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.

PUBLICATIONS


PARASKEVOPOULOU DESPINA


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

Oral

Poster

Poster

Oral

Poster

Poster

Poster
8. Liakakou E., Stavroulas J., Roukounakis N., Paraskevopoulou D., Psiloglou V., Gerasopoulos E.,...


**Workshop presentations**

PARASKEVOPOULOU DESPINA

Oral


Grants-Fellowships

250.00 euros


200.00 euros


350.00 euros


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 2010.

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

Institute for Environmental Research & Sustainable Development of the National Observatory of Athens, Greece

2011 - today

Atmospheric Physics and Chemistry Group, Atmospheric Chemistry Laboratory (http://apog.meteo.noa.gr/)
- Research interests: Atmospheric chemistry, aerosol pollution and air quality

Department of Chemistry, University of Crete, Greece

2011 - 2014

Environmental Chemical Processes Laboratory (http://ecpl.chemistry.uoc.gr/en/index.htm)
- Research interests: Atmospheric chemistry, aerosol pollution and air quality

FAMAR, Health Care Services. Greece

2009-2010

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.
**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-VSCF 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 HYPLIT (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**

- 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
PARASKEVOPOULOU DESPINA

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

<table>
<thead>
<tr>
<th>Language</th>
<th>Level</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>Excellent</td>
<td>Proficiency Cambridge</td>
</tr>
<tr>
<td>French</td>
<td>Excellent</td>
<td>Sorbonne 2</td>
</tr>
<tr>
<td>Spanish</td>
<td>Excellent</td>
<td>Superior</td>
</tr>
</tbody>
</table>