

MINISTRY OF EDUCATION, RESEARCH AND INOVATION



Meusburger Georg GmbH & Co KG, Austria



BRD Société Général – Galati, Romania



Galati City Hall



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D & D International Galati

DUNAREA DE JOS UNIVERSITY
OF GALATI

POLITEHNICA UNIVERSITY OF BUCHAREST



The 2nd International Conference on Polymers
Processing in Engineering
PPE 2009



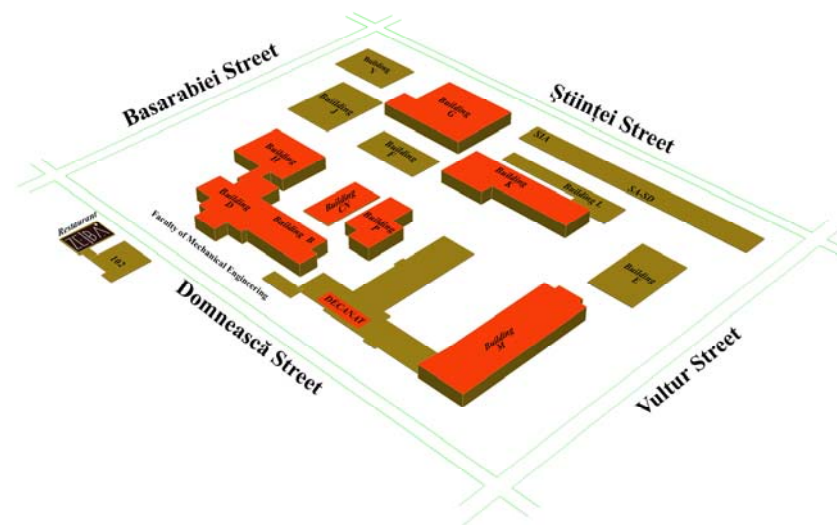
Galati, Romania, 22 – 23 October 2009

Conference Programme 22th October 2009

8.45	Registration		
9.45	Welcome and opening remarks, Room D 12		
10.00	Plenary Keynote, Room D 12 New perspective on the application of diode laser in the field of plastic materials <i>Loredana Santo, University of Rome Tor Vergata, Italy</i>		
10.30	Coffee Break		
Session	Rheological Analysis of Polymers	Processing of Polymers & Polymeric Composites	Polymer and Polymer Matrix Composites
	Room D12 Session Chair: <i>L. Santo</i>	Room B 23 Session Chair: <i>A. Epureanu</i>	Room B 32 Session Chair: <i>I. Birsan</i>
11.00	Paper 1	Paper 42	Paper 17
11.20	Paper 2	Paper 43	Paper 18
11.40	Paper 3	Paper 45	Paper 19
12.00	Paper 4	Paper 44	Paper 20
12.20	End Session		
12.30	Lunch		
Session	Synthesis and Properties of Polymers	Polymer and Polymer Matrix Composites	Processing of Polymers & Polymeric Composites
	Room D12 Session Chair: <i>V. Melnig</i>	Room B 23 Session Chair: <i>V. Jinescu</i>	Room B 32 Session Chair: <i>L. Slatineanu</i>
14.00	Paper 24	Paper 15	Paper 35
14.20	Paper 23	Paper 11	Paper 36
14.40	Paper 29	Paper 46	Paper 37
15.00			Paper 49
15.20	Coffee Break		
Session	Rheological Analysis of Polymers	Tribological Behavior of Polymeric Composites	
	Room D 12 Session Chair: <i>C. Fetecau</i>	Room: B 23 Session Chair: <i>C. Opran</i>	
15.40	Paper 13	Paper 12	
16.00	Paper 47	Paper 14	
16.20		Paper 51	
16.40	End Session		
18.30	Dinner		

Conference Venue

The PPE 2009 Conference will take place at **the Faculty of Mechanical Engineering (Dunarea de Jos University of Galati), Buildings D and B, 111 Domneasca Street, Galati, 800 008, Romania.**



Plenary Keynote

22 October 2009

New perspective on the application of diode laser in the field of plastic materials

Prof. Loredana Santo

University of Rome Tor Vergata, Italy

Abstract

In recent years diode laser processes are more and more used in particular for metallic materials. The same trend in the field of polymers cannot be observed, just few researches have been performed and only now new ideas are spreading. In particular, laser assisted micro-moulding, laser painting to make scripts or patterns and laser joining seem to be very promising. In this presentation the author proposes some results obtained in these innovative fields.

Plenary Keynote

23 October 2009

Nanoparticles Synthesis and Properties

Prof. Viorel Melnig

Physics Department, COMB Laboratory,
"Al. I. Cuza" University, Iasi, Romania

Abstract

The structure and properties of nanomaterials differ significantly from those of atoms and molecules as well as those of bulk materials. The essential step in the study of their physical properties and the use of nanomaterials in various technologies is their production. Understanding the novel behavior of these systems provides a challenge to the experimental and theoretical techniques of fundamental science. This presentation describes the production and detection of metallic nanoparticles, their optical, chemical and magnetic properties, theoretical models for describing their structure and properties, and a number of their important applications.

Conference Programme

23th October 2009

9.00	Registration		
9.30	Plenary Keynote, Room D 12 Nanoparticles synthesis and properties <i>Viorel Melnig</i> , Physics Department, COMB Laboratory, "Al. I. Cuza" University, Iasi, Romania		
10.00	Company profile – Meusburger, Austria M. Giurgiu		
10.15	Coffee Break		
Session	Machining of Polymers and Polymeric Composites	Processing of Polymers & Polymeri Composites	Synthesis and Properties of Polymers
	Room B 32 Session Chair: <i>N. Oancea</i>	Room D 12 Session Chair: <i>A. Circiumaru</i>	Room: B 23 Session Chair: <i>A. Gavrus</i>
10.40	Paper 31	Paper 7	Paper 5
11.00	Paper 32	Paper 8	Paper 26
11.20	Paper 33	Paper 9	Paper 50
11.40	Paper 34	Paper 10	Paper 22
12.00	End Session		
12.15	Closing comments, Room D 12		
12.45	Lunch		
14.00	Transportation to Cruise		
	Danube Cruise		

Lunches: ZE'BA Restaurant, Str. Domneasca nr. 98

Dinner: Panoramic Hall (placed at the Hotel Galati 9th floor)

Paper no.	Title
1	Viscoelasticity and viscoplasticity of polypropylene/clay hybrid nanocomposites, <i>A. D. Drozdov and A.-L. Høg Lejre</i>
2	An inverse method applied to a rheological analysis of solid polymers using finite element simulation of the torsion and tensile tests, <i>A. Gavrus</i>
3	Mechanical and rheological properties of polypropylene/wood composites, <i>M. Özcan, A. Durmus and I. Aydin</i>
4	Rheological properties of poly(butylene terephthalate) (PBT)/thermoplastic polyurethane (TPU) blends, <i>A. Durmus, N. Ercan and A. Kasgöz</i>
5	Rheological and barrier properties of polyethylene/clay nanocomposites compatibilized by an oxidized polyethylene blend, <i>A. Durmus, N. Ercan, G. Soyubol, A. Kasgöz and I. Aydin</i>
7	Improvement of performances of hand laminated composites by fiber pre-heating, <i>L. Santo, F. Quadrini, F. Stan and C. Fetecau</i>
8	Forming of long glass fiber reinforced polypropylene, <i>E.A. Squeo, C. Prosperi and F. Quadrini</i>
9	Some properties of a special type of reinforced composites with filled epoxy, <i>A. Circiumaru, I. G. Birsan, G. Andrei, V. Bria and I. Postolache</i>
10	Characterization of Zn filled epoxy composites, <i>I.G. Birsan, A. Circiumaru, I. Postolache and V. Bria</i>
11	Research on the properties of polymeric composite materials with particles using comparative tests, <i>D. Dima, M. Murescu and G. Andrei</i>
12	Evolution of 3D amplitude parameters characterising the composite surface after pin-on-disc tests in dry regim, <i>L. Deleanu, L. Maftei, G. Andrei, S. Ciortan, G. Trufasu and G. Podaru</i>
13	Ecological use of the solid polymeric wastes - Case study plastics properties modifications in the recycling process, <i>M.F.I. Stefanescu, N. Teodorescu and M. R. Juganaru</i>
14	Processes characterising tribological behavior of polymeric composites with micro glass spheres, <i>L. Deleanu, L. Maftei, G. Andrei, A. Cantaragiu and A. Besnea</i>
15	Charpy impact tests on the molded polymeric parts, <i>A. Nita, C. Opran, D. Murar and C. Bivolaru</i>
16	The tensile residual stress evaluation of two different composite materials ballistic impacted, <i>H.A. Petrescu, D. Vlasceanu, G. Jiga and A. Hadar</i>
17	Researches concerning the behaviour at impact of the polymeric composite sandwich structures with the simulation of finite element analysis, <i>C. Opran, C. Bivolaru, D. Murar and A. Vlase</i>
18	Buckling studies of the composite plates with delaminations, <i>E.F. Beznea and I. Chirica</i>
19	Torsional analysis of ship hull model made of composite materials, <i>R. Chirica, S. D. Musat, D. Boazu, I. Chirica and E. F. Beznea</i>
20	Methodology regarding numerical analysis of composite material junctions, <i>M. A. Grozea, A. Hadar and D. Vlasceanu</i>
22	Biodegradable polymer blends based on polyvinyl alcohol and chitosan as drug delivery systems, <i>E.M. Abdel Bary, B. Stoll, S. El-Taweel and N.S. Kessba</i>

Paper no.	Title
23	Determining the mechanism of destruction of double emulsions with polymers, <i>C. Stoian, S. Peretz and Gh. Zgherea</i>
24	Effect of surfactants on synthesis and properties of biopolymer microparticles, <i>S. Peretz, D.F. Anghel, M. Florea Spiroiu, C. Stoian and Gh. Zgherea</i>
26	Effects of compatibilizer structure on the clay dispersion and barrier properties of polyethylene/clay nanocomposite films, <i>A. Durmus, N. Ercan, G. Soyubol, A. Kasgöz and I. Aydin</i>
29	Acetaminophen entrapped in soft matter vesicles design based on nociceptive model in mice effects correlation, <i>D. Bindar, A. Garlea, L. Tartau, A. Chiriac and V. Melnig</i>
31	Influence of cutting parameters on cutting force in turning of polytetrafluorethylene with regenerate graphite, <i>A. Munteanu, C. Fetecau and F. Stan</i>
32	Studies regarding machinability during the turning process of PA 66 GF 30 polyamide with ceramics inserts, <i>M. Motoi</i>
33	Study concerning the cutting forces obtained by milling of PA 6 SA polyamide, <i>Gh. I. Vasile</i>
34	Study concerning the specific cutting pressure and the international dimensional accuracy during the milling process of PA 6 SA polyamide, <i>Gh. I. Vasile</i>
35	Some aspects regarding the simulation of two-component injection process, <i>D. Nedelcu, D. Mindru, L. Tabacaru and Gh. Cretu</i>
36	Optimization of the Injection Molding Process with 3D Simulation, <i>N. Ivascu, C. Fetecau, I. Postolache and C. Voicu</i>
37	Determination of the residual stresses in the injection molded polymeric parts, <i>A. Nita and P. Barsanescu</i>
42	Considerations regarding the variation of the pressure in corotating twin screw extruder, <i>V. V. Jinescu and N.I. Sporea</i>
43	Impact of accelerated particles with plexiglas objects surfaces, <i>L. Slatineanu, M. Coteata, N. Pop and F. Negoescu</i>
44	Identification of relevant indicators for preforming process selection, <i>M. Mihaluta, P. Martin, H.-F. Perrin and A. D'Acunto</i>
45	Impact of plastics, their specific technologies and their performance, in the RENAULT cars industry, <i>V. Perianu</i>
46	New adaptive wing concept using smart materials, <i>N. Camelia, B. Andrei, C. Ioan, M. Mihalcaica, A. Boritu and D. Tanase</i>
47	Ecological use of the solid polymeric wastes – quality and economic limitations, <i>N. I. Teodorescu and M.F.I. Stefanescu</i>
48	Establishing the optimum welding procedure for thermoplastic lining membrane using the response surface design, <i>M. Cocard, I. Grozav, A. Murariu, M. Iacob and A. Caneparu – poster presentation</i>
49	Determination of the Cross-WLF viscosity model for polyethylene, <i>I. Postolache, E.A. Squeo, C. Fetecau and F. Stan</i>
50	Integration of nanoparticles with biological systems concepts and tools design, <i>V. Melnig</i>
51	Experimental research regarding the wear characteristics of UHMWPE component from retrieved total knee prosthesis, <i>I. Antoniac, D. Laptoiu, F. Miculescu</i>