



## Curriculum Vitae

*Georgios Zapsas PhD*

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### Educational Background

2015	<b>Ph.D.</b> , Polymer-based Nanocomposites	University of Ioannina	Ioannina, Greece
2009	<b>M.S.c</b> Polymer Synthesis	University of Ioannina	Ioannina, Greece
2007	<b>B.Sc.</b> Materials Science Engineering	University of Ioannina	Ioannina, Greece

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### Academic & Teaching Background

**Sep. 2002 - Sep. 2007:** Undergraduate Studies at the Department of Materials Science Engineering, University of Ioannina. Engineering Diploma. Undergraduate Diploma Thesis Supervisor: Professor A. Avgeropoulos

**Nov. 2007 - Nov. 2009:** MSc Studies in Chemistry and Technology of Materials. Interdepartmental graduate program studies with Department of Materials Science Engineering and Department of Chemistry, University of Ioannina. MSc Diploma *MSc Thesis Supervisor: Professor A. Avgeropoulos.*

**MSc Thesis Title:** “*Synthesis & Characterization (Molecular & Morphological) of Triblock Terpolymer Materials consisting of Polystyrene, Poly(butadiene) and Poly(isoprene) with High -3,4 Microstructure*”

**Mar. 2009 – Jul. 2015:** PhD studies in Nanocomposite Materials, Department of Materials Science Engineering, University of Ioannina

*PhD Supervisor: Associate Professor N. E. Zafeiropoulos*

**PhD Thesis Title:** *“Preparation & Characterization of Advanced Nanohybrid Materials with the Use of Nanoparticles and Triblock Terpolymer Matrices”*

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### **Teaching Assistant**

“Materials Laboratory V (Polymer Materials)” Polymers Laboratory, Department of Materials Science Engineering, University of Ioannina. (March 2008 – July 2015)

### **Research Interests**

a). Synthesis of linear BCPs via anionic polymerization using high vacuum techniques and combination with chlorosilane chemistry. This type of polymerization is adopted for the synthesis of well-defined diblock copolymers and triblock terpolymers.

Characterization and Analysis Techniques: Multiple detection size exclusion chromatography (SEC), vapor pressure osmometer (VPO), membrane osmometer (MO), nuclear magnetic resonance spectroscopy (NMR), optical microscopy, transmission electron microscopy (TEM) & surface electron microscopy (SEM), atomic force microscopy (AFM),

### **Specific Experience in Equipment**

Extensive experience in Tapping –Mode Atomic Force Microscopy (TP-AFM).

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### **Journal Publications**

(1) Synthesis and self-assembly of amphiphilic triblock terpolymer with complex macromolecular chemistry.

G.Polymeropoulos, G. Zapsas , N. Hadjichristidis, A. Avgeropoulos  
*ACS Macro Lett.*, 4 (12), 1392–1397, (2015)

(2) Immiscible polydiene blocks in linear copolymer and terpolymer sequences G. Zapsas, D. Moschovas, K. Ntetsikas, S. Rangou, J.-H. Lee, E. L. Thomas, N. E. Zafeiropoulos, A. Avgeropoulos

*Journal of Polymer Science, Part B: Polymer Physics*, 53 (17), 1238-1246, (2015)

(3) Surface initiated polymerization from graphene oxide

N. Politakos, G. Lontos, A. Karanastasis, G. Zapsas, D. Moschovas, A. Avgeropoulos

*Current Organic Chemistry*, 19 (18), 1757-1772, (2015)

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## Participation in Research Programs & Scholarships

**Scholarship for PhD research** co-financed by the European Union (European Social Fund – ESF) and Greek national funds through the Operational Program "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF) - Research Funding Program: Heracleitus II. Investing in knowledge society through the European Social Fund

**Funded by the European Union** under the Call identifier: FP7-NMP-2009-SMALL-3 with Proposal No: CP-FP 245565-2 LAMAND (36 months, 1/7/2010-30/6/2013), title: “Large Area Molecularly Assembled Nanopatterns for Devices” and Acronym: “LAMAND”, as Researcher.

**Funded by the European Union** under the Call identifier: FP7-NMP-2007-LARGE-1, with Proposal No: CP-IP 213939-1 POCO (48 months, 1/11/2008-31/10/2012), title: “Carbon Nanotube Confinement Strategies to Develop Novel Polymer Matrix Composites” and Acronym “POCO”, as Researcher.

## Participation in Conferences

1. **20<sup>th</sup> International Symposium in Polymer Analysis and Characterization, (ISPAC-2007)**, Agios Nikolaos, Crete, Greece, September 30 – October 3, 2007)
2. **7<sup>th</sup> Panhellenic Polymers Conference** (Ioannina, Greece, September 28–October 1, 2008)  
*“Synthesis and characterization of high molecular weight linear triblock terpolymer consisting of polystyrene, polybutadiene, polyisoprene with different isomerisms”*  
G. Zapsas, S. Rangou, A. Avgeropoulos and E. L. Thomas
3. **8<sup>th</sup> Hellenic Polymers Conference** (Hersonissos, Crete, Greece, October 24-29, 2010)  
*“Synthesis and Characterization of High Molecular Weight Triblock Terpolymers Consisting of Poly(styrene), Poly(butadiene) and Poly(isoprene) with Different Isomerisms”*  
D. Moschovas, G. Zapsas, S. Rangou, N. E. Zafeiropoulos and A. Avgeropoulos  
*“Core Shell Double Gyroid Morphology of a Triblock Terpolymer Consisting of: Poly(styrene) Poly(butadiene) and Poly(isoprene)”*  
G. Zapsas, D. Moschovas, S. Rangou, N.E. Zafeiropoulos and A. Avgeropoulos
4. **European Materials Research Society, E-MRS 2012, Spring Meeting** (Strasbourg, France, May 14-18, 2012)  
*Hybrid Materials Based on Functionalized Iron Oxide Nanoparticles and Triblock Copolymers”*  
G. Zapsas, P. N. Trikalitis, J. Rubio-Retama, A. Avgeropoulos and N. E. Zafeiropoulos