



Personal Data

Prof. Dr. Ioannis K. Karabagias

Assistant Professor of Food Chemistry

Date of Birth: 02. July.1979

Place of Birth: Kalamata, Messinia, Peloponnese, Greece

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Curriculum Vitae

2025

Basic education

1992-1997. 6th Gymnasium- 4th General High School of Kalamata, Messinia, Peloponnese, Greece.

Studies

Sept.1999-April 2004. Ptychion of Chemistry (four years degree studies), Department of Chemistry, University of Ioannina, University Campus 45110, Greece.

Nov.2004-July 2008. Master of Science in Food Science and Technology (two years at least degree studies), Department of Chemistry, University of Ioannina, Laboratory of Food Chemistry, University Campus 45110, Ioannina, Greece. MSc. Thesis: « *Combined effect of modified atmosphere packaging and thyme essential oil in shelf life extension of fresh lamb meat* ».

Febr.2007-Febr.2008. Military service, Greek Army.

May 2010–August 2014. PhD candidate, Department of Chemistry, Laboratory of Food Chemistry, University of Ioannina, University Campus 45110, Ioannina, Greece.

PhD thesis: « *Differentiation of Botanical and Geographical origin of Greek honey using Instrumental Analysis and Chemometrics* ».

2014-2021. Post Doctoral Researcher at Department of Chemistry, Laboratory of Food Chemistry, University of Ioannina, University Campus 45110, Ioannina, Greece.

Foreign Languages

English (First Certificate In English)

German (ZERTIFIKAT)

Computers

ECDL Diploma in Word Processing, Information and Communication, and Spreadsheets

RESEARCH INTERESTS

The objectives of my research, in particular, are Food Chemistry with an emphasis on the study of the composition, structure, and properties of foods. At the same time, the work I treat includes the control of the changes that foods (of animal and plant origin) undergo during preparation, storage, packaging, and transportation. Also, my research projects focus on the development and application of food quality control techniques and the development of geographical origin control techniques using chemometric techniques.

After my election as a faculty member at the rank of Assistant Professor, my research work focuses on the development of new methodologies for checking the authenticity (geographical and botanical origin) of foods, on the development of novel food packaging materials based on biodegradable raw materials and enhanced with natural antioxidant ingredients for a possible increase in the shelf life of foods of plant or animal origin, on the analysis of fermentation products (wine, beer, etc.), on the development of new products with high nutritional value, etc.

Techniques used to achieve my research project include classical and instrumental chemical analysis techniques (spectrophotometry, liquid chromatography, gas chromatography, gas chromatography/mass spectrometry, liquid chromatography/mass spectrophotometry, spectroscopic techniques, etc.) in combination with chemometrics, and microbiology techniques that focus on both spoilage and pathogenic microorganisms.

Knowledge of Indicative Instrumental Techniques

Gas Chromatography/Mass Spectrometry
High Pressure Liquid Chromatography/Mass Spectrometry
Inductively Coupled Plasma Atomic Emission Spectrometry
Isotope Ratio Mass Spectrometry
Spectrophotometry
Chromatometry

Practice

01/07/2003-01/09/2003. Internship as a Scholar at the General State Chemistry - Chemical Service of Kalamata. Food and Beverage Analyses-Drug Identification by Gas Chromatography and Indian Cannabis by the Duch reaction.

Working Experience

I. Teaching-Faculty membership

2008-2009, and 2009-2010. Teaching Personnel of Chemistry in several High Schools of Messinia, Greece.

Academic year 2009-2010: Laboratory Personnel at the Technical Institute of Kalamata, Department of Food Science and Technology, Laboratory of Chemistry and Biochemistry of Agricultural Products, Antikalamos, Kalamata, Greece.

Academic year 2011-2012. Assistant personnel at the laboratory of Food Chemistry and Advanced laboratory of Food Chemistry (Department of Chemistry, University of Ioannina) in graduate students' program, being responsible for the completion/teaching of milk, wine, and cheese chemical analyses, as they were basic courses for the 4th year students of Chemistry, in order to get their Chemistry Ptychion.

Academic year 2012-2013. Assistant personnel at the laboratory of Food Chemistry (Department of Chemistry, University of Ioannina) in graduate students' program, being responsible for the completion/teaching of milk, and wine chemical analyses, as they were basic courses for the 4th year students of Chemistry, in order to get their Chemistry Ptychion.

Academic year 2015-2016 (12 days): Laboratory Personnel at the Technical Institute of Kalamata, Department of Food Science and Technology, Laboratory of Food Processing, Antikalamos, Kalamata, Greece.

November 2016. Teaching the thematic issue of: "Isotope ratio Mass Spectrometry-Theory, Instrumentation, and Applications in Food Analysis" for the lesson "Advanced Food Analysis", Post graduate students' program in Food Chemistry and Technology, Department of Chemistry, University of Ioannina, Ioannina, Greece.

Academic year 2016-2017 (1/3/2017-1/6/2017). Teaching the lesson of "Nutrition" at the Chemistry Department, Section of Industrial and Food Chemistry, University of Ioannina, Ioannina, Greece.

December 2017. Teaching the thematic issue of: "Isotope ratio Mass Spectrometry-Theory, Instrumentation, and Applications in Food Analysis" for the lesson "Advanced Food Analysis", Post graduate students' program in Food Chemistry and Technology, Department of Chemistry, University of Ioannina, Ioannina, Greece.

Academic year 2017-2018 (1/3/2018-30/6/2018). Teaching the lesson of "Nutrition" at the Chemistry Department, Section of Industrial and Food Chemistry, University of Ioannina, Ioannina, Greece.

Academic year 2018-2019. Teaching the lessons of “Enology I, Enology II” at the Chemistry Department, Section of Industrial and Food Chemistry, University of Ioannina, Ioannina, Greece.

November 2018. Teaching the thematic issue of: “Isotope ratio Mass Spectrometry-Theory, Instrumentation, and Applications in Food Analysis” for the lesson “Advanced Food Analysis”, Post graduate students’ program in Food Chemistry and Technology, Department of Chemistry, University of Ioannina, Ioannina, Greece..

10-10-2020-14-02-2021. Teaching of the courses a) Quality and Organoleptic Examination of Wine Products, b) Wine Product Techniques, c) Organic Chemistry and Biochemistry (Theory + Lab) at Public Vocational Training Institute of Igoumenitsa, Igoumenitsa, Greece.

Academic year 2020-2021. Teaching the lessons of “Enology I, Enology II” at the Chemistry Department, Section of Industrial and Food Chemistry, University of Ioannina, Ioannina, Greece.

Academic year 2021-2022. Teaching the lesson of “Nutrition and Nutritional Value of Foods” as Assistant Professor at the Department of Food Science & Technology, University of Patras, Agrinio, Greece.

Academic year 2022-2023. Teaching the lesson and laboratory courses of “Food Chemistry” as Assistant Professor at the Department of Food Science & Technology, University of Patras, Agrinio, Greece.

Academic year 2022-2023. Teaching the lesson and laboratory courses of “Oenology” as Assistant Professor at the Department of Food Science & Technology, University of Patras, Agrinio, Greece.

Academic year 2022-2023. Teaching the lesson and laboratory courses of “Technology of Alcoholic Spirits” as Assistant Professor at the Department of Food Science & Technology, University of Patras, Agrinio, Greece.

Academic year 2022-2023. Teaching the lesson and laboratory courses of “Technology and Quality Control of Plant-based Foods I” as Assistant Professor at the Department of Food Science & Technology, University of Patras, Agrinio, Greece.

Academic year 2023-2024. Teaching the lesson and laboratory courses of “Oenology II ” as Assistant Professor at the Department of Food Science & Technology, University of Patras, Agrinio, Greece.

Academic year 2023-2024. Teaching the lesson and laboratory courses of “Technology of Alcoholic Spirits” as Assistant Professor at the Department of Food Science & Technology, University of Patras, Agrinio, Greece.

Academic year 2023-2024. Teaching the lesson and laboratory courses of “Technology and Quality Control of Plant-based Foods I” as Assistant Professor at the Department of Food Science & Technology, University of Patras, Agrinio, Greece.

Academic year 2023-2024. Teaching the lesson and laboratory courses of “Food Chemistry” as Assistant Professor at the Department of Food Science & Technology, University of Patras, Agrinio, Greece.

Academic year 2023-2024. Teaching the lesson and laboratory courses of “Oenology” as Assistant Professor at the Department of Food Science & Technology, University of Patras, Agrinio, Greece.

Academic year 2024-2025. Teaching the lesson and laboratory courses of ‘‘Oenology II’’ as Assistant Professor at the Department of Food Science & Technology, University of Patras, Agrinio, Greece.

Academic year 2024-2025. Teaching the lesson and laboratory courses of ‘‘Technology of Alcoholic Spirits’’ as Assistant Professor at the Department of Food Science & Technology, University of Patras, Agrinio, Greece.

Academic year 2024-2025. Teaching the lesson and laboratory courses of ‘‘Technology and Quality Control of Plant-based Foods I’’ as Assistant Professor at the Department of Food Science & Technology, University of Patras, Agrinio, Greece.

Academic year 2024-2025. Teaching the lesson and laboratory courses of ‘‘Food Chemistry’’ as Assistant Professor at the Department of Food Science & Technology, University of Patras, Agrinio, Greece.

Academic year 2024-2025. Teaching the lesson and laboratory courses of ‘‘Oenology’’ as Assistant Professor at the Department of Food Science & Technology, University of Patras, Agrinio, Greece

II. Industry

2008-2009, 2009-2010, and 2010-2011. Worked as a chemist, from production to analysis of pomace oil, at the PYRINAS S.A., Kalamata, Greece, during the period of olive oil extraction/collection.

2009-2010. Scientific advisor of KLIMIS, Olive pips barbecue briquettes Asprochoma, Kalamata, Greece.

III. Research Experience/Research Projects and contracts completed at the University of Ioannina, Department of Chemistry, Laboratory of Food Chemistry, University Campus 45110, Ioannina, Greece.

01.09.2006-31.03.2007. Contract award auxiliary project, within the Post Graduate Program in Food Chemistry and Food Technology.

01.06.2008-31.08.2008. Laboratory Technician within the program "New Post Graduate Programs at the laboratory of Food Chemistry". Task- Food Science and Nutrition.

24.01.2013-30.06.2015. Researcher at the Research Program funded by Greek and EU funds entitled: « Authenticity of selected Products from Epirus » (olive oil, orange juice, feta cheese, gruyere). Epirus Region, NSRF 2007-2013.

2014-2021. Post Doctoral Researcher at the Laboratory of Food Chemistry, Chemistry Department, University of Ioannina.

2019-2021. Research associate in the research project "Production of new processed meat products by applying modern methods to increase their levels of healthy life, microbiological safety and nutritional value", Epirus Region, NSRF 2014-2020.

02/09/2020-30/06/2021. Research associate in the research project "Development of a methodology for locating the geographical origin of agricultural products using isotopic ratio measurements in selected agricultural products and foods" - "MEDFOODTTHUBS-TRACE & TRUST HUBS FOR MED FOOD, University of Patras.

10/03/2021-31/12/2021. Research associater in the research project "Infrastructure of Microbiome Applications in Food Systems (FOODBIOMES)", Competitiveness, Entrepreneurship and Innovation. Ministry of Development and Investment, Ionian University.

Administrative duties

-2019-2022. Member of the Research Ethics and Ethics Committee at the University of Ioannina.

-2022-2025. Member of the Research Ethics and Ethics Committee at the University of Ioannina.

-02.04.2021 until today. Member of the Registry of Certified Assessors-Experts of the Hellenic Research and Innovation Foundation (EL.ID.E.K.).

-01/01/2022-31/12/2023. Scientific leader in the research program "MEDIKOS", University of Patras.

-19/04/2022. Scientific leader in the research program "Preparation of innovative and green food packaging materials", "Natural Environment and Innovative Actions" of the Green Fund (Ministry of Environment & Energy) (Approval through the Deanship of the Faculty of Agricultural Sciences of University of Patras-Phase I, Results have not been announced yet).

-Academic year 2021-2022. Member of the following committees: a) Internal Evaluation Group, b) Professional rights, c) Program studies, d) Rankings, e) Erasmus, f) Chemical waste collection, at the Department of Food Science and Technology, University of Patras.

Participation in Bibliographic/Laboratory Research, Graduate, Postgraduate, Doctoral Theses

- ✓ Laboratory Research (Ms. K. Ksera), Theme: "Correlation of quercetin with botanical and geographical origin of honey"-University of Ioannina.
- ✓ Laboratory Research (Ms. A. Tasiopoulou), Theme: "Volatile compounds of honey according to botanical origin"-University of Ioannina.
- ✓ Laboratory Research (Ms. C. Margariti), Theme: "A study on volatile profile and antioxidant activity of pomegranate"-University of Ioannina.
- ✓ Diploma Thesis (Ms. M. Koutsoumpou-V. Liakou), Theme: "Determination of volatile components and antioxidant action of *Crocus sativus* of different geographical origin"-University of Ioannina.
- ✓ Diploma Thesis (Ms. M. Nassif), Theme: "The determination of antioxidant and antibacterial activity of selected commercial Egyptian and Spanish EOs"-University of Ioannina / American University in Cairo.
- ✓ Diploma Thesis (Ms. M. Prodromiti), Theme: "Evaluation of antioxidant capacity and total phenolic content of different prickly pear juice ethanolic extracts"-University of Ioannina.
- ✓ Master Thesis (Mr. Ch. Nikolaou), Subject: "Differentiation of fresh Greek orange juice of the Merlin cultivar according to geographical origin based on the combination of organic acid and sugar content as well as physico-chemical parameters using chemometrics"-University of Ioannina.
- ✓ Master Thesis (Mr. A. Zeid), Theme: "Preparation and evaluation of polylactic acid antioxidant packaging films containing thyme, rosemary and oregano essential oils"-University of Ioannina / American University in Cairo.
- ✓ Master Thesis (Mr. I. Gatzias), Theme: "Differentiation of sheep breeds based on physico-chemical parameters and volatile components of sheep's milk using chemometrics"-University of Ioannina.
- ✓ Master Thesis (Ms. E. Assanti), Theme: "Shelf life extension of minced chicken meat based on the combination of vacuum packaging and chitosan"-University of Ioannina.

- ✓ Master Thesis (Ms. M. Vavoura), Theme: ‘‘Botanical and geographical origin differentiation of fresh orange juices based on volatile compounds, flavonoids, and conventional physicochemical parameters using chemometrics ‘’-University of Ioannina.
- ✓ Doctoral thesis (Mr. A. Panou), Theme: ‘‘ Combined effect of gaseous ozone and other treatments on physicochemical characteristics and shelf life extension of fruits and vegetables’’-University of Ioannina.
- ✓ Doctoral thesis (Ms. I. Gertzou), Theme: ‘‘Combined effect of ozonation and natural antimicrobials (chitosan and essential oils) on shelf life extension of fresh chicken packaged under modified atmosphere, vacuum and air packaging, during storage under refrigeration’’– University of Ioannina.

Participation in Internship

Subsidiary supervision and guidance on instrumental methods of analysis, spectrophotometric techniques, etc. in products such as honey (DPPH method), saffron (FRAP method), orange juice (determination of sugars and organic acids by HPLC) of Ms. E. Dimitriou, student of Technical Institute of Peloponnese-Department of Food Technology.

Doctoral Thesis Examiner

Member of the Doctoral Dissertation Examination Committee at the University of Canberra, Australia, School of Health Sciences. **The University of Canberra is among the top 20 young Universities in the World Ranking.** Ph.D. Thesis (Ms. Caroline Anne Gouws), Theme: ‘‘ Compositional Analysis of Prickly Pear (*Opuntia* spp.) Fruit and its Physiological Effects upon Consumption in Humans ’’.

Supervisor of Post Doctoral Studies

I was the supervisor of 1 Post doctoral study at the Department of Food Science and Technology in School of Agricultural Sciences of the University of Patras that has been completed.

Supervisor of Doctoral Studies

I am the supervisor of 2 Doctoral theses at the Department of Food Science and Technology in the School of Agricultural Sciences of the University of Patras.

Supervisor of Senior Thesis Studies

I am the supervisor of 32 senior thesis studies at the Department of Food Science and Technology in the School of Agricultural Sciences of the University of Patras the academic years 2023-2024 and 2024-2025.

Oral Presentations in Conferences

- 1) 10th International Conference of Greece and Cyprus on 2-4 July 2009 in Heraklion, Crete, Greece. Title: « Combined effect of modified atmosphere packaging and thyme essential oil in shelf life extension of fresh lamb meat ». **I. Karabagias**, M.G. Kontominas.
- 2) Post graduate students' Conference at Chemistry Department, University of Ioannina, 28-30 March, 2013. Title: « Characterisation and classification of Greek pine honeys according to their geographical origin, based on volatiles, physicochemical parameters and chemometrics ». **I.K. Karabagias**, A. Badeka, M.G. Kontominas.
- 3) 12th International Conference of Greece and Cyprus on 8-10 May 2015 in Thessaloniki, Greece. Title: « Differentiation of botanical and geographical origin of Greek unifloral honeys using mineral content and physico-chemical parameter analysis in combination with chemometrics ». **I.K. Karabagias**, A.P. Louppis, A.V. Badeka, S. Kontakos, M.G. Kontominas, C. Papastefanou.
- 4) 12th International Conference of Greece and Cyprus on 8-10 May 2015 in Thessaloniki, Greece. Title: « Differentiation of botanical origin of Greek olive oil using instrumental analysis and chemometrics ». I.S. Kosma, **I.K. Karabagias**, S. Kontakos, M.G. Kontominas, A.V. Badeka.
- 5) 9th International Conference on Instrumental Methods of Analysis, Modern Trends and Applications, IMA 2015, scheduled on 20-24 September 2015 in Kalamata, Greece. Title: « Differentiation of fresh Greek orange juice prepared from the Merlin cultivar according to geographical origin based on organic acid and sugar content using instrumental and chemometric analyses ». Ioannis K. Karabagias, Christos Nikolaou, Ilias Gatzias, Stavros Kontakos, Anastasia Badeka, and Michael G.Kontominas.
- 6) International Congress on Food Science and Public Health, September 14-16, 2021, Tehran, Iran. Title: « Prickly pear seed oil by shelf-grown cactus fruits: Waste or maste? », Vassilios K. Karabagias, **Ioannis K. Karabagias**, Anastasia V. Badeka.
- 7) Member of the Scientific Committee of the International conference “ 2nd International Congress on Bee Sciences”, Icbes, 14-16/06/2023.
- 8) 8th International Conference on “ Mass Spectrometry & Separation Techniques” held on April 20-21, 2024, Online Meeting, UK.
- 9) 8th International Conference on Mass Spectrometry & Separation Techniques”. April 20-24, 2024, United Kingdom. « Migration and Safety Aspects of Plastic Food Packaging Materials: Need for Reconsideration? », Andreas Panou, Ioannis K. Karabagias.
- 10) 7th International Conference on Food Science & Nutrition Health” July 18-19, 2025 at London UK, Hybrid Event. « Composition, Properties, and Beneficial Effects of Functional Beverages on Human Health», Andreas Panou, Ioannis K. Karabagias.

Poster Presentations in Conferences

- 12th International Conference of Greece and Cyprus on 8-10 May 2015 in Thessaloniki, Greece. Title: « Differentiation of sheep breed based on physicochemical parameters, fatty acids and volatile compounds' profile of their milk, using chemometrics » I. Gatzias, **I. Karabagias**, Kontakos, S., Kontominas, M.G., Badeka, A.
- 2) Two-days scientific conference entitled “Food Chemistry Days 2015”, Functional foods, Athens 26 and 27 November 2015. Topic: "Effect of the combination of ozonation and packaging on the shelf life extension of fresh chicken under refrigeration", Ioanna N. Gertzou, Drossos, **Ioannis K. Karabagias**, and Kyriakos A. Riganakos

- 3) 4th International ISEKI Food Conference 2016, « Effect of combination of ozonation and packaging on shelf life extension of fresh chicken legs during storage under refrigeration », Gertzou, I.N., Drosos, P.E., **Karabagias, I.K.**, Riganakos, K.A. Vienna, Austria, July 6-8, 2016.
- 4) 23rd International Conference on Food Technology & Processing, October 07-08, 2019 Dublin, Ireland. Title: « Preparation and Evaluation of Bee Pollen Yoghurt ». **Ioannis K. Karabagias**, Vassilios K. Karabagias, Ilias Gatzias and Kyriakos A. Riganakos.
- 5) International Conference on Food Science and Nutrition, October 23-25, 2019 Rome, Italy. Title: « The Potential of Specific Aldehyde Ratios as Indicators of Lamb Meat Quality During Storage Under Refrigeration », **Ioannis K. Karabagias**.

Collaboration with Food Companies

2010-2021. Research collaboration with ATTIKI BEE CULTURING CO.-ALEX PITTAS S.A., Kryoneri, Athens, Greece on the authenticity of Greek honey, based on instrumental and chemometric analyses, during PhD and Post doctoral studies.

List of Publications in International Journals (Web of Science) with Impact Factor

Author ID: 36967429700 (Scopus), 0000-0002-3488-2684 (ORCID)

1. Shelf life extension of lamb meat using thyme or oregano essential oils and modified atmosphere packaging. **Karabagias I**, Badeka A, Kontominas MG. (2011), Meat Science, 88(1), 109-116.
2. Botanical discrimination of Greek unifloral honeys with physico-chemical and chemometric analyses. **Karabagias, I.K.**, Badeka, A.V., Kontakos, S., Karabournioti, S., Kontominas, M.G. (2014). Food Chemistry, 165, 181-190.
3. Differentiation of Greek thyme honeys according to geographical origin based on the combination of phenolic compounds and conventional quality parameters using chemometrics. **Karabagias, I.K.**, Vavoura, M.V., Badeka, A., Kontakos, S., Kontominas, M.G.(2014). Food Analytical Methods, 7(10), 2113-2121.
4. Characterization and classification of *Thymus capitatus* (L.) honey according to geographical origin based on volatile compounds, physicochemical parameters and chemometrics. **Karabagias, I.K.**, Badeka, A., Kontakos, S., Karabournioti, S., Kontominas, M.G.(2014). Food Research International, 55, 363-372.
5. Characterisation and classification of Greek pine honeys according to their geographical origin based on volatiles, physicochemical parameters and chemometrics. **Karabagias, I.K.**, Badeka, A., Kontakos, S., Karabournioti, S., Kontominas, M.G.(2014). Food Chemistry, 146, 548-557.
6. Floral authentication of Greek unifloral honeys based on the combination of phenolic compounds, physicochemical parameters and chemometrics. **Karabagias, I.K.**, Vavoura, M.V., Nikolaou, C., Badeka, A.V., Kontakos, S., Kontominas, M.G.(2014). Food Research International, 62, 753-760.
7. Classification of Western Greek virgin olive oils according to geographical origin based on chromatographic, spectroscopic, conventional and chemometric analyses. **I. Karabagias**, Ch. Michos, A. Badeka, S. Kontakos, I. Stratis, M.G. Kontominas. (2013). Food Research International, 54(2), 1950–1958.
8. Combined effect of N,O-carboxymethyl chitosan and oregano essential oil to extend shelf life and control *Listeria monocytogenes* in raw chicken meat fillets. Khanjari, A., **Karabagias, I.K.**, Kontominas, M.G. (2013). LWT - Food Science and Technology, 53(1), 94-99.
9. Monitoring the oxidative stability and volatiles in blanched, roasted and fried almonds under normal and accelerated storage conditions by DSC, thermogravimetric analysis and ATR-FTIR. Valdés, A., Beltran, A., **Karabagias, I.**, Badeka, A., Kontominas, M.G., Garrigós, M.C. (2015). European Journal of Lipid Science and Technology, 117(8), 1199-1213.

10. Phenolic profile, colour intensity, and radical scavenging activity of Greek unifloral honeys. **Karabagias, I.K.**, Dimitriou, E., Kontakos, S., Kontominas, M.G. (2016). European Food Research and Technology, 242(8), 1201-1210.
11. Characterization and classification of extra virgin olive oil from five less known Greek olive cultivars. Kosma, I., Vavoura, M., Kontakos, S., **Karabagias, I.K.**, Kontominas, M., Kiritsakis, A., Badeka, A. (2016). Journal of the American Oil Chemists' Society, 93(6), 837-848.
12. Characterization and differentiation of Greek commercial thyme honeys according to geographical origin based on quality and some bioactivity parameters using chemometrics. Nousias, P., **Karabagias, I.K.**, Kontakos, S. Riganakos, K.A. (2017). Journal of Food Processing and Preservation, 41(4), e13061.
13. Characterization and geographical discrimination of Greek pine and thyme honeys based on their mineral content, using chemometrics. **Karabagias, I.K.**, Louppis, P.A., Kontakos, S., Papastefanou, C., Kontominas, M.G. (2017) European Food Research and Technology, 243(1), 101-113.
14. Investigating the impact of botanical origin and harvesting period on carbon stable isotope ratio values ($^{13}\text{C}/^{12}\text{C}$) and different parameter analysis of Greek unifloral honeys: A chemometric approach for correct botanical discrimination. **Karabagias, I.K.**, Casiello, G., Kontakos, S., Louppis, P.A., Longobardi, F., Kontominas, M.G. (2016). International Journal of Food Science and Technology, 51, 2460-2467.
15. Characterization and geographical discrimination of commercial *Citrus* spp. honeys produced in different Mediterranean countries based on minerals, volatile compounds and physicochemical parameters, using chemometrics. **Karabagias, I.K.**, Louppis, P.A., Karabournioti, S., Kontakos, S., Papastefanou, C., Kontominas, M.G. (2017). Food Chemistry, 217, 445-455.
16. Characterization and classification of commercial thyme honeys produced in specific Mediterranean countries according to geographical origin, using physicochemical parameter values and mineral content in combination with chemometrics. **Karabagias, I.K.**, Louppis, P.A., Karabournioti, S., Kontakos, S., Papastefanou, C., Kontominas, M.G. (2017). European Food Research and Technology, 243(5), 889-900.
17. Volatile fraction of commercial thyme honeys produced in Mediterranean regions and key volatile compounds for geographical discrimination: A chemometric approach. **Karabagias, I.K.**, Halatsi, E.Z., Kontakos, S., Karabournioti, S., Kontominas M.G. (2017). International Journal of Food Properties, 20 (11), 2699-2710.
18. Combined effect of ozonation and packaging on shelf life extension of fresh chicken legs during storage under refrigeration. Ioanna N. Gertzou, Panagiotis E. Drosos, **Ioannis K. Karabagias**, and Kyriakos A. Riganakos. Journal of Food Science and Technology, 53(12), 4270-4277.

19. Differentiation of fresh Greek orange juice of the Merlin cultivar according to geographical origin based on the combination of organic acid and sugar content as well as physico-chemical parameters using chemometrics. Christos Nikolaou, **Ioannis K. Karabagias**, Ilias Gatzias, Stavros Kontakos, Anastasia Badeka, and Michael G. Kontominas (2017). *Food Analytical Methods*, 10(7), 2217-2228.
20. Characterization and geographical discrimination of saffron from Greece, Spain, Iran, and Morocco based on volatile and bioactivity markers, using chemometrics. **Ioannis K. Karabagias**, Marina Koutsoumpou, Vasiliki Liakou, Stavros Kontakos, and Michael G. Kontominas (2017). *European Food Research and Technology*, 243(9), 1577-159.
21. Impact of physicochemical parameters, pollen grains and phenolic compounds for the correct geographical differentiation of fir honeys produced in Greece as assessed by multivariate analyses. **Ioannis K. Karabagias**, Evangelia Z. Halatsi, Sofia Karabournioti, Stavros Kontakos, Michael G. Kontominas. (2017). *International Journal of Food Properties*, 20, S520-S533.
22. Effect of combination of ozonation and vacuum packaging on shelf life extension of fresh chicken legs during storage under refrigeration. Ioanna N. Gertzou, **Ioannis K. Karabagias**, Panagiotis E. Drosos, and Kyriakos A. Riganakos (2017). *Journal of Food Engineering*, 213, 18-26.
23. Determination of antioxidant activity of surface treated PET films coated with rosemary and clove extracts. Hebatullah H. Farghal, **Ioannis Karabagias**, Mayyada El Sayed, and Michael G. Kontominas (2017). *Packaging Technology and Science*, 30(12), 799-808.
24. Comparison of UV-C and thermal treatments for the preservation of carrot juice. Kyriakos A. Riganakos, **Ioannis K. Karabagias**, Ioanna Gertzou, and Mario Stahl (2017). *Innovative Food Science and Emerging Technologies*, 42, 165-172.
25. Botanical discrimination of Greek unifloral honeys based on mineral content in combination with physicochemical parameter analysis, using a validated chemometric approach. Artemis P. Louppis, **Ioannis K. Karabagias**, Stavros Kontakos, Michael G. Kontominas, Chara Papastephanou (2017). *Microchemical Journal*, 135, 180-189.
26. The impact of different heating temperatures on physicochemical, colour attributes, and antioxidant activity parameters of Greek honeys. Karabagias, V.K., **Karabagias, I.K.**, Gatzias, I. (2018). *Journal of Food Process Engineering*, 41(3), e12668.
27. Characterization and differentiation of sheep's milk from Greek breeds based on physicochemical parameters, fatty acid composition and volatile profile. Gatzias, I., **Karabagias, I.**, Kontakos, S., Kontominas, M., Badeka, A. (2018). *Journal of the Science of Food and Agriculture*, 98(10), 3935-3942.

28. Geographical discrimination of pine and fir honeys using multivariate analyses of major and minor honey components identified by ¹H NMR and HPLC along with physicochemical data. **Karabagias, I.K.**, Vlasίου, M., Kontakos, S., Drouza, C., Kontominas, M.G., Keramidas, A.D. (2018). *European Food Research and Technology*, 244(7), 1249-1259.
29. The effect of different gaseous ozone treatments on physicochemical characteristics and shelf life of apricots stored under refrigeration. Andreas A. Panou, **Ioannis K. Karabagias**, Kyriakos A. Riganakos (2018). *Journal of Food Processing and Preservation*, 42(5), e13614.
30. Characterization and botanical differentiation of monofloral and multifloral honeys produced in Cyprus, Greece and Egypt using physicochemical parameter analysis and mineral content, in conjunction with supervised statistical techniques. **Ioannis K. Karabagias**, Artemis Louppis, Stavros Kontakos, Chryssoula Drouza, Chara Papastephanou (2018). *Journal of Analytical Methods in Chemistry*, 2018, Article ID 7698251, 10 pages.
31. Bio-Functional Properties of Bee Pollen: The Case of “Bee Pollen Yoghurt”. **Karabagias, I.K.K.**, Karabagias, V.K.K., Gatzias, I., Riganakos, K.A. (2018). *Coatings* 2018, 8(12), 423.
32. Volatile Profile of Raw Lamb Meat Stored at 4±1 °C: The Potential of Specific Aldehyde Ratios as Indicators of Lamb Meat Quality. **Ioannis Konstantinos Karabagias** (2018). *Foods*, 7, 40.
33. Discrimination of clover and citrus honeys from Egypt according to floral type using easily assessable physicochemical parameters and discriminant analysis: An external validation of the chemometric approach. **Ioannis K. Karabagias**, Sofia Karabournioti (2018). *Foods*, 7, 70.
34. Characterization of Eucalyptus, Chestnut and Heather Honeys from Portugal Using Multi-Parameter Analysis and Chemo-Calculus. **Karabagias, I.K.**, Maia, M., Karabagias, V.K., Gatzias, I., Badeka, A. (2018). *Foods* 7(12), 194.
35. Volatile metabolites or pollen characteristics as regional markers of monofloral thyme honey? **Karabagias, I.K.** (2018). *Separation Science Plus*, 1(2), 83-92.
36. Volatile Fingerprints of Common and Rare Honeys Produced In Greece: In Search of PHVMs with Implementation of the Honey Code. **Ioannis K. Karabagias**, Christos Nikolaou, Vassilios K. Karabagias (2019). *European Food Research and Technology*, 245(1), 23-39.
37. Shelf life extension of greenhouse tomatoes using ozonation in combination with packaging under refrigeration. Karakosta, E.K., **Karabagias, I.K.**, Kyriakos A. Riganakos, K.A. (2019). *Ozone: Science & Engineering*, 41(5), 389-397.
38. Seeking of reliable markers related to Greek nectar honey geographical and botanical origin identification based on sugar profile by HPLC-RI and electro-chemical parameters using multivariate statistics. **Karabagias, I.K.K.** (2019). *European Food Research and Technology*, 245(4), 805-816.

39. Characterization of prickly pear juice by means of shelf life, sensory notes, physicochemical parameters and bio-functional properties. Vassilios K. Karabagias, **Ioannis K. Karabagias**, Ilias Gatzias, Kyriakos A. Riganakos (2019). Journal of Food Science and Technology, 56(8), 3646-3659.
40. Nutritional aspects and botanical origin recognition of Mediterranean honeys based on the “mineral imprint” with the application of supervised and non-supervised statistical techniques. **Ioannis K. Karabagias**, Artemis P. Louppis, Anastasia Badeka, Chara Papastephanou, Michael G. Kontominas (2019). European Food Research and Technology, 245(9), 1939-1949.
41. Rapid screening of olive oil cultivar differentiation based on selected physicochemical parameters, pigment content and fatty acid composition using advanced chemometrics. **Ioannis K. Karabagias**, Anastasia Badeka, Grazia Casiello, Francesco Longobardi, Michael G. Kontominas (2019). European Food Research and Technology, 245(9), 2027-2038.
42. Preparation and evaluation of antioxidant packaging films made of polylactic acid containing thyme, rosemary and oregano essential oils. Amr Zeid, **Ioannis K. Karabagias**, Madonna Nassif, Michael G. Kontominas (2019). Journal of Food Processing and Preservation, 43(10), e14102.
43. Physico-chemical parameters, phenolic profile, in vitro antioxidant activity and volatile compounds of Ladastacho (*Lavandula stoechas*) from the region of Saidona. **Ioannis K. Karabagias**, Vassilios K. Karabagias, Kyriakos A. Riganakos (2019). Antioxidants, 8, 80.
44. Valorization of prickly pear juice geographical origin based on mineral and volatile compound contents Using LDA (2019). Vassilios K. Karabagias, **Ioannis K. Karabagias**, Artemis Louppis, Anastasia Badeka, Michael G. Kontominas, Chara Papastephanou. Foods, 8, 123.
45. Two-way characterization of beekeepers’ honey according to botanical origin on the basis of mineral content analysis using ICP-OES implemented with multiple chemometric tools (2019). Artemis Panormitis Louppis, **Ioannis Konstantinos Karabagias**, Chara Papastephanou, Anastasia Badeka. Foods, 8, 210.
46. Geographical differentiation of Cypriot multifloral honeys through specific volatile compounds and the use of DFA. **Karabagias, I.K.**, Papastephanou, C., Karabagias, V.K. (2019). AIMS Agriculture and Food, 4(1): 149–162.
47. The honey volatile code: A collective study and extended version (2019). **Ioannis K. Karabagias**, Vassilios K. Karabagias, Anastasia V. Badeka. Foods, 8, 508.
48. A decisive strategy for monofloral honey authentication using analysis of volatile compounds and pattern recognition techniques (2020). **Ioannis Karabagias**, Anastasia Badeka, Michael G. Kontominas. Microchemical Journal, 152,104263.
49. Palynological, physico-chemical and bioactivity parameters determination, of a less common Greek honeydew honey: “dryomelo” (2020). **Ioannis K. Karabagias**, Sofia Karabournioti, Vassilios K. Karabagias, Anastasia V. Badeka. Food Control 109:106940.

50. Bio-functional alcoholic beverage preparation using prickly pear juice and its pulp in combination with sugar and blossom honey (2020). Vassilios K. Karabagias, **Ioannis K. Karabagias**, Mariza Prodromiti, Ilias Gatzias, Anastasia Badeka. Food Bioscience, 35, 100591.
51. Prickly pear seed oil by shelf-grown cactus fruits: Waste or maste? Vassilios K. Karabagias, **Ioannis K. Karabagias**, Ilias Gatzias, Anastasia V. Badeka (2020). Processes, 8(2), 132.
52. Quality and origin characterisation of Portuguese, Greek, Oceanian, and Asian honey, based on poly-parametric analysis hand in hand with dimension reduction and classification techniques (2020). **Ioannis K. Karabagias**, Miguel Maia, Vassilios K. Karabagias, Ilias Gatzias, Anastasia V. Badeka. European Food Research and Technology, 246(5), 987-1006.
53. Possible complementary packaging label in honey based on the correlations of antioxidant activity, total phenolic content, and effective acidity, in light of the F.O.P index using mathematical modelling (2020). **Ioannis K. Karabagias**, Vassilios K. Karabagias, Anastasia Badeka. European Food Research and Technology, 246, 1307-1316.
54. Geographical differentiation of feta cheese from northern Greece based on physicochemical parameters, volatile compounds, and fatty acid profile (2020). Ilias Gatzias, **Ioannis Karabagias**, Michael Kontominas, Anastasia Badeka (2020). LWT-Food Science and Technology, 131, 109615.
55. Palynological, physicochemical, biochemical and aroma fingerprints of two rare honey types. **Ioannis K. Karabagias**, Miguel Maia, Sofia Karabournioti, Ilias Gatzias, Vassilios K. Karabagias, Anastasia Badeka (2020). European Food Research and Technology, 246, 1725-1739.
56. Shelf life evaluation of fresh chicken burgers based on the combination of chitosan dip and vacuum packaging under refrigerated storage (2020). Eleni Assanti, Vassilios K. Karabagias, **Ioannis K. Karabagias**, Anastasia Badeka, Michael G. Kontominas. Journal of Food Science and Technology, 58, 870-883.
57. Effect of gamma-irradiation on sensory characteristics, physicochemical parameters and shelf life of strawberries, stored under refrigeration (2020). Andreas Panou, **Ioannis Karabagias**, Kyriakos Riganakos. International Journal of Fruit Science, 20(2), 191-206.
58. Physico-chemical parameters complemented with aroma compounds fired up the varietal discrimination of wine using statistics (2020). **Ioannis K. Karabagias**, Dionysia Sykalia, Alberto Mannu, Anastasia Badeka. European Food Research and Technology, 246, 2233-2248.
59. ¹³C NMR-based chemical fingerprint for the varietal and geographical discrimination of wines (2020). Alberto Mannu, **Ioannis K. Karabagias**, Maria Enrica Di Pietro Salvatore Baldino, Vassilios K. Karabagias, and Anastasia V. Badeka. Foods, 9(8), 1040.

60. In search of the EC₆₀: The case study of bee pollen, *Quercus ilex* honey, and saffron (2020). **Ioannis Karabagias**, Vassilios Karabagias, Anastasia Badeka. European Food Research and Technology, 246, 2451-2459.
61. New insights on the typification of Hellenic monofloral honeys using selected physico-chemical and bio-chemical indicators coupled with z-score analysis and chemometric models (2020). **Ioannis Karabagias**, Vassilios Karabagias, Chara Papastephanou, Anastasia Badeka. European Food Research and Technology, 247, 169-182.
62. Advances of spectrometric techniques in food analysis and food authentication implemented with chemometrics (2020). **Ioannis Karabagias**. Foods, 9(11), 1550.
63. ¹³C NMR dataset qualitative analysis of Grecian wines. Alberto Mannu, Ioannis K. Karabagias, Salvatore Baldino, Cristina Prandi, Vassilios Karabagias, Anastasia Badeka (2020). Data, 5(3), 78.
64. Volatilome of white wines as indicator of authenticity and adulteration control using statistical analysis (2021). **Ioannis Karabagias**, Vassilios Karabagias, Anastasia Badeka. Australian Journal of Grape and Wine Research, 27(3), 269-279.
65. Physicochemical parameters and volatile compounds of herbal teas as indicators of products' brand name using chemometrics (2021). **Ioannis Karabagias**, Anastasia Badeka. European Food Research and Technology, 247, 961–974.
66. Development and characterization of a nutritionally rich spray-dried honey powder (2021). Yogita Suhag, Gulzar Ahmad Nayik, **Ioannis K. Karabagias**, Vikas Nanda. Foods, 10 (1), 162.
67. Aroma identification of Greek bee pollen using HS-SPME/GC–MS (2021). **Karabagias, I.K.**, Karabagias, V.K., Karabournioti, S., Badeka A.V. European Food Research and Technology, 247, 1781-1789.
68. Effect of Frying and Roasting Processes on the Oxidative Stability of Sunflower Seeds (*Helianthus annuus*) under Normal and Accelerated Storage Conditions (2021). Valdés García, A., Beltrán Sanahuja, A., **Karabagias, I.K.**, Badeka, A., Kontominas, M.G., Garrigós, M.C. Foods, 10, 944.
69. Optimization and development of ready to eat chocolate coated roasted flaked rice as instant breakfast food (2021). Shiv Kumar, Poonam Baniwal, Gulzar Ahmad Nayik, Khalid Ali Khan, Hamed A Ghramh, Harish Kumar, Kamlesh Prasad, **Ioannis Konstantinos Karabagias**. Foods, 10(7), 1658.
70. Consolidated bioprocessing of starch based on a bilayer cell factory without genetic modification of yeast (2021). A. Drosos, K. Boura, A. Dima, **I. K. Karabagias**, Poonam S. Nigam, M. Kanellaki, A. A. Koutinas. Environmental Technology & Innovation, 24, 101844.

71. Nutritional Profile and Potential Health Benefits of Super Foods: A Review (2021). Yash D Jagdale, Saurabh V Mahale, Beenish Zohra, Gulzar Ahmad Nayik, Aamir Hussain Dar, Khalid Ali Khan, Gholamreza Abdi, **Ioannis Konstantinos Karabagias**. Sustainability, 13(16), 9240.
72. *In vitro* antibacterial activity of gelatin-nanochitosan films incorporated with *Zataria multiflora* Boiss essential oil and its influence on microbial, chemical, and sensorial properties of chicken breast meat during refrigerated storage (2021). Iman Hematizad, Ali Khanjari, Afshin Akhondzadeh Bast **Ioannis K. Karabagias**, Negin Noori, Freshteh Ghadami, Fatemeh Gholami, Reza Teimourifard. Food Packaging and Shelf Life, 30, 100751.
73. Geographical origin discrimination of “ Ntopia ” olive oil cultivar from Ionian Islands using volatile compounds analysis and computational statistics (2021). Effimia Eriotou, **Ioannis K. Karabagias**, Sofia Maina, Dionysios Koulougliotis, Nikolaos Kopsahelis. European Food Research and Technology, 247, 3083-3098.
74. Development of antibacterial biocomposites based on poly (lactic acid) with spice essential oil (*Pimpinella anisum*) for food applications (2021). Negin Noori, Ali Khanjari, Mohammadreza Rezaeigolestani, **Ioannis Konstantinos Karabagias**, Sahar Mokhtari. Polymers, 13(21), 3791.
75. Antioxidant properties of bee products derived from medicinal plants as beekeeping sources (2021). Alessandra Durazzo, Massimo Lucarini, Manuela Plutino, Giuseppe Pignatti, **Ioannis K. Karabagias**, Erika Martinelli, Eliana B. Souto, Antonello Santini, Luigi Lucini. Agriculture, 11(11), 1136.
76. Headspace volatile compounds fluctuations in honeydew honey during storage at in-house conditions (2022). **Ioannis K. Karabagias**. European Food Research and Technology, 248, 715-726.
77. A targeted chemometric evaluation of the volatile compounds of *Quercus ilex* honey in relation to its provenance (2022). **Ioannis K. Karabagias**, Vassilios K. Karabagias, Gulzar Ahmad Nayik, Ilias Gatzias, Anastasia V. Badeka. LWT-Food Science & Technology, 154, 112588.
78. Consolidated bioprocessing of lactose into lactic acid and ethanol using non-engineered cell factories (2022). Vassilios Panagopoulos, Konstantina Boura, Agapi Dima, **Ioannis K. Karabagias**, Loulouda Bosnea, Poonam S. Nigam, Maria Kanellaki, Athanasios A. Koutinas. Bioresource Technology, 345, 126464.
79. Fungicides in Europe during the 21st century: a comparative assessment using agri-environmental indices of EU27 (2022). Vassilios Triantafyllidis, Chariklia Kosma, **Ioannis K. Karabagias**, Anastasios Zotos, Antonios Pittaras, George Kehayias. Water, Air, & Soil Pollution, 233, 52.

80. The honey bee *Apis mellifera*: an insect at the interface between human and ecosystem health (2022). Giulia Papa, Roberto Maier, Alessandra Durazzo, Massimo Lucarini, **Ioannis K. Karabagias**, Manuela Plutino, Elisa Bianchetto, Rita Aromolo, Giuseppe Pignatti, Andrea Ambrogio, Marco Pellecchia, Ilaria Negri. *Biology*, 11(2), 233.
81. HS-SPME/GC-MS metabolomic analysis for the identification of exogenous volatile metabolites of monofloral honey and quality control suggestions (2022). **Ioannis K. Karabagias**. *European Food Research and Technology*, 248, 1815-1821.
82. Use of Fe (II) and H₂O₂ along with Heating for the Estimation of the Browning Susceptibility of White Wine (2022). Sofia Voltea, **Ioannis K. Karabagias**, Ioannis G. Roussis. *Applied Sciences*, 12(9), 4422.
83. Effect of Antimicrobial and Antioxidant rich Pomegranate Peel Based Edible Coatings on Quality and Functional Properties of Chicken Nuggets (2022). Sadaf Bashir, Muhammad Sajid Arshad , Waseem Khalid, Gulzar Ahmad Nayik, Sami Al Obaid, Mohammad Javed Ansari, Andres Moreno, **Ioannis K. Karabagias**. *Molecules*, 27(14), 4500.
84. Effect of cellulose-chitosan hybrid-based encapsulation on the viability and stability of probiotics under simulated gastric transit and in kefir (2022). Muhammad Afzaal, Farhan Saeed, Huda Ateeq, Yasir Abbas Shah, Muzamal Hussain, Ahsan Javed, Ali Ikram, Muhammad Ahtisham Raza, Gulzar Ahmad Nayik, Saleh Alfarraj, Mohammad Javed Ansari, **Ioannis K Karabagias**. *Biomimetics*, 7(3) 109.
85. Beneficial effects of *Pistacia terebinthus* resin on wine making (2022). Michalis Kallis, Konstantina Boura, **Ioannis K. Karabagias**, Maria Kanellaki, Athanasios A Koutinas. *Applied Sciences*, 12(18), 9097.
86. Characterization and differentiation of fresh orange juice variety based on conventional physicochemical parameters, flavonoids, and volatile compounds using chemometrics (2022). Maria Vavoura, **Ioannis K. Karabagias**, Ioanna Kosma, Anastasia Badeka, Michael Kontominas. *Molecules*, 27(19), 6166.
87. Effect of *Stevia rebaudiana* aqueous extract and microencapsulation on the survivability of *Bifidobacterium bifidum* Bb-12 and *Lactobacillus acidophilus* La-5 in functional ice cream (2022). Sayed Attaul Haq Banuree, Negin Noori, Hassan Gandomi, Ali Khanjari, **Ioannis K. Karabagias**, Azita Faraki, Fereshteh Ghadami, Asghar Azizian, Sayed Ziaulhaq Banuree. *International Journal of Food Science and Technology*, 57(12), 7615-7621.
88. Giannakas, Aris E., Constantinos E. Salmas, Dimitrios Moschovas, Vassilios K. Karabagias, **Ioannis K. Karabagias**, Maria Baikousi, Stavros Georgopoulos, Areti Leontiou, Katerina Katerinopoulou, Nikolaos E. Zafeiropoulos, and et al. (2023). Development, Characterization, and Evaluation as Food Active Packaging of Low-Density-Polyethylene-

- Based Films Incorporated with Rich in Thymol Halloysite Nanohybrid for Fresh “Scaloppini” Type Pork Meat Fillets Preservation. *Polymers* 15(2), 282.
89. Aneela Shamshad, Iahtisham-Ul-Haq, Masood Sadiq Butt, Gulzar Ahmad Nayik, Sami Al Obaid, Mohammad Javed Ansari, **Ioannis Konstantinos Karabagias**, Nazmul Sarwar, Seema Ramniwas (2023). Effect of storage on physicochemical attributes of ice cream enriched with microencapsulated anthocyanins from black carrot. *Food Science & Nutrition*, 11(7), 3976-3988.
 90. Noshad, M., Behbahani, B.A. & **Karabagias, I.K.**(2023). Volatilomic with chemometrics: a toward authentication approach for food authenticity control. *European Food Research and Technology*, 249, 2215-2226.
 91. Vassilios Triantafyllidis, Antonios Mavroeidis, Chariklia Kosma, **Ioannis Konstantinos Karabagias**, Anastasios Zotos, George Kehayias, Dimitrios Beslemes, Ioannis Roussis, Dimitrios Bilalis, Garyfalia Economou & Ioanna Kakabouki (2023). *Water, Air, & Soil Pollution*, 234,94.
 92. **Karabagias, I.K.**, Nayik, G.A. (2023). Machine Learning Algorithms Applied to Semi-Quantitative Data of the Volatilome of Citrus and Other Nectar Honeys with the Use of HS-SPME/GC–MS Analysis, Lead to a New Index of Geographical Origin Authentication. *Foods*, 12(3), 509.
 93. Salmas CE, Giannakas AE, Karabagias VK, Moschovas D, **Karabagias IK**, Gioti C, Georgopoulos S, Leontiou A, Kehayias G, Avgeropoulos A, Proestos C. (2023). Development and Evaluation of a Novel-Thymol@Natural-Zeolite/Low-Density-Polyethylene Active Packaging Film: Applications for Pork Fillets Preservation. *Antioxidants*, 12(2), 523.
 94. Sykalia, Dionysia, Yvonne Chrisostomidou, and **Ioannis K. Karabagias** (2023). An Exploratory Research Regarding Greek Consumers’ Behavior on Wine and Wineries’ Character. *Beverages*, 9(2), 43.
 95. Panou, Andreas, and **Ioannis Konstantinos Karabagias** (2023). Biodegradable Packaging Materials for Foods Preservation: Sources, Advantages, Limitations, and Future Perspectives. *Coatings* 13(7), 1176.
 96. Ammara Tukassar, Rizwan Shukat, Rizwan Shukat, Iahtisham Ul Haq,....., **Ioannis Karabagias**, Nazmul Sarwar (2023). Compositional profiling and sensory analysis of cauliflower by-products (CBP)-enriched muffins. *Food Science & Nutrition*, 11(10), 6020-6031.
 97. Giannakas AE, Karabagias VK, Moschovas D, Leontiou A, **Karabagias IK**, Georgopoulos S, Karydis-Messinis A, Zaharioudakis K, Andritsos N, Kehayias G, et al. (2023). Thymol@activated Carbon Nanohybrid for Low-Density Polyethylene-Based Active Packaging Films for Pork Fillets’ Shelf-Life Extension. *Foods*, 12(13), 2590.
 98. Dimitrios G. Lazaridis, Vassilios K. Karabagias, **Ioannis K. Karabagias**, Nikolaos D. Andritsos, Aris E. Giannakas (2024). Physicochemical and phytochemical characterization

- of green coffee, cinnamon clove, and nutmeg EEGO, and aroma evaluation of the raw powders. *European Food Research and Technology*, 250, 83-96.
99. **Ioannis K. Karabagias** (2024). Food authentication and adulteration control based on metrics data of foods and chemometrics. *European Food Research and Technology*, 250, 1269–1283.
 100. Andreas Panou, **Ioannis K. Karabagias** (2024). Migration and safety aspects of plastic food packaging materials: Need for reconsideration? *Coatings*, 14(2), 168.
 101. Eirini Intzirtzi, Vassilios K. Karabagias, Dimitrios G. Lazaridis, **Ioannis K. Karabagias**, Aris E. Giannakas (2024). Characterization of the physicochemical, phytochemical, and microbiological properties of steam cooked beetroots during refrigerated storage. *European Food Research and Technology*, 250, 1733-1743.
 102. Kopsahelis, N., **Karabagias, I.K.**, Papapostolou, H. et al. (2024). Cultivar authentication of olive oil from Ionian islands using volatile compounds and chemometric analyses. *Journal of Food Measurement & Characterization*, 18, 4402–4416.
 103. Vasilis Panagopoulos, **Ioannis K. Karabagias**, Agapi Dima, Konstantina Boura, Maria Kanellaki, Loulouda Bosnea, Poonam Singh Nee Nigam, Athanasios Koutinas, (2024). Promotion of lactose isomerization to fructose and lactulose in one batch by immobilized enzymes on bacterial cellulose membranes. *Food Chemistry*, 457, 140127.
 104. Vardakas, A.; Giannakas, A.E.; Dimitrakouda, M.; Ndreka, A.; Chaintari, C.; Iordanidis, G.; Vaggeli, N.; Angelari, T.; Almpounioti, K.; Potsaki, P.; et al. (2024). Sustainable Development of an Innovative Spreadable Plant-Based Product of High Added Value through the Valorization of an Agro-Food By-Product. *Applied Sciences*, 14, 6525.
 105. Koutoulis, A.S.; Giannakas, A.E.; Lazaridis, D.G.; Kitsios, A.-P.; Karabagias, V.K.; Giannakas, A.E.; Ladavos, A.; **Karabagias, I.K.** (2024). Preparation and Characterization of PLA-Based Films Fabricated with Different Citrus Species Peel Powder. *Coatings*, 14, 1311.
 106. Lazaridis, D.G.; Kitsios, A.-P.; Koutoulis, A.S.; Malisova, O.; **Karabagias, I.K.** Fruits, Spices and Honey Phenolic Compounds: A Comprehensive Review on Their Origin, Methods of Extraction and Beneficial Health Properties. *Antioxidants* 2024, 13, 1335.
 107. Kokkosi, E.K., Mylonaki, E.N., Karabagias, V.K., Andritsos, N.D., Aris E. Giannakas, A.E., **Karabagias, I.K.** (2024). Shelf life extension of “Gyros” pork meat using plant extracts with antioxidant and antimicrobial activities. *Food Bioscience*, 62,105542.
 108. Lazaridis, D. G., Kokkosi, E. K., Mylonaki, E. N., Karabagias, V. K., Andritsos, N. D., & **Karabagias, I. K.** (2024). Rapid Classification of Unroasted Green Coffee Beans and Spices Based on the Tentative Determination of Volatile Compounds by Solid-Phase Dynamic Extraction (SPDE) and Gas Chromatography–Mass Spectrometry (GC–MS) with Supervised Learning. *Separations*, 11(12), 351.

109. Teimourifard, R., Khanjari, A., Basti, A. A., Misaghi, A., **Karabagias, I. K.**, Ghadami, F., Gholami, F., Noori, N., & Khorrami, R. (2024). Effect of PLA-Nanochitosan Films on the Shelf-Life Extension of Fresh Rainbow Trout Fillets. *Coatings*, 14(12), 1579.
110. Tzatzaraki, E.N., Lazaridis, D.G., Karabagias, V.K., Malisova, O., Triantafyllidis, V., **Karabagias, I.K.** (2025). Microbiological, physicochemical, and biochemical profile of quickly-frozen pomegranate juice of sweet and sour cultivars during refrigerated storage. *Food and Humanity*, 4, 100509.
111. Lazaridis, D. G., Andritsos, N. D., Giannakas, A. E., & **Karabagias, I. K.** (2025). Development and Valuation of Novel PLA-Based Biodegradable Packaging Materials Complemented with Food Waste of Plant and Animal Origin for Shelf-Life Extension of Selected Foods: Trends and Challenges. *Sustainability*, 17(2), 720.
112. Koraqi, H., Wawrzyniak, J., Aydar, A.Y., Pandiselvam, R., Khalide, W., Petkoska, A.T., **Karabagias, I.K.**, Ramniwas, S., Rustagi, S. (2025). Application of multivariate analysis and Kohonen Neural Network to discriminate bioactive components and chemical composition of kosovan honey. *Food Control*, 172, 111072.
113. Kitsios, A.-P.M., Lazaridis, D.G., Koutoulis, A.S., Karabagias, V.K., Andritsos, N.D., **Karabagias, I.K.** (2025). Geographical origin estimation of miniaturized samples of “Nova” mandarin juice based on multiple physicochemical and biochemical parameters conjointly with bootstrapping. *European Food Research and Technology*, <https://doi.org/10.1007/s00217-025-04684-3>.
114. Panou, A., & **Karabagias, I. K.** (2025). Composition, Properties, and Beneficial Effects of Functional Beverages on Human Health. *Beverages*, 11(2), 40.
115. Panou, A. A., & **Karabagias, I. K.** (2025). Olive Leaf Extracts as a Medicinal Beverage: Origin, Physico-Chemical Properties, and Bio-Functionality. *Beverages*, 11(3), 66.
116. Panou, A., Lazaridis, D. G., & **Karabagias, I. K.** (2025). Application of Smart Packaging on the Preservation of Different Types of Perishable Fruits. *Foods*, 14(11), 1878.
117. Lazaridis, D.G., Giannoulis, S.D., Simoni, M., Karabagias, V.K., Andritsos, N.D., Triantafyllidis, V., & **Karabagias, I.K.** (2025). Physicochemical and Phytochemical Determinations of Greek “Kollitsida” (*Arctium lappa* L.) from Different Regions and Evaluation of Its Antimicrobial Activity. *Separations*, 12(6), 151.
118. Dalla, E., Mazarakioti, E.C., Karabagias, V.K., Karabournioti, S., Katerinopoulou K., Zotos, A., Patakas, A., Ladavos, A., & **Karabagias, I.K.** (2025). Quality characterization and botanical origin delineation of Greek honeydew and nectar honey based on poly-parametric determinations and chemoinformatics. *Food Control* (In Press).

Statistics of the published studies

Corresponding author: 82/118 (69,49%),

1st author: 47/118 (39,83%),

2nd author: 30/118 (25,42%).

Citations:

i) Scopus: Total: 3328; Self-citations excluded: 3079.

H-index =29-31

ii) ResearchGate: 3945.

H-index =33

iii) Google Scholar: 4633, H-index=36, i10-index=91 (i10-index: the number of publications that have at least 10 citations in the last 5 years).

(B) Other Publications in International Journals without an impact factor yet

- 1) Monitoring major sugars in Greek commercial fir honey and their role in geographical differentiation, using chemometrics. **Ioannis Konstantinos Karabagias** (2016). Global Journal of Medical Research, 16(2), 12-20.
- 2) Characterization and Geographical Classification of Greek Fir Honeys Based on Physicochemical Parameters, Colour Attributes, and Volatile Compounds Using Chemometrics. **Ioannis K. Karabagias**, Evangelia Z. Halatsi, Stavros Kontakos, Michael G. Kontominas. (2017). IOSR Journal of Agriculture and Veterinary Science, 10(1), 16-22.
- 3) The impact of geographical origin on specific properties of pine honey. **Karabagias IK**, Nikolaou C, Gatzias I. (2017). Annals of Advances in Chemistry, 1, 023-031.
- 4) Pollen characteristics of Egyptian clover honey. Karabournioti, S., **Karabagias, I.K.** (2017). Journal of Botanical Sciences-Research and Reviews, 6(3), 32-34.
- 5) Characterization of commercial honeys produced in Australia, Malaysia, New Zealand and Thailand, based on physicochemical, colour, volatile and antioxidant activity parameters. **Karabagias, I.K.** (2017). IOSR Journal of Agriculture and Veterinary Science, 10(8), 81-91.
- 6) Volatile profile, pigment content, and *in vitro* radical scavenging activity of flower, thyme, and fir honeys produced in Hellas. **Karabagias, I.K.**, Dimitriou, E., Halatsi, E., Nikolaou, C. (2017). Journal of Food Chemistry & Nanotechnology, 3(3), 98-104.
- 7) Lead contamination in honey: A hot issue. **Karabagias, I.K.** (2017). International Journal of Nutrition and Health Sciences 1(5), 01-02.
- 8) A preliminary study on adulteration control of Greek monofloral honeys using isotope ratio mass spectrometry. **Karabagias I.K.**, Casiello G., Longobardi F. (2017). ChemXpress, 10(3), 01-09.
- 9) Arachis: Nutritional Aspects and Future Perspectives. **Karabagias, I.K.** (2017). EC Nutrition, 11(3), 78-80.
- 10) Tracing the *in vitro* antioxidant activity of some rare honeys produced in the Hellenic Zone. **Karabagias, I.K.**, Nikolaou, C., Dimitriou, E., Gatzias, I. (2017). SM Journal of Nutrition and Metabolism, 3(2), 1022.
- 11) Volatile Compounds of Freshly Prepared Lemon Juice from the Region of Kalamata. **Karabagias, I.K.** (2017). SM Analytical and Bioanalytical Techniques, 2(2), 1013.

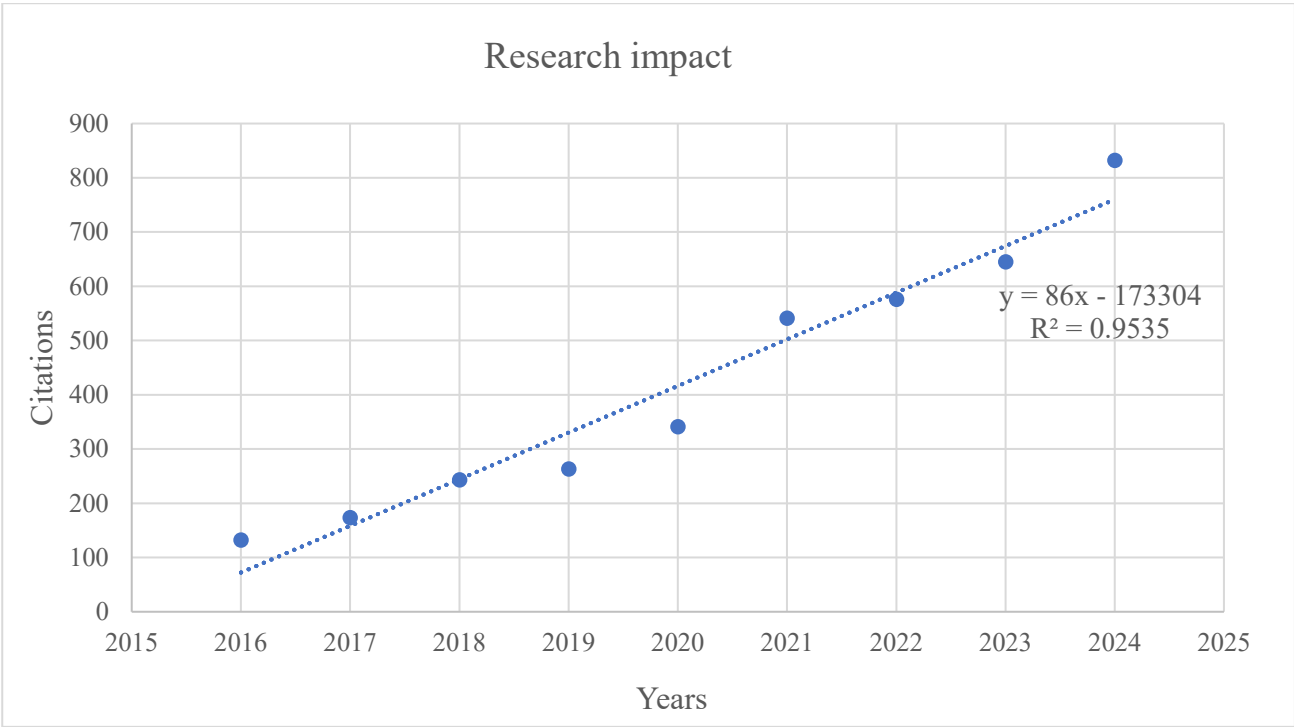
- 12) Honey Eating Habits in Greece: From Ancient Times to Present. **Karabagias I.K.**, Karabagias V.K., Halatsi E.Z. (2017). EC Nutrition SI.01,13-14.
- 13) Donkey Milk Exploitation: Health Benefits, Potential Applications and Prospective Invigoration of the Hellenic Economy (2017). **Karabagias I.K.**, Halatsi E.Z. Agricultural Research & Technology: Open Access Journal, 12(5): 555863.
- 14) Pasteli: A Nutritious Home-Made Sweet. **Ioannis K Karabagias** (2018). *Acta Scientific Nutritional Health* 2.2: 01-02.
- 15) Deep inside polyphenols of Hellenic thyme honey. Nousias, P., **Karabagias, I.K.**, Riganakos, K.A. (2018). Austin Journal of Nutrition and Food Sciences, 6(1), 1098.
- 16) A Targeted Metabolomic Procedure for the Identification of Isophorone Related Compounds in Honey **Ioannis K. Karabagias** (2018). Journal of Plant Biochemistry & Physiology 6: 207.
- 17) The Potential of Mixed Honey Types on the Basis of their *In Vitro* Antioxidant Activity: A Challenge for *In Vivo* Clinical Studies. **Ioannis K. Karabagias** (2018). *Acta Scientific Nutritional Health* 2.6.
- 18) Investigation of Yeast and Mould Growth Rate in Chopped Lamb Meat Packaged Under Different Systems during Refrigerated Storage. **Ioannis K. Karabagias** (2018). *Acta Scientific Nutritional Health* 2.8: 47-50.

Corresponding author: 18/18 (100%)

1st name: 16/18 (88.89%)

2nd name: 2/18 (11.11%)

Impact of Research



Book Chapter(s) and Books

-Chapter 2. Effect of light on vitamin loss and shelf life of pasteurized milk packages in PET bottles. Michael G. Kontominas, Anastasia V. Badeka, Nikolaos Pournis, and **Ioannis Karabagias**. (2012). Food Analysis and Preservation, Edited by Michael G. Kontominas, CRC Press, Taylor and Francis Group.

-Chapter 29. Potential Use of Prickly Pear Juice Prepared from Shelf-Grown Cultivars as an Authentic and Nutritional Fruit Supplement. Vassilios K. Karabagias, Ioannis K. Karabagias, Anastasia V. Badeka (2021) “*Opuntia* spp.: Chemistry, Bioactivity and Industrial Applications”, Edited by Mohamed Fawzy Ramadan Tamer E. Moussa Ayoub Sascha Rohn, Springer.

-Chapter 14. “Future innovations in alcohol-based beverage industry” Vassilios K. Karabagias, **Ioannis K. Karabagias**, Anastasia V. Badeka (2021) “Future Foods: Global Trends, Opportunities and Sustainability Challenges”, Edited by Rajeev Bhat, Elsevier Science & Technology.

-Chapter 13. “Potential Risks, Health Safety Features, and Public Acceptance of Nanoparticles in Packaging”. Monika Hans, Rosy Bansal, Gulzar Ahmad Nayik, **Ioannis K. Karabagias**, Mohammad Javed Ansari (2022) “Nanotechnology Interventions in Food Packaging and Shelf Life” Edited by Aamir Hussain Dar, Gulzar Ahmad Nayik, Boca Raton, CRC Press, Taylor & Francis Group.

- Chapter 12. Ioannis K. Karabagias (2024) “Analysis of heavy metals as contaminants in honey ‘’, In: *Advanced Techniques of Honey Analysis: Characterization, Authentication, and Adulteration*, Edited by Gulzar Ahmad Nayik, Jalal Uddin, Vikas Nanda, Elsevier.

-Books

-A mechanistic bio-functional action of Hellenic authentic honeys. **Ioannis K. Karabagias**, Chara Papastefanou, Vassilios K. Karabagias, Anastasia Badeka (2019). Edited by **Ioannis K. Karabagias** LAP Lambert Academic Publishing.

-Advances of Spectrometric Techniques in Food Analysis and Food Authentication Implemented with Chemometrics (2020). Edited by **Ioannis K. Karabagias**, Foods MDPI.

-In Search of Honey Authentication” (2021), Edited by **Ioannis K. Karabagias**, Cambridge Scholars Publishing.

-Physicochemical recognition and Chemometric characterization of different whiskey brands. Olga Dermitzaki, Vassilios K. Karabagias, Evelyn K. Kokkosi, Emmanouela N. Mylonaki, Dimitrios G. Lazaridis, Aris E. Giannakas, Vasileios Triantafyllidis, and Ioannis K. Karabagias (2025). Edited by **Ioannis K. Karabagias**. LAP Lambert Academic Publishing.

-Patents at National or International level

I hold one patent at a national level.

Reviewer of International Scientific Journals

- Trends in Food Science and Technology
- Food Chemistry
- Food Hydrocolloids
- Food Research International
- Food Control
- Journal of Food Engineering
- Journal of Hazardous Materials
- LWT-Food Science and Technology
- Journal of Agricultural and Food Chemistry
- Journal of Food Processing and Preservation
- Journal of Food and Drug Analysis
- European Food Research and Technology
- International Journal of Food Science and Technology
- Journal of Food Composition and Analysis
- Journal of Apicultural Research
- Journal of Food Safety
- Food Analytical Methods
- International Journal of Clinical Research and Trials
- Journal of Pharmaceutical Analysis
- Molecules
- Grana
- Microchemical Journal
- Journal of Separation Science
- Czech Journal of Food Sciences
- Journal of Food Quality
- International Journal of Clinical Nutrition & Dietetics
- EC Nutrition
- Environmental Geochemistry and Health
- Food Technology and Preservation Journal
- Journal of Food Nutrition & Health

- Journal of Food Science and Nutrition
- Saudi Pharmaceutical Journal
- Natural Product Communications
- Foods
- Journal of Cell Science and Mutations
- British Food Journal
- Coatings
- Journal of Taibah University Medical Sciences
- International Journal of Food Properties
- Italian Journal of Animal Science
- Journal of Cleaner Production
- Ain Shams Engineering Journal
- Journal of Food Science and Technology
- Journal of Food Measurement and Characterization
- International Journal of Applied Ceramic Technology
- Food Reviews International
- Journal of Food Science
- European Journal of Lipid Science and Technology
- Food Science & Nutrition
- Plant Physiology and Biochemistry
- Critical Reviews in Food Science and Nutrition
- Sustainability
- Pure and Applied Chemistry (IUPAC)
- Ozone: Science & Engineering
- Journal of Stored Products Research
- Journal of Mass Spectrometry
- Ore Geology Reviews
- Arabian Journal of Chemistry
- Journal of the Science of Food and Agriculture
- Biomolecules
- Sustainability
- Chemistry Journal
- Materials

- International Journal of Fruit Science
- Membranes
- Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy
- Heliyon
- Natural Product Research
- Grasas y Aceites: International Journal of Fats and Oil
- Journal of King Saud University
- Antibiotics
- SN Applied Sciences
- Bulletin of Environmental Contamination and Toxicology
- International Journal of Environmental Research and Public Health
- Archives of Industrial Hygiene and Toxicology
- Arabian Journal of Chemistry
- ACS Food Science & Technology
- Journal of Fungi
- Nanomaterials
- Food Science and Technology
- Resources
- Gels
- Polymers
- Nutrients
- Metabolites
- Animals
- Scientific Reports
- Analytica
- Advanced Science
- Journal of Chemometrics
- ChemComm
- Environmental Science and Pollution Research

Editorial Board Member at International Journals

Eurasian Journal of Analytical Chemistry (Scopus)

Sustainability (Scopus-Web of Science)

ChemXpress

SM Nutrition and Food Science

Novel Techniques in Nutrition & Food Science

International Journal of Clinical Nutrition & Dietetics

EC Nutrition

International Journal of Nutrition and Health Sciences

Acta Scientific Nutritional Health
 Future Research in Food Processing and Technology
 Acta Scientific Nutritional Health
 Current Investigations in Agriculture and Current Research
 International Journal of Food and Bioscience
 Horizon Journal of Agriculture & Food Science

Topic Board Member at International Journals

- ✓ Foods

Reviewer of International Research Projects

- Funding scheme SONATA, “Functional and sensorial properties of polish-originated honeys and their alcoholic fermented beverages in aspects of their antioxidant potential, phytochemicals content and Maillard reaction formation”. Executive Government Agency of National Science Center, Poland. **Budget: 547,950.00 (PLN).**
- PRELUDIUM 14, “Research into regulating the level of potentially harmful Maillard and caramelization reaction products in gluten-free bread”. Executive Government Agency of National Science Center, Poland. **Budget: 185,700.00 (PLN).**
- Register of Expert Peer Reviewers for Italian Scientific Evaluation. Member of REPRISE.

Reviewer of International Conferences

International Conference on Materials Chemistry and Environmental Protection (MEEP2018).

Submission of Research Proposals

- ✓ Proposal number KYPE 7734/B49 Elaboration of plans for Research & Technological Development Innovation projects "(AgroETAK) (Action AgroETAK) (2014).ELGO-DIMITRA
- ✓ Supporting researchers with an emphasis on young researchers, code number EDBM34 (2017) (<http://www.edulll.gr>). Ministry of Education and Religions, Special Management Service.
- ✓ 1st Call for Proposals for ELIDEK (Hellenic Foundation for Research and Innovation) Research Projects to Support Post Doctoral Researchers (2017)
- ✓ 2nd Call for Proposals for ELIDEK Research Projects to Support Post Doctoral Researchers (2018)
- ✓ Natural Environment and Innovative Actions of the Green Fund (Ministry of Environment & Energy) (2022).
- ✓ PRIMA, Partnership for Research and Innovation in the Mediterranean Area (2022).
- ✓ Funding for Young Researchers" of the Announcement "Funding of Basic Research (Horizontal support of all Sciences), National Recovery and Resilience Plan (Greece 2.0)-ELIDEK (2022).

- ✓ 3rd Call for Proposals for ELIDEK Research Projects to Support Faculty members/Researchers (2023)
- ✓ Smart Specialization Strategy (RIS3) (2025)
- ✓ Interreg Next-Med for the Mediterranean Basin Countries (2025).

Funded Proposals

- ✓ 3rd Call for Proposals for ELIDEK Research Projects to Support Faculty members/Researchers. Budget: ~ 300000 Euro (2025)

Invited Editor/ Co-Editor in Scientific Journals

Foods, Thematic Issue: « Advances of Spectrometric Techniques in Food Analysis and Food Authentication Implemented with Chemometrics »

Journal of Food Quality, Thematic Issue: « Implementation of Multivariate Analysis (Chemometrics) for Quality Control and Authentication of Foods » Lead Editor: Professor Yi Chen, State Key Laboratory of Food Science and Technology Nanchang University, Nanchang, Jiangxi, 330047, China.

Awards and Acknowledgments

1992 and 1993. PALSO Certificates in English.

1994. Certificate of Excellence, 6th Gymnasium of Kalamata, Messinia, Peloponnese, Greece.

1997-1998. State Scholarship Foundation/IKY award, for the best position of candidates, in the Engineering Department of Technological Institution in Larissa, Thessaly, Greece, 1998.

2014. Presentation of my PhD thesis, at the Chemistry Department, American University in Cairo, by Visiting Professor M.G. Kontominas during the Graduate Seminar on November 30 2014.

2014. Proposal by LAP Lambert Academic Publishing (LAP LAMBERT Academic Publishing is a trademark of: OmniScriptum GmbH & Co. KG) to write my PhD thesis in an academic book.

2015. Proposal by Nova Science Publishers Inc. to edit a book entitled: “Honey: Geographical/Floral Origins, Bioactive Properties and Health Benefits”.

2015. Invited speaker at the conference: "Bee products", Arta, 28 May, 2015.

2017. Proposal by Springer Science Publishers, NY, USA to edit a book entitled: “Honey Processing Project”.

2018. Foods-Travel Awards 2018.

2021. Listed in World's Top 2% Scientists by Stanford University (2021 Release).

2022. Listed in World's Top 2% Scientists by Stanford University (2022 Release).

2023. Listed in World's Top 2% Scientists by Stanford University (2023 Release).

Interests

Music, reading, cooking, gymnastics, computers, seminars-workshops, new knowledge.

Other Activities

2003. President of the graduate students' association of Chemistry Department, University of Ioannina.

01.05.2007-30.09.2007. Food Quality Control of Camp's Restaurant during the military service

2004 until today. Member of the Greek Chemists' Association.