

CURRICULUM VITAE

ANGELIKI SIOKOU

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Institute of Chemical Engineering &
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Personal

Date of birth: November 13, 1966
Marital status: Married (2 children)
Citizenship: Greek

Education

Ph.D. in Surface Science

University of Patras, Department of Chemical Engineering, April 1995.

- *Dissertation:* “A study of the Re/Si and Er/Si interface formation using surface sensitive techniques”.
- *Advisor:* Prof. S. Ladas

B.S. in Physics

Department of Physics, University of Patras, June 1989.

Research Interests

Physics and Chemistry of solid surfaces.

The central theme of my research activities is the use of a large variety of surface analysis and characterization techniques in order to determine the structure, composition and electronic properties of the outermost atomic layers of solid materials exposed to ultra-high-vacuum or controlled gaseous atmospheres and correlate them with the material behavior in various processes. My main research interests include processes of scientific and technological interest, such as thin film nucleation and growth, reactions at metal semiconductor interfaces, heterogeneous catalysis, crystal growth, grain boundary impurity segregation, polymer and bio-matter interaction with surfaces. More specifically, the research topics that I am involved include:

Model experiments on single-crystal catalysts. Kinetics and mechanism of elementary reactions of gases on single metallic surfaces, interaction of gases and metals with metallic and semiconducting surfaces. Synthesis and characterization of realistic model catalysts.

Electronic properties of amorphous chalcogenides with applications in opto-electronics and data storage devices.

Preparation and interfacial characterization of organic (polymer or oligomer) films on various substrates for organic electronic applications.

Thin films of bio-molecules on bio-compatible substrates (e.g. proteins or mixtures of proteins on titanium alloys, brain tissue on silica layers).

Professional Experience

Oct 2005-today **Principal Researcher** Institute of Chemical Engineering and High-Temperature Chemical Processes, FORTH/ICE-HT, Patras, Greece

Dec 2008 and Sept 2007 **Visiting Scientist** at Material Science Beam line, at Fermi Elettra Synchrotron, Trieste, Italy. “SRPES investigation of model Ziegler-Natta catalysts”

May 2002-Oct 2005 **Associate Researcher** FORTH/ICE-HT, Patras, Greece

May 1998-2002 **Assistant Researcher** FORTH/ICE-HT, Patras, Greece

3/1997-4/1999 **Research Scientist** Surface Science group Department of Chemistry, QMW college, University of London (Marie Curie B30-fellowship)
“A surface Science investigation of chemical reactivity on oxide and dispersed metal surfaces”. Collaboration with Dr. R. M. Nix.

8/1996-2/1997 **Postdoctoral Researcher** at Surface Chemistry group, Technical University of Eindhoven, The Netherlands Collaboration with Dr. J. W. Niemantsverdriet and Prof. R. A. van Santen , “Study of the elementary reactions of gases on single metal surfaces”

5/1996-7/1996 **Visiting researcher** at Istituto di Elettronica dello Stato Solido (IESS), CNR, Roma Italy, collaboration with Dr. S. Lagomarsino “Heterostructures on Silicon for Integrated Optoelectronics”

4/1995-4/1996 **Postdoctoral researcher** at FORTH/ICE-HT, Collaboration with Prof. C. Vayenas “Hydrotreatment of spent lube oil: Catalysts and Reactor Performance”

8/1995 Visiting **Researcher** Deutsches Elektronen-Synchrotron (DESY) HASYLAB, Hamburg, “XANES study at the LIII-Edges of Transition Metals Supported by doped TiO₂”

11-12/1992 **Visiting researcher** Berliner Elektronenspeichring Gesellschaft für
And 4-5/1994 Synchrotronstrahlung mbH (BESSY), Berlin, “SEXAFS and NEXAFS studies on gas adsorption on Pt and Rh surfaces”

Teaching

Training and Advising of Diploma Thesis students(7):

10 (Department of Chemical Engineering, University of Patras, Greece)

1 (Department of Chemistry Technical University of Eindhoven, The Netherlands, under the academic supervision of Prof. H. Niemantsverdriet)

Training and Advising of Masters' Degree Students(1):

- 1 Dr Chryssa Chandrinou (department of Chemistry, QMW College, University of London, UK, under the academic supervision of Dr. R. M. Nix)
- 2 **Fotini Ravani** (Interdepartmental Program in Polymer Science and Technology, University of Patras)

Training and Advising of PhD Students (5):

1. Fotini Ravani (under the academic supervision of Prof. C Galiotis, Interdepartmental Program in Polymer Science and Technology, University of Patras)
Thesis Title: “Interfacial analysis of thin oligomer (or small molecule) films on modified graphite substrates”.
2. Stavros Karakalos (under the academic supervision of Prof. S. Ladas, Department of Chemical Engineering, University of Patras).
Thesis Title: “A surface Science investigation of model catalytical systems” (Defence February 2009)
3. Maria Kalyva (in collaboration with Dr S. Yannopoulos, under the academic supervision of Prof. G. Papatheodorou, Department of Chemical Engineering, University of Patras).
Thesis Title: “Study of the electronic properties of chalcogenide glasses using Surface Sensitive Spectroscopies”(Defence November 2008)
4. Spyridon Dais (under the academic supervision of Prof. C. Kordoulis, Department of Chemistry, University of Patras).
Thesis Title: “Preparation and characterization of realistic model catalysts for olefin polymerization from the gas phase.”
5. Dr V. Papaefthimiou (under the academic supervision of Prof. S. Kennou, Department of Chemical Engineering, University of Patras, Defence on March 2005).
Thesis title: “Investigation of the interfacial electronic structure between organic films and inorganic supports, using surface sensitive spectroscopies.”

Training of postgraduate assistant researchers(1):

- 1 Dimitrios. Kefalas

Courses Taught

“Materials characterization using X-rays Photoelectron Spectroscopy”, FORTH/ICE-HT, **2004**
Series of Seminars.

Teaching Assistant (1990-1995)

“Applied Thermodynamics (Dpt. of Chem. Engineering University of Patras) ,
“Introduction to Chemical Engineering” (Dpt. of Chem. Engineering University of Patras) and
“Tutorials in Chemical and Biochemical Processes” ((Dpt. of Chem. Engineering University of Patras)

Honours

TMR-Marie Curie Return Fellow (Patras, 1999-2000),
TMR-Marie Curie B30 fellow (London, 1997-1999),
Postgraduate Fellow ICE/HT-FORTH (1990-1995),
EU Fellow for the HERCULES program, France (1991),
Greek State fellowship for distinguished performance during undergraduate studies (1984,1985).

Professional Affiliations

Member, American Physical Society
Member, Marie Curie Fellowship Association
Member, American Chemical Society

Participation in Research and Development Projects (17, coordinated 5)

- GGET-93.12 *Title* : "A study of ultra-thin epitaxial Rhenium Silicide (Resi2) on Si(111) surfaces "
Funding Organization: GGET : Partners : ICE/HT-FORTH; co-ordinator. Duration : From:
01.07.93 to 30.06.94 *Total Budget : 4 kEURO. ICE/HT co-ordinator: S. Kennou*
- CEC-93.22 *Title* : "Heterostructures on Si for integrated opto-electronics" *Funding Organization:*
CEU *Contract No. :* CHRX-CT93-0355 (DG 12 COMA) *Partners :* -Consiglio Nazionale delle
Ricerche, Istituto di Elettronica dello Stato Solido; Contractor -CNRS.CRMC2 -URTV.DF
-UVGO.FISA -FORTH.IESL -CNRS.LEPES -UIA.DN.EMAT -UCTA.DF -ICE/HT-FORTH
-ENEA.IS -NRCSD.IM *Duration : From: 01.11.93 - to: 31.10.96 Total Budget : 400 kEURO.*
ICE/HT coordinator: S. Ladas
- GGET-95.04 *Title* : "Increment of the domestic spent lube oil recycling potential ", *Contract No.:*
EPET II 550 *Partners:* -LPC ΕΛΛΑΣ; co-ordinator -MOTOR OIL ELLAS –ICE/HT-FORTH
–UNIVERSITY OF PATRAS – Department of Chemical Engineering –UNIVERSITY OF
ATHENS – Department of Chemistry –POLYTECHNIC SCHOOL OF CRETE - *Duration : From:*
01.01.1995 - to: 30.06.1998 *Total Budget : 2000 kEURO. ICE/HT coordinator: C. Vayenas*
- GGET 16 20 *Title:* "A study of atomic Hydrogen effect on the surface and bulk properties of SiC".
ICE/HT coordinator: S. Kennou

- TMR-Marie Curie Postdoctoral Grant (B30) *Title:* “ A surface science investigation of chemical reactivity on oxide and dispersed metal surfaces” *Contract No:* ERBFMBICT-961039
Place : QMW College, University of London *Duration : From:* 01/03/97 - *to:* 28/02/99 *Total Budget :* 92 KEuro *Coordinator:* Dr. A. Siokou
- TMR-Marie Curie Return Grant *Title:* “ Preparation and characterization of realistic model polymerization catalysts using surface sensitive spectroscopies” *Contract No:* HPMF-CT-1999-00331 *Place :* ICE/HT-FORTH *Duration : From:* 01.02.2000 - *to:* 31.01.2001
Total Budget : 56 KEuro *Coordinator:* Dr. A. Siokou
- *PENED'99 Title:* “A Study of electrochromic and photonic polymers. Preparation of the corresponding layouts for energy and optical applications ”, *Contract No.:* 99ED 405 *Partners:* ICE/HT-FORTH –UNIVERSITY OF PATRAS – Department of Physics (Coordinator), UNIVERSITY OF PATRAS – Department of Chemistry *Duration : From:* 01.01.2000 - *to:* 30.06.2001 *Total Budget :* 125KEuro. *ICE/HT coordinator:* A. Siokou
- *ENERGY 2000 Title :* “Electrochromic Evacuated Advanced Glazing”, ELEVAG, *Contract No.:* ENK6-CT-2001-00547 *Partners:* ICE/HT-FORTH (co-ordinator) –UNIVERSITY OF PATRAS – Department of Physics, UNIVERSITY OF Ulster, UMIST, L. Patsis Glass S.A., Toughglass Ltd, Uniglass Ltd, Jagellonian University, Lund University *Duration : From:* 01.11.2001 - *to:* 30.10.2004 *Total Budget :* 2.134 KEuro. *ICE/HT coordinator:* A. Siokou
- *Greek-Czech Bilateral Collaboration, 2002-2005 Title:* “Study of bi-metallic nano-materials for heterogeneous catalysis” *Partners:* ICE/HT-FORTH and Charles University of Prague *Duration : From:* 01.11.2003 to 30.10.2005 *Total Budget :* 12,3 KEuro. *ICE/HT coordinator:* S Kennou.
- *Greek-Czech Bilateral Collaboration, 2002-2005 Title:* Experimental study of amorphous semiconductors with applications in optoelectronics and data storing” *Partners:* ICE/HT-FORTH and University of Pardubice, Pardubice, *Duration : From:* 31/07/2003 to 30/07/2005 *Total Budget :* 11,7 KEuro. *ICE/HT coordinator:* S Yannopoulos.
- *Nano2Life Network of Excellence, Title:* Bringing Nanotechnologies to Life (European Network of Excellence supported by FP6 of the European Commission)

- PENED 2003 *Title* “Development of a new method for the preparation of homogenous nano-particles with improved dispersion on flat substrates. Application on the formation of catalytic particles for olefin polymerization” *Partenrs*: BOREALIS POLYMERS, Finland *Total Budget* 50 Keuro *Coordinator*: Dr. A. Siokou
- PENED 2003 *Title* “Photosensitive amorphous materials for Optoelectronic and Data storage applications” *Partenrs* OTE (Organization of Greek Telecommunications), University of Patras, FORTH-IESL , University of Thessaloniki *ICE/HT Researchers*: S. Yiannopoulos (P.I) A. Siokou , V. Dracopoulos
- FP7-collaborative project -SP1-JTI-FCH.3.3*Title*: “Understanding the Degradation Mechanisms of Membrane-Electrode-Assembly for High Temperature PEMFCs and Optimization of the Individual Components” (DEMMEA) *ICE-HT budget*: 414.600 euro *total budget*: 3.095.599 euro *Grant Agreement No*: 245156 *ICE-HT Researchers*: A. Siokou, S. Neophytides, J. Kallitsis
- FP7-collaborative project -“Development of the next generation bioreactor system” (BioNexGen) *ICE-HT budget*: 736.648 *total budget*: 4433794 euro, *Grant Agreement No*: 246039 *ICE-HT Researchers*: G. Voyiatzis, A. Siokou, J. Kallitsis, V. Mavratzas,

Publications in International Journals (total 53)

1. “ An XPS study of carbon segregation on polycrystalline silver” **A.Siokou**, S. Kennou, S. Ladas, *Surface Science* 307-309 , (1994), 810
2. “The local adsorption geometry of oxygen on Pt(210): a SEXAFS study” S. Ladas, S. Kennou, **A. Siokou**, R. Imbihl, T. Fink, F. Mertens, J. Haase, *Surface Science*, 319, (1994), 337
3. “Semiconducting Rhenium Silicide Thin Films on Si(111)”T.A. Nguyen Tan, J.Y. Veuillen, P. Muret, S. Kennou, **A. Siokou**, S. Ladas, F. L. Razafindramisa, M. Brunel, *J. Appl. Physics* 77, (1995), 2514
4. “An XPS study of the Er/Si(100) interface formation” **A.Siokou**, S. Kennou, S. Ladas, *Surface Science*, 331-333, (1995)58
5. “The formation of NO/NH₃ co-adsorption complex on Pt(111) surface: A NEXAFS study.” F. Esch, Th. Greber, S. Kennou, **A.Siokou**, S. Ladas, R. Imbihl, *Catalysis Letters*, 38, (1996), 165
6. “Identification of different surface species of NO adsorbed on Ru(0001) with NEXAFS.” F. Esch, S. Ladas, S. Kennou, **A. Siokou**, R. Imbihl, *Surface Science*, 355, (1996), L253
7. “Growth and characterization of the Re/Si(111) interface” **A.Siokou**, S. Kennou, S. Ladas, T.A. Nguyen Tan, J.Y. Veuillen, *Surface Science*, 352-354, (1996), 628
8. “An interface study of vapor – deposited Rhenium with the two (0001) polar phases of single crystal 6H-SiC” S. Kennou, **A. Siokou**, I. Dontas, S. Ladas, *Diamond and Rrelated Materials*, 6, (1997), 1424
9. “Hydrotreatment of spent lube oil: Catalysts and Reactor Performance” C. Yiokari, O. Morphi, **A. Siokou**, F. Satra, S. Bebelis, C.G. Vayenas, D. Karavasilis, G. Deligiorgis. *Studies in Surface Science and Catalysis*,106, (1997),323
10. “Surface reactions of Nitrogen Oxide on Rhodium(100). Adsorption, Dissociation and Desorption. **A.Siokou**, R.M. van Hardeveld, J. W. Niemantsverdriet, *Surface Science*, 404, (1998), 110
11. “Interaction of methanol with well defined ceria surfaces. A RAIRS, XPS and TPD study.” **A.Siokou**, R. M. Nix, *J. Phys. Chem. B*, 103, (1999), 6984-6997.
12. “Adsorption of ammonia on the Rhodium (111) and (100) and stepped (100) surfaces, an ab-initio and experimental study” F. Frechard, R. A. van Santen, **A. Siokou**, J.W. Niemantsverdriet, J. Hafner *J. Chem. Phys.*, **111** (1999) 8124-8130
13. “Photocatalytically deposited silver nanoparticles on mesoporous TiO₂ films.” E. Stathatos, P. Lianos, P. Falaras, **A. Siokou**, *Langmuir* 16, (2000), 2398
14. “Interaction of Methanol with Lanthanum Oxide and LaOx/Cu(111) Interfaces. I. Adsorption and Thermal Decomposition”M. de Asha, J.T.S. Critchley, **A. Siokou** and R. M. Nix, *Journal of Physical Chemistry Chemical Physics* 2, (2000), 4758-4767.
15. “Effect of the tungsten and molybdenum oxidation states in the thermal coloration and bleaching of amorphous WO₃ films.” **A.Siokou**, G. Lefteriotis, S. Papaefthimiou, P. Yianoulis, *Thin Solid Films* 384, (2001), 298-306.

16. "A study of the conjugated Ooct-OPV5 oligomer/gold interface using Photoelectron Spectroscopy" **A. Siokou**, V. Papaefthimiou and S. Kennou, *Surface Science* 482-485, (2001), 1186-1191.
17. "Effect of the tungsten and molybdenum oxidation states on the thermal coloration of amorphous WO₃ and MoO₃ films». **A. Siokou**, G. Leftheriotis, S. Papaefthimiou and P. Yianoulis, *Surface Science* 482-485, (2001) 294-299.
18. OPV5 oligomer on different Si and SiO₂ substrates", V. Papaefthimiou, **A. Siokou** and S. Kennou, *Journal of Applied physics* 91, No7, 4213, (April 2002).
19. "Structure, morphology and electrochemical properties of WO₃ films, prepared by an aqueous sol_gel technique", G. Leftheriotis, S. Papaefthimiou, **A. Siokou**, and P. Yiannoulis, *Applied Surface Science*, 218, (2003), 276-281
20. "XPS study of hydrated MgCl₂ impregnation on flat SiO₂/Si(100), Mo and Au substrates", **A. Siokou**, D. Kefalas and S. Dais, *Surface Science*, 532-535 (2003), 472-477
21. "A study of the interface formation between gold and a thin conjugated oligomer film", V. Papaefthimiou, **A. Siokou** and S. Kennou, *Surface Science*, 532-535 (2003) 255-260.
22. "Molecular Composition and Orientation of Interstitial versus Surface Silicon Oxides for Si(111)/SiO₂ and Si(100)/SiO₂ Interfaces using FT-IR and X-ray Photoelectron Spectroscopies", G. Kandilioti, **A. Siokou**, V. Papaefthimiou, S. Kennou and V. G. Gregoriou, *Applied Spectroscopy*, 57 (2003) 628.
23. "Towards the preparation of realistic model Ziegler-Natta catalysts: XPS study of the MgCl₂/TiCl₄ interaction with flat SiO₂/Si(100).", **A. Siokou** and S. Dais, *Surface Science*, 540 (2003)379-388.
24. "The electronic properties of the interface between a thin conjugated oligomer film and SiO₂/Si(111), studied by photoemission spectroscopies", V. Papaefthimiou, **A. Siokou** and S. Kennou, *Thin Solid Films* 459 (1-2): 32-36 (2004)
25. "Influence of the substrate on the electrochromic characteristics of lithiated α -WO₃ layers", **A. Siokou**, S. Ntais, S. Papaefthimiou, G. Leftheriotis and P. Yiannoulis, *Surf. Sci.*566: 1168-1173 Part 2 (2004)
26. "A photoemission study of the Ooct-OPV5/SiO₂/Si(111) interface: the effect of the SiO₂ inter-layer thickness", V. Papaefthimiou, **A. Siokou** and S. Kennou, *Surf. Sci.* 569 (1-3): 207-218 (2004).
27. "TiCl₄(THF)₂ impregnation on a flat SiO_x/Si(100) and on polycrystalline Au foil: determination of surface species using XPS." S. Ntais, V. Dracopoulos and **A. Siokou** *J. Mol. Cat. A Chem.*220 (2): 199-205 (2004)
28. "An XPS investigation of the interaction mechanism between AlEt₃ and TiCl₄ supported on sputtered native SiO_x layer." S. Ntais and **A. Siokou**, *J Mol. Cat. A Chem.*245: 87-92 (2006).
29. "Substrate related properties of evaporated CeO_x ion storage layers." **A. Siokou**, S. Ntais, V. Drakopoulos, S. Papaefthimiou, G. Leftheriotis and P. Yiannoulis, *Thin Solid Films*, 514: 87-96 (2006)
30. "Photoemission studies of As_xSe_{100-x} (x: 0, 50, 100) films prepared by pulsed-laser deposition on

- Si substrates. The effect of annealing.” **A. Siokou**, M. Kalyva, S. N. Yannopoulos, M. Frumar, P. Němec, *J. Phys.: Condens. Matter* 18 (23), (2006), 5525-5534
34. “XPS investigation of the interaction between $\text{TiCl}_4(\text{THF})_2$ and AlEt_3 modified $\text{SiO}_x/\text{Si}(100)$ surface.”, S. Ntais and **A. Siokou** *Surface Science* 600 (18), (2006), pp. 4216-4220.
 35. “Nano-scale annealing-induced structural changes in As-rich pulsed laser deposited $\text{As}_x\text{Se}_{100-x}$ films studied by XPS” **A. Siokou** M. Kalyva S. N. Yannopoulos P. Nemeec, M. Frumar, *Journal of Non-Crystalline solids*, 352:1520-1524 (2006).
 36. “The electronic structure of the interface between thin conjugated oligomer films and inorganic substrates with different work function.” V. Papaefthimiou, **A. Siokou** and S. Kennou *Surface Science*. 600 (18), (2006) pp. 3987-3991.
 37. “Low Temperature Restructuring Processes in Polyhydrosilanes” Liviu Sacarescu, **A. Siokou**, Rodinel Ardeleanu, Gabriela Sacarescu, Mihaela Simionescu, *Macromolecular Rapid Communications*, 27 : 1054-1059 (2006).
 38. “Electronic and structural changes induced by irradiation or annealing in pulsed laser deposited $\text{As}_{50}\text{Se}_{50}$ films. An XPS and UPS study.” M. Kalyva, **A. Siokou**, S. N. Yannopoulos, P. Němec and M. Frumar.” *Journal of Physics and Chemistry of Solids* 68 (5-6), (2007) pp. 906-910
 39. “Chemical Oxidation of Multi Walled Carbon Nanotubes” V. Datsyuk, M. Kalyva, K. Papagelis, J. Parthenios, D. Tasis, **A. Siokou**, I. Kallitsis and C. Galiotis, *Carbon* 46 (6) 833-840, (2007).
 40. “The electrokinetics of CO oxidation on Pt4 Mo (20 wt %) C interfaced with nafion membrane” George Papakonstantinou, Fotis Paloukis, **Angeliki Siokou**, and Stylianos G. Neophytides, *Journal of the Electrochemical Society* 154 (10), pp. 989-997.
 41. “Covalently functionalized carbon nanotubes as macroinitiators for radical polymerization” K. Papagelis, M. Kalyva, D. Tasis, J. Parthenios, **A. Siokou**, and C. Galiotis, *Phys. Stat. Sol. (b)*, 1–5 (2007)
 42. “Methylhydrosilyl Chemo-structural Effects in Polyhydrosilanes” Liviu Sacarescu, **Angeliki Siokou**, Gabriela Sacarescu, Mihaela Simionescu, Ionel Mangalagiu, *Macromolecules* 2008; 41(3); 1019-1024
 43. “The interfacial properties of MgCl_2 thin films grown on $\text{Si}(111)7\times 7$ ” Karakalos S., **Siokou A.** Dracopoulos B., Sutara F., Skala T. Skoda M., Ladas S., K. Prince, V. Matolin, V. Chab *J. Chem. Phys.* **128**, 104705 (2008)
 41. “Soft x-ray induced Ag diffusion in amorphous PLD $\text{As}_{50}\text{Se}_{50}$ chalcogenide thin films: An XPS and SIMS study.” M. Kalyva, **A. Siokou**, S. N. Yannopoulos, T. Wagner, M. Krbal, J. Orava and M. Frumar *Journal of Applied Physics* **104** (4), art. no. 043704 (2008)
 42. “Ag diffusion in amorphous $\text{As}_{50}\text{Se}_{50}$ films studied by XPS.” M. Kalyva , **A. Siokou**, S. N. Yannopoulos, T. Wagner, M. Krbal, J. Orava, M. Frumar, *Journal of Non-Crystalline Solids* 355 Issue: 37-42 1844-1848 (2009)
 43. “The interfacial properties of MgCl_2 films grown on a flat SiO_2/Si substrate. An XPS and ISS study.” S. Karakalos, **A. Siokou**, and S. Ladas *Applied Surface Science* 255

(21), (2009) pp. 8941-8946

44. "Surface modification of polyhedral oligomeric silsesquioxane block copolymer films by 157 nm laser light" Sarantopoulou E, Kollia Z, Cefalas AC, **Siokou A.E.**, Argitis P, Bellas V, Kobe S, *J. Appl. Phys.* 105 (11) Art. No: 114305 (2009)
45. "Structural and Optical Properties of Polyhydrosilanes, Liviu Sacarescu, Andreas Bockholt, **Angeliki Siokou**, Mihaela Simionescu, Gabriela Sacarescu, Livia Sima, *Macromolecular Chemistry and Physics* 210 (23), (2009) pp. 2015-2021
46. "γ-Al₂O₃ nanoparticle production by arc-discharge in water: in-situ discharge characterization and nanoparticle investigation" D. Delaportas, P. Svarnas, I. Alexandrou, **A. Siokou**, K. Black, and J.W. Bradley, *Journal of Physics D: Applied Physics* 42 (24), (2009) art. no. 245204
47. "Chemical Synthesis and Self-Assembly of Hollow Ni/Ni₂P Hybrid Nanospheres Zafiropoulou I, Papagelis K, Boukos N., **Siokou A.**, Niarchos D. Tzitzios V, *J. Phys. Chem. C* 114 (17) (2010), pp.7582-7585
48. "Potentiodynamic estimation of key parametric criterions and interrelating reversible spillover effects for electrochemical promotion" Jaksic, J.M., Labou, D., Lacnjevac, C.M., **Siokou, A.**, Jaksic, M.M. *Appl. Cat. A (General)* Sept. 2010 in press
49. "CoMo/Al₂O₃-SiO₂ catalysts prepared by co-equilibrium deposition filtration: Characterization and catalytic behavior for the hydrodesulphurization of thiophene" Vakros, J., Lycourghiotis, A., Voyiatzis, G.A., **Siokou, A.**, Kordulis, C. *Applied Catalysis B: Environmental* 96 (3-4), (2010) pp. 496-507
50. "Polymer and hybrid electron accepting materials based on a semiconducting Perfluorophenylquinoline" Stefopoulos, A.A., Kourkouli, S.N., Economopoulos, S., Ravani, F., Andreopoulou, A., Papagelis, K., **Siokou, A.**, Kallitsis, J.K. *Macromolecules* 43, (11), (2010), PP.4827-4828
51. "Adsorption of block copolymers in nanoporous alumina" Karagiovanaki, S., Koutsioubas, A., Spiliopoulos, N., Anastassopoulos, D.L., Vradis, A.A., Toprakcioglu, C., **Siokou, A.E.** *Journal of Polymer Science, Part B: Polymer Physics* 48 (14), (2010), pp. 1676-1682
52. "The interfacial properties of MgCl₂ thin films grown on Ti(0001)" Karakalos, S., **Siokou, A.**, Sutara, F., Skala, T., Vitaliy, F., Ladas, S., Prince, K., Chab, V. *Journal of Chemical Physics* 133 (7), (2010). ART. NO. 074701
53. "Novel Spillover Interrelating Reversible Electrocatalysts for Oxygen and Hydrogen Electrode Reactions" Jaksic, Jelena; Labou, Diamantoula; Papakonstantinou, Georgos; **Siokou, Angeliki**; Jaksic, Milan, *The Journal of Physical Chemistry (Oct.. 2010) in press*

Articles submitted to peer reviewed international journals (3)

1. "Surface electronic properties of single-layer graphene grown on copper substrate" **A. Siokou** F. Ravani, S. Karakalos, O. Frank, M. Kalbac, C. Galiotis, submitted to *Thin Solid Films* (Oct.2010)
2. "Electrochemical Oxidation of Multi-Wall Carbon Nanotubes" Giorgos Moraitis, Zdeno Špitalský, Fotini Ravani, **Angeliki Siokou**, Costas Galiotis Submitted to *Carbon* (Oct. 2010)

3. "Self cleaning behavior of Ni/nano-TiO₂ metal matrix composites" S. Spanou, E.A. Pavlatou, A. Siokou, A.I. Kontos, N. Vaenas, A.G. Kontos, P. Falaras, Submitted (Sept. 2010)

Other publications (3)

- 1) **A. Siokou**, "Elementary reactions of nitrogen oxide and ethylene on single crystal surfaces", *NIOK Onderzoek, The Netherlands, 1996*.
- 2) D. Kefalas and **A. Siokou** "Preparation and of realistic model polymerisation catalysts and characterisation with XPS and AFM" *Chimica Chronica, Vol. 7-8*, pp.223-225 July-August 2001
- 3) Educational material for the distance education of graduate students (Hellenic Open University) Preparation of a multimedia course with title "Introduction to X-ray and UV-photoelectron spectroscopies" (June 2005).

Presentations at international conferences: 28

Presentations at national conferences: 31

Services to users which are not partners in research projects:

Surface Characterization of Organic and Inorganic Materials

One of my main activities in the ICE-HT is to exploit a range of advanced surface sensitive tools in order to investigate the structure and composition of surfaces of polymers, coatings, paper, ceramics, and various other materials, mostly in collaboration with other research groups and industrial laboratories. Techniques used include x-ray photoelectron spectroscopy, Auger Electron Spectroscopy Work Function measurements and Depth Profiling. Some of the institutes or industries that have used our services are:

VIOLEX-BIC S.A., IESL-FORTH, AUT, LPC HELLAS A.E., Creta Plastics S.A., CERTH-CREPI, UNIVERSITY DI MILANO-BICOCCA, IMEL – DEMOKRITOS, BREALIS POLYMERS Oy.

Reviewer for scientific journals

Reviewer for manuscripts submitted for publication in: *Surface Science, Journal of Catalysis, Catalysis Today, Journal of Physical Chemistry* and *Solid State Ionics*.

Citation Index Until October 2010 **Total ~615** (without self citations 520), **h-factor 13**