PERSONAL DETAILS

NAME:	**Dr Maria Papadaki**
DATE AND PLACE OF BIRTH:	21-3-1960 /Chania-Crete-Greece
NATIONALITY:	Greek
WORK ADREESS	DEPARTMENT OF ENVIRONMENTAL AND NATURAL RESOURCES MANAGEMENT, UNIVERSITY OF WESTERN GREECE (FORMERLY OF UNIVERSITY OF IOANNINA), SEFERI 2, AGRINIO, GR30100, GREECE.
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STUDIES:

1. Chemical Engineering, DipEng Degree (1985) "very good", (MEng equiv), Chemical Engineering Department, Aristotle University of Thessaloniki, Greece.
2. Ph.D in the field of transport properties, "excellent", "An Absolute Method for the Measurement of Viscosity of Liquids" :1988-1992, Chemical Engineering Department, Aristotle University of Thessaloniki, Greece.
3. Post-graduate Certificate in Teaching and Learning in Higher Education, Leeds, 2001

Member of the Chamber of Greek Engineers
Associate Member of IChemE

LANGUAGES: Greek mother tongue, English excellent, Spanish very good.

CURRENT POSITION: **Professor of Environmental Chemistry and Environmental Processes**, Department of Environmental and Natural Resources Management, University of Patras; Greece Jan 2010-present

Previous posts:
2009-2006 Associate Professor of Environmental Chemistry, Department of Environmental and Natural Resources Management, University Of Ioannina; Greece
2007-2004 Senior Lecturer in Chemical Engineering at the University of Leeds, UK
1998-2004 Lecturer in Chemical Engineering, University of Leeds
1996-1997 Investigadora Superior, Institut Quimic de Sarria, Barcelona, Spain
1991-1996 Research Associate, Chemical Engineering Department, Imperial College, London
1986-1991 Professor of Applied Engineering, Petroleum Technology Department, Polytechnic of Kavala, Greece.

TEACHING EXPERIENCE

Table 1. Summary of teaching duties

COURSE	Years	Weekly hours /semester	Comments	
Deparment of Environmental & Natural Resources Management				
Organic Chemistry	2015-	6/2nd	13 weeks per semester	
Environmental Catalysis	2015-	3/9th	13 weeks per semester	
Inst. Environmental Analysis	2015-	6/7th	13 weeks per semester	
Mass and energy Balances	2013-	6/2nd	13 weeks per semester	
Env Chemistry & Geochemistry	2013-	6/1st	13 weeks per semester	
Process safety and work hygiene	2013-	3/7th	13 weeks per semester	
Physical Chemistry	2006-09	6/3rd	13 weeks per semester	
Mass and energy Balances	2006-12	6/3rd	14 weeks per semester	
Transport Phenomenaς	2006-12	6/4th	14 weeks per semester	
Process safety and work hygiene	2006-12	3/7th	14 weeks per semester	
Atmospheric pollution	2006-09	3/8th	14 weeks per semester	
Inorganic chemistry	2006-12	3/1st	14 weeks per semester	
Applied Fluid Mechanics	2005-06	6/4th	14 weeks per semester	
Mass-transfer operations	2005-06	6/5th	14 weeks per semester	
Plant economics	2005-06	3/7th	14 weeks per semester	
Safety and Hygiene at work	2006-08		Master 8 h /yr	
Green Environmental Technologies	2015-		Master 8 h /yr	
Laboratory Environmental Methods	2015-		Master 8 h /yr	
Chemical Engineering Department, University of Leeds, UK				
MODULE	YEARS	CREDITS (out of 60 per semester)	Year of studies	Comments
CENG2160 (Unit Oper.1&2)	1998-99	20	2nd	
CENG3150 (Reac.Eng.1&2)	1998-99	20	3rd	
CENG2161(Unit Oper. 1)	1999-02	10	2nd	
CENG3151(Reaction Eng 1)	1999-05	10	3rd	
CENG3152(Reaction Eng 2)	1999-05	10	3rd	
CENG4110(Research Proj.)	2000-02	30	MEng	CO-ORDINATOR
CENG5180(Reaction Eng 1)	1999-05	15	MSc	
CENG5182(Reaction Eng 2)	1999-05	15	MSc	
CENG3170 (Sep. Proc. 2)	2002-05	10	3rd	50% of teaching
CENG5290 (Sep.Proc 2)	2002-05	15	MSc	
CENG4100 (Multi-disciplinary Design Project)	2002-05	40	MEng	CO-ORDINATOR

Leeds, UK, Supervision of Research and Design Projects_Labs_Tutorials				
PILOT_PLANT	1998-05	20	2nd	2 experiments out of 10-13
DESIGN_PROJECT_1	1998-05	20	3rd	1-2 groups out of 6-10
DESIGN_PROJECT_2	1998-05	20	3rd	1-2 groups out of 6-10
CENG4110_SUPERVISION	1998-05	30	MEng	1-2 students out of 5-20
CENG4100 (Multi-disciplinary Design Project)	2002-05	40	MEng	co-supervision of all teams (a panel of 4 Faculty members
PREN1000 (studying skills)	2000-05	20		2 hours per semester

Reaction Engineering 1: Design of homogeneous reactors
Reaction Engineering 2: Design of heterogeneous reactors
Separation Processes/Unit Operations: Distillation of binary and multicomponent mixtures-Gas/Liquid absorption.

Summary of teaching duties as post-doctoral researcher and Chem. Eng. graduate.

10/1995-1/1996 :Tutor in Process Analysis (First Year Undergraduates), Chemical Engineering Department of Imperial College, London;- groups of 4-6 students.

9/1986-7/1991: Professor of Applied Engineering, Petroleum Technology Department, Polytechnic of Kavala, Greece. (September-July, 12-16 hours per week including lectures and laboratories).Subjects taught were: Process Plant Design and Economics, Fluid Mechanics, Mass Transfer, Petroleum Technology, Homogeneous and Heterogeneous Reactor Design, Engineering Drawing (Plant Flow-Sheets), Energy Efficiency, Separation Processes;-classes of up to 25 students.

10/1985-6/1991 :Greek Centre of Productivity (EL.KE.PA.) Computing: BasicA, Structure of Computers, Word Processors, Spreadsheets; (a total of about 1000 hours)-groups of about 30 people, aged 18-50.

Table 2. Supervision of research projects in undergaduate, MSc and PhD level

PhD students' supervision				
NAME	**START**	**TRANSFER**	**END**	**TITLE**
S.D.Lever	10.2000	10.2001 Successful	11.2004 successful	Kinetic studies and runaway behaviour of the chlorination reaction of nitrobenzoic acids
R.J.Emery	10.2001	10.2002 Successful	09.2006 successful	Advanced oxidation with emphasis in the ultrasonic decomposition of organic pollutants in industrial wastewaters
JunGao	9.2002	10.2003 Successful	10.2007	Development of general models for the *N*-oxidation of alkylpyridines
D. Stapleton	10.2003	10.2004 successful	11.2008	Water purification and wastewater treatment using advanced oxidation techniques and biological methods
C. Skoutelis	07.2007	successful	11.2011	Photolytic and photocatalytic study of the chemical and genotoxic removal of halogenated pyridines
S. Georgopoulos	12.2012			

NAME	**YEAR**	**MARK**	**TITLE**
MSc students' supervision			
J. Mingeley	99-00	2.1	Validation of kinetic model of catalytic decomposition of H_2O_2
S.K.Bomma Reddy,	99-00	1st	Validation of kinetic model of the alkali induced decomposition of H_2O_2
K. Al-Binali	00-01	1st	Determination of heat of Vilsmayer reaction under reflux
M. A. Jadoon,	01-02	Pass	Determination of heat of reaction under reflux
R.Hussain	02-03	Pass	Temperature distribution in a reactor suffering a reaction runaway
G.Hardiman	03-04	1st	Catalytic hydrodechlorination of 2-chloropyridine

RESEARCH students' supervision			
G. Pimenidoy	98-99	1st	Investigation of the alkali-decomposition of hydrogen peroxide
B. Orgut	98-99	1st	Catalytic decomposition of hydrogen peroxide
V. Stoikou	99-00	1st	*N*-oxidation of alkylpyridines
S. Kitching	99-00	1st	Kinetic studies of the catalytic decomposition of hydrogen peroxide
R. Emery	00-01	1st	Sensitivity analysis of the *N*-oxidation of 2-methylpyridine
E. Marques Domingo	00-01	1st	Mathematical model for the runaway decomposition of hydrogen peroxide **Co-supervision with Dr T. Mahmud**
A. BustosDias	01-02	1st	Oxidation of organic compounds using Fenton reagent
A.Fergusson-Rees	02-03	1st	Effect of calibration power on the heat of reaction
C. Pochet	02-03	1st	UV, Ultrasonic and Fenton degradation of pyridines
M. Smith	03-04	1st	Calorimetrically developed general kinetic models for alkylpyridines
C. Smith	03-04	1st	UV, UV+Fenton degradation of halogenated pyridines
A.Fernandez Dominguez	03-04	1st	Ultrasound assisted degradation of halogenated pyridines
E.Pontiki	07-08	1st	Thermal decomposition of hydroxylamine
I. Petrakis	08-09	1st	2-chloropyridine removal from aqueous solutions by means of 20kHz ultrasounds.
E.Kounalakis	10-11	1st	Conditions affecting the thermal decomposition of hydroxylamine
T.Adamopoulou	11-12	1st	Thermal decomposition of hydroxylamine nitrate
V. Repousi	12-13	1st	
M. Lanara	12-13	1st	
D. Anagnostaras	13-14	1st	
M. Stylianou	14-15	1st	
G. Kostoulas	14-15	1st	
C. Christodoulou			
C. Lapouridis			
E. Pitsadioti			
E. Prifti			
D. Tsourlini			
J. Konstantakopoulos			

RESEARCH EXPERIENCE

Research as a PhD student and post-doctoral researcher

The main objective of my research for the period 1988-1995 was the development of absolute techniques for the high-precision measurement of transport properties of fluids. Accurate and reliable information on the thermophysical properties of fluids are required for both science and industry. Theoretical models and prediction schemes for thermophysical properties need to be tested against accurate experimental data for representative fluids and fluid mixtures, especially for extreme conditions of pressure and temperature and in the critical region.

12/1987-12/1991: PhD Research, Greece

An absolute vibrating wire viscometer for the measurement of liquids in the pressure range of 0.1-100 MPa and temperature range 300K-400K was designed and constructed. Design of a pressure system (including a pressure vessel) and a thermostatic bath to accommodate the viscometer. The viscosity of aromatic, normal hydrocarbons and hydrocarbon mixtures were measured and the results were used together with those of other investigators to develop correlations and semi-empirical schemes for the prediction of transport properties of liquid hydrocarbon mixtures.

9/1991-10/1992 : Postdoctoral Research, Imperial College, London

Measurement of the thermal conductivity of alternative refrigerants in the liquid phase, in the temperature range 210-293K and near saturation pressure. Project sponsored by ICI.

10/1992-10/1995: Postdoctoral Research, Imperial College, London

Measurement of the thermal conductivity of representative gases (argon, nitrogen and carbon monoxide) in the temperature range of 80K - 400K and for pressures 0.01 MPa - 10 MPa . The results are used to improve and modify theoretical models. EEC project "Fundamental Studies of Thermophysical Properties of Molecular Gases".

4/1994-8/1994: Postdoctoral Research, Imperial College, London and Huntsville, USA

I participated actively in the preparation and operation of the CPF (Critical Point Facility)-IML-2 (International Micro gravity Laboratory-2) experiment, conducted under micro-gravity conditions, for 56 continuous hours inside the spacelab. The objectives of that experiment were the study of the transient heat-transfer and density fluctuations of liquids near the critical point.

10/1994-2/1996: Postdoctoral Research, Imperial College, London

Work on a project entitled "High Temperature Thermal Conductivity of Molten Metals", sponsored by EU, aiming to develop of a high precision method for the measurement of thermal conductivity of molten metals.

2/1996-5/1997: Postdoctoral Research, Institut Qumic de Sarria, Barcelona

Study of homogeneous liquid reactions of industrial interest: Calorimetric studies of certain reaction systems involving hydrogen peroxide as an oxidising agent. Use of calorimetric information only for the development of a simple but still theoretically sound model, capable of reliably predicting the runaway behaviour of the *N*-oxidation reactions of the family of pyridines using hydrogen peroxide, in semibatch reactors. Carefully collected calorimetric data were used. HCM project, "Network on Safety Problems Resulting from Runaway Reactions in the Chemical Industry", sponsored by EU.

Research as a Faculty Member

5/1998-now

Safety of runaway reactions of industrial interest. Development of reliable kinetic models and generalised criteria on safety.

- Design of experimental procedures for the collection of good quality calorimetric data for the study of a complex reaction system.
- Use of reaction calorimetry and thermal analysis measurements for the development of "simple" kinetic models capable of describing the runaway behaviour of whole families of "condition dependent", highly exothermic industrial reactions with applications especially on batch or semi-batch reactors, which are extensively used in the fine chemicals and pharmaceutical industries.
- Development of generalised criteria for the safety of batch and semi-batch reactors.
- Use of the developed models for the enhancement of processes (simplification of operations, replacement of passive control by active control, minimisation of the energy and materials requirements).
- Experimental validation and further development of existing models on reactor relief systems.
- Evaluation of the influence of the accuracy of the values of thermophysical properties of the fluid mixtures and utilities on the quality of the experimental data obtained and subsequent improvement of the methodologies and the available instrumentation employed, to enhance quality of measurement.
- Process modification and change from discontinuous to continuous reactors with emphasis in the potential of microreactors for a safe and efficient operation when high pressures and high heat generation is expected.
- Boiling reactors and enhancement of the measurement of the heat of reaction under boiling conditions.
- Process intensification, microreactors, supercritical extraction with and without reaction, solid reactions.

Use of advanced oxidation processes (ultrasounds, ultraviolet, Fenton and their combination) for the partial or complete oxidation and destruction of organic pollutants from industrial wastewaters and drinking water.

- Study of the effectiveness of ultrasounds on the partial and total oxidation of organic pollutants: effects of temperature ultrasonic power and initial substrate concentration.
- Study of the effectiveness of ultrasounds on the partial and total oxidation of halogenated pyridines: effects of temperature, volume and initial substrate concentration.
- Study of the effectiveness of UV on the partial and total oxidation of halogenated pyridines: effects of temperature, volume and initial substrate concentration.
- Study of the mechanisms of the photolytic and photocatalytic decomposition of halogenated pyridines.
- Comparative studies of combinations of the above methods
- Scale-up studies for the large scale removal of organic substances
- Modelling of the kinetics of organics destruction by ultrasonic and/or UV irradiation.

Catalytic hydrodechlorination of CFCs

The principal objective of this research program is to develop and characterise highly active metal carbide catalyst to promote the hydrodechlorination of chlorofluorocarbons to environmentally benign compounds.

RESEARCH FUNDING

The following proposals for funding have been successful:

1. Isothermal and Adiabatic Calorimetrical Study of the Kinetics of Reaction Runaway for Agrochemical Indermediates Processes (ref: Bgc185%y), ZENECA Agrochemicals (currently Syngenta or Novartis)£14.000 (10/2000-9/2003)
2. Isothermal and Adiabatic Calorimetrical Study of the Kinetics of Reaction Runaway for Agrochemical Indermediates Processes (studentship award no: 480105606) Engineering & Physical Sciences Research Council (EPSRC) £30.000 (10/2000-9/2003)
3. Development of general kinetic models and prediction of runaway consequences of industrial reactions (GR/R14095/01) Engineering & Physical Sciences Research Council (EPSRC) £65.000 (10/2000-9/2003)
4. Kinetic study of an epoxidation reaction using hydrogen peroxide COALITE Chemicals £4.000 in consumables 2/2001-2004
5. Removal of organic pollututants from aqueous effluents by advanced oxidation methods Glaxo Smith Kline Engineering £22500(10/2001-10/2004) with Dr. D. Mantzavinos (PI).
6. Engineering& Physical Sciences Research Council (EPSRC) research studentship: £35000 (10/2001-10/2004).with Dr. D. Mantzavinos (PI)
7. Treatment of halogenated phenol-containing wastewaters by combined chemical and biological oxidation processes. Physical Sciences Research Council (EPSRC) £60.000 (10/2001-10/2003).
8. Synthesis and Charactirization of novel type carbide catalysts: Application in Environmental Catalysis. British Council: UK-India Science and Technology Research Fund Programmes £9.000 (10/2001-10/2003)
9. Accident prevention helpline for SMEs, European Agency for Safety and Health at Work, €160,000 (10/2001-10/2002) with Dr. M. Fairweather (University of Leeds), Macedonian Natural Gas (PI), Sigma Consultants, Naturgas Midt-Nord, Viborg, Denmark
10 Photolytic and photocatalytic degradation of halogenated pyridines in water, PhD studentship, Physical Sciences Research Council (EPSRC) £40.000 (10/2003-10/2006).
11 University of Leeds-Conference travel grant £1000 (May 2004)
12 Royal Academy of Engineering-Conference travel grant £500 (March 2005)
13. Development of integrated approaches towards runaway prediction and assessment.(EP/D036186/1) Physical Sciences Research Council (EPSRC) £10.000 (7/2006-10/2006).
14 "Runaway reactions" Mary Kay OConnor Process Safety Center 2007-now
15 Hybrid micro and meso-porous materials for environmental technology". Collaborative proposal between Greek Universities, under the call "Thalis" of the Greek Government (2012-2015).
16 “Development of Advanced Oxidation Processes using nanomaterials and sunlight for the removal of toxic compounds, hormone distructors and cystotoxins from natural waters and treated wastewaters” Collaborative proposal between Greek Universities, under the call "Thalis" of the Greek Government (2012-2015).
17 Erasmus staff mobility: Travel grant to visit Lotz Technical University, Polland on May 2012 :"Reactive Chemicals Evaluation".
18 Erasmus staff mobility: Travel grant to visit Istanbul Technical University, on May 2013 :"Wastewater treatment using AOPs".

ADMINISTRATION

(a) Department of Environmental and Natural Resources Management administrative tasks

2014-now: Member of the Master Course Committee

2012: Head of the selection Committee for the University student restaurant for the period 2012-2015

2007- now: Member of three University committees (estates, studies, teaching sections)

2005- now: Member of 15 post–graduate examination boards (external)

2005- now: Member of the selection committees for new University Faculty members (13 internal, 30 external).

(b) Leeds Chemical Engineering Department/IPSE -SPEME administrative tasks

4/2003-05: School Examinations Officer.

10/2000-7/2003: *4th year Director of Studies*.

4/1999-10/2000: *Departmental Director of Teaching and Learning.* Due to the limited number of staff in the Department I offered to undertake this responsibility I was assigned the duty of DDTL in March 1999. I retained this task till October 2000 when the Head of Department, took the initiative to reduce my disproportionally heavy administrative load. During my service in this post, in spite of being a new member of the University, I was very successful. I very quickly learned the School and University procedures, I solved a number of problems that were stagnant in the Department for years, and I headed course changes in all Programmes of Studies.

5/98-05: Member of the Departmental Staff/Student Committee

4/99-05: Member of the Departmental Teaching and Learning Committee 4/99-present

4/99 -05: Member of the School T&L Committee

4/1999-10/2000: Member of the Teaching and Learning Faculty Committee

5/2003-present: Member of the School T&L Committee

Executive tasks: I co-ordinated the collection of all 4th year associated documentation for the IChemE accreditation committee 2001 and 2004.

OTHER

- Mary Kay O'Connor Process Safety Center, Texas A&M University: Member of the Technical Advisory Committee 2005-now
- IPSE-SPEME University of Leeds. Visiting Research Reader 2008-2011
- Visiting Research Engineer, MKOCPSC- Texas A&M Aug 2006-
- Waste Water Treatment and Analysis: Member of the editorial board: 2010- now
- Reactive Chemical Hazards and N-oxidation of alkylpyridines, BUET, Dhaka, Bangladesh 31 Dec 2011.
- Contributor and participant in think-tank workshop entitled, "Process Safety Research Agenda for the 21st Century," College Station, on October 21-22, 2011, in College Station, Texas.
- Invited speaker: The Photolytic/Photocatalytic Destruction and Genotoxicity of 2-Chlorinated Pyridines, Chem. Eng. TAMU, USA, 8 Oct 2009.
- 2nd European Conference on Environmental Applications of AOPs (EAAOP) held in Cyprus, in 2009: Member of the Scientific Committee.
- 1st European Conference on Environmental Applications of AOPs (EAAOP) held in Chania, Crete in 2006: Member of the Scientific Committee.
- WasteEng05, Albi, France, May 17-19th, 2005: Symposium Discussion Panel and session-chair.
- Symposium On Complex Processes Modeling Of Complex Processes". March 2005 (2-3) George Bush Presidential Library, College Station, Texas: Member of International Advisory Committee.
- Bhopal Gas Tragedy and its Effects on Process Safety, Kanpur, India 30 Nov-3Dec 2004: conference session chair.
- February 2003: Visiting Professor at the Indian Institute of Chemical Technology, Hyderabad, India.
- Member of "Safety and Loss Prevention", "Applied Catalysis", "Environmental Protection" and "Education" groups of the Institution of Chemical Engineers (IChemE).
- Reviewer (referee), between others, of

✓ Applied Catalysis B: Environmental,
✓ Catalysis Communications,
✓ Chemical and Biochemical Engineering Quarterly,
✓ Chemical Engineering Communications,
✓ Chemical Engineering Journal
✓ Chemical Engineering Research and Design IChemE Transcactions ?,
✓ Chemical Engineering Science,
✓ Chemosphere,
✓ Environmental Science& Technology
✓ Journal of Molecular Catalysis A,
✓ Journal of Chemical Technology & Biotechnology
✓ Journal of Environmental Management
✓ Journal of Hazardous Materials,
✓ Journal of Loss Prevention in Process Industries
✓ Journal of Petroleum Science & Engineering,
✓ Journal of Photochemistry and Photobiology A: Chemistry
✓ Journal of Propulsion and Power,
✓ Open Chemical Engineering Letters
✓ Process Safety and Environmental Protection -IChemE Transcactions ?,
✓ Separation and Purification Technology,
✓ Topics in Catalysis,
✓ Water Research,
✓ 8th International Symposium on Fire Safety Science
✓ John Wiley and sons (book reviews).

- Organised scientific seminars of Fluids and Polymer groups during 1995-1996.
- Contribution in organising 5 conferences at Imperial College (3) and Aristotle University of Thessaloniki (2).

Publications in Refereed journals (underlined is the corresponding author)

1. M.J. Assael, **M. Papadaki**, M. Dix, S.M. Richardson and W.A. Wakeham, "An Absolute Vibrating Wire Viscometer for Liquids at High Pressures", *Int. J.Thermophys.*1**2**:231-244, (1991).
2. M.J. Assael, **M. Papadaki**, and W.A. Wakeham, "Measurement of the Viscosity of Benzene, Toluene and m-Xylene at Pressures up to 80 MPa", *Int.J.Thermophys.* **12**:449-457 (1991).
3. M.J.Assael and **M. Papadaki**, "Measurements of the Viscosity of n-Heptane, n-Nonane and n-Undecane at Pressures up to 70MPa ", *Int. J. Thermophys.*, **12**:801-810, (1991).
4. M.J. Assael, L. Karagiannidis and **M. Papadaki**, "Measurements of the Viscosity of n-Heptane+ n-Undecane Mixtures at Pressures up to 75MPa", *Int.J. Thermophys.* **12**:811-820(1991).
5. M.J. Assael, **M. Papadaki**, S.M. Richardson, C.P. Oliveira and W.A. Wakeham, Vibrating Wire Viscometry on Liquid Hydrocarbons at High Pressure", *High Temp- High Press*. **23**:561-568, (1991).
6. M.J.Assael, C.P.Oliveira, **M.Papadaki** and W.A. Wakeham, "Vibrating -Wire Viscometers for Liquids at High Pressures", *Int J. Thermophys*. **13**:593-615, (1992).
7. M.J. Assael, L.Karagiannidis and **M. Papadaki**, "The Thermal Conductivity of Some Alkyl Ethers and Alkanones", *Int. J. Thermophys*., **12**:937-942(1991).
8. M.J. Assael, E. Charitidou J.H. Dymond and **M. Papadaki**, "Viscosity and Thermal Conductivity of Binary n-Heptane + n-Alkane Mixtures", *Int. J.Thermophys.* **13**:237-249, (1992).
9. M.J. Assael, J.H. Dymond, **M. Papadaki** and P.M. Patterson, "Correlation and Prediction of Dense Fluid Transport Coefficients. I . n-Alkanes", *Int.J. Thermophys.*, **13**:269-281, (1992).
10. M.J. Assael, J.H.Dymond, **M. Papadaki** and P.M. Patterson, "Correlation and Prediction of Dense Fluid Transport Coefficients. II. Simple Molecular Fluids", *Fluid Phase Equil*., **75**:245-255,(1992).
11. M. J. Assael, J. H. Dymond, **M. Papadaki**, and P.M. Patterson , "Correlation and Prediction of Dense Fluid Transport Coefficients. III. n-Alkane Mixtures", *Int.J. Thermophys*. **13**:659-669, (1992).
12. M.J. Assael, J. H. Dymond and **M. Papadaki**, "Viscosity Coefficients of Binary n-Heptane+n-Alkane mixtures", *Fluid Phase Equil.*, **75**:287-297, (1992).
13. **M.Papadaki**, M. Schmitt, A. Seitz, K. Stephan, B. Taxis and W.A. Wakeham, "Thermal Conductivity of R134a and R141b Within the Temperature Range 240-307K at the Saturation Vapour Pressure", *Int. J.Thermophys.* **14**:173-181, (1993).
14. **M. Papadaki** and W.A.Wakeham, "Thermal Conductivity of R32 and R125 in the Liquid Phase at the Saturation Vapour Pressure", *Int. J. Thermophys.* **14:**1215-1220 (1993).
15. S.F.Li, **M.Papadaki**, and W.A.Wakeham, "The Measurement of Thermal Conductivity of gases at low density by the transient hot wire technique", *High Temp-High Press*. **25:** 451-458 (1993).
16. S.F.Y. Li, **M.Papadaki**, W.A.Wakeham, "Thermal Conductivity of low-density polyatomic gases", Thermal Conductivity 22, Ed. T.W.Tong, Technomic Pub.Co., p.531-543 (1994).
17. A. Bernnat, **M.Papadaki** and W.A. Wakeham, "Initial Density Dependence of the Thermal Conductivity of Polyatomic Gases", Thermal Conductivity 23 Ed. T.W.Tong, Technomic Pub.Co.,v. 23, p.481-493(1996).
18. M.J. Assael, M.Dix, I.Drummond, L. Karagiannidis, M.J. Lourenco, C.N. De Castro, **M. Papadaki**, M.L. Ramires, H. Van den Berg and W.A. Wakeham, "Towards standard reference values for the thermal conductivity", *Int. J. Thermophys. **18***:439-446 (1997).
19. J.Sempere, R. Nomen, J.L. Rodriguez and **M. Papadaki** "Modelling of the reaction of 2-methylpyridine using hydrogen peroxide and a complex metal catalyst", *Chemical Engineering and Processing* **37**:33-46 (1998).
20. **M. Papadaki**, R. J.Emery, E. Serra, R. Nomen and J. Sempere, "Sensitivity analysis of the 2-methylpyridine *N*-oxidation kinetic model", *Green Chemisty*, **4**: 199-205(2002).

21. **M.Papadaki**, V.Stoikou, D.Mantzavinos and J.L. Rodriguez-Miranda, "Towards improved reaction runaway studies: Kinetics of the *N*-oxidation of 2-methylpyridine using heat-flow calorimetry", *Process Safety and Environmental Protection* **80**:186-196(2002).

22. K.V.R. Chary, K.S. Laskhmi, M.R.V.S. Murthy, K.S. Rama Rao and **M. Papadaki**, "Hydrodechlorination of 1,2,4-trichlorobenzene over Niobia supported nickel catalysts", *Catalysis Communications*, **4***:* 531-535(2003)**.**

23. R.J.Emery, **M.Papadaki** and D.Mantzavinos, Sonochemical degradation of phenolic pollutants in aqueous solutions, *Environmental Technology*, **24**: 1491-1500 (2003).

24. M. Papadaki and H.P. Nawada, "Towards improved reaction runaway assessment methods I. Simple calorimetric method of evaluation of heat transfer coefficient and reactor thermal mass", *International Journal of Chemical Reactor Engineering* **1** (2003), *A40 (2003) (Bepress REFEREED ELECTRONIC JOURNAL http://www.bepress.com/alljournals.html).*

25. **M.Papadaki**, R.J.Emery, M.A.Abu-Hassan, A.Díaz-Bustos, I.S.Metcalfe and D.Mantzavinos, Ultrasound-assisted oxidation processes for the removal of aromatic contaminants from aqueous effluents, *Separation & Purification Technology*, **34(**1-3) 39-46 (2004)**.**

26. S.D. Lever and **M.Papadaki,** o-chlorination of 2-nitrobenzoic acid with thionyl chloride in xylene and acetonitrile:solubility study of hydrogen chloride and sulphur dioxide in xylene and acetonitrile, *Process Safety and environmental Protection (TransIChemE, Part B)*, **82(B1)**: 48-60(2004).

27. **M.Papadaki**, "Use of reaction calorimetry in thermal risk assessment studies and safe design of batch reactions that can lead to a runaway: Application on hydrogen peroxide" *Topics in Catalysis* **29:**207-213 (2004).

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29. S.D. Lever and **M.Papadaki,** Study of Condition-Dependent Decomposition Reactions Part_I – The Thermal Behaviour and Decomposition of 2-Nitrobenzoyl Chloride *Journal of Hazardous Materials* **115:** 91-100(2004).

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64. Zhe Han, Alba Pineda, Sonny Sachdeva, Maria I. Papadaki & M. Sam Mannan, Study of ammonium nitrate fertilizer explosion hazards, Tenth International Symposium on Hazards, Prevention, and Mitigation of Industrial Explosions (X ISHPMIE), Bergen, Norway, on 10-14 June 2014, oral presentation
65. Kostoulas, G., Georgopoulos, S. **& Papadaki, M.I.** (2014): Removal and Photo-Degradation of Aqueous Solutions of Four Medicines. Proceedings of 8th European

Conference on "Pesticides and Related Organic Micropollutants in the Environment" & 14th Symposium in "Chemistry and Fate of Modern Pesticides", Ioannina, Greece, 18 - 21 September 2014, http://www.pesticides2014.gr/

66. Charalambos G. Skoutelis and **Maria I. Papadaki**, Photolytic removal of 3-chloropyridine from aqueous solutions: effect of volume, initial substrate concentration and temperature, Proceedings of International Symposium on "Water, Wastewater and Environment: Traditions and Culture", Patras, Greece, 22 - 24 March 2014, http://wwetc2014.env.uwg.gr/wms/
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68. Zhe Han, Sonny Sachdeva, Maria Papadaki and M. Sam Mannan, Study of Ammonium Nitrate Thermal Hazards with Additives, , Mary Kay O'Connor Process Safety Center,"Beyond Regulatory Compliance: Making Safety Second Nature",Texas A&M University, College Station, Texas, October 28-30, 2014 oral presentation.
69. Georgopoulos, S., Panitsa, M., Vlastos, D., Konstantinou, I.K. & **Papadaki, M.I**. (2015): Treatment of Cow-Farm Wastewaters Using an Environmentally Friendly Method. Proceedings of International Conference of "Industrial Waste & Wastewater Treatment & Valorisation", Athens, Greece, 21 - 23 May 2015, http://www.iwwatv.uest.gr./
70. Georgopoulos, S. & **Papadaki, M.I**. (2015): Removal of Paracetamol from Aqueous Solutions by Photocatalysis and Phytoremediation. Proceedings of International Conference of "IWA Balkan Young Water Professionals 2015", Thessaloniki, Greece, 10 - 12 May 2015, http://www.bywp2015.gr/
71. Georgopoulos, S. & **Papadaki, M.I**. (2016): Removal-Degradation of Erythromycin from Aqueous Solutions by the Procedures of Phytoremediation and Photocatalysis. Submitted for oral presentation on the "Eurasia 2016 Waste Management Symposium", Istanbul, Turkey, 2 - 4 May 2016, http://www.eurasiasymposium.com/content/

Prize of Best Presentation

72. **M. Papadaki**, D. R. Stapleton and D. Mantzavinos, Photolytic Destruction of Halogeneated Pyridines in Wastewaters *1st International Conference on Engineering for Waste Valorisation (WasteEng),Albi, France, 16-19 May, 2005,* poster presentation.

Invited Speaker

73. **M. Papadaki,** "Replacement refrigerants" University of Edinburgh, UK March January1995
74. **M. Papadaki,** "Absolute measurement of thermal conductivity" University of Surrey, UK March 1995
75. **M. Papadaki,** "Runaway reactions" University of Sheffield, UK July 1997.
76. **M. Papadaki,** "Chemical reactor design " University of Leeds, UK March 1998.
77. **M. Papadaki,** "Reactor risk-assessment " Technical University of Crete, Greece, March 2001.
78. **M. Papadaki,** "Kinetic Studies of Runaway Reactions" University of Patras, Greece, February 2002.
79. **M. Papadaki,** "Thermophysical properties of fluids" Technical University of Athens, Greece, December 2002.
80. **M.Papadaki**, "Risk assessment studies of batch reactions that can lead to a runaway", presented at the 16th National symposium & *Ist Indo-German Conference, Hyderabad, INDIA Feb.6-8, 2003,* oral presentation.

81. **M. Papadaki,** "Runaway reactions and isothermal calorimetry" Indian Institute of Chemical Technology, Hyderabad, India November 2004.
82. **M.Papadaki**, "Calorimetric studies of batch reactions that can lead to a runaway", Texas A&M, May 2005
83. **M.Papadaki**, "Photolytic, photocatalytic and genotoxicity studies of chlorinated pyridines", Texas A&M, November 2009.

BOOKLETS etc (Research project number 9).

M. Papadaki, M. Fairweather and R. Wood, booklet "Towards minimisation of Natural gas and LPG Hazards and Accidents: Summary of British Legislation, Standards, Publications and Codes of Practice", September 2002.
Website: www.safegas.gr
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"Οδηγός Ορθής Πρακτικής Υγιεινής και Ασφάλειας Φυσικού Αερίου" booklet made by all partners
"Οδηγός Ορθής Πρακτικής Υγιεινής και Ασφάλειας Υγραερίου" booklet made by all partners.