

**1. Papers in Refereed Journals**

1. “Molecular orbital assistance in the design of intramolecular and photoinduced electron transfer systems”,  
I.D. Petsalakis and G. Theodorakopoulos,  
Chem. Phys. Lett. 525-526, 105 (2012).  
[DOI: 10.1016/j.cplett.2012.01.002](https://doi.org/10.1016/j.cplett.2012.01.002)
2. “Conformations and fluorescence of encapsulated stilbene”,  
D. Tzeli, G. Theodorakopoulos, I.D. Petsalakis, D. Ajami, and J. Rebek, Jr.,  
J. Am. Chem. Soc. 134, 4346 (2012).  
[DOI:10.1021/ja211164b](https://doi.org/10.1021/ja211164b)
3. “Encapsulated hydrogen-bonded dimers of amide and carboxylic acid”,  
D. Tzeli, I.D. Petsalakis, G. Theodorakopoulos, D. Ajami, W. Jiang, and J. Rebek, Jr.,  
Chem. Phys. Lett. 548, 55 (2012).  
[DOI:10.1016/j.cplett.2012.08.024](https://doi.org/10.1016/j.cplett.2012.08.024)
4. “Constraining density functional approximations to yield self-interaction free potential”,  
N.I. Gidopoulos and N.N. Lathiotakis,  
J. Chem. Phys. 136, 224109 (2012).  
[DOI: 10.1063/1.4728156](https://doi.org/10.1063/1.4728156)
5. “Nonanalyticity of the optimized effective potential with finite basis sets”,  
N.I. Gidopoulos and N.N. Lathiotakis,  
Phys. Rev. A 85, 052508 (2012).  
[DOI: 10.1103/PhysRevA.85.052508](https://doi.org/10.1103/PhysRevA.85.052508)
6. “Ionization potentials and electron affinities from reduced-density-matrix functional theory”,  
E.N. Zarkadoula, S. Sharma, J.K. Dewhurst, E.K.U. Gross, and N.N. Lathiotakis,  
Phys. Rev. A 85, 032504 (2012).  
[DOI: 10.1103/PhysRevA.85.032504](https://doi.org/10.1103/PhysRevA.85.032504)
7. “Short- and long-range binding of Be with Mg in the X  $1\Sigma^+$  ground state and in the A  $1\Pi$  excited state”,  
I.S.K. Kerkines and C.A. Nicolaides,  
J. Chem. Phys. 137, 124309 (2012).  
[DOI: 10.1063/1.4752656](https://doi.org/10.1063/1.4752656)

8. “Plasmon-induced enhancement of nonlinear optical rectification in organic materials”,  
I. Thanopoulos, E. Paspalakis, and V. Yannopoulos,  
Phys. Rev. B 85, 035111 (2012).  
[DOI: 10.1103/PhysRevB.85.035111](https://doi.org/10.1103/PhysRevB.85.035111)
9. “Time-dependent partitioning theory of the control of radiationless transitions in 24-mode pyrazine”,  
I. Thanopoulos, X. Li, P. Brumer, and M. Shapiro,  
J. Chem. Phys. 137, 064111 (2012).  
[DOI: 10.1063/1.4739275](https://doi.org/10.1063/1.4739275)
10. “Modification of Wilkinson’s catalyst with triphenyl phosphite: Synthesis, structure, <sup>31</sup>P NMR and DFT study of trans-[RhCl(P(OPh)<sub>3</sub>)(PPh<sub>3</sub>)<sub>2</sub>]”,  
I. Choinopoulos, I. Papageorgiou, S. Coco, E.D. Simandiras, and S. Koinis,  
Polyhedron 45, 255 (2012).  
[DOI: 10.1016/j.poly.2012.06.086](https://doi.org/10.1016/j.poly.2012.06.086)
11. “Theoretical elucidation of a classic reaction: Protonation of the quadruple bond of the octachlorodimolybdate(II,II) [Mo<sub>2</sub>Cl<sub>8</sub>]<sup>4-</sup> anion”,  
E.D. Simandiras, M. Tsakiroglou, N. Psaroudakis, D.G. Liakos, and K. Mertis,  
Inorg. Chem. 51, 258 (2012).  
[DOI: 10.1021/ic2016325](https://doi.org/10.1021/ic2016325)
12. “Structure and calculation of field-induced free-free transition matrix elements in many-electron atoms”,  
Y. Komninou, Th. Mercouris, and C.A. Nicolaidis,  
Phys. Rev. A 86, 023420 (2012).  
[DOI:10.1103/PhysRevA.86.023420](https://doi.org/10.1103/PhysRevA.86.023420)
13. “Low-energy peak structure in strong-field ionization by midinfrared laser pulses: Two-dimensional focusing by the atomic potential”,  
C. Lemell, K.I. Dimitriou, X-M. Tong, S. Nagele, D.V. Kartashov, J. Burgdörfer, and S. Gräfe,  
Phys. Rev. A 85, 011403 (2012).  
[DOI:10.1103/PhysRevA.85.011403](https://doi.org/10.1103/PhysRevA.85.011403)
14. “Theoretical study of the O<sub>2</sub> + Al<sub>4</sub> (tetrahedral) system in its singlet state and comparisons with its triplet state”,  
N.C. Bacalis, A. Metropoulos, and A. Gross,  
J. Phys. Chem. C 116, 16430 (2012).  
[DOI: http://dx.doi.org/10.1021/jp3014833](http://dx.doi.org/10.1021/jp3014833)
15. “Base pair openings and temperature dependence of DNA flexibility”,  
N. Theodorakopoulos and M. Peyrard,  
Phys. Rev. Lett. 108, 078104 (2012); [arXiv:1201.6561](https://arxiv.org/abs/1201.6561)

[DOI:10.1103/PhysRevLett.108.078104](https://doi.org/10.1103/PhysRevLett.108.078104)

16. “Investigation of CuI-containing molybdophosphate glasses by infrared reflectance spectroscopy”,

C.P.E. Varsamis, E.I. Kamitsos, T. Minami, and N. Machida,

J. Phys. Chem. C 116, 11671 (2012).

[DOI: 10.1021/jp302876u](https://doi.org/10.1021/jp302876u)

17. “Synthesis and multiscale evaluation of LiNbO<sub>3</sub>-containing silicate glass-ceramics with efficient isotropic SHG response”,

H. Vigouroux, E. Fargin, S. Gomez, B. Le Garrec, G. Mountrichas, E.I. Kamitsos, F. Adamietz, M. Dussauze, and V. Rodriguez,

Adv. Funct. Mater. 22, 3985 (2012).

[DOI: 10.1002/adfm.201200651](https://doi.org/10.1002/adfm.201200651)

18. “Vibrational investigation of indigo-palygorskite association(s) in synthetic Maya blue”,  
C. Tsiantos, M. Tsampodimou, G.H. Kacandes, M. Sanchez del Rio, V. Gionis, and G.D. Chryssikos,

J. Mater. Sci. 47, 3415 (2012).

[DOI: 10.1007/s10853-011-6189-x](https://doi.org/10.1007/s10853-011-6189-x)

19. “Properties of pulsed laser deposited nanocomposite NiO:Au thin films for gas sensing applications”,

I. Fasaki, M. Kandyla, and M. Kompitsas,

Appl. Phys. A 107, 899 (2012).

[DOI: 10.1007/s00339-012-6816-7](https://doi.org/10.1007/s00339-012-6816-7)

20. “Optical tweezers with enhanced efficiency based on laser-structured substrates”,

D.G. Kotsifaki, M. Kandyla, I. Zergioti, M. Makropoulou, E. Chatzitheodoridis, and A.A. Serafetinides,

Appl. Phys. Lett. 101, 011102 (2012).

[DOI: 10.1063/1.4728992](https://doi.org/10.1063/1.4728992)

21. “Nanocrystalline/microcrystalline materials based on lead-halide units”,  
G.C. Papavassiliou, G. Pagona, N. Karousis, G.A. Mousdis, I. Koutselas, and A. Vassilakopoulou,

J. Mater. Chem. 22, 8271 (2012).

[DOI: 10.1039/C2JM15783G](https://doi.org/10.1039/C2JM15783G)

22. “Neutral metal 1,2-dithiolenes: Preparations, properties and possible applications of unsymmetrical in comparison to the symmetrical”,

G.C. Papavassiliou, G.C. Anyfantis, and G.A. Mousdis,

Crystals 2, 762 (2012) (Invited Review).

[DOI:10.3390/cryst2030762](https://doi.org/10.3390/cryst2030762)

23. “Structural and electrical properties of the  $\tau$ -(P-S,S-DMEDT-TTF)<sub>2</sub>(AuCl<sub>2</sub>) (AuCl<sub>2</sub>)<sub>y</sub> compound with ( $y \approx 0.9$ )”,  
V. Psycharis, G.A. Mousdis, K. Murata, and G.C. Papavassiliou,  
Crystals 2, 1283 (2012).  
[DOI:10.3390/cryst2031283](https://doi.org/10.3390/cryst2031283)

24. “Application of FT-IR spectroscopy to assess the olive oil adulteration”,  
M.A. Poiana, G. Mousdis, E. Alexa, D. Moigradean, M. Negrea, and C. Mateescu,  
J. of Agroalimentary Processes and Technologies 18, 277 (2012).  
[http://journal-of-agroalimentary.ro/admin/articole/24370L05\\_Poiana\\_Vol.18\\_1\\_2012\\_277-282.pdf](http://journal-of-agroalimentary.ro/admin/articole/24370L05_Poiana_Vol.18_1_2012_277-282.pdf)

25. “Association of poly(4-hydroxystyrene)-block-poly(ethylene oxide) in aqueous solutions: Block copolymer nanoparticles with intermixed blocks”,  
M. Stepanek, J. Hajduova, K. Prochazka, M. Slouf, J. Nebesarova, G. Mountrichas, C. Mantzaridis, and S. Pispas,  
Langmuir 28, 307 (2012).  
[DOI: 10.1021/la203946s](https://doi.org/10.1021/la203946s)

26. “Polyplexes based on cationic polymers with strong nucleic acid binding properties”,  
A.K. Varkouhi, G. Mountrichas, R.M. Schiffelers, T. Lammers, G. Storm, S. Pispas, and W.E. Hennik,  
Eur. J. Pharm. Sci. 45, 459 (2012).  
[DOI: 10.1016/j.ejps.2011.09.002](https://doi.org/10.1016/j.ejps.2011.09.002)

27. “Versatile light actuated matter manipulation in transparent non-dilute polymer solutions”,  
M. Anyfantakis, A. Koniger, S. Pispas, W. Kohler, H-J. Butt, B. Loppinet, and G. Fytas,  
Soft Matter 8, 2382 (2012).  
[DOI: 10.1039/c2sm07219j](https://doi.org/10.1039/c2sm07219j)

28. “Amphiphilic gradient copolymers of 2-methyl- and 2-phenyl-2-oxazoline: Self-organization in aqueous media and drug encapsulation”,  
Y. Milonaki, E. Kaditi, S. Pispas, and C. Demetzos,  
J. Polym. Sci. Part A: Polym. Chem. 50, 1226 (2012).  
[DOI: 10.1002/pola.25888](https://doi.org/10.1002/pola.25888)

29. “DNA encapsulation via nanotemplates from cationic block copolymer micelles”,  
E. Haladjova, S. Rangelov, C.B. Tsvetanov, and S. Pispas,  
Soft Matter 8, 2884 (2012).  
[DOI: 10.1039/c2sm07029d](https://doi.org/10.1039/c2sm07029d)

30. “Hybrid copolymerization of  $\epsilon$ -caprolactone and methyl methacrylate”,

H. Yang, J. Xu, S. Pispas, and G. Zhang,  
*Macromolecules* **45**, 3312 (2012).  
[DOI: 10.1021/ma300291q](https://doi.org/10.1021/ma300291q)

31. “The fractal hologram and elucidation of the structure of liposomal carriers in aqueous and biological media”,  
N. Pippa, S. Pispas, and C. Demetzos,  
*Int. J. Pharm.* **430**, 65 (2012).  
[DOI: 10.1016/j.ijpharm.2012.03.048](https://doi.org/10.1016/j.ijpharm.2012.03.048)

32. “Self-induced transparency in diblock copolymer dispersions”,  
M. Anyfantakis, B. Loppinet, G. Fytas, C. Mantzaridis, S. Pispas, and H-J. Butt,  
*Optics Letters* **37**, 2487 (2012).  
[DOI: 10.1364/OL.37.002487](https://doi.org/10.1364/OL.37.002487)

33. “Amphiphilic diblock copolymers based on ethylene oxide and epoxides bearing aliphatic side chains”,  
A-L. Brocas, M. Gervais, S. Carlotti, and S. Pispas,  
*Polym. Chem.* **3**, 2148 (2012).  
[DOI: 10.1039/c2py20189e](https://doi.org/10.1039/c2py20189e)

34. “Complexation of stimuli-responsive star-like amphiphilic block polyelectrolyte micelles with lysozyme”,  
M. Karayianni and S. Pispas,  
*Soft Matter* **8**, 8758 (2012).  
[DOI: 10.1039/c2sm26084k](https://doi.org/10.1039/c2sm26084k)

35. “Merging high doxorubicin loading with pronounced magnetic response and bio-repellent properties in hybrid drug nanocarriers”,  
A. Bakandritsos, A. Papagiannopoulos, E.N. Anagnostou, K. Avgoustakis, R. Zboril, S. Pispas, J. Tucek, V. Ryukhtin, N. Bouropoulos, A. Kolokithas-Ntoukas, T.A. Steriotis, U. Keiderling, and F. Winnefeld,  
*Small* **8**, 2381 (2012).  
[DOI: 10.1002/smll.201102525](https://doi.org/10.1002/smll.201102525)

36. “Wormlike core-shell nanoparticles formed by co-assembly of double hydrophilic block polyelectrolyte with oppositely charged fluorosurfactant”,  
M. Stepanek, J. Skvarla, M. Uchman, K. Prochazka, B. Angelov, L. Kovacik, V. M. Garamus, C. Mantzaridis, and S. Pispas,  
*Soft Matter* **8**, 9412 (2012).  
[DOI: 10.1039/c2sm25588j](https://doi.org/10.1039/c2sm25588j)

37. “The delineation of the morphology of charged liposomal vectors via fractal analysis in aqueous and biological media: Physicochemical and self-assembly studies”,

N. Pippa, S. Pispas, and C. Demetzos,  
Int. J. Pharm. 437, 264 (2012).  
[DOI: 10.1016/j.ijpharm.2012.08.017](https://doi.org/10.1016/j.ijpharm.2012.08.017)

38. “Block copolymers for drug delivery nano systems (DDnSs)”,  
E. Kaditi, G. Mountrichas, S. Pispas, and C. Demetzos,  
Current Medicinal Chemistry 19, 5088 (2012) (Review Article).

39. “Micro-fabrication by laser radiation forces: A direct route to reversible free-standing three-dimensional structures”,  
L. Athansekos, M. Vasileiadis, C. Mantzaridis, V.C. Karoutsos, I. Koutselas, S. Pispas, and N. A. Vainos,  
Optics Express 20, 24735 (2012).  
[DOI: 10.1364/OE.20.024735](https://doi.org/10.1364/OE.20.024735)

40. “Azafullerene C<sub>59</sub>N – phthalocyanine dyad: Synthesis, characterization and photoinduced electron transfer”,  
G. Rotas, J. Ranta, A. Efimov, M. Niemi, H. Lemmetyinen, N. Tkachenko, and N. Tagmatarchis,  
Chem. Phys. Chem. 13, 1246 (2012).  
[DOI: 10.1002/cphc.201101029](https://doi.org/10.1002/cphc.201101029)

41. “Carbon nanohorn – porphyrin dimer hybrid material for enhancing photo-energy conversion”,  
G. Pagona, G. Zervaki, A.S.D. Sandanayaka, O. Ito, G. Charalambidis, T. Hasobe, A.G. Coutsolelos, and N. Tagmatarchis,  
J. Phys. Chem. C 116, 9439 (2012).  
[DOI: 10.1021/jp302178q](https://doi.org/10.1021/jp302178q)

42. “Direct evidence for covalent functionalization of carbon nanohorns by high-resolution electron microscopy imaging of C<sub>60</sub> conjugated onto their skeleton”,  
N. Karousis, Y. Sato, K. Suenaga, and N. Tagmatarchis,  
Carbon 50, 3909 (2012).  
[DOI: 10.1016/j.carbon.2012.04.035](https://doi.org/10.1016/j.carbon.2012.04.035)

43. “Graphene exfoliation in organic solvents and switching solubility in aqueous media with the aid of amphiphilic block copolymers”,  
Th. Skaltsas, N. Karousis, H.-J. Yan, C.-R. Wang, S. Pispas, and N. Tagmatarchis,  
J. Mater. Chem. 22, 21507 (2012).  
[DOI: 10.1039/c2jm33245k](https://doi.org/10.1039/c2jm33245k)

44. “Zinc-phthalocyanine–graphene hybrid material for energy conversion: Synthesis, characterization, photophysics and photoelectrochemical cell preparation”,  
N. Karousis, J. Ortiz, A. Sastre-Santos, T. Hasobe, K. Ohkubo, S. Fukuzumi, and N. Tagmatarchis,

J. Phys. Chem. C **116**, 20654 (2012).

[DOI: 10.1021/jp305783v](https://doi.org/10.1021/jp305783v)

45. “Thermionic field emission in gold nitride Schottky nanodiodes”,  
N. Spyropoulos-Antonakakis, E. Sarantopoulou, Z. Kollia, Z. Samardzija, S. Kobe, and A.C. Cefalas,

J. Appl. Phys. **112**, 094301 (2012).

[DOI:10.1063/1.4762012](https://doi.org/10.1063/1.4762012)

46. “Entropic nanothermodynamic potential from molecular trapping within photon induced nano-voids in photon processed PDMS layers”,

A.C. Cefalas, E. Sarantopoulou, Z. Kollia, M. Kitsara, I. Raptis, and E. Bakalis,  
Soft Matter **8**, 5561 (2012).

[DOI: 10.1039/c2sm07141j](https://doi.org/10.1039/c2sm07141j)

47. “Guiding and thermal properties of a hybrid polymer-infused photonic crystal fiber”,

C. Markos, K. Vlachos, and G. Kakarantzas,

Opt. Mat. Express **2**, 929 (2012).

[DOI: 10.1364/OME.2.000929](https://doi.org/10.1364/OME.2.000929)

48. “Chalcogenide glass layers in silica photonic crystal fibers”,

C. Markos, S.N. Yiannopoulos, and K. Vlachos,

Optics Express **20**, 14814 (2012).

## **2. Papers in Proceedings of International and National Conferences**

1. “Hydrogen sensing properties of thin NiO films deposited by RF sputtering”,  
M. Guziewicz, P. Klata, J. Grochowski, K. Golaszewska, E. Kaminska, J.Z. Domagala, B.A. Witkowski, M. Kandyla, Ch. Chatzimanolis, M. Kompitsas, and A. Piotrowska,  
Proceedings of Eurosensors XXVI, 9-12 September 2012, Krakow, Poland.

Procedia Engineering **47**, pp. 746-749 (2012).

[DOI: 10.1016/j.proeng.2012.09.255](https://doi.org/10.1016/j.proeng.2012.09.255)

2. “Novel block copolymers for multi-agent detection using polymer optical fibers”,

L. Athanasekos, S. Pispas, and C. Riziotis,

Proceedings of the Conference on Microstructured and Specialty Optical Fibers, 17-19 April 2012, Brussels, Belgium.

Proc. SPIE **8426**, 842615 (2012).

[DOI: 10.1117/12.927086](https://doi.org/10.1117/12.927086)

3. “Ultra low cost rapid prototyping of diffraction grating remote point gas sensors”,

N. Aspiotis, A. El Sachat, L. Athanasekos, M. Vasileiadis, G. Mousdis, S. Pispas, N. Vainos and C. Riziotis,  
IC-MAST Conference Proceedings, p.377-380 (2012).

4. “Thermoelectric and thermal properties of novel  $\tau$ -type organic conductors as thermoelectric materials”,  
H. Yoshino, H. Nakada, S. J. Krivichas, H. Mori, G. C. Anyfantis, G. C. Papavassiliou and K. Murata,  
Physica Status Solidi (C) 9, 1196-1198 (2012).

5. “Modeling of photonic crystal fiber with polymer inclusions”,  
C. Markos, K. Vlachos, and G. Kakarantzas,  
Proceedings of the Conference on Microstructured and Specialty Optical Fibers, 17-19 April 2012, Brussels, Belgium.  
Proc. SPIE 8426, 84260Y (2012).  
[DOI: 10.1117/12.922674](https://doi.org/10.1117/12.922674)

6. “Formation of PDMS films inside the holes of silica photonic crystal fibers”,  
C. Markos, K. Vlachos, and G. Kakarantzas,  
Proceedings of the Conference on Microstructured and Specialty Optical Fibers, 17-19 April 2012, Brussels, Belgium.  
Proc. SPIE 8426, 842604 (2012).  
[DOI: 10.1117/12.922682](https://doi.org/10.1117/12.922682)

7. “Fibre optic sensors for solid rocket motors health monitoring”,  
L. Bancallari, M. Sepe, L. Eineder, G. Tussiwand, G. Kakarantzas, C. Riziotis, N. Beverini, and E. Maccioni,  
Proceedings of 5th International Symposium on Optronics in Defence and Security, OPTRO2012 (OPTRO-2012-085), 8-10 February 2012, Paris, France.

### **3. Book Chapters**

1. “A theoretical study of complexes of crown ethers with substituted ammonium cations”,  
D. Tzeli, I.D. Petsalakis, and G. Theodorakopoulos,  
Advances in the theory of quantum systems in chemistry and physics: Book Series: Progress in Theoretical Chemistry and Physics, P.E. Hoggan, E.J. Brandas, J. Maruani, P. Piecuch, and G. Delgado-Barrio (Eds.). Springer Netherlands; 2012, Vol. 22, pp. 599-610.  
[DOI: 10.1007/978-94-007-2076-3\\_31](https://doi.org/10.1007/978-94-007-2076-3_31)

2. “Unstable states in the continuous spectra. Part II”,  
C.A. Nicolaidis and E. Brändas,  
Advances in Quantum Chemistry, C.A. Nicolaidis and E. Brändas (Eds.). Academic Press; 2012,



Special volume 63. ISBN: 9780123970091.

3. “Functionalization of carbon nanohorns”,  
G. Pagona and N. Tagmatarchis,  
Advances in Carbon Nanomaterials: Synthesis and Applications, N. Tagmatarchis (Ed.). Pan  
Stanford Press, Singapore; 2012, Chapter 6, pp. 239-268. ISBN: 978-981-426-78-85.
4. “Functionalization of graphene”,  
N. Karousis, S.P. Economopoulos, and N. Tagmatarchis,  
in «Handbook of Carbon Nano Materials: Materials and Fundamental Applications», Edited by  
F. D’Souza and K. M. Kadish; World Scientific, Singapore, Vol. 4, chap. 1, p.p. 1-54 (2012).
5. “Laser-induced soft matter organization and microstructuring of photonic materials”,  
L. Athanasekos, S. Pispas, and N.A. Vainos,  
Laser growth and processing of photonic devices, N.A. Vainos (Ed.). Woodhead Publishing Ltd;  
2012, Chapter 7, pp. 238-268. ISBN: 978-1-84569-936-9.
6. “Laser growth and processing of photonic structures: Overview of fundamental processes  
and operations”,  
N.A. Vainos, in “Laser growth and processing of photonic structures”, N.A. Vainos, (Ed.),  
Woodhead Publishing Ltd; 2012, Chapter 1, pp.1-52. ISBN: 978-1-84569-936-9.

#### **4. Books Editing**

1. “Advances in Quantum Chemistry”,  
C.A. Nicolaides and E. Brändas (Eds.), Academic Press; 2012, Special volume 63. ISBN:  
9780123970091.
2. “Advances in Carbon Nanomaterials: Synthesis and Applications”,  
N. Tagmatarchis (Ed.), PanStanford Press, Singapore, 2012.
3. “Laser growth and processing of photonic devices”,  
N.A. Vainos (Ed.), Woodhead Publishing Ltd; 2012, Chapter 7, pp. 238-268. ISBN: 978-1-  
84569-936-9.

#### **5. Dissertations**

##### **a. PhD theses**

1. “Mechanistic and computational studies of catalytic reactions involving transition metal  
clusters”,

M. Tsakiroglou,  
Supervisor Dr. E.D. Simandiras, National and Kapodistrian University of Athens, Department of Chemistry (2012).

2. “Synthesis and characterization of hybrid nanostructured materials based on block copolymers and inorganic materials”,  
E. Gatsouli,  
Supervisors Drs. E.I. Kamitsos and S. Pispas, National Technical University of Athens, School of Chemical Engineering (2012).

3. “Polymer self-organization: polyelectrolytes and their complexes with proteins”,  
M. Karayianni,  
Supervisors Drs. S. Pispas and G.D. Chryssikos, National and Kapodistrian University of Athens, Department of Chemistry (2012).

#### **b. MSc theses**

1. “Development and characterization of thin NiO films with Au nanoparticles and their application as low temperature hydrogen sensors”,  
C. Chatzimanolis,  
Supervisors Drs. M. Kompitsas, M. Kandyla, and Prof. C. Charitidis, National Technical University of Athens, Joint Master’s Program in Materials Science and Technology (2012).

2. “Physicochemical characterization and fractal analysis of the morphology of liposomal systems”,  
N. Pippa,  
Supervisors Dr. S. Pispas and Prof. C. Demetzos, National and Kapodistrian University of Athens, Department of Pharmaceutics (2012).

3. “Development of photonic sensors and devices using nanocomposites optical materials”,  
A. El Sachat,  
Supervisors Dr. Ch. Riziotis, Prof. I. Zergioti, and Prof. I. Raptis, National Technical University of Athens, Joint Postgraduate Program on Microsystems and Nanodevices (2012).

#### **c. Honors theses**

1. “Spectroscopic characterization of the structure of ANP by mid-infrared and Raman techniques”,  
M. Karamolegou,  
Supervisors Drs. G.D. Chryssikos, V. Gionis, and Assist. Prof. V.A. Iconomidou, National and Kapodistrian University of Athens, Biology Department (2012).

2. “Structural and optical properties, elemental analysis and laser scribing of CuInGa(SeTe) thin films for 2nd generation Photovoltaic Cells”,  
V. Chountalas,  
Supervisors Dr. M. Kompitsas and Prof. D. Manolakos, National Technical University of Athens, School of Mechanical Engineering (2012).
3. “Growth of ZnO:Al and ZnO:In thin films by Pulsed Laser Deposition: Micro-scribing, Structural and optical properties for 2nd generation Photovoltaic Cells”,  
E. Markou,  
Supervisors Dr. M. Kompitsas and Prof. D. Manolakos, National Technical University of Athens, School of Mechanical Engineering (2012).
4. “Preparation and characterization of polymeric and liposomal drug delivery nanosystems”,  
Y. Mylonaki,  
Supervisors Dr. S. Pispas and Prof. C. Demetzos, National and Kapodistrian University of Athens, Department of Pharmaceutics (2012).

## **6. Publications in Technical Journals / Miscellaneous Publications**

1. “Optimization of parameters in the Peyrard-Bishop-Dauxois model of DNA melting: a preliminary report”,  
N. Theodorakopoulos and M. Peyrard, HPC-Europa 2, Pan-European Research Infrastructure on High Performance Computing, [2012 report](#).
2. “Research and technology on chalcopyrite-based thin film photovoltaic cells” (in Greek),  
P. Koralli, D. Manolakos, M. Kompitsas, S. Fiat, and E. Bacaksiz,  
Modern Technical Review, pp. 19-26 (March 2012).
3. “Thin film photovoltaic cells” (in Greek),  
P. Koralli, D. Manolakos, and M. Kompitsas,  
Renewable Energy Magazine, pp. 29-31 (July-August 2012).

## **7. Conference Presentations**

1. “Constraining optimized effective potential to correct self-interactions: Applications to density and reduced-density-matrix functionals”,  
N.N. Lathiotakis\*, N. Gidopoulos, and N. Helbig,  
International Symposium and Workshop on Electron Correlations and Materials Properties of Alloys and Compounds, Porto Heli, Greece; July 9-13, 2012 (invited talk).

2. “A theoretical study of graphene and its planar allotropes under extreme uniaxial strain”,  
N.N. Lathiotakis\* and Z.G. Fthenakis,  
International Symposium and Workshop on Electron Correlations and Materials Properties of  
Alloys and Compounds, Porto Heli, Greece; July 9-13, 2012 (poster).
3. “A theoretical study of graphene and its planar allotropes under extreme uniaxial strain”,  
N.N. Lathiotakis\* and Z.G. Fthenakis,  
GrapHEL, A European Conference/Workshop on the Synthesis, Characterization and  
Applications of Graphene, Myconos, Greece; September 27-30, 2012 (oral).
4. “Structure and dynamics of mixed alkali glasses formed by ion exchange”,  
E.I. Kamitsos,  
2012 Glass & Optical Materials Division Meeting, The American Ceramic Society, St. Louis,  
USA; May 20-24, 2012 (invited talk).
5. “Examination of Greek archaeological glasses from the Mycenaean to Roman period by  
infrared and Raman spectroscopy”,  
D. Möncke\*, N. Zacharias, E.I. Kamitsos, M. Kaparou, *et al.*,  
11<sup>th</sup> ESG Conference and 86<sup>th</sup> Annual Conference of DGG, ICG Annual Meeting, Glass Trend  
Seminar on “Glass Technology”, Maastricht, Netherlands; June 3-6, 2012 (oral).
6. “Optical basicity, bonding, ion-ion interactions and cluster formation of Mn<sup>2+</sup> ions in  
glasses probed by EPR and fluorescence spectroscopy”,  
D. Möncke\*, D. Ehrt, E.I. Kamitsos, A. Winterstein, N. Da, S. Sirotkin, G. Gao, and L.  
Wondraczek,  
11<sup>th</sup> ESG Conference and 86<sup>th</sup> Annual Conference of DGG, ICG Annual Meeting, Glass Trend  
Seminar on “Glass Technology”, Maastricht, Netherlands; June 3-6, 2012 (poster).
7. “Coloring materials probed by spectroscopic techniques: Pigments, colloids, and ions in  
glasses and glazes ranging from the Mycenaean to medieval period”,  
D. Möncke\*, D. Palles, E. Palamara, E.I. Kamitsos, N. Zacharias, A. Oikonomou, M.  
Papageorgiou, M. Kaparou, S. Reibstein, and L. Wondraczek,  
3<sup>rd</sup> Symposium on Archaeological Research and New Technologies, Kalamata, Greece; October  
3-6, 2012 (oral).
8. “Kinetics of the dehydration events of sepiolite”,  
M. Tsampodimou\*, V.J. Bukas, V. Gionis, and G.D. Chryssikos,  
5<sup>th</sup> Greek Conference on Thermal Analysis and Calorimetry (THERMA 2012), Thessaloniki,  
Greece; May 25-27, 2012 (poster).
9. “Hydration-dehydration cycle in palygorskite and Maya Blue studied by combined  
vibrational spectroscopies and diffraction methods”,

M. Sanchez del Rio\*, C. Tsiantos, M. Tsampodimou, G.H. Kacandes, V. Gionis, G.D. Chryssikos, M. Suarez, and E. Garcia-Romero,  
13<sup>th</sup> European Powder Diffraction Conference, Grenoble, France; October 28-31, 2012 (poster).

10. “Studies of amyloid fibril formation of the CA (central conservative domain of the A-class) silkmoth chorion protein peptide-analogue utilizing micro-Raman and FT-IR spectroscopy”,

M. Karamolegou\*, V. Iconomidou, V. Gionis, G. Chryssikos, and S.J. Hamodrakas,  
6<sup>th</sup> International Conference of the Hellenic Crystallographic Association, Athens, Greece; September 28-29, 2012 (poster).

11. “CO-sensing properties of Cu<sub>x</sub>O based nanostructured thin films grown by reactive pulsed laser deposition”,

M. Stamataki, D. Mylonas, D. Tsamakias, M. Kompitsas, P. Tsakiridis, and E. Christoforou,  
International Conference on Materials and Applications for Sensors and Transducers, IC-MAST, Budapest, Hungary; May 24-28, 2012 (virtual poster).

12. “Laser scribing of nanocomposite thin films for the development of large scale monolithic photovoltaic panels”,

P. Koralli\*, M. Kompitsas, and D.E. Manolakos,  
9<sup>th</sup> International Conference on Nanosciences and Nanotechnologies (NN12), Thessaloniki, Greece; July 3-6, 2012 (poster).

13. “Investigations on 2nd Generation Photovoltaic Cells based on Chalcopyrite Thin Film Absorbers”,

P. Koralli\*, S. Fiat, V. Chountalas, E. Markou, M. Kompitsas, D.E. Manolakos, I. Polat, and E. Bacaksiz,  
XXVIII PanHellenic Conference on Solid State Physics and Materials Science, Patra, Greece; September 23-26, 2012 (poster).

14. “Electrical and Optical Properties of Transparent Oxide/Metal/Oxide Multilayer Films Deposited on Glass and PET Substrates”,

M. Girtan\*, R. Mallet, A. Stanculescu, L. Leontie, I. Vacuilis M. Kompitsas, D. Mardare, and S. Antohe,  
4<sup>th</sup> International Symposium on Transparent Conductive Materials (TCM12), Crete, Greece; October 21-26, 2012 (poster).

15. “CO gas sensing of Cu<sub>x</sub>O nanostructured thin films grown by pulsed laser deposition”,

M. Stamataki, D. Mylonas, D. Tsamakias, M. Kompitsas\*, and P. Tsakiridis,  
4<sup>th</sup> International Symposium on Transparent Conductive Materials (TCM12), Crete, Greece; October 21-26, 2012 (poster).

16. “Structural and mechanical properties of RF magnetron-sputtered NiO thin films and their surface sensitizing by Pd-nanoparticles for hydrogen sensing below the one ppm limit”,

M. Kandyla, C. Chatzimanolis, V. Tsikourkitoudi, I. Kartsonakis, C. Charitidis, M. Kompitsas\*, and M. Guziewicz,  
4<sup>th</sup> International Symposium on Transparent Conductive Materials (TCM12), Crete, Greece; October 21-26, 2012 (poster).

17. “Growth and characterization of Au-nanoparticles sensitized NiO thin films for hydrogen sensing down to a few ppm”,  
C. Chatzimanolis, M. Kandyla, C. Charitidis, M. Kompitsas\*, and I. Hotovy,  
4<sup>th</sup> International Symposium on Transparent Conductive Materials (TCM12), Crete, Greece; October 21-26, 2012 (poster).

18. “Optical sensor based on the surface plasmon resonance of noble metal nanoparticles on the surface of a transparent conductive oxide for cholesterol detection”,  
C. Popescu, A. Popescu, I. Iordache, M. Kandyla, E. Markou, N. Koralli, D.E. Manolakos, and M. Kompitsas\*,  
4<sup>th</sup> International Symposium on Transparent Conductive Materials (TCM12), Crete, Greece; October 21-26, 2012 (poster).

19. “Hydrogen sensing properties of thin NiO films deposited by RF sputtering”,  
M. Guziewicz\*, J. Grochowski, K. Golaszewska, J.Z. Domagala, B. Witkowski, E. Kamińska, M. Kandyla, C. Chatzimanolis, M. Kompitsas, and A. Piotrowska,  
Eurosensors 2012, Krakow, Poland; September 9-12, 2012 (poster).

20. “Nanocomposite NiO:Au hydrogen sensors with a few ppm sensitivity and low operating temperature”,  
M. Kandyla\*, C. Chatzimanolis, V. Tsikourkitoudi, I.A. Kartsonakis, I. Hotovy, C. Charitidis, and M. Kompitsas,  
European Materials Research Society (E-MRS) 2012 Spring Meeting, Strasbourg, France; May 14-18, 2012 (poster).

21. “Optical tweezers with enhanced efficiency based on laser-structured substrates”,  
M. Kandyla\*, D.G. Kotsifaki, I. Zergioti, M. Makropoulou, E. Chatzitheodoridis, and A.A. Serafetinides,  
European Materials Research Society (E-MRS) 2012 Spring Meeting, Strasbourg, France; May 14-18, 2012 (oral).

22. “Neutral Metal 1,2-dithiolenes: New materials for electrical and optical applications”,  
G.A. Mousdis\*, G.C. Anyfantis, and G.C. Papavassiliou,  
XXVIII Panhellenic Conference on Solid State Physics and Material Science, Patra, Greece; October 23-26, 2012 (oral).

23. “Synthesis, structure, and physical properties of some new metal dithiolene complexes”,  
A. Pitsas\*, Ch. Minadakis, M.J. Manos, A.J. Tasiopoulos, N. Psaroudakis, D. Palles, G.C. Soras, and G.A. Mousdis,

XXVIII Panhellenic Conference on Solid State Physics and Material Science, Patra, Greece; October 23-26, 2012 (poster).

24. “Synthesis and photophysical properties of novel phthalocyanine complexes”,  
A. Vogiatzi, A. Thimiopoulos\*, E.D. Simandiras, G.A. Mousdis, and N. Psaroudakis,  
XXVIII Panhellenic Conference on Solid State Physics and Material Science, Patra, Greece;  
October 23-26, 2012 (poster).

25. “Functionalization of azafullerene C<sub>59</sub>N with organic electron donors”,  
N. Tagmatarchis,  
220<sup>th</sup> ECS Meeting, Seattle, USA; May 6-11, 2012 (invited talk).

26. “Carbon nanohorns as vehicles for in vivo gene delivery”,  
P.A. Petropoulou\*, N. Karousis, N. Tagmatarchis, and K.E. Kypreos,  
34<sup>th</sup> National Conference on Biosciences, Trikala, Greece; May 17-19, 2012 (poster).

27. “Azafullerenes – Synthesis, properties and chemistry”,  
N. Tagmatarchis,  
10<sup>th</sup> International Krutyn Summer School 2012 – Frontiers in Science & Technology of Carbon  
Nanomaterials, Krutyn, Poland; June 19-25, 2012 (invited talk).

28. “Carbon nanohorns functionalization”,  
N. Tagmatarchis,  
10<sup>th</sup> International Krutyn Summer School 2012 – Frontiers in Science & Technology of Carbon  
Nanomaterials, Krutyn, Poland; June 19-25, 2012 (invited talk).

29. “Functionalization of exfoliated graphene”,  
S.P. Economopoulos\*, G. Rotas, S.A. Choulis, and N. Tagmatarchis,  
Thirteenth International Conference on the Science and Application of Nanotubes – NT12,  
Brisbane, Australia; June 24-29, 2012 (oral).

30. “Graphene hybrid materials for energy conversion”,  
N. Karousis\*, T. Hasobe, J. Ortiz, A. Sastre-Santos, K. Ohkubo, S. Fukuzumi, and N.  
Tagmatarchis,  
Thirteenth International Conference on the Science and Application of Nanotubes – NT12,  
Brisbane, Australia; June 24-29, 2012 (poster).

31. “Functionalization of carbon nanotubes with organocatalysts”,  
N. Tagmatarchis,  
9<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN12), Thessaloniki,  
Greece; July 3-6, 2012 (invited talk).

32. “Graphene exfoliation and functionalization”,

N. Tagmatarchis,  
Carbon Nanoscience and Nanotechnology – NanoteC12, Brighton, England; August 29-  
September 1, 2012 (invited talk).

33. “Fullerene-proline dyads for organocatalysis”,  
D. Chronopoulos\*, N. Karousis, M. Tsakos, C.G. Kokotos, G. Kokotos, and N. Tagmatarchis,  
32<sup>nd</sup> European Peptide Symposium, Athens, Greece; September 2-7, 2012 (poster).
34. “Novel carbon nanotube-proline based organocatalyst hybrid materials”,  
D. Chronopoulos\*, N. Karousis, M. Tsakos, C.G. Kokotos, G. Kokotos, and N. Tagmatarchis,  
32<sup>nd</sup> European Peptide Symposium, Athens, Greece; September 2-7, 2012 (poster).
35. “Synthesis, characterization and photophysical studies of a zinc-  
phthalocyanine–graphene hybrid material”,  
N. Karousis\*, A. Sastre-Santos, T. Hasobe, K. Ohkubo, S. Fukuzumi, and N. Tagmatarchis,  
graphene Hellas – grapHEL, Myconos, Greece; September 27-30, 2012 (poster).
36. “Exfoliation of graphite in organic solvents and impact of block copolymers on graphene  
dispersibility in aqueous solutions”,  
Th.S. Skaltsas\*, S. Pispas, and N. Tagmatarchis,  
graphene Hellas – grapHEL, Myconos, Greece; September 27-30, 2012 (poster).
37. “Efficient solubilization and functionalization of graphene”,  
S. Economopoulos\*, G. Rotas, N. Tagmatarchis, and S.A. Choulis,  
graphene Hellas – grapHEL, Myconos, Greece; September 27-30, 2012 (oral).
38. “On the impact of graphene in organic solar cells”,  
S. Economopoulos\*, M.P. Giannouli, A.S. Savva, N. Tagmatarchis, and S.A. Choulis,  
graphene Hellas – grapHEL, Myconos, Greece; September 27-30, 2012 (poster).
39. “Supramolecular electron donor-acceptor perylenediimide-graphene: Synthesis,  
characterization, photophysics and photoelectrochemical cell preparation”,  
L. Martín-Gomis\*, N. Karousis, N. Tagmatarchis, F. Fernández-Lázaro, and Á. Sastre-Santos,  
graphene Hellas – grapHEL, Myconos, Greece; September 27-30, 2012 (poster).
40. “Graphene exfoliation assisted by tip sonication induces oxygenated species and defects”,  
Th. Skaltsas\*, X. Ke, G. Van Tendeloo, C. Bittencourt, and N. Tagmatarchis,  
NanoTP, 3<sup>rd</sup> Annual Scientific Meeting, Berlin, Germany; December 9-12, 2012 (poster).
41. “Novel aspects of chemically modified graphene”,  
N. Karousis\*, Th. Skaltsas, and N. Tagmatarchis,  
NanoTP, 3<sup>rd</sup> Annual Scientific Meeting, Berlin, Germany; December 9-12, 2012 (poster).



42. “Hybrid nanostructures from synthetic polyelectrolytes and proteins”,  
S. Pispas,  
Polymers 2012, Ribaritsa, Bulgaria; May 31-June 2, 2012 (invited talk).
43. “Novel synthetic polymers for pharmaceutical nanotechnology”,  
S. Pispas,  
1<sup>st</sup> Conference on Pharmaceutical Sciences: from research to society, Athens, Greece; April 27-30, 2012 (invited talk).
44. “Insights into co-assembly of double hydrophilic block polyelectrolytes with oppositely charged ionic surfactants”,  
M. Stepanek\*, M. Uchman, J. Hajduova, J. Skvarla, K. Prochazka, B. Angelov, M. Slouf, G. Mountrichas, and S. Pispas,  
9<sup>th</sup> International Symposium on Polyelectrolytes (Polyelectrolytes 2012), Lausanne, Switzerland; July 9-12, 2012 (oral).
45. “Relating conductivity to morphology in poly(ethylene oxide)/lithium triflate polymer electrolytes blends”,  
G. Zardalidis\*, G. Floudas, E. Ioannou, S. Pispas, and E.I. Kamitsos,  
Broadband dielectric spectroscopy and its applications, Leipzig, Germany; September 3-7, 2012 (poster).
46. “PEO-b-PCL grafted DPPC liposomes: self-assembly, stability and fractal analysis of novel advanced drug delivery nano Systems (aDDnSs)”,  
N. Pippa\*, S. Pispas, and C. Demetzos,  
9<sup>th</sup> International Conference on Nanosciences & Nanotechnologies, Thessaloniki, Greece; July 3-6, 2012 (poster).
47. “Preparation, physicochemical characterization and elucidation of stealth liposomal nanocarriers’ morphology in accordance to fractal analysis”,  
F. Psarommati, N. Pippa\*, S. Pispas, and C. Demetzos,  
9<sup>th</sup> International Conference on Nanosciences & Nanotechnologies, Thessaloniki, Greece; July 3-6, 2012 (poster).
48. “Fractal analysis of liposomal aggregation”,  
N. Pippa, S. Pispas, and C. Demetzos\*,  
9<sup>th</sup> Central European Symposium on Pharmaceutical Technology with focus on Nanopharmaceuticals and Nanomedicine, Dubrovnic, Croatia; September 20-22, 2012 (oral).
49. “MPOx grafted DPPC liposomes: stability, self-assembly, fractal analysis of the nanostructures and drug encapsulation”,  
N. Pippa, E. Kaditi, S. Pispas, and C. Demetzos\*,  
Biodendrimer 2012, 3<sup>rd</sup> International Symposium on Biological Applications of Dendrimers, Toledo, Spain; September 5-8, 2012 (poster).

50. “Incorporation of dimethoxycurcumin into charged liposomes and the formation kinetics of fractal aggregates of corresponding uncharged vectors”,  
M. Hadjidemetriou, N. Pippa\*, S. Pispas, and C. Demetzos,  
International Conference on Chemistry for Health, Athens, Greece; September 9-14, 2012 (poster).
51. “High charge density cationic polymers for nucleic acid delivery”,  
S. Pispas\*, G. Mountrichas, A.K. Varkouhi, R. Schiffelers, T. Lammers, G. Storm, and W.E. Hennink,  
15<sup>th</sup> Hellenic Symposium on Medicinal Chemistry, Athens, Greece; May 25-27, 2012 (oral).
52. “PEO-b-PCL grafted DPPC liposomes: self-assembly, stability and fractal analysis of the nanostructures”,  
N. Pippa\*, S. Pispas, and C. Demetzos,  
15<sup>th</sup> Hellenic Symposium on Medicinal Chemistry, Athens, Greece; May 25-27, 2012 (poster).
53. “The role of local structure on controlling the conductivity in PEO/LiTf electrolytes”,  
G. Zardalidis\*, E. Ioannou, S. Pispas, and G. Floudas,  
9<sup>th</sup> Hellenic Polymer Society Conference, Thessaloniki, Greece; November 29-December 1, 2012 (oral).
54. “Cisplatin-loaded magnetically targeted hybrid nanocarriers”,  
E. Voulgari\*, A. Bakandritsos, S. Pispas, and K. Avgoustakis,  
9<sup>th</sup> Hellenic Polymer Society Conference, Thessaloniki, Greece; November 29-December 1, 2012 (poster).
55. “Physicochemical Characterization of liposomal systems and fractal analysis of their morphology”,  
N. Pippa\*, S. Pispas, and C. Demetzos,  
1<sup>st</sup> Conference on Pharmaceutical Sciences: from research to society, Athens, Greece; April 27-30, 2012 (poster).
56. “Chimeric nanostructures from block polyelectrolyte micelles and protein”,  
M. Karayianni and S. Pispas,  
Materials Today Virtual Conference: Nanotechnology, December 11-13, 2012 (invited poster).
57. “Novel block copolymers for multi-agent detection using polymer optical fibers”,  
L. Athanasekos, S. Pispas, and C. Riziotis\*,  
SPIE Photonics Europe 2012, Conference on Microstructured and Specialty Optical Fibers, Brussels, Belgium; April 16-19, 2012 (oral).
58. “Ultra low cost rapid prototyping of diffraction grating remote point gas sensors”,

N. Aspiotis, A. El Sachat, L. Athanasekos, M. Vasileiadis, G. Mousdis, S. Pispas, N.A. Vainos, and C. Riziotis<sup>\*</sup>,

International Conference on Materials and Applications for Sensors and Transducers IC-MAST 2012, Budapest, Hungary, May 24-28, 2012 (oral).

59. “Novel approach for lysozyme detection employing block copolymer overlayers on plastic optical fibers”,

L. Athanasekos, N. Aspiotis, A. El Sachat, S. Pispas, and C. Riziotis<sup>\*</sup>,

International Conference on Materials and Applications for Sensors and Transducers, Budapest, Hungary; May 24-28, 2012 (oral).

60. “Fibre optic sensors for solid rocket motors health monitoring”,

L. Bancallari<sup>\*</sup>, M. Sepe, L. Eineder, G. Tussiwand, G. Kakarantzas, C. Riziotis, N. Beverini, and E. Maccioni,

5<sup>th</sup> International Symposium on Optronics in Defence and Security, (OPTRO2012), Paris, France; February 8-10, 2012 (oral).

61. “Structural health monitoring of solid rocket motors' propellant using polymer optical fibers”,

C. Riziotis<sup>\*</sup>, L. Eineder, L. Bancallari, and G. Tussiwand,

International Conference on Materials and Applications for Sensors and Transducers IC-MAST 2012, Budapest, Hungary; May 24-28, 2012 (oral).

62. “Formation of PDMS films inside the holes of silica photonic crystal fibers”,

C. Markos, K. Vlachos, and G. Kakarantzas<sup>\*</sup>,

Conference on Microstructured and Specialty Optical Fibres, Brussels, Belgium; April 17-19, 2012 (oral).

63. “Modeling of photonic crystal fiber with polymer inclusions”,

C. Markos, K. Vlachos, and G. Kakarantzas<sup>\*</sup>,

Conference on Microstructured and Specialty Optical Fibres, Brussels, Belgium; April 17-19, 2012 (poster).

64. “Rectifying Schottky nanocontacts on gold nitride and indium nitride nanodomains”,

N. Spyropoulos-Antonakakis<sup>\*</sup>, E. Sarantopoulou, Z. Kollia, and A.C. Cefalas,

31<sup>st</sup> international conference on physics of semiconductors (ICPS 2012), Zurich, Switzerland; July 29-August 3, 2012 (oral).

65. “The role of extended defects in charge accumulation at the boundaries of AuN and InN nanodomains”,

N. Spyropoulos-Antonakakis<sup>\*</sup>, E. Sarantopoulou, Z. Kollia, and A.C. Cefalas,

International Conference on Extended Defects in Semiconductors (EDS 2012), Thessaloniki, Greece; June 24-29, 2012 (oral).

66. “Charge memory effects in transition metal nitride nanodomains”,  
E. Sarantopoulou\*, N. Spyropoulos-Antonakakis, Z. Kollia, and A.C. Cefalas,  
3<sup>rd</sup> International Nanotechnology Conference and Exhibition, NanoIsrael 2012, Tel-Aviv, Israel;  
March 26-27, 2012 (poster).

67. “Entropic nanothermodynamic potential from molecular trapping within photon  
processed polymeric layers”,  
A.C. Cefalas\*, E. Sarantopoulou, Z. Kollia, M. Kitsara, I. Raptis, and E. Bakalis,  
3<sup>rd</sup> International Nanotechnology Conference and Exhibition, NanoIsrael 2012, Tel-Aviv, Israel;  
March 26-27, 2012 (poster).