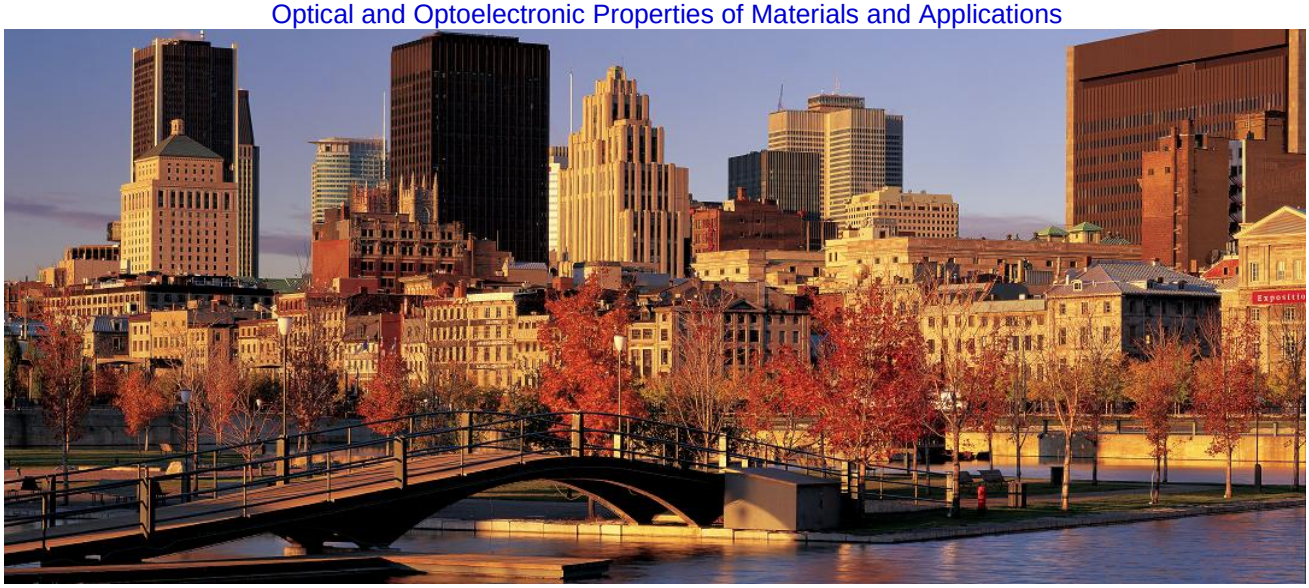
Seventh International Conference on Optical, Optoelectronic and Photonic Materials and Applications 2016

Montreal, 12 – 18 June 2016

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



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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.

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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

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CONFERENCE PAPERS

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

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SPECIAL ISSUE
Materials for Optoelectronics and Photonics

GUEST EDITORS
Younes Messaddeq, Raman Kashyap and Carlos Silva

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