Laboratory Teaching Staff in Physical Chemistry (2014 till now)
Department of Chemistry, University of Crete

Group Supervisor (2016 till now)
Laboratory of Photochemistry and Kinetics,
Department of Chemistry, University of Crete
Address: Vassilika Vouton, University Campus, 70013, Heraklion, Crete, Greece
Tel: +30 2810 5450 93
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Regular Visiting Research Scientist (2009 till now)
Cooperative Institute Research in Atmospheric Sciences (CIRES), University of Colorado, National Oceanic and Atmospheric Administration – Chemical Processes and Instrument Developement (NOAA/CPID)
Address: NOAA–ESRL, Chemical Sciences Division, 325 Broadway, R/CSD5, Boulder, CO 80305 USA
e-mail: Vassilis.Papadimitriou@noaa.gov

Research Scientist II (Remote – Part time Employee 2021 till now)
National Oceanic and Atmospheric Administration/Chemical Science Laboratory (NOAA/CSL): Chemical Processes and Instrument Developement, (CPID)Cooperative Institute Research in Atmospheric Sciences (CIRES), University of Colorado
Address: NOAA–ESRL, Chemical Sciences Division, 325 Broadway, R/CSD5, Boulder, CO 80305 USA
e-mail: Vassilis.Papadimitriou@noaa.gov

PERSONAL:

Born: February 2nd 1977, Argos, Greece
Marital status: Single
Languages: Greek (*Native*), English (*Excellent*)

EDUCATION:

Post-Doctoral – Research Associate, September **2006 -08**

Visiting Scientist: 2009 – 2019 (*Active collaboration till to date*)
University of Colorado–National Oceanic and Atmospheric Administration (NOAA) Chemical Processes and Instrument Development (CPID/CSD)

PhD Degree in Physical Chemistry, December **2005**
Department of Chemistry, University of Crete, Greece

https://www.didaktorika.gr/eadd/handle/10442/16017

http://hdl.handle.net/10442/hedi/16017

MSc Degree in Chemistry, January **2001**
Department of Chemistry, University of Crete, Greece

Diploma in Chemistry, September **1998** (7.27, *Very Good*)
Department of Chemistry, University of Crete, Greece

SCHOLARSHIPS AND DISTINCTIONS:

Scholarship of Post-doctoral Research, Cooperative Institute Research in Atmospheric Sciences (CIRES), University of Colorado, National Oceanic and Atmospheric Administration (NOAA/CSD), **2006 – 08**

Performance Scholarship for Graduate Studies, State Scholarship Foundation (S.S.F.), **1999 –2000**

MSc Degree Scholarship, (ΕΠΕΑΕΚ), Graduate Program – Applied Molecular Spectroscopy (A.M.S.), **1998 –2000**

SUPERVISING EXPERIENCE:

Philosophiae Doctorate, Ph.D.:

Graduated[1]	Dr. Vassileios G. Stefanopoulos (2009)[#,2]
Dr. Maria E. Aggelaki (2021)[%]	Dr. Dimitrios K. Papanastasiou (2007)[#,2]
Dr. Aristotelis M. Zaras (2011)[#,&,2]	***On-Going***
Dr. Manolis N. Romanias (2009)[#,2]	MSc. Maria-Areti Spanoudaki

[1] co-supervising with: [#] Prof. Panos Papagiannakopoulos; [&] Dr. Yannis G. Lazarou; [%] Prof. Maria Kanakidou; [2] Instruments development, experiments designing and scientific advisor with regard data analysis, interpretation and presentation

Master of Science, M.Sc.:

Graduated	MSc. Emmanuel S. Karafas (*2011*)
MSc. Maria-Areti Spanoudaki (2022)	MSc. Evangelos Lazos (*2009*)
MSc. Georgia Antonopoulou (*2019*)	MSc. Antoinia G. Zogka (*2009*)
MSc. Nikolaos Kaloudis (*2018*)	MSc. Manolis N. Romanias (*2007*)
MSc. Maria E. Aggelaki (*2017*)	MSc. Dimitrios K. Papanastasiou (*2005*)
MSc. Zoe Foutouli (*2017*)	MSc. Aristotelis M. Zaras (*2004*)
MSc. Aikaterini D. Panagiotaki (*2016*)	***On-Going***
MSc. Christina Spitieri (*2014*)	Pantanassa Telliou

Graduation Thesis:

Graduated	
Aikaterini Xezonaki (*2022*)	Ioannis Sarris (*2017*)
Vassileios Vassileiou (*2021*)	Georgia Antonopoulou (*2017*)
Thomas Giotopoulos (*2021*)	Marios Tsikos (*2017*)
Pantanassa Telliou (*2020*)	Maria E. Aggelaki (*2015*)
Evangelia Konstantaki (*2020*)	Dimitra Goulousi (*2015*)
Angeliki Eleftheriou (*2019*)	Zoe P. Foutouli (*2014*)
Antonia Intze (*2018*)	Georgia Peta (*2014*)

Evangelia Drougkaki (*2018*)	***On-Going***
Eirini Malegiannaki (*2018*)	Christina Panopoulou
Eirini Dimoulia (*2018*)	Foteini Arvaniti
Emmy Christaki (*2018*)	Ioannis-Aristeidis Flouris

TEACHING EXPERIENCE:

Undergraduate Courses:

Physical Chemistry II (4th semester course, 2009 – till now):
Thermodynamics and Chemical Kinetics (Teaching Chemical Kinetics)

Laboratory of Physical Chemistry I (3rd semester course, 2013 – till now):
Spectroscopy, Statistical Mechanics and Chemical Kinetics

Laboratory of Physical Chemistry II (6th semester course, 2013 – till now):
Thermodynamics, Electrochemistry and Transportation Properties

Graduate Courses:

Infrared Absorption and Raman Spectroscopy (2009 – till now):
Theoretical and Experimental Training on Infrared Spectroscopy

RESEARCH EXPERIENCE:

Invited Senior Scientist in Douai, Lille IMT-University, Atmospheric Sciences and Environmental Engineering Department, June-July 2018 and September – October 2019.

Visiting Research Scientist, 2010, 2012, 2013, 2015, 2017, 2018, 2019 (*three to five months per year*), University of Colorado–National Oceanic and Atmospheric Administration (NOAA/CSD) (open collaboration till to date)

Post-Doctoral – Research Associate, September 2006 -08
University of Colorado–National Oceanic and Atmospheric Administration (NOAA/CSD)

Post-Doctoral – Research Associate, (December 2005 – August 2006)
Laboratory of Photochemistry and Kinetics, Department of Chemistry, University of Crete

February 2001 – December 2005
PhD Thesis: *"Kinetic Studies for the Reactions of OH Radicals and Cl Atoms with Fluorinated Alcohols in the Gas Phase and Investigation of their Tropospheric Degradation Mechanism"*
Laboratory of Photochemistry and Chemical Kinetics
University of Crete, Department of Chemistry
Supervisor: Prof. Panos Papagiannakopoulos
September 1998 – January 2001
Master Thesis: *"Temperature dependent measurements of absolute rate coefficients for the reactions of Cl atoms with CF_3CH_2OH, CHF_2CH_2OH and CH_2FCH_2OH in the gas phase and oxidation products characterization of the primary dehydrogenated radicals"*
Laboratory of Photochemistry and Chemical Kinetics
University of Crete, Department of Chemistry
Supervisor: Prof. Panos Papagiannakopoulos
June 1997 – June 1998

Graduation Thesis: *"Determination of the Kinetic Parameters for the Reaction of Deuterium Atoms with Methyl Bromine in the Gas Phase"* and *"Determination of the Kinetic Parameters for the Reaction of Chlorine Atoms with Siloxanes in the Gas Phase"*
Laboratory of Photochemistry and Chemical Kinetics
University of Crete, Department of Chemistry
Supervisor: Prof. Panos Papagiannakopoulos

LABORATORY EXPERIENCE:

• **Development, Interfacing, Automation and Control of Modern Kinetic Techniques for the study of Fast Gas-Phase Reactions equipped with Modern Spectroscopic Detection Techniques**

- Very-Low Pressure Reactor coupled with Quadrupole Mass Spectrometry and Laser Induced Fluorescence Detection Techniques, **VLPR/QMS-LIF**
- Pulsed Laser Photolysis coupled with Laser Induced Fluorescence, **PLP/LIF**
- Thermostated PhotoChemical Reactor (Relative Rate Methods) coupled with FT-IR Spectroscopy (**TPCR-RR/FT-IR**)

• **Knudsen Reactor Technique**. Application in the Study of Homogeneous and Heterogeneous Chemical Processes (gas–surface interactions and uptake)

• **Modern Spectroscopic and Analytical Detection Techniques**

- Quadrupole Mass Spectrometry (**QMS**)
- Chemical Ionisation Mass Spectrometry (**CIMS**)
- Selected Ion Flow Tube Mass Spectrometry (**SIFT/MS**)
- Laser Induced and Resonant Fluorescence (**LIF** and **RF**)
- CO_2 laser Photochemistry (Plasma Induced CVD, ablation and REMP-I/D)
- UltraViolet – Visible Spectroscopy (**UV-Vis**)
- Fourier Transformed InfraRed Spectroscopy (**FT-IR)** and Reflection-Absorption Spectroscopy (**FT-IR/RAS**)
- **Raman** Spectroscopy (Light Scattering)
- **Laser** Spectroscopy (Nd:YAG, Dye, Excimer and Diode Lasers and Coupling)
- Nuclear Magnetic Resonance (**NMR**)
- Coupled Gas Chromatography – Mass Spectrometry (**GC-MS**)
- Reverse-Phase Liquid Chromatography (**RPLC**)

• **Interface, Automation and Remote Controlling** of Electronic Devices

• **Vacuum Technology** (Ultra-High, High and Low vacuum techniques)

• Molecular Quantum-Chemical Calculations (**Ab-initio and DFT**) employing **Gaussian 94/98/03/09/16** program suites

COMPUTATIONAL EXPERIENCE*:*

Operating Systems: Open VMS, AIX/UNIX,WINDOWS 95/98/2000/XP, AIX/UNIX, WINDOWS 95/98/2000/XP, Linux (*RedHat 6.x, 7.x, 8.x, 9.x Fedora Core, SuSe*)

Common Software: Microsoft Office Suite Programs (*Word, Excel, Power Point, Front Page, etc*), Designing Suites (*AutoCad, Adobe Photoshop*), Chemical Suites (*ChemDraw, IsisDraw*)

Data Analysis and Specialized Software: Wavemetrics (*Igor 5.x, 6.x, 7.x*), OriginLab Suite (*all versions*), Gaussian 94/98/03/09/16, GaussView 6.0.16

Programming Languages: Fortran, C++, script languages (csh, tcsh and bash shell), Labview programming and automation

RESEARCH INTERESTS:

Fundamental and applied research in the area of experimental and theoretical Physical Chemistry, employing modern spectroscopic and computational techniques. Kinetic studies of fast, gas-phase reactions linked with Atmospheric Chemistry, Climate and Air Quality. Kinetic studies of several chemical processes with industrial interest (catalysis, synthesis of novel compounds, combustion and chemical reactivity).

- **Gas phase reaction kinetics** related to atmospheric processing: OH and NO_3 radicals and Cl atoms and O_3 chemical reactivity towards biogenic and anthropogenic volatile (*CFC and halons alternatives, terpenes, amines, VOCs)* and semi- or low-volatile (*silicon, furan-based – biomass burning products – and aromatic compounds*). Determination of a. absolute and relative rate coefficients for fast reactions, b. Molecular reaction dynamics and mechanisms, c. SOA potential and direct and indirect GWP and ODP for assessing VOCs' Climate-impact.
- **Experimental Techniques Designing and Development and Coupling with Modern Optical and Analytical Detection Methods** (e.g., Laser Spectroscopy, Infrared Spectroscopy, FT-IR and Reflection-Absorption Spectroscopy, RAS) and Spectrometric Techniques (Quadrupole Mass Spectrometry) aimed to study PhysicoChemical Properties and Kinetics and Mechanisms for key Reactions with Atmospheric and/or Technological Interest.
- **Photocatalysis efficiency and optimization** of novel synthesized nano-composites, materials, e. g., doped metal oxides photoinduced by natural UV- or Vis-light aiming to combat outdoor and indoor pollution.
- **Heterogeneous interactions** of trace atmospheric gases with particles located in the region (ice, salts, dust) of the troposphere, as well as in the Stratosphere, and assessment of their atmospheric impact.
- **Spectroscopy and Optical Properties Determination** (UV/Vis and IR Absorption Cross-Sections) of key volatile and semi- and low- volatile organic compounds, abundant in the Atmosphere.
- **Thermochemistry, Intermediates Energetics and Mechanisms** of complex chemical processes with Atmospheric interest, i. e., fluorinated olefins or transient species processing. Thermal stability of energetic molecules and detailed chemical and thermal mechanism investigation for the degradation of anthropogenic and biogenic compounds in the atmosphere.
- **Laser induced chemical vapour deposition synthesis (CVD)** and characterisation of novel organometallic materials (CO_2 laser photolysis of silicon containing compounds in the gas phase, and CO_2 laser ablation of solid silicon compounds) and polymers, i. e., tholins, with scientific and industrial interest.
- **Quantum-mechanical calculations** of polyatomic systems (Determination of geometries and thermochemical properties of polyatomic molecules and reaction thermochemistry and kinetics of bimolecular reactions) with environmental interest.

PARTICIPATION IN RESEARCH PROGRAMS:

- **"Atmospheric Chemistry of $CHF_2CH=CF_2$: OH and NO_3 radicals, Cl-atoms and O_3 kinetics and Intermediate and end-oxidation products investigation",** PI: Dr. Vassileios C. Papadimitriou in collaboration with Dr. A. Mellouki and Prof. A. R. Ravishankara, CNRS HELIOS 004-2018, This project/work has received funding from the European Union's Horizon 2020 research and innovation programme through the EUROCHAMP-2020 Infrastructure Activity under grant agreement No 730997, **2018 – 2022,** (***2019***)
- **"Development of bioenergy and recycled wood products from forest residues and wood by-products",** Co-funded by E. C. FP7 and Hellenic Ministry of Education, ***2013-2015***
- **"Impact of the atmospheric sea-deposition on the productivity of Mediterranean region",** Co-funded by E. C. FP7 and Hellenic Ministry of Education, ***2012-2015***
- **"Atmospheric Chemistry of $(CF_3)_2=CH_2$: OH, Cl-atoms and O_3 kinetics",** in collaboration with Dr. A. Mellouki: This project/work has received funding from the European Union FP7-Infrastructures, Grant agreement ID: 228335, **2009-2013**, (***2012***)
- **"The Role of N_2O_5 Heterogeneous Reactions with Marine Aerosols and Sahara Dust in Troposphere and Stratospheric Ozone",** Cyprus Research Promotion Foundation, ***2009-2011***
- **"Stratospheric-Climate Links with Emphasis on the Upper Troposphere and Lower Stratosphere"(SCOUT-O3),** EU, DG Research, Sixth Framework Programme, Sustainable Development, Global Change and Ecosystems, ***2004-2009***
- **"Study of the Heterogeneous Reactions Role in Atmospheric Chemistry, based on Kinetic Data, Field Measurements and Modelling Calculations" (PENED2003),** Greek General Secretariat of Research and Technology, ***2005-2008***
- **"Degradation of Anthropogenic and Biogenic Chemical Compounds in the Troposphere and Global Change",** Cyprus Research Promotion Foundation, ***2005-2007***
- **"The Role of Heterogeneous Reactions in Atmospheric Chemistry and Climate" (PYTHAGORAS II),** Greek General Secretariat of Research and Technology, ***2005-2006***
- **"Degradation of Anthropogenic Chemical Substances in the Troposphere and Global Changes " (TROPOS),** Greek General Secretariat of Research and Technology, ***2004-2006***
- **"Impact of Alternative Fluorinated Alcohols and Ethers on the Environment- a Laboratory and Modelling Study"(IAFAEE),** EU, DGXII, Fifth Framework Programme, Environment and Sustainable Development, ***2000-2003***
- **"Development of Hydrogen Technologies in Greece",** Greek General Secretariat of Research and Technology, ***1998-2001***
- **"Atmospheric processes for partially fluorinated ethers",** EU, DGXII, Fourth Framework Programme, Environment and Climate, ***1996-99***
- **"Ambient Air Measurements of Special Air Pollutants in the area of Motor Oil Refinery",** Program within the Greek Ministry for the Environment, ***1996-97***

PEER REVIEWER IN SCIENTIFIC INTERNATIONAL JOURNALS:

- **Atmospheric Chemistry and Physics**
- **Chemical Physics Letters**
- **International Journal of Chemical Kinetics**
- **Atmospheric Environment**
- **Environmental Science and technology**
- **Environmental Science and Pollution Research**
- **Molecular Physics**
- **Journal of Molecular Modelling**
- **Science of Advanced Materials**
- **Chemical Engineering Journal**
- **Journal of Atmospheric and Oceanic Technology**
- **Colloids and Surfaces A: Physicochemical and Engineering Aspects**
- **Catalysts**
- **Physical Chemistry Chemical Physics**
- **Atmosphere**
- **Journal of Physical Chemistry A**

Co – editor IN SCIENTIFIC INTERNATIONAL JOURNALS:

- **Minerals**: Special Issue "Heterogeneous Processes of Mineral Dusts with Atmospheric Trace Gases"

SCIENTIFIC PUBLICATIONS:

Published:

1. M. E. Angelaki, V. Gaudion, A. Tomas, M. N. Romanias, J. B. Burkholder and V. C. Papadimitriou, "Atmospheric Chemistry of C_4H_4O (furan): Temperature Dependent Cl Reaction Rate Coefficients at Atmospheric and Very Low-Pressure Conditions", *J. Phys. Chem. A*, **2021,** *submitted*
2. Bedjanian Y., M. N. Romanias, V. C. Papadimitriou, A. D. Eleftheriou, A. Chattopadhyay and J. B. Burkholder, "Atmospheric Chemistry of 4-chlorobenzotrifluoride ($C_7H_4ClF_3$, para-chlorobenzotrifluoride, PCBTF)", *J. Phys. Chem. A*, **2021**, *submitted*
3. Chattopadhyay, A., T. Gierczak, P. Marshall, V. C. Papadimitriou and J. B. Burkholder, "Kinetic fall-off behavior for the Cl + Furan-2,5-dione ($C_4H_2O_3$, maleic anhydride) reaction", *Phys. Chem. Chem. Phys.*, **2021**, *23*, 4901-4911
4. McGillen, M., V. C. Papadimitriou, S. Smith and J. B. Burkholder, "FC(O)C(O)F, $FC(O)CF_2C(O)F$, and $FC(O)CF_2CF_2C(O)F$: Ultraviolet and Infrared Absorption Spectra and 248 nm Photolysis Products", *J. Phys. Chem. A*, **2020**, *124*, 7123-7133
5. Chattopadhyay, A., V. C. Papadimitriou, P. Marshall and J.B. Burkholder, "Temperature-dependent rate coefficients for the gas-phase OH + furan-2,5-dione ($C_4H_2O_3$, maleic anhydride) reaction", *Int. J. Chem. Kinet.*, **2020**, *52*, 623-631
6. Bernard, F., D. K. Papanastasiou, R. W. Portmann, V. C. Papadimitriou, and J. B. Burkholder, "Atmospheric lifetimes and global warming potentials of 3 atmospherically persistent $N(C_xF_{2x+1})_3$, x = 2-4, perfluoroamines", *Chem. Phys. Lett.*, **2020**, *744*, 137089
7. N. Osseiran, M. N. Romanias,* V. Gaudion, M. E. Angelaki, V. C. Papadimitriou,* A. Tomas, P. Coddeville, F. Thevenet "Development and validation of a THermALly

regulated AtMOSpheric simulation chamber (THALAMOS). A versatile tool to simulate atmospheric processes.", *J. Environ. Sci.*, **2020**, *95*, 141 – 154.

8. D. Papadaki, G. H. Mhlongo, D. E. Motaung, S. S. Nkosi, K. Panagiotaki, E. Christaki, M. N. Assimakopoulos, V. C. Papadimitriou, F. Rosei, G. Kiriakidis and S. S. Ray, "Hierarchically Porous Cu-, Co-, and Mn-Doped Platelet-Like ZnO Nanostructures and Their Photocatalytic Performance for Indoor Air Quality Control", *ACS OMEGA*, **2019**, *4*, 16429 – 16440

9. Marshall P., Papadimitriou, V. C., Papanastasiou, D. K., Roberts, J. M. and Burkholder, J. B., "UV and Infrared absorption spectra and 248 nm photolysis of maleic anhydride", *J. Photochem. Photobio. A*, **2019,** *382***,** 111953

10. M. Baasandorj, V. C. Papadimitriou and J. B. Burkholder, "Rate Coefficients for the Gas-Phase Reaction of (E)- and (Z)-CF_3CF=$CFCF_3$ with the OH Radical and Cl-Atom", *J. Phys. Chem. A*, **2019,** *123***,** 5051–5060.

11. Bernard, F., Papanastasiou, D. K., Papadimitriou, V. C, and Burkholder, J. B. "Infrared absorption spectra of $N(C_xF_{2x+1})_3$, x = 2-5 perfluoroamines", *J. Quant. Spectrosc. RA*, **2018**, *202*, 247–254

12. Bernard, F., Papanastasiou, D. K., Papadimitriou, V. C and Burkholder, J. B., "Temperature Dependent Rate Coefficients for the Gas-Phase Reaction of the OH Radical with Linear (L2, L3) and Cyclic (D3, D4) Permethylsiloxanes", *J. Phys. Chem. A*, **2018***, 122,* 4252-4264.

13. Bernard, F., Papanastasiou, D. K., Papadimitriou, V. C. and Burkholder, J. B. "Infrared absorption spectra of linear (L2-L5) and cyclic (D3-D6) permethylsiloxanes", *J. Quant. Spectrosc. RA*, **2017**, *202*, 247–254

14. Vassileios C. Papadimitriou and James B. Burkholder, "OH radical reaction rate coefficients, infrared spectrum, and global warming potential of (*E*)-$(CF_3)_2CFCH$=CHF (HFO-1438ezy(*E*))", *J. Phys. Chem. A*, **2016,** *120***,** 6618–6628.

15. Vassileios C. Papadimitriou, Spitieri C. S., Cazaunau M., Lendar M., Daële V., Mellouki A. and Papagiannakopoulos P., "Atmospheric chemistry of $(CF_3)_2C$=CH_2: OH, Cl and O_3 rate coefficients, IR Spectra, GWP and oxidation end-products analysis", *Phys. Chem. Chem. Phys.,* **2015**, *17*, 25607–25620

16. M. N. Romanias, Dagaut P., Bedjanian, Y., Andrade-Eiroa, A., Shahla, R., Karafas, E. Papadimitriou V. C., Spyros, A., "Investigation of the Photochemical Reactivity of Soot Particles Derived from Biofuels Towards NO_2. A Kinetic and Product Study." *J. Phys. Chem. A*, **2015**, *119*, 2006-2015

17. V. C. Papadimitriou, E. S. Karafas, T. Gierczak, and J. B. Burkholder, "Temperature and Pressure Dependence of the $CH_3CO + O_2 + M$ (M = He, N_2) Reaction Rate Coefficient", *J. Phys. Chem. A*, **2015**, *119*, 7481−7497

18. M. N. Romanias, V. C. Papadimitriou and P. Papagiannakopoulos, "The Interaction of Propionic and Butyric Acids with Ice and HNO_3-Doped Ice Surfaces at 195–212 K", *J. Phys. Chem. A*, **2014**, *118*, 11380–11387

19. V. C. Papadimitriou, M. R. McGillen, S. C. Smith, A. M. Jubb, R. Portmann, B. D. Hall, E. L. Fleming, C. H. Jackman and J. B. Burkholder, "1,2-dichlorohexafluoro-cyclobutane (1,2-c-$C_4F_6Cl_2$, R-316c) an Unforgettable Ozone Depleting Substance: Atmospheric Loss Processes, Lifetimes, and Ozone Depletion and Global Warming Potentials for the (*E*)- and (*Z*)- Isomers", *J. Phys. Chem. A*, **2013**, *117*, 11049−11065.

20. V. C. Papadimitriou, M. R. McGillen, E. L. Flemming, C. H. Jackman and J. B. Burkholder,"NF_3: UV absorption spectrum temperature dependence and the atmospheric and climate forcing implications", *Geophys. Res. Lett.*, **2013**, *40*, 440-445

21. M. N. Romanias, A.G. Zogka, V.C. Papadimitriou and P. Papagiannakopoulos, "Uptake Measurements of Acetic Acid on Ice and Nitric Acid-Doped Thin Ice Films over Upper Troposphere/Lower Stratosphere Temperatures", *J. Phys. Chem. A*, **2012,** *116*, 2198−2208

22. V. C. Papadimitriou*, V. G. Stefanopoulos, M. N. Romanias, P. Papagiannakopoulos, K. Sampani, V. Tudose and G. Kiriakidis, "Determination of photo-catalytic activity of un-doped and Mn-doped TiO_2 anatase powders on acetaldehyde under UV and visible light", *Thin Solid Films*, **2011**, *520*, 1195

23. V. C. Papadimitriou, Y. G. Lazarou, R. K. Talukdar and J. B. Burkholder, "Atmospheric Chemistry of $CF_3CF{=}CH_2$ and (Z)-$CF_3CF{=}CHF$: Cl and NO_3 Rate Coefficients, Cl Reaction Product Yields, and Thermochemical Calculations", *J. Phys. Chem. A*, **2011**, *115*, 167

24. M. N. Romanias, Dr., A. G. Zogka, MSc., V. G. Stefanopoulos, Dr., V. C. Papadimitriou, Dr., and P. Papagiannakopoulos, Prof. Dr., "Uptake Measurements of Formic Acid on Thin Ice Films and on Ice Doped with Nitric Acid between 195 and 211 K", *Chem. Phys. Chem.*, **2010**, *11*, 4042

25. Manolis N. Romanias, Vassileios G. Stefanopoulos, Dimitrios K. Papanastasiou, Vassileios C. Papadimitriou and Panos Papagiannakopoulos, "Temperature-Dependent Rate Coefficients and Mechanism for the Gas-Phase Reaction of Chlorine Atoms with Acetone", *Int. J. Chem. Kinet.*, **2010,** *42*, 724

26. M. Baasandorj, G. Knight, V.C. Papadimitriou, R. K. Talukdar, A. R. Ravishankara and J. B. Burkholder, "Rate Coefficients for the Gas-Phase Reaction of the Hydroxyl Radical with CH_2=CHF and CH_2=CF_2", *J. Phys. Chem. A*, **2010**, *114*, 4619

27. D. K. Papanastasiou, V. C. Papadimitriou, D. W. Fahey and J. B. Burkholder, "UV Absorption Spectrum of the ClO Dimer (Cl_2O_2) between 200 and 420 nm", *J. Phys. Chem. A*, **2009,** *113*, 13711, (***Selected for Cover Art JPC Ai49, vol. 113, 10/12/2009***).

28. V. C. Papadimitriou, R. W. Portmann, D. W. Fahey, J. Mühle, R. F. Weiss, and J. B. Burkholder, "An Experimental and Theoretical Study of the Atmospheric Chemistry and Global Warming Potential of SO_2F_2", *J. Phys. Chem. A*, **2008**, *112*, 12657

29. V. G. Stefanopoulos, V. C. Papadimitriou, Y.G. Lazarou, and P.Papagiannakopoulos, "Absolute Rate Coefficient Determination and Reaction Mechanism Investigation for the Reaction of Cl Atoms with CH_2I_2 and the Oxidation Mechanism of CH_2I Radicals", *J. Phys. Chem. A*, **2008**, *112*, 1526

30. V. C. Papadimitriou, R. K. Talukdar, R. W. Portmann, A. R. Ravishankara and J. B. Burkholder, "$CF_3CF{=}CH_2$ and CF_3CF=CHF: Temperature Dependent OH Rate Coefficients and Global Warming Potentials", *Phys. Chem. Chem. Phys.*, **2008**, *10*, 808

31. V C. Papadimitriou, D. K. Papanastasiou, V. G. Stefanopoulos, A. M. Zaras, Y. G. Lazarou and P. Papagiannakopoulos "Determination of the Kinetics and Mechanistic Investigation for the Reactions of Cl Atoms with $CF_3CH_2CH_2OH$, $CF_3CF_2CH_2OH$, $CHF_2CF_2CH_2OH$, and $CF_3CHFCF_2CH_2OH$", *J. Phys. Chem. A*, **2007**, *111*, 11608

32. G. Kovács, T. Szász-Vadász, V. C. Papadimitriou, S. Dóbé*, T. Bérces and F. Márta, "Absolute rate constants for the reactions of OH radicals with CH_3CH_2OH, CF_2HCH_2OH and CF_3CH2OH", *React. Kinet. Catal. Lett.* **2005**, *87*, 129

33. V. C. Papadimitriou, K. G. Kambanis, Y.G. Lazarou and P. Papagiannakopoulos, "Kinetic Study for the Reactions of Several Hydrofluoroethers with Chlorine Atoms", *J. Phys. Chem. A*, **2004**, *108*, 2666

34. V. C. Papadimitriou, A. Prosmitis, Y.G. Lazarou, and P. Papagiannakopoulos, "Absolute Reaction Rates of Chlorine Atoms with CF_3CH_2OH, CHF_2CH_2OH, and CH_2FCH_2OH", *J. Phys. Chem. A,* **2003**, *107*, 3733

35. Y.G. Lazarou, V. C. Papadimitriou, A.V. Prosmitis and P. Papagiannakopoulos, "Thermochemical Properties for Small Halogenated Molecules Calculated by the Infinite Basis Extrapolation Method", *J. Phys. Chem. A,* **2002**, *106*, 11502

36. A. Prosmitis, V. Papadimitriou, J. Pola, and P. Papagiannakopoulos, "Kinetic Study for the Reactions of Chlorine Atoms with Hexamethyldisiloxane, 1,1,3,3-Tetramethyldisiloxane, and 1,3-Dimethyldisiloxane", *Chem. Phys. Lett.*, **2001**, *344*, 241

37. Y.G. Lazarou, A.V. Prosmitis, V. C. Papadimitriou, and P. Papagiannakopoulos, "Theoretical Calculation of Bond Dissociation Energies and Enthalpies of Formation for Halogenated Molecules", J. *Phys. Chem. A*, **2001**, *105*, 6729

38. J. Kupcik, Z. Bastl, J. Subrt, J. Pola, V. Papadimitriou, A. Prosmitis, and P. Papagiannakopoulos, "IR Laser-induced Decomposition of Hexamethyldisiloxane for Chemical Vapour Deposition of Nano-structured Hydro(methyl)silicone Powders", *J. Anal. Applied Pyrolysis,* **2001,** *57*, 109

STATISTICS:

h-index: **14,** ***i10-index:*** **19,** ***Citations:*** **807**

In Preparation:

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5. **Transparent Conductive Materials 2014 (TCM 2014)**, 12-17 October **2014**, Platanias-Chania, Crete, Greece.
   Invited Speaker: "Photocatalytic degradation of air pollutants over synthesized metal-doped TiO_2 nanopowders: Kinetics, mechanism and end-products analysis."

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   Presentation: "Atmospheric Chemistry of Allyl Halides: Temperature and Pressure Dependent Rate Coefficients for the Gas Phase Reactions of OH Radicals and Cl Atoms with X-$CH_2CH=CH_2$ (X: Cl, Br, I)"

   Presentation: "Kinetics and Mechanism Investigation for Carboxylic Acids (R-C(O)OH, R: --CH_2CH_3, -$CH_2CH_2CH_3$) Uptakes on Pure and HNO_3-Doped Ice Surfaces under UT/LS Temperature Conditions."

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   Presentation: J. B. Burkholder, V. C. Papadimitriou, R. K. Talukdar, R. Portmann and A. R. Ravishankara, **2007**, $CF_3CF=CH_2$ and $CF_3CF=CHF$: Temperature Dependent OH Rate Coefficients and Global Warming Potentials, **Abstract** A43A-0875

10. **20th International Symposium on Gas Kinetics,** 20th - 25th July **2008,** Manchester**,** UK
    Presentation: "Pressure Dependent Rate Coefficients for the Cl + $CF_3CF=CH_2$ and (Z)-$CF_3CF=CHF$ Reactions between 207 - 308 K"

11. **AGU Fall Meeting**, 10-14 December **2007**, San Francisco, CA, USA.
    Presentation: "$CF_3CF=CH_2$ and $CF_3CF=CHF$: Temperature Dependent OH Rate Coefficients and Global Warming Potentials"

12. "***2nd Annual Meeting of Laboratory Activity of SCOUT Project***" March **2006**, Jülich, Germany. **Presentation:** "Heterogeneous interactions of HNO_3, HO_2 and $CH_3C(O)CH_3$ with ice surfaces: An experimental and theoretical study"

13. ***"18th Months Meeting of Laboratory Activity of SCOUT Project",*** Mainz, Germany, October **2005**. **Presentations:** "Uptake experiments of HNO_3 on ice surfaces", "Ab-initio calculations for HNO_3-$(H_2O)_n$ and HNO_3-$(H_2O)_n$ complexes, n=1-3".

14. "***1st Annual Meeting of Laboratory Activity of SCOUT Project***", Zürich, Switzerland, March **2004**. **Presentation:** "Trace Gases Uptake to Ice"

15. "***18th International Symposium on Gas Kinetics***", University of Bristol, Bristol, UK, July **2004**. **Presentation:** "Absolute rate determination and mechanistic analysis for the reaction of Chlorine atoms with Di-Iodomethane"

16. ***"International Quadrennial Ozone Symposium",*** Kos, Greece, June **2004**. **Presentations:** "Rate constant and reaction mechanism for the reaction of CH_2I_2 with Cl atoms" and "Kinetic and mechanistic investigation study for the reactions of Chlorine atoms with a series of Fluorinated Alcohols in the gas phase".

17. *"**EGS, AGU, EUG Joint Assembly: Atmospheric Sciences Session**",* Nice, France, April **2003**. **Presentations:** "Tropospheric reactivity of fluorinated ethers and alcohols" and "Reaction rates and chemical mechanism for the reaction of Cl atoms with CH_2I_2

18. "***17th International Symposium on Gas Kinetics***", University of Essen, Essen, Germany, August **2002**. **Presentation:** "Kinetics and theoretical studies for the reaction of Cl atoms with fluoroalcohols"

19. *"**Third Nordic Symposium on Gas Kinetics and Atmospheric Chemistry**",* University of Copenhagen, Elsinor, Denmark, June **2002**. Presentation: "Impact of Alternative Fluorinated Alcohols and Ethers on the Environment"

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22. *"**The 8th European symposium on the physico-chemical behaviour of atmospheric pollutants**",* Torino, Italy, September **2001**. **Presentations:** "Impact of Alternative Fluorinated Alcohols and Ethers on the Environment" and "Kinetic and Theoretical study for the Reactions of Cl Atoms with Fluoroalcohols"

23. *"**First Nordic Symposium on Gas Kinetics**",* University of Copenhagen, Elsinor, Denmark, June **2000**. **Presentation:**"Kinetic Studies for the Reactions of Chlorine Atoms with Hexamethyldisiloxane, 1,1,3,3-Tetramethyldisiloxane, and 1,3-Dimethyldisiloxane"

24. "***16th International Symposium on Gas Kinetics***",University of Cambridge, Cambridge, UK, July **2000**. **Presentation:** *"Kinetics and mechanism for the reaction of D Atoms with Iodomethane and Chlorodomethane"*

25. "***Alternatives to Methylbromide for the Southern European Countries***"Agriculture Ministry of Greece & the European Commission DGXI, Heraklio,December **1999**.

26. "***Chemistry and Radiation Changes in the Ozone Layer***" University of Thessaloniki, Colibari, Chania, May **1999**. **Presentation**: "Kinetic Studies for the Reaction of CH_2ClI with D Atoms" and "Kinetic Studies for the Reaction of CH_3Br with D Atoms"

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