**Curriculum Vitae**

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***Studies and professional activities***

**Angeliki A. Lemonidou**, is Professor of Chemical Engineering at the Aristotle University of Thessaloniki. She graduated with Bachelor in Chemistry and a GPA equal to 9.05/10.00 (1st in a class of 100 students) from Aristotle University of Thessaloniki in 1979. In 1990 she got her PhD with honors from the Chemical Engineering Department. The thesis entitled “Catalytic steam cracking for ethylene production” was supervised by Prof. Iacovos Vasalos.

She joined Aristotle University as Lecturer in 1992. She then promoted to Assistant Professor, Associate Professor and in 2011 to Professor of Chemical Engineering. From 2007 she is Director of the Petrochemical Technology Laboratory and from 2011 to 2015 Head of the Technology section. She serves the Department of Chemical Engineering as Vice Chair for the period 2015-2019. Dr. Lemonidou is Deputy Head of the newly founded Center for Interdisciplinary Research and Innovation of Aristotle University and collaborating faculty member of the Chemical Process Energy Resources Institute (CPERI/CERTH).

During her research career, Prof. Lemonidou has developed long collaborations with universities and research centers in Greece, but also with prestigious international universities, such as the Technical University of Munich (TUM), the Universities of California at Berkeley and Delaware in the USA. Prof. Lemonidou spent her sabbatical in 2008 at Technical University of Munich, Laboratory of Technical Chemistry (Professor Johannes Lercher), at University of Delaware, Department of Chemical Engineering (Professors Dion Vlachos and Mark Barteau) and at University of California Berkeley CA, Department of Chemical Engineering (Professor Enrique Iglesia).

Since September 2017 she is Vice President of the European Federation of Catalysis Societies (EFCATS)

***Academic activities***

As an active member of the Department of Chemical Engineering Prof. Lemonidou has long teaching experience as tutor in undergraduate courses related with Design of Catalytic Reactors, Primary Energy Sources, Chemical Processes for Alternative and Conventional Fuels Production, Natural Gas Engineering and Lab courses for Environmental and Energy processes. She has taught for two semesters the course Reactor Design at Chemical Engineering Master program and the course Natural Gas Downstream Processing in the interdepartmental Master program the course program Hydrocarbon Exploration. She has supervised numerous diploma theses and students projects in undergraduate level. In post graduate level she has supervised 15 PhD theses (3 in progress). She has also served as member of PhD defense committee for 50 graduate students in greek universities and 3 in universities abroad (2 in Australia, 1 in Spain).

***Research activities and expertise***

Her research activities are the area of catalysis and more specifically on the development of active and selective nano-structured materials for reactions related to transformation of hydrocarbons and bio-based compounds. Target reactions currently studied are the selective oxidation of alkanes, the sustainable production of hydrogen through advanced steam reforming of natural gas and oxygenated feeds, and the hydrodeoxygenation of glycerol. Expertise lies in the preparation of nanomaterials via advanced preparation techniques, the structural and morphological characterization using various physicochemical techniques, as well as detailed kinetic and mechanistic studies of catalytic materials under reaction conditions. She has made a substantial contribution with the work of her group on ethane oxidative dehydrogenation and the in-depth study of the Ni-Nb-Ox catalytic materials for the reaction. Her recent contribution also in hydrogen production via steam reforming of natural gas with simultaneous CO2 capture and chemical looping by developing CaO-based sorbents with high CO2 fixing capacity and high stability under reforming conditions are commendable.

***Publications***

Professor A. Lemonidou has published 108 scientific papers in peer reviewed international journals. The scientific work has been presented in national (95) and international conferences (135). She also holds 1 european patent on a novel efficient process for glycerol conversion. She is coauthor of six chapters in books (two in encyclopedias) and three textbooks in greek.

***International acclaim of research activities***

Her work has been highly appreciated by the scientific community with over 5500 citations and h-factor 41 according to Scopus and 7000, h-index 46 according to Google Scholar. Eight (8) of her recent articles have been included to the Top25 hottest articles by Elsevier, one (1) in the list of most downloaded articles in Journal of Catalysis and according to Web of Science four (4) articles are included in the list of highly cited papers  top 1%. She serves(d) as Guest Editor of special issues in Catalysis Today journal(vol 127, 2007) and in Applied Catalysis B Environmental journal (vol 145, 2014) and a volume on sorption enhanced processes in Advances in Chemical Engineering in Elsevier book series (vol 51, 2017). She serves (d) as member the Editorial Boards of International Journal of Chemical Kinetics–Wiley (2018-ongoing) and the open access journal Catalysts-MDBI (2010-ongoing) and of Applied Catalysis A General-Elesevier (2004-2007).

She has delivered 14 invited lectures in scientific national and international conferences, 5 in workshops and summer schools and (26) at various Universities and Institutes abroad.

Four of her students have received awards for presentations in national and international conferences with the most recent (PhD student award) in European Congress in Catalysis (Europacat 2013).

Professor Lemonidou has served as member of the organising committees in many national and international conferences. In 2012 she organized (co-chair) an international conference entitled “Advances in catalysis in biomass valorization” as satellite of the International Catalysis Congress, 15ICC.

***Research projects***

Prof. Angeliki Lemonidou participates(d) in a number of national and EU projects as scientific responsible (31) and researcher(10). Of the 8 projects (total budget 1350 kEuros) that recently concluded, 5 of them were national (Thalis, SYNERGASIA I and II, Aristeia) 2 of them are funded by EU (FP7 programme) and 1 by the Qatar National Research Foundation. On-going projects include one in Horizon 2020 and two national projects in actions actions Erevnw-Dimiourgw-Kainotomw

***Memberships***

Professor Lemonidou is Board member of European Federation of Catalysis Societies and member of the Greek Catalysis Society. She is also member of the American Chemical Society, National Hydrogen Society, National Platform for Biofuels and the platform for Energy.

***Publications in international peer reviewed journals in the last five years (2013-2018)***

1. E. Heracleous, E. Liakakou, A. Lappas **A.A. Lemonidou**, Investigation of K-promoted Cu-Zn-Al, Cu-X-Al and Cu-Zn-X (X=Cr, Mn) catalysts for carbon monoxide hydrogenation to higher alcohols, Applied Catalysis A 455 (2013) 145-154
2. E. Heracleous, **A. Lemonidou**, Highlights of platinum group metal catalysts development for biomass valorisation, Platinum Metals Review, 57(2) (2013) 101-109.
3. E. Vasiliadou, **A.A. Lemonidou\***, Kinetic study of glycerol hydrogenolysis over Cu/SiO2 catalysts, Chemical Engineering Journal, 231 (2013) 103-112
4. **Angeliki A. Lemonidou**\* Ekaterini Vagia Johannes Lercher, Acetic acid reforming over Rh supported on La2O3 modified CeO2-ZrO2 - catalytic performance and reaction pathway analysis, ACS Catalysis, 3(9) (2013) 1919-1928
5. S. Angeli, G. Monteleone, A. Giaconia, **A. Lemonidou**\*, Low temperature methane steam reforming catalytic activity and coke deposition study, Chem Eng. Transactions 33 (2013) 433-439
6. L. Turchetti, G. Monteleone, A. Giaconia, S. Sau, V. Palma, F. Castaldo, **A. A. Lemonidou**, S. D. Angelι, Time-on-Stream Stability of New Catalysts for Low-Temperature Steam Reforming of Biogas Chem Eng. Transactions 33 (2013) 685-690
7. E. Vasiliadou T. M. Eggenhuisen, P. Munnik, P. E. de Jongh, K. P. de Jong, **A.A. Lemonidou**\* Synthesis and performance of highly dispersed Cu/SiO2 catalysts for the hydrogenolysis of glycerol, Applied Catalysis B, 145 (2014) 108-119
8. S. Angeli, C. Martavaltzi, **A. Lemonidou**, Development of a novel-synthesized Ca-based CO2 sorbent for multicycle operation: Parametric Study of Sorption, Fuel 127 (2014) 62–69
9. Zinovia Skoufa, Georgia Xantri, Eleni Heracleous and **Angeliki A. Lemonidou\***. “A study of Ni-Al-O mixed oxides as catalysts for the oxidative conversion of ethane to ethylene" Applied Catalysis  [471](http://www.sciencedirect.com/science/journal/0926860X/471/supp/C), (2014) 107–117
10. S. Angeli, G. Monteleone, A. Giaconia, **A. Lemonidou**\* State of the art catalysts for methane steam reforming at low temperature - A review, International Journal of Hydrogen Energy, 39 (2014) 1979-1997 (**8th** **in the list of the Top 25 Hottest Articles, January-March 2014)**
11. Ionel Popescu, Eleni Heracleous, Zinovia Skoufa, **Angeliki Lemonidou**, Ioan-Cezar Marcu, Study by electrical conductivity measurements of semiconductive and redox properties of M-doped NiO (M = Li, Mg, Al, Ga, Ti, Nb) catalysts for the oxidative dehydrogenation of ethane, *Phys.Chem.Chem.Phys****.,*** 2014, 16, 4962
12. P. Kechagiopoulos, S. Voutetakis, **A.A. Lemonidou**, Cold flow experimental study and computer simulations of a compact spouted bed reactor, Chemical Engineering and Processing: Process Intensification, 82 (2014)  137-149
13. E. Vasiliadou, **A.A. Lemonidou**\*, Catalytic glycerol hydrodeoxygenation under inert atmosphere :Ethanol as hydrogen donor,*Catalysts* **2014**, *4*, 397-413
14. A. Antzara, E. Heracleous, **A.A Lemonidou**, Development of CaO-based Mixed Oxides as Stable Sorbents for Post-Combustion CO**2** Capture Via Carbonate Looping, Energy Procedia 63 (2014), pp. 2160-2169
15. A. Antzara, E. Heracleous, D. Bukur, **A.A Lemonidou**, Thermodynamic analysis of hydrogen production via chemical looping steam methane reforming coupled with in situ CO2 capture, Energy Procedia 63 ( 2014 ) 6576 – 6589
16. E. Vasiliadou, V-.L Yfanti **A.A. Lemonidou**\*, One-pot tandem processing of crude glycerol stream to propylene glycol, Applied Catalysis B, Environ 163 (2015) 258–266
17. E.T. Liakakou, E. Heracleous, K.S. Triantafyllidis, **A.A. Lemonidou**,K-promoted NiMo catalysts supported on activated carbon for the hydrogenation reaction of CO to higher alcohols: Effect of support and active metal, Applied Catalysis B: Environmental 165 (2015) 296–305
18. V. Zacharopoulou, E. Vasiliadou **A.A Lemonidou\***, One-step propylene formation from bio-glycerol over Molybdena-based catalysts, Green Chemistry**, 2015, 17 (2), 903 - 912**
19. S. Angeli, F. Pilitsis., **A.A. Lemonidou\***, Methane steam reforming at low temperature: Effect of light alkanes’ presence on coke formation, Catalysis Today , 242 (2015) 119-128 (**25th in the Top 25 list of most downloaded articles, Science Direct, January to March 2015**
20. E. Vasiliadou, **A.A Lemonidou** Glycerol transformation to value added C3 diols: Reaction mechanism, kinetic and engineering aspects, WIREs Energy Environ 2015, 4:486–520. doi: 10.1002/wene.159
21. Andy Antzara, Eleni Heracleous, Dragomir Bukur **Angeliki Lemonidou**, Thermodynamic analysis of hydrogen production via chemical looping steam methane reforming coupled with in situ CO2 capture International Journal of Greenhouse Gas Control  (2015) pp. 115-128 (**3rd in the Top 25 list of most downloaded articles, Science Direct, January to March 2015)**
22. Z. Skoufa, E. Heracleous, **A.A. Lemonidou\***,On ethane ODH mechanism and nature of active sites over NiO-based catalysts via isotopic labelling and methanol sorption studies, J. Catalysis, 322 (2015) 118–129
23. Lishil Silvester Andy Antzara, Goran Boskovic, Eleni Heracleous, **Angeliki. A. Lemonidou**, Dragomir. B. Bukur, NiO supported on Al2O3 and ZrO2 oxygen carriers for chemical looping steam methane reforming, [International Journal of Hydrogen Energy](http://www.sciencedirect.com/science/journal/03603199) 40 (2015), pp. 7490-7501
24. Ionel Popescu, Zinovia Skoufa, Eleni Heracleous, **Angeliki Lemonidou** and Ioan-Cezar Marcu, Study by electrical conductivity measurements of semiconductive and redox properties of Nb-doped NiO catalysts in correlation with the oxidative dehydrogenation of ethane, *Physical Chemistry Chemical Physics*,17 (2015) 8138-8147
25. A. Giaconia, G. Monteleone, B. Morico, A. Salladini, K. Shabtai, M. Sheintuch, D. Boettge, J. Adler, V. Palma, S. Voutetakis, **A. Lemonidou**, M.C. Annesini, M. den Exter, H. Balzer, L. Turchetti, [Multi-fuelled Solar Steam Reforming for Pure Hydrogen Production Using Solar Salts as Heat Transfer Fluid](http://www.sciencedirect.com/science/science?_ob=GatewayURL&_method=citationSearch&_urlVersion=4&_origin=SDSRCHALERTHTML&_version=1&_piikey=S1876-6102%2815%2900450-6&md5=2351aec5c1b7ccdb178fdf349f8665a8&alertKey=311229)   Original Research Article *Energy Procedia, Volume 69, May 2015, Pages 1750-1758*
26. Andy Antzara, Eleni Heracleous, **Angeliki A. Lemonidou\***, Improving the stability of synthetic CaO-based CO2 sorbents by dopants, Applied Energy 156 (2015) 331–343
27. S. Angeli, Giulia Μonteleone, Luca Turcetti, **A. Lemonidou\***, **Catalyst development for steam reforming of methane and model biogas at low temperature, *Applied Catalysis B 181 2016 34–46***
28. Andy Antzara, Eleni Heracleous, Lishil Silvester, Dragomir B. Bukur, **Angeliki. A. Lemonidou\***, Activity study of NiO-based oxygen carriers in chemical looping steam methane reforming, Catal. Today, [272 (2016) 32-41](http://dx.doi.org/10.1016/j.cattod.2015.10.027)
29. Zinovia Skoufa, Andy Antzara, Eleni Heracleous, **Angeliki A. Lemonidou**, Evaluating the activity and stability of CaO-based sorbents for post-combustion CO2 capture in fixed-bed reactor experiments, Energy Procedia, 86 (2016) 171-180 DOI 10.1016/j.egypro.2016.01.018
30. E. Vasiliadou, V.-L. Yfanti, **A.A Lemonidou\***, Glycerol hydro-deoxygenation aided by in-situ H2 generation via methanol aqueous phase reforming over Cu-ZnO-Al2O3 catalyst, Catalysis Science & Technology, 2016, 6, 5415
31. L. Turchetti, M.A. Murmura, G. Monteleone, A. Giaconia, **A.A. Lemonidou**, S.D. Angeli, V. Palma, C. Ruocco, M.C. Annesini, Kinetic assessment of Ni-based catalysts in low-temperature methane/biogas steam reforming, Int J. Hydrogen Energy 41 (2016), 16865-16877
32. A. Antzara, E. Heracleous, **A. Lemonidou\***, Energy efficient sorption enhanced-chemical looping methane reforming process for high-purity H2 production: experimental proof-of-concept, Applied Energy,
180 (2016) 457–471
33. Lishil Silvester; Dimitris Ipsakis; Andy Antzara; Eleni Heracleous; **Angeliki A Lemonidou;** Dragomir B Bukur, Development of NiO-based oxygen transfer materials: Effect of support on redox behavior and carbon deposition in methane, Energy & Fuels 3*0* (10) (2016) 8597–8612
34. Dimitris Ipsakis, Eleni Heracleous, Lishil Silvester, Dragomir B. Bukur, **Angeliki A. Lemonidou\***, Reduction and Oxidation Kinetic Modeling of NiO-based Oxygen Transfer Materials Chem. Eng. J. 308 (2017) 840-852
35. P.N. Kechagiopoulos, S.D. Angeli, **A.A. Lemonidou,Low temperature steam reforming of methane: A combined isotopic and microkinetic study, Appl. Catal. B Environ, 205 (2017) 238-253**
36. V-L. Yfanti, E. Vasiliadou, S. Sklari, **A.A. Lemonidou**\*, Deoxygenation of glycerol with in-situ H2 formation over Pt catalysts supported on Fe modified Al2O3: Effect of Fe loading, Journal of Chemical Technology & Biotechnology, 92 (2017) 2236-2245
37. V. Zacharopoulou, E. Vasiliadou, **A.A. Lemonidou**\*, Exploring reaction pathways bio-glycerol hydro-deoxygenation to propene, ChemSusChem, DOI: 10.1002/cssc.201701605
38. Andy Antzara, Aitor Arregi, Eleni Heracleous, **Angeliki A. Lemonidou**\*, [In-depth evaluation of a ZrO2 promoted CaO-based CO2 sorbent in fluidized bed reactor tests](http://www.sciencedirect.com/science/article/pii/S138589471731700X), Chem Eng. J., 333 (2018) 697-711
39. Z. Skoufa, G. Giannakakis, E. Heracleous, **A.A. Lemonidou**, Simulation-aided effective design of a catalytic reactor for ethane oxidative dehydrogenation, Catalysis Today 299 (2018) 102–111
40. Vasiliki Zacharopoulou, Angeliki A. Lemonidou\*, Olefins from Biomass Intermediates: A Review, Catalysts 2018, 8, 2-20; doi:10.3390/catal8010002