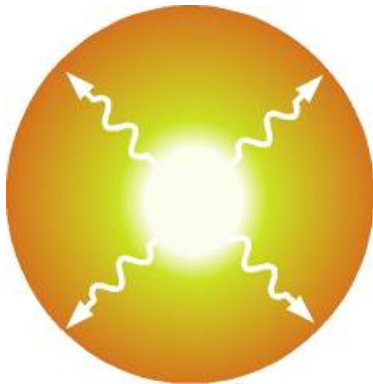


# Sixth International Conference on Optical, Optoelectronic and Photonic Materials And Applications 2014

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

## ICOOPMA 2014

<http://www.icoopma14.org>



**ICOOPMA2014**  
27th July – 1st August  
Leeds, UK

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.



**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 constraints 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](mailto: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 Polytechnique, Université 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  
Lluís 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, Ghent 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, Japan Steering Committee

#### **STEERING COMMITTEE**

Safa Kasap (Chair), University of Saskatchewan, Canada  
(Conference Chair, 2008)  
Raman Kashyap (Vice-Chair), Ecole Polytechnique, Université 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 Blakett Laboratory and Department of Physics, Imperial College London, London, UK



### Stephen Elliott

Professor, Department of Chemistry, University of Cambridge, UK



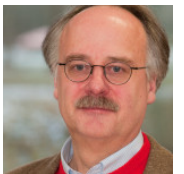
### Jerry R Meyer

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 Sciences, 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](mailto:ICOOPMA14@leeds.ac.uk)

### CONFERENCE SPONSORS AND SUPPORTERS



UNIVERSITY OF LEEDS





**GTS**

SPECIALIST KNOWLEDGE IN GLASS



**MINERVA**  
Improved medical diagnostics

Mid- to NEaR infrared spectroscopy  
for improved medical diagnostics

A European Commission  
Framework Seven (FP7) Project (317803)  
[www.minerva-project.eu](http://www.minerva-project.eu)



UNIVERSITY OF  
**SURREY**

**ASH SCIENTIFIC**



**AMERICAN  
ELEMENTS**

**HAMAMATSU**  
PHOTON IS OUR BUSINESS

**IOP** | Institute of Physics  
Quantum Electronics  
and Photonics Group

**IOP** | Institute of Physics  
Semiconductor Physics Group

**INRS**

Université d'avant-garde

**LOT**

**Q** Quantum Design

**THORLABS**

**WILEY-VCH**