EFSTRATIOS NIKOLAIVITS

Lecturer (Laboratory Teaching Staff), National Technical University of Athens

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EDUCATION

National Technical University of Athens (NTUA)
School of Chemical Engineering-Biotechnology Laboratory
Ph.D. in Industrial Biotechnology **06/2015-12/2019**
Thesis: "Discovery of novel fungal biocatalysts and application in bioremediation of chlorinated aromatic pollutants"

National Technical University of Athens (NTUA)
Chemical Engineering Diploma **10/2007-03/2014**
Specialization in Food Technology and Biotechnology
Upper Second-Class Honours (7.24/10)
Diploma thesis: "Engineering of the heterologous expression and characterization of a cutinase from *Fusarium oxysporum*"

LANGUAGES

Greek	English	German
Native Speaker	C2 Level	B1 Level

AWARDS/DISTINCTIONS/PERSONAL FUNDING

ITC Travel Grant for Oral Presentation by COST Action COZYME CA21162 **2025**

Team Leader of the Winning team "BioRise" at the international Hackathon PLASTIC FANTASTIC **2024**

Participation in Global Young Scientists Summit (GYSS), Singapore **2023**

Adlerbertska Forskningsstiftelsen Funding (82,000SEK) for "Omic analyses of novel acidophilic fungi for the valorization of agro-industrial residues" **2022**

Best Poster Award (2nd Prize) at the 8th International Conference on Sustainable Solid Waste Management **2021**

Best Paper Award at the 1st International Electronic Conference on Catalysis Sciences **2020**

Dimitris N. Chorafas Foundation Prize for best 2019 NTUA PhD Thesis (1st Prize) **2020**

"Iakovos Giourounlian Award-BIOHALCO Foundation" for best industrially relevant 2019 Chemical Engineering PhD Thesis (2nd Prize) **2020**

"Thomaidio Award" for peer-reviewed paper – Students with NTUA affiliation **2017-2019**

Ph.D. thesis Scholarship from the Greek State Scholarship Foundation **2016-2019**

COST Action CM1303 (*Systems Biocatalysis*) STSM fellowship **2017**

EFSTRATIOS NIKOLAIVITS **NOVEMBER 2025**

TEACHING AND SUPERVISION EXPERIENCE

University of Verona
Department of Biotechnology
Visiting Professor **05/2024**
"New Frontiers in Biocatalysis" Course at the Master's Programme
"Biotechnology for Bioresources and Sustainable Development"

National Technical University of Athens (NTUA)
School of Chemical Engineering-Biotechnology Laboratory
Department of Synthesis and Development of Industrial Processess
Lecturer of "Applied Biotechnology" **2022-present**
Lab courses: Industrial Biotechnology, Environmental Biotechnology, Food Chemistry/Microbiology/Preservation, Bioengineering, Inorganic Chemistry
Tutoring course: Biochemical Engineering

National Technical University of Athens (NTUA)
School of Chemical Engineering-Biotechnology Laboratory
Thesis Supervisor **2015-present**
Undergrad students: S. Jan (2025), E. Dimopoulou (2025), I. Sofianopoulos (2023), K. Makriniotis (2021-Award), P. Dimopoulou (2020), R. Siaperas (2019), M. Panagiotopoulou (2018), A. Agrafiotis (2017), A. Chalima (2016-Award), I. Karagiannaki (2016), G. Makris (2015), G.F. Norra (2015)
Master Students: N. Mendoza (2023), E. Prinea (2020)
PhD candidates: G. Taxeidis (2020-), K. Makryniotis (2021-), M. Papi (2024-)

National Technical University of Athens (NTUA)
School of Chemical Engineering-Biotechnology Laboratory
Teaching Assistant **2015-2019**
Laboratory courses: Enzyme and Microbial Technology/Applied Biotechnology

RESEARCH EXPERIENCE

National Technical University of Athens (NTUA)
Associate Researcher **09/2024-12/2025**
TwInn4MicroUp "Twinning Innovation Hub For Microbial Platforms In Plastic Upcycling"
Funded by Horizon Europe

National Technical University of Athens (NTUA)
Associate Researcher **02/2024-12/2025**
EnZyReMix "Chemoenzymatic recycling of mixed plastic waste"
Funded by the Hellenic Foundation for Research & Innovation

National Technical University of Athens (NTUA)
Associate Researcher **01/2023-07/2025**
PlastOmics "Discovery of novel enzymes for the bioconversion of plastics using multi-omics"
Funded by the Hellenic Foundation for Research & Innovation

Chalmers University of Technology
Postdoctoral Researcher **09/2021-12/2022**
"Exploring fungal extremophiles in South East Asia biodiversity"

Funded by the Swedish Research Council

National Technical University of Athens (NTUA)
Postdoctoral Researcher **01/2020-09/2021**
BioICEP "Bio Innovation of a Circular Economy for Plastics",
Funded byHorizon 2020

National Technical University of Athens (NTUA)
Research Assistant **11/2015-09/2019**
TASCMAR "Tools And Strategies to access original bioactive compounds by Cultivating MARine invertebrates and associated symbionts"
Funded by Horizon 2020

TECHNION-Israel Institute of Technology
Research Assistant **02/2017-03/2017**
"Bioconversion of cinnamic acid derivatives towards the production of caffeic acid using engineered monooxygenase and PPO" funded by the EU COST Action CM1303 *Systems Biocatalysis*

National Technical University of Athens (NTUA)
Research Assistant **10/2014-09/2015**
"The Sustainable Integrated Method for the Production of Lignocellulosic Ethanol-SIMPLE", SYNERGASIA 2011-NSRF funded

National Hellenic Research Foundation (NHRF)
Institute of Biology, Medicinal Chemistry and Biotechnology – Industrial Enzymology Unit
Intern **09/2011-12/2011**
Development of bacterial strains for screening of rescuers for neurodegenerative diseases

PEER-REVIEWED PUBLICATIONS

34. Makryniotis, K.; Papi, M.; **Nikolaivits, E.***; Topakas, E. Protein engineering of a fungal feruloyl esterase enhances both plastic and lignocellulose breakdown. *Int. J. Biol. Macromol*. **2025**, 331, 148892.

33. Thuy, N.T.; Coleman, T.; Christopher, M;Chau, N.B.; Bach, C. X.; Hanh, L.T.M.; Nikolaivits, E.; Larsbrink, J.; Olsson, L.; Thanh, V.N. Extremely acidophilic filamentous fungi are more prevalent in diverse ecosystems than previously documented. *Sci. Rep*. **2025**, 15, 30445.

32. Siaperas, R.; Taxeidis, G.; Gioti, A.; **Nikolaivits, E.**; Topakas, E. Multi-omics insights into the response of *Aspergillus parasiticus* to long-chain alkanes in relation to polyethylene degradation. *Environ. Pollut.* **2025**, 376, 126386.

31. Caputo, F.; Siaperas, R.; Dias, C.; **Nikolaivits, E.** & Olsson, L. Elucidating *Thermothielavioides terrestris* secretome changes for improved saccharification of mild steam-pretreated spruce. *Biotechnol. Biofuels.* **2024**, 17, 127.

30. Taxeidis, G.; **Nikolaivits, E.**; Nikodinovic-Runic, J.; Topakas, E. Mimicking the enzymatic plant cell wall hydrolysis mechanism for the degradation of polyethylene terephthalate. *Environ. Pollut.* **2024**, 356, 124347.

29. Pentari, C.; Kosinas, C.; **Nikolaivits, E.**; Dimarogona, M.; Topakas, E. Structural and molecular insights into a bifunctional glycoside hydrolase 30 xylanase specific to glucuronoxylan. *Biotechnol & Bioeng*. **2024**, 1-12.
28. Makryniotis, K.;‡ **Nikolaivits, E.**;‡ Nikodinovic-Runic, J.; Topakas, E. Exploring the substrate spectrum of phyllogenetically distinct bacterial polyesterases. *Biotechnol. J.* **2024**, 19,4 2400053.
27. Taxeidis, G.; Djapovic, M.; **Nikolaivits, E.**; Maslak, V.; Nikodinovic-Runic, J.; Topakas, E. New Labeled PET Analogues Enable the Functional Screening and Characterization of PET-Degrading Enzymes. *ACS Sustain. Chem. Eng*. **2024**, 12, 15, 5943–5952.
26. Makryniotis, K.; **Nikolaivits, E.***; Gkountela, C.; Vouyiouka, S.; Topakas, E. Discovery of a polyesterase from *Deinococcus maricopensis* and comparison to the benchmark LCC^{ICCG} suggests high potential for semi-crystalline post-consumer PET degradation. *J. Hazard. Mater*. **2023**, 455, 131574.
25. Taxeidis, G.; **Nikolaivits, E.**; Siaperas, R.; Gkountela, C.; Vouyiouka, S.; Pantelic, B.; Nikodinovic-Runic, J.; Topakas, E. Triggering and identifying the polyurethane and polyethylene-degrading machinery of filamentous fungi secretomes. *Environ. Pollut*. **2023**, 325, 121460.
24. Ferousi, C.; Kosinas, C.; **Nikolaivits, E.**; Topakas, E.; Dimarogona, M. Crystal structure of the *Fusarium oxysporum* tannase-like feruloyl esterase FaeC in complex with *p*-coumaric acid provides insight into ligand binding. *FEBS Lett*. **2023**, 597: 1415-1427.
23. **Nikolaivits, E.**; Taxeidis, G.; Gkountela, C.; Vouyiouka, S.; Maslak, V.; Nikodinovic-Runic, J.; Topakas, E. A polyesterase from the Antarctic bacterium *Moraxella* sp. degrades highly crystalline synthetic polymers, *J. Hazard. Mater*. **2022**, 434, 128900.
22. Attallah, O.A.; Azeem, M.; **Nikolaivits, E.**; Topakas, E.; Fournet, M.B. Progressing ultragreen, energy-efficient biobased depolymerization of poly(ethylene terephthalate) via microwave-assisted green deep eutectic solvent and enzymatic treatment, *Polym*. **2022**. 14.
21. Zerva, A.; Pentari, C.; Ferousi C.; **Nikolaivits E.**; Karnaouri, A.; Topakas E. Recent advances on key enzymatic activities for the utilisation of lignocellulosic biomass, *Bioresour. Technol*. **2021**, 342, 126058.
20. **Nikolaivits, E.**; Pentari, C.; Kosinas, C.; Feiler, C.; Spiliopoulou, G.; Weiss, M.S.; Dimarogona, M.; Topakas, E. Unique features of the bifunctional GH30 from *Thermothelomyces thermophila* revealed by structural and mutational studies. *Carbohydr. Polym*. **2021**, 273, 118553.
19. **Nikolaivits, E.**; Pantelic, B.; Azeem, M.; Taxeidis, G.; Babu, R.; Topakas, E.; Brennan Fournet, M.; Nikodinovic-Runic, J. Progressing plastics circularity: A review of mechano-biocatalytic approaches for waste plastic (re)valorization. *Front. Bioeng. Biotech.* **2021**, 9, 535.
18. **Nikolaivits, E.**; Valmas, A.; Dedes, G.; Topakas, E.; Dimarogona, M. Considerations on activity determinants of fungal polyphenol oxidases based on mutational and structural studies. *Appl. Environ. Microbiol*. **2021**, AEM.00396-21.
17. Djapovic, M.; Milivojevic, D.; Ilic-Tomic, T.; Lješević, M.; **Nikolaivits, E.**; Topakas, E.; Maslak, V.; Nikodinovic-Runic, J. Synthesis and characterization of polyethylene terephthalate (PET) precursors and potential degradation products: Toxicity study and application in discovery of novel PETases. *Chemosphere*. **2021**, 275, 130005.
16. **Nikolaivits, E.**; Siaperas, R.; Agrafiotis, A.; Ouazzani, J.; Gioti, A.; Topakas, E. Functional and transcriptomic investigation of laccase activity in the presence of PCB29 identifies two novel enzymes and the multicopper oxidase repertoire of a marine-derived fungus. *Sci. Total Environ.* **2021**, 775, 145818.

17. **Nikolaivits, E.**; Agrafiotis, A.; Baira, E.; Le Goff, G.; Tsafantakis, N.; Chavanich, S.; Benayahu, Y.; Ouazzani, J.; Fokialakis, N.; Topakas, E. Degradation mechanism of 2,4-dichlorophenol by fungi isolated from marine invertebrates. *Int. J. Mol. Sci.* **2020**, 21(9), 3317.
14. Gioti, A.; Siaperas, R.; **Nikolaivits, E.**; Le Goff, G.; Ouazzani, J.; Kotoulas, G.; Topakas, E. Draft genome sequence of a *Cladosporium* species isolated from the mesophotic ascidian *Didemnum maculosum*. *Microbiol. Resour. Announc*., **2020**, 9, e00311-20.
13. Paz, A.; **Nikolaivits, E.**; Topakas, E. Valorization of olive mill wastewater towards the production of L-asparaginases. *Biomass Convers. Biorefin.* **2020**, 1-8.
12. **Nikolaivits, E.**; Agrafiotis, A.; Termentzi, A.; Machera, K.; Le Goff, G.; Álvarez, P.; Chavanich, S.; Benayahu, Y.; Ouazzani, J.; Fokialakis, N.; Topakas, E. Unraveling the detoxification mechanism of 2,4-dichlorophenol by marine-derived mesophotic symbiotic fungi isolated from marine invertebrates. *Mar. Drugs.* **2019**, 17, 564.
11. Mandic, M.; Djokic, L.; **Nikolaivits, E.**; Prodanovic, R.; O'Connor, K.; Jeremic, S.; Topakas, E.; Nikodinovic-Runic, J. Identification and characterization of new laccase biocatalysts from *Pseudomonas* species suitable for degradation of synthetic textile dyes. *Catalysts*. **2019**, 9, 629.
10. **Nikolaivits, E.**; Kanelli, M.; Dimarogona, M.; Topakas E. A middle-aged enzyme still in its prime: Recent advances in the field of cutinases. *Catalysts.* **2018**, 8(12), 612.
9. **Nikolaivits, E.**; Dimarogona, M.; Karagiannaki I.; Chalima A.; Fishman A.; Topakas E. Characterization and protein engineering of a novel versatile fungal polyphenol oxidase with chlorophenol bioremediation potential. *Appl. Environ. Microbiol.* **2018**, 84, e01628-18.
8. **Nikolaivits, E.**; Termentzi, A.; Skaltsounis, A.-L.; Fokialakis, N.; Topakas, E. Enzymatic tailoring of oleuropein from *Olea europaea* leaves and product identification by HRMS/MS spectrometry. *J. Biotechnol.* **2017**, 253, 48–54.
7. **Nikolaivits, E.**; Makris, G.; Topakas, E. Immobilization of a cutinase from *Fusarium oxysporum* and application in pineapple flavor synthesis. *J. Agric. Food Chem.* **2017**, 65 (17), 3505–3511.
6. **Nikolaivits, E.**; Dimarogona, M.; Fokialakis, N.; Topakas, E. Marine-derived biocatalysts: Importance, accessing, and application in aromatic pollutant bioremediation. *Front. Microbiol.* **2017**, 8, 265.
5. El-Gamal, R.; **Nikolaivits, E.**; Zervakis, G. I.; Abdel-Maksoud, G.; Topakas, E.; Christakopoulos, P. The use of chitosan in protecting wooden artifacts from damage by mold fungi. *Electron. J. Biotechnol.* **2016**, 24, 70–78.
4. **Nikolaivits, E.**; Kokkinou, A.; Karpusas, M.; Topakas, E. Microbial host selection and periplasmic folding in *Escherichia coli* affect the biochemical characteristics of a cutinase from *Fusarium oxysporum*. *Protein Expr. Purif.* **2016**, 127, 1–7.
3. **Nikolaivits, E.**; Norra, G.-F.; Voutsas, E.; Topakas, E. Cutinase from *Fusarium oxysporum* catalyzes the acylation of tyrosol in an aqueous medium: optimization and thermodynamic study of the reaction. *J. Mol. Catal. B Enzym.* **2016**, 129, 29–36.
2. Kanelli, M.; Vasilakos, S.; **Nikolaivits, E.**; Ladas, S.; Christakopoulos, P.; Topakas, E. Surface modification of poly(ethylene terephthalate) (PET) fibers by a cutinase from *Fusarium oxysporum*. *Process Biochem.* **2015**, 50 (11), 1885–1892.
1. Dimarogona, M.; **Nikolaivits, E.**; Kanelli, M.; Christakopoulos, P.; Sandgren, M.; Topakas, E. Structural and functional studies of a *Fusarium oxysporum* cutinase with polyethylene terephthalate modification potential. *Biochim. Biophys. Acta - Gen. Subj.* **2015**, 1850 (11), 2308–2317.

CONFERENCE AND PUBLIC-SCIENCE PUBLICATIONS

6. **Nikolaivits, E.**, Dimopoulou, P., Maslak, V., Nikodinovic-Runic, J., Topakas, E. Discovery and biochemical characterization of a novel polyesterase for the degradation of synthetic plastics. *Chem. Proc.* **2020**, 2, 33.

5. **Nikolaivits, E.;** Dimarogona M.; Karagiannaki I.; Chalima A.; Fishman A.; Topakas, E. Discovery and mutation of a novel enzyme for the removal of environmental pollutants. *Atlas of Science* **2020**, May 20

4. **Nikolaivits, E.**; Agrafiotis, A.; Fokialakis, N.; Topakas, E. Biodegradation of 2, 4, 5-trichlorobiphenyl (PCB29) by marine-derived mesophotic fungi. *N. Biotechnol.* **2018**, 44, S136–S137.

5. **Nikolaivits, E.;** Topakas, E. Improved characteristics of an industrial biocatalyst expressed in engineered *E. coli*. *Atlas of Science* **2017**, February 8

2. **Nikolaivits, E**.; Termentzi, A.; Skaltsounis, A.; Fokialakis, N.; Topakas, E. Enzymatic tailoring of oleuropein isolated from *Olea europaea* leaves. *Planta Med.* **2016**, 81 (S 01), S1–S381.

1. Topakas, E.; **Nikolaivits, E.**; Kanelli, M.; Christakopoulos, P. A cutinase from *Fusarium oxysporum* with potential for PET surface modification. *N. Biotechnol.* **2014**, 31, Supple (0), S90.

SCIENTIFIC WORKSHOPS/COURSES AND TRAINING SCHOOLS

7. **"Effective Project Planning and Execution" Seminar (Online, 2025)** by the Research Support Team of Technological University of the Shannon, Ireland
6. **"Financial Management in Project Administration" Seminar (Online, 2025)** by the European Training Academy
5. **"Creating and managing effective teams" –** *Generic and Transferable Skills Course provided by Chalmers University of Technology* (**2022**)
4. "Plastic Biodegradation: Can the existing microbial enzymatic system be a sustainable solution?" **"Webinars on Fridays 2021"** organized by the **Hellenic National Initiative "MikroBioKosmos" -** *Oral presentation*
   "Plastic Biodegradation: Can the existing microbial enzymatic system be a sustainable solution?"
3. **3rd International Meeting of the Hellenic Crystallographic Association's Young Researchers (Patras, Greece 2019) -** *Oral presentation*
   "Structural and functional characterization of a novel fungal polyphenol oxidase and its variants"
2. **Diffraction Data Collection Using Synchrotron Radiation Workshop by the German Crystallographic Society – DGK-AK1 (Berlin, Germany 2019) -** *Oral presentation*
   "Structural studies of a novel GH30 xylanase with unique catalytic properties"
1. **COST Action "Systems Biocatalysis" Training School (Siena, Italy 2016) -** *Oral presentation*
   "Heterologous expression, crystal structure, evolution and immobilization of a cutinase with a variety of applications"

INTERNATIONAL CONFERENCE PRESENTATIONS

29. **PRIORITY COST Action Final Conference (Leoben, Austria 2025)**
    "Biodegradation mechanism of polylactic acid by *Aspergillus parasiticus* identified via proteomics analysis"
28. **MikroBioKosmos Society & The Central and East Europe Symposium of Microbial Ecology (Thessaloniki, Greece 2025)**
    "Distinguishing Suberinases from Cutinases: A structure-based classification of cutinase-like enzymes and their substrate specificity validated *in silico*, *in vitro* and *in planta*" – *Oral presentation*
27. **7th International Summer School on Circular Bioeconomy and Sustainable Development (Thessaloniki, Greece, 2025)**
    "Biocatalytic Plastic Degradation: Between Promise and Practice" - *Lecture*
26. **EFB Green Deal Biotechnology (Aveiro, Portugal 2025)**
    "Protein engineering of a fungal feruloyl esterase enhances plastic degradation" – *Flash Presentation*
    "Multi-omics insights into fungal alkane metabolism and polyethylene modification"
25. **3rd International Electronic Conference on Catalysis Sciences (Online, 2025)**
    "Comparison of secretome response of Aspergillus and Fusarium species on chemically-treated plastics" and
    "Looking for specific biocatalysts to enzymatically separate polyethylene terephthalate from polylactic acid"
24. **COST Action COZYME Meeting (Athens, Greece 2025)**
    "Protein engineering of a fungal feruloyl esterase enhances both plastic and lignocellulose breakdown" - *Oral Presentation*
23. **7th LignoBiotech Symposium (Toulouse, France 2024)**
    "Mimicking the enzymatic plant cell wall hydrolysis machinery for the degradation of polyethylene terephthalate",
    "Harnessing the catalytic potential of a ferulic acid esterase for MHET hydrolysis" and
    "Exploration and expansion of the diversity and characteristics of acidophilic filamentous fungi through environmental sampling and whole-genome sequencing"-Award
22. **COST Action COZYME Meeting (Zagreb, Croatia 2024)**
    "Development of an engineered dual system for PET degradation"
21. **10th MIKROBIOKOSMOS Conference (Larissa, Greece 2023)**
    "A novel PET hydrolase with high potential for degradation of crystalline plastics"
20. **16th BIOTRANS (La Rochelle, France 2023)**
    "The first crystal structure of a tannase-like feruloyl esterase in complex with a hydroxycinnamic acid"
    "Novel fluorescent compounds for screening and characterizing PET-degrading enzymes"
    "Side to side comparison of a novel wild-type polyesterase from *Deinococcus maricopensis* with LCC^{ICCG} indicates promising degradation of semi-crystalline post-consumer PET"
19. **Carbohydrate Bioengineering Meeting (CBM14) (Oslo, Norway 2022)**
    "Investigation of CAZymes induced by *Thielavia terrestris*' growth on mildly steam treated spruce"
18. **FEMS Conference in Microbiology (Belgrade, Serbia 2022)**
    "Lignocellulose-degrading potential of novel acidophilic fungi"
17. **21st European Meeting on Environmental Chemistry (Novi Sad, Serbia 2021)**
    "Discovery of novel polyesterases capable of degrading a variety of synthetic polyesters"
16. **8th International Conference on Sustainable Solid Waste Management (Virtual, 2021)**
    "Discovery of a novel PETase-like enzyme for the degradation of plastic waste" – 2nd *Best Poster Award*
15. **European Federation of Biotechnology Conference (Virtual, 2021)**
    "The ability of a known plant-biomass degrading fungus to break down polyurethane" and

"Selective degradation of polyethylene terephthalate (PET)-related substrates by *Penicillium* sp. MM41"

14. **15th BIOTRANS (Virtual, 2021)**
"Repurposing of plant-biomass hydrolyzing enzymes for the degradation of polyethylene terephthalate (PET)",
"Investigation of the dual function of a GH30_7 xylanase through structural studies" and
"Towards novel polyethylene terephthalate (PET)-ases: Whole-cell biotransformation of PET-related substrates"
13. **Protein Data Bank Symposium-PDB50 (Virtual, 2021)**
"Structural and functional characterization of a novel fungal GH30_7 xylanase with xylobiohydrolase auxiliary activity"
12. **1st International Electronic Conference on Catalysis Sciences (Virtual, 2020)**
"Discovery and biochemical characterization of a novel polyesterase for the degradation of synthetic plastics" – *Best Paper Award*
11. **14th BIOTRANS (Groningen, the Netherlands 2019)**
"Structural and functional characterization of a novel fungal GH30_7 xylanase with xylobiohydrolase auxiliary activity"
10. **6th International Conference on Novel Enzymes (Darmstadt, Germany 2018)**
"Discovery of a novel enzymatic activity from a marine-derived fungus: Catalase with catechol dioxygenase activity"
"Expression and purification of a novel laccase from a marine-derived mesophotic PCB-degrading fungus"
9. **18th European Congress On Biotechnology (Geneva, Switzerland 2018)**
"Biodegradation of 2,4,5-trichlorobiphenyl (PCB29) by marine-derived mesophotic fungi"
8. **6th International Conference on Sustainable Solid Waste Management (Naxos, Greece 2018)** -*Oral presentation*
"Potential of marine-derived mesophotic fungi for the bioremediation of 2,4-dichlorophenol-contaminated wastewaters"
8. **13th BIOTRANS (Budapest, Hungary 2017)**
"Discovery of marine-derived mesophotic biocatalysts for the degradation of persistent organic pollutants" and
"Protein engineering of a fungal Polyphenol oxidase and its potential application in bioconversion of POPs"
6. **8th European Meeting on OxiZymes (Wageningen, the Netherlands 2016)**
"Protein engineering of a catechol oxidase and its potential application in bioconversion of POPs"
5. **5th International Conference on Novel Enzymes (Groningen, the Netherlands 2016)**
"Protein engineering of a polyphenol oxidase towards enhancement of its monophenolase activity"
4. **12th BIOTRANS (Vienna, Austria 2015)**
"Study of the synthetic potential of a *Fusarium oxysporum* cutinase in water-oil biphasic reaction system"
3. **9th Joint Meeting in Medicinal Chemistry (Athens, Greece 2015)**
"Enzymatic tailoring of oleuropein isolated from *Olea europaea* leaves"
2. **11th Carbohydrate Bioengineering Meeting (Espoo, Finland 2015)**
"Structural and functional studies of a *Fusarium oxysporum* cutinase with poly(ethylene terephthalate) modification potential"
1. **16th European Congress on Biotechnology (Edinburgh, Scotland 2014)**
"A cutinase from *Fusarium oxysporum* with potential for PET surface modification"

NATIONAL CONFERENCE PRESENTATIONS

11. **GreenTech Challenge 2025 Bootcamp (Αθήνα 2025)**
    "Biotechnological tools to tackle plastic pollution: The vision of Plastics Biorefinery" – *Invited Oral Presentation*
10. **iGEMed: Synthetic Biology and Interdisciplinarity (Athens, Greece 2025)**
    "Biocatalytic Plastic Degradation: Between Promise and Practice" – *Invited Oral Presentation*
9. **14th Panhellenic Scientific Conference of Chemical Engineering (Thessaloniki, Greece 2024)**
    "Repurposing fungal plant biomass-hydrolyzing enzymes for the degradation of polyethylene terephthalate" – Award,
    "Discovery of a thermotolerant MHET hydrolase scaffold using bioinformatics and machine learning" and
    "Investigation of structural determinants of plastic degrading enzymes via X-ray crystallography and molecular docking"
8. **13th Panhellenic Scientific Conference of Chemical Engineering (Athens, Greece 2022)**
    "High throughput screening assay for the discovery of novel PETase enzymes" and
    "Discovery of novel polyesterases capable to degrade plastic waste"
7. **9th Mikrobiokosmos Conference (Athens, Greece 2021)**
    "The potential of novel fungal isolates for the degradation of non-biodegradable synthetic polymers"
6. **8th Mikrobiokosmos Conference (Patras, Greece 2019)**
    "Exploiting marine fungal biodiversity of the mesophotic zone for biodegradation of organic pollutants"
5. **11th Panhellenic Scientific Conference of Chemical Engineering (Thessaloniki, Greece 2017)**
    "Study of the enzymatic polymerization and mass postpolymerization towards poly(cuccinic butyl ester)"
4. **7th Mikrobiokosmos Conference (Athens, Greece 2017)**
    "Protein engineering of a polyphenoloxidase from fungus *Myceliophthora thermophila* aiming to the increase its monophenolase activity"
    "Discovery of marine-derived fungi with potential for persistent organic pollutant degradation"
3. **10th Panhellenic Scientific Conference of Chemical Engineering (Patras, Greece 2015)**
    "Acylation of tyrosol in biphasic systems using a cutinase from the fungus *Fusarium oxysporum*"
2. **6th Mikrobiokosmos Conference (Athens, Greece 2015) -** *Oral presentation*
    "Structural and functional studies of a cutinase from *Fusarium oxysporum* with synthetic activity in water-oil biphasic systems and thermodynamic study of the reaction system"
1. **9th Panhellenic Scientific Conference of Chemical Engineering (Athens, Greece 2013)**
    "Surface modification of synthetic textile products using a cutinase from the fungus *Fusarium oxysporum*"

SOCIETY MEMBER

- COST Action CA21162 "Establishing a Pan-European Network on Computational Redesign of Enzymes" (COZYME) – Working Group Member
- COST Action CA20101 "Plastics monitoRIng detectiOn RemedIaTion recoverY (PRIORITY) – Working Group Member (Substitute Management Committee Member)
- COST Action CA20137 ''Making Young Researchers' Voices Heard for Gender Equality" (VOICES) – Working Group Member

- COST Action CM1303 “Systems Biocatalysis” – Working Group Member
- Hellenic Scientific Society MikroBioKosmos (MBK)
- Technical Chamber of Greece

REVIEWER AT PEER-REVIEWED JOURNALS

Serving as reviewer in over 20 scientific journals, having completed >70 verified reviews.

Selected journals: Archives of Microbiology – Springer, Synthetic Biology – Oxford Academic, Environmental Pollutants and Bioavailability – Taylor & Francis, World Journal of Microbiology and Biotechnology – Springer, Toxics – MDPI Publishing, Catalysts (Reviewer Board Member) – MDPI Publishing, Process Biochemistry – Elsevier, Microorganisms – MDPI Publishing, Molecules – MDPI Publishing, Applied and Environmental Microbiology – ASM Journals, Molecular Catalysis – Elsevier, Food and Bioproducts Processing – Elsevier, Frontiers in Chemistry – Frontiers, Journal of Fungi – MDPI Publishing, Biomolecules – MDPI Publishing, Frontiers in Bioengineering and Biotechnology – Frontiers, Computational and Structural Biotechnology Journal – Elsevier, International Journal of Molecular Sciences – MDPI Publishing, Food & Function – Royal Society of Chemistry, Journal of Hazardous Materials – Elsevier, Chemical Engineering Journal – Elsevier, Biotechnology Advances – Elsevier, International Journal of Biological Macromolecules – Elsevier