



### **Symposium M: Advances and Applications of Electron Microscopy**

#### **Scope of the Symposium**

The "Advances and Applications of Electron Microscopy" symposium will cover studies in both Scanning Electron Microscopy (SEM) and Transmission Electron Microscopy (TEM). SEM and TEM are powerful techniques of materials characterization enabling measurements of local properties, chemical composition, morphology, structure, and so on. Nowadays electron microscopes have received improvements which allowed new insights about growth mechanisms, in-situ studies, thermal stability of materials, etc.

This symposium will be broad enough to accept works from the electron microscopy community in different sub-areas. So, we encourage the submission of papers using EM techniques to characterize soft and/or hard materials, in-situ studies in both SEM and TEM, electron lithography advances, chemical characterization using different techniques (EDS, WDS, EELS), and so on. Besides, theoretical advances in EM simulation and theoretical/experimental works related to EM are also encouraged.

The symposium is open to students, faculties and industrial researchers with the expectation that the interactions among attendees will enable new collaborations.

#### **Topics**

- High resolution SEM
- In-situ and environmental studies using SEM
- EDS, WDS, EBSD and EBIC studies in SEM
- High resolution characterization in TEM
- Cryo and in-situ studies in TEM
- EELS and CBED applications
- Aberration corrected studies
- TEM theoretical modeling

#### **Invited speakers include (partial list):**

Antônio J. Ramirez – LNLS (Brazil)  
Profa. Dra. Nelcy Della Santina Mohallem - UFMG (Brazil)  
Gianluigi Botton - McMaster University (Canada)  
Dra. Andrea Porto Carreiro - INMETRO (Brazil)  
Prof. Dr. Dante Homero Mosca Júnior - UFPR (Brazil)  
Dr. André Luiz Pinto - CBPF (Brazil)  
Prof. Dr. Hugo Sandim

#### **Organizers**

Marcelo Ornaghi Orlandi (São Paulo State University - orlandi@iq.unesp.br)  
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