

Curriculum Vitae  
**Zacharoula Iatridi**

**Nationality** Greek  
**Birth date** 20-11-1981  
**Gender** Female  
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**Education**

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- 2010-present:** Post doctoral researcher, University of Patras/FORTH/ICEHT Greece
- 2006-2009:** **PhD** in Polymer Science and Technology. Interdepartmental Studies. Departments of Physics, Chemistry, Materials Science and Chemical Engineering, University of Patras, Greece.  
*Thesis Title: "Study of the Release of Bivalent Copper ions from Comb-type Copolymers". (Supervisor: Ass. Professor Georgios Bokias).*
- 2004-2006:** **M.Sc** in Polymer Science and Technology. Interdepartmental Studies. Departments of Physics, Chemistry, Materials Science and Chemical Engineering, University of Patras, Greece.  
*Thesis Title: "Study of the Complexation of Bivalent Copper ions with poly(acrylic acid) and hydrophobic copolymers of acrylic acid". (Supervisor: Ass. Professor Georgios Bokias).*
- 2000-2004:** **B.Sc** in Materials Science from the Department of Materials Science, University of Patras, Greece.  
*Thesis Title: "Study of the environmental degradation on the properties of composite materials". (Supervisor: Professor Constantinos Galiotis).*

**Professional Experience**

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- Research Experience**
- 01/04/2017-today:** Post Doctoral research at the Lab of Polymers. Department of Chemical Engineering, University of Patras, Greece. (Supervisor: Professor Constantinos Tsitsilianis)
- 01/01/2016-30/07/2016:** Post Doctoral research at the Lab of Polymers. Department of Chemical Engineering, University of Patras, Greece. (Supervisor: Professor Constantinos Tsitsilianis)
- 20/11/2012-30/09/2015:** - Research within the frame of the National Research Project «THALES 85406: Smart magnetic nanoparticles suitable for MRI applications» (Supervisor: Professor Catherine Dendrinou-Samara)
- Research within the frame of the National Research Project «THALES 379523: Development of Novel Functional Copolymers and Surfaces with Permanent and/or Controlled released biocidal species» (Supervisor: Professor Joannis K. Kallitsis)

**01/03/2010-10/10/2012:** Post Doctoral research at the Lab of Polymers.  
Department of Chemical Engineering, University of Patras, Greece.  
(Supervisor: Professor Constantinos Tsitsilianis)

**01/03/2012-10/10/2012:** Research within the frame of the National Research Project «09SYN-81-715: Valorization of residues from biodiesel production industry towards biodegradable polymers and other high added value products, in a biorefinery concept» (Supervisor: Professor Gerasimos Lyberatos)

**01/07/2005–30/06/2008:** Research within the frame of the National Research Project PENED «03EΔ825: Design and Development of Paints with Controlled Release of Biocides for Submarine Applications»  
(Supervisor: Professor Joannis K. Kallitsis)

**Teaching Experience**      **2005, 2008: “Laboratory in Polymer Science”** (course of the fourth year of undergraduate studies). Department of Chemistry, University of Patras, Greece.

### **Academic Experience**

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#### **Publications in International Refereed Journals**

1. “Physicochemical study of the complexation of poly(acrylic acid) with  $\text{Cu}^{2+}$  Ions in water”. Z. Iatridi, G. Bokias and J.K. Kallitsis. *J. Appl. Polym. Sci.* **2008**, *108*, 769. DOI: [10.1002/app.27757](https://doi.org/10.1002/app.27757)
2. “Stabilization in water of polymer/ $\text{Cu}^{2+}$  complexes using poly(sodium acrylate)-graft poly(N,N-dimethylacrylamide) graft copolymers”. Z. Iatridi and G. Bokias. *Macromol. Chem. Phys.* **2008**, *209*, 1029. DOI: [10.1002/macp.200700635](https://doi.org/10.1002/macp.200700635)
3. “Formation of Ternary Poly(acrylic acid)-Surfactant- $\text{Cu}^{2+}$  Complexes in Aqueous Solution: Quenching of Pyrene Fluorescence and pH-controlled "On-Off" Emitting Properties”. Z. Iatridi and G. Bokias. *Langmuir* **2008**, *24*, 11506. DOI: [10.1021/la8019793](https://doi.org/10.1021/la8019793)
4. “Temperature-Sensitive Water-Soluble Hybrid Organic/Inorganic Nanoparticles Formed through Complexation of  $\text{Cu}^{2+}$  Ions with Poly(sodium acrylate)-g-poly(N-isopropylacrylamide) Comb-type Copolymers in Aqueous Solution”. Z. Iatridi, G. Bokias. *Langmuir* **2009**, *25* (13), 7695. DOI: [10.1021/la900390y](https://doi.org/10.1021/la900390y)
5. “Investigation of Binary Polymer/Surfactant or Ternary Polymer/Surfactant/ $\text{Cu}^{2+}$  Complexes in Aqueous Solution through Nile Red Probing” Z. Iatridi, A. Daktiloudis, G. Bokias. *Polym. Int.* **2010**, *59* (8), 1168. DOI: [10.1002/pi.2845](https://doi.org/10.1002/pi.2845)
6. “Phase behavior and self-assembly of  $\text{PS}_n(\text{P2VP-}b\text{-PAA})_n$  multiarmed multisegmented star terpolymers with ampholytic arms”. Z. Iatridi, Y. Roiter, N. Stavrouli, S. Minko, C. Tsitsilianis. *Polym. Chem.* **2011**, *2*, 2037. DOI: [10.1039/C1PY00090J](https://doi.org/10.1039/C1PY00090J)
7. “pH responsive self assemblies from an An-core-(B-b-C)<sub>n</sub> heteroarm star block terpolymer bearing oppositely charged segments”. Z. Iatridi, C. Tsitsilianis. *Chem. Commun.* **2011**, *47*, 5560. DOI: [10.1039/C0CC05507G](https://doi.org/10.1039/C0CC05507G)
8. “Design of “smart” Segmented Polymers by Incorporating Random Copolymers as Building Blocks” C. Tsitsilianis, G. Gotzamanis, Z. Iatridi. *Eur. Polym. J.* **2011**, *47*, 497. DOI: [10.1016/j.eurpolymj.2010.10.005](https://doi.org/10.1016/j.eurpolymj.2010.10.005)
9. “Self-assembly and drug delivery studies of pH/thermo-sensitive polyampholytic (A-co-B)-b-C-b-(A-co-B) segmented terpolymers”. Z. Iatridi, G. Mattheolabakis, K.

Avgoustakis, C. Tsitsilianis. *Soft Matter* **2011**, *7*, 11160.  
[DOI: 10.1039/C1SM06185B](https://doi.org/10.1039/C1SM06185B)

**10.** "Water-soluble stimuli responsive star-shaped segmented macromolecules". Z. Iatridi, C. Tsitsilianis. *Polymers* **2011**, *3*, 1911. [DOI:10.3390/polym3041911](https://doi.org/10.3390/polym3041911)

**11.** "Development of Cu<sup>2+</sup>- and/or phosphonium-based polymeric biocidal materials tential application in antifouling paints". E. K. Oikonomou, Z. Iatridi, M. Moschakou, P. Damigos, G. Bokias, J. K. Kallitsis. *Progress in Organic Coatings* **2012**, *75*, 190. [DOI:10.1016/j.porgcoat.2012.04.019](https://doi.org/10.1016/j.porgcoat.2012.04.019)

**12.** "pH responsive MWCNT/star terpolymer nanohybrids". Z. Iatridi, C. Tsitsilianis. *Soft Matter* **2013**, *9*, 185. [DOI: 10.1039/c2sm27211c](https://doi.org/10.1039/c2sm27211c)

**13.** "Three different types of physical gels originate from a common triblock copolymer precursor: the case of an ionomer gel". N. Stavrouli, Z. Iatridi, T. Aubry, C. Tsitsilianis. *Polym. Chem.* **2013**, *4*, 2097. [DOI: 10.1039/C2PY21024J](https://doi.org/10.1039/C2PY21024J)

**14.** "Application of hydrophobically modified water-soluble polymers for the dispersion of hydrophobic magnetic nanoparticles in aqueous media". Z. Iatridi, V. Georgiadou, M. Menelaou, C. Dendrinou-Samara, G. Bokias. *Dalton Trans.* **2014**, *43*, 8633. [DOI: 10.1039/c4dt00393d](https://doi.org/10.1039/c4dt00393d)

**15.** "Doubly-grafted copolymers with hydrophilic and thermosensitive side chains: Thermosensitivity and complexation with surfactants". A. Daktiloudis, A. Chronaios, N. Mavriki, Z. Iatridi, G. Bokias. *J. Colloid Interface Sci.* **2014**, *430*, 293–301. [DOI: 10.1016/j.jcis.2014.05.066](https://doi.org/10.1016/j.jcis.2014.05.066)

**16.** "Thermoresponsive hydrogels from alginate-based graft copolymers". M. M. S. Lencina, Z. Iatridi, M. A. Villar, C. Tsitsilianis. *Eur. Polym. J.* **2014**, *61*, 33-44.  
[DOI:10.1016/j.eurpolymj.2014.09.011](https://doi.org/10.1016/j.eurpolymj.2014.09.011)

**17.** "Thermo-resistant Soft Glassy Suspensions of Polymeric Micellar Nanoparticles in Ionic Liquid". S. Gkermoura, M. Obiols-Rabasa, Z. Iatridi, C. Tsitsilianis. *ACS Appl. Mater. Interfaces* **2015**, *7*, 12411-12421. [DOI:10.1021/am507587s](https://doi.org/10.1021/am507587s)

**18.** "PNIPAM-based Heteroarm Star-Graft Quarterpolymers: Synthesis, Characterization and pH-Dependent Thermoresponsiveness in Aqueous Media". Z. Iatridi, M. M. S. Lencina, C. Tsitsilianis. *Polym. Chem.* **2015**, *6*, 3942-3955.  
[DOI: 10.1039/C5PY00393H](https://doi.org/10.1039/C5PY00393H)

**19.** "Multiresponsive Star-Graft Quarterpolymer Monolayers". W. Xu, P. Ledin, Z. Iatridi, C. Tsitsilianis, V. Tsukruk. *Macromolecules* **2015**, *48*, 3344-3353.  
[DOI: 10.1021/acs.macromol.5b00401](https://doi.org/10.1021/acs.macromol.5b00401)

**20.** "Magnetic colloidal superparticles of Co, Mn and Ni ferrite featured with comb-type or linear amphiphilic polyelectrolytes; NMR and MRI relaxometry". M. Menelaou, Z. Iatridi, I. Tsougos, K. Vasiou, C. Dendrinou-Samara, G. Bokias. *Dalton Trans.*, **2015**, *44*, 10980-10990. [DOI: 10.1039/C5DT00372E](https://doi.org/10.1039/C5DT00372E)

**21.** "Multicompartmental Microcapsules with Orthogonal Programmable Two-Way Sequencing of Hydrophobic and Hydrophilic Cargo Release". W. Xu, P. A. Ledin, Z. Iatridi, C. Tsitsilianis, V. V. Tsukruk. *Angew. Chem. Int. Ed.*, **2016**, *55*, 4908-4913. [DOI: 10.1002/anie.201600383](https://doi.org/10.1002/anie.201600383)

**22.** "A multifunctional polymeric platform of magnetic ferrite colloidal superparticles for luminescent, imaging and hyperthermia applications". Z. Iatridi, K. Vamvakidis, I. Tsougos, K. Vasiou, C. Dendrinou-Samara, G. Bokias.

*ACS Applied Materials & Interfaces*, **2016**, *8*, 35059-35070.  
**DOI: 10.1021/acsami.6b13161**

**23.** "Controlled multiple drug delivery from star-graft based responsive polymersomes".

Z. Iatridi, A. Angelopoulou, E. Voulgari, K. Avgoustakis, C. Tsitsilianis

Under preparation

#### **Contributions at Conferences**

**1.** "Controlled Release of Cu<sup>2+</sup> in aqueous solutions by hybrid polymer-Cu<sup>2+</sup> materials". Iatridi Z., Oikonomou E., Bokias G., Kallitsis J.K. **XXII Hellenic Conference of Solid State-Physics and Material Science**, Patras, Greece, **2006**.

**2.** "Study of the complexation of Cu<sup>2+</sup> with poly(acrylic acid) or hydrophobic copolymers of acrylic acid". Z. Iatridi, G. Bokias. **6<sup>o</sup> National Polymer Conference**, Patras, Greece, **2006**.

**3.** "Synthesis and Characterization of hybrid polymer-Cu<sup>+2</sup> materials as alternatives to Tin containing materials for submarine applications". Oikonomou E., Iatridi Z., Bokias G., Kallitsis J.K. **2<sup>o</sup> Hellenic Symposium, Green Chemistry and Sustainable Development**, Patras, Greece, **2007**.

**4.** "Formation of water-soluble complexes between Cu<sup>2+</sup> and poly(sodium acrylate)-g-poly(N,N-dimethylacrylamide) graft copolymers". Z. Iatridi, G. Bokias and J.K. Kallitsis. **European Polymer Congress**, Slovenia **2007**.

**5.** "Complexation of anionic polyelectrolytes with Cu<sup>2+</sup> ions and/or cationic surfactants: Design of the polymer architecture to control the behavior in aqueous solution". Z. Iatridi, E. K. Oikonomou, Ch. Daktyloudis, G. Bokias. **7<sup>o</sup> Hellenic Polymer Conference**, Ioannina, Greece, **2008**.

**6.** "pH-controlled Quenching of the Fluorescence of Hydrophobic Probes solubilized in Ternary Poly(acrylic acid)-Surfactant-Cu<sup>2+</sup> Complexes in Aqueous solution". Z. Iatridi, G. Bokias. **7<sup>o</sup> Hellenic Polymer Conference**, Ioannina, Greece, **2008**.

**7.** "Design of block-random segmented polymers" Z. Iatridi, G. Gotzamanis, C. Tsitsilianis. **8<sup>th</sup> Hellenic Polymer Society Symposium**, Hersonissos Crete, Greece, **2010**.

**8.** "Self assembly and morphology of pH-sensitive heteroarm star block terpolymers in aqueous media" Z. Iatridi, C. Tsitsilianis. **8<sup>th</sup> Hellenic Polymer Society Symposium**, Hersonissos Crete, Greece, **2010**.

**9.** "Self assembly and morphology of pH-sensitive heteroarm star block terpolymers in aqueous media" Z. Iatridi, C. Tsitsilianis. **1<sup>st</sup> Meeting in: Biomedical and Biotechnological Applications Research Network**, Patras, Greece, **2010**.

**10.** "Polyhydroxyalkanoates (PHAs) production from mixed microbial cultures derived from soil: effect of nitrogen on final yields and properties" Koumelis I., Ntaikou I., Iatridi Z., Tsitsiliannis C., Lyberatos G. **9<sup>th</sup> Hellenic Polymer Society Conference**, Thessaloniki, Greece, **2012**.

**11.** "Physical gels formed by a triblock copolymer in an ionic liquid" S. Gerboura, Z. Iatridi, C. Tsitsilianis. **9<sup>th</sup> Hellenic Polymer Society Conference**, Thessaloniki, Greece, **2012**.

**12.** "Ampholytic heteroarm star block terpolymers as pH responsive dispersing agents of multi-walled carbon nanotubes in aqueous media" Z. Iatridi, C. Tsitsilianis. **9<sup>th</sup> Hellenic Polymer Society Conference**, Thessaloniki, Greece, **2012**.

**13.** "Preparation of amphiphilic copolymers for the encapsulation of MFe<sub>2</sub>O<sub>4</sub> nanoparticles (M= Mn, Co, Ni) " Z. Iatridi, V. Georgiadou, K. Vamvakidis, M. Menelaou, G. Bokias, C. Dendrinou-Samara. **10th International Conference on Nanosciences & Nanotechnologies (NN13)**, Thessaloniki, Greece, **2013**.

- 14.** "Production of polyhydroxyalkanoates from mixed microbial consortia derived from soil: Effect of nitrogen limitation on microbial shift and properties of recovered polyesters". I. Koumelis, I. Ntaikou, Z. Iatridi, M. Kamilari, C. Tsitsilianis, G. Lyberatos. **13<sup>th</sup> International Conference on Environmental Science and Technology (CEST 2013)**, Athens, Greece, **2013**.
- 15.** "Evaluation of the NMR Relaxometric Properties of Hydrophobically Modified NiFe<sub>2</sub>O<sub>4</sub> Nanoparticles". M. Menelaou, Z. Iatridi, G. Bokias, C. Dendrinou-Samara. **Euromar 2014**, Zurich, Switzerland, **2014**.
- 16.** "Stabilization of Co, Mn and Ni ferrites in aqueous solution by comb-type and  $\alpha$ -telechelic amphiphilic polyelectrolytes". Z. Iatridi, M. Menelaou, C. Dendrinou-Samara, G. Bokias, G. Staikos. **10<sup>th</sup> Hellenic Polymer Society Conference**, Patras, Greece, **2014**.
- 17.** "Design of cationic amphiphilic copolymers with potential use as biocidal materials". A. Stratidakis, Z. Iatridi, M. Tselepi, A. Vantarakis, G. Bokias. **10<sup>o</sup> Hellenic Chemical Engineering Conference**, Patras, Greece, **2015**.
- 18.** "NMR and MRI relaxometry studies of MFe<sub>2</sub>O<sub>4</sub> (where M: Co, Mn, Ni) magnetic colloidal superparticles stabilized by amphiphilic polyelectrolytes". M. Menelaou, Z. Iatridi, I. Tsougos, K. Vasiou, C. Dendrinou-Samara, G. Bokias. **12<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN15)**, Thessaloniki, Greece, **2015**.
- 19.** "Magnetic hyperthermia efficiency of supercolloidal nanostructures of Co and Mn ferrites by multi stimuli-responsive amphiphilic copolymers". Z. Iatridi, K. Vamvakidis, A. Makridis, A. Angelakeris, O. Kalogirou, C. Dendrinou-Samara, G. Bokias. **12<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN15)**, Thessaloniki, Greece, **2015**.

#### Research Interests

My research interests cover the area of water-soluble polymers. Specific areas of interest include:

- Synthesis of comb-type copolymers
- Study of stimuli-responsive polymers
- Interpolymer interactions (hydrophobic, hydrogen-bonding or Coulombic) in water
- Polymer-surfactant interactions
- Polymer-metal interactions
- Association phenomena of block copolymers in solution
- Hybrid polymer-metal or polymer-metal-surfactant materials
- Controlled release of biocides from polymer-metal hybrid materials
- Drug release from polyelectrolytes
- Preparation of polyampholyte hydrogels

#### Language and Computer Skills

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- **English**, Certificate of Proficiency in English, University of Michigan
- **English**, Certificate of Proficiency in English, University of Cambridge
- **Italian**, Celi 3, Universita di Perugia
- **German**, B1, Goethe Institut

Origin Professional, Microsoft Word, Microsoft Windows, Microsoft Excel, PowerPoint, Internet.