

**European Network of Excellence (NoE)
NANOFUN-POLY**

**Integrated Project (IP)
MULTIHYBRIDS**

**Short course on
Nanocomposites Chemistry and Processing
Basic Aspects**

Alessandria, 25-26 June 2009

Organised by

European Center of Nanostructured Polymers
(ECNP)

Consorzio Interuniversitario Nazionale per la
Scienza e Tecnologia dei Materiali (INSTM) -
Italy

Consorzio Proplast – Italy

Introduction

The European Network of Excellence (NoE) *NANOFUN-POLY* established in June 2004 and concluded in June 2008 has promoted, through the recently created European Center for Nanostructured Polymers (ECNP), the organisation of Short Courses and Congresses on Nanostructured Materials.

For info on ECNP please visit the websites www.nanofun-poly.com and www.ecnp.eu.org. The European Integrated Project *MULTIHYBRIDS* started its activities on January 2007. The main aim of the project is to study for 4 years nanocomposite materials properties and production processes. Besides the research activities, Multihybrids is deeply involved in training activities that will mainly

target the personnel of the industrial partners, developers and end-user of the technology. For info on *MULTIHYBRIDS* please visit the website www.multihybrids.eu.

Purpose

New methods for synthesis (combinatorial chemistry combined with high rate characterization methods, controlled radical polymerisation, supramolecular chemistry, etc.), processing (surface patterning, self-assembling, intercalation, etc.) and characterization techniques operating at different scales (atomic force microscopy, scattering techniques, etc.) have been developed during the last few years, leading to the creation of new and innovative devices and objects from nanostructured polymers and their nanocomposites.

The main focus of this First Short Course will be on the chemistry and the processing of the Nanostructured Polymeric Materials.

Course programme

The language will be English. The course will consist of formal lectures and training in the laboratories; time for questions and discussion will be also available.

The events will begin at 15 on 25th June 2009 and end at 17 on 26th June 2009.

Who should attend?

Participation is open researchers and PhD students both from industry and academia. Application fields that will benefit from the Short Course concern strategic industrial sectors which will enhance their competitiveness by using advanced technologies in thermal

synthesis and processing of nanostructured polymer and composite materials.

Topics addressed

Nanostructured materials, processing, rheology, dendritic molecules, nanofillers, modelling

Preliminary programme

June 25th 2009

Morning: registration

15:00-16:00 **J.F. Gerard** – INSA Lyon - *General introduction to nanostructured materials*

16:00 – 17:00 **J.P. Pascault** – INSA Lyon - *Nanostructured thermosets*

17:00-17:30 Coffee break

17:30 – 18:30 **D. Tabuani** - PROPLAST - *Nanofillers: Silica, Clays, CNT, POSS*

June 26th 2009

9:00 – 10:00 **B. Voit** - IPF - *Dendritic macromolecules as functional nanomaterials*

10:00 – 11:00 **D. Acierno** - University of Naples - *Processing and rheology of nanocomposites*

11:00 – 11:30 coffee break

11:30 – 12:30 **P. Cassagnau** - University Lyon1 - *Reactive processing: chemistries and tools*

12:30 -13:30 **D. Fischer** - IPF - *In-line monitoring for reactive processing*

13:30 – 14:30 Lunch

14:30–17:00 **M. Fermeglia, S. Pricl** – University of Trieste - *Multiscale modeling for nanocomposites: theory and applications*

Course location

Alessandria is located in the hearth of the Italian industrial north. It is well situated and easily accessible by train and motorway from Genoa, Turin and Milan airports.



Proplast – Consorzio per la Promozione della Cultura Plastica - was founded in 1997 as an industrial consortium with the aim to promote the plastics material culture in Italy, also seeing the participation of the most representative Italian Universities in the field of polymer materials. Proplast now is gathering 119 industrial companies, 14 Universities and 6 industrial associations.



Proplast is involved in the following fields: Industry services (laboratory testing, product design, process optimisation), Education at all levels, Training, Applied research, Information and documentation centre Organisation of seminars and congresses.

Hotel reservation

Special rates for accommodation are offered in Alessandria Hotels.

Please contact Alturist srl

Tel.: (+39)0131444526

E-mail: alturist@alturist.191.it

(ref: ECNP School)

Fees and registration

Link for registration online is be available on the ECNP website www.ecnp.eu.org

€240 before March 31st 2009

€340 after March 31st 2009

Final deadline for payment: May 31st.

Special fee - only possible within March 31st for participants to Eurofillers2009 Congress (www.eurofillers2009.it): **150€**

The fee includes a complete set of course notes, lunch, coffee breaks and social dinner. It does not include hotel accommodation.

MULTIHYBRIDS partners will participate free of charge.

Early registration is strongly advised. Substitutions may be made at any time.

Refunding upon withdrawal in writing: 50% within and not later than April 30th, 2009 (excluded, where incurred, costs of the organisers for collecting the payment), no refunding after.

Organisation

The Course is organised, on behalf of the ECNP Board of Directors and MULTIHYBRIDS Education and Training Committee, by

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(ECNP)*

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