

## Curriculum Vitae

MSc. Aggelaki E. Maria

### Personal Details:

*Date of Birth:* 28 November 1992

*Marital status:* Unmarried

*Place of residence:* Heraklion, Crete

*Residence address:* Ariadni 31

*Phone:* +30 699 861 0549

*e-mail:* mariangelaki@gmail.com

### Education:

#### Master of Science Thesis, 2017:

*Direction:* Physical Chemistry – Environment, Excellent (9.33)

Department of Chemistry, School of Sciences and Engineering, University of Crete, Heraklion (Greece)

*Title of Thesis:* “Atmospheric Impact of (*E*)-(CF<sub>3</sub>)<sub>2</sub>CFCH=CHF: Kinetic *k*(T, P), and Mechanistic Study for the Reaction with Cl Atoms and Tropospheric Oxidation End-products”

Laboratory of Photochemistry and Chemical Kinetics, Department of Chemistry, University of Crete

#### *Scientific Supervisor*

Dr. Vassileios Papadimitriou

*E.ΔI.II, Division of Physical Chemistry, Department of Chemistry, University of Crete, Heraklion (Greece)*

#### *Scientific Advisor*

Associate Professor Constantinos Milios

*Division of Inorganic Chemistry, Department of Chemistry, University of Crete, Heraklion (Greece)*

#### Diploma of Chemistry, 2015:

School of Sciences and Engineering, University of Crete, Heraklion (Greece)

Very Good (6.86)

## **Research Experience**

*Diploma Thesis:* “Branching Ratio Determination for the Association Reaction of Cl Atoms to  $(CF_3)_2C=CH_2$  and Atmospheric Oxidation End-Products Characterization”

Laboratory of Photochemistry and Chemical Kinetics, Department of Chemistry, University of Crete

*Scientific Supervisor:* Professor Panos Papagiannakopoulos

*Scientific Responsible:* Dr. Vassilios Papadimitriou

## **Foreign Languages:**

**English:** Certificate of Proficiency holder in English, University of Michigan

**French:** French Diploma holder, Delf B2

**Greek:** Mother tongue

## **Computational knowledge:**

ECLD holder

**Operating Systems:** Windows 2000, XP, 2008, Linux

## **Use of Software Packages:**

Microsoft Office Suite (Word, Excel, Power Point, Access)

Programs (OriginLab Suite, Wavemetrics: Igor Pro, ChemDraw)

## **Experimental/Laboratory Experience Techniques:**

- Fourier Transformed Infrared Spectroscopy, FTIR
- Very Low Pressure Reactor/Quadrupole Mass Spectrometry, VLPR/QMS)
- Absolute and Relative Rate Methods for the determination of rate coefficient
- Laser Spectroscopy (Nd:YAG και CO<sub>2</sub> laser)
- Vacuum Technology and Air Handling
- Photochemical Production and Detection of Radicals and Reactive Species
- Handling of Automated Systems and automation software suites
- Analytical Techniques (Εκπαίδευση σε Προπτυχιακά Εργαστήρια): Gas and Liquid Chromatography, Atomic Absorption Spectroscopy, ICP-MS, Ultraviolet/Visible Spectroscopy (UV-Vis)

### Research Interests:

- Gas phase kinetic study for reactions of reactive atmospheric oxidants (OH, Cl, NO<sub>3</sub>, O<sub>3</sub>) with atmospheric pollutants (CFC and their alternatives) and assessment of their overall impact on Atmospheric Chemistry, Air-Quality and Climate.
- Investigation of optical properties of chemical compounds, as well as study of their effect on the atmosphere.
- Kinetic study of tropospheric degradation of biomass burning products with low volatility and their impact on atmospheric particles budget and on chemical composition
- Photocatalytic activity of metal-oxide-based nanostructures enriched with organic and inorganic dopants
- Design and development of modern experimental techniques, oriented to the application of Physical Chemistry in the study of atmosphere processes.

### Conferences:

1. **Speaker** at “19th Postgraduates’ Conference on Chemistry”,  
Campus of the University of Crete, Voutes, Heraklion, Crete, Greece

**Topic of Presentation:** “Atmospheric Chemistry of (*E*)-(CF<sub>3</sub>)<sub>2</sub>CFCH=CHF (R-1438ezy(*E*)): Temperature and Pressure Dependent Cl Rate Coefficients and Products Yields”

M.E. Aggelaki, J.B. Burkholder and V.C. Papadimitriou

2. Participation at “18th Postgraduates’ Conference on Chemistry”,  
Campus of the University of Crete, Voutes, Heraklion, Crete, Greece

### Scientific Publications

1. Maria E. Aggelaki, James B. Burkholder and Vassileios C. Papadimitriou, “Atmospheric Chemistry of (*E*)-(CF<sub>3</sub>)<sub>2</sub>CFCH=CHF: Temperature and Pressure Dependent Cl Reaction Rate Coefficients and Product Yields”, *J. Phys. Chem. A*, Submitted **2017**

### Recommendation Letters:

1. Associate Professor Constantinos Milios  
*Division of Inorganic Chemistry, Department of Chemistry, University of Crete*  
*e-mail: komil@uoc.gr, tel: +30 2810 54 5099*
2. Professor Demetrios Anglos  
*Division of Physical Chemistry, Department of Chemistry, University of Crete*  
*e-mail: anglos@uoc.gr, tel: +30 2810 54 5072*

3. Professor Maria Kanakidou

*Division of Environmental and Analytical Chemistry, Department of Chemistry,  
University of Crete*

*e-mail:mariak@uoc.gr, tel: +30 2810 54 5033*

4. Dr. Vassilios Papadimitriou

*Division of Physical Chemistry, Department of Chemistry, University of Crete*

*e-mail:bpapadim@uoc.gr, tel: +30 2810 54 5093*