

## Curriculum Vitae

### Personal Information

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Name: Antigoni G. Margellou  
Date-Place of birth: 30-11-1989, Thessaloniki, Greece  
Address: Kimonos Boga 56, 54645, Thessaloniki  
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### Education

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**2014-2018:** PhD, Department of Chemistry, University of Ioannina, *Dissertation:* Synthesis, Characterization and catalytic activity of La(Sr)Fe(Co)O<sub>3</sub> Perovskites (10/10), ND: 42492

**2011-2014:** MSc in Chemical and Biochemical Technologies in Chemical, Environmental, Computational Technology and Modelling, Department of Chemistry, University of Ioannina, Greece, *Dissertation:* Synthesis, Characterization and Catalytic activity of Mn<sub>x</sub>Co<sub>3-x</sub>O<sub>4</sub> Spinel. (10/10)

**2007-2011:** BSc, Department of Chemistry, University of Ioannina, Greece, *Dissertation:* Synthesis, Characterization and Catalytic activity of CoAl<sub>2</sub>O<sub>4</sub> spinels. (7.27/10.00)

### Training

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**2016:** 3<sup>rd</sup> Summer School on Thermal Analysis Techniques, 29/5, Ioannina

**2015:** Introduction to Solid State Chemistry, Massachusetts Institute of Technology, USA, online course (4 months) Grade: 82%

**2015:** Introduction to Environmental Science, University of Dartmouth, USA, online course (2 months) Grade: 85%

**2014:** Summer School on Thermal Analysis Techniques, 29/6-12/7, AUTH, Thessaloniki

**2012:** Metrology in Chemistry Workshop, TrainMic, 12/5/2012, Ioannina

### Research Experience

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- Catalyst design (simple oxides, spinels and perovskites) and characterization (XRD, FTIR, UV-Vis, N<sub>2</sub> Porosimetry, SEM, EDS, DLS, TGA/DSC)
- Lignocellulosic biomass characterization (HPLC, GC, GC-MS) and fractionation
- (Bio)catalytic conversion of lignocellulosic biomass to fuels and chemicals
- Catalytic deNO<sub>x</sub> processes
- Catalytic biodiesel production (homogeneous, heterogeneous, in situ and pilot plant)/ evaluation of their quality characteristics

## Work Experience

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### **2018-current: Postdoctoral research/Research Associate, Laboratory of Chemical and Environmental Technology, Department of Chemistry, Aristotle University of Thessaloniki**

- European Sustainable BIObased nanoMAterials Community (BIOMAC), Horizon 2020, Project Coordinator: Prof. D. Bikiaris
- Flexible and resilient integrated biofuel processes for competitive production of green renewable jet and shipping fuels, FLEXI-GREEN FUELS, Horizon 2020, Project Coordinator: Prof. K. Triantafyllidis
- Pilot cultivation of locally isolated Dunaliella strains for the production of  $\beta$ -carotene- PILOUS, funded by the GSRT in the context of the national action: «Special Actions "Aquaculture" - "Industrial Materials"- "Open Innovation in Culture"» of the Operational Program "Competitiveness, Entrepreneurship and Innovation" EPAnEK, 2014-2020, Project Coordinator: S. Gkelis
- Development of innovative nanocellulose-reinforced composite wood products with advanced hydrophobic and antimicrobial properties-Cell4Glue, co-financed by the European Regional Development Fund of the European Union and Greek national funds through the Operational Program Competitiveness, Entrepreneurship and Innovation, under the call Aquaculture- Industrial Materials- Open Innovation in Culture, Epanek 2014-2020, Budget for AUTH 212.950,89 €, Project Coordinator: Prof. K. Triantafyllidis
- Valorization of agricultural residues and food industries waste towards the production of value added chemicals and fuels”, in the project “INVALOR: Research Infrastructure for Waste Valorization and Sustainable Management, which is implemented under the Action “Reinforcement of the Research and Innovation Infrastructure”, funded by the Operational Programme "Competitiveness, Entrepreneurship and Innovation" (NSRF 2014-2020) and co-financed by Greece and the European Union (European Regional Development Fund), Budget for AUTH 274.712 €, Project Coordinator: Prof. A. Zouboulis

### **2013-2015:Research Associate, Laboratory of Industrial Chemistry, Department of Chemistry, University of Ioannina**

- Production Technologies of Biofuels (biodiesel) in Epirus (BIOEPIRUS), University of Ioannina, 2013-2015, co-financed by the European Union (European Regional Development Fund- ERDF) and Greek national funds through the Operational Program “THESSALY- MAINLAND GREECE AND EPIRUS-2007-2013” of the National Strategic Reference Framework (NSRF 2007-2013), Budget for UoI 150.000 € Project Coordinator: Prof. P. Pomonis
- Thalis-University of Ioannina-Materials of advanced Nano-Architecture at mesoscale for energy and environmental applications (NANOMESO), co-financed by the European Union (European Social Fund – ESF) and Greek national funds through the Operational Program "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF)-Research Funding Program: THALES. Investing in knowledge society through the European Social Fund, University of Ioannina, 2013-2015 Budget for UoI 600.000 € Project Coordinator: Prof. P. Pomonis

## Awards

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- EFCAT Award for the participation in Europacat XIV, Firenze, Italy, 27-31 August 2017
- New scientist award for the best oral presentation at the 7<sup>th</sup> Panhellenic Conference on Thermal Analysis, Ioannina, 27-29 May 2016

## Patents

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- Heterogeneous magnesium oxide catalysts for enhanced biodiesel production, GR1008954 Greek Patent Office, Inventors: A. Margellou, A. Koutsouki, D. Petrakis, M. Kontominas, P. Pomonis.

## Teaching Experience

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- Assistant at Laboratory of Physical and Chemical Processes, Dep. of Chemistry, Univ. of Ioannina, “Study of friction during the flow of fluids” and “Adsorption of n-hexane on activated carbon” during the academic years 2012-2013, 2013-2014, 2014-2015, 2015-2016 and 2016-2017
- Assistant at Laboratory of Chemical Technology, Dep. of Chemistry, Univ. of Ioannina, “Specific surface areas of solids” during the academic years 2014-2015, 2015-2016, 2016-2017 and 2017-2018

## Publications in international peer-reviewed journals

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1. Catalytic fast pyrolysis of beech wood lignin isolated by different biomass (pre)treatment processes: Organosolv, hydrothermal and enzymatic hydrolysis, A.G. Margellou, P.A. Lazaridis, I.D. Charisteidis, C.K. Nitsos, C.P. Pappa, A.P. Fotopoulos, S. Van den Bosch, B.F. Sels, K.S. Triantafyllidis, *Applied Catalysis A: General* (2021) 623, 118298
2. Beyond Zipf's law: Pore ranking in solids by beta distributions, Antigoni G. Margellou, Philippos J. Pomonis, *Microporous and Mesoporous Materials* 317 (2021) 110987
3. Hydrodeoxygenation of phenol and biomass fast pyrolysis oil (bio-oil) over Ni/WO<sub>3</sub>-ZrO<sub>2</sub> catalyst, Caterina Zerva, Stamatia A. Karakoulia, Konstantinos G. Kalogiannis, Antigoni Margellou, Eleni F. Iliopoulou, Angelos A. Lappas, N. Papayannakos, Konstantinos S. Triantafyllidis, *Catalysis Today* 366 (2020) 57-67
4. Benford's law, Zipf's law and the pore properties in solids, Margellou Antigoni G., Philippos J. Pomonis, *Microporous and Mesoporous Materials* 292 (2020) 109735
5. Catalytic N<sub>2</sub>O decomposition over La(Sr)FeO<sub>3</sub> perovskites, Antigoni G. Margellou\*, Tiverios C. Vaimakis, Philippos J. Pomonis, Dimitrios E. Petrakis, *Reaction Kinetics, Mechanism and Catalysis* 2019
6. Catalytic Transfer Hydrogenolysis Reactions for Lignin Valorization to Fuels and Chemicals, Review, Antigoni Margellou and Konstantinos S. Triantafyllidis, *Catalysts* (2019), 4, 43
7. The pore length, the pore number and the pore anisotropy distributions in porous materials, Philippos Pomonis, Antigoni Margellou, *Microporous and Mesoporous Materials* 271 (2018) 41-51
8. Enhanced production of biodiesel over MgO catalysts synthesized in the presence of Poly-Vinyl-Alcohol (PVA), A. Margellou, A. Koutsouki, D. Petrakis, T. Vaimakis, G. Manos, M. Kontominas, P. Pomonis, *Ind. Crops Prod.* (2018) 114 146-153
9. Zipf's Law for Pore Ranking and Pore Anisotropy, Philippos Pomonis and Antigoni Margellou, *PCCP* (2017) 19 17441-17448
10. The Total and the Differential Mean Pore Anisotropy in Porous Solids and the Ranking of Pores According to the Zipf's Law, Antigoni Margellou and Philippos Pomonis, *PCCP* (2017) 19 1408-1419
11. Development of enhanced surface area LaFeO<sub>3</sub> perovskites using amino acids as templating agents, A.G. Margellou\*, I.T. Papadas, D. E. Petrakis and G. S. Armatas, *Mater. Res. Bull.* (2016) 83 491-501
12. Activated vs pyrolytic carbon as support matrix for chemical functionalization: Efficient heterogeneous non-heme Mn(II) catalysts for alkene oxidation with H<sub>2</sub>O<sub>2</sub>, A. Simaioforidou, M. Papastergiou, A. Margellou, D. Petrakis, M. Louloudi, *J. Mol. Catal. A: Chem.* (2017) 426 (B) 516-525

## Publications in book chapters

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1. “Oilseed valorization for biodiesel production via catalytic transformation” Antigoni G. Margellou, Michael G. Kontominas, Philippos J. Pomonis, Chapter 1 in “Oilseeds Production, Varieties and Management Practices”, pages 1-60, Eds Lindsey Harvey, 2019, Nova Science Publishers, Inc. New York, ISBN: 978-1-53615-636-2

2. “State-of-the-art in biomass fast pyrolysis using acidic catalysts: Direct comparison between microporous zeolites, mesoporous aluminosilicates and hierarchical zeolites” K.S. Triantafyllidis, S.D. Stefanidis, S.A. Karakoulia, A. Pineda, A. Margellou, K.G. Kalogiannis, E.F. Iliopoulou, A.A. Lappas, Chapter 5, in Biomass and Biowaste, New Chemical Products from Old, pages 113-144, Ed. Balu, Alina M./García Nuñez, Araceli, 2020, De Gruyter, DOI: 10.1515/9783110538151

## Conferences

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### 2021:

1. S. P. Ioannidou, A. G. Margellou, K. S. Triantafyllidis Winery wastes valorization based on the “integrated biore-nergy” concept, THESSALONIKI 2021 8<sup>th</sup> International Conference on Sustainable Solid Waste Management, 23-25/6, 2021 (oral)
2. K. Rekos, A. Margellou, G. Dedes, A. Karnaouri, E. Topakas, K.S. Triantafyllidis, Valorization of waste lignocellulosic biomass towards furanics and organic acids, THESSALONIKI 2021 8<sup>th</sup> International Conference on Sustainable Solid Waste Management, 23-25/6, 2021 (poster)
3. A. G. Margellou, C. P. Pappa, D. Moutousidis, E. Athanasiadou, K. S. Triantafyllidis, Hydrothermal pretreatment and fractionation of agricultural lignocellulosic waste biomass towards furanics and lignin-based chemicals, THESSALONIKI 2021 8<sup>th</sup> International Conference on Sustainable Solid Waste Management, 23-25/6, 2021 (poster)
4. K. Triantafyllidis, A. Margellou, K. Rekos, C. Pappa, A. Fotopoulos, Lignin-Based Biorefinery: Monomers, Polymers and Fuels from Hydrolysis, Organosolv and Kraft Lignin, EUBCE 2021-29<sup>th</sup> European Biomass Conference and Exhibition, 26-29/4, 2021, online (poster)
5. Margellou A, Rekos K., Fotopoulos A., Triantafyllidis K., Catalytic hydrogenolysis of lignin towards the production of phenolic bio-oils, IV Scientific-Technological Symposium Catalytic hydroprocessing in oil refining STS HydroCat, 26-30/4, 2021, online (oral)
6. F. Zormpa, A. Margellou, K. Triantafyllidis, Valorization of lignocellulosic biomass towards the production of phenolic and aromatic monomers, 1<sup>st</sup> Online Conference of New scientists: Fossil sources-Environment-Chemical Engineering, 26-28/2, Kozani (oral)
7. S. Kavoukis, G. Papapanagiotou, G. Iakovou, A. Margellou, O. Lortou, M. Panou, V. Rousonikolos, D. Goutzikostas, N. Korovesis, G. Zalidis, S. Gkelis, K. Triantafyllidis, Characterization and b- carotene extraction of Dunalliella microalgae towards added value chemicals, 1<sup>st</sup> Online Conference of New scientists: Fossil sources-Environment-Chemical Engineering, 26-28/2, Kozani (oral)

### 2020:

8. A. Margellou, C. Nitsos, K. Triantafyllidis, Pretreatment/fractionation and conversion of lignocellulosic biomass towards enhanced furanics production, Fur4Sustain Xmas Meeting, COST action, 17-18/12/2020 (oral)
9. S.Ioannidou, A. Margellou, K. Triantafyllidis, Biorefinery of vinery waste and by-products, 7<sup>th</sup> Environmental Conference of Macedonia, 30/10-1/11, Thessaloniki (oral)
10. C. Pappa, D. Giliopoulos, A. Margellou, A. Fotopoulos, K. Triantafyllidis, Epoxy resins with paper industry residues as additives: the case of kraft and organosolv lignins, 7<sup>th</sup> Environmental Conference of Macedonia, 30/10-1/11, Thessaloniki (oral)
11. A. Margellou, F. Zormpa, K. Triantafyllidis, Valorization of agricultural and food industry lignocellulosic wastes towards the production of phenolic monomers, 7<sup>th</sup> Environmental Conference of Macedonia, 30/10-1/11, Thessaloniki (oral)
12. S. Kavoukis, G. Iakovou, A. Margellou, G. Papapanagiotou, O. Lortou, M. Panou, S. Gkelis, G. Zalidis, K. Triantafyllidis, Utilization of microalgae for the production of added value chemical products, 7<sup>th</sup> Environmental Conference of Macedonia, 30/10-1/11, Thessaloniki (poster)

13. K. Triantafyllidis, A. Margellou, K. Rekos, C. Pappa, A. Fotopoulos, Valorization of lignin towards chemicals, fuels and polymers, BERSTIC 2020: II International Congress on Biorefineries and Renewable Energies, Colombia, 17-20/2

**2019:**

14. S. Ioannidou, A. Margellou, K. Triantafyllidis, Winery wastes valorization to value added chemicals, 3<sup>rd</sup> Conference for under- and post-graduate students of Chemistry, Aristotle University of Thessaloniki, Thessaloniki, Greece, 22-23/11
15. Christina Pappa, Dimitrios Giliopoulos, Antigoni Margellou, Apostolos Fotopoulos, Konstantinos Triantafyllidis, Valorization of lignin as epoxy polymer bio-additive, 3<sup>rd</sup> Conference for under- and post-graduate students of Chemistry, Aristotle University of Thessaloniki, Thessaloniki, Greece, 22-23/11/2019
16. A. Margellou, K. Rekos, K. Triantafyllidis, Valorization of agricultural and food industry wastes towards the production of fuels and value-added chemicals, Invalor Scientific workshop, Chania, 15/11/2019.
17. Christina Pappa, Dimitrios Giliopoulos, Antigoni Margellou, Apostolos Fotopoulos, Konstantinos Triantafyllidis, Valorization of lignin as epoxy polymer bio-additive, 6<sup>th</sup> Panhellenic Conference Green Chemistry and Sustainable Development, Athens, 18-20 October 2019.
18. A. Margellou, K. Rekos, C. Pappa, A. Fotopoulos, K. Triantafyllidis, Integrated biorefinery” for lignocellulosic biomass valorization to fuels and chemicals, 6<sup>th</sup> Panhellenic Conference Green Chemistry and Sustainable Development, Athens, 18-20 October 2019.
19. A. Margellou, K. Rekos, C. Pappa, K. Triantafyllidis, Hemicellulose and lignin biomass streams valorization via catalytic hydrogenation/hydrogenolysis reactions, 6<sup>th</sup> Panhellenic Conference Green Chemistry and Sustainable Development, Athens, 18-20 October, 2019.
20. Antigoni Margellou, Konstantinos Triantafyllidis, Catalytic hydrogenolysis of kraft lignin towards substituted phenolics, V International Conference CATALYSIS FOR RENEWABLE SOURCES: FUEL, ENERGY, CHEMICALS, Crete, Greece, September 2-6, 2019.
21. E. Mitsiakou, A. Margellou, K. Rekos, K.S. Triantafyllidis, Valorization of hemicellulose-biomass side streams via catalytic hydrogenation into value added chemicals and fuels, 7<sup>th</sup> International Conference on Sustainable Solid Waste Management Crete Island, Greece, 26-29 June 2019.
22. Margellou A., Triantafyllidis K., Valorization of agricultural and food industry wastes towards the production of value-added chemicals: A holistic approach, 17<sup>th</sup> International Conference on Chemistry and the Environment, Thessaloniki, Greece, 16-20 June 2019.

**2018:**

23. Antigoni Margellou, Polykarpos Lazaridis, Ioannis Charisteidis, Apostolos Fotopoulos, Stamatia Karakoulia, Konstantinos Triantafyllidis, Catalytic valorization of lignin via pyrolysis and hydrogenolysis of processes towards the production of value-added chemicals, 2<sup>nd</sup> Conference for under- and post-graduate students of Chemistry, Aristotle University of Thessaloniki, Thessaloniki, Greece, 2-3/11
15. C. Pappa, R. Kokoli, D. Giliopoulos, K. Karagiannidis, A. Fotopoulos, P. Lazaridis, A. Margellou, K. Triantafyllidis, Organosolv and Kraft lignin as additive in epoxy resins, 2<sup>nd</sup> Conference for under- and post-graduate students of Chemistry, Aristotle University of Thessaloniki, Thessaloniki, Greece, 2-3/11
16. Antigoni Margellou, Polykarpos Lazaridis, Ioannis Charisteidis, Apostolos Fotopoulos, Stamatia Karakoulia, Konstantinos Triantafyllidis, Production of aromatic and phenolic compounds via the pyrolysis and hydrogenolysis of lignin, 15<sup>th</sup> Panhellenic Symposium of Catalysis, Ioannina, Greece, 18-20/10
17. D. Giliopoulos, R. Kokoli, K. Karagiannidis, C. Pappa, A. Fotopoulos, P. Lazaridis, A. Margellou, K.S. Triantafyllidis, Epoxy polymer additives derived from lignocellulosic biomass: the case of organosolv and kraft lignin, 12<sup>th</sup> Hellenic Polymer Society International Conference (POLYCONF12) Ioannina, Greece, 30/9-3/10

18. Konstantinos Triantafyllidis, Antigoni Margellou, Christos Nitsos, P. Lazaridis and Evi Mitsiakou, Selective fractionation and conversion of biomass via thermochemical and (bio)catalytic processes, EBC-VII & ISEB-2018 Joint Conference, Chania, Greece, 25-28/6
19. P. Lazaridis, I. Charisteidis, A. Margellou, A. Asteriadis, K. Triantafyllidis, Catalyst screening in fast pyrolysis of biomass using the Py-GC/MS system, 4<sup>th</sup> Workshop & 5<sup>th</sup> MC Meeting, Thessaloniki, Greece 12-14/3 (poster)
20. R. Kokoli, D. Giliopoulos, K. Karagiannidis, X. Pappa, A. Fotopoulos, P. Lazaridis, A. Margellou, K.S. Triantafyllidis, Organosolv and kraft lignin as epoxy polymer bio-additive, 4<sup>th</sup> Workshop & 5<sup>th</sup> MC Meeting, Thessaloniki, Greece 12-14/3 (poster)

#### 2017:

21. A. Margellou, T. Vaimakis, D. Petrakis, P. Pomonis, Synthesis and catalytic activity of La(Sr)Fe(Co)O<sub>3</sub> perovskites, 5<sup>th</sup> Chemistry Conference, Dep. of Chemistry, University of Ioannina, Ioannina, Greece, 29-30/9, 2017 (oral)
22. A. Margellou, T. Vaimakis, D. Petrakis, P. Pomonis, Effect of cation substitution on the catalytic activity of La<sub>1-x</sub>Sr<sub>x</sub>Fe<sub>1-y</sub>Co<sub>y</sub>O<sub>3</sub> perovskites for NO reduction by CO, 13<sup>th</sup> European Congress on Catalysis - EuropaCat-XIII, Florence, Italy, 27-31/8 (poster)

#### 2016:

23. A. Margellou, D. Petrakis, P. Pomonis, N<sub>2</sub>O decomposition over Mn<sub>x</sub>Co<sub>3-x</sub>O<sub>4</sub> spinels, 22<sup>nd</sup> Panhellenic Chemistry Conference, AUTH, Thessaloniki, 2<sup>nd</sup>-4<sup>th</sup> December, 2016 (oral presentation)
24. Eirini Tsetsou, Antigoni Margellou, Maria Kapnisti, Maria Karabela, Tiverios Vaimakis, Georgios Papageorgiou, Synthesis and study of thermal properties of biodegradable polymers blends PBTA and PLA, 22<sup>nd</sup> Panhellenic Chemistry Conference, AUTH, Thessaloniki, 2<sup>nd</sup>-4<sup>th</sup> December, 2016 (poster)
25. Eirini Tsetsou, Antigoni Margellou, Dimitrios Achilias, Georgios Papageorgiou, Biodegradable blends of PBS and PBTA, 22<sup>nd</sup> Panhellenic Chemistry Conference, AUTH, Thessaloniki, 2<sup>nd</sup>-4<sup>th</sup> December, 2016 (poster)
26. A. Margellou, T. Vaimakis, D. Petrakis, P. Pomonis, Effect of oxygen reverse uptake on N<sub>2</sub>O decomposition over La<sub>1-x</sub>Sr<sub>x</sub>FeO<sub>3</sub>, Athens International Catalysis Symposium 2016, National and Capodistrian University of Athens, Athens, 3-4 November 2016 (oral presentation)
27. A.G. Margellou, I.T. Papadas, D.E. Petrakis, G.S. Armatas and P.J. Pomonis, Mesoporous LaFeO<sub>3</sub> perovskites synthesized via templated assembly method using amino acids, 7<sup>th</sup> Panhellenic Symposium of Porous Materials, Ioannina, 2-4 June 2016 (oral presentation)
28. A. Margellou, T. Vaimakis and D. Petrakis, Correlation of perovskite catalytic activity with oxygen thermogravimetric O<sub>2</sub> temperature-programmed reverse uptake experiments, 7<sup>th</sup> Panhellenic Conference on Thermal Analysis, Ioannina, 27-29 May 2016, (oral presentation)
29. E. Assanti, E. Tzioli, P. Anagnostakis, E. Tsetsou, A. Margellou, E. Papastergiadis, G. Papageorgiou, Study of biodegradable PBTA- PBS blends, 7<sup>th</sup> Panhellenic Conference on Thermal Analysis, Ioannina, 27-29 May 2016, (poster)
30. E. Assanti, E. Tzioli, P. Anagnostakis, E. Tsetsou, A. Margellou, A. Badeka, M. Kapnisti, G. Papageorgiou, Thermal properties of biodegradable PBTA-PLA blends, 7<sup>th</sup> Panhellenic Conference on Thermal Analysis, Ioannina, 27-29 May 2016, (poster)

#### 2015:

31. Antigoni G. Margellou, Dimitris E. Petrakis and Philippos J. Pomonis, Effect of the preparation method of La<sub>1-x</sub>Sr<sub>x</sub>FeO<sub>3</sub> perovskites on the N<sub>2</sub>O decomposition, 12<sup>th</sup> European Congress on Catalysis - EuropaCat-XII, Kazan, Russia, 30/8- 5/9/ 2015 (poster)

**2014:**

32. Margellou, A.Koutsouki, D. Petrakis, G.Manos, M.Kontominas and P. Pomonis, Biodiesel production using mineral MgO. The role of PVA at the synthesis of catalysts, 22<sup>th</sup> International Conference on Materials and Technology, Portorož, Slovenia, 20-22/10/2014 (oral presentation)
33. A.Margellou, A.Koutsouki, D.Petrakis, G.Manos, M.Kontominas, P. Pomonis, Effect of the preparation method of catalyst on the heterogeneous biodiesel production, 13<sup>th</sup> Panhellenic Catalysis Symposium, Old Saint Athanasios, 16-18/10/2014 (oral presentation)
34. A. Koutsouki, A.Margellou, M.Kontominas, P. Pomonis, G.Manos, Ultrasound assisted in situ transesterification of cynara cardunculus L. for the production of biodiesel, 1<sup>st</sup> International Conference on Green Chemistry and Sustainable Engineering, Barcelona, Spain, 29- 31/7/2014, (poster)
35. A.Margellou, A. Koutsouki, D. Petrakis, G.Manos, M.Kontominas and P. Pomonis, Heterogeneous catalyzed biodiesel production over mineral MgO, 1<sup>st</sup> International Conference on Green Chemistry and Sustainable Engineering, Barcelona, Spain, 29-31/7/2014 (oral presentation)

**2013:**

36. A.G. Margellou, D.E.Petrakis, P.J.Pomonis, Normal or Anomalous Diffusion effects and Pore Connectivity during N<sub>2</sub>O decomposition on porous catalysts Al<sub>2</sub>O<sub>3</sub>/M<sup>n</sup>, 11<sup>th</sup> European Congress on Catalysis - EuropaCat-XI, Lyon, France, 1-6/9/2013 (oral presentation)
37. A.G. Margellou, D.E.Petrakis, P.J. Pomonis, Determination of the external mass transfer characteristic values during the decomposition of N<sub>2</sub>O on spinels CoAl<sub>2</sub>O<sub>4</sub>, 11<sup>th</sup> European Congress on Catalysis-EuropaCat-XI, Lyon, France, 1-6/9/2013 (poster)
38. Antigoni G. Margellou, Dimitris E. Petrakis, Philippos J. Pomonis, Calculation of mass transfer coefficient of N<sub>2</sub>O decomposition on CoAl<sub>2</sub>O<sub>4</sub> spinels, 6<sup>th</sup> Panhellenic Symposium of Porous Materials, Kavala, 9-10/9/2013 (oral presentation)
39. V.Belessi, A.Margellou, M.Lassithiotaki, D.Petrakis, P.Pomonis, External Mass transfer phenomena during the catalytic methane oxidation on perovskites La<sub>1-x-y</sub>Sr<sub>x</sub>Ce<sub>y</sub>FeO<sub>3</sub>, 9<sup>th</sup> Panhellenic Conference of Chemical Engineering, Athens, 23-25/5/2013 (oral presentation)
40. P. Dragani, A.Margellou, D.Petrakis, P. Pomonis, Pore Connectivity and transition temperature from chemical reaction to internal diffusion during the catalytic N<sub>2</sub>O decomposition, 9<sup>th</sup> Panhellenic Conference of Chemical Engineering, Athens, 23-25/5/2013 (oral presentation)
41. A. Margellou, D.Petrakis, P. Pomonis, Determination of external mass transfer characteristic values during N<sub>2</sub>O decomposition over CoAl<sub>2</sub>O<sub>4</sub>, Postgraduate Studies Conference, Department of Chemistry, Ioannina, 28-30 March 2013 (oral presentation)
42. P. Dragani, A. Margellou, D.Petrakis, P. Pomonis, Relation between pore connectivity and transition temperature from chemical reaction to internal diffusion in catalytic processes, Postgraduate Studies Conference, Department of Chemistry, Ioannina, 28-30 March 2013 (oral presentation)

**2012:**

43. A.Margellou, P. Dragani, D. Petrakis, P. Pomonis, Effect of pore connectivity on the transition temperature from chemical reaction regime to diffusion regime at chemical processes, 12<sup>th</sup> Panhellenic Catalysis Symposium, Chania, 24-27/10/2012 (oral presentation)
44. A.G. Margellou, D.E. Petrakis and P.J. Pomonis, External Mass transfer phenomena during N<sub>2</sub>O decomposition, 12<sup>th</sup> Panhellenic Catalysis Symposium, Chania, 24-27/10/2012 (poster)

**Seminars (without presentation)** 

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1. Energy crops, an alternative solution for environmental protection, C.E.E Arach, Arta, 15/5/2014
2. Sustainable Development in coastal areas, University of Ioannina and Balkan Environmental Association, 29/6- 01/7/2011

3. Science and Patents, European Patent office, University of Ioannina, Greek Chemist Association, 06/04/2011
4. Biodiversity and Productivity at Lake Pamvotis, Department of Biological Applications and Technology, University of Ioannina, 15/01/2011
5. The role of chemist in the society and development, Greek Chemist Association, Ioannina, 07/05/2010
6. Hygiene and safety in laboratories, Department of Chemistry, University of Ioannina, 02/04/2008

## Personal Skills

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- Languages                      Greek (mother tongue)  
English (Lower- University of Michigan, Level B2 and C1- Common European Framework of Reference for Languages)
- Computer Skills              ECDL in MS Office (Word, Excel, Internet), Origin Lab, Chem Office, Chem Draw

## Technical Skills

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- Synthesis of catalytic materials methods: Sol-gel, Auto combustion, Hydrothermal, Co-precipitation, Wet/Dry impregnation, Ceramic, Spray-drying Technique.
- Analysis and pretreatment of lignocellulosic biomass: NREL protocols, hydrothermal and organosolv pretreatment
- Scientific instruments: X-Ray Diffraction (XRD), N<sub>2</sub> Porosimeter, FTIR and UV spectrophotometer, Scanning Electron Microscope (SEM), Elemental Analysis (EDS), Diffuse Light Scatter (DLS), Spray- Dryer, Titrator, Gas Chromatography (GC-FID, GC-TCD, GC-MS), HPLC, Plug Flow Reactor (PFR), Parr autoclave reactors.

## Membership

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- Association of Greek Chemists, Greek Bioeconomy Forum