

Symposium I : Innovative applications for textile materials

Scope of the Symposium

The symposium Innovative applications for textile materials will be focused on research and development of textile innovations, including biotechnology and enzyme technology applied to fibers and fabrics. The proposed symposium is intended to be multidisciplinary and the thematic technical sessions and oral presentations will consider: Alternative sustainable textile wet processing; Nanotechnology for textile finishing; Enzymatic and Biotechnology in textile processing; Treatment and recycling of textile waste; Smart technologies in textile processing; The textiles and fabrics industry has significantly grown in the last decade, bringing new demands and the need for new fields research, such as the sustainability throughout the production scale, from the extraction of the raw material to the treatment of textile waste. In this sense, the textile industries are closely linked with the development of new materials or nanomaterials. The growing textile fields face many challenges and concerns, especially when are considering the issues of textile recycling, the large amount of waste and water used during the production. The development of greener and sustainable processes with less consumption of harmful chemical reagents, procedural milder conditions (neutral pH, lower temperatures), lower consumption of energy and water, and lower generation of effluents and residues. The use of bio, nano and other new technologies should, in principle, contribute to the development of innovative and high quality of products, in line with the technological requirements, and environmental preservation. The region of the Itaja Valley is considered one of the largest textile centers in the country and Latin America and has various industries sectors using conventional and innovative technologies. The symposium is an exceptional opportunity for the discussion of research advances and prospects of technologies applied to the textile processing. Besides, will stimulate the exchange of information between participants from universities, research institutes, government agencies and industries.

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

- 1- *Alternative sustainable textile wet processing;*
- 2- *Nanotechnology for textile finishing;*
- 3- *Enzymatic and Biotechnology in textile processing;*
- 4- *Treatment and recycling of textile waste;*
- 5- *Smart technologies in textile processing.*

Tentative list of invited speakers (To be confirmed)

1- Renan Serrano (USP) 2- Jrgen Andreus (FURB) Bianca Nastri Penteado Zaghini (Aupicor Qumica Ltda) .

Symposium Organizers

Lizandra Maria Zimmermann (FURB) Jrgen Andreus (FURB) Ivonete Oliveira Barcellos (FURB) Eduardo Guilherme Cividini Neiva (FURB) .

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