

**CURRICULUM VITAE**  
**SCIENTIFIC ACTIVITY**

***DIMITRIOS K. IATRIDIS***  
***CHEMICAL ENGINEER, PhD***  
***PRINCIPAL OPERATING SCIENTIST***  
***CPERI/CERTH***

## CURRICULUM VITAE

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|-----------|--------------|
| Name      | Dimitrios    |
| Surname   | Iatridis     |
| Telephone | 2310, 498306 |

### EDUCATION

|                   |   |
|-------------------|---|
| 1970 – 1976       | High school of Thessaloniki (6 <sup>th</sup> gymnasium of Thessaloniki)   |
| 1977 – 1985       | Diploma of Chemical Engineer, School of Chemical Engineering, University of Palermo, Italy  |
| 1984-1985         | Diploma thesis, School of Chemical Engineering, University of Palermo, Italy. Title of diploma thesis: “Temperature influence of carbon dioxide absorption kinetics on carbonate – bicarbonate aqueous solutions”. Supervisor Prof.: L. Rizzuti |
| 1985 – 1989       | PhD, School of Chemical Engineering, University of Bath, United Kingdom. Title of PhD thesis: "The Modelling of Fluidized Bed Photoreactors with Flat Walls" Supervisor Prof.: Po Lock Yue  |
| 1989 – 1990       | Military service  |
| 1990 – 1992       | Postdoctoral scholarship, Chemical Process Engineering Research Institute (CPERI)   |
| 1992 – 2002       | Researcher under contract in CPERI / CERTH  |
| 2002 - 2006       | Associate operating scientist – Head of the Fluid Catalytic Cracking Pilot Plant Unit   |
| 2006 – up to date | Principal operating scientist – Head of the Fluid Catalytic Cracking Pilot Plant Unit   |

### SCHOLARSHIPS

|           |   |
|-----------|---|
| 1985-1987 | Philosophy Doctoral scholarship, University of Bath, United Kingdom |
| 1990-1992 | Postdoctoral scholarship, CPERI/CERTH                               |

## FOREIGN LANGUAGES

English, Italian

### A. RESEARCH ACTIVITIES

#### *A1. Publications in international journals with referees*

1. D. Iatridis, P.L. Yue, L. Rizzuti and A. Brucato, "The Absorption of Light Energy in Flat Fluidized Photoreactors" *The Chemical Engineering Journal*, Vol. 45, Pag. 1-8, 1990
2. L. Rizzuti, A. Brucato, D. Iatridis and P.L. Yue, "Light Transmittance and Reflectance of Flat Fluidized Photoreactors", *The Chemical and Biochemical Engineering Quarterly*, Vol. 6, No. 1, Pag. 19-23, 1992
3. A. Brucato, D. Iatridis, L. Rizzuti and P.L. Yue, "Modelling of light Transmittance and Reflectance in Flat Fluidized Photoreactors", *The Canadian Journal of Chemical Engineering*, Vol. 70, Pag. 1063-1070, 1992
4. G.J. Tjatjopoulos, P.T. Ketekides, D.K. Iatrides, I.A. Vasalos, "Cold Flow Model and Computer Simulation Studies of a Circulating Fluidized Bed Reactor for the Oxidative Coupling of Methane", *Catalysis Today*, Vol. 21, Pag. 387-399, 1994
5. Vasalos, A.A. Lappas, D.K. Iatridis, S.S. Voutetakis, "Design Construction and Experimental Results of a Circulating Fluid Bed FCC Pilot Plant, *IV CFB congress*, Beijing China, 408-413, 1996
6. S.S. Voutetakis, A.A.Lappas, D.K. Iatridis and I.A.Vasalos, "Control of an FCC pilot Plant", *Comp. Chem. Enging*, June, S1601-S1606, 1996
7. Lappas A.A, D. K. Iatridis and I. A. Vasalos, " Production of reformulated gasoline in the FCC unit. Effect of feedstock type on gasoline composition", *Catalysis Today*, 50, 73-85, 1999
8. A.A. Lappas, L. Nalbandian, D.K. Iatridis, S.S. Voutetakis, I.A. Vasalos, " Effect of Metals Poisoning on FCC Products Yields. Studies in an FCC Short Contact Time Pilot Plant Unit". *Catalysis Today*, 65, 233-240, 2001
9. E.A. Efthimiadis, A.A. Lappas, D.K. Iatrides and I.A. Vasalos, "Selective Catalytic Reduction of NO<sub>x</sub> by Hydrocarbons/Oxygenates. Application for the Control of NO<sub>x</sub> from the Regenerator of an FCC Pilot Plant Unit". *Ind. Eng. Res. Dev*, 40, 2, 515-521, 2001

10. E.A. Efthimiadis, E.F. Illiopoulou, A.A. Lappas, D.K. Iatrides and I.A. Vasalos, "NO Reduction Studies in the FCC Process. Evaluation of NO Reduction Additives for FCCU in Bench- and Pilot Plant- Scale Reactors". *Ind. Eng. Chem. Res.*, 41, 22, 5401-5409, 2002
11. G.M. Bollas, I.A. Vasalos, A.A. Lappas and D. Iatridis, "Modeling Small-Diameter FCC Riser Reactors. A Hydrodynamic and Kinetic Approach". *Ind. Eng. Chem. Res.*, 41, 5410-5419, 2002
12. A.A. Lappas, M.C. Samolada, D.K. Iatridis, S.S. Voutetakis, I.A. Vasalos, "Biomass pyrolysis in a circulating fluid bed reactor for the production of fuels and chemicals". *Fuel*, 81, 2087-2095, 2002
13. Bollas, G. M., Vasalos, I. A., Lappas, A. A., Iatridis D. K. and Tsioni, G. K., "Bulk Molecular Characterization Approach for the Simulation of FCC Feedstocks", *Ind. Eng. Chem. Res.*, 43, 13, 3270-3281, 2004
14. Illiopoulou E.F., Efthimiadis E.A., Lappas A.A., Iatridis D.K., Vasalos I.A., "Development and evaluation of Ir-based catalytic additives for the reduction of NO emissions from the regenerator of a fluid catalytic cracking unit", *Ind. Eng. Chem. Res.*, 43, 23, 7476-7483, 2004
15. Bollas G.M., Vasalos I.A., Lappas A.A., Iatridis D.K., Voutetakis S.S., Papadopoulou S.A., "Integrated FCC riser-regenerator dynamics studied in a fluid catalytic cracking pilot plant", *Chemical Engineering Science*, 62, 7, 1887-1904, 2007
16. Bollas G.M., Lappas A.A., Iatridis D.K., Vasalos I.A., "Five-lump kinetic model with selective catalyst deactivation for the prediction of the product selectivity in the fluid catalytic cracking process", *Catalysis Today*, 127, 31-43, 2007
17. Lappas A.A., Iatridis D.K., Vasalos I.A., "Production of liquid biofuels in a fluid catalytic cracking pilot plant unit using waxes produced from biomass to liquid (BtL) process", *Ind. Eng. Chem. Res.*, submitted for publication, accepted after revision, expected to be published in the next editions, 2010

## ***A2. Publications in conferences and presentations***

1. D. Iatridis and P.L. Yue, "Light Absorption in Fluidized Photoreactors", *NATO-ASI*, Series C, Vol. 237, Pag. 693, Kluwer Academic Publishers, Netherlands, 1988
2. D.K. Iatridis, K.T. Kotoulas, and I.A.Vasalos, "A Step by Step Design of a Fluid Catalytic Cracking Pilot Plant Unit", *Technika Chronika Scientific Journal of the Technical Chamber of Greece-Section C*, Vol. 13, 3-4, Page 23-44, 1993
3. A.Lappas, D.Iatridis, S. Voutetakis, D. Patiaka and I.A.Vasalos, "Technology Development for Environmental Gasoline Production – Methodology Development for Gasoline Analysis ", *HELECO '95*, 292-299, Athens 1995
4. A.A.Lappas, D.K.Iatridis and I.A.Vasalos, "Production of Reformulated Gasoline in the FCC unit." *3rd International Conference in Protection and Restoration of the Environment III*, Xania Krete Greece, 626-633, 25-28 August 1996
5. A.A.Lappas, D.K.Iatridis and I.A.Vasalos, "Influence of the operating conditions and the quality of feedstock in the composition of gasoline produced in FCCU", 1<sup>st</sup> PanHellenic Conference of the Institution of Chemical Engineers of Greece, Page 515-520, Patras, May 1997.
6. A.A.Lappas, D.K.Iatridis and I.A.Vasalos, "Production of Reformulated Gasoline in the FCC Unit. Effect of Feedstock Type on Gasoline Composition", *ACS meeting*, Las Vegas, September 1997
7. A.A.Lappas, D.K.Iatridis, M. Samolada and I.A.Vasalos, "Production of Fuel Transport by Bio-oil Intake in the Fluid Catalytic Cracking Unit", 2<sup>nd</sup> PanHellenic Conference of the Institution of Chemical Engineers of Greece, Page 437-440, Thessaloniki, 27-29 May 1999.
8. A.A.Lappas, D.K.Iatridis, S.S. Voutetakis and I.A.Vasalos, "Effect of Metals Poisoning on FCC Product yields. Studies in an FCC SCT Pilot Plant Unit, *Europacat IV*, Rimini 5-10 September 1999
9. Lappas A. A., Iatridis D. K., Voutetakis S.S., Samolada M. C. and I. A. Vasalos, "Catalytic biomass pyrolysis in a circulating fluid bed reactor for the production of fuels and chemicals", Topical Conf. Proc. "Energy and the Environment", *AIChE Annual Meeting*, Nov. 12-17, 2000, LA, CA, USA, p382-386

10. Lappas A. A., Iatridis D. K., and I. A. Vasalos, 'Propylene maximization in a FCC pilot plant unit using ZSM-5 additive', *AIChE Annual Meeting*, Nov. 12-17, 2000, LA, CA, USA
11. Lappas, A. A., Samolada M. C., Voutetakis S.S., Iatridis D.K. and I. A. Vasalos, "Catalytic Biomass Pyrolysis: A promising approach for the conversion of biomass to fuels and chemicals", *Proc. 1st World Conf. and Exhibition on Biomass for Energy and Industry*, 5-9 June, 2000, Sevilla, Spain
12. A.A.Lappas, S.S.Voutetakis, D.K.Iatridis, I.A.Vasalos, "Interaction between catalyst Accessibility, riser design and feedstock properties on FCC products", *2<sup>nd</sup> Bi-annual Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean (EMCC-2)*, Ankara Turkey, May 20-24, 2001
13. A.A.Lappas, S.S.Voutetakis, D.K.Iatridis, I.A.Vasalos, "Tracking the performance of FCC catalysts from the laboratory to the commercial units", Conference "European Catalysts meets China" *ACHEMASIA from DECHEMA*, Beijing China, May 7-12, 2001
14. L.M. Fletcher, D.K.Iatridis, A.N.Katsanevakis, A.A.Lappas, O.Monachos, M. Pourkashanian, A.Williams, "A New Approach to Optimize Ceramic Kiln Operation Utilizing Industrial Gas Turbine Exhaust gases", Lisbon Portugal May 2001
15. A. A. Lappas, E.S. Kikkinides, S.S.Voutetakis, D. K. Iatrides, I.A.Vasalos, "Interaction between catalyst accessibility, riser design and feedstock properties on FCC products", *ISCRE 17*, Hong Kong, August 2002,
16. Iliopoulou E.F., Efthimiadis E.A., Lappas A.A., Iatridis D.K., Vasalos I.A., "Study of the reduction of NO emissions produced during Fluid Catalytic Cracking Process. Evaluation of catalyst additives for the reduction of NO emissions from laboratory and pilot scale units". *1<sup>st</sup> Scientific symposium of CPERI, Thessaloniki, 6-7 December 2002.*
17. G. M. Bollas, A. A. Lappas, D. K. Iatridis and I. A. Vasalos, "An Integrated Riser-Regenerator Model for the Simulation of Pilot and Commercial FCC Units" *4th European Congress of Chemical Engineering*, Granada Spain 21-25 September 2003
18. A.A. Lappas, D.K. Iatridis, I.A. Vasalos, H. Rhemann, G. Schwarz, S. Lonka, P. Heinonen, G. Spyridaki and Y. Psychogios, "Case studies of the strategies used to reduce NOx emissions at three European refineries. CO and feed nitrogen effects on emissions

were taken into account, and a significant reduction in emissions was achieved with the use of additives” *Petroleum Technology Quarterly*, Q1, 2005, p59-67

19. Bollas G.M., Lappas A.A., Voutetakis S.S., Iatridis D.K., Papadopoulou S.A “Development and validation of a dynamic model of the Fluid Catalytic Cracking pilot plant unit of CPERI”, 5<sup>th</sup> PanHellenic conference of the Institution of Chemical Engineers of Greece, Page 209-212, Thessaloniki, 26-28 May 2005.
20. GM Bollas, AA Lappas, DK Iatridis, and IA Vasalos “Five-lump kinetic model with selective catalyst deactivation for the prediction of the product selectivity, in the fluid catalytic cracking process”, 7<sup>th</sup> *World Congress of Chemical Engineering*, Glasgow Scotland 10-14 July 2005
21. A.A.Lappas, D.K.Iatridis and I.A.Vasalos, “Production of liquid biofuels in a fluid catalytic cracking pilot plant unit using waxes produced from Biomass To Liquid (BTL) process”, (pages 1-18), ERTC 12<sup>th</sup> Annual Meeting, Barcelona, Spain, 19-21 Nov. 2007
22. Cheryl M. Joyal, Matthew J. Westby, Angelos A. Lappas, Dimitrios K. Iatridis, Iacovos A. Vasalos, “Pilot Plant Evaluation of FCCU Catalyst Technology and Use of Data for Commercial Catalyst Applications”, (pages 1-21), AM-08-52, National Petrochemical Refiners Association, NPRA, Annual Meeting Manchester Grand Hyatt Hotel, Technical Papers, San Diego, CA, USA, March 9-11, 2008

### ***A3. Research projects***

1. “Increase the competitive of Greek refineries” Program STRIDE 1993-1994. Scientific responsible / coordinator: Prof. I.A.Vasalos
2. “Development and economic evaluation of environmental fuels”, Program EIET EKBAN#12, Partners CPERI, EIXHMYΘ, HAR, MOTOR OIL, 1995-1997. Scientific responsible / coordinator: Prof. I.A.Vasalos
3. “Catalytic Pyrolysis of Biomass for Improved Fuel Quality”, JOR3-CT95-0081, 1995-1997. Scientific responsible / coordinator: Prof. I. A. Vasalos
4. “Catalytic Cracking of the Future”, CPERI, AMOCO, AKZO 1997-1999, Scientific responsible / coordinator: Prof. I. A. Vasalos

5. “Novel catalytic processes for the removal of NO<sub>x</sub> and volatile organic compounds from stationary sources”, Environment 1995-1998, Scientific responsible / coordinator: Prof. I. A. Vasalos
6. “Optimization of refinery processes with development and application of catalysts, Program EIIET EKBAN#39, 1998-2001. Scientific responsible / coordinator: Prof. I. A. Vasalos
7. “DENO<sub>x</sub> Process for the refinery of the Future”, Program GROWTH 1999-2001, Scientific responsible / coordinator: Prof. I. A. Vasalos
8. “Optimization of Industrial Kilns by Means of Using Low O<sub>2</sub> Content Flue-Gases Generated by Gas-Turbine Cogeneration Sets”, Project CRAFT, Participants: ENFL, IPA, UN.LEEDS, CPERI, DYNI, KOTH, PHIL., 1998-2000, Scientific responsible / coordinator: Dr. A.A. Lappas
9. “Application of Catalyst Evaluation Technology of Petroleum Refinerie”, Program AKMON. 2003 – 2006. Scientific responsible / coordinator: Prof. I. A. Vasalos
10. “Renewable Fuels for Advanced Power Trains” European Union, Contract No. SES6-CT-2003-502705, 2004-2008, Scientific responsible / coordinator: Dr. A.A. Lappas.
11. “Optimized Fuels for Sustainable Transport in Europe” European Union, Contract No. 218890, 2009-2012, Scientific responsible / coordinator: Dr. A.A. Lappas

## **B. Applied research projects and / or other scientific services**

I participate in the following projects. Position in the projects: Head of the Fluid Catalytic Cracking Pilot Plant Unit of CPERI.

- BP project. “Evaluation of 20 FCC catalysts in FCC pilot plant unit. Project length 3 years, project start January 2001. Scientific responsible / coordinator: Prof. I. A. Vasalos
- OMV project. “Evaluation of 4 FCC catalysts in FCC pilot plant unit. Project length September 2001 – October 2001. Scientific responsible / coordinator: Prof. I. A. Vasalos



- OMV project. “Evaluation of FCC catalysts in the FCC pilot plant unit of CPERI”. 2002-2005. Scientific responsible / coordinator: Prof. I. A. Vasalos.
- BP project. “Evaluation of FCC catalysts in the FCC pilot plant unit of CPERI”. 2002-2007. Scientific responsible / coordinator: Prof. I. A. Vasalos.
- HAR project. “Evaluation of FCC catalysts in the FCC pilot plant unit of CPERI”. 2002-2008. Scientific responsible / coordinator: Dr. A.A. Lappas / Prof. I. A. Vasalos.
- SRC project. “Evaluation of FCC catalysts in the FCC pilot plant unit of CPERI”. 2003. Scientific responsible / coordinator: Prof. I. A. Vasalos.
- ALBEMARLE project. “Evaluation of FCC catalysts in the FCC pilot plant unit of CPERI”. 2003-2005. Scientific responsible / coordinator: Dr. A.A. Lappas / Prof. I. A. Vasalos.
- INA project. “Evaluation of FCC catalysts in the FCC pilot plant unit of CPERI”. 2004-2005. Scientific responsible / coordinator: Dr. A.A. Lappas / Prof. I. A. Vasalos.
- PETROM project. “Evaluation of FCC catalysts in the FCC pilot plant unit of CPERI”. 2005. Scientific responsible / coordinator: Dr. A.A. Lappas / Prof. I. A. Vasalos.
- PKN project. “Evaluation of FCC catalysts in the FCC pilot plant unit of CPERI”. 2005. Scientific responsible / coordinator: Dr. A.A. Lappas / Prof. I. A. Vasalos.
- BAYERN OIL project. “Evaluation of FCC catalysts in the FCC pilot plant unit of CPERI”. 2005. Scientific responsible / coordinator: Prof. I. A. Vasalos.
- CHEVRON - CALTEX project. “Evaluation of FCC catalysts in the FCC pilot plant unit of CPERI. 2006. Scientific responsible / coordinator: Prof. I. A. Vasalos.

## **C. OTHER ACTIVITIES**

### ***C1. Continuous Education***

1. “The use of computers as a tool in the research and production”, CPERI, duration 75 hours, June 1991 - November 1991.

2. “Education of Chemical Engineers in the subject of Natural Gas”, PanHellenic Institution of Chemical Engineers / Northern Greece, duration 250 hours, October 1991-December 1991.
3. “Fluidisation XXXIV seminar and workshop” organized by Particulate Solid Research Incorporation (PSRI), Nice, France, March 15-19, 1999.
4. “Effective Writing for Researchers”, CPERI, Thessaloniki, Ryba Associates, Inc., 3-5 May 1999.
5. “Health and Safety – Fire Safety”, Techno-economic S.A., Thessaloniki / CPERI, duration 16 hours, April 2003.
6. “Statistical process control & six sigma”, Advanced Quality Services, Thessaloniki / CPERI, 16 hours, April 2004.
7. “Fluid Catalytic Cracking Process Technology” organized by Refining Process Services, Seminar at Hotel Sofitel, Houston, Texas, USA, May 4-6, 2004.
8. “Fluid Catalytic Cracking Troubleshooting Course” organized by ALBEMERLE, , Amsterdam, Netherlands, 22-23 January 2009

## ***C2. Teaching Experience***

1. 1986/87 - 1987/88: Demonstrator of the 2<sup>nd</sup> year of the School of Chemical Engineering, University of Bath, United Kingdom.
2. 1990/91 : Demonstrator of the 7<sup>th</sup> semester of “Solid Fuel Processes” Laboratory of Petrochemical Technology, School of Chemical Engineering, University of Thessaloniki, Laboratory Head Prof. I. A. Vasalos.
3. 1990/91 : Supervision of diploma thesis “Study and operation of a cold flow model (pilot plant scale) of Fluid Catalytic Cracking” Laboratory of Petrochemical Technology, School of Chemical Engineering, University of Thessaloniki, Laboratory Head Prof. I. A. Vasalos.

### ***C3. Participation in evaluation of scientific papers***

1. 2009 : Referee in the Journal “Chemical Engineering Research and Design”  
Elsevier, United Kingdom

### **D. Citation index (excluding self citations)**

1. Citation index excluding self citations : 92