### **CURRICULUM VITAE**

## Dr. GEORGE PAPAPOLYMEROU

### Professor, University of Thessaly

<u>ADDRESS: General</u> Department, University of Thessaly, Gaiopolis, Larisa, T.K. 41110, GREECE e-mail: papapoly@teilar.gr, Tel.: 0030-2410-684428

### AREAS OF SPECIALIZATION FROM RESEARCH AND TEACHING EXPERIENCE

The active areas of research are in reactor design, waste management, antipollution technologies for waste effluents (physical, physicochemical and biological processing) and biochemical engineering with emphasis on biofuel production from microalgae cultivation and novel bioreactors.

### A. EDUCATION

B.Sc. University of California, Berkeley 12/79, Chemical Engineering

Ph.D: University of Minnesota 12/85, Chemical Engineering

## **B. PROFESSIONAL EXPERIENCE**

- 1. **From 14-1-80 to 15-12-80 in Intel Corp.**, Santa Clara, California, USA in the Laboratory of Technology Development as a Process Engineer on Photolithography on Integrated Electronic Device Processing.
- 2. From 21-10-85 to 10-8-90, in 3M (Minnesota Mining and Manufacturing) Corp., St. Paul, MN, USA, in the Central Research Laboratories as a Senior Research Engineer in the Ferroelectric Liquid Crystal Devices Research Group. I worked on device fabrication, quality control and applications and on Ferroelectric Liquid Crystal Materials physical property characterization. I also worked, in part, with the synthesis group responsible for manufacturing these ferroelectric liquid crystal materials which are fluorinated, low molecular weight organic molecules (C9-C15) characterized by a chiral center of asymmetry which gives them their electrooptical properties.

## C. TEACHING EXPERIENCE

1 Since 12-3-98 Professor in the Department of Exact Sciences and from 13-08-2013 in the Department of Infrastructure Engineering of the School of Technological Applications of TEI of Larisa.

I teach the following courses:

- a. Design and Operation of Antipollution Technologies for Air and Liquid Waste Effluents,
- b. Materials Science
- c. Solid Waste Management and Recycling
- d. Recyclable Forms of Energy
- 2. From 1/9/94 until today as Visiting Professor of the University of Thessaly (P.D. 407/80) in the following Departments:
- A) From 1-9-94 until 31-8-2002 in the Department of Mechanical and Industrial Engineering I taught the following courses:
- a. Design and Operation of Antipollution Technologies,
- b. Environmental Engineering,
- c. Chemical and Biochemical Processes (from 1994 to 1997 named biotechnology) and,
- d. Experimental Chemistry
- B) From 1-9-2002 until today in the Department of Biochemistry and Biotechnology I taught the following courses:
- a. Biochemical Engineering and Applications and,
- b. Bioreactors

### D. RESEARCH EXPERIENCE

## PARTICIPATION IN SELECTED ORGANIZED RESEARCH PROGRAMS

I have been involved in more than 11 scientific research programs, both in the areas of liquid waste effluent treatment-reactor design and materials science. The following are selected Research Programs:

- 1) From 1/5/95 until 30/9/95 I participated in the research program of the University of Thessaly titled "Development of the Technological Park of Volos" where, as the chief engineer, I conducted the Study of Environmental Impact.
- 2) From 1/1/2000 to 30/6/2001 in the  $\Pi ENE\Delta$  research program (Univ. of Thessaly) with Code 1444 and title: "Corrosion and hydrogen embrittlement of Aircraft Aluminum Alloys".
- 3) From 1/1/95 to 31/12/97 in the EΠΕΤ II/30 research program (Univ. of Thessaly)on Accelerated Corrosion Testing of Aluminum Alloys with Code 1088 and title ''Estimation of the Remaining Strength and Lifetime of Corroded Aluminum Structures''.
- 4) From 1-3-2004 to 31-12-2007 in the research program "Archimedes-Environment" (TEI of Thessaly) with title: "Advanced Oxidation methods for the Treatment of Industrial Liquid Effluents".
- In this Research Program I was the Principal Investigator and, under my scientific supervision, from this research program a Ph.D. candidate was supported.
- 5) From 1-1-2006 to 31-12-2007 in the research program (TEI of Thessaly) Archimedes II and title: 'Strengthening of Ceramic Materials via the Dispersion of Industrial Solid Waste Particles'.
- 6) From 1-1-2006 to 31-12-2007 in the research program (TEI of Thessaly) Archimedes II and title: 'Mechanical Properties of Materials'
- 7) From 7-10-2011 until 31-08-2013 as research member in a research program funded by the private sector titled <<Research for the Development of Technologies for the Management-Valorization of Solid and Liquid by-products of Olive Mills, Municipal sludge, ASF (Alternative Solid Fuel) and Pet Coke>>
- 8) From 1-1-2013 until 10-10-2015 Scientific Director in the Research Program titled <<Cooperation 2011: Biofuel Production from Algae>> funded by EU and the Greek Government with the participation of two local private sector SME's.
- 9) From 1-1-2013 until 10-10-2015 research member in the Research Program titled << Cooperation 2011: Innovative Ceramic Materials>> funded by EU and the Greek Government with the participation of two local private sector SME's.

### Ph. D. THESIS

**<u>Dissertation title</u>**: Kinetics of small molecules on Pt-group metals

Area: Heterogeneous catalysis and Reactor Design

# **RESEARCH INTERESTS**

- 1. Development and Application of Advanced Oxidation Technologies on Industrial Liquid Effluents,
- 2. Stabilization of Toxic Solid Wastes on Ceramic Matrices
- 3. Chemical Reactor and Bioreactor Design and
- 4. Production of Biofuels
- 5. Cultivation of microalgae

#### E. <u>LIST OF MOST SIGNIFICANT PUBLICATIONS</u>

### E1. PUBLICATIONS IN INTERNATIONAL MAGAZINES

- Maria N. Metsoviti, George Papapolymerou, Ioannis T. Karapanagiotidis and Nikolaos Katsoulas, "Comparison of Growth Rate and Nutrient Content of Five Microalgae Species Cultivated in Greenhouses", Plants 2019, 8, 279; doi:10.3390/plants8080279
- X. Spiliotis, V. Karayannis, S. Lamprakopoulos, S. Zaoutsos, G. Papapolymerou, "Development of reliable building bricks incorporating olive-mill wastewater focusing on thermal insulation and energy savings", J. Chem. Techn. & Metallurgy, 54, 5, 2019, pp 1028-1034
- 3. M. Metsoviti, N. Katsoulas, I. Karapanagiotidis and G. Papapolymerou, "Effect of nitrogen concentration, two stage and prolonged cultivation on growth rate, lipid and protein content of Chlorella vulgaris, J Chem. Technol. Biotechnol., (2019), DOI 10.1002/jctb.5899
- 4. Papapolymerou G., Karayannis V., Gougoulias N., Kantas D., Papadopoulos S., Spiliotis X., "Growing Chlorella vulgaris into bioreactors set in solar greenhouse, towards biofuel: Nutrient composition", J Appl Biotechnol Bioeng. 2018;5(2):106–110
- 5. N. Gougoulias, G. Papapolymerou, V. Karayannis, X. Spiliotis, N. Chouliaras, "Effects of Manure Enriched with Algae Chlorella vulgaris on Soil Chemical Properties", Soil & Water Res., 13, 2018 (1): 51–59, doi: 10.17221/260/2016-SWR
- X. Spiliotis, V. Karayannis, K. Ntampegliotis, S. Lamprakopoulos, G. Papapolymerou
  "Development of reliable building bricks incorporating olive-mill wastewater, focusing on
  thermal insulation and energy savings", Advances in Civil Engineering, Accepted for Publication
  (2018) (Scopus Indexed)
- 7. V. Karayannis, S. Lamprakopoulos, A. Domopoulou, P. Kyratsis, G. Papapolymerou, X. Spiliotis "Processing of steel mill scale for manufacturing novel engineering ceramics by powder metallurgy", *Academic Journal of Manufacturing Engineering*, 15 (2) (2017) 65-71 (Scopus Indexed)
- 8. M. N. Metsoviti, N. Katsoulas, I. T. Karapanagiotidis, G. Papapolymerou, "Effect of temperature on growth rate, lipid and protein content of the microalgal species *Nannochloropsis oculata*", Annals of the University of Craiova, Vol. XXII, (2017), pp 191-196
- 9. V. Karayannis, K. Ntampegliotis, S. Lamprakopoulos, G. Papapolymerou, X. Spiliotis "Novel sintered ceramic materials incorporated with EAF Carbon steel slag" *Materials Research Express*, Accepted after Moderate Revision, Revised 02/12/2016 (Scopus)
- 10. S. Lamprakopoulos, V. Karayannis, G. Papapolymerou, D. Kasiteropoulou, K. Ntampegliotis, X. Spiliotis, "Development of engineering ceramics 100% from lignite fly ash and steelmaking EAFC mixtures", Journal of Ceramic Processing Research, 17 (8) (2016) (Scopus Indexed)
- 11. V. Karayannis, K. Ntampegliotis, S. Lamprakopoulos, D. Kasiteropoulou, G. Papapolymerou, X. Spiliotis, "Development of extruded and sintered clay bricks with beneficial use of industrial "scrap-soil" as admixture", Revista Romana de Materiale / Romanian Journal of Materials, 46 (4) (2016) 405-413 (Scopus)

- 12. X.D. Spiliotis, K.I. Ntampegliotis, V.G. Karayannis, G.A. Papapolymerou, "Physico-mechanical properties of extruded & sintered ceramics using pet coke and sewage sludge as admixtures", *Journal of Ceramic Processing Research*, 16 (1) (2015) 11-17 (Scopus Indexed)
- 13. V. Karayannis, X. Spiliotis, E. Papastergiadis, K. Ntampegliotis, G. Papapolymerou, P. Samaras, "Contribution to the sustainable management of resources by novel combination of industrial solid residues into red ceramics", *Bulletin of Environmental Contamination and Toxicology*, 94 (3) (2015) 345-351 (Scopus Index.)
- 14. V. Karayannis, X. Spiliotis, A. Domopoulou, K. Ntampegliotis, G. Papapolymerou, "Optimized synthesis of construction ceramic materials using high-Ca fly ash as admixture", *Revista Romana de Materiale / Romanian Journal of Materials*, 45 (4) (2015) 358-363 (Scopus)
- 15. S. Lamprakopoulos, V. Karayannis, G. Papapolymerou, S. Zaoutsos, K. Ntampegliotis, X. Spiliotis, "Sustainable development of P/M ceramics from steel mill scale and lignite fly ash mixtures", WIT Transactions on the Built Environment, 168 (2015) 301-312
- 16. V. Karayannis, G. Papapolymerou, S. Zaoutsos, S. Lamprakopoulos, K. Ntampegliotis, X. Spiliotis, "Innovative synergistic valorization of lignite fly ash and steel industry scrap-soil as secondary resources for compacted ceramics", *Key Engineering Materials*, 660 (2015) 268-272
- 17. G. Papapolymerou, N. Gougoulias, X. Spiliotis, V. Karayannis, D. Kantas, S. Papadopoulos, A. Kokkalis, L. Ntoufas, "Effect of Different Concentrations of Macronutrients on the Growth Rate and Cultivation of Algae specie *Chlorella vulgaris*", Annals of the Univ. of Craiova, Series Biology Envir. Eng., Vol. XIX (LV) 2014, pp 557-562
- 18. N. Gougoulias, X. Spiliotis, V. Karayannis, N. Chouliaras, G. Papapolymerou, "The Biodegradation of Algae species *Chlorella vulgaris* and Oregano Foliar Tissues in Soil During Incubation and, their Effects on Soil Chemical Properties", Annals of the Univ. of Craiova, Series Biology –Envir. Eng., Vol. XIX (LV) 2104, pp 467-474
- 19. X.D. Spiliotis, K.I. Ntampegliotis, V.G. Karayannis, <u>G.A. Papapolymerou</u>, "Physico-mechanical properties of extruded & sintered ceramics using pet coke and sewage sludge as admixtures", *Journal of Ceramic Processing Research*, 15 (2014)
- 20. V. Karayannis, X. Spiliotis, E. Papastergiadis, K. Ntampegliotis, G. Papapolymerou, P. Samaras, "Contribution to the sustainable management of resources by novel combination of industrial solid residues into red ceramics", Bulletin of Environmental Contamination & Toxicology, 94 (3) (2015) 345-351
- 21. V. Karayannis, X. Spiliotis, K. Ntampegliotis, N. Koukouzas, I. Tsianakas, N. Taousanidis, <u>G. Papapolymerou</u>, "Reliability analysis of clay bricks incorporating industrial solid by-products", *Modern Applied Science*, 8 (6) (2014) 219-228
- 22. A.E. Domopoulou, X.D. Spiliotis, K.I. Ntampegliotis, K.H. Gudulas, G. Papapolymerou, V.G. Karayannis, "Compacted ceramics incorporating recycled marble processing residue", *Journal of International Scientific Publications: Materials, Methods and Technologies*, 8 (2014) 786-791
- 23. X. Spiliotis, K. Ntampegliotis, D. Kasiteropoulou, S. Lamprakopoulos, K. Lolos, V. Karayannis, G. <u>Papapolymerou</u>, "Valorization of mill scale waste by its incorporation in fired clay bricks", *Key Engineering Materials*, 608 (2014) 8-13

- 24. N. Koukouzas, C. Ketikidis, G. Itskos, X. Spiliotis, V. Karayannis, G. Papapolymerou, "Synthesis of CFB-coal fly ash clay bricks and their characterisation", Waste and Biomass Valorization, 2 (2011) 87-94
- 25. ''Decolorization and degradation of reactive azo dyes via heterogeneous photocatalytic processes'', K. Soutsas, V. Karayannis, I. Poulios, A. Riga, K. Ntambegliotis, X. Spiliotis, G. Papapolymerou, 250 (1) (2010) 345-350
- 26. 'Effect of System Parameters and of Inorganic Salts on the Degradation Kinetics of Procion Hexl Dyes. Comparison of H<sub>2</sub>O<sub>2</sub>/uv, Fenton, photo-Fenton, TiO<sub>2</sub>/UV and TiO<sub>2</sub>/UV/ H<sub>2</sub>O<sub>2</sub> processes', A. Riga, K. Soutsas, K. Ntampegliotis, V. Karayannis, G. Papapolymerou *Desalination*, 211, 72-86, 2007
- 27. ''Decolorization kinetics of Procion H-exl dyes from textile dyeing using Fenton-like reactions", K. Ntampegliotis, A. Riga, V. Karayannis, V. Bontozoglou, G. Papapolymerou, *J. of Hazardous Materials*, 136(1), 75-84, 2006
- 28. "Mechanical properties of short oxide fibre kaolin clay matrix composites S. A. Papargyri, R.G.Cooke, D.A. Papargyris, A. Botis, G. Papapolymerou, A.D. Papargyris, *British Ceramic Transactions*, 2003, Vol. 102, No5, 193-203
- 29. "Characterization of trapped Hydrogen in Exfoliation Corroded Aluminum Alloy 2024", E. Charitidou, G. Papapolymerou, G.N. Haidemenopoulos, N. Hasiotis and V. Bontozoglou, *Acta Metallurgica*, Vol.41, No.12, pp.1327-1332, 1999
- 30. "Hydrogen Absorption during Exfoliation and Alternate Immersion Corrosion of Aluminum Alloy: 2024. Corrosion Characterization and Hydrogen Evolution" G.N. Haidemenopoulos, N. Hassiotis, G. Papapolymerou and V. Bontozoglou, *Corrosion Science and Engineering*, 54(1), 73-78, 1998
- 31. "Decomposition of ammonia on Pt and Ir. Comparison with Pt and Rh", George Papapolymerou, Vasilis Bontozoglou, *J. Molecular Catalysis*, Vol.120, 165-171, 1997
- 32. "Thermal Analysis and Mechanical Properties of Brick Clays", X. Spiliotis, G. Papapolymerou, V. Karayannis, A. Papargyris, A. Botis, D. Kasidakis, *Key Eng. Materials*, Vol 132-136, 2168, 1997
- "Particle Size Distribution Mechanical Property Relationship of Brick Clays", A.G. Botis, V. Karayannis,
  A. Papargyris, G.Papapolymerou, X. Spiliotis, D. Kasidakis, Key Eng. Materialas, Vols 132-136, 2164,
  1997
- 34. "Wall-Triggered Interfacial Resonance in Laminar Gas-Liquid Flow", V. Bontozoglou, G. Papapolymerou, *International Journal for Multiphase Flow*, 24(1), 131-143, 1998
- 35. "Laminar Film Flow Down a Wavy Incline", V. Bontozoglou, G. Papapolymerou, *International Journal for Multiphase Flow*, 23(1), 69-79, 1997
- 36. "Decomposition on NO on Pd and Ir. Comparison with Pt and Rh", G.Papapolymerou, *React. Kinetics. Catalysis Lett.*, 58(1), 199, 1996
- 37. "Dynamic Behavior of the Reaction NO+H2 on Pt, Rh and Ir", George A./P. Papapolymerou, A.D. Papargyris, A.G. Botis and X.D. Spiliotis, *React. Kinetics and Catalysis Lett.*, Vol. 49, 203, 1993
- 38. "Selectivity of the Reaction NO+H2 on Pt, Rh and Ir", George A./P. Papapolymerou, A.D. Papargyris, A.G. Botis and X.D. Spiliotis, *React. Kinetics and Catalysis Lett.*, Vol. 49, 197, 1993

- 39. "Decomposition of Hydrazine on Ir", George A./P. Papapolymerou, A.D. Papargyris, A.G. Botis, D. Kasidakis, *Reaction Kinetics and Catalysis Lett.*, 49, 339, 1993
- 40. "Kinetics of the bimolecular reaction NO+H2 on Pt", George A./P. Papapolymerou, A.D. Papargyris, A.G. Botis, and X.D. Spiliotis, *J. of Molecular Catalysis*, 84, 1993, 267-281
- 41. "The Frost resistance of Clay Ceramic Mixtures as a Function of the Firing Program", A.D. Papargyris, A.G. Botis, X.D. Spiliotis, D. Kasidakis and George A./P. Papapolymerou, *Ceramica Acta*, 6, no.4, 1994, 29-41
- 42. "Fluorinated Ferroelectric Liquid Crystals", E.P Janulis, J.C. Novack, <u>G.A. Papapolymerou</u>, M.G. Tristani-Kendra and W.A Huffman, *Ferroelectrics*, 85, 375-384, 1988
- 43. "Kinetics of Decomposition of HCHO, HCOOH, CH3OH and N2H4 on Pt and Rh Surfaces", G.A. Papapolymerou and L.D. Schmidt, *Langmuir*, 3, 1098-1102, 1987
- 44. "Surface Reactions on Clean Platinum and Rhodium at Low and High Pressures", L.D. Schmidt, D. Hasenberg, S. Schwartz and G.A. Papapolymerou, *Catalyst Characterization Science*, Special Issue A.C.S 188, 177-184, 1985
- 45. "Unimolecular Reactions of NO, N<sub>2</sub>O, NO<sub>2</sub> and NH<sub>3</sub> on Rh and Pt", G.A. Papapolymerou and L.D. Schmidt, *Langmuir*, 1, 488-495, 1985

#### E2. SELECTED PUBLICATIONS IN THE PROCEEDINGS OF INTERNATIONAL CONFERENCES

- 1. N. Gougoulias, M. N. Metsoviti, M. Grigoriou, S. Lamprakopoulos, A. Mpesios, G. Papapolymerou, "Heterotrophic growth of Chlorella vulgaris on crude glycerol", 16th International Conference on Environmental Science & Technology (CEST 2019), September 4-7, Rhodes, Greece
- 2. AQUA2018, Montpeller France, August 25-29, 2018, Book of Abstracts, page 508
- 3. Metsoviti M.N., Papapolymerou G., Karapanagiotidis I.T., Katsoulas N., "Effect of different concentrations of nitrogen on the growth rate and nutrient content of the microalga Chlorella vulgaris", Proceedings of the 2nd International Congress on Applied Ichthyology & Aquatic Environment, 10-12 November 2016, Messolonghi Greece
- 4. V. Karayannis, E. Lakioti, X. Spiliotis, A. Zabaniotou, A. Domopoulou, G. Papapolymerou, "Social acceptance of innovation in renewable resource and energy efficiency towards sustainable development", Book of Abstracts of the International Symposium and Workshop "Circular Economy and Sustainable Management of Renewable Resources in the context of Climate Change and Social Upheavals", Nisyros, Greece, July, 20-22, 2016
- 5. S. Lamprakopoulos, K. Ntampegliotis, X. Spiliotis, S. Zaoutsos, G. Papapolymerou, V. Karayannis, "Physico-mechanical properties of ceramic materials made from fly ash and metallurgical wastes", Proceedings of the 7th IC-SCCE 7th International Conference from Scientific Computing to Computational Engineering, Athens, Greece, July 6-9, 2016
- 6. S. Lamprakopoulos, V. Karayannis, G. Papapolymerou, D. Kasiteropoulou, K. Ntampegliotis, X. Spiliotis, "Lignite fly ash and EAFC as the raw materials for ceramics", Proceedings of the CEMEPE 2015 5th International Conference on Environmental Management, Engineering, Planning and Economics, Mykonos island, Greece, June 14-18, 2015
- 7. A. Domopoulou, X. Spiliotis, A. Baklavaridis, G. Papapolymerou, V. Karayannis, "New ceramics incorporated with industrial by-products as pore formers for sorption of toxic chromium from aqueous media", Geophysical Research Abstracts, Vol. 17, EGU2015-15296, EGU General Assembly 2015, Vienna, Austria
- 8. A. Domopoulou, X. Spiliotis, G. Charalampides, A. Baklavaridis, G. Papapolymerou, V. Karayannis, "New composites from Al nanopowder reinforced with recycled steel-making dust", ANNIC 2015 Applied Nanotechnology and Nanoscience Int. Conference, Paris, France, November 5-7, 2015, Accepted for Oral Presentation
- 9. X. Spiliotis, V. Karayannis, K. Ntampegliotis, S. Lamprakopoulos, G. Papapolymerou, "Valorization of olive-mill wastewater in ceramic manufacturing, focusing on energy savings and CO2 emission reductions", RICCCE 2015 19th Romanian International Conference on Chemistry and Chemical Engineering, Sibiu, Romania, September 2-5, 2015, Accepted for Oral Presentation
- 10.S. Lamprakopoulos, V. Karayannis, G. Papapolymerou, D. Kasiteropoulou, K. Ntampegliotis, X. Spiliotis, "Lignite fly ash and EAFC as the raw materials for ceramics", Proceedings of the CEMEPE

- 2015 5th International Conference on Environmental Management, Engineering, Planning and Economics, Mykonos island, Greece, June 14-18, 2015
- 11.G. Papapolymerou, An. Besios, A. Riga, N. Gougoulias, X. Spiliotis, V. Karayannis, "Comparative performance of a pilot-plant and a laboratory photobioreactor for the cultivation of the microalgae species Chlorella vulgaris", Proceedings of the CEMEPE 2015 5th International Conference on Environmental Management, Engineering, Planning and Economics, Mykonos island, Greece, June 14-18, 2015
- 12. D. Kantas, S. Papadopoulos, G. Papapolymerou, N. Gougoulias, V. Karayannis, X.Spiliotis, "The macronutrient content of Chlorella vulgaris microalgae grown in laboratory and small pilot-scale bioreactors", Proceedings of the CEMEPE 2015 5th International Conference on Environmental Management, Engineering, Planning and Economics, Mykonos island, Greece, June 14-18, 2015
- 13. A. Domopoulou, X. Spiliotis, A. Baklavaridis, G. Papapolymerou, V. Karayannis, "New ceramics incorporated with industrial by-products as pore formers for sorption of toxic chromium from aqueous media", Geophysical Research Abstracts, Vol. 17, EGU2015-15296, EGU General Assembly 2015, Vienna, Austria
- 14. V. Karayannis, X. Spiliotis, P. Samaras, N. Koukouzas, A. Domopoulou, K. Ntampegliotis, G. Papapolymerou, "Recycling of lignite highly-calcareous fly ash into
- 15. building bricks", GREENCHEM 4 –4thInternational Symposium on Green Chemistry for Environment, Health and Development, Kos island, Greece, Sept. 24-26, 2014
- 16.X. Spiliotis, K. Ntampegliotis, D. Kasiteropoulou, V. Karayannis, G. Papapolymerou, "Contribution to the management of steel industry scrap-soil by its utilization into red ceramics", GREENCHEM4 4th International Symposium on Green Chemistry for Environment, Health and Development, Kos island, Greece, Sept. 24-26, 2014
- 17. V. Karayannis, D. Kasiteropoulou, K. Ntampegliotis, S. Lamprakopoulos, G. Papapolymerou, X. Spiliotis, "Valorization of steel mill scale for manufacturing innovative engineering ceramics and environmental protection", Book of Abstracts of the CHISA 2014 21st International Congress of Chemical and Process Engineering, Prague, Czech Republic, August 23-27, 2014
- 18. K. Lolos, K. Ntampegliotis, D. Kasiteropoulou, V. Karayannis, G. Papapolymerou, X. Spiliotis, "Steel making EAFC as the raw material into novel ceramics", Book of Abstracts of the CHISA 2014 21st International Congress of Chemical and Process Engineering, Prague, Czech Republic, August 23-27, 2014
- 19. K. Ntampegliotis, D. Kasiteropoulou, S. Lamprakopoulos, V. Karayannis, G. Papapolymerou, X. Spiliotis, "EAFC beneficial utilization in extruded clay bricks fabrication", Proceedings of the PRE XII 12th International Conference on Protection & Restoration of the Environment, Skiathos, June 29 July 3, 2014
- 20. X. Spiliotis, N. Gougoulias, V. Karayannis, D. Kasiteropoulou, G. Papapolymerou, "Effect of pH on the growth rate and productivity of wild algal species", Book of Abstracts of the ICOEST 2014 2nd International Conference on Environmental Science and Technology, Side-Antalya, May 14-17, 2014
- 21. V. Karayannis, X. Spiliotis, K. Ntampegliotis, N. Koukouzas, G. Papapolymerou, "Enhancing the thermal insulation of clay bricks using fly ash as pore-forming agent", Proceedings of the ELCAS3 3rd International Exergy, Life Cycle Assessment, and Sustainability Workshop & Symposium, Nisyros island, Greece, July 7-9, 2013
- 22. P. Samaras, V. Karayannis, X. Spiliotis, K. Ntampegliotis, G. Papapolymerou, "Sustainable use of resources into fired clay bricks", Proceedings of the SDIMI 2013 6th International Conference on Sustainable Development in the Minerals Industry, Milos island, Greece, June 30 July 3, 2013
- 23.G. Papapolymerou, X. Spiliotis, V. Karayannis, N. Gougoulias, D. Kasiteropoulou, "Microalgal cultivation and biofuel production Effect of nitrogen restriction", Book of Abstracts of the CEMEPE 2013 4th International Conference on Environmental Management, Engineering, Planning and Economics, Mykonos island, Greece, June 24-28, 2013
- 24. V. Karayannis, P. Samaras, X. Spiliotis, V. Tsiridis, A. Domopoulou, K. Gudulas, G. Papapolymerou, "Leaching behavior of bricks produced from extruded clay/industrial solid by-product mixtures", Book of Abstracts of the CEMEPE 2013 4th International Conference on Environmental Management, Engineering, Planning and Economics, Mykonos island, Greece, June 24-28, 2013
- 25. X.D. Spiliotis, K.I. Ntampegliotis, V.G. Karayannis, N.K. Koukouzas, G.A. Papapolymerou, "Weibull analysis and flexural strength of clay-based bricks containing powdery industrial byproducts", Proceedings of the 10th HSTAM 2013 International Congress on Mechanics, Chania, Greece, May 25-27, 2013
- 26.X. Spiliotis, K. Ntampegliotis, V. Karayannis, G. Papapolymerou, "Addition of recycled municipal solid waste and pet coke into clays: Effect on the manufacturing process and final material properties", Proceedings of the IMCET 2013 23rd International Mining Congress and Exhibition of Turkey Antalya, Turkey, April 16-19, 2013.
- 27. X.D. Spiliotis, K.I. Ntampegliotis, V.G. Karayannis, N.K. Koukouzas, G.A. Papapolymerou,

- "Weibull analysis and flexural strength of clay-based bricks containing powdery industrial by-products", Proceedings of the 10th HSTAM 2013 International Congress on Mechanics, Chania, Greece, May, 25-27, 2013
- 28. V. Karayannis, P. Samaras, X. Spiliotis, V. Tsiridis, A. Domopoulou, K. Gudulas, G. Papapolymerou, "Leaching behavior of bricks produced from extruded clay/industrial solid by-product mixtures", CEMEPE 2013 4th International Conference on Environmental Management, Engineering, Planning and Economics, Mykonos island, Greece, June 24-28, 2013, Abstract Accepted for Presentation and Publication in the Conference Book of Abstracts
- 29. G. Papapolymerou, X. Spiliotis, V. Karayannis, N. Gougoulias, D. Kasiteropoulou, "Microalgal cultivation and biofuel production Effect of nitrogen restriction", CEMEPE 2013 4th International Conference on Environmental Management, Engineering, Planning and Economics, Mykonos island, Greece, June 24-28, 2013, Abstract Accepted for Presentation and Publication in the Conference Book of Abstracts.
- 30.P. Samaras, V. Karayannis, X. Spiliotis, K. Ntampegliotis, G. Papapolymerou, "Sustainable use of resources into fired clay bricks", SDIMI 2013 6th International Conference on Sustainable Development in the Minerals Industry, Milos island, Greece, June 30 July 3, 2013, Full Paper Accepted for Oral Presentation and Publication in the Conference Proceedings
- 31. V. Karayannis, X. Spiliotis, K. Ntampegliotis, N. Koukouzas, G. Papapolymerou, "Enhancing the thermal insulation of clay bricks using fly ash as pore-forming agent" ELCAS3 3rd International Exergy, Life Cycle Assessment, and Sustainability Workshop & Symposium, Nisyros Island, Greece, July, 7-9, 2013, Full Paper Accepted for Oral Presentation and Publication in the Conference Proceedings
- 32. ''Degradation of Drimarene dyes using UV-C/H2O2 Effect of stepwise addition of the reactant'' A. Ρήγα, Ι. Πούλιος, Β. Καραγιάννης, Β. Μποντόζογλου, και Γ. Παπαπολυμέρου 2ο Συνέδριο της Περιβαλλοντικής Διαχείρισης, Μηχανικής, Σχεδιασμού και Οικονομικών CEMEPE, 2009, Μύκονος
- 33. "Ceramics made from the recycling of industrial by-products", V. Karayannis, X. Spiliotis, G. Papapolymerou, Proceedings, 1st International Conference on Hazardous Waste Management, Chania, Greece, October 1-3, 2008
- 34. "Sintering process optimization in clay brics containing recycled fly ash", X. Spiliotis, V. Karayannis, N. Koukouzas, K. Ntampegliotis, G. Papapolymerou, Proceedings, 18th International Congress of Chemical and Process Engineering, Prague, Czech Republic, August 24-28, 2008
- 35. "Decolorization kinetics of reactive azo dyes via photochemical and photocatalytic processes", K.Soutsas, V.Karayannis, A.Riga, K.Ntampegliotis, X.Spiliotis, G.Papapolymerou, Proceedings of the 1st International Conference on Envir. Management, Engineering, Planning and Economics, pp 1833-1838, Skiathos, Greece, June 24-28, 2007
- 36. 'Physico-Mechanical Properties of Clay Bricks Containing Recycled Lignite Fly Ash'', X. Spiliotis, V. Karayannis, N. Koukouzas, D. Kasidakis, D. Papanicolaou, A. Riga, G. Papapolymerou, Proceedings, 10th International Conference and Exhibition of τhe European Ceramic Society, Berlin, Germany, June 17-21, 2007
- 37. "Comparison of the Degradation of Drimarene K2RL by a Combination of AOP Processes and by step-wise Addition of Reactants", A. Riga, V. Bontozoglou, K. Pitarakis, K. Ntambegliotis, G. Papapolymerou 1st European Conference for Advanced Oxidation Processes, Chania, Crete, September 7-9, 2006
- 38. 'Effect of system parameters on the decolorization efficiency of Procion Hexl Dyes. Comparison of H2O2/UV, Fenton, Photo-Fenton, TiO2/UV-A and TiO2/H2O2/UV-A Processes', A. Riga, K. Soutsas, K. Ntampegliotis, V. Karayannis, G. Papapolymerou, 9th International Conference on Environmental Technology
- 39. "Application of Advanced oxidation methods for the decolorization of Remazol dyes. Comparison of the decolorization kinetics and efficiencies using H2O2/UV, Fenton and Fenton/UV-A Processes", X. Spiliotis, V. Karayannis, K. Ntampegliotis, I. Domazinaki, A. Riga and G. Papapolymerou, 2nd International Symposium on Energy and Exergy, July 3-7, 2005, Kos, Greece
- 40. "The engineering direction of the Technological Educational Institutes in Greece" P.G. Lokkas, G. Papapolymerou, 8th UICEE Annual Conference on Engineering Education, Kingston, Jamaica, February 7-11, 2005
- 41. "Treatment of effluents from textile dyeing with the use of Fenton's reactions", K. Ntambegliotis, V. Bontozoglou, G. Papapolymerou, 7th International Conference for the Protection and Restoration of the Environment, June 28-July 1, Mykonos, Greece
- 42. "Human Impact on Health and Environmental Water Sustainability", Ph. Lokkas, G. Papapolymerou, Euro XX, 20th European Conference on Operational Research and the Management of Electronic Services, July 4-July 7, Rhodes, Greece
- 43. "Selectivity of hydrazine decomposition on Pt, Rh and Pd", G. Papapolymerou, A. Tzachanis and X. Spiliotis, International Conference on Materials Science and Emgineering, Brasov, Romania, March, 2003
- 44. "Wall-triggered interfacial resonance in gas-sheared liquid films", V. Bontozoglou and G.

- Papapolymerou, 3rd International Conference on Multiphase Flow'', Lyon, France, June 1998.
- 45. "Wall-triggered interfacial resonance in laminar film flow", V. Bontozoglou and G. Papapolymerou, 3rd European Fluid Mechanics Conference, Gottingen, Germany, September, 1997.
- 46. "Thermal Analysis and Mechanical Properties of Brick Clays", X. Spiliotis, G.Papapolymerou, V. Karayannis, A. Papargyris, A. Botis, D. Kasidakis, Proceedings of the 5th Conference of the European Ceramic Society, Vols 132 136, pp.2168 2171, 1997, Versailles, France, June 22 26, 1997.
- 47. "Particle Size Distribution Mechanical Property Relationship of Brick Clays", A.G. Botis, V. Karayannis, A. Papargyris, G.Papapolymerou, X. Spiliotis, D. Kasidakis, Proceedings of the 5th Conference of the European Ceramic Society, Vols 132 136, pp.2164 2167, 1997, Versailles, France,
- 48. "Thermal Analysis of Brick Clays", A.D. Papargyris, A.G. Botis, George A./P. Papapolymerou, X.D. Spiliotis, and D. Kasidakis, Proc. of the 3rd European Conference on Ceramics 2, 1993, 973 978
- 49. "A 25x25 Matrix Ferroelectric Liquid Crystal Device", C.M. Palmgren, J.M. Birdsall, W.A. Huffman, E.P. Janulis, J.C. Novack, G. Papapolymerou and M.G. Tristani Kendra, 11th International Liquid Crystal Conference, Clark Kerr Campus, University of California at Berkeley, Berkeley, California, June 30 July 4, 1986, pp Θ 021 FE

#### F. INTERNATIONAL PATENTS

1. "Liquid Crystal Device with Grey Scale", M. G. Tristani-Kendra and George Papapolymerou US Patent Office, Patent No. 5.062.691, 5 Νοεμβρίου 1991

#### G. REFERENCES

- 1. Over 400 references (Science Ciotation Index) to my scientific publications
- 2. Over 20 references to my International Patent

### H. ADMINISTRATIVE POSITIONS

From 17-01-205 until 31-08-2006 and from 01-09-2006 until 31-08-2008 President of the Exact Science Department of the Technological & Educational Institute of Thessaly

From 15-09-2017 yntil 30-11-2017 Vice Rector for Academic Affairs of the Technological & Educational Institute of Thessaly