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Dr. Panagiota Natsi graduated from the Department of Chemical Engineering at the University of Patras (ChemEngUP) in 2014. She holds a PhD (2021) and an MSc (2016) from ChemEngUP and is currently working as a Postdoctoral Researcher at the Laboratory of Inorganic and Analytical Chemistry at ChemEngUP. She has taught the undergraduate course **Organic Chemistry** as an Adjunct Lecturer within the program *"BA Program in Chemical Engineering and Technology"*, in collaboration with Liaoning University of Technology, Jinzhou City, Liaoning Province, The People's Republic of China. She has also worked as a teaching assistant for undergraduate courses/laboratories, including **Physical Chemistry Laboratory, Polymer Laboratory, and Mass Transfer** at ChemEngUP. Additionally, she has co-supervised more than 20 diploma theses at ChemEngUP.

Her experience covers the fields of crystalline growth and dissolution of sparingly soluble salts in both homogeneous solutions and on substrates. Specifically, she focuses on the study of biological calcification of biopolymeric surfaces and microorganisms. She has extensive knowledge of material synthesis methods as well as physicochemical characterization techniques, including the following: Classical chemical analysis using gravimetric and volumetric methods, Metal analysis by atomic absorption spectrometry (including educational seminars), Ion chromatography analysis (anions – cations), UV-Vis spectrophotometry, Specific surface area (BET) and porosity measurements, X-ray diffraction (XRD), Optical and electron microscopy, including image processing for particle characterization, Thermogravimetric and thermal analysis, Development of biological cultures and related measurements.

She also has experience in European and National research projects, in which she participated during her master's and doctoral research. Her involvement includes both drafting action plans corresponding to the respective research teams and preparing progress reports.

Notably, she has participated as a principal investigator or research team member in the following projects: **ERASMUS+ ITACA**: *Innovative Training Center to Support 3rd Cycle Advanced Education Courses to Face Environmental Emergency in Azerbaijan* (2021–2023), **KRIPIS II Project**: *Innovative Actions in Environmental Research and Development (PErAN)*, FORTH-ICEHT, **KRIPIS II Project**: *POLITEIA II*, FORTH-IESL (2021), **INVALOR**: *Research Infrastructure for Waste Valorization and Sustainable Management of Natural Resources* (2019–2020), **HFRI Fellowship** / Action: *1st HFRI Call for PhD Candidates* (2017–2019), **ARISTEIA II (SPM)**: *Education and Lifelong Learning under the National Strategic Reference Framework (NSRF 2007–2013)*. She is the author/co-author of **12 peer-reviewed publications** in international scientific journals and **2 book chapters** (*Citations: 70, h-index: 5, Google Scholar/17-2-2025*). She has given more than **50 presentations** at international and national conferences and workshops.

Selected publications in Peer-Reviewed Journals:

1. *"Mineral Scaling in the Presence of Oil–Water Interfaces Combined with the Substrate's Wettability Effect: From Batch to Microfluidic Experiments"*, A. Tzachristas, **P.D. Natsi,** D.G Kanellopoulou, J. Parthenios, P.G. Koutsoukos, C.A. Paraskeva, V. Sygouni, *Industrial & Engineering Chemistry Research*, 60(22), (2021), 8244–8254. DOI: https://doi.org/10.1021/acs.iecr.1c00804
2. *"Calcium Carbonate Mineralization of Microalgae"*, **P.D. Natsi.,** P.G. Koutsoukos, *Biomimetics* 7 (2022), 140. DOI: https://doi.org/10.3390/biomimetics7040140
3. *"Calcium Carbonate Crystallization on Microalgae Matrix: The Effect of Heavy Metals Presence", P.D. Natsi, P.G. Koutsoukos, Crystals 12 (2022), 1424 DOI: https://doi.org/10.3390/cryst12101424*
4. *"Calcium Carbonate Crystallization on Microalgae Matrix: The Effect of Heavy Metals Presence"*, **P.D. Natsi,** P.G. Koutsoukos, *Crystals* 12 (2022), 1424 DOI: https://doi.org/10.3390/cryst12101424

5. *"Biological Mineralization of Hydrophilic Intraocular Lenses", P. G. Koutsoukos, P.D. Natsi, S.P. Gartaganis, P.S. Gartaganis, Crystals 12 (2022), 1418. DOI: https://doi.org/10.3390/cryst12101418*
6. *"Phosphorus Recovery from Municipal Wastewater: Brucite from MgO Hydrothermal Treatment as Magnesium Source", P. D. Natsi, K.-A. Goudas, P.G Koutsoukos, Crystals 13 (2023), 208. DOI: https://doi.org/10.3390/cryst13020208*
7. *"Propylene Production via Oxidative Dehydrogenation of Propane with Carbon Dioxide over Composite MxOy-TiO2 Catalysts", A. Florou, G. Bampos, P.D. Natsi, A. Kokka, P. Panagiotopoulou, Nanomaterials 14 (1), (2024), 86. DOI: https://doi.org/10.3390/nano14010086*
8. *"Graphene-Derivative Coatings for the Prevention of Opacification Due to Calcification of Hydrophilic Intraocular Lenses", P.D. Natsi, M. Kanakis, L. Sygellou, P.S. Gartaganis, S.P. Gartaganis, P.G. Koutsoukos, Crystals 14, (2024), 150. DOI: https://doi.org/10.3390/cryst14020150*
9. *"Electrochemical Recovery of N and P from Municipal Wastewater", **P. D. Natsi**, P. G. Koutsoukos, Crystals 14 (8), (2024), 675, 2024, DOI: https://doi.org/10.3390/cryst14080675*
10. *"Support induced effects on the activity and stability of Ga_2O_3 based catalysts for the CO_2-assisted oxidative dehydrogenation of propane",* A. Florou, G. Bampos, **P.D. Natsi**, A. Kokka, P. Panagiotopoulou, *Journal of Environmental Chemical Engineering* 12 (6), (2024), 114603. DOI: *https://doi.org/10.1016/j.jece.2024.114603*

Indicative orals and poster presentations presented:

1. P.D. Natsi, E. Zande, M. Kanakis, P.S. Gartaganis, S.P. Gartaganis, P.G. Koutsoukos, Surface modification of hydrophilic intraocular lenses with graphene oxide, 13o Panhellenic Scientific Conference in Chemical Engineering, Patras 2022
2. I.S. Kalantzis, A.K. Tziolas, P.D. Natsi, P.S. Gartaganis, S.P. Gartaganis, P.G. Koutsoukos, Dissolution of calcified opaque hydrophilic intraocular lenses: the role of ascorbic acid presence, 13o Panhellenic Scientific Conference in Chemical Engineering, Patras 2022
3. G. Ziomas, T. Kourassi, P.D. Natsi, I.S. Kalantzis, P.S. Gartaganis, S.P. Gartaganis, P.G. Koutsoukos, Calcification of hydrophilic intraocular lenses and the role of surface charge, 13o Panhellenic Scientific Conference in Chemical Engineering, Patras 2022
4. P.G. Koutsoukos, P.D. Natsi, P.S. Gartaganis, S.P. Gartaganis, Biological Mineralization of Hydrophilic Intraocular Lenses, Polish Conference on Crystal Growth 2022
5. P.S. Gartaganis, G. Ziomas, T. Kourassi, P. Natsi, J. Kalantzis, S. Gartaganis, P. Koutsoukos, Hydrophilic Intraocular Lens Calcification and The Role of Surface Charge,40th Congress of the European Society of Cataract and Refractive Surgeons, (ESCRS 2022), Milan, Italy 2022
6. P.S. Gartaganis, P.D. Natsi, S.F. Alimisi, S.P. Gartaganis, P.G. Koutsoukos, Underrstanding delimited calcification of hydrophilic IOLs associated with intraocular air/gas, 3rd Winter Meeting of the European Society of Cataract and Refractive Surgeons (ESCRS), Athens 2019
7. P.S.Gartaganis, P.D.Natsi, S.F. Alimisi, S.P.Gartaganis, P.G.Koutsoukos, Is the surface hydroxyl groups a deleterious factor for hydrophilic acrylic IOL calcification, 36th World Opthalmology Congress ®, (WOC), Barcelona, Spain 2018
8. P.D. Natsi, P.G. Koutsoukos, Calcium Carbonate Biofouling, CORROSION 2019, Nashville, Tennessee, USA
9. P.D. Natsi, P.G. Koutsoukos, Calcium Carbonate Biofouling in the Presence of Heavy Metals, CORROSION 2021
10. P.D. Natsi, P.G. Koutsoukos, Z. Amjad, Inhibition of Formation of Magnesium Hydroxide by Polymers: The Role Molecular Architecture, CORROSION 2021