

PATROKLOS VARELTZIS

Current Address

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CURRENT POSITION, 01/2018 - current

- Assistant professor at Chemical Engineering Dept, Laboratory of Food and Agricultural Industries Technology, Aristotle University of Thessaloniki
- Director of Laboratory of Food and Agricultural Industries Technology, September 2018-current
- Head of the Undergraduate Internship Program committee of the Chemical Engineering Department, 02/2020-current

EDUCATION/ACADEMIC CAREER

Degree of Chemical Engineering (Intergrated Msc, 5-year), June 2001
Aristotle University of Thessaloniki, Greece
GPA 7.5 out of 10

Master of Science in Food Science, September 2003
Food Science Department, University of Massachusetts at Amherst, USA

Doctorate of Philosophy, Food Science, March 2006
Food Science Department, University of Massachusetts at Amherst, USA
Dissertation: Oxidation of cod microsomal lipids *in situ* and *in vitro* as affected by processing parameters
Awarded Research Assistantship

Post-doc at Chalmers University of technology, Dept of Biology and Biological Engineering, Food and Nutrition Science , Gothenburg, Sweden, October 2006-September 2008
Research assistant in the Dept of Biology and Biological Engineering, Food and Nutrition Science

Lecturer (407/80) at University of Thessaly, Veterinary School and School of Agriculture, September 2009- February 2011
Meat quality and technology
Food safety/HACCP

Lecturer at ATEI Thessalonikis, Food Technology and Nutrition Dept., October 2009-July 2013
14hours/week
Food Processing and Biotechnology

Meat quality and technology
Fish quality and technology

**ATEI Thessalonikis, Department of Fisheries & Aquaculture Technology
September 2009-September 2011**

HPLC method development for amino acid determination at the laboratory of analytical chemistry under the supervision of prof. Pantelis Rigas

ATEI Thessalonikis, Food Technology and Nutrition Dept., October 2012-December 2013: research associate for European funded program «Innovative hybrid processes using nanoporous membranes for water treatment” Work code Number: 09ΣYN-42-440

Researcher at RigasLabs, March 2015-March 2018

- 1) Development of an analytical technique for the determination of the toxin TTX in fish using HPLC-PCD, as a research associate for a European funded program
- 2) Design of an efficient open-tubular reactor for post column derivitization

HONORS/AWARDS

- Ecotrophelia Pan-Hellenic Competition on novel foods: 5 consecutive participations (2019-2024) **with 6 awards** (2nd best x 2, best marketing plan x 2, best commercial plan x2)
- Awarded undergraduate research scholarship from Technological Park, E.K.E.T.A., Themi-Thessaloniki, Greece, February 2001- July 2001
- Headed a delegation of 12 students to represent Greece in the European Youth Parliament in Berlin, Germany, February 1994 and in Brussels, Switzerland, June 1994; Member of the E.Y.P. club in Greece, 1992-1995
- Headed a delegation of 11 students to represent Greece in the Harvard Model United Nations in Boston, USA, December 1994

WORK EXPERIENCE

ZANAE S.A., Sindos-Thessaloniki, July 1999 –September 1999(summer)

Department of waste water treatment

Applied chemical analysis techniques to samples to test the proper operation of the treatment process

Performed inspections to process equipment

November 2011- December 2014: Work as part time consultant/process manager to food industries

Karahasan Sausage and Deli Production SA, Xanthi, Greece

Ostria SA, Halastra, Thessaloniki, Greece

**RigasLabs SA, (authorized distributor of Thermofisher Scientific in Greece),
April 2013-January 2018**

- Technical and Scientific support for customers in the fields of liquid and gas chromatography and mass spectroscopy
- **LC, LC-MS and ICP/ICP-MS** maintenance, service, analytical techniques and method development
- Acquired 8 certificates from trainings in Thermofisher Scientific headquartes in USA and Germany on the above fields

WORK SKILLS

- Strong experience in Food Technology, Chemistry and Analytical Chemistry
- Strong experience in developing analytical methods, operating and maintaining LC, LC-MS, ICP, ICP-MS and GC
- Experience in sample preparation and handling (operating and maintaining) a wide range of laboratory equipment
- Experience organizing and working in GMP and GLP environment
- Trained for **ISO 17025** by the Hellenic Accreditation System
- Trained **in health and safety at workplaces** issues by the Hellenic Institue of Health and safety of Workplaces
- Excellent organizational skills
- Diligent, methodical, practical and studious in my work

Research Interests

- Recovery and valorization of functional ingredients from food waste streams
- Designing and production of functional foods
- Food processing (spray drying, high-pressure processing)
- Extraction optimization
- Bioavailability of functional ingredinets and modelling the digestin process
- Effect of processing on texture and rheological properties of foodstuff

GRANDS/FUNDING

- 1. 3DPharma: 3D Printing of an Innovative Carrier for Active Substances for Personalized Oral Drug Administration Project Code: ΥΠ3ΤΑ-0560399 Under the Framework of the Project: "SUB1.1. Partnerships for Research Excellence – SEA" Date: December 2025**
- 2. Title UltraAntiLevander M16ΣYN-00110/ Production of levander extracts and incorporation into dairy products**, Source of funding: Central Macedonia Region, 16.1-16.2 Program of Regional Development,
- 3. EggWhiteBrain – ESPA 2014-2020, T2ΕΑΚ-00371, Start date: 12-5-2020, Principal Investigator**
- 4. NON-Antibiotic Cert M16ΣYN-00690/** Source of funding: Central Macedonia Region, 16.1-16.2 Program of Regional Development, Approved
- 5. Title EggWhite+ M16ΣYN-00807.** Source of funding: Central Macedonia Region, 16.1-16.2 Program of Regional Development, Approved: Development of an omega-3 enriched functional egg-white beverage.

- 6. EFSA: FRAMEWORK PARTNERSHIP AGREEMENT AGREEMENT NUMBER – GP/EFSA/NUTRI/2021/01- GA 10 TITLE: Support to EFSA in the Safety Assessment of Novel Foods and Nutrient Sources**

TEACHING EXPERIENCE

Aristotle University of Thessaloniki, February 2018-current

- Food Engineering: 5 hours/week (7th semester course)
- Mass and Energy Balances, 3 hours/week (2nd semester course)
- Quality, Safety and design of functional foods, 3hours/week(8th semester, elective)
- Co-teaching Capstone Design project (2hr/week, 9th and 10th semester)
- MSc course: Food Science and Engineering, as part of the second year MSc Program of the Chemical Engineering Department, 3 hours/week

University of Patras, February – July 2017, Pharmacology I, 1hour/week as a lecturer (407/80), Department of Medicine

University of Thessaly, Greece

- **September 2009-February 2011: Meat quality and technology, 4 hours/week as a lecturer (407/80) at the Veterinary School, Karditsa**

Alexandrian Technological Institute (TEI) Thessalonikis, Greece

- **Food Technology Department, October 2009-July 2013: 14 hours/week**
 - Food Processing and Biotechnology
 - Meat quality and technology
 - Fish quality and technology

Chalmers University of technology, Dept of Biology and Biological Engineering, Food and Nutrition Science , Gothenburg, Sweden, September 2007-December 2007

- 2 Lectures on Marine Biotechnology as part for the course offered to undergraduate students
- Teaching assistant, supervising one group of 6 students for their project on Transgenic Fish, as part of their requirement for the Marine biotechnology course

RESEARCH EXPERIENCE

Scientific supervisor for undergraduate students in Technological Institute of Thessaloniki, October 2009-July 2013

- Production of Ca from mussels shells
- Effect of porcine plasma protein, trehalose and bovine meat protein isolate on cook yield and texture of minced bovine meat
- Protein isolation from okra plant
- Protein isolation from sardines and its antioxidant properties

- Screening for the best anti-oxidative properties of press juices from different low-cost fishes
- Production of the greek traditional Tzatziki

Post-doctoral research, October 2006-October 2008, Chalmers University, Biological and Chemical Engineering, Food Science Department, Gothenburg, Sweden

- Production of a protein-rich paste from broken and damaged blue mussels applying a pH shifting technique (acid or alkaline solubilization)
- Physical and chemical properties of blue mussel proteins (gelling ability, foaming, emulsifying properties, solubility etc)
- Removal of Diarrhetic Shellfish Poisoning toxins (okadaic acid and DTX-1) from blue mussel meat
- Lipid extraction optimization using chloroform and methanol when applied to very lean materials

Post-doctoral research, March 2006-June 2006, Food Science Dept., University of Massachusetts at Amherst, MA, USA 2001-present

- Improving color and water holding capacity of raw/cooked beef muscle

Pre-doctoral fellow/PhD research, Food Science Dept., University of Massachusetts at Amherst, MA, USA 2001-2006

- Designed and conducted experiments for the inhibition of microsomal lipid oxidation during acid and/or alkali processing of fish
- Identified and proposed solutions for the possible main mechanism of the rapid hemoglobin-mediated lipid oxidation of fish muscle at low pH
- Novel use of citric acid and calcium chloride as potent anti-oxidants against muscle foods lipid oxidation; peroxide break down ability of citric acid
- Explored the mechanisms through which the soluble fraction of cod muscle might inhibit microsomal lipid oxidation
- Designed and conducted experiments on the possible effect of inert gases on hemoglobin's pro-oxidative activity

Undergraduate research

Technological Park, E.K.E.T.A., Themi-Thessaloniki February 2001-July 2001, Department of process control and dynamics

- Development of process dynamics and control software. Projects included the optimization of gas separation processes using zeolite membranes. A detailed mathematical model and an advanced optimization method for gas separation processes were achieved
- **Aristotle University of Thessaloniki, Chemical Engineering Dept., Greece, September 2000 - March 2001**
Completed undergraduate thesis, "Risk analysis of Chemical Plants". Research included the development of risk analysis methodology for securing and controlling the possible processing hazards during the operation of a chemical plant.

- **Aristotle University of Thessaloniki, Chemical Engineering Dept., Greece, March 2000 - March 2001**

Completed and headed one-year project: “Citric acid Plant Design”. I was responsible for the organization and supervision/guidance of a four-member team of students, who were given the project of designing a citric acid production plant. Objectives included market analysis, designing and optimizing processing lines and equipments, as well as risk and profit analysis.

PARTICIPATION IN SCIENTIFIC COMMITTEES AND OTHER RELATED ACTIVITIES

- **Member of the Reserve List for EFSA’s Scientific Committee and Scientific Panels, 2023-today**
- **Member of the Hellenic Atherosclerosis Society, 2023-today**
- **Member of the EMEDE, Society of Metabolism, Nutrition and Well-being, 2023-today**
- **Reviewer Record:** reviewing for Food Chemistry, Food Chemistry Advances, Journal of Food Engineering, Foods, Nutrients, Journal of Food Science and Technology, Sustainability, Journal of aquatic food processing, Molecules: 78 verified records on Publons (Web of Science) and Elsevier ReviewerHub.
- **Member of the organization committee of the 14th Panhellenic Congress of Chemical Engineering, May 29-31 2024, Thessaloniki, Greece**
- 100 hour seminar on job safety and regulations organized by the Greek Institute for safety at job places
- Chalmers University, Food Science Department, November 2006. Member of the elector committee for new PhD candidates
- Reviewer for the Journal of Agricultural and Food Chemistry (JAFC) since 2007.
- 37th WEFTA (West European Fish Technologists Association), 24-27 October 2007, Lisbon, Portugal. Chairman for the session “Innovation on processing and preservation” .
- Member of the following:
 - EuroFed Lipid Organization since 2007
 - American Oil Chemist Society (AOCS) since 2003
 - Institute of Food Technologists (IFT/NEIFT) since 2001

Selected PARTICIPATIONS IN NATIONAL AND INTERNATIONAL CONFERENCES (PUBLISHED IN THE CONFERENCE PROCEEDINGS)

1. 38th EFFoST International Conference 2023, Bruges, Belgium, November 2024

Poster: Synbiotics in the metabolic syndrome and obesity; the example of

Yarrowia Lipolytica

2. **38th EFFoST International Conference 2023, Bruges, Belgium, November 2024**
Poster: Matrix and pH effect on Vitamin D3 bioaccessibility and bioavailability
3. **61st EHPRG meeting, September 2024, Thessaloniki, Greece**
Oral presentation: Matrix effect on the effectiveness of High Hydrostatic Pressure treatment on antibiotic residues
4. **14th Panhellenic Congress of Chemical Engineering, May 2024, Thessaloniki, Greece**
Oral presentation: Symbiotic Foods: The Next Major Innovation in Food Science? The Example of Metabolic Syndrome and Obesity
5. **10th PanHellenic Congress of the Working Groups of Atherosclerosis Society, 2023, Athens**
Oral presentation: Synbiotic Foods and Metabolic Syndrome
6. **37th EFFoST International Conference 2023, Valencia Spain**
Poster: Effect of concentration, temperature and z-potential on the rheological properties and consistency of peach puree
7. **37th EFFoST International Conference 2023, Valencia Spain**
Poster: Effect of spray and freeze drying on antioxidant activity of distilled lavender and oregano waste
8. **7th Pan-Hellenic Congress on meat and its products, Thessaloniki, February 2023**
Oral: Production of a stable red pigment for application in meat products
9. **30th International Conference of FFC - 18th International Symposium of ASFFBC, Lemnos, September 2022**
Oral: Functional foods based on liquid egg white
10. **Pan-Hellenic Chemical Engineering Conference, Patras, June 2022**
poster: Bioaccessibility and oxidative stability of omega-3 fatty acids in supplements, sardines and enriched eggs studied using a static in vitro gastrointestinal model
11. **Pan-Hellenic Chemical Engineering Conference, Patras, June 2022**
Poster: *Listeria monocytogenes* growth under steady or fluctuating temperatures
12. **Pan-Hellenic Chemical Engineering Conference, Patras, June 2022**
Poster: Process optimization for cold brew coffee via pressure cycles
13. **Pan-Hellenic Chemical Engineering Conference, Patras, June 2022**

Oral: Effect of temperature and concentration on the rheological properties of fruit puree

14. Pan-Hellenic Chemical Engineering Conference, Patras, June 2022

Poster: Investigation of the reaction between chlorogenic acid and tryptophan

15. 11th European Conference pesticides, Ioannina, September 2022

Poster: Study of the effect of high hydrostatic pressure on the reduction of acaricides residues in spiked honey samples

16. ICFD 2022, Cork, Ireland, May 2022

Poster presentation: Bioaccessibility of omega-3s and vitamin D in supplements, naturally rich and fortified foods using a static in vitro gastrointestinal model

17. 9th hybrid Jordan International Conference on Chemical Engineering, 2021

Poster: Ultrasound effect on 5-CQA and tryptophan reaction: Assessment of the reaction kinetics and product's physicochemical characteristics

18. 5th European Conference on green and sustainable chemistry (virtual), 2021

Poster: Recovery and antioxidant potential of functional components from oregano essential oil industry wastes

19. FoodBiotech 2021, St Petersburg, Russia

Poster: Study of the bioaccessibility of omega-3 fatty acids throughout the human gastrointestinal tract

20. 12th National conference on Alzheimer's disease and 4th Mediterranean conference on neurodegenerative diseases, 2/2021

Oral presentation, Title: Functional egg-white based beverage enriched with B12 and folic acid

21. Macedonian Conference on the Environment, 2020

Poster presentation, Title: Properties of egg shells and recovery of functional ingredients

22. ISEKI Food Association – Food quality and texture in sustainable production and healthy consumption/ e-conference Bucharest, 2020(Poster presentation

Title: Growth of *Listeria monocytogenes* under constant and fluctuating temperatures

23. 6th Panhellenic Symposium with international participation “Green Chemistry and sustainable development”, October 2019, Athens

a) Recovery of functional ingredients from oregano distillation wastes \

- b) Recovery and characterization of functional ingredients from wine lees
- 24. 66th Scientific Conference with international participation "Food science, equipment and technology- 2019", October 2019, Plovdiv, Bulgaria**
- a) Production of instant coffee from cold brewed coffee; process characteristics and optimization – poster presentation
- b) Optimization of cold extraction of ground coffee beans – oral presentation
- 25. 6th Pan Hellenic Congress on Meat and its products, February, 2019, Thessaloniki, Greece**
- Incorporation of bioactive ingredients recovered from processing wastes into meat products
- 26. 3rd International Exergy, Life Cycle Assessment, and Sustainability Workshop & Symposium (ELCAS-3) , 07 — 09 July, 2013, NISYROS — GREECE**
- The use of a low energy hybrid membrane process for Water treatment V. K. Patroklos, E. Tsirekas, S. Stylianiou, A. I. Zouboulis and P. Samaras
- 27. The 7th International Conference "IMA 2011-Instrumental Methods of Analysis-Modern Trends and Applications" 18-22 Sept. 2011, Chania, Crete Greece**
- Oral presentation*
- Title: NBD-Cl as a new post-column reagent for HPLC analysis of amino and imino acids
- 28. 4th International Congress of Aqua-biology and fisheries, June 2011, Volos**
- Oral presentation*
- Title: Production of “surimi” from cod fillets (*Gadus morhua*) and blue mussels (*Mytilus edulis*) using two different techniques: the traditional and the acid/alkali solubilization method
- 29. 8th National Chemical Engineering Conference, May 2011, Thessaloniki**
- Oral Presentation
- Title: Effect of vacuum packaging on fresh sardines during cold storage
- 30. 11th ICEF Meeting, May 2011, Athens, Greece**
- Poster presentation*
- Title: Challenges and solutions to a novel muscle-food processing technology: acid and alkaline solubilization
- 31. 2nd National conference on meat and its products, September 2010, Athens, Greece**
- Oral presentation*
- Title: Improvement of the water holding capacity of cooked minced beef by the addition of various salts and protein solutions

32. WEFTA Annual meeting, September 2008, Firenze, Italy

Oral presentation

Title: Functional Properties of a Protein-rich Paste produced From Blue Mussels (*Mytilus edulis*) Using Acid or Alkaline Solubilization

33. EuroFed Lipid Conference, September 2007, Gothenburg, Sweden

Oral presentation

Title: Evaluation and optimization of lipid recovery from lean and fatty fish tissue using Response Surface Methodology

34. WEFTA Annual meeting, October 2007, Lisbon, Portugal

Oral presentation

Title: A multivariate approach and evaluation of lipid recovery from lean and fatty tissues using CHCl₃ and MeOH extraction

35. WEFTA Annual meeting, October 2007, Lisbon, Portugal

Oral presentation

Title: Production of protein isolate from blue mussel meat using a pH shifting method with or without the addition of citric acid and calcium chloride

36. 5th International Congress of Food Science, Thessaloniki, March 2007

Oral presentation

Title: Atlantic Cod Microsomal (*Gadus morhua*) Fraction: Effect of pH on its Physicochemical Properties and the Interaction with Hemoglobin

37. AOCS Annual Meeting May 2006, St. Louis, Missouri, USA

Oral presentation

Τίτλος: Atlantic Cod Microsomal Fraction: Structural Properties, Susceptibility to Lipid Oxidation and Hemoglobin Pro-oxidative Properties as Affected by pH

38. IFT (Institute of Food Technologists) Annual Meeting July 2005, New Orleans, Louisiana, USA

Oral presentation

Title: Effect of low pH and citric acid-calcium chloride on precipitation and oxidation stability of microsomal suspensions

39. IFT (Institute of Food Technologists) Annual Meeting July 2004, Las Vegas, Nevada, USA

Poster presentation

Title: Inhibition of lipid oxidation during processing of Atlantic cod (*Gadus morhua*) using citric acid and calcium chloride

PUBLICATIONS/PATENTS

1. Kyroglou, S.; Ritzoulis, C.; Theocharidou, A.; **Vareltzis, P.** Physicochemical Factors Affecting the Rheology and Stability of Peach Puree Dispersions. *ChemEngineering* **2024**, *8*, 119. <https://doi.org/10.3390/chemengineering8060119> (IF 2.8)
2. Nikolaos D. Sidirokastritis, **Patroklos Vareltzis**, Matrix effect on the Effectiveness of High Hydrostatic Pressure Treatment on Antibiotic Residues, *Journal of Food Protection*, Volume 87, Issue 6, **2024**, <https://doi.org/10.1016/j.jfp.2024.100278> (IF:2.0)
3. Pasidi, E.; **Vareltzis, P.** Vitamin D3 Bioaccessibility from Supplements and Foods—Gastric pH Effect Using a Static In Vitro Gastrointestinal Model. *Molecules* **2024**, *29*, 1153. <https://doi.org/10.3390/molecules29051153> (IF: 4.6)
4. **Vareltzis, P.**; Fotiou, D.; Papatheologou, V.; Kyroglou, S.; Tsachouridou, E.; Goula, A.M. Optimized Solid–Liquid Separation of Phenolics from Lavender Waste and Properties of the Dried Extracts. *Separations* **2024**, *11*, 67. <https://doi.org/10.3390/separations11030067> (IF: 2.6)
5. **Vareltzis, P.**; Karatsioli, P.; Kazakos, I.; Menelaou, A.-M.; Parmaxi, K.; Economou, V. Optimization of the Reaction between 5-O-Caffeoylquinic Acid (5-CQA) and Tryptophan—Isolation of the Product and Its Evaluation as a Food Dye. *Separations* **2024**, *11*, 60. <https://doi.org/10.3390/separations11020060> (IF: 2,6)
6. Maria Govari and **Patroklos Vareltzis**. Conjugated linoleic acid in meat, *J Hellenic Vet Med Soc*, **2024**, DOI: 10.12681/jhvms.35159 (IF: 0.4)
7. Nikolaos D. Sidirokastritis, Emmanouil Karazafeiris, Chrysoula Tananaki, **Patroklos Vareltzis**. High hydrostatic pressure effect on the concentration of selected pesticides residues in spiked honey samples, *Innovative Food Science & Emerging Technologies*, Volume 91, **2024**, <https://doi.org/10.1016/j.ifset.2023.103527>. (IF: 6.6)
8. Govari, M., **Vareltzis, P.**, Effect of argon-based modified atmosphere packaging storage on Manouri cheese, *International Dairy Journal*, **2023**, <https://doi.org/10.1016/j.idairyj.2023.105846>. (IF: 3.1)
9. Dimopoulou, M.; **Vareltzis, P.**; Floros, S.; Androutsos, O.; Bargiota, A.; Gortzi, O. Development of a Functional Acceptable Diabetic and Plant-Based Snack Bar Using Mushroom (*Coprinus comatus*) Powder. *Foods* **2023**, *12*, 2702. <https://doi.org/10.3390/foods12142702> (IF: 5.2)
10. **Vareltzis, P.**; Stergiou, A.; Kalinderi, K.; Chamilaki, M. Antioxidant Potential of Spray- and Freeze-Dried Extract from Oregano Processing Wastes, Using an Optimized Ultrasound-Assisted Method. *Foods* **2023**, *12*, 2628. <https://doi.org/10.3390/foods12132628> (IF: 5.2)
11. Papaliagkas, V.; Kalinderi, K.; **Vareltzis, P.**; Moraitou, D.; Papamitsou, T.; Chatzidimitriou, M. CSF Biomarkers in the Early Diagnosis of Mild Cognitive

- Impairment and Alzheimer's Disease. *Int. J. Mol. Sci.* **2023**, *24*, 8976. <https://doi.org/10.3390/ijms24108976> (IF: 5.6)
12. Kolonas, A.; **Vareltzis, P.**; Kiroglou, S.; Goutzourelas, N.; Stagos, D.; Trachana, V.; Tsadila, C.; Mossialos, D.; Mourtakos, S.; Gortzi, O. Antioxidant and Antibacterial Properties of a Functional Sports Beverage Formulation. *Int. J. Mol. Sci.* **2023**, *24*, 3558. <https://doi.org/10.3390/ijms24043558> (IF: 5.8)
 13. Kyroglou, S.; Laskari, R.; **Vareltzis, P.** Optimization of Sensory Properties of Cold Brew Coffee Produced by Reduced Pressure Cycles and Its Physicochemical Characteristics. *Molecules* **2022**, *27*, 2971. <https://doi.org/10.3390/molecules27092971> (impact factor 2022: 4.4)
 14. Michailidis, M.; Tata, D.A.; Moraitou, D.; Kavvadas, D.; Karachrysafi, S.; Papamitsou, T.; **Vareltzis, P.**; Papaliagkas, V. Antidiabetic Drugs in the Treatment of Alzheimer's Disease. *Int. J. Mol. Sci.* **2022**, *23*, 4641. <https://doi.org/10.3390/ijms23094641> (impact factor 2022: 5.9)
 15. Filippou, P.; Mitrouli, S. T.; **Vareltzis, P. (2022)** Sequential Membrane Filtration to Recover Polyphenols and Organic Acids from Red Wine Lees: The Antioxidant Properties of the Spray - Dried Concentrate. *Membranes* *12*, 353, <https://doi.org/10.3390/membranes12040353> (impact factor 2020: 4.1)
 16. Sidirokastritis, N.; Tsiantoulas, I.; Tananaki, C.; **Vareltzis, P. (2022)** The Effect of High Hydrostatic Pressure on Tetracycline Hydrochloride and Sulfathiazole Residues in Various Food Matrices - Comparison with Ultrasound and Heat Treatment. *Food Additives & Contaminants: Part A*. <https://doi.org/10.1080/19440049.2022.2036820> (impact factor 2020: 3.1)
 17. Floros, S., Toskas, A., Pasidi, E. and **Vareltzis, P. (2022)** Bioaccessibility and Oxidative Stability of Omega-3 fatty acids in supplements, sardines and enriched eggs studied using a static in vitro gastrointestinal model. *Molecules* *27*(2), 415, <https://doi.org/10.3390/molecules27020415> (impact factor 2022: 4.412)
 18. Pasidi, E., Papaliagkas, V. and **Vareltzis, P. (2021)** Factors affecting the mechanism and modelling of vitamin D absorption in designing fortified foods - A review. *Journal of Food & Nutrition Research* . 2021, Vol. 60 Issue 2, p93-110. 18p (Impact factor 2020: 1.33)
 19. Kyroglou, S., Thanasouli, K. and **Vareltzis, P. (2021)** Process characterization and optimization of cold brew coffee: effect of pressure, temperature, time and solvent volume on yield, caffeine and phenol content. *Journal of the Science of Food and Agriculture*. 101 (11), pp 4789-4798, <https://doi.org/10.1002/jsfa.11125> (impact factor 2021: 3.64)
 20. **Vareltzis, Patroklos et al. (2020)** Production of instant coffee from cold brewed coffee; process characteristics and optimization. *Food Science and Applied Biotechnology*, [S.l.], v. 3, n. 1, p. 39-46, ISSN 2603-3380. Available at: <<https://www.ijfsab.com/index.php/fsab/article/view/92>>. Date accessed: 28 apr. 2020. doi: <https://doi.org/10.30721/fsab2020.v3.i1.92>.

21. Poulheria Raizi, **Patroklos Vareltsis** & Dimitrios Petridis (2019): Processing and Digestion of Press Juices from Different Fish Muscles; Temperature and Lyophilization Effects on Their Anti-Oxidative Properties, *Journal of Aquatic Food Product Technology*, <https://doi.org/10.1080/10498850.2019.1604599> (Impact factor 2018- 0.68)
22. Tanis, D., **Vareltsis, P.**, Nikolaidis G., Minos, G., Kokkokiris, L., and Rigas, P. **2016**, Evaluation of helically coiled and knitted open tubular reactors for the efficient post column determination of Tetrodotoxin by HPLC, *Analytical Letters*, DOI: 10.1080/00032719.2016.1177068 (**Impact Factor: 1.1**)
23. **Vareltsis P.**, Athanasia M. Goula, **2015**. Approaches to minimise yoghurt syneresis in simulated tzatziki sauce preparation, *International Journal of Dairy Technology* 05/2015; DOI:10.1111/1471-0307.12238 (**Impact Factor: 0.912**)
24. **Vareltsis, P.**, Petridis, D., Petropoulou A., and Tsamitropoulou, F. , **2013**. Plackett-Burman Experimental Design for investigating the effect of porcine plasma protein, trehalose and bovine meat protein isolate on cook yield and texture of minced bovine meat. *Journal of Food Research*, vol.2, (3), 122-136. (**Impact Factor: 3.182**)
25. Petridis, D. Ritzoulis, C, Tzivanos, I., Vlazakis, E. Derlikis, E., **Vareltsis, P.** **2013**. Effect of fat volume fraction, sodium caseinate, and starch on the optimization of the sensory properties of frankfurter sausages. *Food Science & Nutrition* [Volume 1, Issue 1](#), pages 32–44.
26. **Vareltsis, P.**, Papakonstantinou E., Ntoumas, D. and Adamopoulos, K. **2012**. Process characteristics and functionality of sardine muscle proteins extracted by a pH-shift method. *Annals Food Sci Technol*, 13 (2).
27. Botsoglou, E., **Vareltsis, P.**, Giannouli and Govaris, A. **2012**. Effect of modified atmosphere packaging on Halvas Farsalon quality during refrigerated storage. *Ital. J. Food Sci.*, vol. 24, pp.1-9. (**impact factor: 0.444**)
28. **Vareltsis, P** and Undeland, I. **2012**. Protein Isolation from Blue Mussels (*Mytilus edulis*) Using an Acid and Alkaline Solubilization Technique –process characteristics and functionality of the isolates. *J Sci Food Agri*, DOI 10.1002/jsfa.5723 (**impact factor: 2.076**)
29. Athanasios G Stefanakis · Efstratios K Stavrakakis · Konstantinos G Adamopoulos · **Patroklos K Vareltsis** · Athanasia M Goula, **2011**, Effect of various proteins on characteristics and syneresis of tzatziki International Congress on Food and Engineering, Athens, May 2011
30. **Vareltsis, P.**, Adamopoulos. K and Hultin, H.O. **2011**. Interactions between Hemoglobin and Cod Muscle Constituents following Treatment at Extreme pH Values. *Journal of Food Science*, 76:C1003-C1009. (**impact factor 1.649**)

31. Vareltsis, P. and Undeland, I., 2008. Removal of lipids and the diarrhetic shellfish poisoning toxins (DSP) from blue mussels (*Mytilus edulis*) during acid and alkali solubilization, *J. Agric. Food Chem.* DOI: 10.1021/jf800224n (**impact factor: 2.562**)
32. Vareltsis, P. and Hultin, H.O., 2007. Effect of low pH on the Susceptibility of Isolated Cod (*Gadus morhua*) Microsomes to Lipid Oxidation, *J. Agric. Food Chem.*, 55, 9859-9867 (**impact factor: 2.562**)
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Patents

- Vareltsis, P, Papaliagkas V., Digkalis, P. **Patent No #1010315** Liquid egg white functional beverage
- Vareltsis, P., Kyroglou S., Patent No 1010642 Cold brew beverages manufacturing with optimized sensorial properties
- Vareltsis, P, Papaliagkas V., Digkalis, P. **Patent No # 1010576** Novel functional dessert based on pasteurized liquid egg white
- Kypreos K, Vareltsis P, Patent No. 20200100430 Rapidly dissolved oral films for the per os administration of active substances
- Hultin, H.O., Ke, S., Huang, Y., Imer, S. and Vareltsis, P. WO/2007/059262, USA Patent: "PROCESS FOR IMPROVING WATER HOLDING CAPACITY AND TENDERNESS IN COOKED PROTEIN FOOD PRODUCTS"

Book Chapters

- Vareltsis P.K., Sensory evaluation of fish and fish products **In** Sensory evaluation of products of animal origin, (ed. Georkakis S.A.) Kiriakidis and Brothers S.A., Thessaloniki, 2012

COMPUTER SKILLS

Advanced use of Microsoft Word, Excel, PowerPoint, Access, Visio (engineering design software), gPROMS (dynamic simulations software); proficient in GW-Basic, Pascal, Fortran.

LANGUAGE SKILLS

- fluent in English
- Mittelstufe in German