Symposium F : Organic Electronics, Photonics and Bioelectronics: Fundamentals, Applications and Emerging Technologies

Scope of the Symposium

The Symposium intends to bring together chemists, materials scientists, biologist, physicists, and engineers from both academia and industry to share information on the broad field of conjugated organic materials and their interface with biological systems. Both fundamental studies and applied research towards device applications and emerging technologies will be welcome. It includes all types of organic or hybrid organic/inorganic functional materials, as well as their electronic, photonic and optoelectronic properties. The research topics comprise all types of synthesis, processing techniques (molecular crystals, multilayers, self-assemblies, printing techniques, and thin films), compounds (polymers, small molecules, composites, blends, nanoparticles, liquid crystals, hybrid), micro- and nano-fabrication, interfaces, spectroscopic characterization (linear and non-linear), surfaces (conducting, flexible, transparent substrates), electronic, and photonic properties. In addition, the symposium is equally open for any type of electronic, photonic and hybrid devices, such as: light-emitting diodes (LEDs), field-effect transistors (FETs), MIS capacitors, diodes, LASERS, electrochemical cells and transistors, photovoltaics (PVs), thermoelectrics, supercapacitors, integrated circuits, non-volatile memories, batteries, sensors, actuators & detectors, including their interface with biological materials. In this context, the Symposium aims to discuss the future of Organic Electronics, Photonics and Bioelectronics to discuss our current understanding and to define future trends of this exciting field.

Abstracts will be solicited in (but not limited to) the following areas

- *Synthesis and characterization of conjugated molecules and polymers, hybrids, and composites*
- *Natural/biocompatible electronic materials*
- *Synthesis and characterization of functional liquid crystals and their applications*
- *Mixed ion-electron conduction*
- *Interfaces in conjugated organic materials and devices*
- *Advances in processing of conjugated organic materials and devices*
- *Photonic, photophysics, and photochemistry of conjugated molecules and polymers*
- *Electronic and photonic devices based on organic, hybrid and carbon-based materials*
- *Micro- and nano-fabrication of organic or hybrid devices*
- *Organic sensors, biosensors and interfacing biology to electronics*
- *Theoretical modeling of conjugated molecules, biomolecules or polymers and organic devices*

Tentative list of invited speakers (To be confirmed)

Alberto Salleo (*Stanford University*) **Franky So** (*North Carolina State University*) **Jun-ichi Hanna** (*Tokyo Institute of Technology*) **Osvaldo N. Oliveira Jr** (*So Carlos Institute of Physics - USP*) **Shi-Jian Su** (*South China University of Science and Technology*) **Xiaobin Peng** (*South China University of Science and Technology*) **Ruidong Xia** (*Nanjing University of Posts and Telecommunication*) **Sai Santosh Kumar Raavi** (*Indian Institute of Technology Hyderabad*) .

Symposium Organizers

Douglas Jos Coutinho (*UTFPR*) **Eduard Westphal** (*UFSC*) **Marystela Ferreira** (*UFSCar*) **Paulo Barbeitas Miranda** (*IFSC-USP*) **Bob C. Schroeder** (*University College London*) .

XIX Brazil MRS Meeting