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## **PERSONAL**

**Date and Place of Birth:** 3-11-1947, Paleochorion Dorieon Phthiotidos, Greece  
**Marital Status:** Married to Manuela Plataki (Psychologist), two children (Katerina 25, Constantin 22)  
**Education:** BS University of Thessaloniki, Physics Dept., Greece, 1970  
PhD University of Tennessee, Physics Dept., Knoxville, Tenn., USA, 1978  
**Military Service:** 1970-1973 Greek Army  
**Employment:**  
1992- Professor, University of Patras, Patras, Greece  
1984-1992 Associate Professor, University of Patras, Patras, Greece  
1982-1984 Lecturer, University of Crete, Heraklion, Greece  
1978-1982 Research Associate, Universite Louis Pasteur, Strasbourg, France  
**Knowledge of Languages:** Greek (mother tongue),  
English and French (Spoken and written),  
German, Italian, Russian and Spanish (written).

## **SUMMARY OF RESEARCH INTERESTS**

- **Colloids and Surfaces:** Structure and dynamics of micelles, microemulsions and lipid vesicles. Self-organization of surfactants and lipids in solution and in thin films. Interaction of proteins with lipid bilayers. Growth of organic or inorganic particles in organized molecular assemblies. Water-soluble polymers. Hydrogels-Cross-linked hydrophilic polymers.
- **Photophysics:** Photophysical studies of aromatic molecules, semiconductors and conjugated polymers. Fluorescence probing of organized molecular assemblies, gels and macromolecules. Light emission and amplification. Lasers. Organic LEDs. Solar Cells.
- **Materials and Devices:** Sol-gel chemistry. Semiconductor nanoparticles. Heterogeneous photocatalysis for water and air purification. Organic and Hybrid Organic-Inorganic Mesoscopic Solar Cells. Organic light-emitting diodes. New materials for light emission and amplification. Water purification materials. Photocatalytic hydrogen production. Photoelectrocatalytic hydrogen and electricity production

## SUMMARY OF PUBLISHED WORK AND ITS IMPACT

Publications in International journals	230
Publications in conference proceedings	110
Citations	>7000*
h-factor	43*

\* Source: Web of Science

## STUDENT TRAINING ACTIVITIES

Prof. Lianos heads the Applied Photophysics and Photochemistry Laboratory. He was thesis and research supervisor for several postgraduate students and post doctoral fellows. At this moment he supervises the research of 7 doctorate students:

Mr. Theodoros Makris, expected graduation 2014

Miss. Stavroula Sfaelou, expected graduation 2016

Miss Archontoula Nikolakopoulou, expected graduation 2016

Miss Georgia Sfyri, expected graduation 2016

Mr. Iosif Tantis, expected graduation 2017

Mr. Dimitrios Raptis expected graduation 2018

Mr. Evangelos Kalamaras expected graduation 2018

## SIGNIFICANT RESEARCH ACHIEVEMENTS

### Semiconductor nanoparticles synthesized by surfactant templating

Prof. P. Lianos is among the first researchers who used self-organized molecular assemblies as templates to synthesize nanocrystalline semiconductors. Thus in 1985 he synthesized CdS quantum dots using reverse micelles and later he used a similar technique to synthesize finely distributed anatase nanoparticles of controlled size. The related publications have been widely cited.

### Quasi-solid state Dye-sensitized Solar Cells.

He has developed quasi-solid state dye-sensitized solar cells (DSSCs), where the liquid electrolyte is substituted by a gel, comprising functional redox species. More specifically, a DSSC is made of an anode electrode carrying nanocrystalline titania, sensitized by a dye, a counter electrode carrying Pt electrocatalyst and a redox electrolyte based on the  $I^-/I_3^-$  redox couple. By employing a nanocomposite organic-inorganic gel synthesized by the sol-gel method, based on a ureasil precursor and by introducing appropriate additives, efficient cells were constructed, which do not necessitate sealing and thus decrease fabrication cost. Maximum efficiency is currently 7%. These cells are easy to fabricate. The gel plays the role of adhesive that fastens the two electrodes together, thus it suffices to sandwich the gel precursor between the two electrodes. A variant comprises a fine dispersion of nanocrystalline titania automatically deposited by printing techniques, yielding *transparent cells that may be used as photovoltaic windows*. Another variant comprises an organic polymer employed as electrocatalyst. The above technology was the basis *for setting up of the spin off Brite Hellas*, presently hosted by Patras Science Park.

### Heterogeneous photocatalysis using oxide semiconductors

Nanoparticulate titania, in pure or doped form was used as photocatalyst for photodegradation of water-borne organic pollutants. In this case, research was mainly focused on the synthesis of high quality pure or doped titania nanostructured thin films. The related data gave a lot of information,

which is also useful for the amelioration of solar cells through optimized oxide semiconductor nanostructures.

### **Photocatalytic and photoelectrocatalytic hydrogen and electricity generation**

The photodegradation of organic wastes, for example, those produced by the biomass-processing industry, can be used to generate hydrogen and/or electricity in the presence of photocatalysts and under solar irradiation. Photoreforming and the construction of photoactivated fuel cells has been recently studied. Many ideas applicable to photo-fuel-cells have proven themselves valuable for optimizing DSSCs, for example, the use of electrocatalysts and the construction of nanocrystalline oxide semiconductor thin films.

### **PATENTS**

1. “Photoelectrochemical solid-state cell used for the photovoltaic conversion of solar energy” P.Lianos, Elias Stathatos, B.Orel, U.Lavrencic-Stangar, N.Groselj, Greece, No. 1003816, International Classification: H01G 9/20
2. «Solar photoelectrochemical cell made of composite organic/inorganic nanostructured materials» P.Lianos and E.Stathatos, Greece, No.1004545, International Classification: C01G 23/053
3. “Photoelectrochemical solar cell made from nanocomposite organic-inorganic materials” Applicants: P.Lianos and E.Stathatos, PCT/GR2004/000023/16.4.2004

### **PARTICIPATION IN RESEARCH PROJECTS (10 year track)**

He has participated in a total of 54 research projects, in most of them being coordinator. During the last 10 years he has participated in the following projects:

1. Solid state photoelectrochemical cells (Coordinator, Basic Research Program “K.KAPAΘEOΔΩPHΣ” of the University of Patras, 2001-2003) 40 000€
2. Study of nanostructured organic inorganic ionic conductors and their applications to Photoelectrochemical Solar Cells and Electrochromic Cells (National Coordinator, Greece-Slovenia R&T Cooperation Program 2003-2004) 15 000€
3. Enhancement of the efficiency of photovoltaic cells with molecular light concentrators (National Coordinator, Greece-Cyprus R&T Cooperation Program 2004-2005) 100 000€
4. Study of new photoactive materials with environmental applications (Coordinator, Program ΗΡΑΚΛΕΙΤΟΣ-ΕΠΙΕΑΕΚ 2002-2005) 40 000€
5. Study of nanostructured organic and inorganic materials and their application to water characterization and purification (Coordinator, Program ΠΥΘΑΓΟΡΑΣ II 2005-2007) 100 000€
6. «Coordination Action towards stable and low-cost organic solar cell technologies and their application” (National Coordinator, OrgaPVnet 2006-2008) 35 000€
7. Environmental effects of Sahara desert sand: Study of photocatalytic effects by using model organic-inorganic materials. (participant, GR-TR R&T Cooperation 2007-2008) 15 000€
8. New Materials for improving efficiency of Solar Cells. (National Coordinator, GR-CY R&T Cooperation 2007-2008) 15 000€
9. Synthesis of Visible-Light Functional  $\text{TiO}_{2-x}\text{N}_x$  Nanoparticles and Films and their Application for the Decomposition of Carbamide and Organophosphate-based Pesticides in Water. (Participant, Greece-USA R&T Cooperation Program 2006-2007 ) 60 000€
10. Development of photocatalytic and photoelectrocatalytic materials for water splitting and hydrogen production using solar energy. (Participant, ΠΕΝΕΔ 03ΕΔ607 2005-2009) 100 000€
11. Development and pilot plant demonstration of hydrogen production from solar energy and biomass (waste) compounds and derivatives at ambient conditions mediated by nanostructured photocatalysts. (Participant, E.ON International Research Initiative 2009-2013) 400000€

12. Study of the Photoelectrochemical production of hydrogen and electricity by using hybrid organic-inorganic structures (Coordinator, Program ΗΡΑΚΛΕΙΤΟΣ 2010-2013) 45 000€
13. Innovative materials for nanostructured solar cells. Coordinator, THALES, 2012-2015, 600000€
14. Development of innovative photofuel cells for the production of electricity and hydrogen by consumption of wastes using solar radiation. Participant, THALES, 2012-2015, 600000€
15. Graphene and nanocomposite materials. Production, properties and applications. Participant, THALES, 2012-2015, 600000€
16. Solar-powered photoactivated fuel cells producing electricity by photocatalytically consuming water wastes. Coordinator, ARISTEIA, 2012-2015 520000€.
17. Efficient wastewater treatment with nanocrystalline transition metal oxides modified with noble metals and non-metals. Coordinator, GR-RO R&T cooperation, 2012-2014 15000€.
18. Energy autonomous smart greenhouse. Participant, SYNERGASIA 2013-2015 130 000€ (2.5 M€ total budget).
19. Innovative materials for solar cell design and demonstration, GR-DE cooperation program 2013-2015 2x 250000€.

### LIST OF PUBLICATIONS (5 year track)

1. *Photoluminescence and Electroluminescence by Gallium(III) complexes of N-Salicylidene-o-aminophenol and its Derivatives*: Adamadia Kagkelari, Vlasoula Bekiari, Elias, Stathatos, Giannis S. Papaefstathiou, Catherine P. Raptopoulou, Theodoros F. Zafiroopoulos and Panagiotis Lianos, *J.Luminescence*, 129(2009)578-583.
2. *Adsorption of dyes on Sahara desert sand*: Canan Varlikli, Vlasoula Bekiari, Mahmut Kus, Numan Boduroglu, Ilker Oner, Panagiotis Lianos, Gerasimos Lyberatos, Siddik Icli, *J.Hazardous Materials*, 170(2009)27-34.
3. *Photodegradation of the herbicide Azimsulfuron using nanocrystalline Titania films as photocatalyst and low intensity Black Light Radiation or Simulated Solar radiation as excitation source*: Katerina Pelentridou, Elias Stathatos, Eleni Karasali, Panagiotis Lianos, *Journal of Hazardous Materials*, 163(2009)756-760.
4. *Photoelectrochemical oxidation of organic substances and electricity generation in the presence of nanocrystalline titania photocatalyst*: Maria Antoniadou and Panagiotis Lianos, *J.Nanoscience and Nanotechnology* 10(2010)6240-6244.
5. *A new precursor for the preparation of nanocrystalline TiO<sub>2</sub> films and their photocatalytic properties*: Katerina Pelentridou, Elias Stathatos, Panagiotis Lianos and Vassilios Drakopoulos, *J.Nanoscience and Nanotechnology* 10(2010)6093-6098
6. *Photocatalytic and photoelectrochemical hydrogen production by photodegradation of organic substances*: Panagiotis Lianos, Nikoleta Strataki and Maria Antoniadou, *Pure and Applied Chemistry*, 81(2009)1441-1448.
7. *Near Ultraviolet and Visible light photoelectrochemical degradation of organic substances producing electricity and hydrogen*: Maria Antoniadou and Panagiotis Lianos, *J. of Photochemistry and Photobiology A: Chemistry* 204(2009)69-74.
8. *Photooxidation products of ethanol during photoelectrochemical operation using a nanocrystalline titania anode and a two compartment chemically biased cell*: Maria Antoniadou, Dimitris I. Kondarides and Panagiotis Lianos, *Catalysis Letters*, 129(2009)344-349.
9. *Effect of the conditions of platinum deposition on titania nanocrystalline films on the efficiency of photocatalytic oxidation of ethanol and production of hydrogen*: Nikoleta Strataki, Nikolaos Boukos, Fotis Paloukis, Stylianos G. Neophytides and Panagiotis Lianos, *Photochem.Photobiol.Sci.* 8(2009)639-643.
10. *Photoelectrochemical oxidation of organic substances over nanocrystalline Titania. Optimization of the photoelectrochemical cell*: Maria Antoniadou and Panagiotis Lianos, *Catalysis Today*, 144(2009)166-171.

11. *Initial use of 1-hydroxybenzotriazole in the chemistry of group 12 metals: An 1D zinc (II) coordination polymer and a mononuclear cadmium(II) complex containing the deprotonated ligand in a novel monodentate ligation mode:* Athanassios D. Katsenis, Nikolia Lalioti, Vlasoula Bekiari, Panagiotis Lianos, Catherine P. Raptopoulou, Aris Terzis, Spyros P. Perlepes, Giannis S. Papaefstathiou, *Inorganic Chemistry Communications*, 12(2009)92-96.
12. *An efficient photoelectrochemical cell functioning in the presence of organic wastes:* Maria Antoniadou, Dimitris I. Kondarides, Diamantoula Labou, Stylianos Neophytides and Panagiotis Lianos, *Solar Energy Materials and Solar Cells*, 94(2010)592-597.
13. *Cost-effective dye-sensitized solar cells based on commercial nanocrystalline titania and a ureasil gel electrolyte:* Maria Antoniadou and Panagiotis Lianos, *European Physics Journal-Applied Physics*, 51(2010)33211(4 pages).
14. *A round robin study of flexible large area roll-to-roll processed polymer solar cell modules:* Frederik C. Krebs et al, *Solar Energy Materials and Solar Cells* 93(2009)1968-1977.
15. *Study of hybrid solar cells made of multilayer nanocrystalline titania and poly(3-octylthiophene) or poly-(3-(2-methylhex-2-yl)-oxy-carbonyldithiophene):* Maria Antoniadou, Elias Stathatos, Nikolaos Boukos, Andreas Stefopoulos, Joannis Kallitsis, Frederik C. Krebs and Panagiotis Lianos, *Nanotechnology* 20(2009) Art.No.495201
16. *Visible-light photocatalytic hydrogen production from ethanol-water mixtures using a Pt-CdS-TiO<sub>2</sub> photocatalyst:* Nikoleta Strataki, Maria Antoniadou, V.Dracopoulos and Panagiotis Lianos, *Catalysis Today* 151(2010)53-57.
17. *TiO<sub>2</sub>-based advanced oxidation nanotechnologies for water purification and reuse:* Hyeok Choi, Souhail R.Al-Abed, Dionysios D.Dionysiou, Elias Stathatos and Panagiotis Lianos, *Sustainability Science and Engineering* 2(2010)229-254.
18. *Solar Light-Responsive Pt/CdS/TiO<sub>2</sub> Photocatalysts for Hydrogen Production and Simultaneous Degradation of Inorganic or Organic Sacrificial Agents in Wastewater:* Vasileia M. Daskalaki, Maria Antoniadou, Gianluca Li Puma, Dimitris I. Kondarides, and Panagiotis Lianos, *Environmental Science and Technology* 44 (2010) 7200-7205
19. *Production of electricity by photoelectrochemical oxidation of ethanol in a PhotoFuelCell:* Maria Antoniadou and Panagiotis Lianos, *Applied Catalysis B: Environmental*, 99 (2010)307-313.
20. *Solid-state Dye-sensitized Solar Cells made of multilayer nanocrystalline Titania and Poly(3-hexylthiophene):* Nikolaos Balis, Vassilios Dracopoulos, Maria Antoniadou and Panagiotis Lianos, *J.Photochem.Photobiol. A: Chemistry*, 214(2010)69-73.
21. *Poly(sodium acrylate) hydrogels as potential pH-sensitive sorbents for removal of model organic and inorganic pollutants from water:* Vlasoula Bekiari and Panagiotis Lianos, *Global Nest Journal*, 12(2010)262-269.
22. *Aldol condensation products during photocatalytic oxidation of ethanol in a photoelectrochemical cell:* Paraskevi Panagiotopoulou, Maria Antoniadou, Dimitris I. Kondarides and Panagiotis Lianos, *Appl.Catal. B: Environ.*, 100(2010)124-132.
23. *A Photoactivated Fuel Cell used as an Apparatus that Consumes Organic Wastes to Produce Electricity:* Maria Antoniadou and Panagiotis Lianos, *Photochemical and Photobiological Science* 10(2011)431-435.
24. *Enhanced photon harvesting in Silicon multicrystalline solar cells by new lanthanide complexes as light concentrators:* Giannis Katsagounos, Elias Stathatos, Nikos B.Arabatzis, Anastasios D.Keramidas and Panagiotis Lianos, *J.Luminescence* 131 (2011) 1776–1781.  
<http://dx.doi.org/10.1016/j.jlumin.2011.04.023>
25. *A quasi solid-state dye-sensitized solar cell made of polypyrrole counter electrodes:* Theodoros Makris, Vassilios Dracopoulos, Thomas Stergiopoulos and Panagiotis Lianos, *Electrochimica Acta* 56(2011)2004-2008. <http://www.sciencedirect.com/science/article/pii/S0013468610015884>
26. *Production of electricity and hydrogen by photocatalytic degradation of organic wastes in a Photoelectrochemical cell. The concept of the Photo-Fuel-Cell. A review of a re-emerging research field:* Panagiotis Lianos, *J.Hazardous Materials*, 185(2011)575-590  
<http://dx.doi.org/10.1016/j.jhazmat.2010.10.083>

27. *A solid state hybrid solar cell made of nc-TiO<sub>2</sub>, CdS quantum dots and P3HT with 2-amino-1-methylbenzimidazole as interface modifier*: Nikolaos Balis, Vassilios Dracopoulos, Elias Stathatos, Nikolaos Boukos and Panagiotis Lianos, *J.Phys.Chem.C* 115(2011)10911-10916. <http://pubs.acs.org/doi/abs/10.1021/jp2022264>
28. *Photocatalysis and photoelectrocatalysis using (CdS-ZnS)/TiO<sub>2</sub> combined photocatalysts*: Maria Antoniadou, Vasileia M. Daskalaki, Nikolaos Balis, Dimitris I. Kondarides, Christos Kordulis and Panagiotis Lianos, *Appl.Catal B: Environ.* 107(2011)188-196 [doi:10.1016/j.apcatb.2011.07.013](http://dx.doi.org/10.1016/j.apcatb.2011.07.013)
29. *Quasi-Solid-State Dye-sensitized Solar Cells made with poly(3,4-ethylenedioxythiophene) (PEDOT)-functionalized counter electrodes*: Nikolaos Balis, Theodoros Makris, Vassilios Dracopoulos, Thomas Stergiopoulos and Panagiotis Lianos, *J.Power Sources*, 203(2012)302-307 <http://dx.doi.org/10.1016/j.jpowsour.2011.12.021>
30. *Photocatalysis and photoelectrocatalysis using nanocrystalline titania alone or combined with Pt, RuO<sub>2</sub> or NiO co-catalysts*: Maria Antoniadou, Paraskevi Panagiotopoulou, Dimitris I.Kondarides and Panagiotis Lianos, *J.Appl.Electrochem.*, 42 (2012)737-743 <http://link.springer.com/article/10.1007%2Fs10800-012-0408-2>
31. *One-step electrodeposition of polypyrrole applied as oxygen reduction electrocatalyst in Photoactivated Fuel Cells*: Nikolaos Balis, Vassilios Dracopoulos, Maria Antoniadou and Panagiotis Lianos, *Electrochimica Acta* 70(2012)338- 343 <http://dx.doi.org/10.1016/j.electacta.2012.03.086>
32. *Quantum dot sensitized titania applicable as photoanode in photoactivated fuel cells*: Maria Antoniadou, Dimitris I. Kondarides, Dionysios D.Dionysiou, Panagiotis Lianos, *J.Phys.Chem.*, 116(2012)16901-16909 <http://pubs.acs.org/doi/abs/10.1021/jp305098m>
33. *The use of polyurethane as encapsulating method for polymer solar cells. An inter laboratory study on outdoor stability in 8 countries*: Roar R.Søndergaard, Theodoros Makris, Panagiotis Lianos, Assaf Manor, Eugene A.Katz, Wei Gong, Sachetan M.Tuladhar, Jenny Nelson, Ralf Tuomi, Paul Sommeling, Sjoerd C. Veenstra, Agnes Rivaton, Aurelie Dupuis, Gerardo Teran-Escobar, Monica Lira-Cantu, Subarna B. Sapkota, Birger Zimmermann, Uli Wurfel, Andreas Matzarakis, Frederik C.Krebs *Solar Energy Materials and Solar Cells* 99(2012)292-300 <http://www.sciencedirect.com/science/article/pii/S0927024811006945>
34. *Synthesis, crystal structure and luminescence of novel Eu<sup>3+</sup>, Sm<sup>3+</sup> and Gd<sup>3+</sup> complexes of 1,3,5- and 1,2,4-Triazines*: Lefkia Panayiotidou, Marios Stylianou, Nikos Arabatzis, Chryssoula Drouza, Panagiotis Lianos, Elias Stathatos, Anastasios D.Keramidas, *Polyhedron* 52(2013)856-865 <http://dx.doi.org/10.1016/j.poly.2012.07.029>
35. *Buckypaper as Pt-free cathode electrode in photoactivated fuel cells*: Stavroula Sfaelou, Maria Antoniadou, Georgios Trakakis, Vassilios Dracopoulos, Dimitrios Tasis, John Parthenios, Constantinos Galiotis, Konstantinos Papagelis, Panagiotis Lianos, *Electrochimica Acta*, 80(2012)399-404. <http://dx.doi.org/10.1016/j.electacta.2012.07.046>
36. *Quantum dot sensitized solar cells based on an optimized combination of ZnS, CdS and CdSe with CoS and CuS counter electrodes*: Nikolaos Balis,Vassilios Dracopoulos, Kyriakos Bourikas and Panagiotis Lianos, *Electrochimica Acta* 91 (2013) 246- 252 <http://dx.doi.org/10.1016/j.electacta.2013.01.004>
37. *Solar energy conversion using photo-fuel-cells*: Maria Antoniadou, Changseok Han, Stavroula Sfaelou, Melpomeni Michailidi, Dionysios D.Dionysiou and Panagiotis Lianos, *Science of Advanced Materials*, in press.
38. *Photocatalytic oxidation of ethanol using undoped and Ru-doped titania: Acetaldehyde, hydrogen or electricity generation*: Maria Antoniadou, Vincenzo Vaiano, Diana Sannino and Panagiotis Lianos, *Chemical Engineering Journal*, in press <http://dx.doi.org/10.1016/j.cej.2012.09.104>
39. *Quantum dot sensitized titania as visible-light photocatalyst for solar operation of photoactivated fuel cells*: Stavroula Sfaelou, Maria Antoniadou, Vassilios Dracopoulos, Kyriakos Bourikas, Dimitris I. Kondarides and Panagiotis Lianos, submitted.

40. *Platinum-free photoelectrochemical water splitting*: Maria Antoniadou, Stavroula Sfaelou, Vassilios Dracopoulos, Panagiotis Lianos, *Catalysis Communications*, 43(2014)72-74.  
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41. *Study of the thermal reduction of graphene oxide and of its application as electrocatalyst in quasi-solid state dye-sensitized solar cells in combination with PEDOT*: Archontoula Nikolakopoulou, Dimitrios Tasis, Lambrini Sygellou, Vassilios Dracopoulos, Costas Galiotis, Panagiotis Lianos, *Electrochimica Acta* 111(2013)698-706  
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42. *Quantum dot sensitized titania for water splitting and photo-fuel-cell applications*: Maria Antoniadou, Stavroula Sfaelou, Panagiotis Lianos, submitted
43. *Hydrogen production by photocatalytic ethanol reforming using Eu- and S-doped anatase*: Jarmila Puskelova, Robert Michal, Maria Caplovicova, Maria Antoniadou, Lubomir Caplovic, Gustav Plesch, Panagiotis Lianos, submitted.
44. *Structural and stability studies on quantum dot sensitized solar cells*: Stavroula Sfaelou, Nikolaos Balis, Vassilios Dracopoulos and Panagiotis Lianos, *Journal of Surfaces and Interfaces of Materials*, in press.
45. *Micro-Raman, photoluminescence and photocurrent studies on the photostability of quantum dot sensitized photoanodes*: Stavroula Sfaelou, Athanassios G. Kontos, Polycarpos Falaras and Panagiotis Lianos, *J.Photochem.Photobiol. A: Chemistry* 275(2014) 127-133  
<http://www.sciencedirect.com/science/article/pii/S1010603013004851>
46. *Composite ZnSe-CdSe quantum dot sensitizers of solid state solar cells and the beneficial effect of added Na<sub>2</sub>S*: Georgia Sfyri, Stavroula Sfaelou, Konstantinos S.Andrikopoulos, Nikolaos Balis, George A.Voyiatzis and Panagiotis Lianos, *Journal of Physical Chemistry C*, in press.
47. *Photocatalytic hydrogen production using TiO<sub>2</sub>-Pt aerogels*: Jarmila Puskelova, Lucian Baia, Adriana Vulpoi, Monica Baia, Maria Antoniadou, Vassilios Dracopoulos, Elias Stathatos, Kovacs Gabor, Zsolt Pap, Virginia Danciu, Panagiotis Lianos, *Chemical Engineering Journal*, 242(2014)96-101 <http://dx.doi.org/10.1016/j.cej.2013.12.018>
48. *Study of the stability of quantum dot sensitized solar cells*: Stavroula Sfaelou, Athanassios G. Kontos, Lida Givalou, Polycarpos Falaras, Panagiotis Lianos, *Catalysis Today*, in press.
49. *Quantum-dot-sensitized solar cells with metal electrodes*: Stavroula Sfaelou, Vassilios Dracopoulos, Panagiotis Lianos, *J.Advanced Oxidation Technologies*,17(2014)53-58.
50. *Photocatalytic and photoelectrocatalytic degradation of Acid Orange 7 and Rhodamine 6G using nanocrystalline titania films*: Iofif Tantis, Elias Stathatos and Panagiotis Lianos, submitted.
51. *Dispersion of graphene in organic solvents and their use for improving efficiency of dye- and quantum dot-sensitized solar cells*: Archontoula Nikolakopoulou, Dimitrios Tasis, Lambrini Sygellou, Panagiotis Lianos, submitted.
52. *Cerium-modified TiO<sub>2</sub> nanocrystalline films for visible light photocatalytic activity*: A. Rapsomanikis, A. Apostolopoulou, E. Stathatos, P. Lianos *Journal of Photochemistry and Photobiology A: Chemistry* 280 (2014) 46-53  
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