

Symposium G: Nanostructured Polymers and Polymer-based Nanocomposites.

Scope of the symposium

This symposium aims to bring together scientists and students of the Brazilian polymer science community developing researches on polymer-based nanocomposites and nanostructured polymers. Through the invited lectures given by world leading scientists from Europe, Asia and Brazil which will present scientific and technological results at the frontier of the area (all of them have officially confirmed their talk), we hope to attract a large fraction of the Brazilian polymer community to attend the conference (we expect between 80 and 120 participants). This symposium will offer the opportunity to Brazilian researchers and students to be informed of the most recent advances in the area, to have high level scientific discussions and to establish collaborations with polymer groups of several countries. Prof. Redouane Borsali (CERMAV, Grenoble University, France) has accepted with great pleasure to be the co-chairman of this symposium and his experience in organizing conferences and his international contacts will be decisive to guaranty the high scientific level of the symposium. We also plan to promote new scientific and technological interactions between Brazilian scientists of universities or research institutes and companies established in Brazil through the help of the Brazilian polymer community which has many contacts with the polymer industry. At last, following the example of the last SBPMat conference in Gramado-RS (September 25-29th , 2011), Prof. Borsali would have the possibility during the conference to give a short course on Small-Angle Neutron Scattering (SANS) which is a very powerful technique to investigate the nanostructure of polymers and polymer-based nanocomposites. This technique is up to now very poorly used by the Brazilian polymer community due to the absence of neutron beam which should be used for scientific purposes in the country. However, Brazil is planning to build in the next few years a nuclear reactor near Jundiai-SP which should offer the possibility to perform SANS experiments. It is therefore of great importance to offer the possibility to Brazilian polymer scientists (particularly PhD students) to acquire a knowledge of this technique and to promote sandwich thesis and post-doc stages in laboratories abroad before the building of this facility.

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

- Nanostructured polymer-based networks and gels
- Polymer nanocomposites for biomedical applications
- Stimuli responsive nanostructured polymers for optoelectronics, sensing and actuators
- Nanostructured conductive polymers
- Nanostructured polymer-based materials from renewable resources
- Nanofillers in Polymers: clay, carbon nanotubes, graphene and nanofibers
- Nanostructured coatings and adhesives
- Block Copolymers
- Hybrid organic-inorganic Materials
- Advanced characterization techniques of nanocomposites and nanostructured polymers
- Mathematical modeling of processes and properties

Symposium organizers

Karim Dahmouche (Instituto de Macromoléculas (IMA)-UFRJ, Rio de Janeiro, Brazil)

Redouane Borsali (CERMAV - Joseph Fourier University, Grenoble, France)

Luiz Antonio Pessan (DEMA-UFSCAR, São Carlos, SP, Brazil)

Paulo Henrique de Souza Picciani (Instituto de Macromoléculas (IMA)-UFRJ, Rio de Janeiro, Brazil)

Alexandre Carneiro Silvino (Instituto de Macromoléculas (IMA)-UFRJ, Rio de Janeiro, Brazil)

Invited speakers (tentative list)

Redouane Borsali (CERMAV, Université Joseph Fourier, Grenoble, France)

Oswaldo Novais de Oliveira Junior (USP, São Carlos-SP, Brazil)

Toshifumi Satoh (Polymer Chemistry Department, Hokkaido University, Sapporo, Japan)

Luiz Henrique Capparelli Mattoso (EMBRAPA, São Carlos-SP, Brazil)

Luis Dias Carlos (Departamento de Física, Universidade de Aveiro, Portugal)

Valdir Soldi (Departamento de Química, UFSC, Florianópolis-SC, Brazil)

Patrick Judeinstein (Laboratoire de RMN em Milieux Orientés, Université Paris-Sud, Orsay, France)

Raquel Santos Mauler (Instituto de Química, UFRGS, Porto Alegre-RS, Brazil)

Lélia Ximenes Lowe (Petrobras, Rio de Janeiro, Brazil)

Scientific committee members (tentative list)

Luiz Antonio Pessan (DEMA, UFSCAR, São Carlos-SP)

Redouane Borsali (CERMAV, Grenoble, France)

Laura Hecker de Carvalho (UFCEG, Campina Grande-PB, Brazil)

Celso Valentim Santilli (IQ, UNESP, Araraquara-SP, Brazil)

Aldo José Gorgatti Zabin (Departamento de Química, UFPR, Curitiba-PR, Brazil)

Karim Dahmouche (IMA, UFRJ, Rio de Janeiro-RJ, Brazil)

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