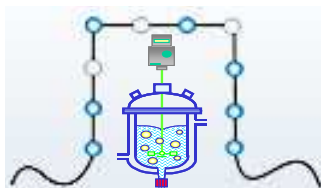
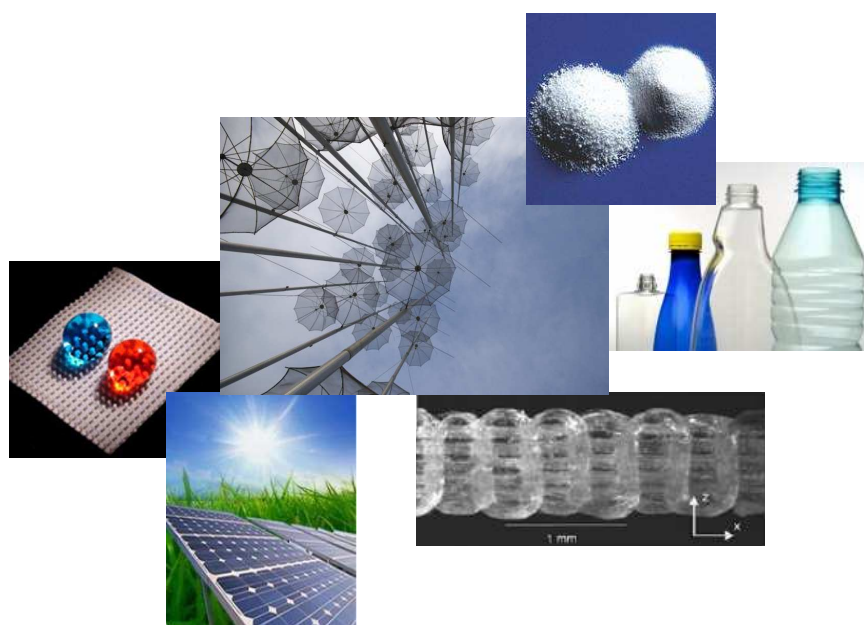


9th Hellenic Polymer Society Conference



PROGRAMME



*New Polymeric Materials & Applications:
A Development Initiative for New Business Opportunities in
Greece*

29 November - 1 December, 2012

CERTH, Thessaloniki, Greece



9th Hellenic Polymer Society Conference

Conference Theme:

" New Polymeric Materials & Applications:

A Development Initiative for New Business Opportunities in Greece"

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Preface

Dear Colleagues,

On behalf of the Organizing Committee it gives me great pleasure to welcome you to the **9th Hellenic Polymer Society Conference**, to be held at the Centre for Research and Technology Hellas (CERTH) in Thessaloniki from November 29 to December 1, 2012.

The Conference brings together researchers from academic and research organizations working in the areas of polymer synthesis, polymer characterization, polymer processing, functional nanomaterials, biomaterials, green polymers and advanced computational methods.

The Conference's Technical Theme is **“New Polymeric Materials & Applications: A Development Initiative for New Business Opportunities in Greece”**.

The Technical Programme includes 18 invited talks, 31 oral presentations and 70 posters in the following areas:

- ④ Multifunctional Composite Materials for Energy Applications
- ④ Functional Composite Materials for Nanotechnology Applications
- ④ Advanced Computational Methods in Polymeric Materials
- ④ Biomaterials for Biomedical Applications
- ④ Understanding Polymer Processing Behaviour and Properties
- ④ Renewable Materials and Green Polymer Production
- ④ Phononics, Photonics and Nanostructured Materials

I would like to thank all contributors and participants of the 9th Hellenic Polymer Society Conference.

Let me take this opportunity to wish you all a rewarding meeting and a pleasant stay in Thessaloniki.

Professor Costas Kiparissides,

Chairman of the Organizing Committee

Time Schedule

Thursday, 29 November		Friday, 30 November		Saturday, 1 December	
08:15	Registration				
09:00-09:15	Welcome - Opening Remarks				
09:15-11:00	SESSION T-1	09:00-10:45	SESSION F-1	09:00-10:00	SESSION S-1
09:15-10:15	Invited Lectures	09:00-10:00	Invited Lectures	09:00-09:30	Invited Lecture
10:15-11:00	Oral Presentations	10:00-10:45	Oral Presentations	09:30-10:00	Oral Presentations
11:00-11:30	<i>Coffee Break - Posters</i>	10:45-11:15	<i>Coffee Break - Posters</i>	10:00-10:30	<i>Coffee Break - Posters</i>
11:30-13:15	SESSION T-2	11:15-12:30	SESSION F-2	10:30-12:30	SESSION S-2
11:30-12:30	Invited Lectures	11:15-11:45	Invited Lecture	10:30-11:00	Invited Lecture
12:30-13:15	Oral Presentations	11:45-12:30	Oral Presentations	11:00-11:45	Oral Presentations
13:15-14:15	<i>Lunch - Posters</i>	12:30-13:30	<i>Lunch - Posters</i>		
14:15-16:00	SESSION T-3	13:30-15:15	SESSION F-3		
14:15-15:15	Invited Lectures	13:30-14:30	Invited Lectures		
15:15-16:00	Oral Presentations	14:30-15:00	Oral Presentations		
16:00-16:30	<i>Coffee Break - Posters</i>	15:00-15:30	<i>Coffee Break - Posters</i>		
16:30-18:15	SESSION T-4	15:30-17:45	SESSION F-4		
16:30-17:30	Invited Lectures	15:30-16:00	Invited Lecture		
17:30-17:45	Oral Presentations	16:00-17:45	Oral Presentations		
17:45-18:15	<i>Posters</i>				
18:15	Γενική Συνέλευση ΕΑΕΠ	19:30	<i>Conference Dinner</i>		

- T-1: Multifunctional Composite Materials for Energy Applications I
T-2: Functional Composite Materials for Nanotechnology Applications I
T-3: Advanced Computational Methods in Polymeric Materials
T-4: Multifunctional Composite Materials for Energy Applications II
F-1: Biomaterials for Biomedical Applications I
F-2: Understanding Polymer Processing Behaviour and Properties
F-3: Renewable Materials and Green Polymer Production
F-4: Biomaterials for Biomedical Applications III
S-1: Phononics, Photonics and Nanostructured Materials
S-2: Functional Composite Materials for Nanotechnology Applications II

Conference Committees

Scientific Committee

Prof. C. Kiparissides (*Chem. Eng. Dep., AUTH*)
Prof. C. Panayiotou (*Chem. Eng. Dep., AUTH*)
Assist. Prof. C. Karatasos (*Chem. Eng. Dep., AUTH*)
Assoc. Prof. D. Achilias (*Chem. Dep., AUTH*)
Assoc. Prof. D. Bikiaris (*Chem. Dep., AUTH*)
Assoc. Prof. I. Sideridou (*Chem. Dep., AUTH*)
Dr. O. Kammona (*CPERI/CERTH*)
Prof. D. Theodorou (*Chem. Eng. Dep., NTUA*)
Prof. C. Papaspyrides (*Chem. Eng. Dep., NTUA*)
Prof. A. Andreopoulos (*Chem. Eng. Dep., NTUA*)
Em. Prof. N. Hadjichristidis (*Chem. Dep., Univ. of Athens*)
Assoc. Prof. M. Pitsikalis (*Chem. Dep., Univ. of Athens*)
Assoc. Prof. H. Iatrou (*Chem. Dep., Univ. of Athens*)
Prof. J. Kallitsis (*Chem. Dep., Univ. of Patras*)
Prof. C. Galiotis (*Mat. Sci. Dep., Univ. of Patras*)
Prof. G. Staikos (*Chem. Eng. Dep., Univ. of Patras*)
Prof. V. Mavrantzas (*Chem. Eng. Dep., Univ. of Patras*)
Prof. C. Tsitsilianis (*Chem. Eng. Dep., Univ. of Patras*)
Prof. S. Anastasiadis (*Chem. Dep., Univ. of Crete*)
Prof. D. Vlassopoulos (*Mat. Sci. Tech. Dep., Univ. of Crete*)
Prof. G. Fytas (*Mat. Sci. Tech. Dep., Univ. of Crete*)
Assoc. Prof. M. Vamvakaki (*Mat. Sci. Tech. Dep., Univ. of Crete*)
Prof. G. Floudas (*Physics Dep., Univ. of Ioannina*)
Assoc. Prof. A. Avgeropoulos (*Mat. Sci. Eng. Dep., Univ. of Ioannina*)
Prof. M. Kosmas (*Chem. Dep., Univ. of Ioannina*)

Organizing Committee

Prof. C. Kiparissides (*AUTH*)
Prof. C. Panayiotou (*AUTH*)
Assist. Prof. C. Karatasos (*AUTH*)
Assoc. Prof. D. Achilias (*AUTH*)
Assoc. Prof. D. Bikiaris (*AUTH*)
Assoc. Prof. I. Sideridou (*AUTH*)
Dr. O. Kammona (*CPERI/CERTH*)
Dr. P. Pladis (*CPERI/CERTH*)
Prof. I. Zuburtikudis (*TEI of W. Macedonia*)
Dr. C. Loufakis (*Loufakis Chemicals*)
Mr. D. Sotiriadis (*Hellenic Petroleums*)
Mr. N. Kiradis (*INTERPLAST*)

Sponsors

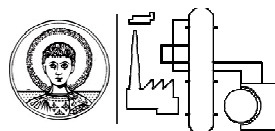
Aristotle University of Thessaloniki



Center for Research and Technology Hellas



Department of Chemical Engineering, AUTH



Faculty of Engineering, AUTH



ACTIVELAB



ΑΝΑΛΥΤΙΚΕΣ ΣΥΣΚΕΥΕΣ Α.Ε.



ΑΝΑΛΥΤΙΚΕΣ ΣΥΣΚΕΥΕΣ Α.Ε.
Δρ Κ.Ι. ΒΑΜΒΑΚΑΣ - ΕΠΙΣΤΗΜΟΝΙΚΟΣ ΕΞΟΠΛΙΣΜΟΣ

Pharmathen



Invited Speakers

- Prof. Luigi Ambrosio, *CNR-IMCB, Italy*
- Prof. Spiros Anastasiadis, *University of Crete, Greece*
- Prof. Apostolos Avgeropoulos, *Univ. Ioannina, Greece*
- Prof. Michael Bockstaller, *Carnegie Mellon University, USA*
- Prof. Joao Bordado, *IBB/IST, Portugal*
- Prof. George Floudas, *University of Ioannina, Greece*
- Prof. George Fytas, *University of Crete, Greece*
- Prof. Costas Galiotis, *University of Patras, Greece*
- Prof. Yiannis Kallitsis, *University of Patras, Greece*
- Prof. Katarina Landfester, *Max-Planck, Germany*
- Prof. Stergios Logothetidis, *AUTH, Greece*
- Prof. Vlasis Mavrantzas, *University of Patras, Greece*
- Prof. Massimo Morbidelli, *ETH-Zurich, Switzerland*
- Prof. Costas Panayiotou, *AUTH, Greece*
- Prof. Doros Theodorou, *NTUA, Greece*
- Prof. Dimitris Vlassopoulos, *University of Crete, Greece*

9TH HELLENIC POLYMER SOCIETY CONFERENCE

THURSDAY, 29 NOVEMBER, 2012

08:15 **Registration**

09⁰⁰ – 09¹⁵ **Welcome - Opening Remarks**

MULTIFUNCTIONAL COMPOSITE MATERIALS FOR ENERGY APPLICATIONS I (T-1)

Chairman: J. Kallitsis, Univ. Patras & FORTH/ICE-HT

Co-Chairman: S. Logothetidis, AUTH

09¹⁵ – 09⁴⁵ **Particle Brush Materials – A Platform for Multifunctional Composite Materials with Orthogonal Property Combinations**

M. Schmitt¹, C. Mahoney¹, C.M. Hui², K. Matyjaszewski², M.R. Bockstaller¹
¹Department of Materials Science and Engineering, Carnegie Mellon University, Pittsburgh, USA, ²Department of Chemistry, Carnegie Mellon University, Pittsburgh, USA

09⁴⁵ – 10¹⁵ **Discotic Liquid Crystals of Nanographenes: Self-assembly and Dynamics**

G. Floudas^{1,2}
¹University of Ioannina, ²BRI-FORTH, Ioannina, Greece

10¹⁵ – 10³⁰ **Block Copolymers for Optimized Active Layer Morphology in Organic Photovoltaics**
E. Pavlopoulou¹, D. Deribew¹, S.-J. Mougner¹, C. Nicolet¹, G. Portale², F. Cousin³, G. Fleury¹, C. Brochon¹, E. Cloutet¹, L. Vignau¹, G. Hadziioannou¹

¹Université de Bordeaux, Laboratoire de Chimie des Polymères Organiques, Talence, France, ²DUBBLE at European Synchrotron Radiation Facility, Grenoble, France, ³EROS at Laboratoire Léon Brillouin, Saclay, France

10³⁰ – 10⁴⁵ **Covalent Cross-Linking in Phosphoric Acid of Pyridine Based Aromatic Polyethers Bearing Side Double Bonds for Use in High Temperature Polymer Electrolyte Membrane Fuel Cells**

K.D. Papadimitriou^{1,2}, M. Geormezi³, S.G. Neophytides^{2,3} and J.K. Kallitsis^{1,2,3}
¹Department of Chemistry, University of Patras, Patras, Greece, ²Institute of Chemical Engineering Sciences, FORTH/ICE-HT Patras, Greece, ³Advent Technologies S.A., Patras Science Park, Patras, Greece

10⁴⁵ – 11⁰⁰ **Rigid and Flexible Bulk Heterojunction Organic Solar Cells based on Small Molecules (ZnPc:C60)**

S. Kassavetis^{1*}, P. Karagiannidis², T. Mete¹, C. Koidis², W. Schindler¹, A. Grimm, S. Logothetidis² and K. Fostiropoulos¹

^{1*}Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Berlin, Germany, ²Lab for Thin Films Nanosystems & Nanometrology, AUTH, Thessaloniki, Greece, *Current Affiliation: NCSR Demokritos, Institute of Materials Science, MBE & Surface Analysis Lab, Athens, Greece

11⁰⁰ – 11³⁰ *Coffee Break – Poster Viewing*

FUNCTIONAL COMPOSITE MATERIALS FOR NANOTECHNOLOGY APPLICATIONS I (T-2)

Chairman: C. Galiotis, Univ. Patras & FORTH/ICE-HT

Co-Chairman: K. Triantafyllidis, AUTH

11³⁰ – 12⁰⁰ **Metallic Nanocatalysts Embedded within pH-responsive Polymeric Nanostructures**
S.H. Anastasiadis^{1,2}, M. Kaliva^{1,3}, M. Vamvakaki^{1,3}, M.A. Frysalis^{1,2}, L. Papoutsakis¹
¹*Institute of Electronic Structure and Laser, FORTH, Heraklion Crete, Greece,*
²*Department of Chemistry, University of Crete, Heraklion Crete, Greece,* ³*Department of Materials Science & Technology, University of Crete, Heraklion Crete, Greece*

12⁰⁰ – 12³⁰ **Direct Self-Assembly of Block Copolymers for Nanopatterning Applications**
A. Avgeropoulos¹
¹*University of Ioannina, Ioannina, Greece*

12³⁰ – 12⁴⁵ **Synthesis of Well-Defined Dendrimers and Polymer Brushes by Anionic Polymerization**
G. Theodosopoulos¹, G. Sakellariou¹, D. Baskaran², J.W. Mays²
¹*Department of Chemistry, University of Athens, Athens, Greece,* ²*Department of Chemistry, University of Tennessee, USA*

12⁴⁵ – 13⁰⁰ **On the Synthesis of Molecularly Imprinted Polymers for Analytical and Sensor Applications**
C. Gkementzoglou¹, O. Kotrotsiou², C. Kiparissides^{1,2}
¹*Department of Chemical Engineering, AUTH, Thessaloniki, Greece,* ²*Chemical Process & Energy Resources Institute, Thessaloniki, Greece*

13⁰⁰ – 13¹⁵ **High Content Graphene Oxide-Polymer Composites by Vacuum-Assisted Compounding**
G. Trakakis^{1,2}, D. Boyer³, D. Tasis^{1,4}, C. Galiotis^{1,4}, K. Papagelis^{1,4}
¹*Institute of Chemical Engineering and High Temperature Chemical Processes - FORTH, Patras, Greece,* ²*Interdepartmental program of postgraduate studies in Polymers Science and Technology, University of Patras, Patras, Greece,* ³*École Nationale Supérieure de Chimie de Montpellier, Montpellier, France,* ⁴*Department of Materials Science, University of Patras, Patras, Greece*

13¹⁵ – 14¹⁵ *Lunch - Poster Viewing*

ADVANCED COMPUTATIONAL METHODS IN POLYMERIC MATERIALS (T-3)

Chairman: V. Mavrantzas, Univ. Patras & FORTH/ICE-HT

Co-Chairman: D. Achilias, AUTH

14¹⁵ – 14⁴⁵ **Multiscale Modelling of Polymer-Matrix Nanocomposites**
G.G. Vogiatzis¹ and D. Theodorou¹
¹*School of Chemical Engineering, NTUA, Athens, Greece,*

14⁴⁵ – 15¹⁵ **Atomic and Electronic Structure of Polymer Organic Semiconductors: What we can Learn from Computer Simulations at Different Scales**
V.G. Mavrantzas
Department of Chemical Engineering, University of Patras & FORTH-ICEHT, Patras, Greece

- 15¹⁵ – 15³⁰ Modeling the Formation of Ordered Nano-Assemblies Comprised by Dendrimers and Linear Polyelectrolytes: the Role of Coulombic Interactions
E. Eleftheriou¹, K. Karatasos¹
¹*Chemical Engineering Department, AUTH, Thessaloniki, Greece*
- 15³⁰ – 15⁴⁵ Properties of Polymer/Graphene Systems through Detailed Atomistic Simulations
A.N. Rissanou^{1,2} and V. Harmandaris^{1,2}
¹*Department of Applied Mathematics, University of Crete, Heraklion, Crete, Greece,*
²*Institute of Applied and Computational Mathematics, FORTH, Heraklion, Greece*
- 15⁴⁵ – 16⁰⁰ Dynamics of Hyperbranched Polymers in the Bulk and under Confinement
K. Chrissopoulou¹, S. Fotiadou^{1,2}, I. Tanis², D. Tragoudaras², K. Karatasos², B. Frick³
and S.H. Anastasiadis^{1,4}
¹*Institute of Electronic Structure and Laser, FORTH, Heraklion Crete, Greece,*
²*Department of Chemical Engineering, AUTH, Thessaloniki, Greece,* ³*Institut Laue
Langenvin (ILL), Grenoble, France,* ⁴*Department of Chemistry, University of Crete,
Heraklion Crete, Greece*

16⁰⁰ – 16³⁰ *Coffee Break - Poster Viewing*

MULTIFUNCTIONAL COMPOSITE MATERIALS FOR ENERGY APPLICATIONS II (T-4)

Chairman: G. Floudas, Univ. Ioannina

Co-Chairman: G. Voyiatzis, FORTH/ICE-HT & Univ. Patras

- 16³⁰ – 17⁰⁰ **Design and Preparation of New High Temperature Polymer Electrolytes for Fuel Cells**
J.K. Kallitsis
Department of Chemistry, University of Patras, FORTH/ICE-HT, Patras, Greece
- 17⁰⁰ – 17³⁰ **Latest Advances on the Implementation of Polymer Nanomaterials for Flexible Organic Electronic Applications**
S. Logothetidis¹
¹*Laboratory for Thin Films Nanosystems and Nanometrology, Department of Physics,
AUTH, Thessaloniki, Greece*
- 17³⁰ – 17⁴⁵ The Role of Local Structure on Controlling the Conductivity in PEO/LiTf Electrolytes
G. Zardalidis¹, E. Ioannou², A. Pispas², G. Floudas^{1,3}
¹*Department of Physics, University of Ioannina, Greece,* ²*Theoretical and Physical
Chemistry Institute, Athens, Greece,* ³*FORTH/BRI, Ioannina, Greece*

17⁴⁵ – 18¹⁵ *Poster Viewing*

18¹⁵ **Γενική Συνέλευση ΕΑΕΠ**

FRIDAY, 30 NOVEMBER, 2012

BIOMATERIALS FOR BIOMEDICAL APPLICATIONS I (F-1)

Chairman: S. Anastasiadis, UOC & IESL/FORTH

Co-Chairman: M. Vamvakaki, UOC & IESL/FORTH

09⁰⁰ – 09³⁰ **Polymer Based Composites and Cell Instructive Platforms for Tissue Regeneration**
L. Ambrosio
Institute of Composites and Biomedical Materials, National Research Council, Naples, Italy

09³⁰ – 10⁰⁰ **Biomaterials for Nanocapsules and their Biomedical Applications**
G. Baier, A. Musyanovych, V. Mailander, K. Landfester
Max Planck Institute for Polymer Research, Mainz, Germany

10⁰⁰ – 10¹⁵ **Core-Shell Colloidal Nanoparticles by means of Water-Soluble Hydrogen-Bonded Interpolymer and Polyelectrolyte Complexes formed through Graft Copolymers**
G. Staikos
Department of Chemical Engineering, University of Patras, Patras, Greece

10¹⁵ – 10³⁰ **Hybrid Polypeptides for Drug Delivery**
H. Iatrou¹, M. Gkikas¹, D. Mavrogeorgis¹, A. Karatzas¹, D. Skoulas¹, G. Fotinogianopoulou¹, K. Dimas²
¹*Chemistry Department, University of Athens, Athens, Greece,* ²*Department of Pharmacology, Faculty of Medicine, University of Thessaly, Greece*

10³⁰ – 10⁴⁵ **Dependence of Drug Release Behaviour on the Type of Core-Shell Nanoparticles**
D.N. Bikiaris
Laboratory of Polymer Chemistry and Technology, Department of Chemistry, AUTH, Thessaloniki, Greece

10⁴⁵ – 11¹⁵ **Coffee Break – Poster Viewing**

UNDERSTANDING POLYMER PROCESSING BEHAVIOUR AND PROPERTIES (F-2)

Chairman: C. Panayiotou, AUTH

Co-Chairman: C. Karatasos, AUTH

11¹⁵ – 11⁴⁵ **Entangled Branched Polymers in Nonlinear Shear and Extension**
F. Snijkers^{1,2}, H. Lentzakis^{1,2}, D. Vlassopoulos^{1,2}, P. Driva³, N. Hadjichristidis³
¹*FORTH-IESL,* ²*Department of Materials Science & Technology, University of Crete, Heraklion, Greece,* ³*Department of Chemistry, University of Athens, Athens, Greece*

11⁴⁵ – 12⁰⁰ **Compatibilization Mechanism and Property Improvement of Immiscible Engineering Plastics Blends**
M.I. Triantou¹, E.M. Chatzigiannakis¹, P.A. Tarantili¹, A.G. Andreopoulos¹
¹*Polymer Technology Laboratory, School of Chemical Engineering, NTUA, Athens, Greece*

12⁰⁰ – 12¹⁵ **A Novel Compromise between Fatigue and Ageing in Crosslinked Epoxidized Natural Rubber**
S. Norvez
Matière Molle et Chimie, ESPCI ParisTech - CNRS, Paris, France

12¹⁵ – 12³⁰ The Influence of (1,3-phenylene) bis (3-methyl-1-phenyl pentylidene) Dilithium Initiator Concentration on the Modality of Polybutadiene
T.C. Vasilakopoulos¹, N. Hadjichristidis^{1,2}
¹Department of Chemistry, University of Athens, Athens, Greece, ²Division of Chemical and Life Science & Engineering, KAUST, Catalysis Center, Thuwal, Saudi Arabia

12³⁰ – 13³⁰ **Lunch - Poster Viewing**

RENEWABLE MATERIALS AND GREEN POLYMER PRODUCTION (F-3)

Chairman: G. Staikos, Univ. Patras

Co-Chairman: C. Tsitsilianis, Univ. Patras & ICE/HT-FORTH

13³⁰ – 14⁰⁰ **Polymers from Renewable Resources and their Industrial Production**

J. Bordado

IBB, IST, Lisbon, Portugal

14⁰⁰ – 14³⁰ **Designing Green Processes for Novel Microporous Polymer Products**

C. Panayiotou, I. Tsvintzelis, C. Tsiptsias

Department of Chemical Engineering, AUTH, Thessaloniki, Greece

14³⁰ – 14⁴⁵ Assessment of Solid State Post Polymerization as a Finishing Step for Poly(lactic acid) Production

S. Vouyiouka¹, A. Simeonidou¹, P. Theodorou¹, I. Georgousopoulou¹, C.D. Papaspyrides¹

¹Laboratory of Polymer Technology, School of Chemical Engineering, NTUA, Athens, Greece

14⁴⁵ – 15⁰⁰ Ring Opening Polymerization of L-Lactide Employing Half-Titanocene Complexes. Synthesis Characterization and Thermal Properties

E. Saridis¹, S.-D. Maroulas¹, N. Petzetakis¹, M. Pitsikalis¹

¹Department of Chemistry, University of Athens, Athens, Greece

15⁰⁰ – 15³⁰ **Coffee Break - Poster Viewing**

BIOMATERIALS FOR BIOMEDICAL APPLICATIONS II (F-4)

Chairman: G. Bokias, Univ. Patras

Co-Chairman: D. Bikiaris, AUTH

15³⁰ – 16⁰⁰ **From Polymer Nanoparticles to Innovative Materials**

M. Morbidelli

Institute for Chemical and Bioengineering, Department of Chemistry and Applied Biosciences, ETH Zurich, Zurich, Switzerland

16⁰⁰ – 16¹⁵ De novo Multimodal Drug Delivery from “Smart” Polymersomes

M.-T. Popescu¹, M. Koroyannaki¹, A. Marikou¹, C. Tsitsilianis^{1,2}

¹Department of Chemical Engineering, University of Patras, Patras, Greece, ²Institute of Chemical Engineering Sciences, ICE/HT-FORTH, Patras, Greece

16¹⁵ – 16³⁰ Incorporation of Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) into Polypropylene for Wound Healing Applications

A.N. Nochos^{1,2}, G.A. Voyiatzis¹

¹FORTH/ICE-HT, Patras, Greece, ²Department of Pharmacy, University of Patras, Patras, Greece

- 16³⁰ – 16⁴⁵ PLA-PEG Modified Graphene Oxide as Potential Anticancer Drug Delivery Vehicle
T. Panagiotopoulou¹, A. Angelopoulou¹, K. Avgoustakis¹, E.K. Diamanti², D. Gournis²
¹Department of Pharmacy, University of Patras, Patras, Greece, ²Department of Materials Science and Engineering, University of Ioannina, Ioannina, Greece
- 16⁴⁵ – 17⁰⁰ Dynamic Thermomechanical Properties of a Dental Light-cured Dimethacrylate Nanocomposite after Aging in Food/Oral Simulating Liquids
E.C. Vouvoudi¹, I.D. Sideridou¹
¹Laboratory of Organic Chemical Technology, Department of Chemistry, AUTH, Thessaloniki, Greece
- 17⁰⁰ – 17¹⁵ Photo-sensitive Polymeric Materials
M. Vamvakaki^{1,2}
¹Institute of Electronic Structure and Laser, FORTH, Heraklion Crete, Greece, ²Department of Materials Science and Technology, University of Crete, Heraklion Crete, Greece
- 17¹⁵ – 17³⁰ Design of Functional Water-Soluble Polymers to Control or Probe Supramolecular Organization in Aqueous Solution
G. Bokias
Department of Chemistry, University of Patras, Patras, Greece
- 17³⁰ – 17⁴⁵ Curing Mechanism, Morphology and Critical Properties of PDMS Films Containing PEG as a Hydrophilic Agent
A. Panou¹, K.G. Papadokostaki¹, M. Sanopoulou¹, P.A. Tarantili²
¹Department of Physical Chemistry, IAMPPNM, NCSR “Demokritos”, Athens, Greece, ²Polymer Technology Lab, School of Chemical Engineering, NTUA, Athens, Greece
- 19³⁰ **Dinner**

SATURDAY, 1 DECEMBER, 2012

PHONONICS, PHOTONICS AND NANOSTRUCTURED MATERIALS (S-1)

Chairman: A. Avgeropoulos, Univ. Ioannina

Co-Chairman: K. Chrissopoulou, IESL/FORTH

- 09⁰⁰ – 09³⁰ **Hypersonic Soft Phononics: Fundamentals and Perspectives**
D. Schneider¹, G. Fytas^{1,2}
¹Max Planck Institute for Polymer Research, Mainz, Germany, ²Department of Materials Science, University of Crete & IESL- FORTH, Crete, Greece
- 09³⁰ – 09⁴⁵ 1D Polymeric Photonic Crystal Humido-chromic Sensor
M.-I. Georgaki^{1,2}, N. Papanikolaou¹, P. Argitis¹, I. Raptis¹, M. Chatzichristidi^{1,2}
¹Department of Microelectronics, Institute of Advanced Materials, PhysicoChemical Processes Nanotechnology & Microsystems NCSR 'Demokritos, Athens, Greece, ²Industrial Chemistry Laboratory, Department of Chemistry, University of Athens, Athens, Greece
- 09⁴⁵ – 10⁰⁰ Controlled Radical Polymerization of 1-Vinyl-1,2,4-triazole by RAFT and Dielectric Properties of PVT Thin Films
E. Grana¹, M. Mumtaz¹, C. Pitsalidis², P.G. Karagiannidis², C. Gravalidis², C. Brochon¹, E. Cloutet¹, S. Logothetidis², G. Hadziioannou¹
¹Laboratoire de Chimie des Polymères Organiques (LCPO), Université de Bordeaux, Cedex, France, ²Laboratory for Thin Films Nanosystems and Nanometrology, Physics Department, AUTH, Thessaloniki, Greece

10⁰⁰ – 10³⁰ **Coffee Break - Poster Viewing**

FUNCTIONAL COMPOSITE MATERIALS FOR NANOTECHNOLOGY APPLICATIONS II (S-2)

Chairman: M. Pitsikalis, UOA

Co-Chairman: Y. Karapanayiotis, AEATH

- 10³⁰ – 11⁰⁰ **Mechanical Properties of Graphenes and Graphene-Polymer Nanocomposites**
C. Galiotis^{1,2,3}, G. Tsoukleri^{2,3}, O. Frank^{2,4}, K. Papagelis^{1,2}, J. Parthenios² and K.S. Novoselov⁵
¹Department of Materials Science, University of Patras, Patras, Greece
²ICE-HT/FORTH, Patras, Greece
³Interdepartmental Programme in Polymer Science and Technology, University of Patras, Patras, Greece
⁴J. Heyrovsky Institute of Physical Chemistry, Prague, Czech Republic
⁵School of Physics and Astronomy, University of Manchester, Manchester, UK
- 11⁰⁰ – 11¹⁵ High Performance Epoxy Polymer Nanocomposites Using Layered Silicates, Carbon Nanotubes and Mesostructured Silica Nanoparticles
D. Giliopoulos, M. Tsiomi, P. Xidas, K. Triantafyllidis
Department of Chemistry, AUTH, Thessaloniki, Greece

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