

► Koulis Georgios

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Education

B.Sc. in Chemistry (2006-2012), National and Kapodistrian University of Athens, Grade: 7.4/10

M.Sc. in Chemical Analysis & Quality Control (2012-2015), National and Kapodistrian University of Athens

Ph.D. in Analytical Chemistry (2015-today), National and Kapodistrian University of Athens

Research Topics:

Master Thesis: "Determination of hydrolyzed protein molecular weight on fish feeds using size exclusion chromatography and uv detection", Laboratory of Analytical Chemistry, Chemistry Department, University of Athens, Greece (2012-2015)

Ph.D. Thesis: "Development of new high resolution mass spectrometric methods for food authentication and adulteration", Laboratory of Analytical Chemistry, Chemistry Department, University of Athens, Greece (2016-2019)

Research Interests

General research interests: Food Authenticity and adulteration, Food Metabolomics, Food Lipidomics, High Resolution Mass Spectrometry (HRMS), Chemometrics, Food Quality and Safety, Development and validation of LC-MS/MS & GC-MS/MS methods

Projects:

2015-Present: Provision of specialized analytical services and scientific support from University of Athens to Public Power Corporation. Monitor priority and emerging pollutants in wastewater and sea samples

2016-2018: EMBLAS II, EU/UNDP Project: Improving environmental monitoring in the Black Sea. Analysis of water framework priority substances and screening of black sea specific pollutants in water biota and sediment samples obtained during the National Pilot Monitoring Studies and Joint Open Sea Surveys and risk assessment of identified pollutants

2018 –2021: Foodomics-GR – Molecular Characterization of Food (funding: EPANEK-NSFR)

2018 –2020: Emblematic action - The Olive Road (funding: Ministry of Education)

2018 –2021: Novel wide-scope research for the promotion of N. Aegean olive oil and olive products through the designation of their unique characteristics and bioactive content (funding: Prefecture of North Aegean)

2019 –2020: Study and Exploitation of Olive Oil as Innovative Raw Material for Special Industrial Applications to Baby Food Products (funding: Region of Western Greece)

Publications in journals and books

1. Marilena E. Dasenaki, Anna A. Bletsou, George A. Koulis and Nikolaos S. Thomaidis "Qualitative multi-residue screening methods for 143 veterinary drugs and pharmaceuticals in milk and fish tissue using liquid chromatography quadrupole-time-of-flight mass spectrometry" *Journal of Agricultural and Food Chemistry*, 2015, 63, 4493–4508 (doi: 10.1021/acs.jafc.5b00962)

Conferences Presentations

1. G. A. Koulis, P.A. Katsianou, E. Panagopoulou, R. Aalizadeh, C. Proestos, N. Thomaidis, "Metabolomic approach for Greek honey origin discrimination making use of Ultra High Performance Liquid Chromatography coupled to High Resolution Mass Spectrometry", 11th International Conference on "Instrumental Methods of Analysis" (IMA-2019), 22-25 September, 2019, Ioannina, Greece
2. P.A. Katsianou, G. A. Koulis, M. Dasenaki, N. Thomaidis, "HRMS Study of Bioactivity Compounds During Edible Olive Processing", 11th International Conference on "Instrumental Methods of Analysis" (IMA-2019), 22-25 September, 2019, Ioannina, Greece
3. A. Tzachristas, M.E. Dasenaki, K. Pasvanka, G. A. Koulis, S. Drakopoulou, R. Aalizadeh, N. S. Thomaidis and C. Proestos, "Development of a wine metabolomics approach for the varietal discrimination of selected Greek wines", 2nd Food Chemistry Conference: Shaping the Future of Food Quality, Safety, Nutrition and Health, 17-19 September, 2019, Seville, Spain
4. E.I. Panagopoulou, M.-C. Nika, G.A. Koulis, D.E. Damalas and N.S. Thomaidis, "Development of a novel methodology for the determination of priority pollutants and emerging contaminants in Asopos river water samples by GC-EI-MS/MS and GC-APCI-QTOFMS", 17th International Conference on Chemistry and the Environment, ICCE 2019, 16-20 June, 2019, Thessaloniki, Greece
5. M. Dasenaki, A. Tzachristas, G. A. Koulis, C. Proestos, N. Thomaidis "Targeted and Untargeted Mass Spectrometry-Based Metabolomics Approach for the Characterization of Greek Organic Wines", 11th Aegean Analytical Chemistry Days, AACD 2018, 25-29 September, 2018, Chania, Crete, Greece
6. P.A. Katsianou, G. A. Koulis, E. Panagopoulou, F. Stergiou, A. Fiore, S. Karabournioti, C. Proestos, N. S. Thomaidis, "Honey Authenticity: evaluation of phenolic compounds as potential authenticity markers using target LC-HRMS screening", 11th Aegean Analytical Chemistry Days, AACD 2018, 25-29 September, 2018, Chania, Crete, Greece
7. G. A. Koulis, P.A. Katsianou, E. Panagopoulou, R. Aalizadeh, C. Proestos, N. S. Thomaidis, "Botanical and Geographical origin discrimination of Greek honeys by untargeted metabolomics using LC-ESI-QTOF-MS", 11th Aegean Analytical Chemistry Days, AACD 2018, 25-29 September, 2018, Chania, Crete, Greece
8. M.-C. Nika, D.E. Damalas, G. A. Koulis, N. Alygizakis, V. Nikolopoulou, S. Drakopoulou, A. Psoma, M. Kostakis, R. Aalizadeh, P. Oswald, J. Slobodnik, N. S. Thomaidis, "Extended monitoring of legacy pollutants and emerging contaminants in the marine environment of Black Sea", 11th Aegean Analytical Chemistry Days, AACD 2018, 25-29 September, 2018, Chania, Crete, Greece
9. A.S. Tsagkaris, G.A. Koulis, C. Proestos and N.S. Thomaidis, "Development and validation of a UPLC-ESI-QTOF-MS method for the determination of flavonoids and phenolic acids in honey", 3rd International Conference on Metrology Promoting Standardization and Harmonization in Food and Nutrition, IMEKOFOODS 2017, 01-04 October, 2017, Thessaloniki, Greece
10. G.A. Koulis, A.S. Tsagkaris, R. Aalizadeh, S. Drivelos, C. Proestos and N.S. Thomaidis, "Honey authenticity: Evaluation of phenolic compounds as potential authenticity markers using target and non-target screening approaches", 10th International Conference on Instrumental Methods of Analysis-Modern Trends and Applications, IMA 2017, 17-21 September, 2017, Heraklion, Crete, Greece.
11. M.C. Nika, G. Koulis, D. Damalas, K. Diamanti, A. Bletsou, A. Psoma, S. Attiti, R. Aalizadeh, N. Alygizakis, M. Dasenaki, K. Kasiotis, P. Oswald, J. Slobodnik and N.S. Thomaidis, "Determination of legacy pollutants and emerging contaminants in the marine environment of Black Sea", 15th International Conference on Environmental Science and Technology, CEST 30 August - 02 September, 2017, Rodos Palace, Rhodes, Greece

12. G.A. Koulis, Marilena M.E. Dasenaki and N.S. Thomaidis, "Determination of hydrolyzed proteins molecular weight in fish feeds using size exclusion chromatography and UV detection", 9th International Conference on Instrumental Methods of Analysis-Modern Trends and Applications, IMA, 20-24 September, 2015, Kalamata, Greece

Awards and Honors

1. Scholarship for Ph.D. studies, Greek Research and Innovation Institute (2017-2019)

Professional Affiliations

Association of Greek Chemists, 2012-Present
Hellenic Mass Spectrometry Society, 2014-Present

Contact information

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