

Symposium: IX Brazilian electroceramics symposium

Scope of the Symposium:

Electroceramics is an important interdisciplinary research area involving mainly physicists, chemists and engineers. Electroceramics is a very attractive area in Materials Science. It is large the number of journals and meetings with publication of many papers with potential technological impact. New materials with outstanding properties and potential technological applications together with old materials presenting actual technological applications and enhanced properties offer a broad field of research opportunities. This symposium, organized by the Brazilian-MRS intends to be a forum for all researchers and students (undergraduate, M. Sc., PhD and Pos-Docs) on electroceramics. The state-of-the-art of R&D on electroceramic materials will be focused with reviews of the present knowledge and forecasts for future developments. Emphasis will be put on the opportunities for experiences exchange and discussions among researchers. Several features of R&D on electroceramics, including novel processing, experimental procedures and technological applications will be considered.

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

- Synthesis and Processing
 - powder synthesis, thin and thick film processing and characterization, self-supported structures, multilayer structures, heterostructures, nanostructures, sintering and microstructure development, grain boundary engineering, cermets, ceramics and ceramic matrix composites, crystal growth methods and characterizations, novel synthesis routes: atomic layer control and self-assembly;
- Characterization
 - dc and ac standard electrical measurements, electrochemical impedance spectroscopy, electrical and magnetic ceramics, ionic-electronic mixed conductors, transport phenomena and diffusion, defects in electroceramics, microstructural analysis by X-ray diffraction, neutron diffraction, electron microscopy, Raman spectroscopy, scanning probe microscopy, etc.;
- Applications
 - dielectrics, , ferroelectric memories, piezoelectrics, non-lead electroceramics, magnetic ceramics, ceramic superconductors, spintronics, sensors and actuators, transducers, varistors, PTC and NTC, solid oxide fuel cells, solid state batteries, ceramic membranes, photoluminescent ceramics, electroceramics in catalysis, dielectrics for microwave applications, functional materials for chemical and biological sensors, materials for energy storage, sealing etc.

Invited speakers:

1. Prof. Dr. Jaques Noudem (UNICAEN), França
2. Prof. Dr. José A. Eiras (UFSCar), Brazil
3. Prof. Dr. Maximiliano L. Munford (UFV), Brazil
4. Prof. Dr. Olivier Mentre (CNRS), França
5. Prof. Dr. Enrico Traversa (KAUST), Arábia Saudita
6. Prof. Dr. Danilo Suvorov (SJI), Eslovénia
7. Profa. Dra. Yun Lin (ANU), Austrália

Symposium Organizers:

Main organizer

1. D. Z. de Florio

Universidade Federal do ABC

Co-organizers:

2. M. O. Orlandi

Universidade Estadual de São Paulo - UNESP

3. M. H. Lente

Universidade Federal de São Paulo

Members of Scientific Committee

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