

Maria Alexandri

Agronomist-Food Technologist, PhD

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<https://scholar.google.gr/citations?user=1ZSY2LQAAAAJ&hl=en>

<https://www.researchgate.net/profile/Maria-Alexandri-3>

Publications: 45; Citations: 1474; h-index: 27 (google scholar)

CURRENT POSITION

04/2024 **Assistant Professor**
Department of Food Science and Technology, Ionian University, Greece

PREVIOUS POSITIONS

08/2022 - 03/2024 **Assistant Professor**
Department of Agricultural Biotechnology and Oenology, International Hellenic University, Greece

2021 -2022 **Post-doctoral Researcher**
Department of Food Science and Technology, Ionian University, Greece

2019 -2021 **Post-doctoral Researcher**
Department of Food Science and Human Nutrition, Agricultural University of Athens, Greece

2017 -2019 **Research Scientist**
Department of Bioengineering, Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB), Potsdam, Germany

2012 -2017 **PhD candidate**
Department of Food Science and Human Nutrition, Agricultural University of Athens, Greece

EDUCATION

2012 -2017 Department of Food Science and Human Nutrition, Agricultural University of Athens, Greece, **Dissertation title** : “*Valorisation of industrial waste and by-product streams for the extraction of phenolic compounds and the development of bioprocesses for the production and purification of succinic acid*”, Doctorate Degree, Excellent

2006 -2012 Department of Food Science and Human Nutrition, Agricultural University of Athens, Greece, Diploma, Very Good (8.28)

RESEARCH INTERESTS

- Recovery and analysis of functional components from side streams of the agro-food sector
- Biotechnological production of added value products through the utilization of waste or side streams of the agro-food sector (organic acids, bio-dyes, bacterial cellulose, PHAs, ethanol)
- Development of appropriate methodologies for the recovery and purification of biotechnological products
- Holistic utilization of waste and by-products in the context of the circular economy.

PARTICIPATION IN RESEARCH PROGRAMS:

2021-2022: Infrastructure of Microbiome Applications in Food Systems-FOODBIOMES (MIS 5047291), implemented under the Action “Regional Excellence in R&D Infrastructures”, funded by the Operational Program “Competitiveness, Entrepreneurship and Innovation” (NSRF 2014-2020) and co-financed by Greece and the European Union.

2019-2021: Research Infrastructure for Waste Valorisation and Sustainable Management of Resources, INVALOR” (MIS 5002495) which is implemented under the Action “Reinforcement of the Research and Innovation Infrastructure”, funded by the Operational Program "Competitiveness, Entrepreneurship and Innovation" (NSRF 2014-2020) and co-financed by Greece and the European Union

2021: Participation in the project “Mediterraninity” in the framework of “New Agriculture, New Generation” funded by Stavros Niarchos Foundation.

2021: Participation in the research project “PHB production using Jatropha fruit shell hydrolysates” funded by the company JOil Pte Ltd (Singapore).

2021: Participation in the research project “PHB production using Jatropha seed cake hydrolysates” funded by the company JOil Pte Ltd (Singapore).

2021: Participation in the research project “Optimization of bioethanol production” funded by the company American Process International (USA).

2020: Horizon 2020/BBI-JU: Chemical building blocks from versatile MSW biorefinery-Acronym: PERCAL (Topic: BBI-2016-R08).

2017-2019: BMBF-Bioeconomy International “BranLact: Thermophilic lactic acid production utilizing rice bran in continuous cultivation”

2015: Participation in the research project “Enzyme production and chemical compounds (1,3-propanediol, 2,3-butanediol and fumaric acid) for the production of petrochemicals” funded by the company Petrobras (Brazil).

2012-2015: Seventh Framework Program (FP7) “New tailor-made biopolymers produced from lignocellulosic sugars wastes for highly demanding fire-resistant applications” Grant agreement no: 311935

SELECTED PUBLICATIONS

- Sereti, F., Papadaki, A., Alexandri, M., Kachrimanidou, V., & Kopsahelis, N. (2023). Exploring the potential of novel *R. kratochvilovae* red yeasts towards the sustainable synthesis of natural carotenoids. *Sustainable Chemistry and Pharmacy*, 31, 100927.
- Alexandri, M., Kachrimanidou, V., Papapostolou, H., Papadaki, A., Kopsahelis, N. (2022). Sustainable Food Systems: The Case of Functional Compounds towards the Development of Clean Label Food Products, *Foods*, 11 (18): 2796.
- Lappa, I. K., Kachrimanidou, V., Alexandri, M., Papadaki, A., & Kopsahelis, N. (2022). Novel Probiotic/Bacterial Cellulose Biocatalyst for the Development of Functional Dairy Beverage. *Foods*, 11(17), 2586.
- Filippi, K., Papapostolou, H., Alexandri, M., Vlysidis, A., Myrtsi, E. D., Ladakis, D., & Koutinas, A. (2022). Integrated biorefinery development using winery waste streams for the production of bacterial cellulose, succinic acid and value-added fractions. *Bioresource Technology*, 343, 125989.
- Olszewska-Widdrat A., Alexandri M., López-Gómez J.P., Schneider R., Mandl M., Venus J. 2019. Production and purification of L-lactic acid in lab and pilot scales using sweet sorghum juice. *Fermentations*, 5(2), 36.
- López-Gómez J.P., Alexandri M., Schneider R., Venus J. 2019. A review on the current developments in continuous lactic acid fermentations and case studies utilizing inexpensive substrates. *Process Biochemistry*, 79: 1-10.
- Alexandri M., Neu A.K., Schneider R., López-Gómez J.P., Venus J. 2019. Evaluation of various *Bacillus coagulans* isolates for the production of high purity L-lactic acid using defatted rice bran hydrolysates. *International Journal of Food Science and Technology*, 54:1321-1329.
- Tsouko E., Alexandri M., Vieira Fernandes K., Guimarães Freire D.M., Mallouchos A., Koutinas A.A. 2019. Extraction of phenolic compounds from palm oil processing residues and their application as antioxidants. *Journal of Food Technology and Biotechnology*, 57(1): 29-38.
- Papadaki A., Papapostolou H., Alexandri M., Kopsahelis N., Papanikolaou S., de Castro A., Freire D.M.G., Koutinas A.A. 2018. Fumaric acid production using renewable resources from biodiesel and cane sugar production processes. *Environmental Science and Pollution Research*. 25(36): 35960-35970, doi.org/10.1007/s11356-018-1791-y

- Alexandri M., Papapostolou H., Vlysidis A., Gardeli C., Komaitis M., Papanikolaou S., Koutinas A.A. 2016. Extraction of phenolic compounds and succinic acid production from spent sulphite liquor. *Journal of Chemical Technology and Biotechnology*, 91(11): 2751-2760
- Dal Prá V., Soares J.F., Monego D.L., Vendruscolo R.G., Freire D.M.G., Alexandri M., Koutinas A., Wagner R., Mazutti M.A. , Da Rosa M.B. 2016. Extraction of bioactive compounds from palm (*Elaeis guineensis*) pressed fiber using different compressed fluids. *Journal of Supercritical Fluids*, 112: 51-56.
- Llano T., Alexandri M., Koutinas A., Gardeli C., Papapostolou H., Coz A., Quijorna N., Andres A., Komaitis M. 2015. Liquid-liquid extraction of phenolic compounds form spent sulphite liquor. *Waste and Biomass Valorization*, 6(6):1149-1159, DOI 10.1007/s12649-015-9425-9

SELECTED CONFERENCES

- Kachrimanidou V., Alimpoumpa D., **Alexandri M.**, Papadaki A., Kopsahelis N. Biosurfactant production using GRAS lactobacilli: Process optimization and food product development. 30th International Conference of FFC, Mediterranean Diet, Functional Foods and Bioactive Compounds: Science and Practice, 23-25 September 2022, Myrina, Lemnos, Greece
- Kachrimanidou V., Alimpoumpa D., Trantou E., Topalidou P., **Alexandri M.**, Papadaki A., Kopsahelis N. 2022. Implementation of novel lactobacilli isolates from diversified sources for biosurfactants production. 41st International Congress of the Society for Microbial Ecology in Health and Disease (SOMED), 14-16 June, Alexandroupolis, Greece
- **Alexandri M.**, Psaki O., Papapostolou H., Koutinas A. 2021. Simultaneous production of carotenoids and microbial lipids using fruit wastes from open markets. 8th International Conference on Sustainable Solid Waste Management, Athens, Greece
- Filippi K., **Alexandri M.**, Papapostolou H., Koutinas A. 2021. Conversion of winery wastes into a sugar-rich hydrolysate for the biotechnological production of succinic acid. 8th International Conference on Sustainable Solid Waste Management, Athens, Greece
- **Alexandri M.**, Neu A.K., Schneider R., Venus J. 2019. *Bacillus coagulans*: a promising strain for the industrial production of L-lactic acid from renewable resources. Bacell, Ljubljana, Slovenia
- **Alexandri M.**, Neu A.K., Schneider R., Venus J. 2018. Sustainable production of lactic acid through the exploitation of defatted rice bran. RRB-14, Ghent, Belgium

MEMBERSHIPS & REVIEWING ACTIVITIES

- 2021-2023** Guest Editor for the Special Issue entitled Guest editor entitled “Valorization of Renewable Resources for the production of Biobased products through the Implementation of Circular Bio-Economy Principles” for the journal “Sustainability” (MDPI)

- 2020-2021** Guest Editor for the Special Issue entitled “Biorefineries” for the journal “Fermentations” (MDPI)
- Since 2016** Reviewer for >10 scientific journals (e.g. Biochemical Engineering Journal, Biotechnology for Biofuels, Process Biochemistry, Fermentations)

TEACHING ACTIVITIES

- 2022 - 2024** Assistant Professor-Agricultural Microbial Biotechnology/ International Hellenic University/Greece
- 2021-2022** Academic fellow- Special Topics in Food Science and Technology-Redaction of Scientific Reports/ Ionian University/ Greece
- 2020-2021** Academic fellow- Molecular Microbiology/ Aegean University/Greece

FELLOWSHIPS and AWARDS

- 2022** Award of excellent oral presentation by the International Journal of Environmental Research & Public Health, during the 41st SOMED Conference, for the oral presentation: Kachrimanidou, V., Alimpoumpa, D., **Alexandri, M.**, Papadaki, A., Kopsahelis, N. Implementation of novel Lactobacilli isolates from diversified sources for biosurfactants production
- 2018** Research Travel Grant by the University of Campinas (Brazil) for the participation in educational courses entitled «São Paulo School of Advanced Science on Water, Food and Energy-NEXUS» and poster presentation entitled “Thermophilic lactic acid production utilizing defatted rice bran in continuous cultivation
- 2016** Erasmus+ placement for PhDs, ATB, Department of Bioengineering, Potsdam, Germany
- 2016** DAAD scholarship (Research Grants-Short-Term Grants, 2016), ATB, Potsdam, Germany