



MICHALIS OMIROU

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EDUCATION AND TRAINING

- BSc in Agriculture, Aristotle University of Thessaloniki (2002)
- MSc in Horticultural Science, Aristotle University of Thessaloniki (2004)
- Doctorate Diploma (PhD), Agricultural University of Athens, Department of Natural Resources Management and Agricultural Engineering (2009)
- Proteomics analysis (DTU, Systems Biology, Copenhagen, Denmark, 2010)

RESEARCH INTERESTS

- The global release of industrial and agricultural chemicals has resulted in widespread environmental pollution. I am very interested to study the effects of these pollutants on the ecology and function of soil microbial communities using biochemical (PLFA) and molecular biology techniques. Additionally the implementation of analytical chemistry regarding the fate of these pollutants in the environment will also help us to understand their relation with microbial community
- The isolation of microorganisms from the Cyprus environment and their implementation in favor of agriculture, industry and the environment. Mycorrhizal fungi, nitrogen free living bacteria, and phosphate solubilizing bacteria are important microbial groups that have been recognized as plant growth promoting microorganisms.
- Microbial formulation and bioreactors (biofilters)

ADDITIONAL INFORMATION

Selected Publications in peer review journals

- Kakani E., Sagri E., Omirou M., Ioannides M.I., Mathiopoulos K. (2013) Detection and geographical distribution of the organophosphate resistance-associated $\Delta 3Q$ ace mutation in the olive fruit fly, *Bactrocera oleae* (Rossi) *Pest Management Science* [dx.doi.org/10.1002/ps.3564](https://doi.org/10.1002/ps.3564) (IF:2.594)
- Omirou M., Karpouzas DG., Papadopoulou KK., Ehaliotis C. (2013). The fate of pure and broccoli released glucosinolates in soil. *European Journal of Soil Biology* 56: 49-55 (IF: 1.859)
- Omirou M., Ioannides M.I., Ehaliotis C. (2013) Mycorrhizal inoculation affects arbuscular mycorrhizal diversity in watermelon roots, but leads to improved colonization and plant response under water stress only. *Applied Soil Ecology* 63:112-119 (IF: 2.888)

- Omirou M., Papastylianou I., Papastefanou C., Katsarou D., Ehaliotis C., Papadopoulou KK. (2012) Relationships between nitrogen, dry matter accumulation and glucosinolates in *Eruca sativa* Mills. The applicability of the critical NO₃-N levels approach. *Plant and Soil* (DOI 10.1007/s11104-011-1071-9) (IF:2,773)
- Omirou M., Ntalas P., Costa C., Dados A., Papastefanou C., Ehaliotis C., Karpouzas DG. (2012) Exploring the potential of biobeds for the depuration of pesticide-contaminated wastewaters from the citrus production chain: Laboratory, column and field studies. *Environmental Pollution* 166:31-39 (IF:3,773) Citation Index:3
- Omirou, M., Rousidou C., Bekris F., Papadopoulou KK., Ehaliotis C., Menkissoglu-Spiroudi U., Karpouzas DG. (2011) The impact of biofumigation and chemical fumigation methods on the structure and function of the soil microbial community. *Microbial Ecology* 61: 201-213. (I.F: 2.875) Citation Index:8
- Omirou M., Papadopoulou KK., Papastylianou I., Constantinou M., Karpouzas DG., Asimakopoulos I., Ehaliotis C., (2009) Impact of nitrogen and sulfur fertilization on the composition of glucosinolates in relation to sulfur assimilation in different plant organs of broccoli. *Journal of Agricultural and Food Chemistry* 57: 9408–9417 (IF: 2.816) Citation Index:9
- Omirou M., Vryzas Z., Papadopoulou-Mourkidou E., Economou A. (2009) Dissipation rates of iprodione and thiacloprid during tomato production in greenhouse. *Food Chemistry* 116: 499-504 (I.F. 3.458). Citation Index:22

Research Projects

- Production of biodiesel from Algae in selected Mediterranean countries – MED-ALGAE. (Partner)
- Study of the glucosinolate content of Brassicas and their use for soil biofumigation (Scientific coordinator).
- Evaluation of biobeds for the decontamination of wastewater of agroindustrial origin (Partner)
- Isolation and characterization of pesticide degrading microorganisms
- Genetic improvement for adaptation to climate change: upgrading local cowpea populations
- *Eruca sativa* a new promising crop for public health and food industry: ERUCA