

EPF 4th Summer School

(AIM XXX Convegno-Scuola Mario Farina)



“Bioplastics and Related Materials”

organized by AIM, BPG and GFP

In collaboration with University of Milan

2nd Circular

<http://www.epfschool.eu>

May 24-29th, 2009
Palazzo Feltrinelli
Gargnano (BS), Italy

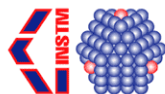
Organised by

AIM
Associazione
Italiana di Scienza e
Tecnologia delle
Macromolecole

GFP
Groupe Français
d'Etudes et
d'Applications
des Polymères

BPG
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EPF 4th Summer School
“Bioplastics and Related Materials”
Gargnano (BS), Italy, May 24–29th, 2009

With the first School on “Elastomers” in 2001, the European Polymer Federation (EPF) has undertaken a new task in the educational area, aiming at the creation of a European standard in Polymer Science and Technology teaching. The EPF Schools will supply an updated tutorial approach to the most recent and fast developing areas on which rationalised and comprehensive overviews are not yet available. Moreover, the educational approach will be available to all students and teachers worldwide, through a series of electronic books in English language edited from the lectures of the School. By launching this initiative, EPF fulfils once more its mission to make national achievements available europewide. The 2009 School addresses the revolution that is taking place in bioplastics and related materials by the capability that we are acquiring in controlling their morphology, thermo-mechanical properties and other more specific but also important performances.

By bioplastics it is aimed to refer to both polymers and related materials issued from biomass and biodegradable polymers, with the possibility to link these domains to each other. Even though bioplastics can find several applications into the biomedical field, it has to be stressed out that it is not the purpose of this Summer School to discuss that specific domain. Rather, lectures will focus on the positive environment impact of bioplastics owing to their wide range of properties and applications in sectors like packaging, textile, agriculture, automotive, etc.

The basic background, the developments up to industrial applications and the perspectives will be examined. The overview will include general introduction to bioplastics but also bio(nano)fillers and bioadditives. Natural polymers (from their extraction to their applications) and synthetic polymers from renewable resources will be presented and discussed. Processing and rheology, industrial issues of bioplastics, biodegradation and environmental fates of related materials, and regulatory and ecological issues will represent another part of the School.

The School will be of particular interest to chemists and engineers dealing with materials academic research, industrial R&D, production, processing, applications. The School will also be of interest to Marketing and Technical Assistance sectors as well as to teachers. The residential character of the School in the beautiful environment of Palazzo Feltrinelli on Lake Garda will supply the informal and relaxed atmosphere for a fruitful exchange of ideas among lecturers and attendees all the week long.

SESSIONS

- I Bioplastics – Basic Principles
- II Biopolymers, bioblends and biocomposites
- III Green processes for bioplastics
- IV Degradation and environmental fate of bioplastics
- V Perspectives

TOPICS

- Biopolymers : biothermoplastics, bioelastomers, biothermosets and biofibres)
- Biomonomers for chain-growth or step-growth polymerization
- Bio(nano)fillers and related filled-biopolymers/bio(nano)composites
- Bioadditives : antioxidants, stabilizers, antiUV
- Bioblends : production and applications
- Characterization and properties of bioplastics
- Green (solvent free) processes for biopolymers : reactive extrusion, supercritical fluid based-processes, bioreactors,...
- Application domains of biopolymers, bioblends and related bio(nano)composites
- New and emerging markets for bioplastics
- Regulatory and ecological issues

LECTURERS

- L. Cerruti (Italy):* “Open-jaw ticket. High polymers history: from nature to nature”
- R. Narayan (US):* "Tutorial on biobased and biodegradable plastics – principles, concepts and technology exemplars"
- E. Chiellini (Italy):* “Polymers of natural origin, structure, properties & isolation”
- J.F Gérard (France) :* “Synthetic polymers from renewable resources”
- C. Bastioli (Italy):* “State of the art on industrial bioplastics”
- B. Pukanszki (Hungary):* “Biofillers and bionanofillers”
- A. Dufresne (France):* “Bio(nano)composites”
- L. Tighzert (France):* “Bioblends and bioadditives”
- I. Mondragon (Spain):* “Role of bioresources in conventional plastic materials”
- L. Paternostre (Belgium):* “Green processes for bioplastics”
- P. Dubois (Belgium):* “ Bioplastics and reactive extrusion”
- M. Malinconico (Italy):* “Biopolymers in crop, food, health and building protection: a world of sustainable applications”
- B. Vergnes (France):* “Processing and rheology of bioplastics”
- A. Duda (Poland):* “New synthetic pathways to biodegradable polymers”
- G. Camino (Italy):* “Bioplastics degradation”
- S. Rossi (Italy):* “Lifecycle of bioplastics and environmental regulations”
- S. Cavallo (Italy):* “IngeoTM bioplastic to stand the market test including end of life options”

GENERAL INFORMATION

POSTER SESSION

A poster session is organized which is preceded by a presentation session in which authors briefly highlight essential features of their work.

Poster size: 100 cm high and 80 cm wide.

DEADLINES

Poster proposal (10 lines abstract): **April 1st, 2009**

Registration (form A + fees): **April 30th, 2009**

This conference is limited to 100 participants. **First arrived (Form A with payment)/first served rule will be strictly followed.**

LANGUAGE

English will be the official language of the EPF summer school.

CONFERENCE VENUE

The EPF summer school will take place at: Palazzo Feltrinelli, Via Castello, 3, 25048 Gargnano (Brescia) – Italy

Gargnano is a small resort village on Garda Lake, about 150 km east of Milan. At the end of May and beginning of June the weather is usually pleasant in northern Italy, temperatures ranging from 20 to 25°C; however, the evenings can be cooler.



REGISTRATION FEES*

Before April 30th, 2009 After April 30th, 2009

Active participant	€ 550	€ 600
Accompanying person	€ 250	€ 300

* Including (for all participants and accompanying persons): mix-together, coffee breaks, five lunches, wine and cheese party and social dinner at Palazzo Feltrinelli.

GRANTS

Young scientists and Ph.D. students can apply for cheap accommodation in the Palazzo Feltrinelli. In addition, a limited number of grants is provided by the Italian Institute of Materials Science and Technology (INSTM) for its young members. Applicants should send a short CV to secretariat@epfschool.eu by March, 20th. Grants assignment is scheduled by April, 1st.

TRAVEL

Foreign participants are advised to travel to Milano, which can be reached by plane from most Countries worldwide or by train from European Countries.

By Plane

Milano Centrale Railway Station can be reached in about one hour from Malpensa airport, where most overseas flights land, and in about 20 minutes from Linate Airport. Public transportation to Milano Railway Stations is available from both airports; a taxi service is also available.

By Train

Gargnano can be reached from Milano Centrale Railway Station by train to Brescia and bus from Brescia to Gargnano. Trains from Milano to Desenzano and both a bus and a taxi service from Desenzano to Gargnano is also available.

Please check timetables at www.trenitalia.it for trains and www.trasportibrescia.it for buses.

By Car

Gargnano can easily be reached by car, being close (about 40 Km) to the Milano-Venezia Motorway (see map).

TOURIST INFORMATION

CONSORZIO TURISTICO GARGNANO RELAX

Piazzale Boldini, 2 - 25084 - GARGNANO (BS), Lago di Garda - Italia

www.gargnanosulgarda.com

Tel / Fax (+39) 0365.791243, info@gargnanosulgarda.it

FULL PROGRAMME

Sunday, May 24th

16.30 – 19.30 Registration
20.00 Mix-together cocktail

Monday, May 25th

Session I Bioplastics – Basic Principles

9.00 – 10.30 **L. Cerruti** (University of Torino, Italy)
“Open-jaw ticket. High polymers history: from nature to nature”
10.30 – 11.00 Break
11.00 – 12.30 **R. Narayan** (Michigan State University, US)
“Tutorial on biobased and biodegradable plastics – principles, concepts and technology exemplars”
13.00 – 14.30 Lunch
14.30 – 16.00 **E. Chiellini** (University of Pisa, Italy)
“Polymers of natural origin, structure, properties & isolation”
16.00 – 16.30 Break
16.30 – 18.00 **C. Bastioli** (Novamont, Italy)
“State of the art on industrial bioplastics”
18.15 – 19.45 **Poster presentation** (2 min. each)
20.00 **Wine and cheese party**

Tuesday, May 26th

Session II Biopolymers, bioblends and biocomposites

9.00 – 10.30 **I. Mondragon** (University Basque Country, Spain)
“Role of bioresources in conventional plastic materials”
10.30 – 11.00 Break
11.00 – 12.30 **L. Tighzert** (ESIEC Reims, France)
“Bioblends and bioadditives”
13.00 – 14.30 Lunch
14.30 – 16.00 **B. Pukanszki** (Budapest University, Hungary)
“Biofillers and bionanofillers”
16.00 – 16.30 Break
16.30 – 18.00 **A. Dufresne** (INPG Grenoble, France)
“Bio(nano)composites”
18.15 – 19.30 **Posters session**

Wednesday, May 27th

Session III Green processes for bioplastics

9.00 – 10.30 **L. Paternostre/O.Talon** (Materia Nova-Natiss, Belgium)
“Green processes for bioplastics”
10.30 – 11.00 Break
11.00 – 12.30 **A. Duda** (CMMS, Polish Academy of Sciences, Poland)
“New synthetic pathways to biodegradable polymers”
13.00 – 14.30 Lunch
14.30– 16.00 **J.F. Gérard** (INSA Lyon, France)
“Synthetic polymers from renewable resources”
16.00– 16.30 Break
16.30– 18.00 **Round Table**, "The Plastics & Environment. A Tentative to Find a Common Nomenclature for Common Understanding" **Chair E. Chiellini**

Thursday, May 28th

9.00 – 10.30 **B. Vergnes** (ENSMP, France)
“Processing and rheology of bioplastics”
10.30 – 11.00 Break
11.30 – 13.00 **Ph. Dubois** (Univ. Mons-Hainaut, Belgium)
“Bioplastics and reactive extrusion”
13.00 – 14.30 Lunch
Session IV Biodegradation and environmental fate of bioplastics
14.30 – 16.00 **G. Camino** (Politechnic of Turin, Italy)
“Bioplastics degradation”
16.00 – 16.30 Break
16.30 – 18.00 **S. Rossi** (Proplast, Italy)
“Lifecycle of bioplastics and environmental regulations”
18.15 – 19.30 Posters session
20.00 Social dinner

Friday, May 29th

Session V Perspectives

9.00 – 10.30 **M. Malinconico** (CNR, Italy)
“Biopolymers in crop, food, health and building protection: a world of sustainable applications”
10.30 – 11.00 Break
11.00 – 12.30 **S. Cavallo** (Natureworks, Italy): “IngeoTM bioplastic to stand the market test including end of life options”
13.00 – 14.30 Closing and Lunch

FORM A

REGISTRATION FORM

EPF 4th Summer School
“Bioplastics and Related Materials”
Gargnano (BS), Italy, May 24–29th, 2009

Please return this form before April 30th 2009 by fax at: +39 081 674367
Online registration form also available at www.epfschool.eu/registration.html

Please print: Dr Prof Mr Mrs

Family Name _____

First Name _____

Accompanying Person Name _____

Affiliation _____

Address _____ Zip Code _____

City _____ Country _____

Phone _____ Fax _____

E-mail: _____

Registration Fees*	Before April 30 th , 2009	After April 30 th , 2009	Amount
Active participant	€ 550	€ 600	_____
Accompanying person	€ 250	€ 300	_____
		Total	€ _____

* Including (for all participants and accompanying persons): mix-together, coffee breaks, five lunches, wine and cheese party and social dinner at Palazzo Feltrinelli.

PAYMENT OF THE FEE

Credit Card

Charge my: VISA Mastercard/Eurocard American Express

Card N° _____ CVV2 _____ Expiration Date _____

Cardholder's Name and Address: _____

Phone _____ Date _____

Signature _____

International Postal Money Order or Eurocheque

addressed to “Associazione Italiana di Scienza e Tecnologia delle
Macromolecole”

Banker's Draft with reference to EPF 4th SUMMER SCHOOL drawn on
the following bank account:

Account name: Associazione Italiana di Scienza e Tecnologia delle
Macromolecole

Bank: Banco di Napoli

Branch: Napoli AG 1

Address of branch: Piazza Bovio, Palazzo Borsa, 80138 Napoli

Account number: 100000005184

ABI 01010

CAB 03401

IBAN IT14 G010 1003 4011 0000 0005 184

BIC code: IBSPITNA

Signature _____ Date _____