

Curriculum Vitae

SURNAME and NAME Karas Panagiotis
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STUDIES

- BSc (April 2006) in Technology of Agricultural Products, Department of Agricultural Technology, Technological Educational Institute of Kalamata, Greece (Final Grade 6.74/10). Title of Thesis: *Comparative evaluation of white rot fungi in degradation of olive mill wastewater*, Supervisor: Dr Georgios Zervakis.
- MSc (November 2009) Biotechnology – Quality of the Nutrition and the Environment, Department of Biochemistry and Biotechnology, University of Thessaly, Greece (Final Grade: Excellent), Title of Thesis: *Degradation of pesticides contained in post-harvest agro-industrial effluents by selected fungies*, Supervisor: Dr Dimitrios G. Karpouzas
- PhD (December 2016) in the area of Environmental Microbiology and Biotechnology, Title of Thesis: *Biological treatment of pesticide-contaminated wastewaters from the fruit packaging industry*, Supervisor: Dr Dimitrios G. Karpouzas

WORK EXPERIENCE

- Post-Doctoral researcher at “Minotaur” research project: Employment on isolating fungicide-degrading microorganisms, characterizing their degrading capacity and monitoring the effectiveness of full-scale bioreactor in the project with title " Development and implementation of novel biobased methods for the treatment of pesticide-contaminated wastewaters from agro-industries, Minotaur", at the research group of Plant and Environmental Biotechnology laboratory at the University of Thessaly at the department of Biochemistry and Biotechnology. Duration: 20/11/18 - today.
- Post-Doctoral researcher at “Love to Hate” research project: Employment and contribution to the study of microbial degradation of persistent fungicides in soil and monitoring of microbial populations related to biodegradation of fungicides using molecular approaches, on the project with title “Love To

- Hate: Pesticides felicity or curse for the soil microbial community?”, at the research group of Plant and Environmental Biotechnology laboratory at the University of Thessaly at the department of Biochemistry and Biotechnology. Duration: 19/03/18 – 19/11/18
- Post-Doctoral researcher: Responsible for determining the population of soil phytopathogenic fungi in soil samples, for a study commissioned by private companies, at the research group of Plant and Environmental Biotechnology laboratory at the University of Thessaly at the department of Biochemistry and Biotechnology. Duration: 27/06/17 – 31/08/17.
 - Post-Doctoral researcher – IKY Fellowship: Post-doctoral thesis with title: “Evaluation of biobeds for the biological detoxification of pesticides contained in waste from post-harvest agro-industries” on the project of “IKY fellowship of excellence for postgraduate studies in Greece – Siemens program”, at the research group of Plant and Environmental Biotechnology laboratory at the University of Thessaly at the department of Biochemistry and Biotechnology. Duration: 01/01/17 – 30/08/17.
 - Earlier researcher at “Love to Hate” research project: Assistance in preparing the final report on the project with title “Love To Hate: Pesticides felicity or curse for the soil microbial community?”, at the research group of Plant and Environmental Biotechnology laboratory at the University of Thessaly at the department of Biochemistry and Biotechnology. Duration: 01/11/16 – 20/12/16
 - Earlier researcher at “AgriBMP” research project: Responsible for the analysis of water samples and monitoring the surface pesticide leaching at the project with title: «AgriBMP-Water protection Best Management Practices establishment emphasizing in Vegetative Buffer Strips: Feasibility demonstration, in Thessaly, Central Greece», at the research group of Plant and Environmental Biotechnology laboratory at the University of Thessaly at the department of Biochemistry and Biotechnology. Duration: 01/06/16 – 30/09/17
 - Earlier researcher at the research group BIOPLANET at the University of Thessaly at the department of Biochemistry and Biotechnology, on the project called “SALTY-MYC: Investigating the function and ecology of mycorrhizal fungi on sand-dunes in Greece” (THALIS project). Duration: 01/09/14 – 30/08/15
 - Seconded fellow at the spinoff company Aeiforia for the project: “Love To Hate: Pesticides felicity or curse for the soil microbial community?” An industry academia Partnership project funded by EU within the frame of Marie Curie Actions FP7. Piacenza Italy, 1/10/2013 – 31/3/2014.
 - Regional laboratory of agricultural applications and fertilizes analysis of central Greece (Π.Ε.Γ.Ε.Α.Α κεντρικής Ελλάδος), *Analysis of soil, plant and water samples from the region of central Greece*. Duration: 24/03/2011 – 23/03/2012.

LANGUAGES

Greek: Native

English: fluent

French: very good

LABORATORY SKILLS

- Good knowledge of analytical chemistry's machines such as HPLC/UV, HPLC/DA, LC/MS and Atomic Absorption.
- Basic knowledge of all basic laboratory machines and techniques for Microbial and Molecular studies.
- Responsible for keeping collections of bacteria and fungi strains.
- Excellent knowledge in Word, Excel, Outlook, Power Point and Windows (certificate is not provided)

PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. Papazlatani V.C., **Karas P.A.**, Tucac G. and Karpouzas G.D., (2018). Expanding the use of biobeds: Diddipation and adsorption of pesticides contained in effluents from seed-coating, bulb disinfections and fruit-packaging activities. *Journal of Environmental Management*, 248, 109221
2. Suciú N., Vasileiadis S., Puglisi E., Petrile G., Tourna M., **Karas P.A.**, Pappolla A., Ferrarini A., Sulowic S., Fornasier F., Lucini L., Karpouzas D.G. and Trevisan M. (2019). Azadirachtin and trifloxystrobin had no inhibitory effects on key role soil microbial functions even at high dose rates. *Applied soil Ecology*, 137, 29-38.
3. Vasileiadis S., Puglisi E., Papadopoulou E.S., Petrile G., Suciú N., Pappolla R.A., Tourna M., **Karas P.A.**, Papadimitriou F., Kasiotakis A., Ipsilanti N., Ferrarini A., Sulowicz S., Fornasier F., Menkissoglu-Spiroudi U., Nicol G.W., Trevisan M. and Karpouzas D.G. (2018). Blame it on the metabolite: 3,5-dichloraniline rather than the parent compound is responsible for decreasing diversity and function of soil microorganisms. *Applied and Environmental Microbiology*, 84(22), e01536-18
4. Najoi El Azhari, Eftychia Dermou, Romain L.Barnard, Veronika Storck, Maria Tourna ,J r mie Beguet, **Panagiotis A. Karas**, Luigi Lucini, NadineRouard, Lucio Botteri, Federico Ferrari, Marco Trevisan, Dimitrios G.Karpouzas, Fabrice Martin-Laurent (2018). The dissipation and microbial ecotoxicity of tebuconazole and its transformation products in soil under standard laboratory and simulated winter conditions. *Science of The Total Environment*, 637-638, 892-906.
5. **Karas, P.A.**, Baguelin, C., Petrile, G., Papadopoulou, E.S., Nikolaki, S., Storck, V., Ferrari, F., Trevisan, M., Ferrarini, A., Fornasier, F., Vasileiadis, S., Tsiamis, G., Martin-Laurent, F., Karpouzas, D.G. (2018). Assessment of the impact of three pesticides on microbial dynamics and functions in a lab-to-field experimental approach. *Science of The Total Environment*, 637-638, 636-646.
6. Stork V., Nikolaki S., Perruchon C., Chabanis C., Sacchi A., Petrile G., Baguelin C., **Karas P.A.**, Spor A., Devers-Lamrani M., Papadopoulou E.S., Sibourg O., Malandain C., Trevisan M., Ferrari F., Karpouzas D.G., Tsiamis G and Martin-Laurent F. (2018). Lab to Field Assessment of the Ecotoxicological Impact of Chlorpyrifos, Isoproturon, or Tebuconazole on the Diversity and Composition of the Soil Bacterial Community. *Frontiers in Microbiology* (9), article 1412
7. Constantina Rousidou Dionysis Karaiskos Despoina Myti Evangelos Karanasios **Panagiotis A Karas** Maria Tourna Emmanuel A Tzortzakakis

- Dimitrios G Karpouzas (2017). Distribution and function of carbamate hydrolase genes *cehA* and *mcd* in soils: The distinct role of soil pH. *FEMS Microbiology Ecology*, (93), fiw219
8. Campos M., Perruchon C., **Karas P.A.**, Karavasilis D., Diez M.C. and Karpouzas D.G. (2017). Bioaugmentation and rhizosphere-assisted biodegradation as strategies for optimization of the dissipation capacity of biobeds. *Journal of Environmental Management*, 187 (1), 103-110.
 9. Campos M., **Karas P.A.**, Perruchon C., Papadopoulou E.S., Christou V., Menkissoglou-Spiroudi U., Diez M.C. and Karpouzas D.G. (2017). Novel insights into the metabolic pathway of iprodione by soil bacteria. *Environmental Science and Pollution Research*, 24 (1), 152-163.
 10. **Karas P.A.**, Perruchon C., Karanasios E., Papadopoulou E.S., Manthou E., Sitra., S., Ehaliotis C., Karpouzas D.G., (2016) Integrated biodepuration of pesticide-contaminated wastewaters from the fruit-packaging industry: Bioaugmentation, risk assessment and optimized management. *Journal of Hazardous Materials* 320: 635-644
 11. Papadopoulou E.S., **Karas P.A.**, Nikolaki S., Storck V., Ferrari F., Trevisan M., Tsiamis G., Martin-Laurent F. and Karpouzas D.G. (2016). Dissipation and adsorption of isoproturon, tebuconazole, chlorpyrifos and their main transformation products under laboratory and field conditions. *Science of the Total Environment* 569-570: 86-96 (*I.F.*: 3.163)
 12. Papadopoulou E.S., Lagos S., Spentza F., Vidiadakis E., **Karas P.A.**, Klitsinaris T. and Karpouzas D.G. (2016). The dissipation of fipronil, chlorpyrifos, fosthiazate and ethoprophos in soils from potato monoculture areas: First evidence for the enhanced biodegradation of fosthiazate. *Pest Management Science* 72 (2): 1040-1050 (*I.F.*: 2.811)
 13. **Karas P.A.**, Makri S., Papadopoulou E.S., Ehaliotis C., Menkissoglou-Spiroudi U. and Karpouzas D.G. (2016). The potential of organic substrates based on mushroom substrate and straw to dissipate fungicides contained in effluents from the fruit-packing industry – Is there a role for *Pleurotus ostreatus*? *Ecotoxicology and Environmental Safety* 124: 447-454. (*I.F.*: 3.246)
 14. Storck V., Lucini L., Mamy L., Ferrari F., Papadopoulou E.S., Nikolaki S., **Karas P.A.**, Servien R., Karpouzas D.G., Trevisan M., Benoit P. and Martin-Laurent F. (2016) Identification and characterization of tebuconazole transformation products in soil by combining suspects screening and molecular typology. *Environmental pollution* 208: 537-545 (*I.F.*: 4.839)
 15. **Karas P.A.**, Metsoviti A., Zisis V., Ehaliotis C., Omirou M., Papadopoulou E.S., Menkissoglou-Spiroudi U., Manta S., Komiotis D. and Karpouzas D.G. (2015) Dissipation, metabolism and sorption of pesticides used in fruit-packaging plants: Towards an optimized depuration of their pesticide-contaminated agro-industrial effluents. *Science of the Total Environment* 530-531: 129-139 (*I.F.*: 3.163)
 16. Moulas C., Petsoulas C., Rousidou C., Perruchon C., **Karas P.A.** and Karpouzas D.G. (2013) Effects of pesticides imidacloprid and metalaxyl on the phyllosphere of pepper plants. *BioMed Research International* (2013): 8 (*I.F.*: 2.706)
 17. **Karas P.A.**, Perruchon C., Exarhou C., Ehaliotis C., Karpouzas D.G., (2011) Potential for bioremediation of agro-industrial effluents with high loads of pesticides by selected fungi. *Biodegradation* 22: 215-228 (*I.F.*: 1.873).

18. Chanika E., Soueref E., Georgiadou D, **Karas P.A.**, Karanasios E., Tsiropoulos N., Tzortzakakis E., Karpouzas D.G., (2010) Isolation of soil bacteria able to hydrolyze both organophosphate and carbamate pesticides. *Bioresource Technology* 102 (3): 3184-3192 (I.F: 4.253)

ABSTRACTS IN CONFERENCES

- 1) **Karas P.**, Perruchon C. Ehaliotis C., Karpouzas D.G., (2008). The use of selected fungi for the degradation of pesticides in agro-industrial wastewaters. 1st National Conference of the Scientific Society Mikrobiokosmos, 12-14 December 2008, Athens, Greece, pp. 97-99 (poster).
- 2) **Karas P.**, Perucchon C., Exarhou C., Ehaliotis C., Karpouzas D.G., (2009) Degradation of pesticides contained in post-harvest agro-industrial effluents by selected fungi: a potential bioremediation application. Proceedings International Symposium on Pesticide Behaviour in Soils, Water, Air, York 14 – 16 September, UK, pp 190-191 B2 (poster)
- 3) Perucchon C., **Karas P.**, Karpouzas D.G., (2010) Isolation of bacterial consortia rapidly degrading the fungicide thiabendazole – potential utilization for the depuration of wastewaters from fruit packaging plants. 3rd Symposium of the Society of Mikrobiokosmos, Thessaloniki (poster)
- 4) **Karas P.**, Tsagari M., Ehaliotis C., Karpouzas D.G., (2011) Depuration of wastewaters from the fruit packing industry containing *ortho*-phenylphenol using the fungus *Pleurotus ostreatus*. Proceedings 7th MGPR international symposium “Paolo Carbas” on pesticides in food and the environment in Mediterranean counties, Thessaloniki 9-11 November, Greece, pp 83 (poster)
- 5) Papadopoulou E.S., **Karas P.A.**, Nikolaki S., Storck V., Ferrari F., Trevisan M. and Karpouzas D.G. (2014) Lab-to-field experimental approach to study the dissipation, metabolism and soil microbial ecotoxicity of isoproturon, tebuconazole and chlorpyrifos. 48th ACS IUPAC: Ecosystem and Human Exposure and Risk Assessment: Persistence, Bioaccumulation and Toxicity of Pesticides and POPs: Classification Schemes and Characteristics. National Meeting, San Francisco, CA (AGRO012p) (poster).
- 6) **Karas P.A.**, Ehaliotis C. and Karpouzas D.G., (2015) Assessment of biobed systems for the depuration of wastewaters from the fruit-packaging industry. 6th Symposium of the Society of Mikrobiokosmos, Athens (poster).
- 7) Panagiotou M., Chatzipavlidis I.², Kefalogianni I., **Karas P.A.**, Kavadia A., Ipsilantis I., Massas I. and Ehaliotis C. (2015) Sand-Dunes of the Romanou Messinia region. Differentiation of microbially driven enzymatic and physicochemical properties in the rhizospheres of three dominant plants. 6th Symposium of the Society of Mikrobiokosmos, Athens (poster).
- 8) **Karas P.A.**, Papadopoulou E.S., Baguelin C., Pertile G., Storck V., Nikolaki S., Ferrari F., Tsiamis G., Martin-Laurent F., Karpouzas D.G. (2017). Assessing the toxicity of pesticide on soil microorganisms following a lab-to-field tiered experimental approach. . 7th Conference of the Hellenic Society of Mikrobiokosmos, Athens (poster).
- 9) Papadopoulou E., Adamou E., Katasouni A., Thion C., Nicol G., **Karas P.A.** Menkissoglou-Spiroudi U. And Karpouzas D (2018). Investigating the in vitro activity of the preservative ethoxyquin as nitrification inhibitor against ammonia and nitrite-oxidizers. ISME 17, Leipzig 13-17 August 2018.

- 10) Papazlatani V.C., **Karas P.A.**, Tucat G. and Karpouzas G.D., (2018). Expanding the use of biobeds: Diddipation and adsorption of pesticides contained in effluents from seed-coating, bulb disinfestations and fruit-packaging activities. 8th Conference of the Hellenic Society of Mikrobiokosmos, Patra (poster).
- 11) Papazlatani V.C., Perucchon C., Katsoula A., Lagos S., Papadopoulou E.S., Vasileiadis S., **Karas P.A.** and Karpouzas G.D., (2018). Isolating bacteria able to rapidly degrade fungicides used in fruit packaging industry: Tailored made inocula for the treatment of relevant agro-industrial effluents. 8th Conference of the Hellenic Society of Mikrobiokosmos, Patra (poster).
- 12) Lagos K.E., **Karas P.A.**, Mouzourelis C., Sotiraki S. And Karpouzas G.D., (2018). The role of microorganisms in the degradation and transformation of the anthelmintic veterinary drug albendazole. 8th Conference of the Hellenic Society of Mikrobiokosmos, Patra (poster).
- 13) Petrou M., **Karas P.A.**, Zafiriadis I., Papadimitriou T., Karpouzas D.G., Kormaw K. and Levizou E., (2018). Effect of microcystin-rich irrigation water on radish (*Raphanus sativus* L.) and its associated soil microbiota. 8th Conference of the Hellenic Society of Mikrobiokosmos, Patra (poster).