

# Dr. PARASKEVOPOULOU DESPINA

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Address: Chalandri, Athens, Greece

NATIONALITY: Greek

## EDUCATION

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- 2011 – 2014      *PhD in Environmental Chemistry. University of Crete, Department of Chemistry. [Greece]*
- Thesis title: Correlation of chemical properties with optical and climatic parameters of particulate matter in the area of Athens.
- 2006 - 2008      *MSc in Polymer Chemistry & Technology. Aristotle University of Thessaloniki, Department of Chemistry. [Greece]*
- Dissertation title: Migration of styrene from plastic packaging based on polystyrene into food simulant
- 1999 - 2006      *Bachelor in Chemistry. Aristotle University of Thessaloniki, Department of Chemistry. [Greece]*
- Dissertation title: Oxidative stability of olive oil–lemon juice salad dressings stabilized with polysaccharides

## PhD DESCRIPTION

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The objective of my PhD was to define the chemical composition of particulate matter in the urban environment of Athens and to study the correlation between the chemical composition of aerosol and their chemical and optical properties, as well as their interaction with sun radiation. In summary, the objective of this study was the quantitative and qualitative characterization of the aerosol climatic role over the great Athens area, which is significantly burdened due to vicinity with major sources of local and transported particulate matter pollution. For this purpose, sampling of fine and coarse particulate matter was taking place using filter samplers on a 24 hour basis. After performing mass definition, the collected samples were analyzed for their chemical composition in major anions, cations, organic carbon, elemental carbon, water soluble organic carbon and trace elements. During sampling, the optical properties of particulate matter were recorded and meteorological data were controlled, in order to study the influence of meteorology on the concentration of aerosol. Finally, 4-days back trajectories were applied for the determination of the origin of the studied air masses.

## RESEARCH EXPERIENCE

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### Publications

- 2019      1. Paraskevopoulou D., Bougiatioti A., Stavroulas I., Fang T., M. Lianou., Liakakou E., Gerasopoulos E., Weber R., Nenes A., Mihalopoulos N.: “Yearlong variability of oxidative potential of particulate matter in an urban Mediterranean environment.”, February 2019, Atmospheric Environment, 206, 183-196, doi.org/10.1016/j.atmosenv.2019.02.027
- 2019      2. Stavroulas I., Bougiatioti A., Grivas G., Paraskevopoulou D., Tsagkaraki M., Zampas P.,

- Liakakou, E., Gerasopoulos, E. and Mihalopoulos, N.: Sources and processes that control the submicron organic aerosol composition in an urban Mediterranean environment (Athens): A high temporal-resolution chemical composition measurement study. January 2019, Atmospheric Chemistry and Physics 19(2):901-919, DOI: 10.5194/acp-19-901-2019
- 2018 3. Theodosi C., Tsagkaraki M., Zampas P., Grivas G., Liakakou E., Paraskevopoulou D., Lianou M., Gerasopoulos E., and Mihalopoulos N.: Multi-year chemical composition of the fine-aerosol fraction in Athens, Greece, with emphasis on the contribution of residential heating in wintertime. October 2018, Atmospheric Chemistry and Physics 18(19):14371-14391, DOI: 10.5194/acp-18-14371-2018
- 2018 4. Katsanos D., Bougiatioti A., Liakakou E., Kaskaoutis D., Stavroulas I., Paraskevopoulou D., Lianou M., Psiloglou B., Gerasopoulos E., Pillinis C., and Mihalopoulos N.: Optical Properties of Near-Surface Urban Aerosols and their Chemical Tracing in a Mediterranean City (Athens). January 2018, Aerosol and Air Quality Research 19(1), DOI: 10.4209/aaqr.2017.11.0544
- 2017 5. Paraskevopoulou D., Zampas P., Fountziou L., Gerasopoulos, E., Mihalopoulos, N.: Short-Term Variability of Fine Inorganic Particulate Matter Over Athens, Greece. January 2017, Perspectives on Atmospheric Sciences, DOI: 10.1007/978-3-319-35095-0\_124
- 2017 6. Theodosi C., Tsagkaraki M., Zampas P., Nikolaou P., D. Paraskevopoulou, Liakakou E., Lianou M., Gerasopoulos E., and Mihalopoulos N.: Aerosol Chemical Mass Closure in Athens, Greece: Towards a Better Understanding of the Seasonal Variation of Aerosol Sources in the Area, Perspectives on Atmospheric Sciences, January 2017, DOI: 10.1007/978-3-319-35095-0\_122
- 2016 7. Bougiatioti A., Stavroulas I., Fountziou L., Nikolaou P., Paraskevopoulou D., Kouvarakis G., Nenes A., Mihalopoulos N.: Fine Particle Water and PH in an Urban and Remote Location and the Role of Biomass Burning, Perspectives on Atmospheric Sciences, pp.837-843, DOI: 10.1007/978-3-319-35095-0\_120
- 2015 8. D. Paraskevopoulou, Liakakou, E., Gerasopoulos, E., Mihalopoulos, N.: Sources of atmospheric aerosol from long-term measurements (5 years) of chemical composition in Athens, Greece, Science of The Total Environment, Volumes 527–528, 15 September 2015, Pages 165-178, ISSN 0048-9697, <http://dx.doi.org/10.1016/j.scitotenv.2015.04.022>.
- 2014 9. D. Paraskevopoulou, Liakakou, E., Gerasopoulos, E., Theodosi, C., Mihalopoulos, N., 2014. Long term characterization of organic and elemental carbon in the PM<sub>2.5</sub> fraction: the case of Athens, Greece. Atmos. Chem. Phys., 14, 13313–13325, 2014, doi:10.5194/acp-14-13313-2014.
- 2014 10. D. Paraskevopoulou, E. Liakakou, C. Theodosi, P. Zampas, E. Gerasopoulos, and N. Mihalopoulos “Chemical mass closure of atmospheric aerosol collected over Athens, Greece”, COMECAP2014, Abstracts and e-contributions, Vol. 3, p.56–60, ISBN: 978-960-524-430-9
- 2012 11. D. Paraskevopoulou, E. Gerasopoulos, E. Liakakou, M. Gratsea, P. Zampas, C. Theodosi, and N. Mihalopoulos “Optical properties of aerosols over Athens, Greece, and their relation with chemical composition”, Springer Atmospheric Sciences, Advances in Meteorology, Climatology and Atmospheric Physics, Vol. 2, p.1159–1164, doi: 10.1007/978-3-642-29172-2.
- 2011 12. D. Paraskevopoulou, D. S Achilias and A. Paraskevopoulou, Migration of styrene from plastic packaging based on polystyrene into food simulants, Polymer International, (first published online), Vol. 61, p.141–148, doi 10.1002/pi.3161.
- 2007 13. D. Paraskevopoulou, D. Boskou, A. Paraskevopoulou, Oxidative stability of olive oil–lemon juice salad dressings stabilized with polysaccharides, Food Chemistry, Vol. 101, p.1197–1204.

### **Publications in Progress**

1. D. Paraskevopoulou, E. Liakakou, E. Gerasopoulos and N. Mihalopoulos “Correlation of

chemical properties with optical and climatic parameters of particulate matter in the area of Athens.”, In preparation.

### Conference presentations

- Poster 1. D. Paraskevopoulou, A. Bougiatioti, T. Fang, E. Liakakou, R. J. Weber, A. Nenes, N. Mihalopoulos, “Oxidative Potential of Ambient Aerosol in Athens, Greece and its Dependence on Chemical Composition.” **36<sup>th</sup> Annual conference of the American Association for Aerosol Research**, 16-20/10/2017, North Carolina, USA.
- Oral 2. A. Bougiatioti, D. Paraskevopoulou, I. Stavroulas, S. Myriokefalitakis, N. Daskalakis, R. J. Weber, M. Kanakidou, N. Mihalopoulos, A. Nenes, “The Impact of Biomass Burning on Fine Aerosol Acidity, Water Content and Nitrogen Partitioning.”, **36<sup>th</sup> Annual conference of the American Association for Aerosol Research**, 16-20/10/2017, North Carolina, USA.
- Poster 3. D. Paraskevopoulou, E. Liakakou and N. Mihalopoulos, “Water soluble fine aerosol ionic composition and effects of residential wood burning, in Athens, Greece”, **10<sup>th</sup> International Conference on Instrumental Methods of Analysis**, 17/21/9/2017, Heraklion, Greece.
- Poster 4. A. Bougiatioti, D. Paraskevopoulou, I. Stavroulas, R. Weber, A. Nenes, M. Kanakidou, N. Mihalopoulos, “The effects of biomass burning on fine aerosol acidity, liquid water content and nitrogen partitioning”, **European Aerosol Conference 2017**, 27/8-1/9/2017, Zurich, Switzerland.
- Poster 5. A. Bougiatioti, A. Nenes, D. Paraskevopoulou, L. Fourtziou, I. Stavroulas, E. Liakakou, S. Myriokefalitakis, N. Daskalakis, R. Weber, M. Kanakidou, E. Gerasopoulos, and N. Mihalopoulos, “Biomass burning and its effects on fine aerosol acidity, water content and nitrogen partitioning”, **European Geosciences Union General Assembly**, 23 - 28/4/2017, Vienna, Austria
- Poster 6. D. Paraskevopoulou, A. Bougiatioti, T. Fang, E. Liakakou, R. Weber, A. Nenes, N. Mihalopoulos “Oxidative Potential of ambient particulate matter in Athens, Greece”, **European Geosciences Union General Assembly 2017**, 23 - 28/4/2017, Vienna, Austria
- Oral 7. D. Paraskevopoulou, P. Zarmas, K. Bougiatioti, L. Fourtziou, N. Mihalopoulos. “Variability of inorganic fine particulate matter composition over Athens, Greece”, **13<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics COMECAP 2016**, 19-21/9/2016, Thessaloniki, Greece.
- Oral 8. Bougiatioti A., Stavroulas I., Fourtziou L., Nikolaou P., Paraskevopoulou D., Kouvarakis G., Nenes A., Mihalopoulos N.: Fine Particle Water and PH in an Urban and Remote Location and the Role of Biomass Burning, **13<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics COMECAP 2016**, 19-21/9/2016, Thessaloniki, Greece.
- Oral 9. C. Theodosi , M. Tsagkaraki, P. Zarmas, P. Nikolaou, D. Paraskevopoulou, E. Liakakou, M. Lianou, E. Gerasopoulos, N. Mihalopoulos: “Aerosol Chemical Mass Closure in Athens, Greece: Towards a Better Understanding of the Seasonal Variation of Aerosol Sources in the Area”, **13<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics COMECAP 2016**, 19-21/9/2016, Thessaloniki, Greece.
- Poster 10. A. Bougiatioti, D. Paraskevopoulou, I. Stavroulas, L. Fourtziou, A. Nenes, N. Mihalopoulos. “Particle water and pH in the city of Athens during wintertime and the role of biomass burning”, **European Aerosol Conference 2016**, 4-9/9/2016, Tours, France.
- Poster 11. E. Liakakou, E. Gerasopoulos, M. Lianou, Ch. Theodosi, D. Paraskevopoulou, I. Stavroulas, A. Bougiatioti, L. Fourtziou, P. Zarmas, B. Psiloglou, J. Sciare and N. Mihalopoulos. “Urban background aerosol monitoring (Athens center) with emphasis on biomass burning processes during winter-time and implications on air quality”, **European Aerosol Conference 2016**, 4-9/9/2016, Tours, France.

- Poster 12. C. Theodosi, M. Tsagkaraki, P. Zampas, D. Paraskevopoulou, P. Nicolaou, E. Liakakou, M. Lianou, E. Gerasopoulos, N. Mihalopoulos. “Chemical composition and mass closure of ambient aerosol in an urban environment over Athens, Greece: The role of wintertime biomass burning on air pollution levels”, *European Aerosol Conference 2016*, 4-9/9/2016, Tours, France.
- Poster 13. D. Paraskevopoulou, P. Zampas, L. Fourtziou, E. Gerasopoulos, N. Mihalopoulos. “Short-term variability of fine inorganic particulate matter over Athens, Greece”, *10th International Conference on Air Quality - Science and Application*, 14-18/3/2016, Milan, Italy.
- Poster 14. C. Theodosi, M. Tsagkaraki, P. Zampas, P. Nicolaou, J. Sciare, E. Liakakou, D. Paraskevopoulou, M. Lianou, E. Gerasopoulos, and N. Mihalopoulos. “Chemical composition and sources of ambient aerosol in an urban environment over Athens, Greece: Case study on the role of wintertime biomass burning”, *European Geosciences Union General Assembly 2016*, 17-22/4/2016, Vienna, Austria
- Poster 15. L. Fourtziou, D. Paraskevopoulou, E. Liakakou, J. Sciare, J.P. Putaud and N. Mihalopoulos. “Inorganic particulate matter and its gaseous precursors during wintertime in Athens: Indication for HONO emission from biomass burning”, *European Aerosol Conference 2015*, 6-11/9/2015, Milan, Italy.
- Poster 16. A. Bougiatioti, D. Paraskevopoulou, L. Fourtziou, I. Stavroulas, G. Kouvarakis, S. Vratolis, V. Psiloglou, A. Nenes, K. Eleftheriadis, G. Kallos, and N. Mihalopoulos, “CCN in an urban and remote location during wintertime: The role of biomass burning”, *European Aerosol Conference 2015*, 6-11/9/2015, Milan, Italy.
- Oral 17. D. Paraskevopoulou, E. Liakakou, E. Gerasopoulos and N. Mihalopoulos. “Long-term aerosol optical properties over Athens, Greece, and their dependence on chemical composition”, *European Aerosol Conference 2015*, 6-11/9/2015, Milan, Italy.
- Poster 18. C. Theodosi, P. Nicolaou, J. Sciare, T. Maggos, K. Bairachtari, D. Paraskevopoulou, E. Liakakou, E. Gerasopoulos, and N. Mihalopoulos, “Biomass burning tracers in aerosols over Athens, Greece”, *European Aerosol Conference 2015*, 6-11/9/2015, Milan, Italy.
- Poster 19. D. Paraskevopoulou, E. Liakakou, E. Gerasopoulos and N. Mihalopoulos. “Long-term measurements of aerosol optical parameters in Athens, Greece.” *European Geosciences Union General Assembly 2015*, 12-17/4/2015, Vienna, Austria
- Poster 20. D. Paraskevopoulou, E. Liakakou, C. Theodosi, E. Gerasopoulos and N. Mihalopoulos. “Sources of atmospheric aerosol from long term observations in Athens, Greece.” *13th IGAC Science Conference on Atmospheric Chemistry*, 22-26/9/2014, Natal, Brazil.
- Oral 21. D. Paraskevopoulou, E. Liakakou, C. Theodosi, P. Zampas, E. Gerasopoulos and N. Mihalopoulos. “Chemical mass closure of atmospheric aerosol collected over Athens, Greece”, *12th International Conference on Meteorology, Climatology and Atmospheric Physics. COMECAP 2014*, 28-31/05/2014, Heraklion, Greece.
- Poster 22. D. Paraskevopoulou, E. Liakakou, C. Theodosi, E. Gerasopoulos and N. Mihalopoulos. “Long-term measurement of aerosol chemical composition in Athens, Greece.” *European Geosciences Union General Assembly 2014*, 27/4-2/5/2014, Vienna, Austria.
- Poster 23. Tsiflikiotou M., Papanastasiou D., Zampas P., Paraskevopoulou D., Diapouli E., Kostenidou E., Kaltsonoudis C., Bougiatioti A., Theodosi C., Kouvarakis G., Liakakou E., Vassilatou V., Siakavaras D., Biskos G., Eleftheriadis K., Gerasopoulos E., Mihalopoulos N., and Pandis S. “Spatial distribution of summertime particulate matter and its composition in Greece”, *European Geosciences Union General Assembly 2014*, 27/4-2/5/2014, Vienna, Austria.
- Poster 24. Liakakou E., Stavroulas J., Roukounakis N., Paraskevopoulou D., Psiloglou V., Gerasopoulos E., Mihalopoulos N. “Black carbon measurements during winter 2013-2014 in Athens and intercomparison between different techniques”, *European Geosciences Union General Assembly 2014*, 27/4-2/5/2014, Vienna, Austria.
- Oral 25. D. Paraskevopoulou, E. Liakakou, E. Gerasopoulos and N. Mihalopoulos. “Long-term

- variability of elemental and organic carbon in aerosols over Athens, Greece”, ***European Aerosol Conference 2013***, 1-6/9/2013, Prague, Czech Republic.
- Poster 26. E. Liakakou, E. Gerasopoulos, D. Paraskevopoulou, P. Zarmpas, C. Theodosi, N. Kalivitis, G. Maneas, N. Mihalopoulos, C. Zerefos. “Aerosol chemical composition at NEO (Eastern Mediterranean) during the ARGON 2012 summer campaign”, ***European Aerosol Conference 2013***, 1-6/9/2013, Prague, Czech Republic.
- Poster 27. D. Paraskevopoulou, P. Zarmpas, E. Liakakou, E. Gerasopoulos and N. Mihalopoulos. “Correlation of chemical properties with optical and climatic parameters of particulate matter in the area of Athens”, ***Conference of Heracleitus II***, 4-5/12/2012, Iraklion, Greece.
- Oral 28. D. Paraskevopoulou, S. Kazadzis, N. Mihalopoulos, A. Arola, K. Eleftheriadis, C. Theodosi, A. Bougiatioti, E. Diapouli and E. Gerasopoulos “Evaluation of aerosol OC / BC estimations derived from AERONET data, using in-situ ground measurements.”, ***European Aerosol Conference, 2012***, 2-7/9/2012, Granada, Spain.
- Oral 29. Paraskevopoulou D., Gerasopoulos E., Liakakou E., Gratsea M., Zarmpas P., Theodosi C., Mihalopoulos N. “Optical properties of aerosols over Athens, Greece, and their relation with chemical composition”, ***11th International Conference on Meteorology, Climatology and Atmospheric Physics. COMECAP 2012***, 30/05-01/06/2012, Athens, Greece.
- Poster 30. V. Amiridis, E. Marinou, S. Kazadzis, E. Gerasopoulos, R.E. Mamouri, P. Kokkalis, A. Papayannis, N. Kouremeti, E. Giannakaki, E. Liakakou, D. Paraskevopoulou, M. Gratsea, G. Kouvarakis, K. Allakhverdiev, F. Huseyinoglu, A. Secgin, D. Balis, A. Bais, N. Mihalopoulos, I.A. Daglis & C. Zerefos. “ACEMED experimental campaign over Greece for the evaluation of CALIPSO’s aerosol classification scheme”, ***8th International Conference on Air Quality - Science and Application***, 19-23/3/2012, Athens, Greece.
- Poster 31. D. Paraskevopoulou, E. Liakakou, P. Zarmpas, E. Gerasopoulos, and N. Mihalopoulos. “Four year monitoring of PM<sub>2.5</sub> and PM<sub>10</sub> fractions of particulate matter and ionic composition in Athens, Greece”, ***8th International Conference on Air Quality - Science and Application***, 19-23/3/2012, Athens, Greece.
- Poster 32. D. Paraskevopoulou, D. S Achilias and A. Paraskevopoulou, “Migration of styrene from plastic packaging material into food”, ***3rd Environmental Conference of Macedonia***, 14-17/3/2008, Thessaloniki, Greece.
- Poster 33. A. Paraskevopoulou, V. Kiosseoglou, D. Paraskevopoulou, D. Boskou, “Traditional ‘greek-salad dressing’ (olive oil – lemon juice emulsion). Stabilization with food grade hydrocolloids”, ***2nd International Conference on traditional Mediterranean Food: Past, Present and Future. MEDIET 2005***, 20-22/4/2005, Athens, Greece.
- Poster 34. A. Paraskevopoulou, D. Paraskevopoulou, D. Boskou, “Study of interfering action of polysaccharides on the oxidative stability of olive oil-lemon juice salad dressings. Impact of droplet size”, ***8th Chemistry Conference of Greece-Cyprus***. Chemistry, Quality of life and Education, 10-13/12/2004, Thessaloniki, Greece.

### **Workshop presentations**

- Oral 1. E. Gerasopoulos, D. Paraskevopoulou, E. Liakakou, N. Mihalopoulos “Five year measurements of organic and elemental carbon in Athens – Methodology for the calculation of particulate emissions from wood burning [winter 2012-2013]”, ***Workshop on the Characterization of particulate matter over three cities in Greece***, organized by the program Thalys, 13 October 2013, Iraklion, Greece
- Oral 2. E. Gerasopoulos, E. Liakakou, D. Paraskevopoulou, P. Zarmpas, N. Kalivitis, G. Maneas, A. Voliotis, N. Mihalopoulos, C. Zerefos. “Merging of fine and coarse particulate matter at Navarino Environmental Observatory (NEO) and chemical composition”, ***Workshop on the Characterization of particulate matter over three cities in Greece***, organized by the

program Thalis, 13 October 2013, Iraklion, Greece.

### **Grants-Fellowships**

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|-----------------|---|
| 250.00euros     | 1. “Long-term variability of elemental and organic carbon in aerosols over Athens, Greece”, Registration fee waived, International Advisory Committee of European Aerosol Conference 2013, September <b>2013</b> .      |
| 200.00euros     | 2. “Evaluation of aerosol OC / BC estimations derived from AERONET data, using in-situ ground measurements”, International Advisory Committee of European Aerosol Conference, 2012, September <b>2012</b> .             |
| 350.00euros     | 3. “Four year monitoring of PM2.5 and PM10 fractions of particulate matter and ionic composition in Athens, Greece”, Air Quality Conference Team, March <b>2012</b> .   |
| 36,000.00 euros | 4. “Correlation of chemical properties with optical and climatic parameters of particulate matter in the area of Athens”, “Heracleitus II” Operational Program Education and Lifelong Learning, September <b>2010</b> . |

### **Research interests**

- Physical, optical and chemical properties of aerosols, in-situ measurements, climatic role of aerosols
- Analytical chemistry, Particulate and gas phase chemical composition
- Air Quality, Atmospheric Chemistry
- Field measurements
- Migration of monomers from polymeric food packaging materials into food simulants.
- Oxidative stability of food emulsions.

### **Research Positions-Professional Experience**

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| 2018 – today | Research Fellow<br>Environmental Engineering Institute, <i>École Polytechnique Fédérale de Lausanne, Switzerland</i><br>( <a href="http://nenes.eas.gatech.edu/">http://nenes.eas.gatech.edu/</a> ) <ul style="list-style-type: none"><li>▪ Research interests: Atmospheric Chemistry, Aerosol and air quality</li></ul>   |
| 2018 – today | Research Fellow<br>Institute of Chemical Engineering Sciences (ICE-HT), <i>Foundation for Research and Technology - Hellas (FORTH)</i> <ul style="list-style-type: none"><li>▪ Research interests: Measurement of aerosol Oxidative Potential and light absorbing fraction of Black Carbon (Brown Carbon) in particulate matter. Development and training on the use of semi-automated system for measurement of Reactive Oxygen Species (ROS) in aerosol.</li></ul>   |
| 2016-2018    | Research Fellow<br><i>Georgia Institute of Technology, Atlanta, Georgia, USA</i><br>School of Earth & Atmospheric Sciences<br>( <a href="http://nenes.eas.gatech.edu/">http://nenes.eas.gatech.edu/</a> ) <ul style="list-style-type: none"><li>▪ Research interests: Research assistant to EAS-GIT for the setup of the experimental system for the measurement of Reactive Oxygen Species (ROS). Assembling the hardware of the system, trained on the operating principle of the instrument, the maintenance and processing</li></ul> |

of the acquired data.

- 2011 - today Post-Doctoral Researcher  
*Institute for Environmental Research & Sustainable Development of the National Observatory of Athens, Greece*  
 Atmospheric Physics and Chemistry Group, Atmospheric Chemistry Laboratory  
 (<http://apcg.meteo.noa.gr/>)
- Research interests: Atmospheric chemistry, aerosol pollution and air quality
- 2011 - 2014 PhD Candidate  
*Department of Chemistry, University of Crete, Greece*  
 Environmental Chemical Processes Laboratory  
 (<http://ecpl.chemistry.uoc.gr/en/index.htm>)
- Research interests: Atmospheric chemistry, aerosol pollution and air quality
- 2009-2010 Regulatory Affairs Assistant  
*FAMAR, Health Care Services. Greece*  
 Regulatory Affairs Assistant, Quality Assurance Department  
 (<http://www.famar.gr>)
- Interests: Preparation of Regulatory files, Analytical method Validation protocols and reports, Health Organizations' documents, in accordance with EU regulations.

### **Memberships & reviewing activities**

- 2017 - today** Reviewer, In 2 scientific Journals (International Journal of Environmental Research and Public Health; Atmosphere)
- 2018- today** Member, Laboratory of Air Quality Studies, <http://laqs.iceht.forth.gr/>
- 2018 - today** Member, Center for Atmospheric Particle Science, <https://www.cmu.edu/particulate-matter/>
- 2014 - today** Member, European Geosciences Union – EGU, <https://www.egu.eu/>
- 2013 - today** Member, Atmospheric Physics and Chemistry Group, <http://apcg.meteo.noa.gr/>
- 2012 - today** Member, Hellenic Association for Aerosol Research–HAAR, <http://www.hellenic-aerosol.org/>

### **Research Grants**

<b>Project Title</b>	<b>Funding source</b>	<b>Period</b>	<b>Role</b>
PARADOXH	Hellenic Foundation for Research and Innovation	<b>01.01.2019 – today</b>	Measurement of DTT activity of atmospheric particulate matter
PyroTRACH (ERC-2016-COG)	H2020-EU.1.1. Excellent Science	- <b>07.01.2018 – today</b>	Measurement of reactive oxygen species and light absorbing fraction of

-	European Research Council (ERC)		black carbon of aerosol and set up and application of semi-automated systems for analysing atmospheric particulate matter.
THESPIA 2	National Strategic Reference Framework (NSRF) 2014 – 2020	<b>01.02.2018 – today</b>	Methods and results on measurement of oxidative potential of particulate matter and their impacts on health.
ERA-PLANET /SMURBS	Horizon 2020 (H2020) SC5-15-2015	<b>01.12.2017 – 31.01.2018</b>	Designing and development of data collection and analysis and visualization of acquired data base
ACTRIS PPP	EU Horizon 2020 Coordination and Support Section	<b>01.06.2017 – 30.11.2017</b>	Member of the research team on air quality and participation to work package 8.1.
GEO CRADLE	H2020-SC5-2015-one-stage	<b>01.07.2016 – 31.05.2017</b>	Data collection of in situ-measurements (mostly from ACTRIS network) of aerosol composition at sites of GEO CRADLE research interest.
ACTRIS 2	H2020-INFRAIA-2014-2015	<b>01.11.2015 – 30.04.2016</b>	Sampling of aerosol, chemical analysis and correlation with their optical properties.
THESPIA KRIPIS	- National Strategic Reference Framework (NSRF)	<b>01.02.2014 – 31.10.2015</b>	Sampling of aerosol using filters and subsequent chemical analysis for determination of chemical composition of particulate matter.

### Professional experience

- Sampling of fine and coarse fractions of particulate matter through aerosol samplers equipped with filters.
- Experience with installation and maintenance of the applied atmospheric aerosol samplers and of light scattering laser photometers recording aerosol masses.
- Application of gravimetric techniques for the determination of aerosol masses collected on filters.
- Performing chemical analyses on atmospheric aerosol samples based on new and existing methodologies, operating analytical instrumentation such as IC, HPLC, GC/FID, AAS, Sunset Laboratory OC/EC Analyzer, TOC-V<sub>SCH</sub> Analyzer.
- Handling of instruments recording aerosol optical properties including, PSAP and Nephelometer.
- Experience with installation and maintenance of PSAP and Nephelometer.
- Participation in the provision of accredited services within the activities of the Atmospheric Chemistry Laboratory, including the techniques of HPLC, AAS, GC/FID and sampling of particulate matter using filter samplers.
- Experience with a variety of chemistry instruments and techniques specifically used in research



including FTIR, UV-Vis, DLS and DSC.

- Running the HYSPLIT (HYbrid Single-Particle Lagrangian Integrated Trajectory) model for computing simple air parcel trajectories, using the program of IDL to plot the acquired trajectories.
- Developing and establishing validation protocols for analytical testing methodology used to control raw materials, production intermediates, and final products, in accordance with EU Regulation.
- Writing technical reports to document analytical methods and transferring documented analytical methods to the QC department.
- Familiar with compliance requirements within cGMP, safety and regulatory environments.

### **Professional training**

- Seminar on Ion chromatography, High Pressure Ion Chromatography and Capillary Chromatography. Thermo Fischer Scientific/Dionex, 11/10/2013, Athens, Greece.
- Training on developing validation protocols and reports for analytical methods, on cGMP and on Quality Assurance, based on the requirements of EU Regulation. FAMAR Health Care Services, 2009-2010, Athens, Greece.

### **Other research experience and cooperation**

- Participation in the *campaign* organized within the framework of the program *Thalis*, including installation of equipment and sampling, chemical analyses, recording of chemical and optical properties of particulate matter in the city of Athens during **winter 2013**.
- Participation in a *campaign* including sampling, chemical analyses and recording of chemical and optical properties of aerosol organized within the framework of the programs *Thalis* and *Xenios* in the area of Penteli (Athens) and Messinia, respectively, during **summer 2012**.
- Participation in the *campaign* organized within the framework of the program *Heracleitus II*, including installation of equipment and sampling, chemical analyses, recording of chemical and optical properties of aerosol in the city of Athens (Penteli & Thissio) during **winter 2012**.
- Participation in a *campaign* organized within the framework of the program *LIFE* including installation of equipment and sampling, chemical analyses and recording of chemical and optical properties of aerosol in the area of Penteli and Thissio (Athens) during **summer 2011**.

### **LANGUAGES**

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English excellent (Proficiency Cambridge)

French excellent (Sorbonne 2)

Spanish excellent (Superior)