International Symposium on Functional Materials 2016 (ISFM 2016)

Call for Poster Presentation Applications

Dates

Monday, January 25, 2016 to Friday, January 29, 2016

Location

OIST Main Campus, Room B250

Symposium Sponsor and Organizer

Energy Materials and Surface Sciences Unit (EMSS) https://groups.oist.jp/emssu

Okinawa Institute of Science and Technology Graduate University https://www.oist.jp

Symposium Chair

Prof. Yabing Qi (Yabing.Qi@OIST.jp)

Undergraduate students, graduate students, post-docs and researchers at universities or institutes are encouraged to submit poster presentation applications to attend ISFM 2016 via the following online application system link:

https://groups.oist.jp/isfm2016/poster-application

Room and board will be covered for all workshop participants. OIST will help with arranging visas, if necessary. A limited number of travel grants are available for abstracts of merit. During selection for participation and travel grant awards, preference will be given to students.

****OIST is deeply committed to the advancement of women in science, in Japan and worldwide. Women are strongly encouraged to apply.****

Confirmed Speakers

- Michael Graetzel: Professor and Director, Laboratory of Photonics and Interfaces, Ecole Polytechnique Federale de Lausanne, Switzerland
- Antoine Kahn: Professor and Associate Chair, Department of Electrical Engineering, Princeton University, USA
- Jean Luc Bredas: Distinguished Professor and Director, KAUST, Saudi Arabia
- Takao Someya: Professor, University of Tokyo, Japan
- Eiichi Nakamura: Professor, University of Tokyo, Japan
- Zhenan Bao: Professor, Stanford University, USA
- Miquel Salmeron: Senior Staff Scientist, Lawrence Berkeley National Laboratory and Adjunct Professor, UC Berkeley, USA
- Flemming Besenbacher: Professor, iNano and Aarhus University, Denmark
- Chihaya Adachi: Professor and Director of the Center for Organic Photonics and Electronics Research, Kyushu University, Japan
- Wei Huang: Chair Professor and President (Academician), NanJing Tech University, China
- David Cahen: Professor and The Rowland and Sylvia Schaefer Chair in Energy Research, Weizmann Institute of Science, Israel
- Shuit-Tong Lee: Professor and Director (Academician), Soochow University, China
- Kazuo Takimiya: Group Director, Emergent Molecular Function Research Group, RIKEN, Japan
- Lei Jiang: Professor and Academician, The Institute of Chemistry, Chinese Academy of Sciences, China
- Tsutomu Miyasaka: Professor, Toin University of Yokohama, Japan
- Nam-Gyu Park: Professor, Sungkyunkwan University, Korea
- Yang Yang: The Carol and Lawrence E. Tannas Jr. Endowed Chair in Engineering, UCLA, USA
- Jun Takeya: Professor, University of Tokyo, Japan
- Antonio Facchetti: Chief Technology Officer, Polyera and Adjunct Professor, Northwestern University, USA
- Sang Il Seok: Professor, Korea Research Institute of Chemical Technology, Korea
- Henning Sirringhaus: Hitachi Professor of Electron Device Physics, University of Cambridge, UK
- Norbert Koch, Professor and Chair, Humboldt-Universität zu Berlin, Germany
- Katsuhiko Ariga, MANA Principal Investigator, NIMS, Japan
- Juan Bisquert: Professor, Universitat Jaume I de Castelló, Spain
- Jeffrey Neaton: Professor, UC Berkeley and Director, The Molecular Foundry, Lawrence Berkeley National Laboratory, USA
- Jeong Young Park: Associate Professor, Korea Advanced Institute of Science and Technology, Korea
- Yutaka Ie: Associate Professor, Osaka University, Japan
- Mukhles Sowwan: Associate Professor, Nanoparticles by Design Unit, OIST, Japan
- Keshav Dani, Assistant Professor, Femtosecond Spectroscopy Unit, OIST, Japan
- Matthias Wolf: Assistant Professor, Molecular Cryo-Electron Microscopy Unit, OIST, Japan

The aim of this symposium is to bring together leading experts and aspiring scientists to report and discuss the latest progress in functional materials as well as instrumentation development for studying these materials. Information exchange and research collaboration will be promoted through stimulating results and engaging discussion, discussion panels, video poster sessions, and mixer events of symposium participants and OIST graduate students, and other flexible interactions. Hot topics will include: organic-inorganic hybrid materials like perovskites, organic energy materials, and scanning-tunneling spectroscopy of functional molecules.

Advances in photovoltaics in the past years with multiple world records over 10% efficiency have been made possible through new functional materials, e.g. organic-inorganic hybrids like perovskites, high performance semiconducting polymers, and small molecules. Perovskites in particular will be highlighted by multiple speakers; perovskite materials are proving them to be capable of power conversions efficiencies of over 20%. Advanced instrumentation are key to the understanding of the properties and interactions of these new materials, which is critical to optimizing their performance, improving their stability, and developing new materials and device structures to capitalize on these advances.

The symposium will emphasize the topics such as, but not limited to:

- Fundamentals and applications of perovskites
- Rational design and synthesis of functional materials
- Cutting-edge techniques and instrumentation for functional materials investigation
- Air exposure effects, photo-oxidation and lifetime of solar cells
- Plasmonic effects in solar cells
- Thin film deposition and analysis
- Nanostructured thin films
- Oxide films for solar cell applications
- Influence of interface structure and orientation on electronics based on functional materials
- Electronic and optical properties of hybrid materials
- Organic thin film transistors, organic solar cells, and organic light emitting diodes
- Organic/organic, organic/metal, organic/oxide interfaces
- Electroluminescence
- Morphology control and optimization of thin films of functional materials
- Charge transport in crystalline semiconductors
- Electrical properties and energetics of semiconducting polymers and small molecules