USA

Arunas Krotkus, Semiconductor Physics Institute, Vilnius, Lithuania

Takumi Fujiwara, Tohoku University, Japan

Jean-Michel Nunzi, Queens University, Canada

Che Ting (C.T.) Chan, Hong Kong University of Science and Technology, Hong Kong

Taiichi Otsuji, Tohoku University, Japan

Maurizio Martino, Lecce University, Italy

Tony Kenyon, University College London, UK

Hideyuki Murata, Japan Advanced Institute of Science and Technology (JAIST), Nomi, Japan

Kalai Saravanamuttu, McMaster University, Canada

Dirk Poelman, Ghent University, Belgium

Francesc Diaz, Universitat Rovira i Virgili, Spain

Spyros Yannopoulos, Foundation for Research and Technology Hellas (FORTH), Patras, Greece

Byoungho Lee, Seoul National University, Korea

Stephen O'Leary, University of British Columbia at Okanagan, Canada

Steering Committee

Safa Kasap (Chair), University of Saskatchewan, Canada

Jai Singh, Charles Darwin University, Australia

Asim Ray, The Wolfson Centre for Materials Processing, Brunel University, UK

Koichi Shimakawa, Gifu University, Japan

Takeshi Aoki, Tokyo Polytechnic University, Japan

Raman Kashyap, Ecole Polyetchnique, Universite de Montreal, Canada

ICOOPMA PROCEEDINGS

Submitted papers will be refereed and accepted ones will be published in a special issue of the journal *Physica Status Solidi* (Wiley-VCH, Germany) within 8 months. The Proceedings will be edited by Guest Editors. The papers will be divided between PSS A and C, depending on contents and referee reports.

Guest Editors

Sandor Kugler
Budapest University of Technology and Economics, Budapest, Hungary

Sandor Kökenyesi
University of Debrecen, Hungary

Note: PSSA has an impact factor of 1.21 (2008)

Principal Conference Sponsors

APPLIED MATERIALS

Applied Materials

Platinum Sponsor

oz Optics

Gold Sponsor

WILEY-BLACKWELL

Third International Conference on Optical, Optoelectronic and Photonic Materials and Applications 2008

International Conference on
Optical and Optoelectronic Properties of Materials and Applications

ICOOPMA 2008

http://www.icoopma.org
http://icoopma2008.usask.ca

ICOOPMA08
Edmonton, Canada
20 -25 July 2008

TRLabs

UNIVERSITY OF ALBERTA
EDMONTON, ALBERTA, CANADA

http://www.edmonton.com

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. Edmonton is the capital of Alberta and is a thriving cosmopolitan city with many exciting things to do. It is close to Jasper Park and not far from the Canadian Rockies. The University of Alberta is one of the top universities in Canada. The conference will be held at the Lister Conference Centre on campus.

http://www.wildernessprints.com

http://www.wildernessprints.com

http://www.edmonton.com

CONFERENCE CHAIRS for 2008

Safa Kasap, *Chair*, University of Saskatchewan, Canada
Ray DeCorby, *Vice-Chair*, University of Alberta
Frank Hegmann, *Vice-Chair*, University of Alberta
Chris Haugen, *Vice-Chair*, TRLabs, Edmonton

LOCAL ORGANIZING COMMITTEE

--•--Edmonton and Saskatoon--•--
Safa Kasap, *Chair*, University of Saskatchewan
Ray DeCorby, *Vice-Chair Program*
University of Alberta
Frank Hegmann, *Vice-Chair Program and Proceedings*
University of Alberta
Chris Haugen, *Vice-Chair Industry*, TRLabs, Edmonton
Linda Richens, Conference Secretary (Conference Management and Administration), TRLabs, Edmonton
Gokul Soundararajan (Webmaster)
University of Saskatchewan
Al Meldrum (Physics), Ying Tsui (Electrical and Computer Engineering), University of Alberta
Cyril Koughia and Mike Bradley
University of Saskatchewan
--•--Across Canada--•--
Raman Kashyap, Ecole Polyetchnique, Montreal
Siegfried Janz, NRC, Ottawa
Peter Mascher, McMaster University
Harry Ruda, University of Toronto
Frank van Veggel, University of Victoria
Stephen O'Leary, University of Windsor
David Lockwood, NRC, Ottawa
Nazir Kherani, University of Toronto
Réal Vallée, University of Laval, Canada

INTERNATIONAL ORGANIZING AND ADVISORY COMMITTEE

Koichi Shimakawa (*Chair 2008*) Gifu University, Japan
Tomas Wagner (*Vice-Chair 2008*)
Pardubice University, Czech Republic
Safa Kasap (*Honorary Chair*)
University of Saskatchewan, Canada
Jai Singh (*Chair 2006*)
Charles Darwin University, Australia
Asim Ray, Queen Mary University of London, UK
Takeshi Aoki, Tokyo Institute of Polytechnics, Japan
Aaron Peled, HAIT, Israel
Michael Gal, University of New South Wales, Australia
Andrei Sazonov, University of Waterloo, Canada
Raman Kashyap, Ecole Polyetchnique, Montreal, Canada
Chris Haugen, TRLabs, Edmonton, Canada
Ashok Vaseashta, Marshall University, USA
Paul Stradins, NREL, Colorado, USA
Patrick McNally, Dublin City University, Ireland
Setsuhisa Tanabe, Kyoto University, Japan
Stephen Sweeney, University of Surrey, UK
Frank Hegmann, University of Alberta, Canada
Animesh Jha, University of Leeds, UK
Sandor Kugler, Budapest Univ. of Technology, Hungary
Réal Vallée, University of Laval, Canada

INTERNATIONAL PROGRAM COMMITTEE

Safa Kasap (*Chair, 2008*)
University of Saskatchewan, Canada
Ray DeCorby (*Vice-Chair Program, 2008*)
University of Alberta, Canada
Frank Hegmann (*Vice-Chair Program and Proceeding 2008)* University of Alberta, Canada
Raman Kashyap (*Vice-Chair Applications, 2008*)
Ecole Polyetchnique, Montreal, Canada
Harry Ruda, University of Toronto, Canada
Tomas Wagner, Pardubice University, Czech Republic
Animesh Jha, University of Leeds, UK
Jai Singh, Charles Darwin University, Australia
Andy Edgar, Victoria University, New Zealand
Roger Lewis, University of Wollongong, Australia
Sadao Adachi, Gunma University, Japan
Stephen McKeever, Oklahoma State University
Aaron Peled, HAIT, Israel
Nasser Peyghambarian, Optical Sciences Center Arizona, USA
Keiji Tanaka, Sapporo University, Japan
Robert Glosser, University of Texas, Dallas, USA
Mark Kuzyk, Washington State University, USA
Asim Ray, Queen Mary University of London, UK
Younus Messaddeq, UNESP, Brazil
Armando Luches, Lecce University, Italy
Sandor Kokenyesi, University of Debrecen, Hungary
Hideo Hosono, Tokyo Institute of Technology, Japan
Chris McConville, University of Warrick, UK
David Lockwood, NRC, Ottawa, Canada
Helge Weman, Norwegian University of Science and Technology (NTNU), Norway

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
Photovoltaic materials
Photogeneration, quantum efficiency
Experimental techniques
Terahertz materials, devices and techniques
Optoelectronic and photonic devices
Optical components for telecommunications
Applications of materials in photonics and optoelectronics

ICOOPMA HISTORY

ICOOPMA08 is the third in the ICOOPMA series, an International Conference on Optical, Optoelectronic and Photonic Materials and Applications, sponsored by Springer, that was held for the first time in Darwin, Australia, in July 2006. 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. One of the goals is to provide discussions between researchers working on different classes of materials that have similar applications; or have been characterized by similar techniques. The conference has a large number of invited speakers to allow such cross-fertilization between researchers working in different classes of materials. The conference also seeks papers in interesting or novel applications, or papers that enhance material properties for applications. 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.

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

Teraherz (THz) techniques, including materials, emitters and detectors

Optical Fibers and Fiber Sensors

Plasmons and Surface Plasmons

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

IMPORTANT DATES

Abstract Submission: 31 March 2008
Acceptance: 15 April 2008
Early registration: Friday 30 April 2008

PROCEEDINGS

Presented papers will be refereed and accepted ones will be published in a special issue of the journal *Physica Status Solidi A and C* (Wiley-VCH, Germany) within 8 months. The Proceedings will be edited by Guest Editors.

Safa Kasap
University of Saskatchewan

Frank Hegmann
University of Alberta

Harry Ruda
University of Toronto

Ray DeCorby
University of Alberta

Raman Kashyap
Ecole Polytechnique, Montreal

REGISTRATION

ICOOPMA2008 Conference

Conference Registration Fees *include the reception, all breakfasts and lunches during the week.* We would like the conference participants to use the breakfast and lunch to mix and interact. Registration fees:

Before 30 April 2008	
Full	**CD$ 685**
Student	**CD$ 385**
After 30 April 2008	
Full	**CD$ 750**
Student	**CD$ 425**

PLENARY TALKS

Eli Yablonovitch
University of California Berkeley, USA

Nano-Photonics, From Photonic Crystals to Plasmonics

Alexander Gaeta
Cornell University, USA

Photonic Nanowires: Ideal Waveguides for Nonlinear Optics

Jeff Young
University of British Columbia, Canada

Engineering Semiconductor Nanostructures to Miniaturize Nonlinear Optics

Kenkichi Tanioka
Vice-President, NHK, Tokyo, Japan

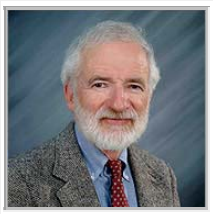
Ultra-Sensitive Imaging with HARP : From Concept to Realization at NHK

Yasuhiko Arakawa
University of Tokyo, Japan

Advances In Quantum Dots for Nanophotonic and Quantum Information Devices

Klaus Ploog
Paul Drude Institute for Solid State Electronics, Berlin, Germany

Prospects of Conventional and Dilute III-Nitrides for Light Emitters and Solid-State Lighting



Arthur Nozik
DOE National Renewable Energy Laboratory (NREL), Golden, Colorado, USA

Third Generation Photovoltaics

SELECTED INVITED SPEAKERS

Bill Milne, University of Cambridge, UK, *Carbon Nanotubes for Photonic Devices*

Magnus Willander, Linkoping University, Sweden, *Light Emission from different Zinc Oxide Junctions and Nanostructures*

Hadis Morkoc, Virginia Commonwealth University, USA, *GaN Based Light Emitters*

Chennupati Jagadish, Australian National University, Canberra, Australia, *Nanowires for Optoelectronic Device Applications*

Mark Kuzyk, Washington State University, USA, *Transmitting Mechanical Forces on a Beam of Light*

Nobuyoshi Koshida, Tokyo University of Agriculture & Technology, Japan, *Silicon Innovations by Nanosilicon*

Mark Fox, University of Sheffield, UK, *Ultrafast Non-Linear Switching in AlGaAs Photonic Crystals*

Hideo Hosono, Tokyo Institute of Technology, Japan, *Doping Effects in Transparent Amorphous Oxides*

Andy Edgar, Victoria University of Wellington, New Zealand, *Novel Scintillating Materials for Radiation Detection and Imaging*

Stephen Mckeever, Oklahoma State University, USA, *Induced luminescence for Dosimetry: Recent Advances*

Arokia Nathan, University College, London University, UK, *Nanocrystalline Silicon Thin Film Transistors in Optoelectronics Applications*

Hans Georg Limberger, Ecole Polytechnique Federale de Lausanne, Switzerland, *Light Induced Stresses in Silica Fibers*

Robert Collins, University of Toledo, USA, *Optical Properties of Amorphous Semiconductors: Recent Advances*

Heinz von Seggern, University of Darmstadt, Germany, *Advances in Organics for OLEDS: Recent Selected Examples*

Hiroyoshi Naito, Osaka Prefecture University, Japan, *Optical Spectroscopic Studies of Polyfluorene and its Copolymers*

Jean-Marc Baribeau, NRC, Ottawa, Canada, *Advances in Self-Assembled SiGe Dots and Nanostructures*

Jong Heo, Pohang University of Science and Technology, Korea, *Tuning the Photoluminescence of Quantum Dots in Glasses*

Jorn Hvam, Technical University of Denmark, *Recent Advances in Nanophotonics*

Kazuo Morigaki, Hiroshima Institute of Technology, Japan, *Recombination Processes and Light-Induced Defect Creation in Hydrogenated Amorphous Silicon*

Mike Petty, Durham University, UK, *Towards Organic Solid State Lighting*

Aasmund Sudbo, UNIK – Universitetsstudiene pa Kjeller, Norway, *Photonic Crystal Films*

Leonid Tsybeskov, New Jersey Institute of Technology, Newark, USA, *Electro-Optics of Silicon Nanostructures*

Anderson Gomes, UFPE, Brazil, *Metallic Nanoparticles for Photnics and Bio Applications*

Matt Beard, NEWL (National Renewable Energy Laboratory), Bolden, Colorado, USA, *Multiple Exciton Generation and Photo-Induced Charge Transport in Three Dimensional Arrays of SemiconductorNanocrystals: Progress Towards Third Generation Photovoltaics*

Miloslav Frumar, Pardubice University, Czech Republic, *Recent Advances in Phase Change Memory Materials: Composition, Structure and Properties*

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

Osamu Wada, Kobe University, Japan, *Quantum Dots and Semiconductor Nanostructures for Photonic Signal Processing Devices*

Daniel Mittleman, Rice University, USA, *Terahertz Spectroscopic Studies of Metal Oxides*

Patrick Desjardins, Ecole Polytechnique de Montreal, Canada, *Bandgap Tuning of Quantum Dot Structures Using Grown-In Defects and Ion Implantation*

Yasufumi Fujiwara, Osaka University, Japan, *Injectiion-type Light-Emitting Devices fabricated by atomically controlled doping of Er to GaAs*

Paul Braun, University of Illinois, Urbana-Champaign, USA, *Adding Function to 3D Self-Organized Photonic Crystals through Materials Chemistry*

Peter Jepsen, Technical University of Denmark, *Terahertz Time-Domain Spectroscopy of Molecular Crystals and Liquids*

Yasushi Nanishi, Ritsumeikan University, Japan, *Potential Achievements and Issues of InN and Related Alloys for Device Applications*

Richard Blaikie, university of Canterbury, New Zealand, *Super-resolution Photolithography using Surface Plasmons*

Ruediger Goldhahn, Institut fur Physik, TU Iimenau, Germany, *Band Structure and Optical Properties of Nitride Semiconductors*

Rodrigo Martins, Universidade Nova de Lisboa, DCM/FCTUNL, Portugal, *Characterization of Optoelectronic Platforms using and Amorphous/Nanocrystalline Silicon Biosensor*

Sergei Baranovski, Philipps University Marburg, Germany, *Disorder Effects in Photoluminescence from Quantum Structures*

John Marsland, University of Liverpool, UK, *Imapact Ionization in Semiconductor: Recent Progress and Non-Local Effects*

Takayuki Komatsu, Nagaoka University of Technology, Japan, *Laser Patterning of Nonlinear Optical Single Crystal Lines in Glasses*

Vikram Dalal, Iowa State University, Ames, USA, *Physics and Status of Thin Film Si technology for Photovoltaic Energy Conversion*

Willie Padilla, Boston College, MA, USA, *Metamaterial Electronics: New Materials for Novel Devices*

Yasutake Ohishi, Toyota Technological Institue, Japan, *Novel Photonic Glasses for Future Optical Signal Processing*

Michael Fokine, Politecnico di Torino, Italy, *Manipulating Glass for Photonics*

Ted Sargent, University of Toronto, *Canada Solution-Processed Infrared Optoelectronic Devices Based on Colloidal Quantum Dots*

Akihiko Yoshikawa, Chiba Univrsity, Japan, *Novel InN/GaN MQW Visible-Light-Emitters Consisting of One Monolayer-Thick InN Wells Inserted in GaN Matrix*

Michael Brett, University of Alberta, Canada , *GLAD Thin Films: Optical Properties and Photonics Applications*

Himanshu Jain, Lehigh University, USA, *Speed of Photoinduced Phenomena in Chalcogenide Glasses*

Jean-Michel Nunzi, Queen's University, Canada, *Auger Fountain Electroluminescence in an Organic Diode*

Ben Eggleton, University of Sydney, Australia, *Highly Nonlinear Chalcogenide Glass Devices for Ultrafast All-Optical Signal Processing*

Kimberlay Hall, Dalhousie University, Halifax, Canada, *Femtosecond Optical Studies of Spintronic Materials*

Gerry Lucovsky, North Carolina State University, Raleigh, USA, *Microscopic Description of Strain-Reducing Chemical Bonding Self-Organizations in Chalcogenide and Oxide Non-Crystalline Alloys: Applications to Electronic and Optoelectronic Devices*

Keiji Tanaka, A. Saitoh and N. Terakado, Hokkaido University, Sapporo, Japan, *Anisotropic Photodeformation of Chalcogenide Glasses by Optical Pressure*

Ken Bosnick, National Institute for Nanotechnology, National Research Council of Canada, *Discrete Carbon Nanotube Diodes*

Edmund Linfield, University of Leeds, UK, *Recent Developments in Terahertz Quantum Cascade Lasers*

Kerry Vahala, California Institute of Technology, USA, *Cavity Opto-Mechanics: Mechanical Cooling and Amplification Using Radiation Pressure*

Maria Mitkova, Boise State University, Idaho, USA, *Photoinduced Diffusion in Tetrahedrally Coordinated Chalcogenide Glasses*

Animesh Jha University of Leeds, UK, *Novel Single and Multi-Core IR Fibres for near and mid-IR Lasers and Amplifiers*

Shanhui Fan, Stanford University, USA, *Dynamic and Non-Reciprocal Effects in Nanophotonics*

Jonathan Knight, University of Bath, England, *How to Do New Things with Tiny Pieces of Glass: Nonlinear Optics in Photonic Crystal Fibers*

Thomas Krauss, University of St. Andrews, Scotland, UK, *Slow Light in Silicon*

Giancarlo Righini, CNR Department of Materials and Devices, Roma, Italy, *Photonic Properties and Applications of Glass Micro- and Nanospheres*

Michael Blair, Ross Muenchausen, Luiz Jacobsohn, Bryan Bennett, Los Alamos National Laboratory, Los Alamos, USA, *Luminescence and Structural Properties of Nanophosphors*

Kaori Fukunaga, NICT, Tokyo, Japan, *Terahertz Spectroscopy and Imaging Techniques for Non-Invasive Material Analysis*

Mahi Singh, University Western Ontario, Canada, *All-Photonic Switching In Nanophotonic Quantum Wells*

Tom Tiedje, University British Columbia, Canada, *Growth and Properties of Gallium Arsenide Bismide, a New Long Wavelength Semiconductor Alloy*

David Mills, Queen Mary University of London, *Integrated Optics Devices for Biosensing Applications*

John Ballato, Clemson University, USA, *Novel Light Emitting Nanoparticles and Nanocomposites*

VENUE

University of Alberta Lister Conference Center

CONFERENCE CONTACTS

Linda Richens, Conference Secretary: lrichens@trlabs.ca

Ray DeCorby, Vice-Chair: rdecorby@trlabs.ca

Frank Hegmann, Vice-Chair: hegmann@phys.ualberta.ca

Safa Kasap, Chair: safa.kasap@usask.ca

Principal Conference Sponsors

TRLabs

ICIP CIPI

Canadian Institute for Photonic Innovations
Institut canadien pour les innovations en photonique

INFORMATICS iCORE CIRCLE OF RESEARCH EXCELLE

Sponsors

UNIVERSITY OF ALBERTA
EDMONTON, ALBERTA, CANADA

Semiconductor insights inc.

WILEY
Publishers Since 1807

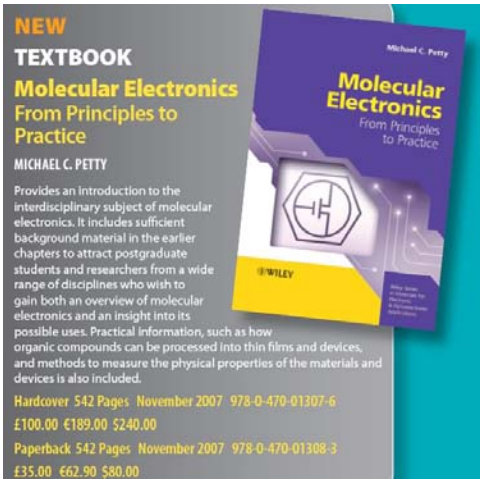
IEEE

ozOptics
www.ozoptics.com

Gamble Technologies

PerkinElmer
precisely.

n&k Technology



Technix by CBS_

Second International Conference on Optical, Optoelectronic and Photonic Materials and Applications 2007

ICOOPMA 2007
30 July – 3 August 2007

An international conference on optical, optoelectronic and electro-optic properties of all classes of materials and material systems; optical, optoelectronic and photonic materials for a wide range of applications from telecommunications to photovoltaics. Authors are invited to submit abstracts on line by 30 March 2007, using the web link:

http://www.icoopma.org

ICOOPMA07
London, England
30 July – 3 August 2007

Springer the language of science

Queen Mary University of London

LG.PHILIPS Displays

PHILIPS

IOP Institute of Physics

IET A new institution from the IEE and IIE

http://www.bigfoto.com

http://www.bigfoto.com

PROCEEDINGS

Editors: Stephen Sweeney (University of Surrey) and Steffi Krause (Queen Mary, University of London)

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

Journal of Materials Science: Materials in Electronics

ICOOPMA 2007

ICOOPMA07 is the second in the ICOOPMA series, and will be hosted by Queen Mary, University of London. The conference is co-sponsored by The Institution of Electrical Engineers and Technology, Springer and LG Philips Displays. London is the largest city in Europe offering a great mixture of cultures and unique experiences for visitors of all ages to enjoy its art galleries, museums and exciting buildings and monuments of historical importance.

CONFERENCE CHAIR for 2007

Asim Ray, Queen Mary London University

LOCAL ORGANIZING COMMITTEE

Asim Ray, *Chair*, Queen Mary, University of London
Stephen Sweeney, *Proc. Editor*, University of Surrey
Steffi Krause, *Proc. Editor*, Queen Mary University of London
David S Barratt, LG.Philips Displays
Animesh Jha, University of Leeds
Arokia Nathan, University College London
Pankaj Vadgama, Queen Mary, University of London
Robert Withnall, *Program Co-Chair 2007*, Brunel University

INTERNATIONAL ORGANIZING AND ADVISORY COMMITTEE

Safa Kasap, *Chair*, University of Saskatchewan, Canada
Asim Ray, *Conference Chair 2007*, Queen Mary London University, UK
Stephen Sweeney, *Proc. Editor*, University of Surrey
Jai Singh, Charles Darwin University, Australia
Koichi Shimakawa, Gifu University, Japan
Takeshi Aoki, Tokyo Institute of Polytechnics, Japan
Aaron Peled, HAIT, Israel
Michael Gal, University of New South Wales, Australia
Tomas Wagner, Pardubice University, Czech Republic
Andy Edgar, Victoria University, New Zealand
Harry Ruda, University of Toronto, Canada
Andrei Sazonov, University of Waterloo, Canada
Ashok Vaseashta, Marshall University, USA
Paul Stradins, NREL, Colorado, USA
Patrick McNally, Dublin City University, Ireland.

INTERNATIONAL PROGRAM COMMITTEE

Asim Ray (*Chair, 2007*)
Queen Mary University of London, UK
Stephen Sweeney, *Proc. Editor*, University of Surrey
Robert Withnall, Brunel University, UK
Safa Kasap, University of Saskatchewan, Canada
Arokia Nathan , University College London, UK
Jai Singh, Charles Darwin University, Australia
Harry Ruda, University of Toronto, Canada
Michael Gal, University of New South Wales, Australia
Andy Edgar, Victoria University, New Zealand
Sadao Adachi, Gunma University, Japan
Aaron Peled, HAIT, Israel
Koichi Shimakawa, Gifu University, Japan
Takeshi Aoki, Tokyo Polytechnic University, Japan
Tigran Galstian, Laval University, Canada
Nasser Peyghambarian, Optical Sciences Center Arizona, USA
Raman Kashyap, Ecole Polyetchnique, Canada
Frank Hegmann, University of Alberta, Canada
Ray Decorby, University of Alberta, Canada
Michael Schreiber, Chemnitz, Germany
Keiji Tanaka, Hokkaido University, Japan
Piotr Petelenz,Cracow University, Poland
Robert Glosser, University of Texas, Dallas, USA
Mark Kuzyk, Washington State University, USA
Tomas Wagner, Pardubice University, Czech Republic
Chris Haugen, TR*Labs*, Edmonton, Canada
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
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
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 and waveguides
Materials for optical storage
Materials for photovoltaics or solar cells
Photogeneration, quantum efficiency
Experimental techniques
Optoelectronic and photonic devices
Applications of materials in photonics and optoelectronics

IMPORTANT DATES

Abstract Submission: 30 March 2007
Acceptance: 23 April 2007
Early registration: Friday 11 May 2007

Manuscripts: Electronic submission online before or during the conference

REGISTRATION

ICOOPMA2007 Conference

Conference Registration Fees. *Includes meals*, except conference dinner (GBP40)

Full	**GBP 450** (GBP 575 after 11 May 2007)
Student	**GBP 250** (GBP 325 after 11 May 2007)
Exhibitor	**GBP 575** (GBP 675 after 11 May 2007)

PLENARY LECTURES

Sajeev John, University of Toronto, Canada
Photonic Band Gap Materials: Localization of Light

David Lockwood, FRS (Canada), NRC, Ottawa, Canada,
Light Emission in Silicon Nanostructures

Shuji Nakamura, University of California, Santa Barbara,
Current Progress of Solid State Lighting

Philip Russell, FRS, University Erlangen-Nuremberg, Germany, *Enhancing Light-Matter Interactions with Photonic Crystal Fibres*

Osamu Wada, Kobe University, Japan
Semiconductor quantum dots and nanostructures for photonic device applications

SELECTED INVITED SPEAKERS

Jean-Luc Adam, Universite de Rennes, France, *Chalcogen Based Glasses for Infrared Applications*

Carmen N. Afonso and Jose Gonzalo, Instituto de Optica, CSIC, Madrid, Spain, *Advanced Heavy Metal Oxide Film Glasses with Large Optical Nonlinearities*

Rui Almeida, Instituto Superior Tecnico, Lisbon, Portugal, *Rare-Earth Doped Photonic Crystals via Sol-Gel*

Claudia Ambrosch-Draxl, University Leoben, Austria, *Tailoring the Optical Properties of Organic Semiconductors*

Yasuhiko Arakawa, Institute of Industrial Science, Komaba, Japan, Advances In Quantum Dots for Nanophotonic and Quantum Information Devices

Sergei Baranovski, Philipps University Marburg, Germany, *Impact Ionization Phenomena in Disordered Systems Related to the Avalanche Multiplication and Switching Effect.*

Harbhajan Singh Bhatti, Punjabi University, India
Laser Induced Photoluminescence and Morphological Characterization of $Cd_{(1-x)-y}Zn_xMn_yS$ *Nanocrystals.*

Dietmar Borchert, Fraunhofer Institut fur Solare Energiesysteme ISE, Germany,
Interaction between process technology and material quality during the processing of multicrystalline silicon sloar cells.

Rudi Bruggeman, Carl von Ossietzky Universität Oldenburg, Germany, *Electroluminescence and Photoluminescence for the Characterization of Solar Cells*

Pere Roca Cabarrocas, Ecole Polytechnique, France
Low temperatre plasma deposition of silicon thin films for solar cells

Giulio Cerullo, Institute for Photonics and Nanotechnologies, Milano, Italy, *Few-Optical-Cycle Pulses with Stable Carrier-Envelope Phase from Optical Parametric Amplifiers*

Isabel Cristina dos Santos Carvalho, Pontifical University Catholic of Rio De Janeiro, Brazil, *New Glassy Materials for Sensors & applications*

Jamal Deen, McMaster University, Canada
High Sensitivity Photodetection Systems for Biological/Medical Applications

Ananth Dodabalapur, The University of Texas at Austin, USA, *Organic and Polymer Thin-Film Transistors: Recent Advances*

Jaroslav Fabian, University Regensburg, Germany
Semiconductor Spintronics Devices

Miloslav Frumar, University of Pardubice, Czech Republic
Phase change memory materials and the mechanism of their solidification

Shubra Gangopadhyay, University of Missouri - Columbia, Missouri, USA, *Novel Processes for Low Temperature Crystallization of a-Si:H and a-SiC:H for Optoelectronic Applications*

Michael Graetzel, ISIC, Switzerland and Ayodha N. Tiwari, University of Loughborough, UK,
Development of flexible dye sensitized solar cells: challenges and strategies.

Frank Hegmann, University of Alberta, Canada
Using Terahertz Spectroscopy to Probe Carrier Dynamics and Localization in Semiconductor Materials

Jong Heo, Pohang University of Science and Technology, Korea, *Novel nano-structured glasses containing semiconductor quantum dots*

Peter Hess, University of Heidelberg, Germany,
Spectroscopic and ellipsometric characterization of SiC films

Hideo Hosono, Tokyo Institute of Technology, Japan, *Low Work Function in C12A7 Electride and Its Applications*

Jorn Hvam, Technical University of Denmark,
Recent Advances in Nanophotonics

Richard Jones and Mario Paniccia, Intel, USA
Silicon Photonics: Materials and Devices, and Recent Advances

Raman Kashyap, Ecole Polytechnique, University of Montreal, Canada, *Progress in Bragg Grating Optical Fiber Sensors*

Junji Kido, Yamagata University, Japan, *Design and Fabrication of High Performance OLEDs for Lighting Applications*

Andrew Knights, McMaster University, Canada
Progress in Bragg Grating Optical Fiber Sensors

Krisztian Kohary, University of Oxford, Oxford, UK
Structural optimization of organi light-emitting diodes incorporating nancrystal quantum dots

Nobuyoshi Koshida, Tokyo University of Agriculture & Technology, Tokyo, Japan, *Photonic, Electronic and Acoustic Devices Based on Nanocrystalline Silicon*

S. Kugler, Budapest University of Technology & Economics, Hungary, *Microscopic and macroscopic models of Photoinduced volume changes in chalcogenides*

Miguel Levy, Michigan Technological University, Houghton, USA, *Magnetophotonic Crystals: Nonreciprocity, Birefringence and Confinement*

Roger Lewis, University of Wollongong, Australia, *Reflectance Studies of Candidate THz emitters*

Zhenghong Lu, Unniversity of Toronto, Canada, *Superluminescent Organic Light-Emitting Diodes*

Takayuki Makino, University of Hyogo, Japan, *Optical Properties of ZnO and Their Extension to the Ultraviolet Optoelectronic Application*

Walter Margulis, Acreo Fibre Optic Centre, Sweden.
Electrical control of light in fibre-based components

Stefan Matefi-Tempfli, Unite de Physico-Chimie et Physique des Materiaux, Universite Catholique de Louvain, Belgium
Nanowires and nanostructures fabrication using template methods. A step forward to real devices combining electrochemical synthesis with lithographic techniques

Stephen W. S. Mckeever, Oklahoma State University, USA
Induced Luminescence for Dosimetry: Recent Advances

Qingbo Meng, Chinese Academy of Sciences, China
Pressure controlled self-assembly of high quality opals and inverse opals.

Bill Milne and Alex Rhozin, University of Cambridge, UK, *Carbon Nanotubes for Photonic Devices*

Tanya Monro, University of Adelaide, Australia, *New Developments in Soft Glass Microstructured Optical Fibres*

Mayasuki Nagami, Nagoya Institute of Technology, Japan, *Nonlinear optical emission properties of sol-gel-derived glasses*

Hiroyoshi Naito, Osaka Prefecture University, Japan, *Characterization of Polymer Light-Emitting Diodes*

Maurizio Martino, University of Lecce, Italy, *Pulse Laser Deposition of Organic, Inorganic and Biological Materials*

Alex Moewes, University of Saskatchewan, Canada
Synchrotron characterization of Optical and Electronic Properties of Materials: Recent Advances and Examples

Dirk Poelman, Ghent University, Belgium, *Advances in Inorganic Phosphors for Displays and Lighting*

Jianrong Qiu, Zhejiang University, China
Broadband infrared luminescence and optical amplification of transparent glass-ceramics containing Ni2+-doped nanocrystals.

Mark Reed, Yale University, USA, *Plasmonic Waveguides: A New Approach to Sub-Wavelength Optics*

John Rowlands and K. Tanioka, University of Toronto, Canada and NHK, Japan, *Ultrasensitive HARP Video Tubes, Imaging Devices and Applications*

Michael F. Rubner, Massachusetts Institute of Technology
Thin film optical coatings from functional nanoparticle multilayers.

Harry Ruda, University of Toronto, *Transport and Optical Response of Single Nanowires*

Jas Sanghera and Ishwar Aggarwal, Naval Research Laboratory, Washington DC, USA, *Infrared Transmitting Glasses, Ceramics and Optical Fibers*

Heinz von Seggern, Darmstadt University
Mechanism of Long-lasting Photoluminescence Afterglow in Csl:Tl

Setsuhisa Tanabe, Kyoto University, Japan, *Glass Ceramic Phosphors for Solid-State Lighting*

Keiji Tanaka, Hokkaido University, Japan, *Photoinduced Phenomena in Group VIB Glasses*

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

Roberto Teghil, University of Basilicata, Italy
Femtosecond Pulsed Laser Deposition of Inorganic Electrochromic Materials

Michael Thewalt, Simon Fraser University, Canada, *Spectroscopy of Semiconductor Structures: Recent Advances*

Peter Thomas, Philipps-University Marburg, Germany, *Investigating Disorder in Semiconductor Quantum Structures using Angular Photonic Correlation in Spontaneous Emission*

Joe Trodahl and Ben Ruck, Victoria University of Wellington, New Zealand
Electronic and Optical Properties of Rare Earth Nitrides

M. Asfar Uddin and Andy Hau-Ping Chan, City University of Hong Kong, Hong Kong

The challenges in the fabrication of Polymer based photonic devices.

Joe Trodahl and Ben Ruck, Victoria University of Wellington, New Zealand
Electronic and Optical Properites of Rare Earth Nitrides

Ashok Vaseashta, Marshall University, Huntington, *Nanoscale Materials, Devices and Systems for Energy Generation and Storage*

Frank van Veggel, University of Victoria, Canada *Lanthanide (III) - Based photonic materials and their applications*

Helge Werman, Norwegian University of Science and Technology, Norway, *Semiconductor Quantum-Wires and Nano-Wires For Optoelectronic Applications*

Ian White, University of Cambridge, UK
High Speed Quantum Dot Mode Locked Lasers

Michael Winokur, University of Wisconsin, USA, *The Role of Nematic Order in Conjugated Polymer Spectroscopy*

Mitsuo Yamaga, Gifu University, Japan.
Long-lasting phosphorescence in Ce-doped oxides.

SESSIONS

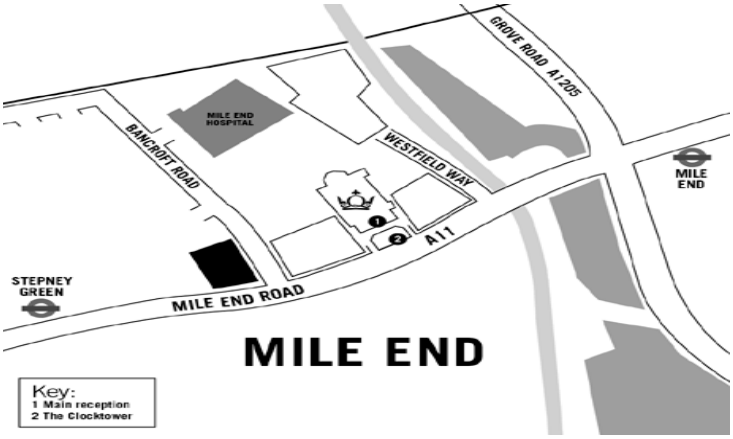
Optical properties of materials
- General
- Crystals
- Polycrystalline bulk and film
- Amorphous and organics
- Nanostructures, including photonic crystals

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
Phgotoreflectance
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)

VENUE

The venue for the symposium is the Queen Mary London University Mile End campus. It is served by two underground (Metro) stations: Mile End on the Central Line, and Stepney Green on Hammersmith & City and District Lines



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

Charles Darwin UNIVERSITY

Springer
the language of science

Australian Research Council
Nanotechnology Network

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

CONFERENCE CHAIR for 2006

Jai Singh, Charles Darwin University, Australia

LOCAL ORGANIZING COMMITTEE

Jai Singh, *Chair*, Charles Darwin University
Michael Gal, University of New South Wales
John Dobson, Griffith University
M.P. Das, Australian National University, Canberra
Subhash Chandra, DBIRD, NT Government, Darwin
Prem Panickar, DPIFM, NT Government
Howard Pullen, Charles Darwin University
Prathapan Sabaratnum, Charles Darwin University

INTERNATIONAL ORGANIZING COMMITTEE

Jai Singh, *Cochair*, Charles Darwin University, Australia
Safa Kasap, *Cochair*, University of Saskatchewan, Canada
Koichi Shimakawa, Gifu University, Japan
Takeshi Aoki, Tokyo Institute of Polytechnics, Japan
Aaron Peled, HAIT, Israel
Michael Gal, University of New South Wales, Australia
Tomas Wagner, Pardubice University, Czech Republic
Andy Edgar, Victoria University, New Zealand
Harry Ruda, University of Toronto, Canada
Andrei Sazonov, University of Waterloo, Canada
Asim Ray, Queen Mary University of London, UK
Ashok Vaseashta, Marshall University, USA
Paul Stradins, NREL, Colorado, USA
Patrick McNally, Dublin City University, Ireland.

INTERNATIONAL PROGRAM COMMITTEE

Safa Kasap (*Chair*) University of Saskatchewan, Canada
Jai Singh, Charles Darwin University, Australia
Harry Ruda, University of Toronto, Canada
Michael Gal, University of New South Wales, Australia
Andy Edgar, Victoria University, New Zealand
Sadao Adachi, Gunma University, Japan
Aaron Peled, HAIT, Israel
Koichi Shimakawa, Gifu University, Japan
Takeshi Aoki, Tokyo Polytechnic University, Japan
Tigran Galstian, Laval University, Canada
Nasser Peyghambarian, Optical Sciences Center Arizona, USA
Raman Kashyap, Ecole Polyetchnique, Canada
Frank Hegmann, University of Alberta, Canada
Ray Decorby, University of Alberta, Canada
Michael Schreiber, Chemnitz, Germany
Keiji Tanaka, Sapporo University, Japan
Piotr Petelenz,Cracow University, Poland
Robert Glosser, University of Texas, Dallas, USA
Mark Kuzyk, Washington State University, USA
Tomas Wagner, Pardubice University, Czech Republic
Chris Haugen, TR*Labs*, Edmonton, Canada
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

CONFERENCE SPONSOR

Springer
Boston USA and Heidelberg Germany

Charles Darwin University
Darwin, Australia

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 Universitat 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 Slicon-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*

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

Jacque Lucas, Universite 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, *Novel nano-structured glasses containing semiconductor quantum dots*

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 - 1.6μm 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 banquette 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

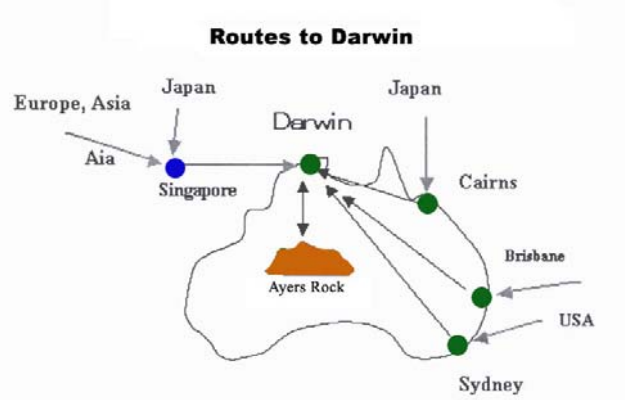
North Flinders International House
(University Residence on Campus, walking distance)
A$55/night. Clean room with air conditioning, refrigerator, and ensuite bathroom shared with one neighbor only.

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.



Conference Principal Sponsors

Springer
the language of science

Charles Darwin UNIVERSITY

Australian Research Council Nanotechnology Network

Supporting Sponsors

OZ Optics www.ozoptics.com
www.ozoptics.com

PerkinElmer precisely.
www.perkinelmer.com

WILEY Publishers Since 1807
www.wiley.com