

CURRICULUM VITAE

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EDUCATION

PhD Research **2001-2007**

Department of Chemical Engineering, Aristotle University of Thessaloniki, Greece. (Degree: 10/10)

PhD Thesis: "Biodegradation of aromatic organic compounds", funded by Hellenic Scholarships Foundation (Environmental Biotechnology-Applied Biochemistry specialization).

Post Graduate Studies **2021-2022**

Chemical and Biomolecular Engineering (Energy-Environment specialization), Department of Chemical Engineering, Aristotle University of Thessaloniki, Greece. (Degree: 9.26/10)

Master Thesis: Air flow simulation inside a freezing chamber

Under Graduate Studies **1994-2000**

Department of Chemical Engineering, Aristotle University of Thessaloniki, Greece. (Degree: 7.37/10)

Diploma Thesis: Composting of Solid Wastes

WORK EXPERIENCE

1. 12/06/2022-30/10/2023, «Innovative Device for Measuring the Collection Rate and Quality Characteristics of Milk for Sheep and Goat Milking Parlors, utilizing Electrical Impedance Spectroscopy», Operational Program of the Region of Central Macedonia, NSRF 2014-2020, Department of Chemistry, AUTH
2. 20/05/2021-30/04/2022, «Biohydrogen production in cyanobacteria cultures using wastewater as substrate», Fellowships of Excellence, Laboratory of Environmental Chemistry & Water and Wastewater processing, Department of Chemical Engineering, University of Western Macedonia.

3. 15/01/2021-28/02/2021, «Water management and distribution network improvement using smart technologies, policies and tools (SAVE –WATER)», Operational Program of the Region of Western Macedonia, Laboratory of Environmental Chemistry & Water and Wastewater processing, Department of Chemical Engineering, University of Western Macedonia.
4. 01/06/13-30/06/15, «Valorization of wine industry waste for the production of high added value products applying environmental technologies», NSRF 2007-2013, Department of Chemical Engineering AUTH.
5. 01/09/2011-31/12/2012, «Chromium(VI) bioreduction and Arsenic(V) biooxidation using microbial strains», Post Doctoral Research funded by Hellenic Scholarships Foundation
6. 01/06/08-31/07/08, -Microbiological Quality Control in Food and Water Samples in private sector
7. 01/05/06-31/10/06, «Study of Listeria monocytogenes growth at low temperatures using various species and cryoprotectant compounds», Ministry of Education, Religion Affairs and Sports, Department of Chemical Engineering, AUTH.
8. 01/04/03-31/05/03 and 01/11/03-31/12/03, «Enhanced and smart processing of food and food waste using thermophilic bacteria», Institute of Chemical Technology, Prague, Department of Chemical Engineering, AUTH.
8. 01/09/00-31/07/01, «Removal of toxic metals using biosorption and bioaccumulation», General Secretary of Research and Technology, Department of Chemical Engineering, AUTH.

PUBLICATIONS IN INTERNATIONAL SCIENTIFIC JOURNALS

1. G. Samiotis, **M.G. Ziagova** and E. Amanatidou (2022) "Wastewater substrate disinfection for cyanobacteria cultivation as tertiary treatment", Environmental Science and Pollution Research, Vol. 30(4), p. 8746-8758.
2. **M.G. Ziagova**, C., Mavromatidou, G., Samiotis and E. Amanatidou, (2022) "Total phenolic content and antioxidant capacity of Greek medicinal and aromatic plant extracts using pulsed electric field followed by ultrasounds extraction process", Journal of Food Processing and Preservation, Vol. 46(7), e16639
3. **M.G. Ziagova**, C., Mavromatidou, G., Samiotis and E. Amanatidou, (2022) "Enhancing phenolic content of medicinal aromatic plants extracts-biofunctional foods preparation", Plants, Vol. 11, 76
4. A. Moschona, **M.G. Ziagova**, A. Iliadou and M. Liakopoulou-Kyriakides, (2015) "Optimization Studies for Selective Recovery of Phenolics from Wine Wastes", Agricultural Sciences, Vol. 7, p. 187-195.
5. **M.G. Ziagova**, A.I. Koukkou and M. Liakopoulou-Kyriakides (2014) "Optimization of cultural conditions of Arthrobacter sp. Sphe3 for growth-associated chromate(VI) reduction in free and immobilized cell systems", Chemosphere, Vol. 95, p. 535-540
6. M. Aryal, **M. Ziagova** and M. Liakopoulou-Kyriakides (2012) "Copper(II) biosorption and competitive studies in multi-ions aqueous systems by Arthrobacter sp. Sphe3 and Bacillus sphaericus cells: Equilibrium and thermodynamic studies", Water, Air and Soil Pollution, Vol. 223, p. 5119

7. M. Aryal, **M. Ziagova** and M. Liakopoulou-Kyriakides (2011) "Comparison of Cr(VI) and As(V) removal in single and binary mixtures with Fe(III)-treated *Staphylococcus xylosus* biomass: Thermodynamic studies", Chem. Eng. J., Vol. 169, p. 100-106.
8. M. Aryal, **M. Ziagova** and M. Liakopoulou-Kyriakides (2010) "Study on arsenic biosorption using Fe(III)-treated biomass of *Staphylococcus xylosus*", Chem. Eng. J., Vol. 162, p. 178-185.
9. **M. G. Ziagova** and M. Liakopoulou-Kyriakides (2010) "Comparative studies on the degradation of three aromatic compounds by *Pseudomonas* sp. and *Staphylococcus xylosus*", J. Environ. Sci. Heal., Part A, Vol. 45, p. 1017-1025.
10. **M. Ziagova**, G. Kyriakou and M. Liakopoulou-Kyriakides (2009) "Co-metabolism of 2,4-dichlorophenol and 4-Cl-m-cresol in the presence of glucose as an easily assimilated carbon source by *Staphylococcus xylosus*", J. Hazard. Mater., Vol. 163, p. 383-390.
11. **M. Ziagova** and M. Liakopoulou-Kyriakides (2007) "Comparison of cometabolic degradation of 1,2-dichlorobenzene by *Pseudomonas* sp. and *S. xylosus*", Enzyme Microb. Technol., Vol. 40, p. 1244-1250.
12. **M. Ziagova** and M. Liakopoulou-Kyriakides (2007) "Kinetics of 2,4-dichlorophenol and 4-Cl-m-cresol degradation by *Pseudomonas* sp. cultures in the presence of glucose", Chemosphere, Vol. 68, p. 921-927.
13. **M. Ziagova**, G. Dimitriadis, D. Aslanidou, X. Papaioannou and M. Liakopoulou-Kyriakides (2006) "Comparative study of Cd(II) and Cr(VI) biosorption on *Staphylococcus xylosus* and *Pseudomonas* sp. in single and binary mixtures", Bioresour. Technol., Vol. 98, p. 2859-2865.

PRESENTATIONS IN INTERNATIONAL SCIENTIFIC CONFERENCES

1. A. Moschona, **M. Ziagova**, M. Melidou, R. Papi, M. Liakopoulou-Kyriakides and D. A. Kyriakidis, "Biological activities of phenolics from winery wastes", International Conference, Novel Methods for Integrated Exploitation of Agricultural by-Products, 16-17 November 2015, CERTH Convention Center, Thessaloniki
2. A. Moschona, M. Melidou, **M. Ziagova**, R. Papi, M. Liakopoulou-Kyriakides and D.A. Kyriakidis, "Multifunctional extracts from wine wastes", 29th International Conference, Food Science Research and Innovation: Delivering sustainable solutions to the global economy and society (EFFoST), Athens, Greece, 10-12 November 2015.
3. A. Moschona, **M.G. Ziagova**, M. Aryal, and M. Liakopoulou-Kyriakides, "Valorization of wine wastes for added-value and/or biological products", 8th International Conference on Environmental and Geological Science and Engineering, Salerno, Italy, 27-29 June, 2015.
4. A. Moschona, **M.G. Ziagova**, M. Aryal, A. Iliadou and M. Liakopoulou-Kyriakides, "Recovery of tartaric acid and added-value phenolics from extracts and fractions of wine wastes towards an integrated treatment and commercial valorisation", ICESD, International Proceedings of Chemical Biological and Environmental Engineering Amsterdam, 14-15 February, 2015

5. M. Aryal, **M. Ziagova**, M. Liakopoulou-Kyriakides "Biosorption of Cr(VI) and As (V) anions in single and binary mixtures on Fe(III)-modified *Staphylococcus xylosus* biomass: Kinetics, equilibrium and thermodynamic studies", 1st International Conference on Advances in Biotechnology-Industrial Microbial Biotechnology, Thessaloniki, November 2010, p. 67
6. **M. Ziagova**, M. Liakopoulou-Kyriakides "Bioreduction as a mean of industrial wastes detoxification, containing hexavalent chromium", 1st International Conference on Advances in Biotechnology-Industrial Microbial Biotechnology, Thessaloniki, November 2010, p. 66
7. **M. Ziagova**, D. Aslanidou, X. Papaioannou, E. Dimitriadou and M. Liakopoulou-Kyriakides, "Biosorption of Cr(VI) and Cd(II) using Bacterial Biomass", 16th International Congress of Chemical and Process Engineering, August 2004, Prague, p. 1720.
8. A. Zampaniotou, M. Liakopoulou, **M. Ziagova**, "Composting of solid waste", Protection and Restoration of the Environment V, Thassos July 2000, p. 1249-1250.

PRESENTATIONS IN GREEK SCIENTIFIC CONFERENCES

1. Καλτσάς Κ., **Ζιαγκοβά Μ.Γ.**, Σακαβέλη Φ., Τσιρίδης Β., Νταρακάς Ε., Πανταζάκη Α. και Πεταλά Μ. «Προ-επεξεργασία βιοαποβλήτων για την παραγωγή μεθανίου μέσω αναερόβιας χώνευσης» 8^ο Περιβαλλοντικό Συνέδριο Μακεδονίας, Θεσσαλονίκη, 6-8 Οκτωβρίου 2023
2. Γ. Σαμιώτης, Χ. Μαυροματίδου, Ε. Τρικοιλίδου, Ά. Μπατσή, Η. Ριστάνης, **M. Ziagova**, Ε. Αμανατίδου " Αξιολόγηση της ποιότητας των επιφανειακών υδάτων του ποταμού Αλιάκμονα εφαρμόζοντας τον δείκτη ποιότητας υδάτων ΥΔΩΡPWQI", 15ο Πανελλήνιο Συνέδριο Ελληνικής Υδροτεχνικής Ένωσης, Θεσσαλονίκη, 3-6 Ιουνίου 2022
3. Α. Μοσχονά, **M.G. Ziagova**, Α. Ηλιάδου, Μ. Λιακοπούλου-Κυριακίδου, "Ανακτηση φαινολικων ενωσεων υψηλης αντιοξειδωτικης δρασης απο τα αποβλητα οινοποιησης με τη χρηση ζεολιθου η αλουμινιας με η χωρις προκατεργασια", 10ο Πανελλήνιο Επιστημονικο Συνεδριο Χημικης Μηχανικής, Πατρα, 4-6 Ιουνιου, 2015.
4. A. Moschona, **M. Ziagova** and M. Liakopoulou-Kyriakides, "Selective separation and isolation of added value phenolics from industrial wine wastes and their biological activities", EEBMB, Thessaloniki, 28-30 November, 2014
5. 4. A. Moschona, **M.G. Ziagova**, P. Natas, M. Aryal, M. Liakopoulou-Kyriakides, E. Trikas, S. Kapeta, R. Papi, D.A. Kyriakidis "Utilization of wine wastes for the recovery of biological active constituents and ethanol production", EEBMB, Athens, October 2013
5. **Μ.Γ. Ζιαγκοβά** και Μ. Λιακοπούλου-Κυριακίδου «Βιοαναγωγή Cr(VI) σε Cr(III) με τη χρήση ακινητοποιημένου *Arthrobacter* sp. Sphe3 σε σφαιρίδια αλγινικού ασβεστίου», 9ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Αθήνα, Μάϊος 2013
6. **Μ.Γ. Ζιαγκοβά**, K. Τερζούδης και Μ. Λιακοπούλου-Κυριακίδου «Βιοξείδωση As(III) σε As (V) με τη χρήση βακτηρίων απομονωμένων από επιρυπασμένα εδάφη», 9ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Αθήνα, Μάϊος 2013
7. **Μ. Γ. Ζιαγκοβά** και Μ. Λιακοπούλου-Κυριακίδου "Βιοαναγωγή Cr(VI) σε Cr(III) με το μικροοργανισμό *Arthrobacter* sp. Sphe3-H επίδραση της γλυκόζης", 1ο Περιβαλλοντικό Συνέδριο Θεσσαλίας, Σκιάθος, Σεπτέμβριος 2012, σελ. 47
8. M. Aryal, **M.G. Ziagova** and M. Liakopoulou-Kyriakides "Investigation of As(III) biosorption from aqueous solutions by Fe(III)-treated biomass of *Staphylococcus xylosus*", Small and Decentralized Water and Wastewater Treatment Plants, SWAT 2010, Third Conference, Skiathos, May 2010, p. 251-256

9. M. Aryal, **M.G. Ziagova** and M. Liakopoulou-Kyriakides "Arsenic(V) biosorption using Fe(III)-modified biomass of *Staphylococcus xylosus*", 7ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Πάτρα, Ιούνιος 2009.
10. **Μ. Γ. Ζιαγκοβά** και Μ. Λιακοπούλου-Κυριακίδου, "Μελέτη βιοαποικοδόμησης του 1,2-διχλωρο-βενζολίου, 2,4-διχλωρο-φαινόλης και 4-Cl-μ-κρεζόλης με *Pseudomonas* sp. και *Staphylococcus xylosus*", Μονάδες Επεξεργασίας Νερού και Υγρών Αποβλήτων Μικρής Κλίμακας, 2ο Συνέδριο, Σκιάθος, Μάϊος 2008, σελ. 163-168.
11. **M. Ziagova**, M. Liakopoulou-Kyriakides, "Cometabolic degradation of 2,4-dichlorophenol and 4 Cl-m-cresol using glucose as primary growth substrate, by two bacterial species in batch cultures", Hellenic Society of Biochemistry and Molecular Biology, 58th Meeting, Patra 2006, p. 819-822.
12. **Μ. Ζιαγκοβά** και Μ. Λιακοπούλου-Κυριακίδου, "Ανάπτυξη κυττάρων *Pseudomonas* sp. και *Staphylococcus xylosus* παρουσία χλωροπαραγώγων αρωματικών ενώσεων-Κινητική μελέτη", 5ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Θεσσαλονίκη 2005, σελ. 673-676.
13. **Μ. Ζιαγκοβά** και Μ. Λιακοπούλου-Κυριακίδου, "Βιοαποικοδόμηση 1,2 διχλωροβενζολίου με *Pseudomonas* sp. ZnVR1.3", 4ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Πάτρα 2003, σελ. 1109-1112.
14. **Μ. Ζιαγκοβά**, Μ. Λιακοπούλου-Κυριακίδου, Θ. Παπάς, Β. Μαμά, Ε. Λιτοπούλου-Τζαννετάκη, "Απομάκρυνση τοξικών μετάλλων (Cd(II) και As(V)) με τη χρήση μικροοργανισμών απομονωμένων από ρυπασμένα εδάφη", 3ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Αθήνα 2001, σελ. 993-996.

TEACHING EXPERIENCE

1. 2017-2021

Department of Pollution Control Engineering
University of Western Macedonia

- Advanced Technologies in Wastewater Treatment
- Wastewater Treatment and Disposal
- Water and Soil Pollution
- Environmental Chemistry

2. 2008-2011

School of Technological Applications
TEI of Western Macedonia

- Materials Technology

Department of Mechanical Engineering
TEI of Serres

- Introduction in Materials Science

Department of Electrical Engineering
TEI of Lamia

- Technology and Environment
- Materials Technology-Electrochemistry

School of Technological Applications
TEI of Western Macedonia

- Human Society and Environment