

EFSTRATIOS NIKOLAIVITS

Special 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 Thesis: "Discovery of novel fungal biocatalysts and application in bioremediation of chlorinated aromatic pollutants"	06/2015-12/2019
National Technical University of Athens (NTUA) Chemical Engineering Diploma 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 <i>Fusarium oxysporum</i> "	10/2007-03/2014

LANGUAGES

Greek-Native speaker
English-C2 Level
German-B1 Level

AWARDS/DISTINCTIONS/PERSONAL FUNDING

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 (2 nd Prize) at the 8 th 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 (1 st Prize)	2020
"Iakovos Giourounlian Award-BIOHALCO Foundation" for best industrially relevant 2019 Chemical Engineering PhD Thesis (2 nd 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 (<i>Systems Biocatalysis</i>) fellowship	2017

TEACHING AND SUPERVISION EXPERIENCE

University of Verona

Department of Biotechnology

Visiting Professor**05/2023**

“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 Processes

Lecturer of “Applied Biotechnology”**2022-present**Lab courses: Industrial Biotechnology, Environmental Biotechnology, Food

Chemistry/Microbiology/Preservation, Bioengineering

Tutoring course: Biochemical Engineering

National Technical University of Athens (NTUA)

School of Chemical Engineering-Biotechnology Laboratory

Thesis Supervisor**2015-present**Undergrad students: 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**09/2024-12/2024**TwInn4MicroUp “Twinning Innovation Hub For Microbial Platforms In Plastic Upcycling”

Funded by Horizon Europe

National Technical University of Athens (NTUA)

Associate Researcher**02/2024-12/2024**EnZyReMix “Chemoenzymatic recycling of mixed plastic waste”

Funded by the Hellenic Foundation for Research & Innovation

National Technical University of Athens (NTUA)

Associate Researcher**01/2023-06/2024**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 BioICEP "Bio Innovation of a Circular Economy for Plastics", Funded by Horizon 2020	01/2020-09/2021
National Technical University of Athens (NTUA) Research Assistant TASCMAR "Tools And Strategies to access original bioactive compounds by Cultivating MARine invertebrates and associated symbionts" Funded by Horizon 2020	11/2015-09/2019
TECHNION-Israel Institute of Technology Research Assistant "Bioconversion of cinnamic acid derivatives towards the production of caffeic acid using engineered monooxygenase and PPO" funded by the EU COST Action CM1303 <i>Systems Biocatalysis</i>	02/2017-03/2017
National Technical University of Athens (NTUA) Research Assistant "The Sustainable Integrated Method for the Production of Lignocellulosic Ethanol-SIMPLE", SYNERGASIA 2011-NSRF funded	10/2014-09/2015
National Hellenic Research Foundation (NHRF) Institute of Biology, Medicinal Chemistry and Biotechnology – Industrial Enzymology Unit Intern Development of bacterial strains for screening of rescuers for neurodegenerative diseases	09/2011-12/2011

REVIEWER AT PEER-REVIEWED JOURNALS

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

Selected journals are mentioned below:

- Archives of Microbiology – Springer (IF 2.8)
- Synthetic Biology – Oxford Academic (IF 3.2)
- Environmental Pollutants and Bioavailability – Taylor & Francis (IF 3.3)
- World Journal of Microbiology and Biotechnology – Springer (IF 4.3)
- Toxics – MDPI Publishing (IF 4.5)
- Catalysts (Reviewer Board Member) – MDPI Publishing (IF 4.5)
- Int. Journal of Environmental Research and Public Health – MDPI Publishing (IF 4.6)
- Process Biochemistry – Elsevier (IF 4.9)
- Microorganisms – MDPI Publishing (IF 4.9)
- Molecules – MDPI Publishing (IF 4.9)
- Applied and Environmental Microbiology – ASM Journals (IF 5.0)
- Molecular Catalysis – Elsevier (IF 5.1)

Food and Bioproducts Processing – Elsevier (IF 5.1)
Antibiotics (Reviewer Board Member) – MDPI Publishing (IF 5.2)
Frontiers in Chemistry – Frontiers (IF 5.6)
Journal of Fungi – MDPI Publishing (IF 5.7)
Biomolecules – MDPI Publishing (IF 6.1)
Frontiers in Bioengineering and Biotechnology – Frontiers (6.1)
Computational and Structural Biotechnology Journal – Elsevier (IF 6.2)
International Journal of Molecular Sciences – MDPI Publishing (IF 6.2)
Food & Function – Royal Society of Chemistry (IF 6.3)
Science of the Total Environment – Elsevier (IF 9.8)
Journal of Cleaner Production – Elsevier (IF 11.1)
Environmental Science & Technology – ACS Publication (IF 11.4)
Journal of Hazardous Materials – Elsevier (IF 13.6)
Chemical Engineering Journal – Elsevier (IF 15.1)
Biotechnology Advances – Elsevier (IF 16)

PEER-REVIEWED PUBLICATIONS

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 phylogenetically distinct bacterial polyesterases. *Biotechnol. J.* **2024**, 19, 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 mesophilic 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

5. **“Creating and managing effective teams”** – *Generic and Transferable Skills Course provided by Chalmers University of Technology*
4. “Plastic Biodegradation: Can the existing microbial enzymatic system be a sustainable solution?” **“Webinars on Fridays 2021”** organized by 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

22. **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
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

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*”