# CURRICULUM VITAE OF PROF. NIKOLAOS E. ZAFEIROPOULOS

# PERSONAL DETAILS

SURNAME:	ZAFEIROPOULOS
FORENAMES:	NIKOLAOS EVANGELOS
NATIONALITY:	GREEK
WORK ADDRESS:	DEPARTMENT OF MATERIALS SCIENCE
	& ENGINEERING, UNIVERSITY OF
	IOANNINA, DOUROUTI CAMPUS,
	IOANNINA 45100, GREECE
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# **EDUCATION**

1997 - 2001	IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE, CENTRE FOR COMPOSITE MATERIALS PhD in Materials Science Thesis title: Engineering and characterisation of the interface in flax/polypropylene composite materials Sponsored by the EU (Marie Curie Fellowship) Supervisors: Dr Caroline A. Baillie, Prof. Frank L. Matthews
1992 - 1997	NATIONAL TECHNICAL UNIVERSITY OF ATHENS, DEPARTMENT OF CHEMICAL ENGINEERING MEng in Chemical Engineering GPA: 8.33/10.0 (Very Good) Rank in class: 11 <sup>th</sup> out of 170 Dissertation Thesis title: Characterisation of coated Glass fibres received from recycled thermoplastic composite materials (in Greek) Supervisor: Prof. Costas D. Papaspyrides

# **OTHER ACADEMIC AND TRAINING QUALIFICATIONS**

1997	Postgraduate Course "Introduction to
	Composite Materials", Centre for Composite
	Materials, Imperial College of Science,
	Technology and Medicine.
2000	Postgraduate Course "Finite Element

Analysis of Composite Materials", Centre for Composite Materials, Imperial College of Science, Technology and Medicine.

# **TEACHING EXPERIENCE**

1998 - 2000	Laboratory Demonstrator at the course "Computing" of 1 <sup>st</sup> year Materials Department, Imperial College
1998 – 2000	Laboratory Demonstrator at the course "Polymer Science and Engineering" of 2 <sup>nd</sup> year Materials
1998 – 2000	Laboratory Demonstrator at the course "Analytical Chemistry" of 1 <sup>st</sup> year Earth Resources Engineering Imperial College
2002 - 2008	Physical Chemistry of Polymers, Chemistry Department, Technical University of Dresden (20 hours lectures per semester on topics of Polymer Physics)
2005- 2008	Experimental Techniques for Characterisation of Nanomaterials, European MSc course on 'Polymer Based Nanomaterials', University of Perugia, Italy. (20 hours Lectures on experimental techniques for Polymer Materials Characterisation)- I am also member of the organising and scientific committee for the MSc course. More details about the course can be found at http://www.nanofun- poly.com/docs/06.00.00-01-master.pdf
2006-2012	'Green' Composites and Nanocomposites, MSc course on 'Materials Engineering', University of the Basque Country (Spain). 12 hours lectures per year
2008-	Chemical Thermodynamics, 2 <sup>nd</sup> year Department of Materials Science and Engineering, University of Ioannina. 4 hours lectures per week. Winter Semester
2008- 2011	Chemistry and Engineering of Wood and Related Materials, 4 <sup>th</sup> year Department of Materials Science and Engineering, University of Ioannina. 3 hours lectures per week. Winter Semester
2008-	Structure Characterisation with X-ray Techniques, 4 <sup>th</sup> year Department of Materials Science and Engineering, University of Ioannina. 3 hours lectures per week. Winter Semester (jointly with Assoc. Prof. Anagnostopoulos)
2008-	Polymer Materials – Special Topics, 5 <sup>th</sup> year Department of Materials Science and

	Engineering, University of Ioannina. 3 hours lectures per week. Winter Semester (jointly with Prof. Avgeropoulos and Dr Karabela)
2008-	Polymers and Related Materials of Controlled
	Morphology, 5 <sup>th</sup> year Department of Materials
	Science and Engineering, University of
	Ioannina. 3 hours lectures per week. Winter
	Semester (jointly with Prof. Avgeropoulos and
	Dr Karabela)
2009-	Polymer Engineering, 4 <sup>th</sup> year Department of
	Materials Science and Engineering, University
	of Ioannina, 4 hours lectures per week. Summer
	Semester
2009-	Materials Laboratory V (Polymers), 4 <sup>th</sup> year
	Department of Materials Science and
	Engineering, University of Ioannina, 12 hours
	lab instruction/exercises per week. Summer
	Semester (jointly with Prof. Avgeropoulos and
	Dr Karabela)

# PROFESSIONAL QUALIFICATIONS

2008	Member of the American Chemical Society
2017	Member of the Technical Chamber of Greece

### PROFESSIONAL EXPERIENCE

JUNE 1993 - SEPTEMBER 1993

ACHAIA CLAUSS S. A. Wines and Spirits, Patras, Greece

Laboratory Assistant at the

Department of Chemical Analysis Main responsibilities included chemical analysis of wine and wine distillates through gas chromatography (GC) methods and quality control

JUNE 1994 - SEPTEMBER 1994

HELLENIC TARTARICA S. A. Distillery - Tartaric Calcium, Kalamata, Greece

**Laboratory Assistant** at the Department of Chemical Analysis (wine- distillates and wine-sludge analysis).

Main responsibilities included chemical analysis of wine sludge for determination of tartaric acid and also chemical analysis of wine distillates through gas chromatography (GC)

#### SEPTEMBER 1996 - OCTOBER 1996

VARVITSIOTIS S. A., Corinth, Greece Wines and Spirits Distillery

#### **Assistant Production Manager**

Main responsibility was the supervision of the distillation and condensation units (approximately 10 workers). I also received training on the fermentation process and quality control of wine and wine distillates (brandy, Ouzo and ethanol).

#### OCTOBER 2000 – APRIL 2001

# IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE, MATERIALS DEPARTMENT **Post-Doctoral Research Associate**

Subject: Thermal Degradation of Cellulose Fibres. Supervisor: Dr Caroline Baillie

#### JUNE 2001 - AUGUST 2002

LEIBNIZ-INSTITUT FÜR POLYMERFORSCHUNG DRESDEN eV DEPARTMENT OF STRUCTURE AND MECHANICS **Post-doctoral Research Fellow** 

Subject: Investigation of the Interface in Advanced Polymer blends based on Epoxy-sPS by means of Scattering Techniques Supervisor: Prof. Manfred Stamm

## SEPTEMBER 2002- MAY 2008

LEIBNIZ-INSTITUT FÜR POLYMERFORSCHUNG DRESDEN eV DEPARTMENT OF NANOSTRUCTURED MATERIALS Staff Scientist and Group Leader

Main Duties: Project leading and management (writing and submitting projects, managing projects, etc.), PhD students and Post-doc supervision, research effort in synchrotron x-ray scattering for polymer science, multifunctional nanohybrids, nanocomposites, composite lattices and microgels, nanostructured polymers. Director of the SAXS laboratory

JUNE 2008 – MAY 2015 UNIVERSITY OF IOANNINA DEPARTMENT OF MATERIALS SCIENCE & ENGINEERING Assistant Professor of Polymer Engineering (tenured 29/1/2012)

#### MAY 2015 – SEPTEMBER 2019

UNIVERSITY OF IOANNINA DEPARTMENT OF MATERIALS SCIENCE & ENGINEERING Associate Professor of Polymer Engineering

SEPTEMBER 2019 -

UNIVERSITY OF IOANNINA DEPARTMENT OF MATERIALS SCIENCE & ENGINEERING **Professor of Polymer Engineering** 

Main research topics:

- Development of microfocus synchrotron x-ray scattering techniques for studying deformation processes of polymers
- Deformation and fracture in semicrystalline polymers
- Interfaces in composite materials
- Interfaces in polymer blends
- Characterisation of Nanocomposites and Nanostructured Materials
- Block copolymer based nanomaterials
- Magnetic nanomaterials
- Development of eco-composites and eco-nanocomposites
- Functionalisation of nanoparticles via ATRP, NMRP and grafting-to methods
- Polymer Blends
- Development of novel nanohybrid materials
- Hydrogels in macro, micro and nano dimensions
- Hydrogels and polymer latexes
- Development of artificial skin from polysaccharides and collagen blends
- Isolation of fish collagen from fish wastes
- Development of nanostructured epoxies for use in concrete structures repairs

#### Group Members

Mr Andreas Karydis – Messinis, PhD student working with Development and Characterisation of Hydrogel Scaffolds for Biomedical applications : start date 31/1/2018

Ms Artemis Moustaka, PhD student working on drug delivery of interferone with polymer colloids for multiple sclerosis (in collaboration with Prof. G. Thyfronitis from Biology Dept.): start date 1/9/2020

Former Group Members

• <u>Dr Jacobus Arno Schut</u>, former PhD student working on polymer blends. PhD defence –December 2003 (1/9/2000 – 18/12/2003), Title of Thesis: Blends of Syndiotactic Polystyrene and Thermoset Epoxy Resin: Engineering and Characterisation, Presently Senior researcher in Fuji corporation (polymer division), in the Netherlands. Co-supervised with Profs J.-F. Gerard, M. Dumon (INSA-Lyon) and Prof. M. Stamm (IPF Dresden)

• <u>Dr Richard James Davies</u>, former post-doc jointly with ESRF. Presently second beamline scientist at ID13-ESRF, France.

• <u>Dr Sondes Trabelsi</u>, former post-doc working in the BASF and the NBB projects, presently working at Institute for Synchrotron Radiation (ANKA), Research Centre of Karlsruhe, Germany.

• <u>Ms Julia Henle</u>, former MSc student (1/9/2003-31/8/2004). Title: Deformation of Polyolefins with Synchrotron x-ray Scattering, Presently PhD student at the Technical University Dresden (Group of Prof. Stefan Kaskel), Germany.

• <u>Dr Vera Tserki</u>, former PhD guest student from the Aristotle University of Thessaloniki (Greece). Presently working at the department of Forensic Analysis, Greek Police Force, Greece.

• <u>Dr Marco Amici</u>, former PhD student working on nanohybrids. PhD defence – January 2006 (1/10/2002 – 9/1/2006). Title: Development and Characterisation of Nanohybrids based on Polyhedral Oligomeric Polysislsquioxanes (POSS) and Methacrylate Matrices, Presently working as scientist at Rhodia (Lyon, France). Co-supervision Profs J.-F. Gerard, J. Galy (INSA-Lyon) and Prof. M. Stamm (IPF Dresden)

• <u>Dr Iñaki Garcia Alonso</u>, former PhD student. PhD Defence: November 2007 (1/12005-27/11/2007) Title: Nanostructured Composites using Polymer Brushes-Modified Magnetic Nanoparticles and Self-Assembled Block Copolymers Jointly with the University of Basque Country and the University of Perugia. Presently working at CIDETEC in San Sebastian, Spain. Co supervision with Profs. I. Mondragon (UPV/EHU) and J. Kenny (U. Perugia)

• <u>Ms Caterina Serafinelli</u>, former MSc thesis student. MSc Defence – January 2007. (1/6/2006-31/10/2006). Title: Synthesis and Characterisation of Novel Magnetic Nanostructures with Biological Functionalities. Presently PhD Student at the university of Seville (Spain)

• <u>Mr Gizlain Azzoda</u>, former BSc student on the preparation of nanostructured blends with advanced fracture toughness properties, Erasmus Student from university Claude Bernard Lyon, france

• <u>Mr Zhengzhing Fan</u>, former BSc student in the field of magnetic nanohybrids based on block copolymer matrices. Presently PhD student in the group of Prof. Manfred Stamm (IPF Dresden).

• <u>Dr Jorge Rubio Retama</u>, former post-doc working on magnetic nanomaterials and the preparation of novel nanohybrids. Presently Assistant Professor in the dept. of Pharmacy of the Complutence University in Madrid, Spain.

• <u>Dr Mukesh Agrawal</u>, former PhD student on the topic of hybrid composite submicron particles. PhD Defence – September 2008 (1/7/2005-19/9/2008). Title: Design, Fabrication and Applications of Organic-Inorganic Hybrid Systems. Presently working in IPF as post-doc. Co-supervised with Prof. M. Stamm (IPF Dresden) • <u>Dr Andriy Horechiy</u>, former PhD student on the preparation of hybrid nanocomposites based on block copolymer matrices with bottom up approaches. Co-supervised with Prof. M. Stamm (IPF Dresden): Start date : 1/5/2007. PhD Defence – July 2011 Title: Ordered structures from nanoparticle/block copolymer hybrids: Exsitu approaches towards binary and ternary nanocomposites.

• <u>Dr Georgios Zapsas</u>, former PhD student working on the preparation of multifunctional materials with nanoparticles and block copolymers. Start date: 6/3/2009. Examination date 7/7/2015. Presently working as Research Scientist in KAUST, Saudi Arabia

• <u>Dr Dimitris Moshovas</u>, former PhD student working on the preparation and characterisation of functionalised nanoparticles with polymer brushes. Start date: 6/3/2009. Examination date 26/5/2015. Present working as Postdoctoral Researcher in DMSE, University of Ioannina

• <u>Dr Apostolos Karanastasis</u>, former PhD student working on microgels modified with nanoparticles. Examination date 29//9/2016. Presently working as Postdoctoral Researcher at Rensselaer Polytechnic Institute.

#### **PROJECT PARTICIPATION & MANAGEMENT**

<u>CRAFT THERMOCELL</u>: Development of thermoplastic composites based on upgraded lingo-cellulose fibres for improved durability and their processing for components.

EU funded research project (Contract number BRST-CT-5474) Budget: 120000 EUR Duration: 1999-2001

<u>RTN POLYNETSET</u>: Advanced Thermoset- based polymer blends with controlled new molecular architectures and morphologies

EU funded research training network (Contract number: HPRN-CT2000-00146) Budget: 192000 EUR Duration: 2000-2004

<u>RTN NBB-HYBRIDS</u>: Hybrid Nanocomposites from Functional Nanobuilding Blocks (Principal Investigator)

EU funded research training network (Contract number: HPRN-CT-2002-00306) Budget: 192500 EUR Duration: 2002-2006

<u>Time-resolved microstructural investigations by means of small angle x-ray</u> <u>scattering.</u> (Principal Investigator)

Industrial Project funded by BASF AG. Ludwigshafen, Germany Budget: 90000 EUR

Duration: 2003-2005

Scanning X-ray Microscopy for Polymer Applications (Principal Investigator)

Joint project with the European Synchrotron Radiation Facility (SC1099). Budget: 90000 EUR for Personnel costs and 200000 EUR for measuring time, traveling and the development of new equipment Duration: 2003-2005

<u>Network of Excellence NANOFUN:</u> Nanofunctional materials-structure properties relations

EU funded network of Excellence Budget: 235000 EUR Duration: 2004-2007

Textilverstärkte Verbundkomponenten für funktionsintegrierende Mischbauweisen bei komplexen Leichtbauanwendungen, Projektbereich A1: Online Commingling-Hybridspinnen von GF-/Polymergarnen

DFG funded programme (Deutsche Forschungsgemeinschaft) (SFB 639) Budget: 90000 € Duration: 2002-2006

<u>POCO:</u> Carbon Nanotube Confinement Strategies to Develop Novel Polymer Matrix Composites (Principal Investigator – of the part at IPF Dresden)

EU funded Large Project Budget: 472000 EUR Duration: 2008-2012

Refurbishment of Polymer Engineering Lab (Principal Investigator)

University of Ioannina funded project Budget: 190000 EUR Start date: 1/9/2010

Installation of a TEM at the University of Ioannina

EU & Greece (Region of Epirus) funded project Budget: 2,000,000 EUR Start date: 1/10/2010

Heracletos II Doctoral Research Support (Principal Investigator)

Ministry of Education funded project for doctoral research (36 months) Budget: 44000 EUR Start date 1/9/2011

Thales National Research Support Initiative (Polymer Nanocomposites)

Ministry of Education funded project Budget: 68000 (600000 total (Aristotle University of Thessaloniki, University of Ioannina, University of Western Greece) Start Date 1/6/2012

### **OTHER ACTIVITIES**

**<u>Referee</u>** for Advanced Composites Letters, Applied Spectroscopy Letters, Bioresources Technology, Carbohydrate Polymers, Composites Part A, Composites Science and Technology, Composite Interfaces, European Polymer Journal, Journal of Applied Crystallography, Journal of Applied Polymer Science, Journal of Colloid and Interface Science, Journal of Materials Science, Journal of Materials Science Letters, Journal of Polymer Science Part A: Polymer Chemistry, Journal of Polymer Science Part B: Polymer Physics, Macromolecules, Macromolecular Chemistry and Physics, Macromolecular Materials Engineering, Macromolecular Rapid Communications, Macromolecular Symposia, Materials Science and Engineering B, Polymer, Polymer Engineering, (more than 200 articles refereed since 2000)

<u>Chairman</u> of the 'Applied Materials and Engineering' review panel for beamtime applications of the ESRF (2005-2011)

**<u>Reviewer</u>** for the FP6 and FP7 programmes of the EU (nanomaterials topic) (since 2004)

**<u>Reviewer</u>** for the General Secretariat of Research in Greece. (since 2004)

**Reviewer** for the Austrian Science Foundation (since 2006)

**<u>Reviewer</u>** for the Portuguese Foundation of Science and Technology (since 2009)

<u>**Reviewer**</u> for the French Research Agency (L' Agence Nationale de la Recherche (ANR)) (since 2011)

<u>Member</u> of the committee of External experts for the establishment of the European Centre of Soft Condensed Matter in Grenoble, France

<u>Member of the Editorial Board</u> of The Journal of Nanoparticles from Hindawi Publishing Corporation <u>http://www.hindawi.com/journals/nanoparticles/</u>

<u>Member of the Editorial Board</u> of **ISRN Polymer Science** from Hindawi Publishing Corporation <u>http://www.isrn.com/journals/ps/</u>

<u>Member of the Board of Trustees</u> of the Centre of Traditional Industry of Ioannina as representative of the Greek Ministry of Development (Since 2010)

<u>Guest Editor</u> Journal of Polymer Science Part B: Polymer Physics, special issue in honour of Prof. Manfred Stamm's 60<sup>th</sup> Birthday.

# **Referee and Member of the Jury for the following PhD theses:**

- <u>Mr Aitor Arbelaiz Garmendia</u>, Composites based on renewable natural flax fibres and thermoplastic matrices, University of the Basque Country, Spain (2006)
- <u>Ms Elena Serrano Toregrosa</u>, Nanostructured thermosetting systems by modification of an epoxy resin with epoxidized styrene-butadiene block copolymers, University of the Basque Country, Spain (2006)
- <u>Ms Sara Maiez-Tribut</u>, Relations entre la structure d'un copolymère à blocs et la nanostructuration d'un polymère réticulé, INSA de Lyon, France (2007)
- <u>Ms Pascale Valot</u>, Développement de nouveaux supports textiles contenant des microcapsules de principe actif médicamenteux pour orthèses, Université Claude Bernard de Lyon 1, France (2007)
- <u>Ms Miren Blanco Miguel</u>, Materiales thermoestables basados en resinas epoxi y mezclas de aminas de diferente functionalidad modificadas con PMMA. Cinética de curado, morfología y propriedades finales, University of the Basque Country, Spain (2008)
- <u>Ms Sofia Rangou</u>, Synthesis, Molecular and Morphological Characterisation of non-Linear Triblock Copolymers (heteroarm stars dendrimers) of Large Mw, University of Ioannina, (2009)
- <u>Mr Moyeenundin Ahmad Sawpan</u>, Mechanical Performance of industrial Hemp Fibre Reinforced Polylactide and unsaturated Polyester Composites, University of Waikato, New Zealand (2010)
- <u>Ms Aylin Karakuscu</u>, Synthesis and Characterization of Luminescent Nanostructured SiOC Thin Film, University of Trento, Italy (2010)
- <u>Mr Luca Facchini</u>, Microstructure and Mechanical Properties of Biomedical Alloys produced by Rapid Manufacturing Techniques, University of Trento, Italy (2010)
- <u>Mr Constantinos Papavasiliou</u>, Fabrication of Potential Energy Functions of Structural Molecules of Asymetric Polymer Membranes and other Systems, University of Ioannina, (2010)
- <u>Mr Nikolaos Politakos</u>, Molecular and Morphological Characterisation of Block Copolymers with Complex Architecture with one block being Polydimethylsiloxane or Polydienes of varying Microstructure, University of Ioannina, (2011)
- <u>Mr Prokopis Georgopanos</u>, Synthesis, Characterisation, Properties and Applications of Polymers with Complex Architecture with one block being Polydimethylsiloxane, University of Ioannina, (2011)
- <u>Ms Eftichia Grana,</u> Synthesis, Molecular and Morphological Characterization of Complex Architecture Conductive Polymers, University of Ioannina, (2011)
- <u>Mr Konstantinos Misichronis,</u> Synthesis, Molecular and Morphological Characterization of Linear and Complex Architecture Block Copolymers Consisting of Poly(1,3-cyclohexadiene), University of Ioannina, (2012)

# NATIONAL AND INTERANTIONAL COLLABORATIONS

- Prof. Jean-François Gèrard, INSA-Lyon, FRANCE.
- Dr. Libor Matějka,, Institute of Macromolecular Chemistry Prague, CZECH REPUBLIC.

- Dr. Michael Popall, Fraunhofer Institut f
  ür Silicatforschung (ISC)– W
  ürzburg, GERMANY.
- Prof. Sandra Diré, University of Trento, ITALY.
- Prof. Jose M. Kenny, University of Perugia, ITALY.
- Dr Christian Riekel, ID13, ESRF, FRANCE.
- Dr Richard J. Davies, ID13, ESRF, FRANCE.
- Prof. Alexander Korshunsky, Oxford University, UK.
- Prof. Costas Galiotis, Department of Materials, University of Patras, GREECE.
- Prof. Costas Tsitsilianis, Department of Chemical Engineering, University of Patras, GREECE.
- Prof. Costas Panayiotou, Department of Chemical Engineering, Aristotle University of Thessaloniki, GREECE.
- Prof. Jorge Rubio Retama, Complutense University of Madrid, SPAIN

# SPECIAL SKILLS

<u>X-ray scattering techniques</u>: WAXS, SAXS, and synchrotron WAXS and SAXS.

Neutron scattering: SANS, NR.

<u>Surface Analysis Techniques</u>: ToF-SIMS, XPS, IGC, Contact Angle measurements.

Thermal Analysis Techniques: DTA, TGA, DSC, DMTA

Spectroscopy Techniques: FTIR, NIR, Raman

Various Characterisation Techniques: SEM, TEM, AFM.

<u>Mechanical Testing</u>: Single Fibre Fragmentation, Tensile Testing, Environmental Testing, Impact, Rheology

<u>Manufacturing</u>: Compression Moulding, Extrusion, Thermopressing, Internal Mixing, Injection Moulding

Polymerisation Techniques: ATRP, NMRP

# **DISTINCTIONS**

1997

NATIONAL TECHNICAL UNIVERSITY OF ATHENS DEPARTMENT OF CHEMICAL

	ENGINEERING Prize awarded as second best 4 <sup>th</sup> year student.
1999	TECHNICAL CHAMBER OF GREECE Prize awarded as second best 5th year Chemical Engineering student. In Greece
1998	EMPIRIKOS FOUNDATION GREECE Prize awarded (10000 Euros) for novel research
2004	Distinguished Greek Scientist Living Abroad, Ministry of Defence, Greece
2006	Included in the Marquis Who's Who in Science and Engineering <sup>®</sup> (Edition 2006-2007 and subsequent editions)
2006	Ramon y Cajal fellow of the Spanish Government in the topic of Materials (fellowship denied)

# PERSONAL INTERESTS

Chess, Cinema, Theatre, Hiking, Mountaineering, Wine, History, Poetry, Epistemology. Politics.

## LIST OF PUBLICATIONS

## **In Refereed Journals**

- N. E. Zafeiropoulos, P. C. Varelidis, C. D. Papaspyrides, T. Stern and G. Marom, Characterisation of LDPE Residual Matrix Deposited on Glass Fibres by a Dissolution/Reprecipitation Recycling Process, <u>Composites Part A</u>, 30, 1999, 831-838
- 2. **N. E. Zafeiropoulos**<sup>\*</sup>, C. A. Baillie and F. L. Matthews, A Study of the Effect of Surface Treatments on the Thermal Stability of Flax Fibres, <u>Advanced</u> <u>Composites Letters</u>, 9(4), 2000, 291-294
- 3. N. E. Zafeiropoulos<sup>\*</sup>, C. A. Baillie and F. L. Matthews, A Study of Transcrystallinity and its Effect on the Interface in Flax Fibre Reinforced Composite Materials, <u>Composites Part A</u>, 32, 2001, 527-545
- S.J. Eichhorn, C. A. Baillie and N. Zafeiropoulos, L.Y. Mwaikambo and M.P. Ansell, A. Dufresne, K.M. Entwistle, P.J. Herrera-Franco and G.C. Escamilla, L. Groom, M. Hughes and C. Hill, T.G. Rials, P.M. Wild, Current International Research Into Cellulosic Fibres and Composites, <u>Journal of Materials Science</u>, 36(9), 2001, 2107-2131
- 5. **N. E. Zafeiropoulos**<sup>\*</sup>, C. A. Baillie and F. L. Matthews, The Effect of Transcrystallinity on the Interface of Green Flax/Polypropylene Composite Materials, <u>Advanced Composites Letters</u>, 10(5), 2001, 229-236

- 6. **N. E. Zafeiropoulos**<sup>\*</sup>, C. A. Baillie and F. L. Matthews, An Investigation of the Effect of Processing conditions on the Interface of Flax/Polypropylene Composites, <u>Advanced Composites Letters</u>, 10(6), 2001, 291-295
- N. E. Zafeiropoulos<sup>\*</sup>, The Application of Weibull Statistics on Fragmentation Data, <u>Advanced Composites Letters</u>, 11(2), 2002, 69-71
- 8. N. E. Zafeiropoulos<sup>\*</sup>, D. R. Williams, C. A. Baillie and F. L. Matthews, Engineering and Characterisation of the Interface in Flax fibre/Polypropylene Composite materials Part I: Development and Investigation of Surface Treatments, <u>Composites Part A</u>, 33, 2002, 1083-1093
- N. E. Zafeiropoulos<sup>\*</sup>, C. A. Baillie and J. M. Hodgkinson, Engineering and Characterisation of the Interface in Flax fibre/Polypropylene Composite materials Part II: The Effect of Surface Treatments on the Interface, <u>Composites Part A</u>, 33, 2002, 1183-1188
- N. E. Zafeiropoulos<sup>\*</sup>, J. Schut, A. Pohlers, M. Stamm, and J.-F. Gerard, An Investigation of sPS/Epoxy Blends by Means of X-ray Scattering Techniques, <u>Macromolecular Symposia</u>, 198, 2003, 345-353
- N. E. Zafeiropoulos<sup>\*</sup>, P. E. Vickers, C. A. Baillie and J. F. Watts, An Experimental Investigation of Modified and Unmodified Flax Fibres by means of XPS, ToF-SIMS and FTIR, <u>Journal of Materials Science</u>, 38(19), 2003, 3903-3914
- K. Schneider, N. E. Zafeiropoulos<sup>\*</sup>, L. Häußler, M. Stamm, High-Throughput Screening of the Influence of Thermal Treatments on the Mechanical Properties of Semicrystalline Polymers: A Case Study iPP, <u>Macromolecular Rapid</u> <u>Communications</u>, 25, 2004, 355-359
- 13. R. J. Davies, N. E. Zafeiropoulos<sup>\*</sup>, K. Schneider, S. V. Roth, M. Burghammer, C. Riekel, J. Kotek, and M. Stamm, The use of Synchrotron X-ray Scattering coupled with *in situ* Mechanical Testing for studying Deformation and Structural change in Isotactic Polypropylene, <u>Colloid Polymer Science</u>, 282, 2004, 854-866
- L. Figiel, N. E. Zafeiropoulos, and B. Lauke, Numerical Analysis of the Elastic Constants' Effects on the Delamination Propagation in a Curved Layered Composite Beam under Cyclic Shear Loading, <u>Composites Part A</u>, 36, 2005, 153-162
- 15. V. Tserki, C. Panayiotou and **N. E. Zafeiropoulos**<sup>\*</sup>, A study of the Effect of Acetylation and Propionylation on the Interface of Natural Fibre Biodegradable Composites, <u>Advanced Composites Letters</u>, 14(2), 2005, 63-69
- S. Bocchini, G. Fornasieri, L. Rozes, S. Trabelsi, J. Galy, N. E. Zafeiropoulos, M. Stamm, J.-F. Gerard, C. Sanchez, New Hybrid Organic-Inorganic Nanocomposites based on Functional [Ti<sub>16</sub>O<sub>16</sub>(OEt)<sub>24</sub>(OEMA)<sub>8</sub>] Nano-fillers, <u>Chemical Communications</u>, 20, 2005, 2600- 2602
- V. Tserki, N. E. Zafeiropoulos, F. Simon and C. Panayiotou, A Study of the Effect of Acetylation and Propionylation Surface Treatments on Natural Fibres, <u>Composites Part A</u>, 36, 2005, 1110-1118
- S. Trabelsi<sup>\*</sup>, A. Janke, R. Häßler, N. E. Zafeiropoulos<sup>\*</sup>, M. Stamm, G. Fornasieri, S. Bocchini, L. Rozes, J.-F. Gerard and C. Sanchez, Novel Organo-functional Titanium-oxo-cluster based Hybrid Materials with Enhanced Thermomechanical and Thermal Properties, <u>Macromolecules</u>, 38, 2005, 6068-6078
- N. E. Zafeiropoulos<sup>\*</sup>, R. J. Davies, S. V. Roth, M. Burghammer, K. Schneider, C. Riekel and M. Stamm, Microfocus X-ray Scattering Scanning Microscopy for Polymer Applications, <u>Macromolecular Rapid Communications</u>, 26, 2005, 1547-1551

- L. Rozes, G. Fornasieri, S. Trabelsi, C. Creton, N. E. Zafeiropoulos, M. Stamm, and C. Sanchez, Reinforcement of Polystyrene by covalently bonded Titanium Oxoclusters, <u>Progress in Solid State Chemistry</u>, 33, 2005, 127-135
- 21. E. Serano, A. Tercjak, M. D. Martin, J. A. Pomposo, D. Mecerreyes, N. E. Zafeiropoulos, M. Stamm and I. Mondragon, Nanostructured Thermosetting Systems by Modification with Epoxidised Styrene-b-Butadiene Block Copolymers. Effect of Epoxidation Degree, <u>Macromolecules</u>, 39, 2006, 2254-2261
- 22. K. Schneider, S. Trabelsi, N. E. Zafeiropoulos, R. Davies, C. Riekel, and M. Stamm, The Study of Cavitation in HDPE using Time Resolved Synchrotron X-Ray Scattering during Tensile Deformation, <u>Macromolecular Symposia</u>, 236, 2006, 241-248
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- 30. K. Schneider, N. E. Zafeiropoulos, R. J. Davies, A. Schöne, M. Burghammer, M. Stamm, The use of microfocus Synchrotron x-ray radiation as a novel technique to study the interface in composites, Polymeric Materials 2004, Halle (Germany), 29<sup>th</sup> September- 1<sup>st</sup> October, 2004 (Oral Presentation)
- 31. S. Trabelsi, R. Häßler, S. Bocchini, G. Fornasieri, A. Janke, N. E. Zafeiropoulos, J. Galy, L. Rozes, M. Stamm, J.-F. Gérard, C. Sanchez, Structure and properties

Characterisation of novel Hybrid Organic-Inorganic nanomaterials based on modified Titatinium oxo-clusters, Meeting of the German Physical Society, Berlin, 4-9 March, 2005 (Oral Presentation)

- 32. K. Schneider, **N. E. Zafeiropoulos**, R. J. Davies, M. Burghammer, M, Stamm, The use of microfocus synchrotron x-ray radiation as a Novel Technique to study the Interface in Composites, Meeting of the German Physical Society, Berlin, 4-9 March, 2005 (Oral Presentation)
- 33. J.-F. Gerard, J. Galy, S. Bocchini, S. Bizet, M. Amici, N. Zafeiropoulos, M. Stamm, C. Sanchez, L. Rozes, G. Fornasieri, Nanostructured hybrid organic-inorganic polymers from the introduction of metal oxo-clusters: An alternative route for designing functional nanocomposites, 8<sup>th</sup> European Symposium on Polymer Blends-Eurofillers 2005, Bruges (Belgium), 9<sup>th</sup> to 12<sup>th</sup> of May, 2005 (Oral Presentation)
- 34. L. Rozes, G. Fornasieri, C. Sanchez, C. Creton, S. Trabelsi, N. E. Zafeiropoulos, M. Stamm, Reinforcement of Polystyrene by covalently bonded OxoTitanium Clusters, European Materials Research Society (E-MRS) 2005 Spring Meeting, Strasbourg (France), 31<sup>st</sup> of May – 3<sup>rd</sup> of June, 2005 (Oral Presentation)
- 35. S. Trabelsi, K. Schneider, N. E. Zafeiropoulos, R. J Davies, M. Burghammer, M. Stamm, Structural Characterisation of HDPE during Tensile Deformation and Fracture using Synchrotron X-ray Scattering, Deformation und Bruchverhalten von Kunststoffen, Merseburg (Germany), 15<sup>th</sup> 17<sup>th</sup> of June, 2005 (Oral Presentation)
- 36. N. E. Zafeiropoulos, R. J. Davies, K. Schneider, S. Trabelsi, J. Rieger, C. Riekel, M. Stamm, The Application of Microfocus Synchrotron Radiation x-ray Scattering to study Fracture Mechanisms in Polyolefins, 23<sup>rd</sup> Conference on Current and Future Trends in Polymeric Materials, Prague (Czech Republic), 26<sup>th</sup> -30<sup>th</sup> of June, 2005 (Oral Presentation)
- 37. V. Tserki, **N. E. Zafeiropoulos**, C. Panayiotou, Novel Biodegradable Composites based on treated Lignocellulosic Fibres, 7<sup>th</sup> Mediterranean Conference on Calorimetry and Thermal Analysis (MEDICTA 2005), Thessaloniki (Greece), 2<sup>nd</sup> –6<sup>th</sup> July, 2005 (Poster Presentation)
- 38. A. Y. Feldman, N. E. Zafeiropoulos, G. Marom, New Insight into the Structure of Transcrystallinity in Nylon 6,6 reinforced by Aramid Fibers, 8<sup>th</sup> International Symposium Polymers for Advanced Technologies, Budapest (Hungary), 13<sup>th</sup> –16<sup>th</sup> September, 2005 (Oral Presentation)
- 39. N. E. Zafeiropoulos, K. Schneider, R. J. Davies, A. Schöne, C. Riekel, and M. Stamm, Microfocus Synchrotron X-ray Radiation as a Novel Technique to study Interfacial Phenomena in Composites, International Conference on Interfaces and Interphases in Multicomponent Materials (IIMM 2005), Lyon (France), 12<sup>th</sup> 14<sup>th</sup> September, 2005 (Oral Presentation)
- 40. N. E. Zafeiropoulos, R. J. Davies, C. Riekel, Y.-F. Men, J. Rieger, and M. Stamm, Deformation and Fracture mechanisms in Semicrystalline Polymers as revealed by Microfocus Synchrotron X-ray Scattering, Meeting of the German Physical Society, Dresden (Germany), 27-31 March, 2006 (Oral Presentation)
- 41. M. Agrawal, A. Pich, N. E. Zafeiropoulos, M. Stamm, Preparation and Characterisation of Polystyrene-ZnO hybrid polymer particles, Meeting of the German Physical Society, Dresden (Germany), 27-31 March, 2006 (Poster Presentation)
- 42. K. Schneider, S. Trabelsi, N. E. Zafeiropoulos, R. J. Davies, C. Riekel, M. Stamm, Investigation of Structural Changes and Void Formation during

Deformation of Polyolefins by Scanning micro-SAXS, 13<sup>th</sup> Interantional Conference on Deformation, Yield and Fracture of Polymers, Rolduc (Netherlands), 10-13 April, 2006 (Poster Presentation)

- 43. N. E. Zafeiropoulos, S. Trabelsi, A. Janke, G. Fornasieri, S. Bocchini, L. Rozes, J. Galy, M. Stamm, J.-F. Gérard, C. Sanchez, Novel Organic-Inorganic Nanohybrid nanomaterials based on modified Titatinium oxo-clusters with Enhanced Thermal and Thermomechanical Properties, 2<sup>nd</sup> NANOFUN-POLY International Conference on Nanostructured and Multifunctional Polymer-Based Nanomaterials and Nanocomposites, Lyon (France), 29-31 May, 2006 (Poster Presentation)
- 44. P.Valot, **N. E. Zafeiropoulos**, N. Zydowicz, Micro/Nano Structural Investigation of Microcapsule Drug Delivery Systems, 2<sup>nd</sup> NANOFUN-POLY International Conference on Nanostructured and Multifunctional Polymer-Based Nanomaterials and Nanocomposites, Lyon (France), 29-31 May, 2006 (Poster Presentation)
- 45. E. Serrano, A. Tercjak, M. Larrañaga, N. E. Zafeiropoulos, D. Mecerreyes, I. Mondragon, Nanoordered Thermosetting Materials from Functionalised Styrene-Butadiene Diblock Copolymers, 2<sup>nd</sup> NANOFUN-POLY International Conference on Nanostructured and Multifunctional Polymer-Based Nanomaterials and Nanocomposites, Lyon (France), 29-31 May, 2006 (Poster Presentation)
- 46. I. Garcia, A. Tercjak, E. Serrano, M. Larrañaga, N. E. Zafeiropoulos, M. Stamm, Preparation Characterisation I. Mondragon, and of Novel Magnetic  $2^{nd}$ Conference Nanomaterials, NANOFUN-POLY International on Nanostructured and Multifunctional Polymer-Based Nanomaterials and Nanocomposites, Lyon (France), 29-31 May, 2006 (Poster Presentation)
- 47. M. Amici, J. Galy, N. E. Zafeiropoulos, M. Stamm, J.-F. Gérard, Nanostructured Polymers based on Methacrylate-Polyhedral Oligomeric Silsesquioxanes (POSS), 2<sup>nd</sup> NANOFUN-POLY International Conference on Nanostructured and Multifunctional Polymer-Based Nanomaterials and Nanocomposites, Lyon (France), 29-31 May, 2006 (Poster Presentation)
- 48. N. E. Zafeiropoulos, K. Schneider, R. J. Davies, C. Riekel, and M. Stamm, Microfocus Small Angle X-ray Scattering as a tool to study the Mode of Failure at the Interface of Composite Materials, 12<sup>th</sup> European Conference on Composite Materials (ECCM12), Biarritz (France), 29<sup>th</sup> of August -1<sup>st</sup> of September, 2006 (Oral Presentation)
- 49. M. Agrawal, A. Pich, N. E. Zafeiropoulos, and M. Stamm, Microgels containing ZnO nanoparticles, 6<sup>th</sup> International Symposium on Polyelectrolytes, Dresden (Germany), 4- 8 September, 2006 (Poster presentation)
- 50. M. Agrawal, A. Pich, S. Gupta, N. E. Zafeiropoulos, and M. Stamm, Polystyrene-ZnO hybrid nanoparticles with core-shell morphology, 2006 Fall national ACS Meeting, San Francisco (USA), 10-14 September, 2006 (Poster Presentation)
- 51. **N. E. Zafeiropoulos**, R. J. Davies, C. Riekel, and M. Stamm, The application of synchrotron radiation x-ray scattering to study fracture mechanisms in semicrystalline polymers, 6<sup>th</sup> Conference of the Hellenic Polymer Society, Patras (Greece), 3-5 November, 2006 (Oral presentation)
- 52. M. Agrawal, A. Pich, N. E. Zafeiropoulos, and M. Stamm, Temperature Sensitive Hybrid Microgels containing ZnO Nanoparticles, 9<sup>th</sup> National Conference MACRO-2006 Polymers for Advanced Technologies, Pune (India), 17-20 December, 2006, (Oral Presentation)

- 53. K. Schneider, X.-H. Li, N. E. Zafeiropoulos, P. Bösecke, and M. Stamm, Investigation of structural changes in semicrystalline polymers during plastic deformation and stress relaxation by SAXS, HASY Lab User's Meeting, Hamburg (Germany), 3-5 January, 2007 (Poster presentation)
- 54. J. Rubio, **N. E. Zafeiropoulos**, and M. Stamm, Smart Multifunctional Hybrid Microgels for Biological Applications, Meeting of the German Physical Society, Regensburg (Germany), 26-30 March, 2007 (Oral Presentation)
- 55. M. Agrawal, A. Pich, N. E. Zafeiropoulos, and M. Stamm, Zinc Oxide Nanoparticles inside Microgels, Meeting of the German Physical Society, Regensburg (Germany), 26-30 March, 2007 (Poster Presentation)
- 56. M. Agrawal, A. Pich, S. Gupta, N. E. Zafeiropoulos, and M. Stamm, Synthesis of Titania shells on Polystyrene cores with Tunable Thickness, 2007 Spring National ACS Meeting, Chicago (USA), 25-30 March, 2007 (Oral Presentation)
- 57. M. Agrawal, A. Pich, U. Oertel, N. E. Zafeiropoulos, and M. Stamm, Preparation of PMMA-ZnO Composite Films via Solution Mixing, Symposium on Functional Polymer Based Materials, Jena (Germany), 3-4 April 2007 (Poster Presentation)
- 58. N. E. Zafeiropoulos, S. Trabelsi, S. Bocchini, M. Amici, G. Fornasieri, J. Galy, L. Rozes, J.-F. Gérard, C. Sanchez, and M. Stamm, The Effect of the Inorganic Phase on the Properties of Hybrid Nanomaterials, 3<sup>rd</sup> NANOFUN-POLY International Symposium on Nanostructured and Multifunctional Polymer-Based Nanomaterials and Nanocomposites, Corfu (Greece), 13-15 May, 2007 (Oral Presentation)
- 59. M. Agrawal, A. Pich, N. E. Zafeiropoulos, S. Gupta, and M. Stamm, Fabrication of Core-Shell Composite Particles and Hollow Spheres with Tailored Morphology and Shell Thickness, 3<sup>rd</sup> NANOFUN-POLY International Symposium on Nanostructured and Multifunctional Polymer-Based Nanomaterials and Nanocomposites, Corfu (Greece), 13-15 May, 2007 (Oral Presentation)
- 60. J. Rubio-Retama, **N. E. Zafeiropoulos**, and M. Stamm, Smart Multifunctional Hybrid Microgels for Biological Applications, 3<sup>rd</sup> NANOFUN-POLY International Symposium on Nanostructured and Multifunctional Polymer-Based Nanomaterials and Nanocomposites, Corfu (Greece), 13-15 May, 2007 (Oral Presentation)
- 61. M. Stamm, **N. E. Zafeiropoulos**, and K. Schneider, X-Ray Scattering for the Study of Deformation and Fracture of Polymers, 56<sup>th</sup> Annual Conference on Applications of X-ray Analysis (Denver X-Ray Conference), Colorado Springs (USA), 30<sup>th</sup> of July –3<sup>rd</sup> of August, 2007, (Invited Oral Presentation)
- 62. M. Stamm, R. Krenek, V. Cimrova, B. Nandan, P. Uhlmann, N. E. Zafeiropoulos, and X. Li, Nanotemplates with Copolymer Thin Films, 9<sup>th</sup> European Symposium on Polymer Blends, Palermo (ITALY), 9-12 September, 2007, (Oral Presentation)
- 63. M. Rosenthal, D.V. Anokhin, N. E. Zafeiropoulos, C. Riekel, M.H. Koch, and D.A. Ivanov, New Insights in Semicrystalline Morphology and Polymorphic Transitions in Poly(vinylidene fluoride): synchrotron X-ray scattering study using a micro-focus facility, European Discussion Meetings EDM 2007 on Polymer Crystallization, 3-6 October 2007, Waldau, Germany (Poster Presentation)
- 64. M. Agrawal, A. Pich, N. E. Zafeiropoulos, and M. Stamm, Fabrication of Novel Metal Oxide Hollow Spheres with tailored Shell Thickness, Meeting of the German Physical Society, Berlin, 25-29 February, 2008, (Oral Presentation)
- 65. M. Agrawal, S. Gupta, V. Cimrova, N. Gaponik, S. Tzavalas, R. Rojas-Reyna , J. Rubio-Retama, M. Stamm, and N. E. Zafeiropoulos, Switchable

Photoluminiscent CdTe Nanocrystals by Temperature Responsive Microgels, Meeting of the German Physical Society, Berlin, 25-29 February, 2008, (Oral Presentation)

- 66. **N. E. Zafeiropoulos**, R. J. Davies, and M. Stamm, The Relation between Craze Structure and Molecular Weight in PS as revealed by μSAXS experiments, Meeting of the German Physical Society, Berlin, 25-29 February, 2008, (Oral Presentation)
- 67. E. López-Cabarcos, J. Rubio-Retama, N. E. Zafeiropoulos, and M. Stamm, Heterogeneously Charged Smart Multifunctional Hybrid Microgels: Synthesis, Structure and Applications, Workshop of COST action D43 'Functionalised Materials and Interfaces', Berlin (Germany), 2-4 April, 2008 (Oral Presentation)
- 68. M. Agrawal, S. Gupta, V. Cimrova, N. Gaponik, S. Tzavalas, R. Rojas-Reyna, J. Rubio-Retama, M. Stamm, and N. E. Zafeiropoulos, Switchable Photoluminiscent CdTe Nanocrystals by Temperature Responsive Microgels, 4<sup>th</sup> NANOFUN-POLY International Conference on Nanostructured and Polymers and Nanocomposites, Rome (Italy), 16-18 April, 2008 (Oral Presentation)
- 69. M. Stamm, R. Krenek, V. Cimrova, B. Nandan, P. Uhlmann, N. E. Zafeiropoulos, and X. Li, Nanotemplates with Copolymer Thin Films, 4<sup>th</sup> NANOFUN-POLY International Conference on Nanostructured and Polymers and Nanocomposites, Rome (Italy), 16-18 April, 2008 (Poster Presentation)
- 70. M. Agrawal, A. Pich, J. Rubio-Retama, N. E. Zafeiropoulos, and M. Stamm, Zinc Oxide nanoparticles inside Thermosinsitive Microgels, 4<sup>th</sup> NANOFUN-POLY International Conference on Nanostructured and Polymers and Nanocomposites, Rome (Italy), 16-18 April, 2008 (Poster Presentation)
- 71. M. Agrawal, A. Pich, N. E. Zafeiropoulos, and M. Stamm, Template Assisted Fabrication of Pure and Mixed Metal Oxide Hollow Spheres, 4<sup>th</sup> NANOFUN-POLY International Conference on Nanostructured and Polymers and Nanocomposites, Rome (Italy), 16-18 April, 2008 (Poster Presentation)
- 72. M. Agrawal, N. E. Zafeiropoulos, A. Pich, U. Oertel, and M. Stamm, Preparation of PMMA-ZnO Composite Films via Solution Mixing, 4<sup>th</sup> NANOFUN-POLY International Conference on Nanostructured and Polymers and Nanocomposites, Rome (Italy), 16-18 April, 2008 (Poster Presentation)
- 73. G. Kortaberria, E. Etxeberria, I. Garcia, A. Tercjak, N. E. Zafeiropoulos, R. J. J. Williams, J. M. Kenny, C. Tsitsilianis, and I. Mondragon, Self-assembled Nanocomposites based on Block Copolymers containing Magnetic Nanoparticles, 4<sup>th</sup> NANOFUN-POLY International Conference on Nanostructured and Polymers and Nanocomposites, Rome (Italy), 16-18 April, 2008 (Poster Presentation)
- 74. J. Rubio-Retama, N. E. Zafeiropoulos, M. Stamm, and E. López-Cabarcos, Polymer Chain Dynamic influenced by the presence of Magnetic Nanoparticles within Microgels, 22<sup>nd</sup> Conference of the European Colloid and Interface Society, Cracow (Poland), August 31 - September 5, 2008 (Oral Presentation)
- 75. J. Rubio-Retama, N. E. Zafeiropoulos, N. Gaponik, and E. López-Cabarcos, Switchable photoluminescence of CdTe nanocrystals by temperature responsive microgels, 22<sup>nd</sup> Conference of the European Colloid and Interface Society, Cracow (Poland), August 31 - September 5, 2008 (Oral Presentation)
- 76. N. E. Zafeiropoulos, Smart Multifunctional Hybrid Microgels, XXIV Panhellenic Conference on Solid State Physics and Materials Science, Heraklion (Greece), 21-24 September, 2008 (Invited Oral Presentation)
- 77. A. Horechyy, **N. E. Zafeiropoulos**, C. Tsitsilianis, and M. Stamm, Synthesis and Selective Segregation of Fe3O4 nanoparticles inside the Poly-2-vinylpyridine

domain of Poly(styrene-b-vinylpyridine), 7<sup>th</sup> Hellenic Polymer Conference, Ioannina, Greece, 28<sup>th</sup> September – 1<sup>st</sup> October, 2008 (Oral Presentation)

- 78. N. E. Zafeiropoulos, Nanohybrid Materials with Block Copolymers and Nanoparticles, 10<sup>th</sup> European Symposium on Polymer Blends, Dresden, 7-10 of March 2010 (Invited Keynote Oral Presentation)
- 79. D. Katsigiannopoulos, E. Grana, E. L. Thomas, N. E. Zafeiropoulos, A. Avgeropoulos, Polymers Grafted on Multi Wall Carbon Nanotubes, 8<sup>th</sup> Hellenic Polymer Conference, Chersonesos Crete, Greece, 24<sup>th</sup> 29<sup>st</sup> October, 2010 (Poster Presentation)
- 80. G. Zapsas, D. Moschovas, S. Rangou, N. E. Zafeiropoulos, A. Avgeropoulos, Core Shell Double Gyroid Morphology of a Triblock Terpolymer Consisting of : Polystyrene, Polybutadiene and Polyisoprene, 8<sup>th</sup> Hellenic Polymer Conference, Chersonesos Crete, Greece, 24<sup>th</sup> – 29<sup>st</sup> October, 2010 (Poster Presentation)
- 81. S. Rangou, D. Serrano-Ruiz, A. Avgeropoulos, N. E. Zafeiropoulos, E. Cabarcos, J. Rubio-Retama, Chemical Modification of Magnetic nanoparticles by Covalently Bonding Middle Bunctionalised Diblock Copolymer, 8<sup>th</sup> Hellenic Polymer Conference, Chersonesos Crete, Greece, 24<sup>th</sup> 29<sup>st</sup> October, 2010 (Poster Presentation)
- 82. D. Moschovas, G. Zapsas, S. Rangou, N. E. Zafeiropoulos, A. Avgeropoulos, Synthesis and Characterization of High molecular Weight Triblock Terpolymers Consisting of Polystyrene, Polybutadiene and Polyisoprene with different Isomerisms, 8<sup>th</sup> Hellenic Polymer Conference, Chersonesos Crete, Greece, 24<sup>th</sup> – 29<sup>st</sup> October, 2010 (Poster Presentation)
- 83. Bhanu Nandan, A. Horechyy, N. Zafeiropoulos, N. Bigall, A. Eychmuller, M. Stamm, Block Copolymer Self-Assembly for Bi-Nanoparticles Patterning, PSE2010 (Polymer Science and Engineering: Emerging Dimensions), Chandigarh, India, 26<sup>th</sup> -27<sup>th</sup> November, 2010 (Oral Presentation)
- 84. Bhanu Nandan, A. Horechyy, N. Zafeiropoulos, N. Bigall, A. Eychmuller, M. Stamm, Block Copolymer Self-Assembly for Bi-Nanoparticles Patterning, Macro2010 (International Conference on Frontiers of Polymers & Advanced Materials), Delhi, India,15<sup>th</sup> -17<sup>th</sup> December, 2010 (Oral Presentation)
- 85. N. E. Zafeiropoulos, Nanohybrid Materials with block Copolymers and Nanoparticles, 8<sup>th</sup> International Conference on Nanosciences and Nanotechnologies, Thessaloniki, Greece, 12<sup>th</sup> – 15<sup>th</sup> July, 2011 (Invited Keynote Oral Presentation)
- 86. G. Zapsas, P. N. Trikalitis, J. Rubio-Retama, A. Avgeropoulos, N. E. Zafeiropoulos, Hybrid Materials Based on Functionalized Iron Oxide Nanoparticles and Triblock Copolymers, E-MRS 2012 Spring Meeting, Strasbourg, France, 14<sup>th</sup> 18<sup>th</sup> May, 2012 (Poster Presentation)
- 87. G. Zapsas, E. Mouzourakis, D. Gournis, A. Avgeropoulos\_and N. E. Zafeiropoulos, Plasmonic Behavior of Noble Metal Nanoparticles Segregated in Typical Block Copolymer Thin Films, 9<sup>th</sup> Panhellenic Polymer Conference, Thessaloniki, Greece, 30<sup>th</sup> November 2<sup>nd</sup> December, 2012 (Poster Presentation)
- 88. A. Karanastasis, A. Avgeropoulos, N. E. Zafeiropoulos, Size-Tailored Synthesis of Smart Microgels for Biomedical Applications, 9<sup>th</sup> Panhellenic Polymer Conference, Thessaloniki, Greece, 30<sup>th</sup> November – 2<sup>nd</sup> December, 2012 (Poster Presentation)
- 89. A. Karanastasis and **N. E. Zafeiropoulos**, Development of trifunctional PNIPAM based hybrid nanogels for biomedical applications, 11<sup>th</sup> Panhellenic Polymer Conference, Heraklion, Greece, November 3-5, 2016 (Oral Presentation)

- 90. **N. E. Zafeiropoulos**, Investigations of structure and properties of nanohybrids using thermal analysis, 7<sup>th</sup> Panhellenic Conference on Thermal Analysis and Thermal Calorimetry, Ioannina, Greece, 27-29 May 2016 (Invited Keynote Lecture)
- 91. K. Arapis, M. Tsigonias, N. E. Zafeiropoulos, D. Anagnostopoulos, D. Moschovas, Study and Identification of Printing Matrices of the Printing and Graphical Arts Museum of the University of Ioannina with Themes from Nikolaos Gyzis Artwork, 1<sup>st</sup> Panhellenic Conference on Graphical Arts, Ioannina, Greece, 1-8 July, 2018 (Oral Presentation)
- 92. D. Moschovas, G. Zapsas, K. Ntetsikas, A. Avgeropoulos, N. E. Zafeiropoulos, Selective Segregation of Modified Nanoparticles in Symmetric Diblock Copolymer and Triblock Terpolymer, 12<sup>th</sup> Panhellenic Polymer Conference, Ioannina, Greece, 30<sup>th</sup> September – 3<sup>rd</sup> October, 2018 (Poster presentation)
- 93. D. Moschovas, G. Zapsas, S. Kassavetis, C Gravalididis, P. Patsalas, A. Avgeropoulos, N. E. Zafeiropoulos, Surface Modification on Silicon Substrates and Magnetic Nanoparticles of PS/P2VP V-Shaped Polymer Brushes Through the "Grafting To" Method, 12<sup>th</sup> Panhellenic Polymer Conference, Ioannina, Greece, 30<sup>th</sup> September 3<sup>rd</sup> October, 2018 (Poster presentation)
- 94. A. Karra, A. Karydis-Messinis, M. Karabela, N. E. Zafeiropoulos, Extraction Methods of Collagen from Fish (Trout) Wastes and Characterization: A Comparative Study, 12<sup>th</sup> Panhellenic Polymer Conference, Ioannina, Greece, 30<sup>th</sup> September – 3<sup>rd</sup> October, 2018 (Poster presentation)

#### Contributions in books and book editing

- 1. **N. E. Zafeiropoulos**, The Fibre-Matrix Interface in Natural Fibre Composites, in Properties and Failure Mechanisms of Natural Fibre Composites, K. Pickering (ed), Woodhead Publishing Limited, June 2008 (ISBN-13978145692674)
- N. E. Zafeiropoulos (editor), Interfacial Engineering of Natural Fibre Composites for maximum Performance, Woodhead Publishing Limited, 2011, ISBN: 978-1-84569-742-6.

## **Invited Talks**

- 1. **N. E. Zafeiropoulos**, Natural Fibres as Potential Reinforcements in Composite Materials, Department of Civil and Environmental Engineering, State University of Washington, Pullman, USA, 15<sup>th</sup> of April 2002 (Invited by Prof. Michael Wolcott)
- N. E. Zafeiropoulos, The Application of Synchrotron μSAXS and μWAXS in Polymer Science, 14<sup>th</sup> ESRF Users' Meeting, Grenoble, France, 10<sup>th</sup> -11<sup>th</sup> February, 2004 (Invited by Dr Christian Riekel)
- 3. **N. E. Zafeiropoulos**, Synchrotron x-ray Scattering: A Novel Method to Study Deformation Phenomena in Polymer Systems, Department of Materials Science, University of Patras, Greece, 9<sup>th</sup> June, 2004 (Invited by Prof. Costas Galiotis)
- 4. **N. E. Zafeiropoulos**, Development and Characterisation of Novel Hybrid Organic-Inorganic Nanomaterials, Department of Physics, University of Patras, Greece, 19<sup>th</sup> October, 2004 (Invited by Prof Chris Toprakcioglou)
- 5. **N. E. Zafeiropoulos,** The use of Synchrotron radiation x-ray scattering to study the deformation and fracture phenomena in polymer science, National Technical

University of Athens, Greece, 14<sup>th</sup> January, 2005 (Invited by Prof. Doros Theodorou)

- 6. **N. E. Zafeiropoulos,** Microfocus x-ray scattering as a tool for polymer applications, Department of Biomaterials, Max Plank Institute for Colloids, Golm, Germany, 19<sup>th</sup> April 2005 (Invited by Prof. Peter Fratzl)
- 7. N. E. Zafeiropoulos, Strategies and Routes for Developing Novel Hybrid Nanomaterials, Department of Chemical Engineering, University of the Basque Country, San Sebastian, Spain, 14<sup>th</sup> of July, 2005 (Invited by Prof. Iñaki Mondragon)
- 8. **N. E. Zafeiropoulos**, Preparation and Characterisation of Hybrid Nanomaterials, Department of Chemistry, Université Claude Bernard de Lyon 1, France, 8<sup>th</sup> February, 2007 (Invited by Dr Nathalie Zydowicz)
- N. E. Zafeiropoulos, From Magnetic Smart Microgels to Magnetic Hollow Spheres, Joint workshop of Networks of Excellence NANOFUN-POLY, MAGMANET & INDECAT, Florence, Italy, 11<sup>th</sup> March, 2008 (Invited by Prof. Josè M. Kenny)
- N. E. Zafeiropoulos, Smart Multifunctional Hybrid Microgels, XXIV Panhellenic Conference on Solid State Physics and Materials Science, Heraklion (Greece), 21-24 September, 2008 (Invited Oral Presentation)
- 11. **N. E. Zafeiropoulos,** Synchrotron Radiation in Polymer Science, 14<sup>th</sup> Symposium of IPF Dresden, Dresden 4-5 November 2009 (Invited Oral Presentation)
- 12. N. E. Zafeiropoulos, Nanohybrid Materials with Block Copolymers and Nanoparticles, 10<sup>th</sup> European Symposium on Polymer Blends, Dresden, 7-10 of March 2010 (Invited Keynote Oral Presentation)
- 13. N. E. Zafeiropoulos, Nanohybrid Materials with block Copolymers and Nanoparticles, 8<sup>th</sup> International Conference on Nanosciences and Nanotechnologies, Thessaloniki, Greece, 12<sup>th</sup> – 15<sup>th</sup> July, 2011 (Invited Keynote Oral Presentation)
- 14. **N. E. Zafeiropoulos**, Investigations of structure and properties of nanohybrids using thermal analysis, 7<sup>th</sup> Panhellenic Conference on Thermal Analysis and Thermal Calorimetry, Ioannina, Greece, 27-29 May 2016 (Invited Keynote Oral Presentation)

## **Experimental Reports for Synchrotron experiments**

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## **Bibliographic Statistics**

Total citations – h index ISI : : 3341 (h=30)

Total citations – h index Scopus: **3753** (h=30) ((<u>Author ID : 6603832566</u>) Total citations – h index Google Scholar: **4740** (h=32, i10=50)