

About 300 scientists from 35 countries attended this first joint meeting between the 8th European Symposium on Polymer Blends and Eurofillers 2005, organized in the historical city of Bruges, Belgium, from May 9 to May 12, 2005. They all discussed 16 plenary/keynote lectures, 44 oral communications and more than 200 poster presentations.

“Materials Design, Performance and Problem Solving” was the general theme of this meeting, actually organized by laboratories of four Belgian universities active in polymer-based materials. The Chairing Committee was composed of Prof. Ph. Dubois, University of Mons-Hainaut, Mons, Prof. G. Groeninckx, Catholic University of Leuven, Heverlee, Prof. R. Jérôme, University of Liège, Liège, and Prof. R. Legras, Catholic University of Leuven, Louvain-la-Neuve, thus both in Belgium. This Symposium was sponsored by IUPAC, but also by Belgian FWO-Flanders and FNRS, as well as by various companies.

The purpose of this international joint symposium clearly stimulated dialogues between specialists in complementary fields, including physicists, chemists and engineers, with expertise in both organic and inorganic materials. Design and synthesis of base materials is the very first step of innovation on materials and processes, followed by the search for synergy by appropriate combinations of these materials under different forms and shapes - films, coatings, foams, packagings, scaffolds, ... - for a large range of applications including electronics, energy, life sciences and technology, environment, etc.

The topics discussed all along this joint meeting included:

In the field of “*Polymer Blends*”:

- Innovations in generation and control of phase morphology, including theoretic

tical approaches and numerical simulations

- Reactive processing: reactive compatibilisation, dynamic crosslinking, polymer chemistry in the melt
- Interfaces and interphases: control, characterisation and modelling
- Structure-mechanical performance relationships
- Specific polymer blends (including recycling) and their applications;

In the field of “*Fillers and Filled Polymers*”:

- Preparation and characterisation of (nano)fillers of all shapes and functions
- Formulations of (nano)fillers with polymers: nanocomposites, natural fibre composites, organic-inorganic hybrid materials
- Adhesion between (nano)fillers and polymers
- Structure-property relationships of (nano)composites, including confined crystallisation issues
- Industrial applications of filled polymers in automotive, electronic, biomedical and packaging area.

This first joint meeting demonstrated that the problems faced in the domains “filled polymers” and “polymer blends” are most often very similar to each other and therefore should deserve attention and discussion from both scientific communities. The present volume covers most of the plenary and oral contributions presented at the meeting.

On behalf of the organizing committee, I want to express a sincere thank to all of the active contributors and participants.

For the organizing Committee,

*Philippe Dubois*