CURRICULUM VITAE

ELENI HERACLEOUS

November 2010

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1. PERSONAL DATA

NAME: Eleni Heracleous

DATE / PLACE OF BIRTH: 20 September 1977 / Cyprus

OCCUPATION: Ph.D. Dipl.-Ing. Chemical Engineer - Associate Research Scientist at the Centre for Research and Technology Hellas (CERTH)

WORK ADDRESS: Chemical Process Engineering Research Institute (CPERI)
Centre for Research and Technology Hellas (CERTH)
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2. EDUCATION

2.1. University studies

2000 – 2005 **Ph.D. in Chemical Engineering** (Excellent)
Aristotle University of Thessaloniki, Department of Chemical Engineering
Thesis title: "Novel selective catalytic process for the production of ethylene"
Supervisor: Associate Professor Angeliki A. Lemonidou

1995 – 2000 **Dipl.-Ing. in Chemical Engineering** (Graduation grade: 8.2/10)
Aristotle University of Thessaloniki, Department of Chemical Engineering
Diploma Thesis title: "Non-conventional methods for ammonia synthesis"
Technical&Economical Plant Design Project: "Design of a citric acid production plant"

1992 – 1995 **Lyceum certificate** (Graduation grade: 19.9/20)
Pallouriotissa Lyceum, Nicosia, Cyprus

2.2. Post-graduate education & training

11/2006	Training seminar series entitled: "Fuel Product and Product Quality Management", organized by Shell Global Solutions
9-13/10/2006	Training seminar series entitled: "Fuels Technical Training Course", organized by Shell Global Solutions, Shell Technology Centre Thornton, Chester, UK
5/2005	Seminar series organized by the Research Committee of the Aristotle University of Thessaloniki (AUTH), Greece Main topics covered in the frame of the seminar series: Composing & Submitting Research Proposals, Research Methodology, Research Management, Quality Management, Benchmarking, Innovation & New Product Development, Intellectual Property Rights
19/4-7/5/2004	Department of Chemistry, University of York, Great Britain 3-week visit in the frame of collaboration between the University of York and the Aristotle University of Thessaloniki Performed characterization of metal oxide catalysts with X-ray Photoelectron Spectroscopy (XPS) and UV-vis Diffuse Reflectance Spectroscopy (DRUVS)
8-16/12/2003	Seminar entitled: "Exploitation of natural gas resources", organized by the Aristotle University of Thessaloniki (AUTH) and the Centre of Research and Technology Hellas (CERTH), Thessaloniki, Greece
12/2002	Department of Technical Chemistry, Technical University of Munich, Germany 1-month visit in the frame of a Greek-German bilateral research project between the Technical University of Munich and the Aristotle University of Thessaloniki Performed in situ Infrared Spectroscopy (IR) studies for elucidating the reaction mechanism of ethane oxidative dehydrogenation over metal oxide catalysts
13-15/6/2001	Seminar on Gas Chromatography, organized by the Chemical Process Engineering Research Institute (CERTH/CPERI), Thessaloniki, Greece
28/3-1/4/2001	1st EFCATS School on Catalysis, "New trends in Catalysis and Application", organized by the European Federation of Catalysis Societies (EFCATS), Prague, Czech Republic

2.3. Language skills

English (fluently)	IELTS (International English Language Testing System), Band score: 8/9, Proficiency General Certificate of Education 'O-level' in English Cambridge First Certificate in English
French (good)	General Certificate of Education 'O-level' in French
German (basic)	Berlitz Level 3

2.4. Computer skills

Competent with most Microsoft computer programs
Microsoft Office (Word, Excel, PowerPoint, Access)
Visio, MatLab, Aspen, Spectra Processing Software (Grams, Jascow, PowderCell, CasaXPS, Universal Analysis etc)

3. PROFESSIONAL & RESEARCH ACTIVITIES

2009 - today — Laboratory of Reformulated Fuels and Hydrocarbons, Chemical Process Engineering Research Institute (CPERI/CERTH), Thessaloniki – ***Associate Researcher***
Development/testing/physicochemical characterization of catalysts for the production of ethylene via ethane oxidative dehydrogenation and higher alcohols production from biomass.

2008 — Laboratory of Reformulated Fuels and Hydrocarbons, Chemical Process Engineering Research Institute (CPERI/CERTH), Thessaloniki – ***Marie-Curie Fellowship***
Development and assessment of alternative heating fuels via life cycle analysis (LCA); determination of the properties of the biofuels under study and testing in domestic/industrial/marine applications. ***Continuation of the Marie-Curie research project in collaboration with Shell Global Solutions***

2006 – 2007 — PAE-Labor, Shell Global Solutions (Deutschland) GmbH, Hamburg, Germany – ***Marie-Curie Host Fellowship***
Development and assessment of alternative heating fuels via life cycle analysis (LCA); environmental impact of biofuels (biodiesel, vegetable oil, pyrolysis oil etc) and synthetic fuels (GTL – gas to liquids, BTL etc); suitability of alternative fuels for use as heating fuels and upgrading methods

2003 – 2005 Laboratory of Petrochemical Technology, Department of Chemical Engineering, Aristotle University of Thessaloniki
Development of metal oxide catalysts (supported early transition metal oxides, multicomponent supported and bulk Ni-based oxides) for the production of ethylene via ethane oxidative dehydrogenation; preparation, physicochemical characterization and testing of the catalysts; study of reaction mechanism with various in situ, isotopic and transient techniques; development of kinetic model describing the catalytic performance in the ethane oxidative dehydrogenation reaction

2000 – 2002 Laboratory of Reformulated Fuels and Hydrocarbons, Chemical Process Engineering Research Institute (CPERI/CERTH), Thessaloniki
Preparation and characterization of transition metal oxides with various physicochemical techniques

7-9/1999 Oceanographic Company of Norway ASA (Oceanor), Trondheim, Norway
Participation in R&D project supported by The Norwegian Research Council and Oslo Airport AS for the development of an online voltametric analyzer for the detection of heavy metals in the soil
Testing of glassy carbon electrodes, performed both experimental and statistical work

PARTICIPATION IN RESEARCH PROJECTS

1. "EuroBioRef - EUROpean multilevel integrated BIOREFinery design for sustainable biomass processing", EU Collaborative Project FP7-2009-BIOREFINERY_CP, Project Duration: 48 months, project approved and expected to start 03/2010

2. "Optimized Fuels for Sustainable Transport in Europe", EU Collaborative Project ENERGY.2007.3.2.5: Synthetic biofuels via gasification, 2008-2012

3. "Alkanes to light olefins via novel catalysts and process schemes: AL2OL", Εγκεκριμένο Έργο της 1ης Κοινής Ευρωπαϊκής Προκήρυξης του ACENET-ERANET, Κωδικός έργου: ACE.07.003, Γενική Γραμματεία Έρευνας και Τεχνολογίας, 2009-2012

4. "Novel efficient catalysts for bio-syngas conversion to C_2-C_4 alcohols: GAS2ALCO", Marie-Curie European Reintegration Grant (ERG), Contract No: PERG04-GA-2008-235058, 2009-2012

5. "CO_2 reduction through automotive bio-component & sustainable step changes in fuels and lubricants performance: SUSTAINABLE FUELUBE", Marie-Curie Host Fellowship for the Transfer of Knowledge (ToK), Industry-Academia Partnership Scheme, Contract No: MTKI-CT-2004-509777, 2006-2008

6. "CO-ordination of Nanostructured Catalytic Oxides Research and Development in Europe: CONCORDE", European Union Coordination Action, FP6 Contract No: NMP2-CT-2004-505834, 2004-2006

7. "Novel selective catalytic processes for the production of ethylene and propylene", National Research Programme supported by the General Secretariat for Research and Technology (GSRT) Hellas, 2003-2006

8. "Novel nanoscopically tailored cracking catalysts for the efficient production of ethene and propene", Greek-German Joint Research and Technology Programme supported by the General Secretariat for Research and Technology (GSRT) Hellas, 2002-2004

4. TEACHING EXPERIENCE

April 2010	Invited instructor at the educational seminar series **"Introduction to Instrumental Analysis Techniques",** organized by the Dept of Chemical Engineering, AUTH, in the frame of postgraduate and Ph.D. students training seminars. Covered topic: **"Characterization of solid catalysts via temperature-programmed methods"** (1 hour)
Summer semester 2007/08	Temporary lecturer at the Department of Chemical Engineering of the Aristotle University of Thessaloniki. Teaching of 4th year elective course "Liquid Fuel Processes". Course description: Physical and Chemical Refinery Processes for the Production of Liquid Fuels, Processes for the Production of Biofuels, LCA for the Environmental Assessment of Biofuels
February 2008	Invited instructor at the educational seminar series **"Bioenergy and Biofuels"** (80 hours), organized by the Centre of Research and Technology Hellas (CERTH) in the frame of the project Networks for Research and Technology Training. Covered topic: **"Biofuels and Environment"** (6 hours)
December 2007	Invited instructor at the educational seminar series **"Utilization of biomass for the production of alternatives fuels and high-added value chemicals",** co-organized by the Aristotle University of Thessaloniki (AUTH) and the Centre of Research and Technology Hellas (CERTH) in the frame of the project Networks for Research and Technological Training. Covered topics: **"Evaluation of the environmental impacts of biofuels via Life Cycle Analysis"** (5 hours).
Winter semester 2005/06	Teaching assistant in the laboratory course **"Selective Catalytic Reduction of NO_x emissions with hydrocarbons in refinery units"**, in the frame of the elective course Environment Laboratory I of the Department of Chemical Engineering, AUTH

Summer semesters 02/03, 03/04 Teaching assistant in the laboratory course **"Determination of diesel fuel properties – Diesel Fuel Specifications"**, in the frame of the obligatory 4th year course Chemical Engineering Laboratory II of the Department of Chemical Engineering, AUTH

CO-SUPERVISION OF UNDERGRADUATE DIPLOMA THESIS

1. A. Gemenentzi, **"Assessment of alternative solid biofuels for use as domestic heating fuels"**, Department of Chemical Engineering, AUTH, July 2010 - ***The diploma thesis was conducted in collaboration with Shell Global Solutions (Deutschland) GmbH at their site in Hamburg, Germany***

2. M. Kalaitzidou, "**Life Cycle Analysis for the evaluation of the environmental impacts of hydrogen production form bio-oil",** Department of Chemical Engineering, AUTH, July 2010

3. M. Kalaitzis, **"Comparison of the environmental impacts of 2nd generation bioethanol production via thermochemical and bioenzymatic processes using the Life Cycle Analysis method",** Department of Chemical Engineering, AUTH, July 2010

4. Z. Skoufa, **"Mixed nickel-based oxides for the oxidative dehydrogenation of ethane to ethylene: Study of the oxygen activation mechanism with isotopic oxygen $^{18}O_2$",** Department of Chemical Engineering, AUTH, July 2009

5. Ch. Doulgeridis, **"Oxidative dehydrogenation of ethane to ethylene over mixed nickel-based oxides: Effect of the preparation method",** Department of Chemical Engineering, AUTH, July 2009

6. D. Sfakianakis, **"Investigation of active and selective nickel-based mixed oxides for the oxidative dehydrogenation of ethane to ethylene",** Department of Chemical Engineering, AUTH, March 2009

7. K. Goulas, **"Assessment of alternative pellets in a domestic heating wood pellet burner",** Department of Chemical Engineering, AUTH, January 2009 - ***The diploma thesis was conducted in collaboration with Shell Global Solutions (Deutschland) GmbH at their site in Hamburg, Germany***

8. K. Panou, Ch. Panou, **"Kinetic analysis and mathematical modeling of the temperature-programmed reduction (TPR-H_2) of Ni-Cu/Al_2O_3 catalysts",** Department of Chemical Engineering, AUTH, July 2004

5. SCIENTIFIC RECOGNITION/ACHIEVEMENTS

5.1. Scholarships

Marie Curie Grant *Reintegration grant in the frame of the European Scheme "Marie-Curie European Reintegration Grants, Support for training and career development of researchers"* **2009-2012**

Marie Curie Fellowship *Post-doctoral scholarship in the frame of the European Scheme "Marie-Curie Host Fellowships for the Transfer of Knowledge (ToK), Industry-Academia Partnership Scheme"* **2006-2008**

State Scholarships Foundation (IKY) *Scholarship for excellent academic performance* **1995**

5.2. Memberships in scientific/professional organizations

Member, Technical Chamber of Greece (TEE-TCG)
Member, Panhellenic Society of Chemical Engineers
Member, Hellenic Catalysis Network
Licensed Chemical Engineer

5.3. Organization of scientific conferences

Member of the organizing committee for the summer school "Catalysis Lectures for Environmental Applications and Renewable – CLEAR", 24-29 May 2009, Chalkidiki. Organizers: ACENET & EFCATS under the auspices of CERTH, IDECAT and ERIC.

5.4. Refereeing in international scientific journals

- Applied Catalysis A: General
- Applied Catalysis B: Environmental
- Catalysis Communications
- Catalysis Today
- Chemical Engineering Communications
- Chemical Engineering Journal
- Fuel
- Fuel Processing Technology
- Journal of Catalysis
- Journal of Molecular Catalysis A: Chemical
- Journal of Natural Gas Chemistry
- Thermochimica Acta

5.5. International acclaim of research activities

A/A	Journal	No. of papers	Impact Factor 2008
1	Journal of Catalysis	5	5,167
2	Applied Catalysis A: General	4	3,190
3	Catalysis Today	3	3,004
4	Journal of Molecular Catalysis A: Chemical	1	2,814
5	Catalysis Letters	1	1,867
6	Ind. & Eng. Chemistry Research	1	1,895
7	Chemical Engineering Journal	1	2,813
8	Applied Catalysis B: Environmental	1	4,853
	SUM	**17**	
	NUMBER OF CITATIONS (excl self-citations)	*187*	
	h index	*9*	

6. PUBLICATIONS

6.1. Publications in peer-reviewed journals

A1. **E. Heracleous**, A.A. Lemonidou, "Ni-Me-O mixed metal oxides for the effective oxidative dehydrogenation of ethane to ethylene - Effect of promoting metal Me", *Journal of Catalysis* 270 (2010) 67

A2. M.L. Rodriguez, D.E. Ardissone, **E. Heracleous**, A.A. Lemonidou, E. Lopez, M.N. Pedernera, D.O. Borio, "Oxidative dehydrogenation of ethane to ethylene in a membrane reactor: a theoretical study", *Catalysis Today* 157 (2010) 303

A3. E.S. Vasiliadou, **E. Heracleous**, I.A. Vasalos, A.A. Lemonidou, "Ru-based catalysts for glycerol hydrogenolysis", *Applied Catalysis B: Environmental* 92 (2009) 90 (hetero-citations: 1)

A4. M.L. Rodriguez, D.E. Ardissone, **E. Heracleous**, A.A. Lemonidou, E. López, M.N. Pedernera, D.O. Borio, "Simulation of a membrane reactor for the catalytic oxydehydrogenation of ethane", *Industrial & Engineering Chemistry Research* 48 (2009) 1090

A5. E. Lopez, **E. Heracleous**, A.A. Lemonidou, D.O. Borio, "Study of a multitubular fixed-bed reactor for ethylene production via ethane oxidative dehydrogenation", *Chemical Engineering Journal* 145 (2008) 308 (hetero-citations: 1)

A6. **E. Heracleous**, A. Delimitis, L. Nalbandian, A.A. Lemonidou, "HRTEM characterization of the nanostructural features formed in highly active Ni-Nb-O catalysts for ethane ODH", *Applied Catalysis A: General* 325 (2007) 220 (hetero-citations: 3)

A7. A. Christodoulakis, **E. Heracleous**, A.A. Lemonidou, S. Boghosian, "An operando Raman study of structure and reactivity of alumina-supported molybdenum oxide catalysts for the oxidative dehydrogenation of ethane", *Journal of Catalysis* 242 (2006) 16 (hetero-citations: 14)

A8. **E. Heracleous**, A.A. Lemonidou, "Reaction pathways of ethane oxidative and non-oxidative dehydrogenation on γ-Al_2O_3 studied by temperature-programmed reaction (TP-reaction)", *Catalysis Today* 112 (2006) 23 (hetero-citations: 5)

A9. **E. Heracleous**, A.A. Lemonidou, "Ni-Nb-O mixed oxides as highly active and selective catalysts for ethene production via ethane oxidative dehydrogenation. I. Characterization and catalytic performance", *Journal of Catalysis* 237 (2006) 162 (hetero-citations: 19)

A10. **E. Heracleous**, A.A. Lemonidou, "Ni-Nb-O mixed oxides as highly active and selective catalysts for ethene production via ethane oxidative dehydrogenation. II. Mechanistic aspects and kinetic modelling", *Journal of Catalysis* 237 (2006) 175 (hetero-citations: 15)

A11. **E. Heracleous**, A.F. Lee, K. Wilson, A.A. Lemonidou, "Investigation of Ni-based alumina supported catalysts for the oxidative dehydrogenation of ethane to ethylene: Structural characterization and reactivity studies", *Journal of Catalysis* 231 (2005) 159 (hetero-citations: 31)

A12. **E. Heracleous**, M. Machli, A.A. Lemonidou, I.A. Vasalos, "Oxidative dehydrogenation of ethane and propane over vanadia and molybdena supported catalysts", *Journal of Molecular Catalysis A: Chemical* 232 (2005) 29 (hetero-citations: 40)

A13. **E. Heracleous**, A.A. Lemonidou, "Homogeneous and heterogeneous pathways of ethane oxidative and non-oxidative dehydrogenation studied by Temperature-Programmed Reaction", *Applied Catalysis A: General* 269 (2004) 123 (hetero-citations: 9)

A14. **E. Heracleous**, J. Vakros, A.A. Lemonidou, Ch. Kordulis, "Role of preparation parameters on the structure-selectivity properties of MoO_3/Al_2O_3 catalysts for the oxidative dehydrogenation of ethane", *Catalysis Today* 91-92 (2004) 289 (hetero-citations: 6)

A15. **E. Heracleous**, A.A. Lemonidou, J.A. Lercher, "Mechanistic features of the ethane oxidative dehydrogenation by in situ FTIR spectroscopy over a MoO_3/Al_2O_3 catalyst", *Applied Catalysis A: General* 264 (2004) 73 (hetero-citations: 16)

A16. **E. Heracleous**, A.F. Lee, I.A. Vasalos, A.A. Lemonidou, "Surface properties and reactivity of Al_2O_3-supported MoO_3 catalysts in ethane oxidative dehydrogenation", *Catalysis Letters* 88 (2003) 47 (hetero-citations: 9)

A17. M. Machli, **E. Heracleous**, A.A. Lemonidou, "Effect of Mg addition on the catalytic performance of V-based catalysts in oxidative dehydrogenation of propane", *Applied Catalysis A: General* 236 (2002) 23 (hetero-citations: 18)

6.2. Publications in peer-reviewed books

B1. **E. Heracleous**, A. Lappas, "Production of biofuels via Fischer-Tropsch (FT) Synthesis", In R. Luque, J. Campelo, J.H. Clarck (Eds), *'Handbook of biofuels production - Processes and Technologies',* Woodhead Publishing, Cambridge, UK, 2010 ***forthcoming***

6.3. Publications in peer-reviewed conference proceedings

C1. **E. Heracleous**, A.A. Lemonidou, "Selective oxidation of C_2-C_3 alkanes to alkenes - Use of nanostructured oxidic catalysts", *La Chimica e L' Industria* 10 (2007) 120

C2. E. López, **E. Heracleous**, A.A. Lemonidou, D.O. Borio, "Study of a wall-cooled multitubular fixed-bed reactor for ethylene production via ethane oxidative dehydrogenation", Proceedings of the XV Congreso Argentino de Catalisis, La Plata (Αργεντινή), Νοέμβριος 12-16, 2007

6.4. Conference presentations/publications in conference proceedings

D1. **E. Heracleous,** E.F. Iliopoulou, A.A. Lappas, "Upgrading of BTL-naphtha via isomerization", 11th Panhellenic Catalysis Symposium, Athens (Greece), October 22 - 23, 2010

D2. Z. Skoufa, **E. Heracleous**, A.A. Lemonidou, "Elucidation of the role of the doping metal in mixed nickel oxides via advanced mechanistic and kinetic studies", 11th Panhellenic Catalysis Symposium, Athens (Greece), October 22 - 23, 2010

D3. Z. Skoufa, **E. Heracleous**, A.A. Lemonidou, "Comparative kinetic study of Ethane Oxidative Dehydrogenation over NiO and Nb-doped NiO", 4th IDECAT Conference on Catalysis 'Emerging Challenges in Catalysis', Porquerolles (France), May 12-19, 2010

D4. E.S. Vasiliadou, **E. Heracleous**, A.A. Lemonidou, "Valorization of biodiesel by-products: catalytic hydrogenolysis of glycerol to high added value chemicals", 3o Conference in Green Chemistry & Sustainable Development, Thessaloniki (Greece), September 25-27, 2009

D5. E.S. Vasiliadou, **E. Heracleous**, A.A. Lemonidou, "Effect of support and metal precursor on the hydrogenolysis of glycerol over Ru catalysts", 9th European Congress in Catalysis, Salamanca (Spain), August 30 - September 4, 2009

D6. **E. Heracleous**, D. Sfiakianakis, A.A. Lemonidou, "Ni-based mixed metal oxides for the effective oxidative dehydrogenation of ethane to ethylene", 6th World Congress on Oxidation Catalysis, Lille (France), July 5-10, 2009

D7. M.L. Rodriguez, D.E. Ardissone**, E. Heracleous**, A.A. Lemonidou, E. Lopez, M.N. Pedernera, D.O Borio, "Analysis of a multitubular membrane reactor for the oxidative dehydrogenation of ethane to ethylene", 6th World Congress on Oxidation Catalysis, Lille (France), July 5-10, 2009

D8. **E. Heracleous,** Ch. Doulgeridis, A.A. Lemonidou, "Oxidative dehydrogenation of ethane to ethylene over nickel-based mixed oxides: Effect of preparation method", 7th Panhellinic Chemical Engineering Conference, Patras (Greece), June 3-5, 2009

D9. E.S. Vasiliadou, **E. Heracleous**, A.A. Lemonidou, "Glycerol upgrading to high added value chemicals: Hydrogenolysis to 1,2-propanediol", 7th Panhellinic Chemical Engineering Conference, Patras (Greece), June 3-5, 2009

D10. E.S. Vasiliadou, **E. Heracleous**, I.A. Vasalos, A.A. Lemonidou, "Hydrogenolysis of glycerol over ruthenium catalysts", 10th Panhellenic Catalysis Symposium, Metsovo (Greece), October 3 - 4, 2008

D11. M.L. Rodriguez, D.E. Ardissone, **E. Heracleous**, A.A. Lemonidou, E. López, M.N. Pedernera, D.O. Borio, "Simulation of a membrane reactor for the catalytic oxydehydrogenation of ethane", Mexican Congress on Chemical Reaction Engineering (MCCRE 2008), Ixtapa-Zihuatanejo, Guerrero (Mexico), June 15-19, 2008

D12. **E. Heracleous**, F. Haase, I.A. Vasalos, "Not all biofuels are equal: Using Life Cycle Analysis to assess environmental impacts of different biofuels", 3rd Environmental Conference of Macedonia, Thessaloniki (Greece), March 14-17, 2008

D13. E. López, **E. Heracleous**, A.A. Lemonidou, D.O. Borio, "Study of a wall-cooled multitubular fixed-bed reactor for ethylene production via ethane oxidative dehydrogenation", XV Congreso Argentino de Catalisis, La Plata (Argentina), November 12-16, 2007

D14. **E. Heracleous,** A. Lappas, S. Bezergianni, F. Haase, I.A. Vasalos, "Environmental benefits on a life cycle basis of using biomass-derived bio-oil for domestic heating", 6th Panhellinic Chemical Engineering Conference, Athens (Greece), May 31 – June 3, 2007

D15. **E. Heracleous,** A.A. Lemonidou, "Transient isotopic measurements and kinetic studies of ethane oxidative dehydrogenation over Ni-Nb-O mixed oxide catalysts", 19th International Symposium on Chemical Reaction Engineering, Potsdam/Berlin (Germany), September 3-6, 2006

D16. **E. Heracleous**, S. Bezergianni, F. Haase, I.A. Vasalos, "Biofuels and their environmental impact", 46th Congress of the European Regional Science Association, Volos (Greece), August 30 – September 3, 2006

D17. **E. Heracleous,** "SUSTAINABLE FUELUBE: Development of alternative heating fuels", 17th Sustainable Energy Marie Curie Research Fellowships Conference, Athens (Greece), May 20-24, 2006

D18. **E. Heracleous**, A.A. Lemonidou, I.A. Vasalos, "Kinetic modelling of ethane oxidative dehydrogenation over Ni-Nb-O mixed oxide catalysts", XVII International Conference on Chemical Reactors, Athens (Greece), May 15-17, 2006

D19. **E. Heracleous**, A. Delimitis, L. Nalbandian, A.A. Lemonidou, "HRTEM characterization of the nanostructural features formed in highly active Ni-Nb-O catalysts for ethane ODH", 2nd Conference of the European Union Coordination Action

"CO-ordination of Nanostructured Catalytic Oxides Research and Development in Europe": CONCORDE, Thessaloniki (Greece), January 26-28, 2006

D20. **E. Heracleous**, A. Delimitis, L. Nalbandian, A.A. Lemonidou, "Ni-Nb-O nanostructured oxides: A promising class of catalytic materials for ethane oxidative dehydrogenation", International Symposium "Catalysis on oxide-type materials. Theory and experiment: share needs and capabilities", Krakow (Poland), November 17-19, 2005

D21. **E. Heracleous**, J. Kopecny, A.F. Lee, K. Wilson, A.A. Lemonidou, "Novel highly active Ni/Nb mixed metal oxide catalysts for ethylene production via the ethane oxidative dehydrogenation route", 7th European Congress in Catalysis, Sofia (Bulgaria), August 28-September 1, 2005

D22. **E. Heracleous**, J. Kopecny, A.A. Lemonidou, "Novel Ni-Nb-O catalysts for ethylene production", 5th Panhellinic Chemical Engineering Conference, Thessaloniki (Greece), May 26-28, 2005

D23. **E. Heracleous**, A.F. Lee, K. Wilson, A.A. Lemonidou. "Ethylene production via oxidative dehydrogenation in the presence of highly active nickel-based catalysts", 19th North American Catalysis Society Meeting, Philadelphia, Pennsylvania (USA), May 22-27, 2005

D24. **E. Heracleous**, A.A. Lemonidou, "Reaction pathways of ethane oxidative and non-oxidative dehydrogenation over γ-Al_2O_3 studied by Temperature-Programmed Reaction (TP-reaction)", 1st Conference of the European Union Coordination Action "CO-ordination of Nanostructured Catalytic Oxides Research and Development in Europe": CONCORDE, Louvain-la-Neuve (Belgium), January 26-28, 2005

D25. **E. Heracleous**, A.A. Lemonidou, "Study of the homogeneous and heterogeneous reactions of ethane oxidative and non-oxidative dehydrogenation by the Temperature-Programmed Reaction (TP-reaction) method", 8th Panhellenic Catalysis Symposium, Ayia Napa (Cyprus), October 30- November 1, 2004

D26. M. Machli, **E. Heracleous**, A.A. Lemonidou, "Oxidative dehydrogenation of ethane and propane over vanadia and molybdena catalysts", 8th Panhellenic Catalysis Symposium, Ayia Napa (Cyprus), October 30- November 1, 2004

D27. **E. Heracleous**, C. Panou, X. Panou, A.A. Lemonidou, "Kinetic analysis and mathematical modeling of the Temperature-Programmed Reduction (TPR-H_2) of Ni-Cu/Al_2O_3 catalysts", 8th Panhellenic Catalysis Symposium, Ayia Napa (Cyprus), October 30- November 1, 2004

D28. **E. Heracleous**, A.A. Lemonidou**,** J.A. Lercher**, "**Ethane oxidative dehydrogenation by in situ IR spectroscopy over a MoO_3/Al_2O_3 catalyst**",** 13th International Congress on Catalysis, Paris (France), July 11-16, 2004

D29. **E. Heracleous**, J. Vakros, A.A. Lemonidou, Ch. Kordulis, "Role of preparation parameters on the structure-selectivity properties of MoO_3/Al_2O_3 catalysts for the

oxidative dehydrogenation of ethane", 6th European Congress in Catalysis, Innsbruck (Austria), August 31-September 4, 2003

D30. **E. Heracleous**, A.A. Lemonidou, "Study of the performance of a 20 wt.% MoO_3/Al_2O_3 catalyst in the ethane oxidative dehydrogenation reaction", 4th Panhellinic Chemical Engineering Conference, Patras (Greece), May 29-31, 2003

D31. **E. Heracleous**, A.A. Lemonidou, "Development of tailored catalytic materials for the efficient production of lower alkenes", 3rd Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean, Thessaloniki (Greece), May 13-15, 2003

D32. **E. Heracleous**, A.A. Lemonidou, I.A. Vasalos, "Oxidative dehydrogenation of ethane over alumina-supported molybdena catalysts", 7th Panhellenic Catalysis Symposium, Edessa (Greece), October 4-5, 2002

D33. **E. Heracleous**, M. Machli, A.A. Lemonidou, "Oxidative Dehydrogenation of Ethane and Propane over V Supported Catalysts. Effect of Support and Promoters", Euroconference on Structure and Reactivity of Oxide Surfaces, Acquafredda di Maratea (Italy), June 1-6, 2002

D34. M. Machli, **E. Heracleous**, A.A. Lemonidou, "Propane Oxidative Dehydrogenation over Vanadia Supported Catalyst Promoted with Magnesia", 5th European Congress in Catalysis, Limerick (Ireland), September 2-7, 2001

6.5. Workshop presentations

E1. **E. Heracleous**, A. Lappas, S. Berzergianni, I.A. Vasalos, "Production of biofuels with respect to environmental commitments", Workshop on Energy & Environment co-organized by the Academy of Athens, NTUA and CRES, Athens (Greece), 4 April, 2008

E2. **E. Heracleous**, "SUSTAINABLE FUELUBE: Life Cycle Analysis for Assessment of Alternative Fuels for Non-transport Applications", 3rd Annual Shell Sustainable Fuelube Workshop, Marie-Curie Fellowship Conference, Chester (UK), March 17-20, 2008

E3. **E. Heracleous**, "SUSTAINABLE FUELUBE: Life Cycle Analysis for Assessment of Biofuels for Non-transport Applications", 2nd Annual Shell Sustainable Fuelube Workshop, Marie-Curie Fellowship Conference, Chester (UK), March 19-23, 2007

E4. A. Delimitis, A.A. Lemonidou, **E. Heracleous**, L. Nalbandian, "Nanostructural investigation of highly active Ni-Nb-O catalysts for ethane oxidative dehydrogenation", 3rd Workshop on Nanosciences & Nanotechnologies – NN06, Thessaloniki (Greece), July 10-12, 2006

E5. **E. Heracleous**, "Development of Alternative Heating Fuels: Shell Global Solutions - CERTH collaboration", 1st Annual Shell Sustainable Fuelube Workshop, Marie-Curie Fellowship Conference, Chester (UK), March 20-24, 2006

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6.6. Teaching notes

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