

# **CURRICULUM VITAE**

# IOANNA VASILIADOU

Assistant Professor, Chemical Engineering Department, University of Western Macedonia, Greece

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PERSONAL INFORMATION		
SURNAME	VASILIADOU	
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CURRENT POSITION(S)			
05/2023 - present	Assistant Professor of Physical Process Engineering Chemical Engineering Department, School of Engineering, University of Western Macedonia, Greece		
PREVIOUS I	POSITION(S)		
2022 -2023	Postdoctoral researcher Department of Civil Engineering, School of Engineering, Democritus University of Thrace, Greece		
2022 -2023	<b>Teaching staff (under contract)</b> Chemical Engineering Department, School of Engineering, University of Western Macedonia, Greece		
2018 -2022	Postdoctoral researcher / Teaching staff (under contract) Department of Environmental Engineering, School of Engineering, Democritus University of Thrace, Greece		
2017 -2018	Postdoctoral researcher Department of Chemical and Environmental Technology, University Rey Juan Carlos de Madrid, Spain		
2016	Postdoctoral researcher Department of Engineering and Architecture Department, University of Trieste, Italy		
2015	Maternity leave		
2012-2014	Postdoctoral researcher Department of Chemical and Environmental Technology, University Rey Juan Carlos de Madrid, Spain		
2011-2012	Postdoctoral researcher and Teaching staff Materials Science and Engineering and Chemical Engineering Department University Carlos III de Madrid, Spain		
2008-2010	Postdoctoral researcher and Teaching staff (under contract) Department of Civil Engineering, School of Engineering, University of Patras, Greece		

EDUCATION		
2004 -2008	Department of Environmental & Natural Resources Management, University of Ioannina, Greece, Thesis title "Hydrogenotrophic denitrification of drinking water", Ph.D. degree.	
1999 -2004	Department of Environmental & Natural Resources Management, University of Ioannina, Greece, equivalent to Environmental Engineering Department, University of Patras, B.Sc. Degree, Integrated master	

#### PUBLICATIONS https://orcid.org/0000-0003-4947-543X

Her scientific work includes 48 articles in scientific journals, 2 book chapters and 35 announcements in international conferences. Scholar: H<sub>index</sub>: 25; Citations: 1938 / Scopus: H<sub>index</sub>: 23; Heterocitations: 1417)

- 1. I. Karametos, **I.A. Vasiliadou**\*, V. Papaevangelou, S. Mar-Yam, A.G. Tekerlekopoulou, D.V. Vayenas, C.S. Akratos (2024) "Mathematical modeling of constructed wetlands for hexavalent chromium removal", Science of The Total Environment, accepted.
- 2. Th. Ioannidou, M. Anagnostopoulou, **I.A. Vasiliadou**, C. Marchal, E.O. Alexandridou, V. Keller, K.C. Christoforidis\* (2024) "Mixed phase anatase nanosheets/brookite nanorods TiO<sub>2</sub> photocatalysts for enhanced gas phase CO<sub>2</sub> photoreduction and H<sub>2</sub> production", Journal of Environmental Chemical Engineering, 12, 111644. https://doi.org/10.1016/j.jece.2023.111644
- 3. **I.A. Vasiliadou\***, Z.A. Semizoglou, V.G. Karayannis, C.G. Tsanaktsidis, (2024) "Extraction study of lignite coalbed methane as a potential supplement to natural gas for enhancing energy security of Western Macedonia Region in Greece", Appl. Sci. 14, 174. https://doi.org/10.3390/app14010174
- 4. A. Itziou, K. Zaralis, A. Theofanous, M. Louloudi, G. Rozos, **I.A. Vasiliadou**, E. Lakioti, V. Karayannis, C. Tsanaktsidis, (2023) "Sustainable antioxidant production for hygienic disinfection using bioextractants from lavender and oregano distillation process", Energies 16, 7534. https://doi.org/10.3390/en162275342023.
- 5. A. Spyridonidis, **I.A. Vasiliadou**, P. Stathopoulou, A. Tsiamis, G. Tsiamis K. Stamatelatou, (2023) "Enrichment of microbial consortium with hydrogenotrophic methanogens for biological biogas upgrade to biomethane in a bubble reactor under mesophilic conditions", Sustainability, 15, 15247. https://doi.org/10.3390/su152115247
- 6. A.K. Benekos, **I.A. Vasiliadou**\*, A.G. Tekerlekopoulou, S. Pavlou, A. Katsaounis, D.V. Vayenas, (2023) "Groundwater denitrification using a continuous flow mode hybrid system combining a hydrogenotrophic biofilter and an electrooxidation cell", Journal of Environmental Management, 3391 Article number 117914. https://doi.org/10.1016/j.jenvman.2023.117914
- 7. **I.A. Vasiliadou\***, A. Kalogiannis, A. Spyridonidis, A. Katsaounis, K. Stamatelatou (2022) "Effect of applied potential on the performance of an electroactive methanogenic biocathode used for bioelectrochemical CO<sub>2</sub> reduction to CH<sub>4</sub>", Journal of Chemical Technology & Biotechnology, 97, 643-652. https://doi.org/10.1002/jctb.6946
- 8. A. Spyridonidis, **I.A. Vasiliadou**, K. Stamatelatou (2022) "Effect of zeolite on the methane production from chicken manure leachate", Sustainability, 14, 2207. <a href="https://doi.org/10.3390/su14042207">https://doi.org/10.3390/su14042207</a>
- 9. A. Kalogiannis, **I.A. Vasiliadou**, A. Spyridonidis, V. Diamantis, K. Stamatelatou (2022) "Biogas production from chicken manure wastes using an LBR-CSTR two-stage system: process efficiency, economic feasibility, and carbon dioxide footprint", Journal of Chemical Technology & Biotechnology, 97, 2952-2961. https://doi.org/10.1002/jctb.7170
- 10. **I.A. Vasiliadou**\*, Th. Ioannidou, M. Anagnostopoulou, A. Polizotou, D. Papoulis, K.C. Christoforidis\* (2022) "Adsorption of anionic dyes on a novel Palygorskite / UiO-66 nanocomposite", Applied Sciences, 12(15), 7468. <a href="https://doi.org/10.3390/app12157468">https://doi.org/10.3390/app12157468</a>
- 11. Th. Ioannidou, M. Anagnostopoulou, D. Papoulis, K.C. Christoforidis\*, **I.A. Vasiliadou**\*, (2022) "UiO-66/Palygorskite/TiO<sub>2</sub> ternary composites as adsorbents and photocatalysts for methyl orange removal", Applied Sciences, 12(16), 8223. <a href="https://doi.org/10.3390/app12168223">https://doi.org/10.3390/app12168223</a>
- 12. S.A. Díaz-Rullo Edreira, S. Barba, **I.A. Vasiliadou**, R. Molina, J.A. Melero, J.J. Espada, D. Puyol, F. Martínez (2021) "Assessment of Voltage Influence in Carbon Dioxide Fixation Process by a Photo-Bioelectrochemical System under Photoheterotrophy", Microorganisms, 9, 474. https://doi.org/10.3390/microorganisms9030474

- 13. R. Vitanza, A. Cortesi, V. Gallo, M.E. De Arana, **I.A. Vasiliadou** (2021) "Simulation of an Oxic-Settling-Anaerobic Pilot Plant Operated under Real Conditions Using the Activated Sludge Model No.2d", Water, 13, 3383. <a href="https://doi.org/10.3390/w13233383">https://doi.org/10.3390/w13233383</a>
- 14. M. Zhurka, A. Spyridonidis, **I.A. Vasiliadou**, K. Stamatelatou (2020) "Biogas production from sunflower head and stalk residues: Effect of alkaline pretreatment", Molecules, 25, 164. doi:10.3390/molecules25010164
- 15. **I.A. Vasiliadou**, J.A. Melero, R. Molina, D. Puyol, F. Martinez (2020) "Optimization of H<sub>2</sub> production through minimization of CO<sub>2</sub> emissions by mixed cultures of purple phototrophic bacteria in aqueous samples", Water, 12:2015. <a href="https://doi.org/10.3390/w12072015">doi:10.3390/w12072015</a>
- 16. A. Spyridonidis A., **I.A. Vasiliadou**, C.S. Akratos, K. Stamatelatou (2020) "Performance of a full-scale biogas plant operation in Greece and its impact on the circular economy", Water, 12:3074. https://doi.org/10.3390/w12113074
- 17. **I.A. Vasiliadou**\*, R. Molina, M.I. Pariente, K.C. Christoforidis, F. Martinez, J.A. Melero (2019) "Understanding the role of mediators in the efficiency of advanced oxidation processes using white-rot fungi", Chemical Engineering Journal, 359, 1427-1435. https://doi.org/10.1016/j.cej.2018.11.035
- 18. R. Vitanza, A. Cortesi, M.E. De Arana-Sarabia, V. Gallo, **I.A. Vasiliadou** (2019) "Oxic settling anaerobic (OSA) process for excess sludge reduction: 16 months of management of a pilot plant fed with real wastewater", Journal of Water Process Engineering, 32,100902. https://doi.org/10.1016/j.jwpe.2019.100902
- 19. A. Cruz del Álamo, M.I. Pariente, **I.A. Vasiliadou**, B. Padrino, D. Puyol, R. Molina, F. Martínez (2018) "Removal of pharmaceutical compounds from urban wastewater by an advanced bio-oxidation process based on fungi Trametes versicolor immobilized in a continuous RBC system", Environmental Science and Pollution Research, 25, 34884-34892 https://doi.org/10.1007/s11356-017-1053-4
- 20. **I.A. Vasiliadou**, S. Bellou, A. Daskalaki, L. Tomaszewska- Hetman, C. Chatzikotoula, B. Kompoti, S. Papanikolaou, D. Vayenas, S. Pavlou, G. Aggelis (2018) "Biomodification of fats and oils and scenarios of adding value on renewable fatty materials through microbial fermentations: Modelling and trials with Yarrowia lipolytica", Journal of Cleaner Production 200, 1111-1129. <a href="https://doi.org/10.1016/j.jclepro.2018.07.187">https://doi.org/10.1016/j.jclepro.2018.07.187</a>
- 21. A. Daskalaki, **I.A. Vasiliadou**, S. Bellou, L. Tomaszewska- Hetman, C. Chatzikotoula, B. Kompoti, S. Papanikolaou, D. Vayenas, S. Pavlou, G. Aggelis (2018) "Data on cellular lipids of Yarrowia lipolytica grown on fatty substrates" Data in Brief 21, 1037-1044.
- 22. M.E. De Arana-Sarabia, **I.A. Vasiliadou\***, R. Vitanza, A. Cortesi, V. Gallo (2018) "Mathematical Simulation and Validation of a Wastewater Treatment Plant in Northern Italy", Environmental Engineering Science 35, <a href="https://doi.org/10.1089/ees.2017.0424">https://doi.org/10.1089/ees.2017.0424</a>
- 23. **I.A. Vasiliadou\***, R. Molina, F. Martinez, J.A. Melero, P.M. Stathopoulou, G. Tsiamis (2018) "Toxicity assessment of pharmaceutical compounds on mixed culture from activated sludge using respirometric technique: The role of microbial community structure", Science of the Total Environment 630, 809-819. https://doi.org/10.1016/j.scitotenv.2018.02.095
- 24. **I.A. Vasiliadou**, A. Berná, C. Manchon, J.A. Melero, F. Martinez, A. Esteve-Nuñe, D. Puyol (2018) "Biological and bioelectrochemical systems for hydrogen production and carbon fixation using purple phototrophic bacteria" Frontiers in Energy Research 6:107. doi: 10.3389/fenrg.2018.00107
- 25. K.C. Christoforidis, **I.A. Vasiliadou**, M. Louloudi, Y. Deligiannakis (2018) "Gallic acid mediated oxidation of pentachlorophenol by the Fenton reaction under mild oxidative conditions" Journal of Chemical Technology and Biotechnology 93, 1601-1610. doi:10.1002/jctb.5529
- 26. **I.A. Vasiliadou**, M.I. Pariente, F. Martínez, J.A. Melero, R. Molina (2016) "Modeling the integrated heterogeneous catalytic fixed-bed reactor and RBC system for the treatment of poorly biodegradable industrial agrochemical wastewater", Journal of Environmental Chemical Engineering, 4, 2313-2321. http://dx.doi.org/10.1016/j.jece.2016.04.007
- 27. K.A. Karanasios, **I.A. Vasiliadou**, A.G. Tekerlekopoulou, S. Pavlou, D.V. Vayenas (2016) "Effect of C/N ratio and support medium on the heterotrophic denitrification of bio-filters using sugar as carbon substrate", International Biodeterioration & Biodegradation, 111, 62-73. http://dx.doi.org/10.1016/j.ibiod.2016.04.020
- 28. **I.A. Vasiliadou\***, R. Sánchez-Vázquez, R. Molina, F. Martínez, J.A. Melero, L.F. Bautista, J. Iglesias, G. Morales (2016) "Biological removal of pharmaceutical compounds using white-rot fungi with

- concomitant FAME production of the residual biomass", Journal of Environmental Management, 180, 228-237. https://doi.org/10.1016/j.jenvman.2016.05.035
- 29. **I.A.** Vasiliadou\*, A.K.Md.M. Bari Chowdhury, C.S. Akratos, A.G. Tekerlekopoulou, S. Pavlou, D.V. Vayenas (2015) "Mathematical modeling of olive mill waste composting process" Waste Management, 43, 61-71. <a href="https://doi.org/10.1016/j.wasman.2015.06.038">doi:10.1016/j.wasman.2015.06.038</a>
- 30. J.A. Melero, R. Sánchez-Vázquez, **I.A. Vasiliadou**, F. Martínez, L.F. Bautista, J. Iglesias, G. Morales and R. Molina (2015) "Municipal sewage sludge to biodiesel by simultaneous extraction and conversion of lipids" Energy Conversion and Management, 103, 111-118. doi: 10.1016/j.enconman.2015.06.045
- 31. **I.A. Vasiliadou\***, R. Molina, F. Martínez, J.A. Melero (2014) "Experimental and modeling study of pharmaceutically active compounds removal in rotating biological contactors" Journal of Hazardous Materials, 274, 473-482. <a href="doi:10.1016/j.jhazmat.2014.04.034">doi:10.1016/j.jhazmat.2014.04.034</a>
- 32. R. Molina, M.I. Pariente, **I.A. Vasiliadou**, I. Rodriguez, F. Martínez, J.A. Melero (2014) "A friendly-Biological Reactor Simulator (BioReSIM) for studying biological processes in wastewater treatment processes" @tic. Revista d' InnovacióEducativa, N°13, 104-113. doi:10.7203/attic.13.3886
- 33. A.M. Lunde, C. Lopez-Monis, **I.A. Vasiliadou**, L.L. Bonilla, and G. Platero (2013) "Temperature dependent dynamical nuclear polarization bistabilities in double quantum dots in the spin-blockade regime" Physical Review B Condensed Matter and Materials Physics, 88, Article number 035317. doi:10.1103/PhysRevB.88.035317
- 34. **I.A.** Vasiliadou\*, R. Molina, F. Martínez, J.A. Melero (2013) "Biological removal of pharmaceutical and personal care products by a mixed microbial culture: Sorption, desorption and biodegradation" Biochemical Engineering Journal, 81, 108-119. doi:10.1016/j.bej.2013.10.010
- 35. C.V. Chrysikopoulos, V.I. Syngouna, **I.A. Vasiliadou**, V.E. Katzourakis (2012) "Transport of *Pseudomonas putida* in a 3-D benchscale experimental aquifer" Transport in Porous Media, 94, 617-642. doi:10.1007/s11242-012-0015-z
- 36. K.A. Karanasios, M.K. Michailidis, **I.A. Vasiliadou**, S. Pavlou, D.V. Vayenas (2011) "Potable water hydrogenotrophic denitrification in packed-bed bioreactors coupled with a solar-electrolysis hydrogen production system" Desalination and Water Treatment, 33, 86-96. <a href="https://doi.org/10.5004/dwt.2011.2614">doi:10.5004/dwt.2011.2614</a>
- 37. **I.A. Vasiliadou** and C.V. Chrysikopoulos (2011) "Cotransport of *Pseudomonas putida* and kaolinite particles through water saturated columns packed with glass beads" Water Resources Research, 47, W02543. doi:10.1029/2010WR009560
- 38. **I.A. Vasiliadou\***, D. Papoulis, C.V. Chrysikopoulos, D. Panagiotaras, E. Karakosta, M. Fardis, G. Papavassiliou (2011) "Attachment of *Pseudomonas putida* onto differently structured kaolinite minerals: A combined ATR-FTIR and 1H NMR study" Colloids and Surfaces B: Biointerfaces, 84, 354-359. doi:10.1016/j.colsurfb.2011.01.026
- 39. Ch.N. Economou, **I.A. Vasiliadou**, G. Aggelis, S. Pavlou, D.V. Vayenas (2011) "Modeling of oleaginous fungal biofilm developed on semi-solid media" Bioresource Technology, 102, 9697-9704. doi:10.1016/j.biortech.2011.08.003
- 40. K.A. Karanasios, **I.A. Vasiliadou**, S. Pavlou, D.V. Vayenas (2010) "Hydrogenotrophic denitrification of potable water: A review" Journal of Hazardous Materials, 180, 20-37. doi:10.1016/j.jhazmat.2010.04.090
- 41. **I.A. Vasiliadou**, S. Pavlou, D.V. Vayenas (2009) "Dynamics of a chemostat with three competitive hydrogen oxidizing denitrifying microbial populations and their efficiency for denitrification" Ecological Modelling, 220, 1169-1180. <a href="https://doi.org/10.1016/j.ecolmodel.2009.02.009">doi:10.1016/j.ecolmodel.2009.02.009</a>
- 42. **I.A. Vasiliadou**, K.A. Karanasios, S. Pavlou, D.V. Vayenas (2009) "Experimental and modelling study of drinking water hydrogenotrophic denitrification in packed-bed reactors" Journal of Hazardous Materials, 165, 812-824. <a href="https://doi.org/10.1016/j.jhazmat.2008.10.067">doi:10.1016/j.jhazmat.2008.10.067</a>
- 43. **I.A. Vasiliadou**, K.A. Karanasios, S. Pavlou, D.V. Vayenas (2009) "Hydrogenotrophic denitrification of drinking water using packed-bed reactors" Desalination, 248, 859-868. doi:10.1016/j.desal.2009.01.015
- 44. A.G. Tekerlekopoulou, **I.A. Vasiliadou**, D.V. Vayenas (2008) "Biological manganese removal from potable water using trickling filters" Biochemical Engineering Journal, 38, 292-301. doi:10.1016/j.bej.2007.07.016
- 45. **I.A. Vasiliadou**, G. Tziotzios, D.V. Vayenas (2008) "A kinetic study of combined aerobic biological phenol and nitrate removal in batch suspended growth cultures" International Biodeterioration & Biodegradation, 61, 261-271. <a href="https://doi.org/10.1016/j.ibiod.2007.09.002">doi:10.1016/j.ibiod.2007.09.002</a>

- 46. A.G. Tekerlekopoulou, **I.A. Vasiliadou**, D.V. Vayenas (2006) "Physicochemical and biological iron removal from potable water" Biochemical Engineering Journal, 31, 74-83. doi:10.1016/j.bej.2006.05.020
- 47. **I.A. Vasiliadou**, S. Pavlou, D.V. Vayenas (2006) "A kinetic study of hydrogenotrophic denitrification" Process Biochemistry, 41, 1401-1408. doi:10.1016/j.procbio.2006.02.002
- 48. **I.A. Vasiliadou**, S. Siozios, I.T. Papadas, K. Bourtzis, S. Pavlou, D.V. Vayenas (2006) "Kinetics of pure cultures of hydrogen-oxidizing denitrifying bacteria and modeling of the interactions among them in mixed cultures" Biotechnology and Bioengineering, 95, 513-525. doi:10.1002/bit.21031

# **CONFERENCES/WORKSHOPS/etc (selected)**

- 2<sup>nd</sup> International Conference on Sustainable Chemical and Environmental Engineering, Social acceptance of sustainable bioenergy transition policies for public health, E. Lakioti, A. Itziou, I.A. Vasiliadou, V. Karayannis and C. Tsanaktsidis, 14-18 June 2023, Limassol, Cyprus.
- 5<sup>th</sup> Euro-Mediterranean Conference for Environmental Integration (EMCEI-2023), Theoretical prediction of physicochemical properties of diesel-biodiesel blends using mathematical modelling V. Vasileiadis, I.Th. Papageorgiou, Ch. Kyriklidis, I.A. Vasiliadou, C.G. Tsanaktsidis, 2-5 October 2023, Rende (Cosenza) Italy.
- International Society for Microbial Electrochemistry and Technology, ISMET8, The metabolic tuning of mixed purple phototrophic bacteria biofilms in heterotrophic conditions through microbial photoelectrosynthesis, S. Díaz-Rullo Edreira, A. Prado, I.A. Vasiliadou, J.J. Espada, R. Wattiez, B. Leroy, F. Martínez, D. Puyol, 19-23 September 2022, Chania, Greece.
- 3<sup>rd</sup> Symposium on Circular Economy and Sustainability, Adsorption of organics on novel clay/metal-organic frameworks (MOFs) nanocomposites, I.A. Vasiliadou, Th. Ioannidou, M. Anagnostopoulou, K.C. Christoforidis, June 27-29 2022, Chania, Greece.
- 17<sup>th</sup> International Conference on Environmental Science and Technology, Biogas upgrade via ex-situ technologies, A. Spyridonidis, **I.A. Vasiliadou**, K. Stamatelatou, 1-4 September 2021, Athens, Greece.
- Online Symposium on Circular Economy and Sustainability, Sustainable hydrogen production from water and hydrocarbons using photo-triggered reactions, Th. Ioannidou, I.A. Vasiliadou, Z. Syrgiannis, K.C. Christoforidis, 14-16 July 2021, Alexandroupolis, Greece
- 8<sup>th</sup> International conference on sustainable solid waste management, Bioelectrochemical biogas upgrade: A novel technology for reduction of carbon dioxide (CO<sub>2</sub>) into methane, I.A. Vasiliadou, A. Kalogiannis, A. Spyridonidis, A. Katsaounis, K. Stamatelatou, 23-26 June 2021, Thessaloniki, Greece.
- Online Symposium on Circular Economy and Sustainability, Biogas production from chicken manure wastes using a two-stage LBR-CSTR system: The effect of zeolite as bulking and adsorbing agent, A. Kalogiannis, A. Spyridonidis, I.A. Vasiliadou, K. Stamatelatou, 1-3 July 2020, Alexandroupolis, Greece.
- 16<sup>th</sup> IWA Leading Edge Conference, Reducing carbon dioxide emissions from wastewater by bioelectrochemical systems with purple phototrophic bacteria: effect of polarization, **I.A. Vasiliadou**, J.A. Melero, F. Martinez, A. Esteve-Nuñez, D. Puyol10-14 June 2019, Edinburgh, UK.
- 16<sup>th</sup> IWA World Conference on Anaerobic on digestion, Anaerobic digestion of slaughterhouse wastes after hygienization in a continuous two-stage process, A. Spyridonidis, **I.A. Vasiliadou**, S. Antonoudis, C. Kivraki, K. Stamatelatou, 23-27 June 2019, Delft, The Netherlands.
- VII International Conference on Environmental, Industrial and Applied Microbiology, BioMicroWorld, Electrochemical engineering of purple phototrophic bacterial metabolism towards resources and energy recovery from wastewater, I.A. Vasiliadou, R. Molina, A. Berná, C. Manchon, J.A. Melero, F. Martinez, A. Esteve-Nuñez, D. Puyol, 18-20 October 2017, Madrid, Spain.
- Th European Meeting on Chemical Industry and Environment, EMChIE, Intimate coupling of wastewater treatment and biodiesel production, I.A. Vasiliadou, R. Sánchez-Vázquez, R. Molina, J.A. Melero, F. Martínez, LF Bautista, J. Iglesias, G. Morales, 10-12 June 2015, Tarragona, Spain.

### **MEMBERSHIPS & REVIEWING ACTIVITIES**

2022 present Member of the Management Committee and Training Schools Coordinator of the Cost Action Fundamentals and applications of purple bacteria biotechnology for resource recovery from waste-PURPLEGAIN-2022 (https://purplegain.eu/)

2022 - present	Member of the Technical Chamber of Greece
2020 - present	Member of the scientific committee at 4 international conferences/symposiums September 2024 "1 <sup>st</sup> International Conference on novel photo(bio)refineries for Resource Recovery" April 2025 "6 <sup>th</sup> International Conference on Water Economics, Statistics and Finance" July 2021 "2 <sup>nd</sup> Online Symposium on Circular Economy and Sustainability" INFER 2021 July 2020 "Online Symposium on Circular Economy and Sustainability" INFER 2020
2020	Member of the World Technology Network
2017 - present	Member of scientific proposal evaluation committee of: i) National Research Foundation (NRF) of <b>South Africa</b> , ii) <b>Spanish</b> State Research Agency, Agencia Estatal de Investigación (AEI), iii) <b>French</b> National Research Agency Projects for science, ANR
2020-2021	Member of the Steering Committee and the Advisory Board of Got Energy Talent MSCA-Cofund Programme, Universidad de Alcalá (UAH) and Universidad Rey Juan Carlos (URJC), Spain.
2018 - present	Guest editor of 5 special issues of scientific journals ( <a href="https://susy.mdpi.com/academic-editor/special_issues">https://susy.mdpi.com/academic-editor/special_issues</a> ; <a href="https://www.mdpi.com/journal/materials/special_issues/39SORU52VH">https://www.mdpi.com/journal/materials/special_issues/39SORU52VH</a> ) and Associate editor at Frontiers in Sustainability.
2020	Member of Ana Belén Cruz del Álamo Doctoral thesis evaluation committee member: "Advanced oxidation processes based on fungal rotating biological contactors and heterogeneous Fenton catalytic fixed bed reactors for the removal of pharmaceutical micropollutants in wastewater streams" Author: (30/03/2020) Rey Juan Carlos University, Spain.
2009 – present	Reviewer of 40 international peer-reviewed journals.

TEACHING	ACTIVITIES
acad. year 2023-2024	Department of Chemical Engineering, School of Engineering, University of Western Macedonia, Greece, <b>Assist. Prof.</b> , Courses: i) Physical Process engineering, ii) Calculus I
acad. year 2022-2023	Department of Chemical Engineering, School of Engineering, University of Western Macedonia, Greece, Contracted Teaching staff, Courses: i) Calculus I, II, and III, ii) Transfer phenomena III (mass transfer), iii) <b>Master course:</b> Use of biomass in energy production, contracted Teaching staff, Master of Energy investments and environment
<b>July 2023</b>	Instructor in International Training School in Modelling Purple Phototrophic Bacteria for Resource Recovery, Course: Modeling of PPB Photoheterotrophic Substrate uptake (lecturers in English), Aranjuez, Rey Juan Carlos University, Madrid, Spain
acad. year 2021-2022	Department of Environmental Engineering, School of Engineering, Democritus University of Thrace, Greece, Contracted Teaching staff, Courses: i) Physical Process engineering, ii) Chemical and Biochemical Process engineering
acad. year 2017-2018	Food Science and Technology Degree, Rey Juan Carlos University, Madrid, Spain Analytical control of contaminants in food (lecturers in Spanish), Teaching assistant
<b>July 2011</b>	Instructor in European Summer School in Industrial Mathematics (ESSIM), Course: Modeling of Biofilms in Industrial Applications (lecturers in English), Department of Mathematics, University Degli Studi de Milano, Italy
acad. year 2010-2012	Escuela Politecnica Superior, University Carlos III de Madrid, Spain (lecturers in English), contracted Teaching staff, Courses: i) Calculus I and II, ii) <b>Master course</b> : Modeling in Science and Industry, Master in Industrial Mathematics
acad. year 2008-2010	Department of Civil Engineering, School of Engineering, University of Patras, Greece Contracted Teaching staff, Courses: i) Water Treatment, ii) Wastewater Treatment

SUPERVISION OF GRADUATE STUDENTS		
2023- present	Supervision of master thesis of 4 master students, Chemical Engineering Department, School of Engineering, University of Western Macedonia, Greece	
2011-2018	Supervision of diploma thesis of 7 students, BSc in Environmental Engineering/Chemical Engineering/ Environmental Science, University Rey Juan Carlos de Madrid, Spain	

FELLOWSH	IPS and AWARDS
2020	Katerva Awards-PEOPLE'S CHOICE 2020 - Cities and Mobilities- Energy from sewage (Ioanna A. Vasiliadou et al. 10.3389/fenrg.2018.00107)
2018	WORLD TECHNOLOGY AWARDS - Finalists ENVIRONMENT (Ioanna A. Vasiliadou et al. 10.3389/fenrg.2018.00107) https://www.wtn.net/2018/world-technology-awards-winners-and-finalists
2017	Individual Post-Doctoral Fellowship: International incoming researchers - International excellence campus SMART ENERGY program CEISEP, Project title «Smart electrochemical engineering of bacterial metabolism towards resources and energy recovery from wastewater», Chemical and Environmental Technology Department, University Rey Juan Carlos de Madrid, Spain
2012 - 2014	Individual Postdoctoral <b>Marie Curie</b> Fellowship (MC Intra-European Fellowships for career development 2010, 7th Framework Programme on Research, Technological Development and Demonstration. Project Title: «Intimate coupling of biological advanced oxidation processes for environmental de-pollution and biodiesel production», Chemical and Environmental Technology Department, University Rey Juan Carlos de Madrid, Spain
2011 - 2012	Individual Post-Doctoral Fellowship, Social Council of Universidad Carlos III de Madrid, Materials Science and Engineering and Chemical Engineering Department, University Carlos III, Leganes, Marid, Spain
2012	Praise based on student evaluation for the teaching of the Calculus I course (Academic year: 2011-2012) in the Aerospace Engineering Degree of Carlos III University (Spain), which was held in the English language.

RESEARCH GRANTS			
Project Title	Funding source	Period	Role of the PI
Strengthening the water management practices (in EMT-R) through the development of innovative ICT methodologies and improvement of research infrastructures	Operational Program "Competitiveness, Entrepreneurship and Innovation" under the NSRF 2014-2020, with the co-financing of Greece and the European Union (European Regional Development Fund)	2022-2023 18/7/2022-17/4/2023	Participant
Employing circular economy approach for OFMSW management within the Mediterranean countries (CEOMED)	"ENI-CBC Mediterranean Sea Basin Program 2014-2020", Co- financed by the European Neighborhood Mechanism (ENI) and national resources	2020-2021 11/6/2020-31/8/2020 21/9/2020-15/2/2021	Participant
Research Infrastructure for Waste Valorization and Sustainable	Operational program "Competitiveness	2018-2021 28/9/2018-27/12/2018	Participant

Entrepreneurship and Innovation" Priority axis 03 "Development of support mechanisms and entrepreneurship" ESPA 2014- 2020	01/1/2019-31/7/2019 02/10/2019-09/6/2020 01/9/2020-20/9/2020 16/2/2021-31/5/2021	
Operational Program "Human Resource Development, Education and Lifelong Learning ESPA 2014-2020", Improving the quality and efficiency of the Educational System	2020-2021 18/3/2020-17/9/2021	Participant
Community of Madrid. 10/2014 - 09/2018 (S-2013/MAE-27166).	2017-2018 01/6/2017-30/6/2018	Participant
International incoming researchers - International excellence campus SMART ENERGY program CEISEP, University Rey Juan Carlos de Madrid, Spain	2017 01/1/2017-31/12/2017	Principal Investigator
CAFC SpA private company Trieste, Friuli-Venezia Giulia, Italy	2016 11/6/2016-10/10/2016	Participant
Ministry of Science and Innovation (CTM2011-29143- C03-01), Spain	2014 01/2/2014-31/12/2014	Participant
Marie Curie Intra-European Fellowships for career development 2010, 7 <sup>th</sup> Framework Programme on Research, Technological Development and Demonstration.	2012-2014 01/2/2012-31/1/2014	Principal Investigator
INTERREG IIIA GREECE- ITALY 2000-2006, PRIMAC	2008 01/1/2008-30/6/2008	Participant
Competitiveness (act 4.3.6.1.d), General Secretariat of Research and Innovation of the Ministry of Development, 2006-2008	2007-2008 01/1/2007-31/3/2008	Participant
	Entrepreneurship and Innovation" Priority axis 03 "Development of support mechanisms and entrepreneurship" ESPA 2014-2020  Operational Program "Human Resource Development, Education and Lifelong Learning ESPA 2014-2020", Improving the quality and efficiency of the Educational System  Community of Madrid. 10/2014 - 09/2018 (S-2013/MAE-27166).  International incoming researchers - International excellence campus SMART ENERGY program CEISEP, University Rey Juan Carlos de Madrid, Spain  CAFC SpA private company Trieste, Friuli-Venezia Giulia, Italy  Ministry of Science and Innovation (CTM2011-29143-C03-01), Spain  Marie Curie Intra-European Fellowships for career development 2010, 7th Framework Programme on Research, Technological Development and Demonstration.  INTERREG IIIA GREECE-ITALY 2000-2006, PRIMAC  Competitiveness (act 4.3.6.1.d), General Secretariat of Research and Innovation of the Ministry of	Entrepreneurship and Innovation" Priority axis 03 "Development of support mechanisms and entrepreneurship" ESPA 2014-2020  Operational Program "Human Resource Development, Education and Lifelong Learning ESPA 2014-2020", Improving the quality and efficiency of the Educational System  Community of Madrid. 10/2014 - 09/2018 (S-2013/MAE-27166).  International incoming researchers - International excellence campus SMART ENERGY program CEISEP, University Rey Juan Carlos de Madrid, Spain  CAFC SpA private company Trieste, Friuli-Venezia Giulia, Italy  Ministry of Science and Innovation (CTM2011-29143-C03-01), Spain  Marie Curie Intra-European Fellowships for career development 2010, 7th Framework Programme on Research, Technological Development and Demonstration.  INTERREG IIIA GREECE-ITALY 2000-2006, PRIMAC  Competitiveness (act 4.3.6.1.d), General Secretariat of Research and Innovation of the Ministry of 01/1/2007-31/3/2008 01/1/2007-31/3/2008

integrated management of olive	General Secretariat of Research	
mill waste	and Innovation of the Ministry of	
	Development, 2000-2006.	

#### **2 SCIENTIFIC ACHIEVEMENTS**

#### Up to ten (10) representative publications, from the last ten (10) years, as main author

- Groundwater denitrification using a continuous flow mode hybrid system combining a hydrogenotrophic biofilter and an electrooxidation cell, A.K. Benekos, **I.A. Vasiliadou**\*, A.G. Tekerlekopoulou, S. Pavlou, A. Katsaounis, D.V. Vayenas, Journal of Environmental Management, 3391, Article number 117914, 2023. https://doi.org/10.1016/j.jenvman.2023.117914
- Adsorption of anionic dyes on a novel Palygorskite / UiO-66 nanocomposite, **I.A. Vasiliadou\***, Th. Ioannidou, M. Anagnostopoulou, A. Polizotou, D. Papoulis, K.C. Christoforidis\*, Applied Sciences, 12(15), 7468, 2022. https://doi.org/10.3390/app12157468
- Effect of applied potential on the performance of an electroactive methanogenic biocathode used for bioelectrochemical CO<sub>2</sub> reduction to CH<sub>4</sub>, **I.A. Vasiliadou\***, A. Kalogiannis, A. Spyridonidis, A. Katsaounis, K. Stamatelatou, Journal of Chemical Technology & Biotechnology, 97, 643-652, 2022. https://doi.org/10.1002/jctb.6946
- Understanding the role of mediators in the efficiency of advanced oxidation processes using white-rot fungi, **I.A. Vasiliadou\***, R. Molina, M.I. Pariente, K.C. Christoforidis, F. Martinez, J.A. Melero, Chemical Engineering Journal, 359, 1427-1435, 2019, https://doi.org/10.1016/j.cej.2018.11.035
- Toxicity assessment of pharmaceutical compounds on mixed culture from activated sludge using respirometric technique: The role of microbial community structure, **I.A. Vasiliadou\***, R. Molina, F. Martinez, J.A. Melero, P.M. Stathopoulou, G. Tsiamis, Science of the Total Environment 630, 809-819, 2018, https://doi.org/10.1016/j.scitotenv.2018.02.095
- Mathematical Simulation and Validation of a Wastewater Treatment Plant in Northern Italy, M.E. De Arana-Sarabia, I.A. Vasiliadou\*, R. Vitanza, A. Cortesi, V. Gallo, Environmental Engineering Science, 35, 2018. https://doi.org/10.1089/ees.2017.0424
- Biological removal of pharmaceutical compounds using white-rot fungi with concomitant FAME production of the residual biomass, **I.A. Vasiliadou**\*, R. Sánchez-Vázquez, R. Molina, F. Martínez, J.A. Melero, L.F. Bautista, J. Iglesias, G. Morales, Journal of Environmental Management, 180, 228-237, 2016. https://doi.org/10.1016/j.jenvman.2016.05.035
- Mathematical modeling of olive mill waste composting process, I.A. Vasiliadou\*, A.K.Md.M. Bari Chowdhury, C.S. Akratos, A.G. Tekerlekopoulou, S. Pavlou, D.V. Vayenas, Waste Management, 43, 61-71, 2015. doi:10.1016/j.wasman.2015.06.038
- Experimental and modeling study of pharmaceutically active compounds removal in rotating biological contactors, **I.A. Vasiliadou\***, R. Molina, F. Martínez, J.A. Melero, Journal of Hazardous Materials, 274, 473-482, 2014. doi:10.1016/j.jhazmat.2014.04.034
- Biological removal of pharmaceutical and personal care products by a mixed microbial culture: Sorption, desorption and biodegradation, **I.A. Vasiliadou\***, R. Molina, F. Martínez, J.A. Melero, Biochemical Engineering Journal, 81, 108-119, 2013. doi:10.1016/j.bej.2013.10.010

# Invited Instructor in advanced schools

- Invited Instructor in International Training School in Modelling Purple Phototrophic Bacteria for Resource Recovery, Course: Modeling of PPB Photoheterotrophic Substrate uptake (lecturers in English), 3-5 July 2023, Rey Juan Carlos University, Madrid, Spain
- Invited Instructor in European Summer School and Modelling week in Industrial Mathematics (ESSIM), Course: Modeling of Biofilms in Industrial Applications (lecturers in English), Department of Mathematics, 18-30 July 2011, University Degli Studi de Milano, Italy

#### Organization of international events (workshops, training schools)

Member of the Organizing Committee of the 1<sup>st</sup> International Workshop on Applied Physics to PPB-based Environmental Biotechnology 25<sup>th</sup> April 2023, Szeged – Hungary (COST action (CA21146) – PURPLEGAIN). <a href="https://purplegain.eu/1st-workshop/">https://purplegain.eu/1st-workshop/</a>

- Member of the Organizing Committee of the 2<sup>nd</sup> International Workshop on Resource recovery from waste and wastewater and downstream procedures for PPB biomass 6<sup>th</sup> July 2023, Madrid Spain (COST action (CA21146) PURPLEGAIN). <a href="https://purplegain.eu/2nd-workshop/">https://purplegain.eu/2nd-workshop/</a>
- Member of the Organizing Committee of the 3<sup>rd</sup> International Workshop on Sustainability assessment of multiple PPB process chains and recovered resources to support market penetration and social acceptance, 4<sup>th</sup> September 2023, Delft Netherlands (COST action (CA21146) PURPLEGAIN). <a href="https://purplegain.eu/3rd-workshop/">https://purplegain.eu/3rd-workshop/</a>
- Member of the Organizing Committee of the 1<sup>st</sup> International Training School on Modelling Purple Phototrophic Bacteria for Resource Recovery, 3-5 July 2023, Aranjuez, Madrid Spain (COST action (CA21146) PURPLEGAIN). <a href="https://purplegain.eu/first-training-school/">https://purplegain.eu/first-training-school/</a>

# Prizes/Awards/Academy memberships

- 2020 Katerva Awards 2020 Cities and Mobilities- Energy from sewage (Ioanna A. Vasiliadou et al. 10.3389/fenrg.2018.00107)
- 2018 WORLD TECHNOLOGY AWARDS Finalists ENVIRONMENT (Ioanna A. Vasiliadou et al. 10.3389/fenrg.2018.00107) https://www.wtn.net/2018/world-technology-awards-winners-and-finalists
- MC member and Training Schools Coordinator of the Cost action CA21146 PURPLEGAIN <a href="https://purplegain.eu/staff-working-groups/">https://purplegain.eu/staff-working-groups/</a>
- Member of the scientific committee at 4 international conferences/symposiums.
- Guest editor of 5 special issues of scientific journals and Associate editor at Frontiers in Sustainability.
- Member of scientific proposal evaluation committees of the National Research Organizations of France, Spain, and South Africa.

# Major contributions to the early careers of excellent researchers

- Member of the Steering Committee and the Advisory Board of Got Energy Talent MSCA-Cofund Programme, Universidad de Alcalá and Universidad Rey Juan Carlos, Spain.
- Dr. Ana Belén Cruz del Álamo, as a member of her Doctoral thesis evaluation committee (03/2020) Rey Juan Carlos University, Spain.