

EFTYCHIA KARAGEORGOU

Assistant Professor

Academic Field: Quality Management Systems

**Department of Food Science and Technology, School of Geotechnical Sciences,
International Hellenic University (IHU)**

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Academic Profile

Dr Eftychia Karageorgou is an Assistant Professor at the Department of Food Science and Technology of the International Hellenic University, with the academic field “Quality Management Systems”. She holds a degree in Chemistry from Aristotle University of Thessaloniki, a Master’s Degree in “Chemical Analysis – Quality Control” from the National and Kapodistrian University of Athens and Aristotle University of Thessaloniki, and a PhD from the Department of Chemistry of Aristotle University of Thessaloniki. She has also conducted postdoctoral research at the Laboratory of Analytical Chemistry of the Department of Chemistry of Aristotle University of Thessaloniki.

Her academic and professional profile combines analytical chemistry with quality, food safety and environmental management systems. She has experience in the development and validation of analytical methods, the implementation and auditing of international standards, and the certification of organizations and companies, with particular emphasis on the agri-food sector.

Her research activity also covers sustainability, circular economy, and the valorization of agri-food waste and by-products for the recovery of nutrients and the production of value-added products.

Main Scientific and Research Interests

- Quality and food safety management systems.
- Environmental management systems and sustainability.
- Auditing, certification and conformity assessment.
- Application of international ISO standards in the food industry.
- Analytical chemistry and development/validation of analytical methods.
- Chromatographic techniques for food analysis and control.
- Valorisation of agri-food waste and by-products.
- Recovery of nutrients and production of value-added products.
- Circular economy and sustainable processes in the agri-food sector.

Education and Academic Training

2006 – BSc in Chemistry

Department of Chemistry, Aristotle University of Thessaloniki.

Specialization: Chemical Analysis – Environment.

2008 – MSc in Chemical Analysis – Quality Control

Inter-University, Interdepartmental Postgraduate Programme, National and Kapodistrian University of Athens and Aristotle University of Thessaloniki.

2013 – PhD in Chemistry

Department of Chemistry, Aristotle University of Thessaloniki.

Research topic: Development of analytical methods for the determination of antibiotic residues in milk using sample preparation and chromatographic analysis techniques.

2014–2015 – Postdoctoral Research

Laboratory of Analytical Chemistry, Department of Chemistry, Aristotle University of Thessaloniki.

Research topic: Determination of sulfonamide residues in bovine milk by HPLC using innovative sorbent materials.

Selected Certifications and Training

- **ISO 9001:2015** – Auditor / Lead Auditor for Quality Management Systems, CQI–IRCA.
- **ISO 14001:2015** – Auditor / Lead Auditor for Environmental Management Systems, CQI–IRCA.
- **ISO 22000:2005** – Auditor / Lead Auditor for Food Safety Management Systems, CQI–IRCA.
- Training in analytical laboratory accreditation according to **ISO/IEC 17025**.
- Training in **ISO 22000:2018**, **FSSC 22000**, **ISO/TS 22003-1:2022**, **IFS Food Version 8**, and **ISO/TS 22002-100:2025**.
- **EFQM Certified Foundation Training**.
- Training in sustainability, quality, food safety, and regulatory compliance.

Scholarships and Distinctions

- PhD Scholarship under the “**Heraclitus II**” Programme.
- **Aristotle University of Thessaloniki Excellence Scholarship** for PhD Candidates, 2010.
- **Honourable Mention** within the Aristotle University of Thessaloniki Excellence Scholarship Programme for PhD Candidates, 2012.
- **Aristotle University of Thessaloniki Excellence Scholarship** for Postdoctoral Researchers, 2014.

Teaching and Academic Experience

Teaching Activity as Assistant Professor

Department of Food Science and Technology, International Hellenic University

Participation in the teaching of courses related to Quality Control and Quality Assurance, Quality and Food Safety Management Systems, as well as Environmental Management Systems.

MSc Programme “Quality Management and Production Organization Systems for the Food Industry”, International Hellenic University

Participation in the teaching of the courses “Quality Management Systems in the Food Industry” and “Environmental Management Systems”. In the first course, she teaches topics related to management system auditing in accordance with ISO 19011, while she has academic responsibility for the course “Environmental Management Systems”.

MSc Programme “Environmental Management and Environmental Education”, International Hellenic University

Participation in the teaching of the course “Technical Auditing Systems (ISO 14001)”, focusing on the implementation of environmental management systems and the examination of case studies.

Previous Teaching Experience

Aristotle University of Thessaloniki – Department of Chemistry

2019–2022: Teaching of laboratory exercises for the course “Quantitative Chemical Analysis”, as Lecturer under Presidential Decree 407/80.

2025–2026: Teaching of laboratory exercises for the same course as an appointed lecturer.

2026: Invited lecture in the course “Food Quality Management”.

Democritus University of Thrace – Department of Chemistry

2023–2024: Teaching of the course “Instrumental Analysis”, including both lectures and laboratory sessions.

International Hellenic University

2019–2020 – Department of Chemistry: Teaching of the course “Principles of Analytical Chemistry” as an Academic Fellow.

2017–2018 – Department of Food Technology: Teaching of laboratory exercises for the course “Water Technology and Quality Control”.

Professional Experience

She has extensive professional experience in management systems, certification and auditing, as well as in analytical chemistry, quality assurance and food control. Her professional activity includes management positions in a certification body, consultancy support to companies, research activity, and work in quality assurance and quality control environments.

NBIS I.K.E. – formerly LETRINA S.A., Certification Body

2016–2026 | Lead Auditor for Management Systems

2021–2026 | Director of the Northern Greece and Agri-Food Certification Office

Conducted management system audits according to ISO 22000, ISO 9001, ISO 14001 and ISO 22716 in companies and organisations operating in the agri-food sector, industry, services and tourism. Her experience includes more than 600 audit person-days, as well as auditor training and evaluation, technical reviews, certification recommendations, participation in accreditation assessments, and the development of private certification protocols.

ZTEK – Consulting Group

2016–2020 | Management Systems Consultant

Provided consultancy services for the development and implementation of quality, food safety, environmental, occupational health and safety, and laboratory management systems in accordance with ISO 9001, ISO 22000, ISO 14001, ISO 45001, ISO 22716 and ISO/IEC 17025, as well as IFS, FSSC and HACCP requirements.

Veterinary Research Institute of Thessaloniki, ELGO–DIMITRA

2015–2016 | Research Associate

Participated in a research project on the determination of antibiotic residues in milk, including the development and validation of HPLC–DAD methods, development of sample preparation protocols, analysis of real samples, and statistical evaluation of results.

PHARMATHEN S.A., R&D API Operations

2014–2015 | Quality Assurance Officer

Worked in the Quality Assurance Department, with responsibilities including documentation, implementation of ISO 9001 and ISO 14001 management systems, internal audits, and review of analytical method validation.

She also has professional experience in an accredited analytical laboratory and in a natural cosmetics production laboratory, with activities related to quality control, implementation of management systems, and support of production and laboratory operations.

Research Activity

The research activity of Eftychia G. Karageorgou focuses on analytical chemistry, food quality and safety, management systems, the sustainable valorisation of agri-food waste and by-products, and the circular economy.

Selected Research Projects

International Hellenic University – Department of Food Science and Technology

Participation in the project **“Enhancing Industrial Symbiosis in the Anaerobic Digestion Value Chain”**, focusing on the recovery of proteins and amino acids from microalgal biomass and the development of analytical methods for the characterisation of the resulting fractions.

University of Thessaly

Participation in a research project on the production of cow’s milk and dairy products naturally enriched with omega-3 fatty acids and antioxidants, focusing on the evaluation of milk quality characteristics through targeted and non-targeted analysis.

GREENSMES – Interreg IPA ADRION

Participation in the project **“Enhancing SMEs’ modernization and green innovation and transition towards successful sustainability by transnational collaborative practices and tools”**, contributing to organisational assessment and needs analysis for the development of green support services for businesses and spin-off companies.

Scientific Output and Bibliometric Indicators

Her scientific activity includes publications in international peer-reviewed journals, participation in international and national scientific conferences, authorship of a scientific book and chapters in international scientific books, as well as peer review of scientific manuscripts for international journals.

- **21 publications** in international peer-reviewed scientific journals.
- **1 scientific book**.
- **3 chapters** in international scientific books.
- Participation in international and national scientific conferences with oral and poster presentations.
- **h-index: 12 (Scopus)**.
- **626 citations in Scopus**.
- **899 citations in Google Scholar**.

Selected Publications

1. Karageorgou, E.; Samanidou, V.* “Youden Test Application in Robustness Assays During Method Validation.” *Journal of Chromatography A* **2014**, 1353, 131–139.
2. Karageorgou, E.; Manousi, N.; Samanidou, V.*; Kabir, A.; Furton, K.G. “Fabric Phase Sorptive Extraction for the Fast Isolation of Sulfonamide Residues from Raw Milk Followed by High-Performance Liquid Chromatography with Ultraviolet Detection.” *Food Chemistry* **2016**, 196, 428–436.
3. Karageorgou, E.; Christoforidou, S.; Ioannidou, M.; Psomas, E.; Samouris, G.* “Detection of β -Lactams and Chloramphenicol Residues in Raw Milk—Development and Application of an HPLC-DAD Method in Comparison with Microbial Inhibition Assays.” *Foods* **2018**, 7(6), 82.
4. Christoforidou, S.; Karageorgou, E.; Ioannidou, M.; Psomas, E.; Maggira, M.; Samouris, G.* “Detection of Antibacterial Residues in Milk by HPLC-DAD and Microbial Inhibitor Tests.” *Czech Journal of Food Sciences* **2020**, 38(1), 63–71.
5. Karageorgou, E.G.* “The Role of ISO 14001 in Food Waste Management: Supporting Compliance and Sustainable Practices.” *Journal of the Association of Greek Chemists* **2025**, 2(1), 39–43. doi:10.62579/JAGC0014.
6. Karageorgou, E.G.*; Tzikas, Z. “Regulatory Requirements as Control Measures: A HACCP-Based Model for Food Safety Compliance in the EU.” *Journal of the Association of Greek Chemists* **2025**, 2(1), 44–51. doi:10.62579/JAGC0015.
7. Karageorgou, E.G.; Kalogiouri, N.P.; Samanidou, V.F.* “Green Approaches in High-Performance Liquid Chromatography for Sustainable Food Analysis: Advances, Challenges, and Regulatory Perspectives.” *Molecules* **2025**, 30, 3573.
8. Tsiouni, M.*; Tzikas, Z.; Karageorgou, E.; Papadopoulos, A. “Impact of ISO 22000 Implementation on Organizational and Financial Performance: Evidence from Certified and Non-Certified Food Businesses.” *Proceedings* **2026**, 134, 7.
9. Karageorgou, E.G.; Ntereka, N.A.F.; Samanidou, V.F.* “Chromatographic Applications Supporting ISO 22002-100:2025 Requirements on Allergen Management, Food Fraud, and Control of Chemical and Packaging-Related Contaminants.” *Separations* **2026**, 13, 39.
10. Agolli, E.; Moustafa, C.A.; Almpani, A.; Anagnostopoulou, C.; Aslanidou, M.-A.; ...; Karageorgou, E.G.; Tsiptsias, C.* “A Hansen Solubility Parameter Study on the Suitability of EU Food Simulants for Migration Testing.” Accepted for publication 10/08/2026, **prepublished 11/08/2026**.

Additional Scientific Activities

- Reviewer for international scientific journals, including **Food Reviews International**, **Microchemical Journal**, and **Accreditation and Quality Assurance**.
- Member of the Scientific Committee of the **International Hybrid Conference on Crisis and Disaster Governance, Planning and Resilience – ICPCDGR 2026**.
- Participation in international and national scientific conferences with oral and poster presentations.
- Registered in the **Registry of Certified Evaluators of the General Secretariat for Research and Innovation**, with eligibility to participate in the evaluation of research project proposals related to her field of expertise.
- Member of the **Association of Greek Chemists**.

Foreign Languages

- **English:** Excellent command – Certificate of Proficiency in English, University of Cambridge.
- **German:** Good command – Zertifikat Deutsch als Fremdsprache, Goethe-Institut.

Digital and Statistical Skills

- Very good command of office applications and electronic file management.
- Use of chemical software and software for the acquisition, processing, and evaluation of chromatographic data.
- Use of statistical data analysis software and application of basic statistical methods, including analysis of variance (ANOVA).