



Symposium B: Biodegradable Polymer Materials

Scope of the Symposium

The symposium will cover ongoing research in biodegradable polymeric materials for coating, packaging, automotive, medical and other related applications. Non-degradable polymeric waste has become a global concern in terms of both cost and ethics. Biodegradable polymers offer alternatives for packaging that minimize environmental pollution at a relatively low cost. Applications of these polymers in the food and biomedical industries have been investigated. For packaging, polymeric materials should function as a barrier for water, oxygen and lipid transfer in food systems and, therefore, should contribute to the extension in the shelf-life of food. For medical applications, the material should repair tissue defects, and be designed to exhibit adequate physical and chemical properties and, at the same time, to enhance cell adhesion, proliferation and differentiation. Although nanostructured reinforced composites are highly recommended for bone implants over the micrometer sized composites for their improved reinforcement efficiency and biological responses, they may also pose toxicological effects. Current trends in polymer science also reflect the fact that synthesis and manufacturing of polymers should be done using environmentally friendly processes. All these aspects of polymer science and technology are hugely demanding in present times.

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

- *Biodegradable polymer nanocomposites*
- *Materials for biodegradable packaging*
- *Scaffolds for tissue engineering*
- *Synthesis, processing and characterization of biodegradable polymers*
- *Toxicity and biodegradability of polymeric materials*

Final list of invited speakers

Cauê Ribeiro, Empresa Brasileira de Pesquisa Agropecuária, CNPDIA (São Carlos, SP).

António Vicente (Department of Biological Engineering, University of Minho Campus de Gualtar, Portugal),

Lorenzo Pastrana (Departamento de Química Analítica e Alimentaria, Faculdade de Ciências de Ourense, Universidade de Vigo),

Jose Lagaron (Novel Materials and Nanotechnology Group, Spanish Council for Scientific Research (CSIC)),

Nathalie Gontard - (UMR 1208 IATE - Agropolymers Engineering and Emerging Technologies, Université Montpellier II cc023),

Maria do Pilar Gonçalves (Faculdade de Engenharia, Universidade do Porto) **Pedro Grande** (UFRGS, Brazil),

X Encontro da SBPMat

Gramado-RS

25 a 29 | setembro
2011



X Brazilian MRS Meeting 2011

Organizers:

Cristina Tristão Andrade (Instituto de Macromoléculas Professora Eloisa Mano, UFRJ)

Marcos Lopes Dias (Instituto de Macromoléculas Professora Eloisa Mano, UFRJ)

António Vicente (Department of Biological Engineering, University of Minho Campus de Gualtar, Portugal)