

Symposium M: Recent Advances on Nanostructured Materials for alternative energy: production and storage - II

Scope of the Symposium

The aim of this symposium is to bring together scientist working in the different research areas, such as materials science, chemistry, physics and engineering to explore and discuss recent developments (theoretical and experimental). In summary, the symposium intends to provide an interdisciplinary forum to discuss the recent advances and future trends of the nanoscience in solar energy conversion and storage.

The low dimensional systems have revolutionized the science and technology in several areas, however, their understanding is still the great challenge of the scientific community. Alternative materials and devices to solar energy conversion (generation) are an excellent example of the exceptional gains in efficiency and stability with introduction of nanostructured materials. In this context, the nanostructures have played an improvement of surface properties, transport and charge transfer, as well as direct application as sensors and storage devices and energy conversion.

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

Photoelectrochemical and photochemical devices, fotoelectrodes, fotocatalysis, fotoconversion, photobiologics systems and their applications

- ▲ Nanostructured Sensitized Solar Cells
- ▲ New devices, methods for energy generation
- ▲ Synthesis of 1D, 2D and 3D nanostructure, including nanotubes and nanorods
- ▲ Nanostructured Materials for energy applications
- ▲ Functional oxides nanostructures
- ▲ Solid-state batteries, Ionic conductors, Nanocomposite battery electrode, Ionic and electronic transport and Nanostructured materials and devices
- ▲ Recents advances in fuel cells

Symposium Organizer

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Symposium Co-organizers

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Confirmed Speakers

Kevin Sivula (EPFL, Lausanne, Switzerland)

Edson R. Leite (DQ-UFSCar, São Carlos, SP)

Franco Decker (Università di Roma "Sapienza", Roma, Italy)

Frank N. Crespilho (CCNH/UFABC, Santo André, SP)

Giuseppe A. Camâra (UFMS, Campo Grande, MS)

Invited Speakers (tentative list)

National

Fabio Henrique Barros de Lima (IQSC/USP, São Carlos, São Paulo)

Roberto Torresi (IQ-USP, São Paulo)

Fritz Huguenin (FFCLR/USP, Ribeirão Preto, São Paulo)

International

Jochin Maier (MPI-Stuttgart, Germany)

Prashant V Kamat (USA)

Radoslav R Adzic (Brookhaven, USA)

Michael McGehee (Standford, USA)

Anders Hagfeldt (Uppsala, Sweden)

Members of scientific comitee

Reginaldo Muccillo (IPEN-USP, São Paulo, SP, Brazil)

Edson A Ticianeli (IQSC-USP, São Carlos, SP, Brazil)

Henrique Eisi Toma (IQ-USP, São Paulo, SP, Brazil)

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