Symposium E: Photonic Materials: physical properties and applications

Scope of the Symposium

There is a constant demand for the development of novel photonic materials with improved properties for future technological applications. The rapid growth of new photonic materials is due to the availability of new strategies for synthesis and characterization techniques. This Symposium is focused on the physical properties and applications of photonic materials and intends to present an overview of recent advances in new platform design, concepts of materials, manufacturing techniques and promising applications. It will cover emerging topics in photonic materials, as organic, inorganic and hybrid systems, including plasmonic, metamaterials, two-dimensional materials, among others, which aim to overcome existing limitations that prevent the development of practical photonic devices.

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

- Novel routes for the preparation of photonic materials
- Molecular systems for photonics
- Two-dimensional materials and metamaterials for photonics
- Nanophotonic and Plasmonic Materials
- Characterization, spectroscopy and nonlinear effects of photonic materials
- Plasmonic waveguides: novel architectures
- Hybrid systems: fabrication and applications
- Synthesis and optical properties of quantum dots, colloidal, and vitreous nanocomposites
- Metallic nanoparticles: new engineering for photonic devices
- Ultrafast phenomena in photonic materials
- Advanced fabrication technologies for optics and photonics
- Biophotonic Materials and applications
- Microwave and EMI shielding
- Spintronics

Tentative list of invited speakers (To be confirmed)

Maurizio Ferrari (Institute for Photonics and Nanotechnologies) Marco Bettinelli (University of Verona) Manuel Quevedo Lopez (University of Texas at Dallas) Luis D Carlos (University of Aveiro) Wilfried Blanc (French National Centre for Scientific Research) Pierre-Francois Brevet (Claude Bernard University Lyon 1) Tobias Voss (Technical University of Braunschweig) Anna Lukowiak (Polish Academy of Sciences) Amitava Patra (Indian Association for the Cultivation of Science, Department of Materials Science) David J. Hagan (CREOL, The College of Optics & Photonics University of Central Florida).

Symposium Organizers

Luciana Reyes Pires Kassab (Faculdade de Tecnologia de Sã Paulo) Cid Bartolomeu de Araujo (Universidade Federal de Pernambuco) Cleber Mendonca (Instituto de Física de Sã Carlos) Rajeev Kumar (Materials Research Centre, Indian Institute of Science) Harish Kumar Choudhary (Japan Advanced Institute of Science and Technology).

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