

***CURRICULUM
VITAE***

Dr. Georgia Ch. Lainioti

Chemist

Patras, 2012

Contact Information

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Personal Information

Date of birth : 04 May 1983
Place of birth : Patras, Achaia
Nationality : Greek
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Education

- Post doctoral researcher, University of Patras/FORTH/ICEHT Greece : October 2010-present
- MSc in Advanced Technology Material Chemistry : 2008-2010
- Ph.D in Chemistry, University of Patras. PhD thesis: «Kinetic study of the alcoholic fermentation in the presence of new biocatalysts» : 2005-2009
- Diploma in Chemistry, University of Patras : 2001-2005

Research Experience

Post doctoral research: Advanced Polymers and Hybrid Nanomaterials
Research Laboratory, University of Patras/ FORTH/ICEHT : 01/11/2010-present

- **Blends of hydrophilic-hydrophobic polymers.**
- **Compatibilization of polymers by reactive blending.**
- **Synthesis of polymeric biocides.**
- **Preparation of polymer functionalized CNTs with antimicrobial properties.**
- **Synthesis of hydroxy-decorated nanoparticles with barrier properties.**

Doctoral Research: Laboratory of Physical Chemistry, University of
Patras : 01/10/2005-30/09/2010

- **New immobilized biocatalysts for the increase of production, improvement of wine quality and their industrialization in wine making”**
- **Comparative study of the influence of temperature and pH on various strains of *Saccharomyces cerevisiae* yeast strains by Gravitational Field Flow Fractionation (GrFFF)”**

Undergraduate Research: Laboratory of Physical Chemistry, University
of Patras : 01/09/2004-31/05/2005

- **Study of the adsorption of gas pollutants in the water interface in the presence or the absence of surfactant agents.**

Teaching Experience

- Laboratory of the “Polymer Structure and Properties” at the students of the fourth year of the Chemistry Department at the University of Patras 2010-2011
- Laboratory of the “Physical Chemistry III” at students of the second year of the Chemistry Department at the University of Patras 2005-2006
2006-2007
2007-2008
2008-2009
- Laboratory of the “Physical Chemistry IV” at students of the second year of the Chemistry Department at the University of Patras 2006-2007
2007-2008
2008-2009

Research Activities

- Polymer blends- Compatibilization by reactive processing
- Development of polymers with antimicrobial properties
- Synthesis of hybrid polymeric nanoparticles with improved barrier properties for sustainable and multifunctional food packaging solutions.
- Analytical Techniques (Gas Chromatography, Field-Flow Fractionation, High Performance Liquid Chromatography, Spectrophotometer UV-VIS)
- Microbial growth and cultivation, yeast cell immobilization.

Additional Skills

English ability : Cambridge First Certificate, Michigan Proficiency

French ability : Delf 1 (1^{er} Degree), Delf 2 (2^{em} Degree)

Computer skills : Essential computer skills
Using the computer and managing files (Windows)
Microsoft Word 2000 (Word Processing)
Microsoft Excel 2000 (Spreadsheets)
Microsoft Powerpoint 2000 (Presentations)
Microsoft Internet & Outlook Express

Other qualifications : Piano degree (Excellent)
Harmony degree (Very good)

Publications

- New separation methodologies for the distinction of the growth phases of *Saccharomyces cerevisiae* cell cycle.
G. Ch. Lainioti, J. Kapolos, A. Koliadima G. Karaiskakis, Journal of Chromatography A, 1217 (2010), 1813-1820.
- Kinetic study of the alcoholic fermentation process, in the presence of free and immobilized *Saccharomyces cerevisiae* cells, at different initial glucose concentrations by Reversed Flow GC.
G. Ch. Lainioti, J. Kapolos, G. Karaiskakis, A. Koliadima, Chromatographia, 72 (2010), 1149-1156.
- The study of the effect of fermentation temperature on the growth kinetics of *Saccharomyces cerevisiae* yeast strain, in the presence or absence of support, by chromatographic techniques.
G. Ch. Lainioti, J. Kapolos, A. Koliadima, G. Karaiskakis, Journal of Liquid Chromatography & Related Technologies, 34 (2011), 195-208.
- Influence of pH and initial glucose concentration on the growth of *Saccharomyces cerevisiae* yeast strain by Gravitational Field Flow Fractionation.
G. Ch. Lainioti, J. Kapolos, G. Karaiskakis, A. Koliadima, Separation Science and Technology, 46 (2011), 893-903.
- The study of the influence of temperature and initial glucose concentration on the fermentation process in the presence of *Saccharomyces cerevisiae* yeast strain immobilized on starch gels by Reverse-Flow Gas Chromatography
G. Ch. Lainioti, J. Kapolos, G. Karaiskakis, A. Koliadima, Preparative Biochemistry and Biotechnology, in press.
- Comparative study of the kinetic approach on the alcoholic fermentation procedure conducted in laboratory and scale-up systems by Inverse Gas Chromatography.
G. Ch. Lainioti, J. Kapolos, G. Karaiskakis, A. Koliadima, International Journal of Chemical Kinetics, submitted for publication.
- Application for Greek patent grant (2012): Development of Porous Membranes by Blending of Aromatic Polyethers with Water Soluble Polymers for Application as Separators in Lithium Batteries.
C. Elmasides, A. Voege, J. K. Kallitsis, V. Deimede, **G. Lainioti**

Seminar Attendance

- Seminar for laboratory accreditation according to the international standard ISO/IEC 17025, Association of Greek Chemists, 35 hours, 17-20 October 2007, Athens
- Intensive courses of assurance and quality (ISO-HACCP), 12-13 January 2006, Patras

Publications in International Conferences

- The gravitational field-flow fractionation (GrFFF) for the study of the effect of fermentation temperature and pH on the growth kinetics of *Saccharomyces cerevisiae* yeast strain.
By **Georgia Ch. Lainioti**, Lambros Farmakis, John Kapolos, Athanasia Koliadima and George Karaiskakis, 14th International Symposium on Field- and Flow- based Separations (FFF 2009), July 5-8, Rio, Patras, Greece.
- Determination of diffusion coefficients of air pollutants (SO₂, NO_x) in artificial sea water at different temperatures in the absence and the presence of surfactants.
By D. Sevastos, J. Kapolos, **G. Lainioti**, L. Farmakis, A. Koliadima, G. Karaiskakis, 4th International Conference on Diffusion in Solids and Liquids, 9-11 July 2008, Barcelona, Spain.
- Kinetic Study of Alcoholic Fermentation in the Presence or Absence of Novel Biocatalysts by Reversed Flow Gas Chromatography.
By **G. Ch. Lainioti**, J. Kapolos, L. Farmakis, G. Karaiskakis and A. Koliadima, June 15-19, 2008, Singapore.
- Study of the influence of surfactants on the absorption mechanism of SO₂ into water by Reversed Flow Gas Chromatography.
By **G. Lainioti**, L. Farmakis, J. Kapolos, A. Koliadima, G. Karaiskakis, 2007 – 28th – ICST, 5-6 July, Prague, Czech Republic.
- Study of the growth rate of *Saccharomyces cerevisiae* strains using wheat starch granules as support for yeast immobilization monitoring by Sedimentation/Steric Field-Flow Fractionation.
By J. Kapolos, L. Farmakis, **G. Lainioti**, A. Koliadima, G. Karaiskakis, 2007 – 28th – ICST, 5-6 July, Prague, Czech Republic.
- Physicochemical characterization of acrylic polymeric resin and low molecule siloxane coating materials of artistic interest.
By A. Koliadima, N. Bakaoukas, J. Kapolos, **G. Lainioti** and G. Karaiskakis, 1st International CEMEPE Conference, 24 – 28 June 2007, Skiathos, Greece.

Publications in Hellenic Conferences

- Kinetic study of *Saccharomyces cerevisiae* growth in the presence and the absence of immobilization support by sedimentation/steric field-flow fractionation.
By Georgia Lainioti, Lambros Farmakis, John Kapolos, Athanasia Koliadima, George Karaiskakis, 2nd Hellenic Conference on Biotechnology and Food Technology, 29-31 March 2007, Athens, Greece.
- Chromatographic study of the adsorption of SO₂ in water in the presence of surface active agents.
By G. Lainioti, A. Koliadima, G. Karaiskakis, 12th Postgraduate Conference of the University of Crete, 7-10 July 2006, Santorini, Greece.

Participation in Research Projects

- **“Extended shelf-life biopolymers for sustainable and multifunctional food packaging solutions (NanoBarrier)”** (01/04/2012-present) Large-Scale integrating collaborative project (*FP7-NMP-2011-Large 5*)
- **“Development of Advanced Multifunctional Non-Woven Products” COOPERATION** (01/03/2011-present). **GSRT(ESPA) 2007-2013** (Scientific responsible G. Vogiatzis).
- **“Development of the next generation membrane bioreactor system (BioNexGen)”** (01/09/2010-present) Collaborative project (*FP7-NMP-2009-SMALL-3*)
- **“Development of research activities in the laboratory of mycotoxins for the improvement of competitiveness in the food industries of West Greece”,** (2006-2008), Programme financed from GSRT. (Scientific responsible G. Karaiskakis).
- **“Modeling and simulation of physicochemical processes in the atmosphere in order to control and forecast the atmospheric pollution”,** (01/06/2006 – 31/03/2008), Programme Greece at the Poles (Scientific responsible G. Karaiskakis).
- **“New immobilized biocatalysts for the increase of production, improvement of wine quality and their industrialization in wine making”,** (01/01/2005-30/12/2008), Programme financed from GSRT/PENED 03ED657 (Scientific responsible G. Karaiskakis).