

## 1. SORT CURRICULUM VITAE

**Surname** : KOLIADIMA  
**First name** : ATHANASIA  
**Citizenship** : Greek  
**Date of Birth** : February 8<sup>th</sup> 1966  
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**Current position** : Assistant Professor of Physical Chemistry, Department of Chemistry, University of Patras, Greece  
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### Academic Degrees

- Ph.D in Chemistry, Department of Chemistry, University of Patras, Greece (1993).
- Bachelor in Chemistry, Department of Chemistry, University of Patras, Greece (1986).

### Specialization

Diploma in Oenology, Ministry of Agriculture (1990).

### Professional Experience

- **2006 - today**: Assistant Professor of Physical Chemistry, Dept. of Chemistry, University of Patras, Greece.
- **1999 - 2006**: Lecturer of Physical Chemistry, Dept. of Chemistry, University of Patras, Greece
- **1998 - 1999**: Post Doctoral Researcher in Physical Chemistry Lab, Dept. of Chemistry, University of Patras
- **1996 - 1997**: Research associate in Centre of Advanced Material Processing (C.A.M.P.), Clarkson University, Potsdam NY, U.S.A. Research director: Distinguished Professor E. Matijevic.

### Grants

- Scholarship by the State Scholarship's Foundation (IKY) of Greece for Postdoctoral research, 2003.
- N.S.F. Grant 9423163 (U.S.A., 1996 - 1997).
- Scholarship by NATO - ASI (Italy, August 1991)
- Scholarship by the Istituto di Ricerca e Tecnologia delle Materie Plastiche (Italy, October 1997).

- Post Graduated Scholarship by the University of Patras for Doctoral research, (1992 - 1993).

### **Research activities**

- Study of interfacial phenomena. Measurement of diffusion coefficients, adsorption, desorption and partition coefficients. Study of the interaction of gases and liquids with solid surfaces, synergistic effects, measurements of deposition velocities and reaction probabilities as well as measurements of surface energies of solid surfaces.
- Synthesis and characterization of colloidal particles and macromolecules.
- Kinetic study of alcoholic fermentation.
- Determination of toxins and heavy metals in foods.

### **Research Programs**

1. Determination of particle size distribution (PSD) of Colloidal Pollutants in Coastal Waters by Sedimentation Field-Flow Fractionation. Correlation of PSD with the Concentration of Pollutants and Modelling of the Transfer Processes.
  - Synthesis and study of properties of new thermo and fire resistant polymers with applications in welding, coating and casting.
  - Study of interfaces in order to solve specific problems in the chemical industry, chemical engineering, food technology, environment science and medicine
  - Evaluation of the contribution of particulate matters in air pollution.
  - **Color Filter Materials and Fabrication.**
  - Environmental study of Aitolikon Lake with emphasis on determining concentrations of heavy metals.
  - Development of rapid methods for assessing the quality of starch particles from various cereal species for purpose of agriculture and food industry
  - Investigation of mechanisms corrosion of cultural heritage monuments, with the objective of selecting the most appropriate corrosion inhibitors
  - Development of new technology for studying the exchange of air pollutants between atmospheric and aquatic environment
  - Study of the interfacial surface properties of colloids by one layer chromatography of centrifugal field.
  - Novel immobilized biocatalysts for increase the productivity, improve of wine quality and for industrial application in wine making
  - Mechanism of the interaction between gas pollutants and aquatic environment: Study of the influence of temperature, pH and surfactants
  - Modelling and simulating of atmospheric physicochemical processes for controlling atmospheric pollution
  - Establishment and function of an accredited laboratory of determination of mycotoxins (aflatoxins and ochratoxins) in food and agricultural products
  - Development of research activities of the laboratory for determination of mycotoxins on the purpose to improve the competition of food industries in the region of Western Greece.

- Study of microorganism growth in Air Force's aircraft fuel system for tackling the problems caused by their presence in the engines' operation

### **Publications**

Peer review Journals: 46

International and National Conferences: 51

Book Chapters: 3

**Citation Index:** 274 (excluded self citations)

### **Courses**

I) Under graduated courses

a) Physical Chemistry (Department of Physics)

Practical courses

a) Experimental Physical Chemistry III (Department of Chemistry)

b) Experimental Physical Chemistry IV (Department of Chemistry)

II) Post Graduated courses

Physicochemical measurements by chromatographic methods (Department of Chemistry)

## **2. Publications in Peer Review Journals**

1. Sedimentation Field-Flow Fractionation: A new Methodology for the Concentration and Particle Size Analysis of Dilute Polydisperse Colloidal Samples.

**A. Koliadima** and G. Karaiskakis, *J. Liq. Chromatogr.*, **11**, (14), 2863 (1988).

2. Estimation of Solubility and Interaction Parameters in Binary Liquid Mixtures by Reversed-Flow Gas Chromatography.

**A. Koliadima**, P. Agathonos and G. Karaiskakis, *Chromatographia*, **26**, 29 (1988).

3. Potential Barrier Field-Flow Fractionation for the Separation and Characterization of Colloidal Particles.

G. Karaiskakis and **A. Koliadima**, *Chromatographia*, **28**, 31 (1989).

4. Potential Barrier Field-Flow Fractionation: A versatile new separation method.

**A. Koliadima** and G. Karaiskakis, *J. Chromatogr.*, **517**, 345 (1990). (Invited paper).

5. Simultaneous Determination of Particle Size and Density in Polydisperse Colloidal Samples by Sedimentation Field-Flow Fractionation.

**A. Koliadima**, E. Dalas and G. Karaiskakis, *J. High Res. Chromatogr.*, **13**, 338 (1990).

6. Coastal Water Pollution: Dissolved Heavy Metals and Suspended Particulate Matter.

**A. Koliadima** and G. Karaiskakis, *Z Wasser Adwass For (J. Water and Wastewater Res.)*, **23**, 85 (1990).

7. Investigation of the Coagulation Mechanism of the Suspended Particulate Matter in Coastal Waters.

**A. Koliadima**, E. Dalas and G. Karaiskakis, *Water Air Soil Pol.*, **51**, 65 (1990).

8. Estimation of Polydispersity in Polymers and Colloids by Field-Flow Fractionation.

G. Karaiskakis, **A. Koliadima**, and K. Kleparnik, *Colloid Polym. Sci.*, **269**, 583 (1991).

9. Gas Chromatographic study of interaction between vinyl-chloride and poly(vinylchloride).  
**A. Koliadima**, P. Agathonos and G. Karaiskakis, *J. Chromatogr.*, **550**, 171 (1991).
10. Activity coefficients in binary liquid mixtures by Reversed-Flow Gas Chromatography.  
**A. Koliadima**, G. Karaiskakis, N. A. Katsanos and M. Roth *J. Chromatogr.*, **595**, 237 (1992).
11. Concentration and Characterization of Dilute Colloidal Samples by Potential Barrier Field-Flow Fractionation.  
**A. Koliadima** and G. Karaiskakis, *Chromatographia*, **39**, 74 (1994).
12. Kinetic study by Proton Nuclear Magnetic Resonance Spectroscopy of the Reaction between Pyruvate and Diethyl Phosphite yielding 2-Diethoxyphosphonyl-2-Hydroxy-Propionic Acid Ethyl Ester.  
J. Mikroyannidis, **A. Koliadima**, G. Karaiskakis, *Acta Chem. Scand. A*, **48**, 865 (1994).
13. New methodologies of Field Flow Fractionation for the separation and characterization of dilute colloidal samples.  
A. Athanasopoulou, **A. Koliadima** and G. Karaiskakis, *Instrum. Sci. Technol.*, **24**, (2), 79 (1996).
14. Monodispersed colloid salts of tungstosilicic acid.  
**A. Koliadima**, L. Perez-Maqueda, E. Matijevec, *Langmuir*, **13**, (14) 3733 (1997).
15. Adhesion studies of colloidal materials on solid surfaces by Field-Flow Fractionation.  
G. Karaiskakis, A. Athanasopoulou, **A. Koliadima**, *J. Microcol. Sep.*, **9**, (4) 275 (1997). (Invited paper).
16. Particulate matter in air Athens and Patras (GREECE): Particle size distributions and elemental concentrations.  
**A. Koliadima**, A. Athanasopoulou and G. Karaiskakis, *Aerosol Sci. Tech.*, **28**, 292 (1998).
17. Adsorption of dyes on Nanosize Modified Particles.  
G. Wu, **A. Koliadima**, Y.S. Her and E. Matijevec, *J. Colloid Interf. Sci.*, **195**, 222 (1997).
18. Colloidal hydrolysis products of SbCl<sub>3</sub> in acidic solutions.  
**A. Koliadima**, A. Henglein, E. Matijevec, *Colloid Polym. Sci.*, **275**, 972 (1997).
19. Study of hydroxyapatite aggregation in the presence of potassium phosphate by centrifugal sedimentation field-flow fractionation.  
A. Athanasopoulou, D. Gavril, **A. Koliadima**, G. Karaiskakis, *J. Chromatogr. A*, **845**, 293 (1999).
20. Conversion of carbon monoxide oxidation over Pt-Rh alloy catalysts calculated by a new gas chromatographic technique.  
D. Gavril, **A. Koliadima**, G. Karaiskakis, *Chromatographia*, **49**, 285 (1999).
21. Adsorption Studies of Gases on Pt-Rh Bimetallic Catalysts by Reversed-Flow Gas Chromatography.  
D. Gavril, **A. Koliadima**, G. Karaiskakis, *Langmuir*, **15**, 3798 (1999).
22. Investigation of the coagulation and adhesion phenomena in colloids by Field-Flow Fractionation.  
**A. Koliadima**, D. Gavril, G. Karaiskakis *J. Liq. Chromatogr. & Rel. Technol.*, **22** (18), 2779 (1999).

23. The kinetic study of aggregation of the sulphide  $\text{Cu}_{0.2}\text{Zn}_{0.8}\text{S}$  particles by gravitational Field-Flow Fractionation.  
**A. Koliadima**, *J. Liq. Chromatogr. & Rel. Technol.*, **22** (16), 2411 (1999).
24. Optimization of Experimental Conditions for Characterizing Colloids and Macromolecules by Field-Flow Fractionation.  
**A. Koliadima**, *J. Liq. Chromatogr. & Rel. Technol.*, **22** (18), 2763 (1999).
25. Size analysis of Barley Starch Granules by Sedimentation/Steric Field Flow Fractionation.  
 L. Farmakis, J. Sakellaraki, **A. Koliadima**, D. Gavril and G. Karaiskakis *Starch/Starke*, **52**, 275 (2000).
26. Study of the recovery of colloidal particles in potential barrier sedimentation field-flow fractionation.  
 G. Karaiskakis, M. Douma, I. Katsipou, **A. Koliadima** and L. Farmakis *J. Liq. Chromatogr. & Rel. Technol.*, **23** (13), 1953 (2000).
27. A promising methodology for the detection of pockmarks activation in nearshore sediments.  
 J. Ravasopoulos, G. Papatheodorou, J. Kapolos, M. Geraga, **A. Koliadima** and K. Xenos, *Instrum. Sci. Technol.*, **30** (2), 139 (2002).
- Study of the Influence of the Ionic Strength and the pH of the Suspending Medium on the Size of the Wheat Starch Granules Measured by Sedimentation/Steric FFF.  
 L. Farmakis, **A. Koliadima** and G. Karaiskakis *J. Liq. Chromatogr. & Rel. Technol.*, **25**, 167 (2002).
29. Investigation of the variation of the mass ratios for the large and small starch granules with the pH and ionic strength of the dispersing medium by sedimentation/steric field-flow fractionation.  
 L. Farmakis, G. Karaiskakis and **A. Koliadima** *J. Liq. Chromatogr. & Rel. Technol.*, **25**, 2135 (2002).
30. Potential barrier field-flow fractionation: Potential curves and interactive forces.  
 G. Karaiskakis, **A. Koliadima**, L. Farmakis and G. Gavril, *J. Liq. Chromatogr. & Rel. Technol.*, **25**, 2153 (2002).
31. Dependence of Adsorption Rates with Lateral Interactions on Local Surface Coverage of Heterogeneous Surfaces.  
 N. Bakaoukas, **A. Koliadima**, L. Farmakis, G. Karaiskakis and N. A. Katsanos, *Chromatographia*, **57** (11) 783 (2003).
32. Estimation of the particle - wall interaction energy in sedimentation field flow fractionation.  
 N. Lioris, L. Farmakis, **A. Koliadima**, G. Karaiskakis, *J. Chromatogr. A*, **1087** (1-2), 13 (2005).
33. New gas chromatographic instrumentation for studying the action of sulfur dioxide on marbles.  
 N. Bakaoukas, J. Kapolos, **A. Koliadima**, G. Karaiskakis, *J. Chromatogr. A*, **1087** (1-2): 169 (2005).
34. The Kinetic Study of Cell Proliferation of *Saccharomyces Cerevisiae* Strains by Sedimentation/Steric Field Flow Fractionation in Situ.  
 L. Farmakis, **A. Koliadima**, *Biotechnol. Prog.*, **21** (3), 971 (2005).

35. Diffusion and Adsorption Measurements in Porous Solids by Inverse Gas Chromatography. N.A. Katsanos, N. Bakaoukas, **A. Koliadima**, G. Karaiskakis, A. Jannussis, *J. Phys. Chem B*, **109** (22), 11240 (2005).
36. Measurements of Diffusion Coefficients in Porous Solids by Inverse Gas Chromatography J. Kapolos, N. Bakaoukas, **A. Koliadima**, G. Karaiskakis, *J. Phase Equilib. Diff.*, **26** (5) 477 (2005).
37. Time distribution of adsorption entropy of gases on heterogeneous surfaces by reversed flow gas chromatography  
N.A. Katsanos, J. Kapolos, D. Gavril, N. Bakaoukas, V. Loukopoulos, **A. Koliadima**, and G. Karaiskakis, *J. Chromatogr. A*, **1127** (1-2) 221 (2006).
38. Estimation of the Hamaker constants by sedimentation field-flow fractionation  
L. Farmakis, N. Lioris, **A. Koliadima**, G. Karaiskakis, *J. Chromatogr. A*, **1137** (1-2) 231 (2006).
39. 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  
L. Farmakis, J. Kapolos, **A. Koliadima**, G. Karaiskakis, *Food Res. Int.*, **40** (6) 717 (2007)
40. Evaluation of acrylic polymeric resin and small siloxane molecule for protecting cultural heritage monuments against sulfur dioxide corrosion  
J. Kapolos, N. Bakaoukas, **A. Koliadima**, G. Karaiskakis *Prog. Org. Coat.* **59** 152 (2007)
41. Study of the influence of the surfactants on the size distribution and the mass ratio of wheat starch granules by Sedimentation/Steric Field – Flow Fractionation.  
L. Farmakis, **A. Koliadima**, G. Karaiskakis, A. Zattoni, P. Reschiglian, *Food Hydrocolloids*, **22**(6) 961 (2008).
42. Diffusion coefficients of SO<sub>2</sub> in water and partition coefficients of SO<sub>2</sub> in water – air interface at different temperature and pH values.  
**A.Koliadima**, J. Kapolos, L. Farmakis, *Instrum. Sci. & Technol.*, **37** 274 (2009).
43. The use of sedimentation field-flow fractionation in the size characterization of bovine milk fat globules as affected by heat treatment.  
V. Raikos, J. Kapolos, L. Farmakis, **A. Koliadima**, G. Karaiskakis, *Food Res. Int.*, **42** 659 (2009).
44. New separation methodologies for the distinction of the growth phase of *Sacharomyces cerevisiae* cell cycle.  
G. Ch. Lainioti, J. Kapolos, **A. Koliadima**, G. Karaiskakis. *J. Chromatogr. A*, **1217** 1813 (2010).
45. Identification and characterization of microbial contaminants isolated from stored aviation fuels by DNA sequencing and restriction fragment length analysis of a PCR-amplified region of the 16S rRNAm gene.  
V. Raikos, S. S. Vamvakas, J. Kapolos, **A. Koliadima**, G. Karaiskakis *Fuel*, in press.
46. 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, L. Farmakis, G. Karaiskakis, **A. Koliadima**, *Chromatographia*, in press.

### **3. Book chapters**

1. Aggregation of colloids by Field Flow Fractionation.

**A. Koliadima**, *Encyclopedia of Chromatography*, Marcel Dekker Inc., 23-25, (2000).

2. Relaxation Effects in Field Flow Fractionation.

**A.Koliadima**, *On Line Encyclopedia of Chromatography*, Marcel Dekker, (2005).

3. Reversed Flow Gas Chromatography.

**A. Koliadima**, *On Line Encyclopedia of Chromatography*, Marcel Dekker, (2006).

### **4. Publications in International Conferences Proceedings**

1. Determination of Particle Size Distribution (PSD) of Colloidal Pollutants in Coastal waters. Correlation of PSD with Concentration of Pollutants.

G. Karaiskakis, E. Dalas and **A. Koliadima**, *First Mediterranean Workshop on Transport of Pollutants by Sedimentation*, December 10-12, 1987, Villefranche-sur-mer (FRANCE).

2. Sedimentation Field-Flow Fractionation: A new Methodology for the Concentration and Particle Size Analysis of Dilute Polydisperse Colloidal Samples.

**A. Koliadima** and G. Karaiskakis, 1988, *World Chromatography and Spectroscopy Conference*, May 1988, Corfu (GREECE).

3. Estimation of Solubility Parameters in Binary Liquid Mixtures by Reversed-Flow Gas Chromatography.

P. Agathonos, **A. Koliadima**, and G. Karaiskakis, *17th International Symposium on Chromatography*, September 25-30, 1988, Wieu (AUSTRIA). Abstracts: II p.146.

4. Characterization of Colloidal Materials by Potential Field-Flow Fractionation.

G. Karaiskakis, and **A. Koliadima**, *1st International Symposium on Field-Flow Fractionation*, June 15-16, 1989, Park City, Utah (U.S.A.).

5. Characterization of Particulate Matter in Natural Waters by Field-Flow Fractionation.

G. Karaiskakis, and **A.Koliadima**, *Metal Speciation in the Environment*, October 9-20, 1989, Cesme, Izmir (TURKEY).

6. Characterization of Polymers by Reversed-Flow Gas Chromatography.

G. Karaiskakis, and **A. Koliadima**, *International Symposium on Polymer Analysis and Characterization*, July 23-25, 1990, Brno (CZECHOSLOVAKIA).

7. Gas Chromatographic study of Interaction between vinylchloride and polyvinylchloride.

G. Karaiskakis, **A. Koliadima** and P. Agathonos, *18th International Symposium on Chromatography*, September 23-28, 1990, Amsterdam (THE NETHERLANDS).

8. Concentration and analysis of dilute colloidal samples by Potential-Barrier Field-Flow Fractionation.

**A. Koliadima** and G. Karaiskakis, *19th International Symposium on Chromatography*, September 13-18, 1992, Aix-en-Provence (FRANCE).

9. Potential-Barrier Field-Flow Fractionation: A Versatile New Method for the Separation and Characterization of Colloidal Particles.

G. Karaiskakis, and **A. Koliadima** *Third International Symposium on Field Flow Fractionation*, October 5-7, 1992, Park City, Utah (U.S.A.).

10. Adhesion studies of colloidal materials on solid surfaces by Field-Flow Fractionation.

G. Karaiskakis, A. Athanasopoulou, **A. Koliadima**, *Sixth International Symposium on Field-Flow Fractionation*, September 9-11, 1996, Ferrara (ITALY).

11. Optimization of experimental conditions for the characterization of starch granules by Sd/St FFF.

L. Farmakis, J. Sakellaraki, **A. Koliadima** and G. Karaiskakis, *Eighth International Symposium on Field-Flow Fractionation*, September 6-8, 1999, Paris (FRANCE).

12. Study of the recovery of colloidal particles in potential barrier sedimentation field-flow fractionation.

G. Karaiskakis, M. Douma, I. Katsipou, **A. Koliadima** and L. Farmakis, *Eighth International Symposium on Field-Flow Fractionation*, September 6-8, 1999, Paris (FRANCE).

13. Study of the Influence of the Ionic Strength and the pH of the Suspending Medium on the Size of the Wheat Starch Granules Measured by Sedimentation/Steric FFF.

L. Farmakis, **A. Koliadima** and G. Karaiskakis, *23<sup>rd</sup> International Symposium on Chromatography*, October 1-5, 2000, London (ENGLAND).

14. Particle-wall interactions in potential-barrier field-flow fractionation.

S. Semenov, G. Karaiskakis, **A. Koliadima** and L. Farmakis, *International Symposium on Characterization of Macromolecules and Particles of Biological Origin*, September 3-4, 2002, Brno (CZECH REPUBLIC).

15. Optimization of experimental conditions and selection of the proper dispersing medium for the fractionation and characterization of starch granules by Sd/StFFF

L. Farmakis, **A. Koliadima** and G. Karaiskakis, *International Symposium on Characterization of Macromolecules and Particles of Biological Origin*, September 3-4, 2002, Brno (CZECH REPUBLIC).

16. Preliminary experiments for the size analysis of saccharomyces C.S. by Sd/StFFF.

G. Karaiskakis, L. Farmakis and **A. Koliadima**, *International Symposium on Characterization of Macromolecules and Particles of Biological Origin*, September 3-4, 2002, Brno (CZECH REPUBLIC).

17. Characterization of copolymers by sedimentation field-flow fractionation.

L. Farmakis, **A. Koliadima**, D. Gavril and G. Karaiskakis, *Tenth International Symposium on Field-Flow Fractionation*, July 2-5, 2002, Amsterdam (THE NETHERLANDS).

18. Potential-Barrier field-flow fractionation: Potential curves and interactive forces.

L. Farmakis, **A. Koliadima**, D. Gavril and G. Karaiskakis, *Tenth International Symposium on Field-Flow Fractionation*, July 2-5, 2002, Amsterdam (THE NETHERLANDS).



19. New gas chromatographic instrumentation for studying the action of sulfur dioxide on marbles.

G. Karaiskakis, N. Bakaoukas, **A. Koliadima**, J. Kapolos, *25<sup>th</sup> International Symposium on Chromatography*, October 4-8, 2004, Paris (FRANCE).

20. Stability studies of colloidal silica particles by sedimentation field flow fractionation.

G. Karaiskakis, **A. Koliadima**, N. Lioris, L. Farmakis, *25<sup>th</sup> International Symposium on Chromatography*, October 4-8, 2004 Paris (FRANCE).

21. Diffusion coefficients and partition coefficients of SO<sub>2</sub> in water – air interface at different pH values in the presence or absence of surfactants.

J. Kapolos, L. Farmakis, G. Karaiskakis, **A. Koliadima**, *79<sup>th</sup> ACS Symposium of Colloid and Interface Science*, 12-15 June, 2005, Clarkson University, Potsdam NY (USA). (**2<sup>nd</sup> Price in the category of Most Innovative Technique**).

22. Kinetic Study of Cell Proliferation of *Saccharomyces Cerevisiae* Strains by Sedimentation/Steric Field Flow Fractionation in Situ.

J. Kapolos, L. Farmakis, G. Karaiskakis, **A. Koliadima**, *79<sup>th</sup> ACS Symposium of Colloid and Interface Science*, 12-15 June, 2005, Clarkson University, Potsdam NY (USA).

23. Diffusion Coefficients of Gases in Liquids by Reversed Flow Gas Chromatography

L. Farmakis, **A. Koliadima**, J. Kapolos, G. Karaiskakis, *1<sup>st</sup> International Conference on Diffusion in Solids and Liquids, DSL-2005*, 6-8 July, 2005, University of Aveiro, Aveiro (PORTUGAL).

24. Measurements of Diffusion Coefficients in Porous Solids by Inverse Gas Chromatography

J. Kapolos, N. Bakaoukas, **A. Koliadima**, G. Karaiskakis, *1<sup>st</sup> International Conference on Diffusion in Solids and Liquids, DSL-2005*, 6-8 July, 2005, University of Aveiro, Aveiro (PORTUGAL).

25. Estimation of the total potential energy of interaction and the Hamaker constant in sedimentation field flow fractionation.

L. Farmakis, N. Lioris, **A. Koliadima** and G. Karaiskakis, *12<sup>th</sup> International Symposium on Field – Flow Fractionation*, August 28 – 30, 2005, Brno (CZECH REPUBLIC).

26. The steric correction on the Potential Barrier Field Flow Chromatography.

L. Farmakis, **A. Koliadima**, G. Karaiskakis and S. Kenda, *13<sup>th</sup> International Symposium on Field-Flow Fractionation*, 28 - 30 June, 2007, Salt Lake City, Utah (USA).

27. Diffusion coefficients of SO<sub>2</sub> in water and partition coefficients of SO<sub>2</sub> in water-air interface at different temperature values in the presence or absence of surfactants.

**A. Koliadima**, J. Kapolos, L. Farmakis and G. Karaiskakis, *SECOTOX Conference and the International Conference on Environmental Management Engineering, Planning and Economics, CEMEPEX-2007*, 24-28 June, 2007, Skiathos (GREECE).

28. Physicochemical characterization of acrylic polymeric resin and low molecule siloxane coating materials of artistic interest.

- A. Koliadima**, N. Bakaoukas, J. Kapolos, G. Lainioti and G. Karaiskakis, *SECOTOX Conference and the International Conference on Environmental Management Engineering, Planning and Economics, CEMEPEX-2007*, 24-28 June, 2007, Skiathos (GREECE).
29. Inverse gas chromatographic investigation of the interaction of sulfur dioxide on kaolinite  
N. Bakaoukas, J. Kapolos, **A. Koliadima**, G. Karaiskakis, *28<sup>th</sup> International Conference on Science and Technology, ICST-2007*, 5-6 July, 2007, Prague, (CZECH REPUBLIC).
30. Study of the influence of surfactants on the absorption mechanism of SO<sub>2</sub> into water by Reversed Flow Gas Chromatography.  
G. Lainioti, L. Farmakis, J. Kapolos, **A. Koliadima**, G. Karaiskakis, *28<sup>th</sup> International Conference on Science and Technology, ICST-2007*, 5-6 July, 2007, Prague, CZECH REPUBLIC.
31. 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.  
J. Kapolos, L. Farmakis, G. Lainioti, **A. Koliadima**, G. Karaiskakis, *28<sup>th</sup> International Conference on Science and Technology, ICST-2007*, 5-6 July, Prague, 2007, (CZECH REPUBLIC).
32. A new approach for the estimation of the van der Waals forces based on sedimentation field flow fractionation.  
N. Lioris, **A. Koliadima**, G. Karaiskakis, *28<sup>th</sup> International Conference on Science and Technology, ICST-2007*, 5-6 July, Prague, 2007, (CZECH REPUBLIC).
33. Partition Coefficients at the water – air interface and diffusion of NO<sub>2</sub> in water by Reversed Flow Gas Chromatography.  
**A. Koliadima**, J. Kapolos, L. Farmakis, and G. Karaiskakis, *14<sup>th</sup> International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region*, 10-14 October, 2007, Seville (SPAIN).
34. Study of the influence of wheat starch granules as support for yeast immobilization on cell proliferation of *Sacchoromyces cerevisiae* strains by Sedimentation/Steric Field-Flow Fractionation  
**A. Koliadima**, J. Kapolos, L. Farmakis, and G. Karaiskakis, *9<sup>th</sup> International Hydrocolloids Conference*, 15-19 June, 2008, (SINGAPORE).
35. Kinetic Study of Alcoholic Fermentation in the Presence or Absence of Novel Biocatalysts by Reversed Flow Gas Chromatography  
G. Ch. Lainioti, J. Kapolos, L. Farmakis, G. Karaiskakis, **A. Koliadima**, *9<sup>th</sup> International Hydrocolloids Conference*, 15-19 June, 2008, (SINGAPORE).
36. Determination of diffusion coefficients of air pollutants (SO<sub>2</sub>, NO<sub>x</sub>) in artificial sea water at different temperatures in the absence and the presence of surfactants.  
D. Sevastos, J. Kapolos, G. Lainioti, L. Farmakis, **A. Koliadima** and G. Karaiskakis, *4<sup>th</sup> International Conference on Diffusion in Solids and Liquids, DSL-2008*, 9-11 July, 2008, Barcelona (SPAIN).
37. Inverse gas chromatography as a tool for measuring diffusion coefficients and other physicochemical quantities for the interaction between SO<sub>2</sub> and clay.

- N. Bakaoukas, J. Kapolos, G. Karaiskakis, **A. Koliadima** 5<sup>th</sup> *International Conference on Diffusion in Solids and Liquids, DSL-2009*, 24-26 June, 2009, Rome (ITALY).
38. 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.
- G. Ch. Lainioti, L. Farmakis, J. Kapolos, **A. Koliadima** and G. Karaiskakis, 14<sup>th</sup> *International Symposium on Field-and Flow Based Separations*, 5-7 July, 2009, Patras (GREECE).
39. Heat-induced changes in size distribution of bovine milk fat globules determined by sedimentation field-flow fractionation.
- V. Raikos, J. Kapolos, L. Farmakis, **A. Koliadima** and G. Karaiskakis, 14<sup>th</sup> *International Symposium on Field-and Flow Based Separations*, 5-7 July, 2009, Patras (GREECE).
40. Study of the stability of melamine resin (MF) particles by Sd/StFFF.
- S. Kenta, E. Papadimitriou, L. Farmakis, G. Ch. Lainioti, V. Raikos, **A. Koliadima** and G. Karaiskakis, 14<sup>th</sup> *International Symposium on Field-and Flow Based Separations*, 5-7 July, 2009, Patras (GREECE).
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42. Survey: Ochratoxin A in wines (VQPRD) from the South Western Greece (Achaia, Ileia).
- Y. Sarigiannis, S. Agriopoulou, **A. Koliadima**, J. Kapolos, T. Tsegenidis, G. Karaiskakis, 2<sup>nd</sup> *International MoniQA Conference*, 8-10 June, Krakow, Poland (2010)
43. Determination of mass transfer coefficients for the evaporation of SO<sub>2</sub> from water at different temperature and pH values.
- D. Sevastos, J. Kapolos, G. Karaiskakis, **A. Koliadima**, 6<sup>th</sup> *International Conference on Diffusion in Solids and Liquids, DSL-2009*, 5-7 July, Paris, France (2010)
44. Characterization of Microbial Contamination in Aviation Fuel Systems.
- V. Raikos, S. S. Vamvakas, J. Kapolos, G. Karaiskakis and **A. Koliadima**, *International Conference on Pure and Applied Chemistry*, 26-30 July, Mauritius (2010)
45. Kinetic Study of Microbial Growth in Aviation Fuel Systems
- S. S. Vamvakas, V. Raikos, J. Kapolos, **A. Koliadima** and G. Karaiskakis *International Conference on Pure and Applied Chemistry*, 26-30 July, Mauritius (2010)

### **5. Publications in National Conferences Proceedings**

1. Determination of colloidal particles size by sedimentation field flow chromatography. **A. Koliadima**, and G. Karaiskakis, 12<sup>th</sup> *Panhellenic Symposium of Chemistry*, Thessaloniki (1988).
2. Characterization of colloidal particles by field flow fractionation chromatography. **A. Koliadima**, *Three-Day Seminar for Postgraduate Research Activities. Institute of Physical Chemistry of NCSR Demokritos Athens* (1988).

3. Study of adhesion phenomena of colloidal particles on solid surfaces by sedimentation field flow fractionation chromatography.

A. Athanasopoulou, **A. Koliadima**, and G. Karaiskakis, *17<sup>th</sup> Panhellenic Symposium of Chemistry*, Patras (1996).

4. Gas adsorption entropy on heterogeneous solid surfaces.

N.A Katsanos, N Bakaoukas, J. Kapolos, **A. Koliadima**, *20<sup>th</sup> Panhellenic Symposium of Chemistry*, Ioannina (2005).

5. Kinetic study of *Saccharomyces Cerevisiae* cell growth in the presence and absence of suitable substrates using the sedimentation field flow fractionation chromatographic technique.

G. Ch. Lainioti, L. Farmakis, J. Kapolos, **A. Koliadima**, G. Karaiskakis, *2<sup>nd</sup> Panhellenic Conference of Biotechnology and Food Technology*, Athens (2007).

6. Study of particle size distribution of heat-treated cow's milk by sedimentation field flow fractionation.

V. Raikos, L. Farmakis, J. Kapolos, **A. Koliadima**, G. Karaiskakis, *1<sup>st</sup> Panhellenic Conference on Milk and Milk Products*, Athens (2008).