

CURRICULUM VITAE

Spyridon Ladas

Professor

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PERSONAL

- Date and Place of Birth: November 12, 1951; Kefallinia, Greece
- Family Status: Married , one daughter

EDUCATION

- Stanford University, Stanford, California, U.S.A., 1974-1980
 - Ph.D. in Chemical Engineering, 1980
 - Engineer's Degree in Chemical Engineering, 1977
 - M.S. in Chemical Engineering, 1975
- National Technical University, Athens, Greece, 1969-1974
 - Diploma in Chemical Engineering, 1974

MILITARY SERVICE

- Greek Army, 1980-82

PROFESSIONAL POSITIONS

- Chemical Engineering Department
University of Patras, Greece
 - Professor, 1996-present
 - Associate Professor, 1989-1996
- Physics Department, University of Ioannina, Greece
 - Assistant Professor, 1988-1989
 - Lecturer, 1982-1988

RESEARCH COLLABORATIONS

- FORTH / ICE-HT, Patras, Collaborating Faculty Member, 1989 - 2010
- Charles University, Prague, Czech Republic, Visiting Scientist, 1998
- LEPES/CNRS, Grenoble, France, Visiting Scientist , 1993
- Fritz-Haber-Institute of the Max-Planck-Society, Berlin, Germany
 - Research Associate (on sabbatical), 1987 - 1988
- NASA-Stanford Institute for Surface and Microstructural Research,
Ames, California, U.S.A.
 - Research Associate (on leave), 1984

RESEARCH ACTIVITIES

Research in the Surface Science Laboratory (<http://athena4.chemeng.upatras.gr>),
Department of Chemical Engineering , University of Patras,
an experimental research group active in the following areas:
Surface Physics and Chemistry of Metals and Semiconductors,
Spectroscopic characterization of materials

Surface Science Aspects of Heterogeneous Catalysis.

TEACHING ACTIVITIES

Graduate and undergraduate courses in : Physical Chemistry, Applied Thermodynamics, Reaction Engineering, Mass and Energy Balances, Heterogeneous Catalysis, Surface Science, Inorganic Materials

PROFESSIONAL AFFILIATIONS AND HONORS

- Member of: Greek Technical Society,
Greek Association of Chemical Engineers
Hellenic Catalysis Society
- Athens Academy Award, 1992
- Alexander von Humboldt-Foundation, Research Fellow, 1987-1988

RECENT FUNDED RESEARCH PROJECTS

1. "Heterostructures on Silicon for Integrated Optoelectronics"
Human Capital and Mobility Network, CHRXC1930355, 11 / 1993 – 4 / 1996
Lab Budget : 35000 ECU
2. "Improvement of Domestic Capacity for Recycling Used Lube Oils"
GSRT, EPET – II No 550, 1 / 1995 - 12 / 1997
Lab Budget : 80000 ECU
3. "Study of mechanisms of thin film growth on semiconductor and insulator substrates"
GSRT, Greek – Czech bilateral collaboration program, 3 / 1996 - 3 / 1998
Lab Budget : 1.89 million GRD
4. "The interaction of light molecules with thin films of supported catalysts"
GSRT, Greek – Czech bilateral collaboration program, 11 / 1999 - 11 / 2001
Lab Budget : 3.78 million GRD
5. "Using nanometric alloy systems for heterogeneous catalysis research"
GSRT, Greek – Czech bilateral collaboration program, 10 / 2005 - 10 / 2007
Lab Budget : 11740 Euro
6. «Spectroscopic study of thin metallic films on wide band-gap semiconductor surfaces»,
Greek ministry of Education : PYTHAGORAS I, 1/06/2004 - 31/12/2006
Lab Budget: 50 000 EYPΩ
7. " Nanostructured and Functional Polymer-Based Materials and Nanocomposites" ,
Network of Excellence 2004-2007, (NANO- FUN -POLY, Contract No NMP3 CT2004
500 361) Lab budget ca. 20000 Euros
8. « European Integrated Activity of Excellence and Networking for Nano and Micro-
Electronics Analysis (ANNA)" , FP6, I3 , EC Contract No 026134
2006-2010, Lab Budget: 130 000 Euro

SUPERVISING OF DOCTORAL THESES

- Completed (5)

PUBLICATIONS

- Dissertations : 2
- Refereed publications : 92

PRESENTATIONS IN CONFERENCES

- International Conferences : 40
- National Conferences : 35

INVITED SEMINARS /SUMMER SCHOOLS

- Abroad : 6
- In Greece : 10

CITATION INDEX

- ca.3000 total (h-factor: 21), ca. 2700 without self-citations

LANGUAGES

- Greek : Mother tongue
- English : Excellent
- German : Satisfactory
- French : Reading ability only

LIST OF RECENT PUBLICATIONS (2012 -)

- Effect of boiling aqua regia on MOCVD and MBE p-type GaN surfaces and Cr/p-GaN interfaces
F.G. Kalaitzakis, G. Konstantinidis, L. Sygellou, S. Kennou, S. Ladas, N. T.Pelekanos
Microelectronic Engineering, **90**, 115 (2012).
- An X-ray photoelectron spectroscopy study of strontium-titanate-based high-k film stacks
L.Sygellou, H. Tielens, C.Adelmann, S.Ladas
Microelectronic Engineering, **90**, 138 (2012).
- Investigation of the Ti/MgCl₂ interface on a Si(111)7x7 substrate
S.Karakalos, T.Skala, O.Plekan, S.Ladas, K.Prince, V.Matolin, V.Chab, A.Siokou
J. Chem. Phys., **136(22)**, Art.No. 224703 (2012).
- Interfacial properties of ALD-deposited Al₂O₃ /p-type Germanium MOS structures: influence of oxidized Ge interfacial layer dependent on Al₂O₃ thickness
M. Botzakaki, A. Kerasidou, L.Sygellou, V. Ioannou-Sougleridis, N. Xanthopoulos, S.Kennou, S. Ladas, N.Z.Vouroutzis, Th.Speliotis, D. Skarlatos
Electronic Materials and Processing , ECS Solid State Letters , **1(2)** , 32 (2012)
- Electrical characteristics of ALD deposited Al₂O₃ thin films on p-type Germanium substrates
M. Botzakaki, A. Kerasidou, N. Xanthopoulos, D. Skarlatos, S. Kennou, S. Ladas,

- S.N. Georga, C.A. Krontiras
Physica Status Solidi, **10** (1) 137 (2013).
- Probing the properties of atomic layer deposited ZrO₂ films on p-Germanium substrates
 A. P. Kerasidou, M. Botzakaki, N. Xanthopoulos, S. Kennou, S. Ladas, S. N. Georga, C. A. Krontiras
J. Vac. Science Technol. A, **31**(1), 01A126 (2013), DOI: 10.1116/1.4768166
 - Electronic and interface properties of polyfluorene films on GaN for hybrid optoelectronic applications
 G. Itskos, X. Xristodoulou, E. Iliopoulos, S. Ladas, S. Kennou, M. Neophytou, S. Choulis
Appl. Phys. Lett., **102**, 063303 (2013).
 - Atomic layer deposited zirconium oxide electron injection layer for efficient organic light emitting diodes
 M. Vasilopoulou, S. Kennou, S. Ladas, S.N. Georga, M. Botzakaki, D. Skarlatos, C.A. Krontiras, N. A. Stathopoulos, P. Argitis, L C. Palilis,
Organic Electronics, **14**, 312 (2013).
 - Optical and Electrical Properties of Gold Nanoparticles/Poly(3-alkylthiophene) Composites
 K. Halasova, J. Pflieger, A. Sharf, M. Vobecky, J. Baldrian, S. Ladas, J. Hromadkova
Sci. Adv. Mater., **5**, 28 (2013).
 - ALD deposited ZrO₂ ultrathin layers on Si and Ge substrates: A multiple technique characterization
 M.A. Botzakaki, N. Xanthopoulos, E. Makarona, C. Tsamis, S. Kennou, S. Ladas, S.N. Georga, C.A. Krontiras
Microelectronic Engineering, **112**, 208 (2013).
 - Synthesis and Characterization of N-Doped TiO₂ photocatalysts with Tunable Response to Solar Radiation
 A. Petala, D. Tsikritzis, M. Kollia, S. Ladas, S. Kennou, D. Kondarides
Applied Surface Science, **305**, 281-291 (2014).
 - A novel route for the production of TiO₂ photocatalysts with low energy gap via Triton-X and oleic acid surfactants
 A. Athanasiou, A. Mitsionis, T. Vaimakis, D. Petrakis, L. Loukatzikou, N. Todorova, C. Trapalis, S. Ladas
Applied Surface Science, **319**, 143-150 (2014).
 - The study of the performance of PtNi/CeO₂-nanocube catalysts for low temperature steam reforming of ethanol
 T. S. Moraes, R. C.R. Neto, M. C. Ribeiro, L. V. Mattos, M. Kourtelesis, S. Ladas, X. Verykios, F. B. Noronha
Catalysis Today, **242**, 35 (2015).
 - Influence of the support on the reaction network of ethanol steam reforming at low temperatures over Pt catalysts
 M. Kourtelesis, P. Panagiotopoulou, S. Ladas, X. Verykios
Topics in Catalysis, **58**, 1202 (2015).
 - Temperature-dependent retention characteristics of ion-beam modified SONOS Memories
 D.P. Simatos, P. Dimitrakis, P. Normand, N. Nikolaou, K. Giannakopoulos, S. Ladas, B. Pecassou, G. BenAssayag, V. Ioannou-Sougleridis

- Nucl.Instr.Meth.B ,(2015) : <http://dx.doi.org/10.1016/j.nimb.2015.04.007>
- Nitrogen induced modifications of MANOS memory properties
N.Nikolaou, V.Ioannou-Sougleridis, P.Dimitrakis, P.Normand, D.Skarlatos, K.Giannakopoulos, S.Ladas, B.Pecassou, G.BenAssayag, K.Kukli, J.Niinisto, M.Ritala, M.Leskela
Nucl.Instr.Meth.B ,(2015) : <http://dx.doi.org/10.1016/j.nimb.2015.04.0015>
 - Surface modification of PET fibers by a cutinase from Fusarium Oxysporum
M. Kanelli, S.Vasilakos, E.Nikolaivits, S.Ladas, P.Christakopoulos, E.Topakas
Process Biochemistry , **50**, 1885 (2015).
 - Ethanol conversion at low temperature over CeO₂-supported Ni-based catalysts. Effect of Pt addition to Ni catalyst
T.S.Moraes, R.C.R.Neto, M.C.Ribeiro, L.V.Mattos, M.Kourtelesis, S.Ladas, X.Verykios, F.B.Noronha
Applied Catal.B , **181**, 754 (2016) : <http://dx.doi.org/10.1016/j.catb.2015.08.044>
 - Ni Catalysts Supported on Modified Alumina for Diesel Steam Reforming
A.Tribalis, G. D. Panagiotou, K. Bourikas, L. Sygellou, S. Kennou, S. Ladas, A. Lycourghiotis, C. Kordulis
Catalysts , **6(1)** , 11 (2016).
 - Interface properties of Al–Al₂O₃–Ge MIS capacitors and the effect of forming gas annealing
V. Ioannou-Sougleridis , A. Karageorgiou, M. Barlas , S. Ladas , D. Skarlatos
Microelectronic Engineering, **159**, 84–89 (2016).