Symposium: Functional hybrid interfaces - from characterization to applications

Scope of the Symposium:

Driven by the increasing market demands for advanced new functional materials the understanding and control of the interface in functional hybrid materials is essential for applications in photovoltaics, optoelectronics, coatings, paints and adhesives, which are strongly demanded by renewable energy, aerospace, and automotive industries. The aim of this symposium is to bring together researchers from academia and industry in the field of functional interfaces. The main focus of this symposium will be on the design, control and characterization of hybrid polymer/solid state materials aiming at applications in optoelectronics, coatings and adhesives. The symposium will be a great opportunity for theoreticians and experimentalist to discuss the present state of the art in the field and future trends for research, development and applications. The Brazilian Society of Adhesion and Adhesives (Associação Brasileira de Adesão e Adesivos) ABAA supports the symposium, and *selected* symposium papers *will be* published in a special issue of Applied Adhesion Science Journal (http://www.appliedadhesionscience.com/).

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

In this symposium special emphasis will be given to surface modification processes by forming functional interfaces composed of solid state surfaces (metals and oxides) and organic materials, such as polymers. Selected topics on surface characterization and analysis techniques, multifunctional coatings/adhesives, computational modeling and applications will be addressed such as:

- Surface characterization techniques of hybrid interfaces
- Computer simulations to access to technologically important properties of surfaces, surfaces interactions, surface modifications, substrate and adhesion properties
- Applications of hybrid materials technologies (devices, adhesion, coating)
- Challenges on research, development and applications.

Tentative list of invited speakers:

1. Michael Noeske (Fraunhofer Institute for Manufacturing Technology and Advanced Materials in Bremen – IFAM, Bremen, Germany)
2. Andréia Luísa da Rosa (Federal University of Minas Gerais-UFMG)Israel Baumvol (UFRGS, Porto Alegre, Brazil).
3. Welchy Leite Cavalcanti (Fraunhofer Institute for Manufacturing Technology and Advanced Materials in Bremen –IFAM, Bremen, Germany)
4. Klaus Rischka (Fraunhofer Institute for Manufacturing Technology and Advanced Materials in Bremen – IFAM, Bremen, Germany)
5. Suelen Barg (Materials Department, Imperial College London)

Symposium Organizers:

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Fraunhofer Institute for Manufacturing Technology and Advanced Materials in Bremen – IFAM

2 Name: Andréia Luísa da Rosa

Universidade Federal de Minas Gerais, UFMG

3 Name: André A. Pasa

Federal University of Santa Catarina – UFSC

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