

JOHN KAPOLOS
PROFESSOR

Date of Birth : November 4th, 1964
Citizenship : Greek
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ACADEMIC DEGREES

- M.Sc. in Natural Sciences Didactic: The Curriculum Evaluation and ICT in Education, Department of Educational Science and Early Childhood Education, University of Patras, Greece (2008).
- Diploma in Chemical Engineering, Department of Chemical Engineering, University of Patras, Greece (1994).
- 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 (1989).

PROFESSIONAL EXPERIENCE

- Professor of Chemistry and Biochemistry of Agricultural Products, Department of Food Science and Technology, University of the Peloponnese (2019-today)
- Professor of Chemistry and Biochemistry of Agricultural Products, Department of Food Technology, TEI of Peloponnese (2013-2019)
- Tutor at the Postgraduate Program ‘Teaching Natural Sciences’, Hellenic Open University (2006-today)
- Associate Professor of Chemistry and Biochemistry of Agricultural Products, Department of Food Technology, TEI of Peloponnese (2003- 2013)
- Part time Assistant Professor, General Department of Physics, Chemistry & Materials Technology, TEI of Athens (2000-2002)
- Part time Assistant Professor, Department of Aquaculture and Fisheries, TEI of Messolonghi (1994-1999 & 2002-2003)
- High School Teacher (2002-2003)
- Chemistry Department, Forensic Science Division, Hellenic Police Headquarter (1999-2002)
- Pesticides Residues Analysis Laboratory - National Agricultural Research Foundation (1994-1999)

ADMINISTRATION AND MANAGEMENT

- Director of the Physicochemistry, Instrumental Analysis and (Bio)Chemistry of Foods Laboratory of the Food Science and Technology Department (2023 – present)
- Member of the Regional Council of Research and Innovation of the region of Peloponnese (2022-present)
- Member of the Board of the University of Peloponnese (2022-present)
- Head (2019-2021) and Vice head (2021-present) of the Department of Nutrition and Dietetics, University of the Peloponnese
- Rector of the TEI of Peloponnese (2017-2019)
- Member of the Council of the Hellenic Quality Assurance & Accreditation Agency (HQA) (2014-2017)
- Member of the Council of TEI of Peloponnese (2012-2014)
- Vice President of Academic Affairs and Personnel, TEI of Peloponnese (2008-2013).
- President of Quality Assurance Unit, TEI of Peloponnese (2008-2013).
- Head of the Department of Agricultural Products Technology (now Food Technology), TEI of Peloponnese (2004-2009).

TEACHING ACTIVITIES

Undergraduate

- Analytical Chemistry
- Physical Chemistry
- Biochemistry
- Instrumental Chemical Analysis
- Oenology
- Physical Chemistry of Biological Systems
- Teaching Food Science

Postgraduate

- Organization and Interaction at Molecular Level, for the MSc program Teaching Natural Sciences, Hellenic Open University
- Supervisor of 3 doctoral thesis and member of the advisory committees of 8 doctoral thesis.
- Supervisor of 35 MSc thesis for the MSc program Teaching Natural Sciences, Hellenic Open University

ORGANISING INTERNATIONAL CONFERENCES

- President of the steering committee and member of the scientific committee of 9th International Conference on Instrumental Methods of Analysis - Modern Trends and Applications (IMA-2015) (Kalamata 20-24 September 2015)
- Member of the steering committee of the 14th *International Symposium on Field and Flow Based Separations* (Patras, 2009)

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 biomaterials.
- Crystallization and biological calcification.
- Physicochemical aspects in Food Biotechnology
- Determination of toxins, heavy metals and pesticides residues in foods.

PARTICIPATION IN FUNDED PROJECTS

Coordinator in three (3) research projects and member of the main research group in fifteen (15) research projects funded by National and European grants. Total amount about 4.000.000 euros

PUBLICATIONS

Referred International Journals: 43
Referred Greek Journals: 1
Book Chapters in collective books: 3
International and National Conferences: 71
Books: 2
Course Notes: 5
Web Cast: 1
Editing of conference proceedings: 1
Book editing: 3

A. Publications in referred international journals

1. Physicochemical quantities in catalytic reactions measured simultaneously by gas chromatography.
J. Kapolos, N. A. Katsanos and A. Niotis, *Chromatographia*, **27** (7-8), 333 (1989).
2. Diffusion coefficients of gases in liquids and partition coefficients in gas-liquid interphases by reversed-flow gas chromatography.
N. A. Katsanos and **J. Kapolos**, *Anal. Chem.*, **61** (20), 2231 (1989).
3. Homogeneous catalysis studied by reversed-flow gas chromatography.
B. V. Stolyarov, N. A. Katsanos, P. Agathonos and **J. Kapolos**, *J. Chromatogr.*, **550** (1-2), 181 (1991).
4. Simple measurement of deposition velocities and wall reaction probabilities in denuder tubes.
I. Topalova, N. A. Katsanos, **J. Kapolos** and Ch. Vassilakos, *Atmos. Environ.*, **28** (10), 1791 (1994).
5. A model experimental system for the investigation of heart valve calcification in vitro.
J. Kapolos, D. Mavrilas, Y. Misirlis, P. G. Koutsoukos, *J. Biomed. Mater. Res. (Appl. Biomater.)*, **38** (3), 183 (1997).
6. Bioprosthetic heart valve calcification using in vitro and animal models.
D. Mavrilas, A. Apostoloki, Y. Missirlis, **J. Kapolos**, P.G. Koutsoukos, M. Melachrinou, V. Zolota and D. Dougenis, *J. Biomech.*, **31**, Supplement 1, 134 (1998).
7. Development of bioprosthetic heart valve calcification in vitro and in animal models: Morphology and Composition.
D. Mavrilas, A. Apostoloki, **J. Kapolos**, P.G.Koutsoukos, M. Melachrinou, V. Zolota, D. Dougenis, *J. Cryst. Growth*, **205** (4), 554 (1999).
8. Formation of Calcium Phosphates in Aqueous Solutions in the Presence of Carbonate Ions.
J. Kapolos, P.G. Koutsoukos, *Langmuir*, **15** (19), 6557 (1999).
9. 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).
10. Physicochemical and Microscopical Study of Calcific Deposits from Natural and Bioprosthetic Heart Valves. Comparison and Implications for Mineralization Mechanism.
D. Mikroulis, D. Mavrilas, **J. Kapolos**, P.G. Koutsoukos, C. Lolas, *J. Mater. Sci.- Mater. M.*, **13** (9), 885 (2002).
11. Physicochemical characterization of inorganic pigments in the presence of gaseous pollutants. The role of ozone.
V. Siokos, **J. Kapolos** and F. Roubani – Kalantzopoulou, *Z. Phys. Chem.* **216** (11), 1311 (2002).
12. Heterogeneous catalysis of gas on solids diffusing through liquid layer studied by inverse gas chromatography.
J. Kapolos, N.A. Katsanos, *J. Chromatogr. A*, **977** (1) 107 (2002).
13. Surface energy of solid catalysts measured by inverse gas chromatography.
N.A. Katsanos, D. Gavril, **J. Kapolos**, and G. Karaiskakis, *J. Colloid Interface Sci.*, **270** (2) 455 (2004).
14. Screening biomaterials with a new in vitro method for potential calcification: Porcine aortic valves and bovine pericardium.
D. Mavrilas, **J. Kapolos**, P.G. Koutsoukos and D. Dougenis, *J. Mater. Sci.- Mater. M.* **15** 699 (2004).

15. 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).
16. 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).
17. 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).
18. 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).
19. 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).
20. Analytical chemistry measurements of surface chemistry quantities (review article).
J. Kapolos, A. V. Dremetsika and N. A. Katsanos, *Trends in Chromatography*, **4** 89 (2008).
21. Diffusion coefficients of SO₂ in water and partition coefficients of SO₂ in water – air interface at different temperature and pH values.
A. Koliadima, **J. Kapolos**, L. Farmakis, *Instrum. Sci. & Technol.*, **37** 274 (2009).
22. 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).
23. 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).
24. Elemental concentrations in sediments of the Patras Harbour, Greece, using INAA, ICP-MS and AAS
H. Papaefthymiou, G. Papatheodorou, D. Christodoulou, M. Geraga, A. Moustakli, **J. Kapolos** *Microchemical J.*, **96** (2) 269 (2010).
25. 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*, **90** (2) 695 (2011).
26. 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*, **72** (11-12) 1149 (2010).
27. 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, *J. Liq. Chromatogr. & R.T.* **34** (3) 195 (2011).

28. Influence of pH and initial glucose concentration on the growth of *Saccharomyces Cerevisiae* yeast strain by Gravitational Field Flow Fractionation.
G. Karaiskakis, G. Ch. Lainioti, **J. Kapolos**, A. Koliadima, *Sep. Sci. Technol.* **46** (6) 893 (2011).
29. Water content, temperature and biocide effects on the growth kinetics of bacteria isolated from JP-8 aviation fuel storage tanks.
V. Raikos, S. S. Vamvakas, D. Sevastos, **J. Kapolos**, A. Koliadima, G. Karaiskakis *Fuel*, **93** 559 (2012).
30. 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 Reversed-Flow Gas Chromatography.
G. Ch. Lainioti, **J. Kapolos**, A. Koliadima, G. Karaiskakis, *Preparative Biochemistry and Biotechnology* **42** (5) 489 (2012).
31. Sedimentation field-flow fractionation as a tool for the study of milk protein-stabilized model oil-in-water emulsions: Effect of protein concentration and homogenization pressure
S. Kenta, V. Raikos, J. Kapolos, A. Koliadima G. Karaiskakis, *J. Liq. Chromatogr. & R.T.* **36** (3) 288 (2013).
32. Characterization of Polymeric Coatings in Terms of Their Ability to Protect Marbles and Clays against Corrosion from Sulfur Dioxide by Inverse Gas Chromatography
N. Bakaoukas, D. Sevastos, **J. Kapolos**, A. Koliadima & G. Karaiskakis, *International Journal of Polymer Analysis and Characterization*, **18** (6) 401 (2013).
33. Kinetic study of aggregation of milk protein and/or surfactant-stabilized oil-in-water emulsions by Sedimentation Field-Flow Fractionation
S. Kenta, V. Raikos, A. Vagena, D. Sevastos, **J. Kapolos**, A. Koliadima, G. Karaiskakis, *J. Chromatogr. A*, **1305** 221 (2013).
34. 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**, A. Koliadima, G. Karaiskakis, *Acta Chromatographica* **26** 1 (2014).
35. Ochratoxin A levels in Greek retail wines
Y. Sarigiannis, **J. Kapolos**, A. Koliadima, T. Tsegenidis, G. Karaiskakis, *Food Control*, **42** 139 (2014).
36. Kinetic study of aflatoxins' degradation in the presence of ozone
S. Agriopoulou, A. Koliadima, G. Karaiskakis, **J. Kapolos**, *Food Control*, **61** 221 (2016).
37. Study of the influence of surfactants on the activity coefficients and mass transfer coefficients of methanol in aqueous mixtures by reversed-flow gas chromatography
E. Kotsalos, B. Brezovska, D. Sevastos, A. Vagena, A. Koliadima, **J. Kapolos**, G. Karaiskakis, *J. Chromatogr. A*, **1524** 169 (2017).
38. Reversed-Flow Gas Chromatography as a Tool for Studying the Interaction between Aroma Compounds and Starch
L. Farmakis, A. Koliadima, G. Karaiskakis, **J. Kapolos**, *J. Agric. Food Chem.*, **66(45)** 12111 (2018).

39. Specific serine residues of Msn2/4 are responsible for regulation of alcohol fermentation rates and ethanol resistance
S.S. Vamvakas, **J. Kapolos**, L. Farmakis, F. Genneos, M.E. Damianaki, X. Chouli, A. Vardakou, S. Liosi, E. Stavropoulou, E. Leivaditi, M. Fragki, E. Labrakou, E.G. Gashi, D. Demoli, *Biotechn. Progr.*, **35(2)** e2759 (2019)
40. Ser625 of msn2 transcription factor is indispensable for ethanol tolerance and alcoholic fermentation process.
S.S. Vamvakas, **J. Kapolos**, L. Farmakis, G. Koskorellou, F. Genneos, *Biotechn. Progr.*, **35(5)** e2837 (2019).
41. Factors affecting yeast ethanol tolerance and fermentation efficiency.
S.S. Vamvakas, **J. Kapolos** *World J. Microbiol. Biotechnol.*, **36** (81) 114, (2020).
42. Fermentation Efficiency of Genetically Modified Yeasts in Grapes Must
K. Kassoumi, P. Kousoulou, D. Sevastos, S. S. Vamvakas, K. Papadimitriou, **J. Kapolos** and A. Koliadima, *Foods*, **11** (3) 413, (2022).
43. Applying Image-Based Food-Recognition Systems on Dietary Assessment: A Systematic Review
K. V. Dalakleidi, M Papadelli, **J. Kapolos**, K. Papadimitriou, *Adv. Nutr.*, **13(6)** 2590, (2022).

B. Publications in Referred Greek Journals

1. The mechanism of the catalytic hydrogenation of Ethylene on Zinc Oxide studied by reversed - flow gas chromatography.
A. Kalantzopoulos, F. Roubani - Kalantzopoulou, **J. Kapolos** and N. A. Katsanos, *Chimica Chronika New Series*. **26**, 391 (1997).

C. Book chapters in collective books

1. Adsorption, reaction and desorption rate constants in heterogeneous catalysis, measured simultaneously by gas chromatography.
N. A. Katsanos and **J. Kapolos**, in M.L.Ocelli and R.G.Anthony (Eds) *Advances in Hydrotreating Catalysis*, Elsevier, Amsterdam, p.211, (1989).
2. Environmental applications of Reversed Flow Gas Chromatography
J. Kapolos, *Encyclopedia of Chromatography*, Taylor & Francis p.1, (2005).
3. Forensic applications of Gas Chromatography
J. Kapolos, Ch. Christodoulis, *Encyclopedia of Chromatography*, Taylor & Francis (2007).

D. Participations in International Conferences

1. The Reversed - Flow gas chromatography as a tool for studying homogeneous and heterogeneous physicochemical processes.
Roubani - Kalantzopoulou, A. Kalantzopoulos, **J. Kapolos** and N. A. Katsanos, *International symposium on instrumentalized analytical chemistry and computer, technology*, March 17-21, Heinrich-Heine Universität, Düsseldorf Germany (1997).

2. Bioprosthetic heart valve calcification using in vitro and animal models.
D. Mavrilas, A. Apostoloki, Y. Missirlis, **J. Kapolos**, P.G.Koutsoukos, Melachrinou, V. Zolota and D. Dougenis, *11th Conference of the European Society of Biomechanics*, July 8-11, Toulouse France (1998) **(δημοσιευμένη στο J. Biomech. όπως σημειώνεται στο A6).**
3. Initiation of Hydroxyapatite Nucleation by Immobilised Glycosaminoglycans.
DH Vynios, **J. Kapolos**, A. Tsilemou, PG Koutsoukos, CP Tsiganos, *XVIIth Meeting of the Federation of the European Connective Tissue Societies*, July 1-5 Patras Greece (2000).
4. Inhibition of hydroxyapatite growth by various monosaccharides-constituents of glycosaminoglycans.
DH Vynios, **J. Kapolos**, A. Tsilemou, PG Koutsoukos, CP Tsiganos, *XVIIth Meeting of the Federation of the European Connective Tissue Societies*, July 1-5 Patras Greece (2000).
5. Effects of an active pockmarks field on the distribution of heavy metals of surficial sediments in the gulf of Patras, Greece.
J. Ravasopoulos, G. Papatheodorou, **J. Kapolos**, *9th International Congress of the Geological Society of Greece*, September (2001).
6. Η Γεωλογική συνιστώσα στη διαχείριση βυθοκορημάτων λιμένων. Ένα παράδειγμα από τον λιμένα Πατρών.
Δ. Χριστοδούλου, Μ. Γεραγά, Γ. Παπαθεοδώρου, Γ. Φερεντίνος, **I. Καπόλος**, Ε. Παπαδάκης, Α. Δαραμούσκα, Γ. Παναγόπουλος, Ν. Λαμπράκης, *10th International Congress of the Geological Society of Greece*, April (2004).
7. New gas chromatographic instrumentation for studying the action of sulfur dioxide on marbles
N. Bakaoukas, A. Koliadima, **J. Kapolos**, G. Karaiskakis, *25th International Symposium on Chromatography*, 4-8 October, Paris France (2004).
8. Diffusion coefficients and partition coefficients of SO₂ in water – air interface at different pH values in the presence or absence of surfactants.
J. Kapolos, L. Farmakis, G. Karaiskakis, A. Koliadima, *79th ACS Symposium of Colloid and Interface Science*, 12-15 June, Clarkson University, Potsdam NY USA (2005) **(2^o award in the field of Most Innovative Technique).**
9. 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, *79th ACS Symposium of Colloid and Interface Science*, 12-15 June, Clarkson University, Potsdam NY USA (2005).
10. Diffusion Coefficients of Gases in Liquids by Reversed Flow Gas Chromatography
L. Farmakis, A. Koliadima, **J. Kapolos**, G. Karaiskakis, *1st International Conference on Diffusion in Solids and Liquids, DSL-2005*, 6-8 July, University of Aveiro, Aveiro Portugal (2005).
11. Measurements of Diffusion Coefficients in Porous Solids by Inverse Gas Chromatography
J. Kapolos, N. Bakaoukas, A. Koliadima, G. Karaiskakis, *1st International Conference on Diffusion in Solids and Liquids, DSL-2005*, 6-8 July, University of Aveiro, Aveiro Portugal (2005) **(δημοσιευμένη στο J. Phase Equilib. Diff. όπως σημειώνεται στο A16).**

12. Diffusion coefficients of SO₂ in water and partition coefficients of SO₂ 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, Skiathos Greece (2007).
13. 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, Skiathos Greece (2007).
14. Inverse gas chromatographic investigation of the interaction of sulfur dioxide on kaolinite
N. Bakaoukas, **J. Kapolos**, A. Koliadima, G. Karaiskakis, *28th International Conference on Science and Technology, ICST-2007*, 5-6 July, Prague, Czech Republic (2007).
15. Study of the influence of surfactants on the absorption mechanism of SO₂ into water by Reversed Flow Gas Chromatography.
G. Lainioti, L. Farmakis, **J. Kapolos**, A. Koliadima, G. Karaiskakis, *28th International Conference on Science and Technology, ICST-2007*, 5-6 July, Prague, Czech Republic (2007).
16. 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, *28th International Conference on Science and Technology, ICST-2007*, 5-6 July, Prague, Czech Republic (2007).
17. Partition Coefficients at the water – air interface and diffusion of NO₂ in water by Reversed Flow Gas Chromatography.
A. Koliadima, **J. Kapolos**, L. Farmakis, and G. Karaiskakis, *14th International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region*, 10-14 October, Seville, Spain (2007).
18. 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 and G. Karaiskakis, *1st European Food Congress*, 4-9 November, Ljubljana, Slovenia (2008).
19. Study of the influence of wheat starch granules as support for yeast immobilization on cell proliferation of *Saccharomyces cerevisiae* strains by Sedimentation/Steric Field-Flow Fractionation
A. Koliadima, **J. Kapolos**, L. Farmakis, and G. Karaiskakis, *9th International Hydrocolloids Conference*, 15-19 June, Singapore (2008).
20. 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, *9th International Hydrocolloids Conference*, 15-19 June, Singapore (2008).

21. 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.
D. Sevastos, **J. Kapolos**, G. Lainioti, L. Farmakis, A. Koliadima and G. Karaiskakis, 4th *International Conference on Diffusion in Solids and Liquids, DSL-2008*, 9-11 July, Barcelona, Spain (2008).
22. Inverse gas chromatography as a tool for measuring diffusion coefficients and other physicochemical quantities for the interaction between SO₂ and clay.
N. Bakaoukas, **J. Kapolos**, G. Karaiskakis, A. Koliadima 5th *International Conference on Diffusion in Solids and Liquids, DSL-2009*, 24-26 June, Rome, Italy (2009).
23. 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, 14th *International Symposium on Field-and Flow Based Separations*, 5-7 July, Patras, Greece (2009).
24. 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, 14th *International Symposium on Field-and Flow Based Separations*, 5-7 July, Patras, Greece (2009).
25. 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, 2nd *International MoniQA Conference*, 8-10 June, Krakow, Poland (2010).
26. Determination of mass transfer coefficients for the evaporation of SO₂ from water at different temperature and pH values.
D. Sevastos, **J. Kapolos**, G. Karaiskakis, A. Koliadima, 6th *International Conference on Diffusion in Solids and Liquids, DSL-2009*, 5-7 July, Paris, France (2010).
27. 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).
28. 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).
29. Study of the interactions between limonene and starch from various origins using reversed-flow gas chromatography technique.
J. Kapolos, L. Delporte, A. Koliadima, 244th *ACS National Meeting & Exposition Division of Agricultural and Food Chemistry*, 19-23 August, Philadelphia PA, USA (2012).
30. Kinetic study of aflatoxins' degradation in the presence of ozone
S. Agriopoulou, **J. Kapolos**, A. Koliadima, G. Karaiskakis, 7th *Conference of The World Mycotoxin Forum*, 5-9 November, Rotterdam, The Netherlands (2012).
31. Aflatoxins' levels in commercial products, from Peloponnese, Greece
S. Agriopoulou, **J. Kapolos**, A. Koliadima, G. Karaiskakis, 4th *MoniQA International Conference, Food Safety under Global Pressure of Climate Change, Food Security and Economic Crises*, 26 February - 1 March, Budapest, Hungary (2013).

32. Time distribution of adsorption entropy of aroma compounds on starch surfaces by reversed-flow gas chromatography
J. Kapolos, A. Koliadima, G. Karaiskakis *XVII EuroFoodChem*, 7-10 May, Istanbul, Turkey (2013).
33. Determination of deoxynivalenol (DON) in Greek retail products by HPLC-DAD
 S. Agriopoulou, E. Doubaki, M. Georgopoulou, **J. Kapolos**, A. Koliadima, G. Karaiskakis, *XVII EuroFoodChem*, 7-10 May, Istanbul, Turkey (2013).
34. Occurrence of Zearalenone (ZEA) in cereals and peanuts in Greece, detected by HPLC
 S. Agriopoulou, E. Doubaki, M. Georgopoulou, **J. Kapolos**, A. Koliadima, G. Karaiskakis, *ISM - MycoRed International Conference "Europe 2013"*, 27-31 May, Martina Franca, Italy (2013).
35. New gas chromatographic methodology for studying interactions between aroma compounds and foodstuffs
J. Kapolos, L. Farmakis, A. Koliadima, 8th International Conference on Instrumental Methods of Analysis. Modern Trends and Applications, 15-19 September, Thessaloniki, Greece (2013).
36. Determination of physicochemical parameters for the interaction between aroma compounds and starch granules.
 A. Koliadima, **J. Kapolos**, G. Karaiskakis, *248th ACS National Meeting & Exposition Division of Agricultural and Food Chemistry*, 10-14 August, San Francisco CA, USA (2014).
37. Characterization of starch granules from different origin in order to investigate their ability to interact with aroma compounds by inverse gas chromatography
J. Kapolos, A. Koliadima, *248th ACS National Meeting & Exposition Division of Agricultural and Food Chemistry*, 10-14 August, San Francisco CA, USA (2014).
38. Characterization of Starch Granules by Sedimentation / Steric Field-Flow Fractionation
 G. Karaiskakis, **A. Koliadima**, J. Kapolos, *5th EuCheMS Chemistry Congress*, 31st August – 5 September, Istanbul, Turkey (2014).
39. The influence of surfactants on the size distribution of wheat starch granules by sedimentation/steric field-flow fractionation
 J. Kapolos, **A. Koliadima**, *5th EuCheMS Chemistry Congress*, 31st August – 5 September, Istanbul, Turkey (2014).
40. Study of the encapsulation of aroma compounds from starch emulsions by reversed flow gas chromatography (RFGC)
J. Kapolos, A. Koliadima, G. Karaiskakis, *250th ACS National Meeting & Exposition, Innovation from Discovery to Application, Division of Agricultural and Food Chemistry*, 16-20 August, Boston MA, USA (2015).
41. Time-resolved determination of physicochemical quantities for physically adsorbed or chemisorbed aroma compounds on starch granules, by inverse gas chromatography.
 A. Koliadima, **J. Kapolos**, G. Karaiskakis, *250th ACS National Meeting & Exposition, Innovation from Discovery to Application, Division of Agricultural and Food Chemistry*, 16-20 August, Boston MA, USA (2015).

42. Determination of thermodynamic parameters in a time-resolved way for the adsorption of aroma compounds on starch granules from different origin
G. Karaiskakis, K. A. Eftaxopoulou, **J. Kapolos**, A. Koliadima, *The international conference on science, ecology and technology*, 25– 28 August, Vienna, Austria (2015).
43. Kinetic parameters for the interaction between aroma compounds and starch granules from different origin
J. Kapolos, L. Farmakis, A. Koliadima, G. Karaiskakis, *The international conference on science, ecology and technology*, 25– 28 August, Vienna, Austria (2015).
44. Gas chromatographic investigation of the competition between mass transfer and kinetics of aroma compounds on starch granules
A. Koliadima, K.A. Eftaxopoulou, G. Karaiskakis, **J. Kapolos**, *The international conference on science, ecology and technology*, 25– 28 August, Vienna, Austria (2015).
45. Determination of physicochemical parameters as a function of time for physically adsorbed or chemisorbed aroma compounds on starch granules from different origin by inverse gas chromatography
K.A. Eftaxopoulou, L. Farmakis, A. Koliadima, G. Karaiskakis, **J. Kapolos**, *9th International Conference on Instrumental Methods of Analysis. Modern Trends and Applications*, 20-24 September, Kalamata, Greece (2015).
46. Study of the influence of pH and ionic strength on the stability of melamine formaldehyde (MF) resin by field flow fractionation technique
L. Farmakis, **J. Kapolos**, A. Koliadima, *256th ACS National Meeting, Nanoscience, Nanotechnology & Beyond, Division of Colloid and Surface Chemistry*, 19-23 August, Boston MA, USA (2018).
47. Impact of environmental conditions on growth and toxin production of *Aspergillus carbonarius* and *A. flavus* isolates on wheat and rice grains.
P. I. Natskoulis, L. Farmakis, C.C. Tassou, A. Koliadima, **J. Kapolos**, *26th International ICFMH Conference – FoodMicro*, 3-6 September, Berlin Germany (2018).
48. Evaluation of genetically modified yeast strains for their ability to ethanol production.
P. Kousoulou, S.S. Vamvakas, **J. Kapolos**, M. Papadelli, K. Papadimitriou. and A. Koliadima, *FEMS Conference on Microbiology*, 30 June – 2 July, Belgrade, Serbia (2022).
49. Kinetic study of fig syrup fermentation by genetically modified *S. cerevisiae* yeast stains.
P. Kousoulou, **J. Kapolos**, M. Papadelli, K. Papadimitriou and A. Koliadima, *FEMS Conference on Microbiology*, 30 June – 2 July, Belgrade, Serbia (2022).
50. Amplicon and shotgun metagenomics to unravel the microbiome of the Greek cheese Sfela.
O. Tspidou, A. Slavko, **J. Kapolos**, M. Papadelli, and K. Papadimitriou *FEMS Conference on Microbiology*, 30 June – 2 July, Belgrade, Serbia (2022).
51. A primary investigation of the microbial ecosystem of the Greek PDO cheese Sfela and Sfela touloumotiri.
N. Tsougou, O. Tspidou, A. Slavko, **J. Kapolos**, M. Papadelli. and K. Papadimitriou, *27th International ICFMH Conference, Food Micro 2022, Next Generation Challenges in Food Microbiology*, 28-31 August, Athens, Greece (2022)
52. In silico meta-analysis of the current peptidome datasets related to yogurt fermentation.
M.C. Kafentzi, N. Tsougou, N. Papandreou, V. Ikonomidou, **J. Kapolos**, M. Papadelli and K. Papadimitriou, *27th International ICFMH Conference, Food Micro 2022, Next Generation Challenges in Food Microbiology*, 28-31 August, Athens, Greece (2022).

53. A meta-analysis of the wine proteome and peptidome deriving from must fermentation microorganisms and beyond.
D. Pavlidis, A. Sakellaridis, J. Stathas, M.C. Kafentzi, N. Tsougou, N. Papandreou, V. Ikonomidou, M. Papadelli, **J. Kapolos** and K. Papadimitriou, *27th International ICFMH Conference, Food Micro 2022, Next Generation Challenges in Food Microbiology*, 28-31 August, Athens, Greece (2022).
54. Surface characterization of hydrocolloids of plant origin by determining physicochemical parameters as a function of time by inverse gas chromatography.
P. Katsou, K. Papadimitriou, M. Papadelli, **J. Kapolos**, A. Koliadima, *5th Food Structure and Functionality Symposium*, 18-21 September, Cork, Ireland (2022)
55. An investigation of the microbial ecosystem of industrial Greek PDO cheese Sfela and the artisanal Sfela touloumotiri and Xerosfeli.
K. Papadimitriou, N. Tsougou, O. Tshipidou, A. Slavko, V. Pemaj, M. Papadelli, **J. Kapolos**, A. Koliadima *4th International Conference on Applied Microbiology and Beneficial Microbes*, 7-8 November, Paris, France (2022)

E. Participations in national conferences

1. Υπολογισμός συντελεστών διάχυσης αερίων σε υγρά με χρήση της αεριοχρωματογραφίας αναστρεφόμενης ροής
I. Καπόλος, *Τριήμερο Σεμινάριο Ερευνητικών Δραστηριοτήτων Μεταπτυχιακών Φοιτητών*. Ινστιτούτο Φυτικοχημείας του ΕΚΕΦΕ ΔΗΜΟΚΡΙΤΟΣ. Αθήνα (1988).
2. Hydrogenation of Ethylene on Zinc Oxide
A. Kalantzopoulos, F. Roubani - Kalantzopoulou, **J. Kapolos** and N. A. Katsanos, *4th Panhellenic Symposium on Catalysis*, Papingo, Greece (1995).
3. Χαρακτηρισμός ασβεστικών εναποθέσεων στην αορτική βαλβίδα
Δ. Μαυρίλας, **I. Καπόλος**, Δ. Μικρούλης, Χ. Λόλας, Π. Κουτσούκος, Ι. Μισιρλής, *XX Πανελλήνιο Συνέδριο Χειρουργικής*, (1996).
4. Μελέτη της ασβεστοποίησης των βιοπροσθετικών βαλβίδων in vitro και in vivo σε ζωικό μοντέλο
Δ. Μαυρίλας, Α. Αποστολάκη, Ι. Μισιρλής, Δ. Περδίκης, Ε. Κωλέτσης, Δ. Δουγένης, Μ. Μελαχρινού, **I. Καπόλος**, Π. Κουτσούκος, *2^ο Πανελλήνιο Συνέδριο Χειρουργικής Θώρακος-Καρδιάς-Αγγείων*, 20-23 Νοεμβρίου, Θεσσαλονίκη (1997).
5. Συγκριτική μελέτη ασβεστικών εναποθέσεων σε ανθρώπινες και βιοπροσθετικές καρδιακές βαλβίδες
Δ. Μαυρίλας, Α. Αποστολάκη, Ι. Μισιρλής, Δ. Μικρούλης, Χ. Λόλας, **I. Καπόλος**, Π. Κουτσούκος, *2^ο Πανελλήνιο Συνέδριο Χειρουργικής Θώρακος - Καρδιάς – Αγγείων*, 20-23 Νοεμβρίου, Θεσσαλονίκη (1997).
6. Υδρογόνωση του 1-Βουτενίου με καταλύτη νικέλιο
Β. Σιώκος, Σ. Μαργαρίτη, **I. Καπόλος**, Φ. Ρουμπάνη-Καλαντζοπούλου, Ν.Α. Κατσάνος, *6^ο Πανελλήνιο Συμπόσιο Κατάλυσης*, 3-4 Νοεμβρίου, Δελφοί (2000).
7. Μελέτη της σχέσης της περιεκτικότητας οιοπνεύματος στο αίμα και την αναπνοή
Χ. Χριστοδουλής, **I. Καπόλος**, Θ. Σαββίδης, *2^ο Πανελλήνιο Συνέδριο Ιατροδικαστικής και Τοξικολογίας*, 24-26 Νοεμβρίου, Πανεπιστήμιο Πειραιά (2000).

8. Εντροπία προσροφήσεως αερίων σε ετερογενείς επιφάνειες στερεών
Ν.Α. Κατσάνος, Ν. Μπακαούκας, **I. Καπόλος**, Α. Κολιαδήμα, 20^ο ΠΣΧ, 20-23 Σεπτεμβρίου, Ιωάννινα (2005).
9. Κινητική μελέτη της ανάπτυξης των κυττάρων *Saccharomyces Cerevisiae* παρουσία και απουσία κατάλληλου υποστρώματος ακινητοποίησης με την τεχνική της μονοφασικής χρωματογραφίας φυγοκεντρικού πεδίου
Γ. Λαϊνιώτη, Λ. Φαρμάκης, **I. Καπόλος**, Α. Κολιαδήμα, Γ. Καραϊσκάκης, 2^ο Πανελλήνιο Συνέδριο Βιοτεχνολογίας και Τεχνολογίας Τροφίμων, 29-31 Μαρτίου, Αθήνα (2007).
10. Μελέτη μεγέθους σωματιδίων θερμικά επεξεργασμένου αγελαδινού γάλακτος με μονοφασική χρωματογραφία φυγοκεντρικού πεδίου
Β. Ράϊκος, Λ. Φαρμάκης, **I. Καπόλος**, Α. Κολιαδήμα, Γ. Καραϊσκάκης, 1^ο Πανελλήνιο Επιστημονικό Συνέδριο για το Γάλα και τα Προϊόντα του, 9 - 10 Οκτωβρίου, Αθήνα (2008).
11. Ανάπτυξη μεθοδολογίας για προσδιορισμό φουμονισινών σε εμπορικούς οίνους
Σ. Αγριοπούλου, Α. Τάκα, Β. Ευγενιώτη και **I. Καπόλος**, 26^ο Συνέδριο της Ελληνικής Εταιρείας της Επιστήμης των Οπωροκηπευτικών, 15-18 Οκτωβρίου, Καλαμάτα (2013).
12. Evaluation of the microbial ecosystem of the Greek PDO cheese Anevato from Grevena region with metagenomics.
M. Govari, M. Papadelli, D. Tsoliakou, M. Gkerekou, P.N. Skandamis, **J. Kapolos** and K. Papadimitriou, 15^ο Πανελλήνιο Κτηνιατρικό Συνέδριο, 4-6 Νοεμβρίου, Αθήνα (2022)
13. An insight into the microbiome of Greek table olives coming from different cultivars at retail. A. Tsoungos, D. Pavlidis, K. Panousopoulos, V. Pemaj, I. Theodoropoulou, M. Papadelli, **J. Kapolos** and K. Papadimitriou, 72nd Annual Conference of the Hellenic Society of Biochemistry and Molecular Biology, 2-4 Δεκεμβρίου Patras (2022).
14. A primary investigation of the microbial ecosystem of the Greek PDO cheese Sfela, Sfela touloumotiri and Xerosfeli.
K. Papadimitriou, N. Tsoungou, O. Tsipidou, A. Slavko, V. Pemaj, **J. Kapolos** and M. Papadelli, 72nd Annual Conference of the Hellenic Society of Biochemistry and Molecular Biology, 2-4 Δεκεμβρίου, Patras (2022).
15. Bioactivity in fermented foods: an in silico study of the peptides of yogurt and wine.
A. Sakellaridis, J. Stathas, N. Tsoungou, M. Kafentzi, D. Pavlidis, **J. Kapolos**, M. Papadelli and K. Papadimitriou, 72nd Annual Conference of the Hellenic Society of Biochemistry and Molecular Biology, 2-4 Δεκεμβρίου, Patras (2022).
16. Metabolomic analysis of quality characteristics of meat.
M. Govari, D. Tsoliakou, A. Slavko, E.H. Drosinos, P.N. Skandamis, **J. Kapolos**, K. Papadimitriou and M. Papadelli, 7th Panhellenic Conference of Meat and Meat Products, 3-5 February, Thessaloniki (2023).

Στ. Books

1. Η Δομή και η Οργάνωση της ύλης

Α. Κολιαδήμα, **I. Καπόλος**, Δ. Γαβριήλ, Ελληνικό Ανοικτό Πανεπιστήμιο, 548 σελίδες, ISBN 978-960-538-976-5 (2015).

2. Μόρια σε κίνηση

Γ. Καραϊσκάκης, **I. Καπόλος**, Ελληνικό Ανοικτό Πανεπιστήμιο, 244 σελίδες, ISBN 978-960-538-975-8 (2015).

Z. Courses Notes

1. Author of the textbook for the lesson "Physicochemical and Instrumental Analysis of Plant Products".
2. Author of the textbook for the Analytical Chemistry laboratory courses.
3. Co-author of the textbook for the Instrumental Analysis laboratory courses.
4. Co-author of the textbook for the Biochemistry laboratory courses.

H. Alternative Teaching Material

Development of webcast for the needs of the Thematic Unit "Organization and Interactions at Molecular Level" of the Hellenic Open University's Master of Science degree "Postgraduate Specialization for Teachers of Natural Sciences".

Θ. Editing of Conference Proceedings

1. 9th International Conference on Instrumental Methods of Analysis - Modern Trends and Applications (IMA-2015).

J. Kapos, M. Ochsenkühn - Petropoulou, Kalamata, 2015

I. Editing of books

1. "Physical Chemistry for the Chemical Sciences" W. J. Thoman & R. Chang, Broken Hill Publishers Ltd, ISBN: 9789925576036
2. "Physical Chemistry" D W. Ball & T. Baer, Broken Hill Publishers Ltd, ISBN: 9789925588367
3. "Biochemistry Concepts and Connections" D.R. Appling, S.J. Anthony-Cahill, C.K. Mathews. Kritiki Publisher.

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