

N. T. PELEKANOS

Materials Science & Technology Department, University of Crete
Microelectronics Research Group
Institute of Electronic Structure and Laser/FORTH
P.O. Box 1385, 71110 Heraklion, Greece
Phone: 30-2810-394107, Fax: 30-2810-394106
email: pelekano@materials.uoc.gr

CAREER OBJECTIVE:

Research, development and education in the fields of **Nanophotonics & Optoelectronics**.

EDUCATION:

Ph.D. in Physics, Brown University, Providence (RI), USA, July 1991
Title of dissertation: "Exciton-phonon interaction effects in II-VI semiconductor heterostructures".
Scientific advisor: Professor A. V. Nurmikko
M.Sc. in Physics, Brown University, Providence (RI), USA, May 1987
B.Sc. in Physics, University of Athens, Athens, Greece, July 1985

PROFESSIONAL EXPERIENCE:

Since 2009: **Full Professor**, Materials Science & Technology Department, University of Crete, Heraklion, Greece, in the field of Semiconductor Nanotechnology with emphasis on Optoelectronics.

2003-2009: **Associate Professor**, Materials Science & Technology Department, University of Crete, Heraklion, Greece, in the field of Semiconductor Nanotechnology.

2001-2003: **Senior Researcher**, Foundation of Research and Technology-Hellas, Microelectronics Research Group, Heraklion, Greece, involved with the demonstration of tunable laser diodes and LEDs and the study of semiconductor quantum dots.

1994-2001: **Research Engineer** (permanent position), Commissariat à l'Energie Atomique, Laboratory of Semiconductor Physics, Grenoble, France, involved with optical characterization of III-nitride semiconductor heterostructures & nanostructures and demonstration of all-optical piezoelectric modulators.

1993-1994: **Postdoctoral Researcher**, Max-Planck-Institute, Ultrafast Spectroscopy Group, Stuttgart, Germany, demonstrating an all-optical quantum well-based spatial light modulator for parallel image processing and carrying out ultrafast spectroscopy on II-VI heterostructures.

1992-1993: **Research Engineer**, France-Telecom, Centre National d'Etudes des Télécommunications, Optical Interconnection Group, Lannion, France, developing photorefractive quantum well devices for optical switching in telecommunications.

1991-1992: **Postdoctoral Researcher**, Commissariat à l'Energie Atomique, Laboratory of Semiconductor Physics, Grenoble, France, studying the optical properties of II-VI semiconductor heterostructures.

RESEARCH INTERESTS:

- a) Quantum dot-based high temperature single-photon and entangled photon sources.
- b) Polariton lasing and parametric scattering at room temperature.
- c) Next generation solar cells based on semiconductor nanowires.
- d) 2D materials for optoelectronic applications.

ACHIEVEMENTS:

RESEARCH

- A total of 238 publications, including:
 - 7 patents
 - 54 publications in peer-reviewed journals
 - 63 conference papers in peer-reviewed journals
 - 2 papers in special issues
 - 1 book chapter
 - 111 papers in conference proceedings.
- About 2850 citations and a corresponding H-factor of 27.
- 18 invited talks in conferences/workshops and 15 invited talks in academic institutions.
- Coordination/participation in 22 national, 6 European, 1 industrial, and 4 bilateral research contracts, whose total estimated budget for the home institutions is over 4 million Euros.
- Supervised 5 post-docs, 8 PhD and 10 MSc theses. Currently supervising 3 PhD candidates and 2 MSc students.
- Evaluation expert for European and national research programs (Greece, France, Israel).
- Referee in prestigious academic journals (PRL, PRB, PRAppl, APL, JAP).
- Co-organized 9 conferences/workshops.
- Participated in numerous electoral committees for professor/researcher positions.

ADMINISTRATIVE WORK

At the Department level:

- Chairman, 2007-2009.
- Vice-Chairman, 2004-2007.
- Director of undergraduate studies, 2004-2010.
- Evaluation Committee, 2012-2016.

At the University level:

- Committee of Research, 2012-2014.
- Responsible for the Final Reception Protocol of the new University buildings in Voutes, 2014.
- Member of New Technologies Committee, 2016-.
- Director of Technical Council, 2017-.

At the Region level:

- Member of the Regional Research and Innovation Council of Crete, 2017-.

AWARDS

- Chaire d'Excellence LANEF, funded by the French government, for a project entitled "*Nanowire Innovative Solar Cells*", 2014-2017.
- Solar Innovation 2010 Award, by the French Atomic Energy Commission for a proposal on "*III-V Nanowires for Next Generation Photovoltaics*", 2011-2013.
- Alexander von Humboldt-Stiftung fellowship, 1993-1994.
- Bourse du Ministère des Affaires Etrangères, 1991-1992.

DETAILED RECORD:

PATENTS:

7. Growth of nitride semiconductor heterostructures including Indium Aluminium Gallium Nitride alloy layers by Molecular Beam Epitaxy with RF-plasma source,

A. Georgakilas, N. Pelekanos, E. Dimakis, FORTH, Application for Greek Patent, Ref. N. 20020100376 (9-8-2002).

6. Optical semiconductor device with resonant cavity tunable in wavelength, application to modulation of light intensity,

V. Ortiz, N. T. Pelekanos, CEA/Grenoble, French Patent application Nr. 99 08783, filed July 7, 1999. Extended to the USA in June 2000, where it was granted as US 6,396,083 B1 (DoP: May 28, 2002).

5. Semiconductor laser with tunable gain spectrum,

N. T. Pelekanos, V. Ortiz, G. Mula, CEA/Grenoble, French Patent application Nr. 98 12558, filed Oct. 7, 1998. Extended to USA in 1999, where it was granted as US 6,353,624 B1 (DoP: March 5, 2002).

4. An educational crossword game,

J. Jorge Pelekanos, N. T. Pelekanos, U.S. Patent application, filed January 1996.

3. Optically-controlled light modulator device,

N. T. Pelekanos, European Patent Application #94107158.1, filed in 1994. Extended to USA in 1995, where it was granted as US 5,698,863 (DoP: Dec.16, 1997).

2. Ultrafast photorefractive cell operating at 1.55 μm ,

B. Deveaud, N. T. Pelekanos, B. Lambert, France Telecom, French Patent Nr. 9313718, filed in 1993, extended in USA in 1994.

1. All-optical photodiffractive device based on GaAs/AlAs quantum filters,

N. T. Pelekanos, B. Deveaud, P. Gravey, J. M. Gérard, France Telecom, French Patent Nr. 9314789, filed in 1993, extended in USA in 1994.

PAPERS in PEER-REVIEWED JOURNALS:

(The numbers in parenthesis next to each publication correspond to the total citations taken on September 2018 from ISI-Web of Science [v.5.30])

55. Absorption in ultrathin GaN membranes: the role of standing wave effects,

E. Amargianitakis, R. Jayaprakash, F. G. Kalaitzakis, E. Delamadeleine, E. Monroy, N. T. Pelekanos, submitted to Semic. Sci. Techn. January 2019.

54. Spatially Selective Reversible Charge Carrier Density Tuning in WS₂ Monolayers via Photochlorination,

I. Demeridou, I. Paradisanos, C. L. Yuanyue, N. Pliatsikas, P. Patsalas, S. Germanis, N. T. Pelekanos, W. Goddard, G. Kioseoglou, E. Stratakis, 2D Materials **6**, 015003 (2019).

53. Ultra-low threshold polariton lasing at room temperature in a GaN membrane microcavity with a zero-dimensional trap,

R. Jayaprakash, F. G. Kalaitzakis, G. Christmann, K. Tsagaraki, M. Hocevar, B. Gayral, E. Monroy, N. T. Pelekanos, Scientific Reports **7**, 5542 (2017).

52. Highly Uniform Zinc Blende GaAs Nanowires on Si(111) Using a Controlled Chemical Oxide Template,

S. L. Tan, Y. Genuist, E. Bellet-Amalric, M. den Hertog, H. Mariette, N. T. Pelekanos, Nanotechnology **28**, 255602 (2017). (1)

51. Room temperature observation of biexcitons in exfoliated WS₂ monolayers,

I. Paradisanos, S. Germanis, N. T. Pelekanos, C. Fotakis, E. Kymakis, G. Kioseoglou, E. Stratakis, Applied Physics Letters **110**, 193102 (2017). (9)

50. Enhanced Stark tuning of single InAs (211)B quantum dots due to nonlinear piezoelectric effect in zinc-blende nanostructures,

S. Germanis, C. Katsidis, S. Tsintzos, A. Stavriniadis, G. Konstantinidis, N. Florini, J. Kioseoglou, G. P. Dimitrakopoulos, Th. Kehagias, Z. Hatzopoulos, N.T. Pelekanos, Phys. Rev. Applied **6**, 014004 (2016). (3)

49. Strained GaAs/InGaAs core-shell nanowires for photovoltaic applications,

K. Moratis, S.L. Tan, S. Germanis, C. Katsidis, M. Androulidaki, K. Tsagaraki, Z. Hatzopoulos, F. Donatini, J. Cibert, Y.-M. Niquet, H. Mariette, N.T. Pelekanos, Nanoscale Research Letters **11**, 176 (2016). (10)

48. Structure, Strain and Composition Profiling of InAs/GaAs(211)B Quantum Dot Superlattices

N. Florini, G. P. Dimitrakopoulos, J. Kioseoglou, S. Germanis, C. Katsidis, Z. Hatzopoulos, N. T. Pelekanos, Th. Kehagias, J. of Appl. Phys. **119**, 034304 (2016). (4)

- 47. Assembly of quantum dots on peptide nanostructures and their spectroscopic properties,**
Emmanouil Kasotakis, Athanasia Kostopoulou, Miguel Spuch-Calvar, Maria Androulidaki, Nikos Pelekanos, Antonios G. Kanaras, Anna Mitraki, and Alexandros Lappas, *Appl. Phys. A-Materials Science & Processing* **116**, 977-985 (2014). (5)
- 46. Extraction of absorption coefficients from as-grown GaN nanowires on opaque substrates using all-optical method,**
R. Jayaprakash, D. Ajagunna, S. Germanis, M. Androulidaki, K. Tsagaraki, A. Georgakilas, N. T. Pelekanos, *Optics Express* **22**, 19555 (2014). (7)
- 45. Recombination dynamics in piezoelectric (211)B InAs quantum dots,**
S. Germanis, A. Beveratos, C. Gauthron, A. Stavrinidis, G. Konstantinidis, Z. Hatzopoulos, N.T. Pelekanos, *Microelectronic Engineering* **112**, 179 (2013). (2)
- 44. Residual strain and piezoelectric effects in passivated GaAs/AlGaAs core-shell nanowires,**
M. Hocevar, G. Le Thuy, R. Songmuang, M. den Hertog, J. Bleuse, L. Besombes, Y-M Niquet, N. T. Pelekanos, *Appl. Phys. Lett.* **102**, 191103 (2013). (25)
- 43. All dielectric GaN microcavity: Strong coupling and lasing at room temperature,**
K. Daskalakis, P. S. Eldridge, G. Christmann, E. Trichas, R. Murray, E. Iliopoulos, E. Monroy, N. T. Pelekanos, J. J. Baumberg, P. G. Savvidis, *Appl. Phys. Lett.* **102**, 101113 (2013). (33)
- 42. Piezoelectric InAs/GaAs quantum dots with reduced fine-structure splitting for the generation of entangled photons,**
S. Germanis, A. Beveratos, G. E. Dialynas, G. Deligeorgis, P. G. Savvidis, Z. Hatzopoulos, N. T. Pelekanos, *Phys. Rev. B* **86**, 035323 (2012). (8)
- 41. Bragg polariton luminescence from a GaN membrane embedded in all dielectric microcavity,**
E. Trichas, N. T. Pelekanos, E. Iliopoulos, E. Monroy, K. Tsagaraki, A. Kostopoulos, P. G. Savvidis, *Appl. Phys. Lett.* **98**, 221101 (2011). (9)
- 40. Piezoelectric InAs (211)B quantum dots grown by molecular beam epitaxy: structural and optical properties,**
G. E. Dialynas, S. Kalliakos, C. Xenogianni, M. Androulidaki, T. Kehagias, P. Komninou, P. G. Savvidis, Z. Hatzopoulos, N. T. Pelekanos, *J. Appl. Phys.* **108**, 103525 (2010). (14)
- 39. Control of polariton scattering in resonant-tunneling double-quantum-well semiconductor microcavities,**
G. Christmann, C. Coulson, J. J. Baumberg, N.T. Pelekanos, Z. Hatzopoulos, S.I. Tsintzos, P.G. Savvidis, *Phys. Rev. B* **82**, 113308 (2010). (27)
- 38. The effect of annealing on the properties of indium-tin-oxynitride films as ohmic contact for GaN based optoelectronic devices,**
M. Himmerlich, M. Koufaki, G. Ecke, C. Mauder, V. Cimalla, J.A. Schaefer, A. Kondilis, N.T. Pelekanos, M. Modreanu, S. Krischok, E. Aperathitis, *Applied Materials & Interfaces* **1**, 1451 (2009). (15)
- 37. Resonantly enhanced selective photochemical etching of GaN,**
E. Trichas, M. Kayambaki, E. Iliopoulos, N. T. Pelekanos, P. G. Savvidis, *Appl. Phys. Lett.* **94**, 173505 (2009). (14)
- 36. Room temperature GaAs exciton-polariton light emitting diode,**
S. Tsintzos, P. G. Savvidis, G. Deligeorgis, Z. Hatzopoulos, N. T. Pelekanos, *Appl. Phys. Lett.* **94**, 071109 (2009), selected also to appear in the March 2, 2009 issue of the *Virtual Journal of Nanoscale Science & Technology*. (34)
- 35. Internal field effects on the lasing characteristics of InGaN/GaN quantum well lasers,**
G. E. Dialynas, G. Deligeorgis, M. Zervos, N. T. Pelekanos, *J. Appl. Phys.* **104**, 113101 (2008). (10)
- 34. Current transport in semiconductor nanowires with built-in barriers based on a 1D transfer matrix calculation,**
M. Zervos, N. T. Pelekanos, *J. Appl. Phys.* **104**, 054302 (2008). (2)
- 33. A GaAs polariton light-emitting diode operating near room temperature,**
S. Tsintzos, N. T. Pelekanos, G. Konstantinidis, Z. Hatzopoulos, P. G. Savvidis, *Nature* **453**, 372 (2008). (150)
- 32. Low resistance as-deposited Cr/Au contacts on p-type GaN,**
F. G. Kalaitzakis, N. T. Pelekanos, P. Prystawko, M. Leszczynski, G. Konstantinidis, *Appl. Phys. Lett.* **91**, 261103 (2007). (11)

31. Reduced threshold current in (111)B grown InGaAs/AlGaAs laser diodes: the positive role of piezoelectric effect,

G. Deligeorgis, G. Dialynas, Z. Hatzopoulos, N. T. Pelekanos, Appl. Phys. Lett. **90**, 121126 (2007). (4)

30. Selective measurement of hole tunneling times through AlGaAs barriers based on the quantum confined Stark effect,

N. Le Thomas, N.T. Pelekanos, Z. Hatzopoulos, Phys. Rev. B **72**, 235323 (2005).

29. Micro-Raman characterization of InGaN/GaN/Al₂O₃ heterostructures,

A.G. Kontos, Y.S. Raptis, N.T. Pelekanos, A. Georgakilas, E. Bellet-Amalric, D. Jalabert, Phys. Rev. B **72**, 155336 (2005). (40)

28. Tunable laser diodes by Stark effect,

N. Le Thomas, N.T. Pelekanos, Z. Hatzopoulos, Appl. Phys. Lett. **83**, 1304 (2003), selected also to appear in the Virtual Journal of Nanoscale Science & Technology **8**, Issue 8 (2003). (7)

27. Direct comparison of recombination dynamics in cubic and hexagonal GaN/AlN quantum dots,

J. Simon, N.T. Pelekanos, C. Adelmann, E. Martinez-Guerrero, R. André, B. Daudin, Le Si Dang, H. Mariette, Phys. Rev. B **68**, 035312 (2003). (145)

26. Piezoelectric effect on the optical phonon modes of strained cubic semiconductors: case of CdTe quantum wells,

V. Stergiou, N.T. Pelekanos, Y.S. Raptis, Phys. Rev. B **67**, 165304 (2003). (8)

25. Widely tunable light-emitting diodes by Stark effect in forward bias,

N. Le Thomas, N.T. Pelekanos, Z. Hatzopoulos, E. Aperathitis, R. Hamelin, Appl. Phys. Lett. **81**, 1582 (2002), selected also to appear in the Virtual Journal of Nanoscale Science & Technology **6**, Issue 10 (2002). (9)

24. Tunable piezoelectric semiconductor laser controlled by the carrier injection level,

V. Ortiz, N.T. Pelekanos, G. Mula, Le Si Dang, Appl. Phys. Lett. **77**, 788 (2000). (8)

23. Self-assembled zinc blende GaN quantum dots grown by molecular beam epitaxy,

E. Martinez-Guerrero, C. Adelmann, F. Chabuel, J. Simon, N.T. Pelekanos, G. Feuillet, B. Daudin, H. Mariette, Appl. Phys. Lett. **77**, 809 (2000) (71)

22. Self-assembled InGaN quantum dots grown by molecular beam epitaxy,

C. Adelmann, J. Simon, G. Feuillet, N.T. Pelekanos, B. Daudin, G. Fishman, Appl. Phys. Lett. **76**, 1570 (2000). (125)

21. Spontaneous polarization effects in GaN/AlGaIn quantum wells,

J. Simon, R. Langer, A. Barski, N.T. Pelekanos, Phys. Rev. B **61**, 7211 (2000). (48)

20. Preferential nucleation of GaN self-assembled quantum dots at the edge of AlN threading dislocations,

J.L. Rouvière, J. Simon, G. Feuillet, N.T. Pelekanos, B. Daudin, Appl. Phys. Lett. **75**, 2632 (1999). (69)

19. Giant electric fields in unstrained GaN single quantum wells,

R. Langer, J. Simon, V. Ortiz, N.T. Pelekanos, A. Barski, R. André, M. Godlewski, Appl. Phys. Lett. **74**, 3827 (1999). (164)

18. High reflectivity GaN/GaAlN Bragg mirrors at blue/green wavelengths grown by molecular beam epitaxy,

R. Langer, A. Barski, J. Simon, N.T. Pelekanos, O. Kononov, R. André, Le Si Dang, Appl. Phys. Lett. **74**, 3610 (1999). (63)

17. Blue-light emission from GaN self-assembled quantum dots due to giant piezoelectric effect,

F. Widmann, J. Simon, B. Daudin, G. Feuillet, J.L. Rouvière, N.T. Pelekanos, G. Fishman, Phys. Rev. B. Rapid Comm. **58**, R15989 (1998). (248)

16. Improved quality GaN grown by molecular beam epitaxy using In as a surfactant,

F. Widmann, B. Daudin, G. Feuillet, N. Pelekanos, J.L. Rouvière, Appl. Phys. Lett. **73**, 2642 (1998). (139)

15. Growth kinetics and optical properties of self-organized GaN quantum dots,

F. Widmann, B. Daudin, G. Feuillet, Y. Samson, J.L. Rouvière, N. Pelekanos, J. Appl. Phys. **83**, 7618 (1998). (200)

14. Efficient all-optical light modulation in a piezoelectric heterostructure at room temperature,

V. Ortiz, N.T. Pelekanos, G. Mula, Appl. Phys. Lett. **72**, 963 (1998). (10)

13. Observation of two-dimensional exciton-phonon quasi-bound states,

N.T. Pelekanos, H. Haas, N. Magnea, V. Belitsky, A. Cantarero, Phys. Rev. B **56**, Rapid Comm., R10056 (1997). (4)

12. Room temperature electro-optic effect in CdHgTe multiple quantum well heterostructures at 1.5 μ m,
G. Mula, N. T. Pelekanos, P. Gentile, N. Magnea, J.L. Pautrat, Appl. Phys. Lett. **70**, 856 (1997).

11. All-optical spatial light modulator with MHz modulation rates,

N. T. Pelekanos, B. Deveaud, J. M. Gérard, H. Haas, U. Strauss, W. W. Rühle, J. Hebling, J. Kuhl, Optics Letters **20**, 2099 (1995). (4)

10. Homogeneous linewidths of excitons in CdTe/(Cd,Zn)Te single quantum wells,

E. J. Mayer, N. T. Pelekanos, J. Kuhl, N. Magnea, H. Mariette, Phys. Rev. B **51**, Rapid Comm., 17263 (1995). (42)

9. Upper conduction band effects in heavily strained low-dimensional semiconductor systems,

J. M. Jancu, D. Bertho, C. Jouanin, B. Gil, N. T. Pelekanos, N. Magnea, H. Mariette, Phys. Rev. B **49**, Rapid Comm., 10802 (1994). (10)

8. Ultrathin pseudomorphic layers of ZnTe in CdTe/(Cd,Zn)Te superlattices: a direct optical probe of the mixed type band configuration,

N. T. Pelekanos, P. Peyla, Le Si Dang, H. Mariette, P. H. Jouneau, A. Tardot, N. Magnea, Phys. Rev. B **48**, 1517 (1993). (22)

7. Tunneling dynamics in CdTe/(Cd,Zn)Te asymmetric double quantum well structures,

S. Haacke, N. T. Pelekanos, H. Mariette, M. Zigone, A. P. Heberle, W. W. Rühle, Phys. Rev. B **47**, Rapid Comm., 16643 (1993). (45)

6. Room temperature exciton absorption engineering in II-VI quantum wells,

N. T. Pelekanos, H. Haas, N. Magnea, H. Mariette, A. Wasiela, Appl. Phys. Lett. **61**, 3154 (1992). (34)

5. Quasi-two dimensional excitons in (Zn,Cd)Se/ZnSe quantum wells: reduced exciton-LO-phonon coupling due to confinement effects,

N. T. Pelekanos, J. Ding, M. Hagerot, A. V. Nurmikko, H. Luo, N. Samarth, J. K. Furdyna, Phys. Rev. B **45**, 6037 (1992). (189)

4. Room temperature exciton absorption in (Zn,Cd)Se/ZnSe quantum wells at blue-green wavelengths,

J. Ding, N. Pelekanos, A. V. Nurmikko, H. Luo, N. Samarth, J. K. Furdyna, Appl. Phys. Lett. **57**, 2885 (1990). (97)

3. Hot exciton luminescence in ZnTe/MnTe quantum wells: role of confinement, excitons and disorder,

N. Pelekanos, J. Ding, Q. Fu, A. V. Nurmikko, S. Durbin, M. Kobayashi, R. L. Gunshor, Phys. Rev. B **43**, Rapid Comm., 9354 (1991). (36)

2. Spectroscopy in CdTe/MnTe quantum wells; a strained layer II-VI heterostructure with strong electronic confinement ,

N. Pelekanos, Q. Fu, J. Ding, W. Walecki, A. V. Nurmikko, S. Durbin, J. Han, M. Kobayashi, R. L. Gunshor, Phys. Rev. B **41**, 9966 (1990). (29)

1. Zincblende MnTe: epilayers and quantum well structures,

S. M. Durbin, J. Han, Sungki O, M. Kobayashi, D. R. Menke, R. L. Gunshor, Q. Fu, N. Pelekanos, A. V. Nurmikko, D. Li, J. Gonsalves, N. Otsuka, Appl. Phys. Lett. **55**, 2087 (1989). (100)

BOOK CHAPTER:

1. Electrically Driven Polariton Light Emitting Devices,

S. I. Tsintzos, N. T. Pelekanos, P. G. Savvidis, in “Exciton Polaritons in Microcavities”, edited by V. Timofeev and D. Sanvitto, Springer Series in Solid-State Sciences 172, (2012).

SPECIAL JOURNAL ISSUES:

2. InAs nanostructures on polar GaAs surfaces,

G. E. Dialynas, A. Pantazis, Z. Hatzopoulos, M. Androulidaki, K. Tsagaraki, G. Konstantinidis, C. Xenogianni, E. Trichas, S. Tsintzos, P. G. Savvidis, N. T. Pelekanos, Int. Journal of Nanotechnology, special issue on Nanotechnology in Greece, IJNT **6**, p.124-136 (2009). (2)

1. Structural and optical properties of self-assembled GaN/AlN quantum dots,

C. Adelman, M. Arlery, B. Daudin, G. Feuillet, Le Si Dang, H. Mariette, N. Pelekanos, J.L. Rouvière, J. Simon, F. Widmann, Comptes Rendus de la Académie des Sciences de Paris, special issue on Wide Gap Semiconductors, t. 1, Série IV, p.61-69, (2000). (8)

CONFERENCE PAPERS in PEER-REVIEWED JOURNALS:

***63. Improved GaN quantum well microcavities for robust room temperature polaritonics,**

E. A. Amargianitakis, F. Miziou, M. Androulidaki, K. Tsagaraki, A. Kostopoulos, G. Konstantinidis, E. Delamadeleine, E. Monroy, N. T. Pelekanos, International Conference on Physics of Semiconductors 2018, Montpellier, accepted in Phys. Status Solidi B, January 2019.

62. 3-D strain fields in low-dimensional III-V semiconductors: A combined finite elements and HRTEM approach,

N. Florini, G. P. Dimitrakopoulos, J. Kioseoglou, N. T. Pelekanos, Th. Kehagias, E-MRS 2017 Spring meeting, Symposium N, Phys. Status Solidi A-Applications and Materials **215**, Article number 1700409 (2018).

61. Strain field determination in III-V heteroepitaxy coupling finite elements with experimental and theoretical techniques at the nanoscale,

N. Florini, G. P. Dimitrakopoulos, J. Kioseoglou, N. T. Pelekanos, Th. Kehagias, Journal of the Mechanical Behavior of Materials **26**, 1–8 (2017).

60. Nanostructure and strain properties of core-shell GaAs/AlGaAs nanowires,

Th. Kehagias, N. Florini, J. Kioseoglou, Th. Pavlousis, Ph. Komninou, T. Walther, K. Moratis, Z. Hatzopoulos, N. T. Pelekanos, Microscopy of Semiconducting Materials MSM-XIX Conference, Cambridge, 2015, Semicond. Sci. Technol. **30**, 114012-114022 (2015). (3)

59. Ultra-smooth GaN membranes by photo-electrochemical etching for photonic applications,

R. Jayaprakash, F. Kalaitzakis, M. Kayambaki, K. Tsagaraki, E. Monroy, N.T. Pelekanos, International Conference on Intergranular and Interphase Boundaries in Materials, IIB2013, Halkidiki, Journal of Materials Science **49**, 4018-4024 (2014). (2)

58. 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, Micro-Nano 2010 Athens, Microelectronic Engineering **90**, 115 (2012). (3)

57. Monolithic integration of nitride-based transistor with light emitting diode for sensing applications,

F. G. Kalaitzakis, E. Iliopoulos, G. Konstantinidis, N. T. Pelekanos, Micro-Nano 2010 Athens, Microelectronic Engineering **90**, 33 (2012). (11)

56. Single dot spectroscopy on InAs/GaAs piezoelectric quantum dots,

G. E. Dialynas, N. Hadjidimitriou, S. Kalliakos, S. Tsintzos, P. G. Savvidis, Z. Hatzopoulos, N. T. Pelekanos, Micro-Nano 2007 Athens, phys. stat. sol. (a) **205**, 2566 (2008). (3)

55. Selective photochemical etching of GaN films and laser lift-off for microcavity fabrication,

M. Trichas, M. Kayambaki, C. Xenogianni, P. Tsotsis, E. Iliopoulos, N. T. Pelekanos, P. G. Savvidis, Micro-Nano 2007 Athens, phys. stat. sol. (a) **205**, 2509 (2008). (7)

54. Towards electrically-pumped microcavity polariton lasers,

S. Tsintzos, P. G. Savvidis, G. Konstantinidis, Z. Hatzopoulos, N. T. Pelekanos, Micro-Nano 2007 Athens, phys. stat. sol. (c) **5**, 3594 (2008). (1)

53. Anti-binding of bi-excitons in (211)B InAs/GaAs piezoelectric quantum dots,

G.E. Dialynas, C. Xenogianni, S. Tsintzos, E. Trichas, P.G. Savvidis, G. Konstantinidis, J. Renard, B. Gayral, Z. Hatzopoulos, N.T. Pelekanos, MSS-2007 Genoa, Physica E **40**, 2113 (2008).

***52. InAs quantum dots grown by molecular beam epitaxy on GaAs (211)B polar substrates,**

M. Zervos, C. Xenogianni, G. Deligeorgis, M. Androulidaki, P.G. Savvidis, Z. Hatzopoulos, N. T. Pelekanos, QD-2006 Chamonix, phys. stat. sol. (c) **3**, 3988 (2006). (6)

***51. InN quantum dots grown on GaN (0001) by molecular beam epitaxy,**

E. Dimakis, A. Georgakilas, E. Iliopoulos, K. Tsagaraki, A. Delimitis, P. Komninou, H. Kirmse, W. Neumann, M. Androulidaki, N. T. Pelekanos, QD-2006 Chamonix, phys. stat. sol. (c) **3**, 3983 (2006). (4)

50. Optical emission spectroscopy during fabrication of indium-tin-oxynitride films by rf-sputtering,

M. Koufaki, M. Sifakis, E. Iliopoulos, N. Pelekanos, M. Modreanu, V. Cimalla, G. Ecke, and E. Aperathitis, E-MRS 2005 Strasbourg, Appl. Surf. Science **253**, 405 (2006). (10)

***49. Resonant Raman scattering on InAlGaN/GaN heterostructures**

A. Cros, A. Cantarero, N. T. Pelekanos, A. Georgakilas, J. Pomeroy, M. Kuball, ICNS-6 Bremen 2005, phys. stat. sol. (b) **243**, 1674 (2006). (8)

***48. Energy gaps and bowing parameters of InAlGaN ternary and quaternary alloys,**

M. Androulidaki, N. T. Pelekanos, K. Tsagaraki, E. Dimakis, E. Iliopoulos, A. Adikimenakis, E. Bellet-Amalric, D. Jalabert, A. Georgakilas, ICNS-6 Bremen 2005, phys. stat. sol. (c) **3**, 1866 (2006). (27)

***47. Optical cavity formation on GaN using a conventional RIE system,**

F. G. Kalaitzakis, G. Konstantinidis, K. Tsagaraki, M. Androulidaki, N. T. Pelekanos, ICNS-6 Bremen 2005, phys. stat. sol. (c) **3**, 1798 (2006). (2)

***46. Influence of polarization fields on the lasing properties of III-nitride quantum wells,**

G. E. Dialynas, G. Deligeorgis, M. Zervos, N. T. Pelekanos, MSS-12 Albuquerque 2005, Physica E **32**, 558 (2006). (2)

45. InGaN alloys grown in the entire composition range by plasma assisted molecular beam epitaxy,

E. Iliopoulos, A. Georgakilas, E. Dimakis, A. Adikimenakis, K. Tsagaraki, M. Androulidaki, N. T. Pelekanos, EMRS'2005 Warsaw, phys. stat. sol. (a) **203**, 102 (2006). (32)

44. Recombination kinetics in polarization-matched InAlGaN/GaN quantum wells,

M. Zamfirescu, A. Vinattieri, M. Gurioli, M. Androulidaki, N.T. Pelekanos, E. Dimakis, A. Georgakilas, PLMCN-5 2005 Glasgow, and ICNS-6 2005 Bremen, phys. stat. sol. (c) **2**, 3941 (2005). (4)

***43. GaN quantum dots: from basic understanding to unique applications,**

N. T. Pelekanos, G. E. Dialynas, J. Simon, H. Mariette, B. Daudin, MMN'04, Athens 2004, Journal of Physics: Conf. Series **10**, 61 (2005). (3)

***42. Threshold current reduction due to piezoelectric effects in InGaAs/AlGaAs laser diodes,**

G. Deligeorgis, G. E. Dialynas, N. T. Pelekanos, Z. Hatzopoulos, MMN'04, Athens 2004, Journal of Physics: Conf. Series **10**, 35 (2005). (3)

41. Recent progress in growth and physics of GaN/AlN quantum dots,

N. Gogneau, F. Enjalbert, F. Fossard, Y. Hori, C. Adelman, J. Brault, E. Martinez-Guerrero, J. Simon, E. Bellet-Amalric, D. Jalabert, N. Pelekanos, J.-L. Rouvière, B. Daudin, Le Si Dang, H. Mariette, E. Monroy, phys. stat. sol. (c) **1**, 1445 (2004). (12)

40. Comparative study of (100) and (111)B InGaAs single quantum well laser diodes,

G.E. Dialynas, G. Deligeorgis, N. Le Thomas, Z. Hatzopoulos, N.T. Pelekanos, ESPS-NIS'03, Stuttgart 2003, Physica E **23**, 329 (2004). (6)

39. Optical characterisation of indium-tin-oxynitride fabricated by RF-sputtering,

E. Aperathitis, M. Modreanu, M. Bender, V. Cimalla, G. Ecke, M. Androulidaki, N. Pelekanos, EMRS'03, Strasbourg 2003, Thin Solid Films **450**, 101 (2004). (8)

***38. Field-compensated quaternary InAlGaN/GaN quantum wells,**

F. Kalaitzakis, M. Androulidaki, N. T. Pelekanos, E. Dimakis, E. Bellet-Amalric, D. Jalabert, D. Cengher, K. Tsagaraki, E. Aperathitis, G. Konstantinidis, A. Georgakilas, ICNS-5, Nara 2003, phys. stat. sol. (b) **240**, 301 (2003). (5)

37. Plasma-assisted MBE growth of quaternary InAlGaN quantum well heterostructures with room temperature luminescence,

E. Dimakis, A. Georgakilas, M. Androulidaki, K. Tsagaraki, G. Kittler, F. Kalaitzakis, D. Cengher, E. Bellet-Amalric, D. Jalabert, N.T. Pelekanos, MBE XII, San Francisco 2002, J. Cryst. Growth **251**, 476 (2003). (27)

36. GaN quantum dots: physics and applications,

L. S. Dang, G. Fishman, H. Mariette, C. Adelman, E. Martinez, J. Simon, B. Daudin, E. Monroy, N. Pelekanos, J. L. Rouvière, and Y. H. Cho, J. Korean Phys. Soc. **42**, S657 (2003). (11)

***35. Optical properties of InAlGaN heterostructures grown by RF-MBE,**

M. Androulidaki, N. T. Pelekanos, E. Dimakis, F. Kalaitzakis, E. Aperathitis, E. Bellet-Amalric, D. Jalabert, K. Tsagaraki, A. Georgakilas, IWN-2002, Aachen 2002, phys. stat. sol. (c) **0**, 504 (2002). (3)

***34. Piezoelectric effects in heterostructures: consequences and applications,**

N. Le Thomas, N.T. Pelekanos, Novel Index Surfaces 2001, NIS'01, Aspet 2001, Microelectronics Journal **33**, 565 (2002). (8)

33. Residual doping effects on the amplitude of polarization-induced electric fields in GaN/AlGaIn quantum wells,

J. Simon, E. Langer, A. Barski, M. Zervos, N.T. Pelekanos, ICNS-4 Colorado 2001, phys. stat. sol. (a) **188**, 867 (2001). (6)

32. Self-assembled GaN quantum dots grown by plasma-assisted molecular beam epitaxy,

B. Daudin, G. Feuillet, H. Mariette, N. Pelekanos, E. Molva, J.L. Rouvière, C. Adelmann, E. Martinez-Guerrero, J. Barjon, Japanese Journal of Applied Physics (Part 1 Regular Papers Short Notes and Review Papers) **40**, 1892 (2001). (22)

***31. Time-resolved photoluminescence studies of cubic and hexagonal GaN quantum dots,**

J. Simon, E. Martinez-Guerrero, C. Adelmann, G. Mula, B. Daudin, G. Feuillet, H. Mariette, N.T. Pelekanos, Quantum Dot 2000, Munich, phys. stat. sol. (b) **224**, 13 (2001). (13)

30. Raman study of elastically strained bulk and layered structures based on CdTe,

V.C. Stergiou, Y.S. Raptis, E. Anastassakis, N.T. Pelekanos, International Conf. on High Pressure Semiconductor Physics, Sapporo (2000), phys. stat. sol. (b) **223**, 237 (2001).

29. Growth and characterisation of self-assembled cubic GaN quantum dots,

C. Adelmann, E. Martinez-Guerrero, F. Chabuel, J. Simon, B. Bataillou, G. Mula, Le Si Dang, N.T. Pelekanos, B. Daudin, G. Feuillet, H. Mariette, EMRS'2000 Strasbourg, Materials Science and Engineering **82**, 212 (2001). (20)

28. Phonon deformation potentials in CdTe,

V. Stergiou, E. Sarantopoulou, Y.S. Raptis, E. Anastassakis, N.T. Pelekanos, A. Arnoult, S. Tatarenko, K. Saminadayar, European High Pressure Research Group Meeting, Montpellier (1999), High Pressure Research **18**, 101 (2000).

27. Molecular beam epitaxy of GaN, AlN, InN and related alloys: from two- to three-dimensional growth mode,

B. Daudin, G. Feuillet, G. Mula, H. Mariette, J.L. Rouvière, N. Pelekanos, G. Fishman, C. Adelmann, J. Simon, Diamond Relat. Mater. **9**, 506 (2000). (5)

***26. Direct MBE growth of GaN on GaAs substrates for integrated short wavelength emitters,**

A. Georgakilas, K. Tsagaraki, E. Makarona, G. Constantinidis, M. Androulidaki, M. Kayambaki, E. Aperathitis, N.T. Pelekanos, EMRS'99 Strasbourg, Materials Science in Semiconductor Processing **3**, 511 (2000). (2)

***25. Influence of MBE growth temperature on the properties of cubic GaN grown directly on GaAs substrates,**

A. Georgakilas, M. Androulidaki, K. Tsagaraki, K. Amimer, G. Constantinidis, N.T. Pelekanos, M. Calamiotou, Z. Czigany, B. Pecz, International Conference on Nitride Semiconductors'99 Montpellier, phys. stat. sol. (a) **176**, 525 (1999). (3)

***24. Growth and optical characterization of $In_xGa_{1-x}N$ dots resulting from a 2D-3D transition,**

C. Adelmann, J. Simon, N. Pelekanos, Y. Samson, G. Feuillet, B. Daudin, International Conference on Nitride Semiconductors'99 Montpellier, phys. stat. sol. (a) **176**, 639 (1999). (19)

***23. Epitaxial Growth of GaN, AlN and InN: 2D/3D Transition and Surfactant Effects,**

B. Daudin, G. Feuillet, Guido Mula, H. Mariette, J.L. Rouvière, N. Pelekanos, G. Fishman, C. Adelmann, J. Simon, International Conference on Nitride Semiconductors'99 Montpellier, phys. stat. sol. (a) **176**, 621 (1999). (25)

***22. Multiperiod piezoelectric-barrier all-optical light modulator,**

V. Ortiz, G. Mula, N.T. Pelekanos, Novel Index Surfaces'98, San Rafael 1998, Microelectronics Journal **30**, 409 (1999).

***21. Giant piezoelectric effect in GaN self-assembled quantum dots,**

F. Widmann, J. Simon, N.T. Pelekanos, B. Daudin, G. Feuillet, J.L. Rouvière, G. Fishman, Novel Index Surfaces'98, San Rafael 1998, Microelectronics Journal **30**, 353 (1999). (29)

20. Self organization of nitride quantum dots by molecular beam epitaxy,

B. Daudin, F. Widmann, G. Feuillet, Y. Samson, J.L. Rouvière, N. Pelekanos, E-MRS'98 Strasbourg, Mat.Sc.Eng. **B59**, 330 (1999). (8)

19. X-ray reciprocal lattice mapping and photoluminescence of GaN/GaAlN multiple quantum wells: strain induced phenomena,

R. Langer, J. Simon, O. Konovalov, N. Pelekanos, A. Barski, M. Leszczynski, EGW2 Warsaw (1998), MRS Internet J. Nitride Semicond. Res. **3**, 46 (1998). (12)

18. Elaboration of III-V nitride quantum dots in molecular beam epitaxy,

B. Daudin, F. Widmann, G. Feuillet, Y. Samson, J.L. Rouvière, N. Pelekanos, Intern. Conf. on Silicon Carbide, III-nitrides and Related Materials, Stockholm 1997, Mater. Sci. Forum **266-268**, 1177 (1998). (4)

***17. Interface roughness correlation in CdTe/CdZnTe strained quantum wells,**

N.T. Pelekanos, N. Boudet, J. Eymery, H. Mariette, II-VI'97 Grenoble, J. Crystal Growth **184/185**, 886 (1998). (3)

***16. II-VI piezoelectric-barrier heterostructures for infrared light modulation,**

V. Ortiz, N.T. Pelekanos, G. Mula, II-VI'97 Grenoble, J. Crystal Growth **184/185**, 710 (1998). (1)

15. Comparative study of hexagonal and cubic GaN growth by RF-MBE,

G. Feuillet, F. Widmann, B. Daudin, J. Schuler, M. Arlery, J.L. Rouvière, N. Pelekanos, O. Briot, E-MRS'97 Strasbourg, Mat. Sc. Eng. B. **50**, 233 (1997). (10)

***14. Novel piezoelectric-barrier heterostructure for all-optical light modulation,**

N. T. Pelekanos, G. Mula, N. Magnea, J.L. Pautrat, Novel Index Surfaces 1996 Lyon, Microelectronics Journal **28**, 1057 (1997). (2)

13. Fabrication and optical properties of CdTe/(Cd,Zn)Te quantum wires and dots,

H. Mariette, C. Gourgon, Le Si Dang, C. Vieu, N. T. Pelekanos, W. W. Rühle, invited talk in European Workshop of II-VI Semiconductors, Linz 1994, Mat. Science Forum **182-184**, 99 (1995). (5)

***12. Fast photorefractive materials using quantum wells,**

N. T. Pelekanos, B. Deveaud, C. Guillemot, J. M. Gérard, P. Gravey, B. Lambert, A. Le Corre, J. E. Viallet, invited talk, in European Material Research Society meeting EMRS Strasbourg 1994, Optical Materials **4**, 348 (1995). (7)

***11. Optically produced local space-charge field in semiconductor heterostructures: towards an all-optical thin film photodiffractive device,**

N. T. Pelekanos, B. Deveaud, P. Gravey, J. M. Gérard, J. Hebling, J. Kuhl, EMRS Strasbourg 1994, Optical Materials **4**, 358 (1995). (4)

10. Exciton transfer dynamics in CdTe/(Cd,Zn)Te asymmetric double quantum well structures,

S. Haacke, N. T. Pelekanos, H. Mariette, M. Zigone, A. P. Heberle, W. W. Rühle, in II-VI Semiconductors conference, Newport 1993, J. of Crystal Growth **138**, 831 (1994). (10)

9. Quantum-confined Stark effect and self-electrooptic-effect-device in II-VI heterostructures,

H. Haas, P. Gentile, N. Magnea, J. L. Pautrat, Le Si Dang, N. T. Pelekanos, EMRS Strasbourg 1993, Materials Science and Engineering **B21**, 224 (1993). (3)

8. Structural and optical studies of CdTe/ZnTe superlattices with ultrathin ZnTe layers,

H. Mariette, P.H. Jouneau, N. T. Pelekanos, A. Tardot, G. Feuillet, N. Magnea, invited paper, 22nd Int. School Phys. Semicond. Compounds, Jaszowiec Poland, May 1993, Acta Physica Polonica A **84**, 423 (1993). (1)

7. Structural and electronic properties of CdTe-based heterostructures,

N. Magnea, A. Tardot, H. Mariette, N. Pelekanos, invited talk, EMRS Strasbourg 1992, Materials Science and Engineering **B16**, 71 (1993). (5)

6. Planar isoelectronic perturbation as a probe of the mixed type band configuration in CdTe/(Cd,Zn)Te superlattices,

N.T. Pelekanos, P. Peyla, Le Si Dang, N. Magnea, H. Mariette, Int. Conf. Superlattices, Microstructures and Microdevices, Xian 1992, Superlattices and Microstructures **12**, 151 (1992). (1)

5. Quantum wells with zincblende MnTe barriers,

J. Han, S. Durbin, R. L. Gunshor, M. Kobayashi, D. Menke, N. Pelekanos, M. Hagerott, A. V. Nurmikko, Y. Nakamura, N. Otsuka, J. Crystal Growth **111**, 767 (1991). (7)

4. Spectroscopy in CdTe/MnTe and ZnTe/MnTe single quantum wells; new binary wide gap II-VI heterostructures,

N. Pelekanos, Q. Fu, A.V. Nurmikko, S. Durbin, J. Han, Sungki O, D. Menke, M. Kobayashi, R.L. Gunshor, II-VI Conference, Berlin 1989, J. of Crystal Growth **101**, 628 (1990). (4)

3. Strong confinement effects in CdTe/MnTe quantum wells; a new strained layer binary II-VI heterostructure,

Q. Fu, N. Pelekanos, A. V. Nurmikko, S. Durbin, J. Han, Sungki O, D. Menke, M. Kobayashi, R. L. Gunshor, ESPDS, Grenoble 1989, Surface Science **229**, 148 (1990).

2. ZnTe/MnTe: a new metastable wide gap II-VI heterostructure,

S. Durbin, M. Kobayashi, Q. Fu, N. Pelekanos, R. L. Gunshor, A. V. Nurmikko, MSS-4, Ann-Arbor 1989, Surface Science **228**, 33 (1990). (3)

1. Molecular-beam epitaxy of InSb/CdTe heterostructures,

J.L.Glenn, Jr., Sungki O, L. A. Kolodziejski, R. L. Gunshor, M. Kobayashi, D. Li, N. Otsuka, M. Hagerott, N. Pelekanos, A. V. Nurmikko, J.Vac.Sci.Technol. **B 7**, 249 (1989). (9)

CONFERENCE PAPERS in PROCEEDINGS:

112. Complex three-dimensional heterostructures in III-As nanowires,

T. Tauchnitz, L. Balaghi, R. Hübner, D. Wolf, G. Bussone, R. Grifone, J. Grenzer, N. T. Pelekanos, H. Schneider, M. Helm, E. Dimakis, submitted in Euro-MBE to be held in Lenggries Germany, February 2019

***111. Enhanced piezoelectric field in AlAs-capped InAs (211)B quantum dots,**

I. Thyris, A. Stavrinidis, G. Konstantinidis, Th. Kehagias, Z. Hatzopoulos, N.T. Pelekanos, International Conference on Physics of Semiconductors 2018, ICPS'18, Montpellier, July 2018.

110. Demonstration of Antibunching behavior at 150K from a Single Piezoelectric Quantum Dot,

S. Germanis, A. Stavrinidis, G. Konstantinidis, Z. Hatzopoulos, V. Voliotis, N.T. Pelekanos, 10th International Conference on Quantum Dots, Toronto, June 2018.

***109. Random and periodic arrays of strained GaAs/InGaAs core-shell nanowires for photovoltaic applications,**

Siew Li Tan, Yann Genuist, Martien I. den Hertog, Thomas Kehagias, Henri Mariette, Nikos T. Pelekanos, Book of abstracts Journées Nationales des Nanofils Semiconducteurs (J2N) 2017, Grenoble November 2017.

***108. Ultra-low threshold GaN polariton lasing in a zero dimensional trap,**

R. Jayaprakash, F. G. Kalaitzakis, E. Amargianitakis, G. Christmann, K. Tsagaraki, M. Hocevar, B. Gayral, E. Monroy, N.T. Pelekanos, Book of abstracts E-MRS 2016, Fall meeting, Symposium F, Warsaw, September 2016.

***107. Random and periodic arrays of strained GaAs/InGaAs core-shell nanowires for photovoltaic applications,**

Siew Li Tan, Yann Genuist, Henri Mariette, Nikos Pelekanos, Book of abstracts E-MRS 2016, Fall meeting, Symposium E, Warsaw, September 2016.

106. Strain and composition variations in the (211)B GaAs/InAs quantum dot heterostructure,

N. Florini, J. Kioseoglou, G. P. Dimitrakopoulos, S. Germanis, C. Katsidis, Z. Hatzopoulos, N. T. Pelekanos, Th. Kehagias, Book of Abstracts of 32nd Panhellenic Conference on Solid-State Physics and Materials Science, Ioannina, September 2016.

105. Self-Catalyzed Growth of Strained GaAs/InGaAs Core-Shell Nanowires

Siew Li Tan, Yann Genuist, Henri Mariette, Nikos Pelekanos, Book of abstracts of MBE 2016 conference, Montpellier, September 2016.

104. Self-Catalyzed Growth of Highly Vertical GaAs Core-Shell Nanowires on Chemically-Treated Si(111) Surfaces

Siew Li Tan, Yann Genuist, Henri Mariette, Nikos Pelekanos, 43rd International Symposium on Compound Semiconductors (ISCS), Toyama, June 2016.

103. Selectivity and yield improvement in selectively grown GaAs nanowires on Si,

Siew Li Tan, Yann Genuist, Moira Hocevar, Henri Mariette, Nikos Pelekanos, Nanowire Growth Workshop, Barcelona, October 2015.

102. Piezoelectric GaAs-InGaAs core-shell nanowires for photovoltaic applications,

K. Moratis, S. Germanis, C. Katsidis, M. Androulidaki, K. Tsagaraki, Z. Hatzopoulos, N.T. Pelekanos, Book of Abstracts of 6th International Conference of Micro- and Nanoelectronics, Athens, October 2015.

***101. Ultra-low threshold GaN polariton lasing at room temperature,**

R. Jayaprakash, F. G. Kalaitzakis, E. Amargianitakis, G. Christmann, K. Tsagaraki, M. Hocevar, B. Gayral, E. Monroy, N.T. Pelekanos, Book of Abstracts of 31st Panhellenic Conference on Solid-State Physics and Materials Science, Thessaloniki, September 2015.

***100. Growth and optical characterization of GaAs-InGaAs core-shell piezoelectric nanowires on silicon substrates,**

K. Moratis, S. Germanis, C. Katsidis, M. Androulidaki, K. Tsagaraki, Z. Hatzopoulos, N.T. Pelekanos, Book of Abstracts of 31st Panhellenic Conference on Solid-State Physics and Materials Science, Thessaloniki, September 2015.

***99. Morphology, Structure, and Strain properties of Quantum Nanostructures**

N. Florini, J. Kioseoglou, G. P. Dimitrakopoulos, Th. Pavloudis, Ph. Komninou, T. Walther, S. Germanis, K. Moratis, Z. Hatzopoulos, N. T. Pelekanos and Th. Kehagias, Book of Abstracts of 31st Panhellenic Conference on Solid-State Physics and Materials Science, Thessaloniki, September 2015.

***98. Stress-Strain Relation in (211)B-oriented InAs/GaAs Quantum Dot Superlattice,**

T. Koukoula, N. Florini, J. Kioseoglou, T. Kehagias, N. Pelekanos, Th. Karakostas, Book of Abstracts of 31st Panhellenic Conference on Solid-State Physics and Materials Science, Thessaloniki, September 2015.

97. InN bandgap determination in low electron concentration films,

M. Androulidaki, A. Adikimenakis, K. Tsagaraki, S.A. Kazazis, E. Iliopoulos, A. Bairamis, N.T. Pelekanos, A. Georgakilas, International Conference of Nitride Semiconductors, Beijing, 2015.

96. Structural properties of GaAs/AlGaAs core-shell nanowires for photovoltaic applications,

Th. Kehagias, N. Florini, J. Kioseoglou, Th. Pavloudis, Ph. Komninou, T. Walther, K. Moratis, Z. Hatzopoulos, N. T. Pelekanos, EMRS-2015, Lille, France 2015.

95. Anisotropic distribution of strain in InAs/GaAs (211)B quantum dot superlattices,

Th. Kehagias, N. Florini, J. Kioseoglou, G. P. Dimitrakopoulos, S. Germanis, Z. Hatzopoulos, N. T. Pelekanos, EMRS-2015, Lille, France 2015.

94. Alloying variations in self-assembled InAs/GaAs (211)B quantum dot heterostructures

N. Florini, J. Kioseoglou, G. P. Dimitrakopoulos, S. Germanis, Z. Hatzopoulos, N. T. Pelekanos, and Th. Kehagias, Microscopy of Semiconducting Materials MSM-XIX, Cambridge March 2015.

93. Nanostructure and strain properties of core-shell GaAs/AlGaAs nanowires

Th. Kehagias, N. Florini, J. Kioseoglou, Th. Pavloudis, Ph. Komninou, T. Walther, K. Moratis, Z. Hatzopoulos, N. T. Pelekanos, Microscopy of Semiconducting Materials MSM-XIX, Cambridge March 2015.

92. Comparative study of p-type Ni-O and Ni-Al-O thin films fabricated by sputtering in oxygen deficient plasma,

G. Michael, V. Kambylafka, K. Tsagaraki, N. Pelekanos, G. Kiriakidis, E. Aperathitis, Book of Abstracts of 5th International Symposium on Transparent Conductive Materials (IS-TCM 2014), Platania, October 2014.

***91. Optical properties of core-shell GaAs-AlGaAs nanowires on silicon,**

K. Moratis, K. Tsagaraki, Z. Hatzopoulos, J. Bleuse, F. Donatini, N. T. Pelekanos, Book of Abstracts of 30th Panhellenic Conference on Solid-State Physics and Materials Science, Heraklion, September 2014.

***90. Enhanced absorption in GaAs nanowire arrays grown on silicon substrates,**

K. Moratis, R. Jayaprakash, S. Germanis, K. Tsagaraki, Z. Hatzopoulos, N. T. Pelekanos, Book of Abstracts of 30th Panhellenic Conference on Solid-State Physics and Materials Science, Heraklion, September 2014.

***89. Study on resonant energy transfer between GaN/AlGaN quantum wells and polyfluorene,**

R. Jayaprakash, F. Kalaitzakis, N. T. Pelekanos, J. Bleuse, B. Gayral, E. Monroy, Book of Abstracts of 30th Panhellenic Conference on Solid-State Physics and Materials Science, Heraklion, September 2014.

***88. Near room temperature emission from single (211)B InAs QD and clear anti-bunching behaviour up to 60K,**

S. Germanis, L. Monniello, R. Hostein, A. Stavrinidis, G. Konstantinidis, Z. Hatzopoulos, V. Voliotis, N. T. Pelekanos, Book of Abstracts of 30th Panhellenic Conference on Solid-State Physics and Materials Science, Heraklion, September 2014.

***87. Microcavity-enhanced emission from single (211)B InAs QDs for the generation of entangled photon pairs,**

S. Germanis, A. Stavrinidis, G. Konstantinidis, Z. Hatzopoulos, N. T. Pelekanos, Book of Abstracts of 30th Panhellenic Conference on Solid-State Physics and Materials Science, Heraklion, September 2014.

***86. GaAs/AlGaAs core-shell nanowires for energy applications: A structural study**

Th. Kehagias, N. Florini, G. P. Dimitrakopoulos, J. Kioseoglou, Ph. Komninou, K. Moratis, Z. Hatzopoulos, N.T. Pelekanos, Book of Abstracts of 30th Panhellenic Conference on Solid-State Physics and Materials Science, Heraklion, September 2014.

***85. Lattice registration and allocation of strain in (211)B InAs/GaAs quantum dot superlattices,**
N. Florini, G. P. Dimitrakopoulos, J. Kioseoglou, S. Germanis, Z. Hatzopoulos, N.T. Pelekanos, Th. Kehagias, Book of Abstracts of 30th Panhellenic Conference on Solid-State Physics and Materials Science, Heraklion, September 2014.

***84. Study of sputtered NiO and NiAl₂O₄ spinel thin films deposited in oxygen deficient plasma,**
G. Michail, V. Kampylafka, E. Aperathitis, K. Tsagaraki, G. Kiriakidis, Gagaoudakis, N. Pelekanos, Book of Abstracts of 30th Panhellenic Conference on Solid-State Physics and Materials Science, Heraklion, September 2014.

83. Structural and Strain Properties of (211)B InAs/GaAs Quantum Dot Superlattices,
N. Florini, G. P. Dimitrakopoulos, J. Kioseoglou, Z. Hatzopoulos, N.T. Pelekanos, Th. Kehagias, Extended Defects in Semiconductors (EDS), Göttingen, September 2014.

82. Morphology and misfit accommodation of InAs quantum dots on nonsingular (211)B GaAs surfaces,
G. P. Dimitrakopoulos, N. Florini, J. Kioseoglou, T. Walther, S. Germanis, Z. Hatzopoulos, N.T. Pelekanos, Th. Kehagias, European Materials Research Society 2014 Fall Meeting, Poland, September 2014.

81. Nanostructural properties of GaAs/AlGaAs core-shell nanowires,
G. P. Dimitrakopoulos, J. Kioseoglou, N. Florini, Ph. Komninou, T. Walther, K. Moratis, Z. Hatzopoulos, N.T. Pelekanos, Th. Kehagias, European Materials Research Society 2014 Fall Meeting, Poland, September 2014.

80. Nanostructure and strain properties of InAs QDs grown on (211)B GaAs surface,
N. Florini, G. P. Dimitrakopoulos, J. Kioseoglou, Z. Hatzopoulos, N.T. Pelekanos, Th. Kehagias, 18th International Microscopy Congress (IMC), Prague, September 2014.

79. qHRTEM analysis of the (211)B In(Ga)As QDs/GaAs heterostructure,
N. Florini, J. Kioseoglou, G. P. Dimitrakopoulos, T. Walther, Z. Hatzopoulos, N.T. Pelekanos, Th. Kehagias, 18th International Microscopy Congress (IMC), Prague, September 2014.

78. Core-shell GaAs/AlGaAs nanowires grown on Si (111),
Th. Kehagias, N. Florini, T. Walther, K. Moratis, Z. Hatzopoulos, N.T. Pelekanos, 18th International Microscopy Congress (IMC), Prague, September 2014.

77. Near RT emission from a single piezoelectric InAs quantum dot and temperature dependent anti-bunching experiments,
S. Germanis, L. Monniello, R. Hostein, A. Stavrinidis, G. Konstantinidis, Z. Hatzopoulos, V. Voliotis, N. T. Pelekanos, Book of Abstracts of the International Conference on Physics of Semiconductors 2014, ICPS 14, Austin, August 2014.

76. Stark effect on the emission of a single piezoelectric InAs quantum dot at liquid nitrogen temperature,
S. Germanis, C. Katsidis, A. Stavrinidis, S. I. Tsintzos, G. Konstantinidis, Z. Hatzopoulos, N. T. Pelekanos, Book of Abstracts of the International Conference on Physics of Semiconductors 2014, ICPS 14, Austin, August 2014.

75. Enhanced absorption in as-grown GaAs nanowires on silicon substrates,
K. Moratis, R. Jayaprakash, S. Germanis, K. Tsagaraki, Z. Hatzopoulos, N. T. Pelekanos, Book of abstracts of WOCSDICE 2014, Delphi, June 2014.

74. Structure of GaAs/AlGaAs core-shell nanowires grown on Si (111),
Th. Kehagias, N. Florini, T. Walther, K. Moratis, Z. Hatzopoulos, N. T. Pelekanos, , Book of abstracts of EXMATEC 2014, Delphi, June 2014.

73. Investigation of (211)B InAs/GaAs quantum dot-based heterostructures by TEM techniques,
N. Florini, G. P. Dimitrakopoulos, J. Kioseoglou, Z. Hatzopoulos, N. T. Pelekanos, Th. Kehagias, Book of abstracts of EXMATEC 2014, Delphi, June 2014.

72. Self-assembled peptide fibril films as templates for the directed organisation of CdSe@ZnS quantum dots at the chloroform-water interface,
E. Kasotakis, A. Kostopoulou, M. Spuch-Calvar, M. Androulidaki, N. Pelekanos, A. G. Kanaras, A. Lappas, A. Mittraki, Photonics West, USA (2014), submitted to SPIE-Proceedings **8955** (2014).

71. Self-Assembled Piezoelectric InAs/GaAs Quantum Dots for Single Photon Emitters at Room Temperature

S. Germanis, A. Beveratos, A. Stavrinidis, G. Konstantinidis, Z. Hatzopoulos, N.T. Pelekanos, Book of Abstracts of 29th Panhellenic Conference on Solid-State Physics and Materials Science, Athens, September 2014.

70. Piezoelectric (211)B InAs quantum dots for single photon emitters at room temperature,
S. Germanis, A. Beveratos, A. Stavrinidis, G. Konstantinidis, Z. Hatzopoulos, N.T. Pelekanos, Proceedings of Optics of Excitons in Confined Systems 2013, Rome, September 2013.

69. Structural assessment of InAs QDs grown on (211)B GaAs,
Th. Kehagias, G. P. Dimitrakopoulos, J. Kioseoglou, S. Germanis, Z. Hatzopoulos, N.T. Pelekanos, Book of abstracts of 27th International Conference of Defects in Semiconductors, Bologna, July 2013.

68. Microstructure of quantum-dot-based (211)B InAs/GaAs heterostructures,
Th. Kehagias, G. P. Dimitrakopoulos, N. Florini, S. Germanis, Z. Hatzopoulos, N. T. Pelekanos, Book of Abstracts of International Conference on Intergranular and Interphase Boundaries in Materials, IIB2013, Halkidiki.

***67. All-dielectric GaN microcavity: Strong coupling and lasing at room temperature,**
K. S. Daskalakis, P. S. Eldridge, G. Christmann, E. Trichas, R. Murray, E. Iliopoulos, E. Monroy, N. T. Pelekanos, J. J. Baumberg, P.G. Savvidis, Book of Abstracts of PLMCN 2013, Hersonissos, Crete, Greece.

***66. Piezoelectric InAs/GaAs quantum dots for high temperature single photon emission,**
S. Germanis, A. Beveratos, A. Stavrinidis, G. Konstantinidis, Z. Hatzopoulos, N. T. Pelekanos, Book of Abstracts of PLMCN 2013, Hersonissos, Crete, Greece.

***65. Room temperature resonant energy transfer between GaN/AlGaIn quantum wells and polyfluorene,**
R. Jayaprakash, F. Kalaitzakis, M. Kaliva, J. Bleuse, B. Gayral, E. Monroy, N.T. Pelekanos, Book of Abstracts of PLMCN 2013, Hersonissos, Crete, Greece.

***64. Absorption coefficients of free excitons in GaN nanowires,**
R. Jayaprakash, D. Ajagunna, S. Germanis, M. Andoulidaki, K. Tsagaraki, A. Georgakilas, N.T. Pelekanos, Materials Research Society 2012 Fall Meeting, Boston, November 2012.

***63. Strain Effects in GaAs/AlGaAs core-shell nanowires and implications for solar cell applications,**
M. Hocevar, G. Le Thuy, R. Songmuang, M. den Hertog, J. Bleuse, L. Besombes, Y-M Niquet, N. T. Pelekanos, Materials Research Society 2012 Fall Meeting, Boston, November 2012.

***62. Efficient resonant energy transfer between GaN and polyfluorene,**
R. Jayaprakash, P. Corfdir, B. Deveaud, E. Monroy, M. Kaliva, E. Trichas, N.T. Pelekanos, Book of Abstracts of the 5th International Conference on Micro-Nanoelectronics, Nanotechnologies and MEMS, Kokkini Hani, October 2012.

***61. Exciton absorption coefficients in GaN nanowires,**
R. Jayaprakash, D. Ajagunna, S. Germanis, M. Andoulidaki, K. Tsagaraki, A. Georgakilas, N.T. Pelekanos, Book of Abstracts of the 5th International Conference on Micro-Nanoelectronics, Nanotechnologies and MEMS, Kokkini Hani, October 2012.

***60. Passivated GaAs nanowires with AlGaAs shells: implications for photovoltaics,**
M. Hocevar, G. Le Thuy, R. Songmuang, M. den Hertog, J. Bleuse, L. Besombes, Y-M Niquet, N. T. Pelekanos. Book of Abstracts of the 5th International Conference on Micro-Nanoelectronics, Nanotechnologies and MEMS, Kokkini Hani, October 2012.

***59. A novel (211)B InAs quantum dot system with negligible fine structure splitting for the generation of entangled photon pairs,**
S. Germanis, A. Beveratos, G. E. Dialynas, A. Stavrinidis, Z. Hatzopoulos, G. Konstantinidis, N.T. Pelekanos, Book of Abstracts of the 5th International Conference on Micro-Nanoelectronics, Nanotechnologies and MEMS, Kokkini Hani, October 2012.

58. Efficient energy transfer between a GaN thin film and polyfluorene,
R. Jayaprakash, P. Corfdir, B. Deveaud, E. Monroy, M. Kaliva, G. Stavrinidis, N.T. Pelekanos, European Optical Society Annual Meeting, Aberdeen, September 2012.

57. New (211)B InAs quantum dots with ultra-small FSS for entangled photon sources,
S. Germanis, A. Beveratos, G. E. Dialynas, G. Deligeorgis, Z. Hatzopoulos, N. T. Pelekanos, Proceedings of Optics of Excitons in Confined Systems 2011, Paris, September 2011.

***56. Ultrathin laterally etched GaN membranes of high optical quality,**
E. Trichas, N. T. Pelekanos, K. Tsagaraki, E. Iliopoulos, A. Kostopoulos, P.G. Savvidis, Proceedings of HETECH 2010, Fodele, October 2010.

***55. Surface properties and electrical behavior of Cr contacts on MOCVD and MBE grown p-type GaN,**
F. G. Kalaitzakis, G. Konstantinidis, L. Sygellou, S. Kennou, S. Ladas, N. T. Pelekanos, Proceedings of HETECH 2010, Fodele, October 2010.

***54. Relaxation dynamics in polariton light emitting devices,**
S. I. Tsintzos, Tingge Gao, N. T. Pelekanos, Z. Hatzopoulos, P. G. Savvidis, Book of Abstracts of the International Conference on Physics of Semiconductors 2010, ICPS 10, Seoul.

***53. Polarization resolved single dot spectroscopy on (211)B InAs/GaAs quantum dots,**
S. Germanis, G.E. Dialynas, G. Deligeorgis, P.G. Savvidis, Z. Hatzopoulos, N.T. Pelekanos, Proceedings of International Conference on Physics of Semiconductors 2010, ICPS 10, Seoul.

52. Ultrafast control of polariton stimulated scattering in semiconductor microcavities,
G. Christmann, C. Coulson, J.J. Baumberg, N. T. Pelekanos, Z. Hatzopoulos, S. I. Tsintzos, P. G. Savvidis, CLEO/QELS Conference 2010 Technical Digest, San Jose (2010).

51. Polariton light emitting devices: efficiency and relaxation dynamics,
S.I. Tsintzos, P.G. Savvidis, Tingge Gao, G. Deligeorgis, P. Tsotsis, Z. Hatzopoulos, N.T. Pelekanos, Book of Abstracts of PLMCN 2010, Guernavaca, Mexico.

50. Ultrafast control of polariton stimulated scattering in semiconductor microcavities,
G. Christmann, C. Coulson, C. Grossmann, J. J. Baumberg, N. T. Pelekanos, Z. Hatzopoulos, S. I. Tsintzos, P. G. Savvidis, Book of Abstracts of PLMCN 2010, Guernavaca, Mexico.

***49. Room temperature GaAs polariton LED: A first step towards a polariton laser?,**
S. I. Tsintzos, P.G. Savvidis, G. Deligeorgis, P. Tsotsis, Z. Hatzopoulos, N.T. Pelekanos, ICO-Photonics-2009 Conference on "Emerging Trends and Novel Materials in Photonics", Delphi, Greece, October 2009.

***48. Giant piezoelectric field in (211)B InAs/GaAs quantum dots: an opportunity for novel photonic devices**
G.E. Dialynas, S. Kalliakos, S. Germanis, P.G. Savvidis, Z. Hatzopoulos, N.T. Pelekanos, ICO-Photonics-2009 Conference on "Emerging Trends and Novel Materials in Photonics", Delphi, Greece, October 2009.

47. Room temperature GaAs polariton light emitting diode,
P. Savvidis, S. Tsintzos, G. Deligeorgis, Z. Hatzopoulos, N. Pelekanos, Book of Abstracts of 11th International Conference on Optics of Excitons in Confined Systems, OECS 11, Madrid, September 2009.

46. Room temperature GaAs polariton LED,
S.I. Tsintzos, P.G. Savvidis, G. Konstantinidis, Z. Hatzopoulos, N.T. Pelekanos, Proc. of the XXIV Panhellenic Conference on Solid State Physics and Materials Science, Heraklion, Greece (2008).

***45. Large anti-binding of bi-excitons in (211)B InAs/GaAs piezoelectric quantum dots,**
G. E. Dialynas, N. Chadzidimitriou, S. Kalliakos, S. Tsintzos, P. G. Savvidis, Z. Hatzopoulos, N. T. Pelekanos, Abstract Book of International Conference on the Physics of Semiconductors 2008, ICPS 08, Rio de Janeiro.

***44. Near room temperature GaAs polariton LED,**
S.I. Tsintzos, P.G. Savvidis, G. Konstantinidis, Z. Hatzopoulos, N.T. Pelekanos, Abstract Book of International Conference on the Physics of Semiconductors 2008, ICPS 08, Rio de Janeiro.

***43. Negative bi-exciton binding energy in (211)B InAs/GaAs piezoelectric quantum dots,**
G.E. Dialynas, C. Xenogianni, E. Trichas, P.G. Savvidis, G. Konstantinidis, Z. Hatzopoulos, N.T. Pelekanos, Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science Conference 2007 Technical Digest, #JTuA6, Baltimore (2007).

***42. Ohmic contacts to p-type GaN,**
F. Kalaitzakis, G. Konstantinidis, N. Pelekanos, Proc. European Workshop on III-Nitride Semiconductor materials and devices, Hersonissos Crete (2006).

***41. GaN quantum dots. Synthesis and Applications in Sensor Development,**
C. Karapidaki, M. Androulidaki, V. Lebedev, N. Sofikiti, N. Pelekanos, V. Cimalla, NA. Chaniotakis, Proc. European Workshop on III-Nitride Semiconductor materials and devices, Hersonissos Crete (2006).

***40. Internal field effects on the lasing characteristics of III-nitride quantum well lasers,**
G.E. Dialynas, G. Deligeorgis, N.T. Pelekanos, Proc. European Workshop on III-Nitride Semiconductor materials and devices, Hersonissos Crete (2006).

***39. Accurate determination of bandgap dependence on composition of ternary or quaternary nitride alloys,**
M. Androulidaki, N.T. Pelekanos, E. Iliopoulos, E. Dimakis, K. Tsagaraki, A. Georgakilas, Proc. European Workshop on III-Nitride Semiconductor materials and devices, Hersonissos Crete (2006).

38. Polarization field effects on optical gain and lasing characteristics of III-V nitride and arsenide quantum wells,

G. Deligeorgis, G. Dialynas, Z. Hatzopoulos, N.T. Pelekanos, Photonics West, Optoelectronics 2005, San Jose, USA (2005), SPIE-Proceedings **5722**, 400-409 (2005).

***37. Piezoelectric effect on the lasing characteristics of (111)B InGaAs/AlGaAs laser diodes,**

G. Deligeorgis, G. E. Dialynas, N. Le Thomas, Z. Hatzopoulos, and N.T. Pelekanos, 27th Int. Conf. Phys. Semicond., Flagstaff (AZ) (2004), AIP Conf. Proceedings **772**, 1531 (2005).

36. Ohmic contact formation to p-type GaN,

F.Kalaitzakis, G. Constantinidis, N. Pelekanos, Proc. of the XX Panhellenic Conference on Solid State Physics, Ioannina, Greece (2004).

***35. Field-compensated InAlGaN/(Al)GaN quantum wells,**

F. Kalaitzakis, M. Androulidaki, N.T. Pelekanos, E. Iliopoulos, E. Dimakis, and A. Georgakilas, Proc. HETECH'04, Koutouloufari, Crete (2004).

***34. Bowing coefficient of InAlGaN alloys,**

M. Androulidaki, N.T. Pelekanos, K. Tsagaraki, E. Dimakis, E. Bellet-Amalric, D. Jalabert, and A. Georgakilas, Proc. HETECH'04, Koutouloufari, Crete (2004).

***33. Internal field effect on optical gain and lasing characteristics of III-V nitride and arsenide quantum wells,**

G. Dialynas, G. Deligeorgis, Z. Hatzopoulos, and N. T. Pelekanos, Proc. HETECH'04, Koutouloufari, Crete (2004).

***32. The effect of target conditioning and post-fabrication annealing on the properties of rf-sputtered Indium-Tin-Oxynitride thin films,**

E. Aperathitis, M. Sifakis, C. Kotovos, N. Pelekanos, Proc. HETECH'04, Koutouloufari, Crete (2004).

31. Growth and properties of quaternary InAlGaN heterostructures,

A. Georgakilas, E. Dimakis, M. Androulidaki, K. Tsagaraki, E. Bellet-Amalric, D. Jalabert, P. Komninou, N. T. Pelekanos, invited paper, Proc. HETECH'03, Spain (2003).

30. Wavelength tuning of InGaAs/AlGaAs laser diodes based on the quantum confined Stark effect,

N. Le Thomas, N.T. Pelekanos, Z. Hatzopoulos, Proc. Int. Conf. Phys. Semiconductors, Edinburgh (2002).

29. High quality quaternary InAlGaN alloys grown by plasma-assisted molecular beam epitaxy,

E. Dimakis, A. Georgakilas, G. Kittler, M. Androulidaki, K. Tsagaraki, E. Bellet-Amalric, D. Jalabert, N.T. Pelekanos, Proc. of Semiconducting and Insulating Materials Conference XII, p.60, Smolenice 2002.

28. Strain relaxation mechanisms in hexagonal and cubic nitride heterostructures grown by plasma-assisted molecular-beam epitaxy,

B. Daudin, G. Feuillet, H. Mariette, G. Mula, N. Pelekanos, A. Bourret, J.L. Rouvière, R. Langer, C. Adelman, E. Martinez-Guerrero, J. Simon, IPAP Conf. Ser. (2000), 1(Proceedings of International Workshop on Nitride Semiconductors, 2000), 78-81.

***27. Tunable semiconductor laser device based on piezoelectric heterostructures,**

V. Ortiz, N.T. Pelekanos, G. Mula, Le Si Dang, Technical Digest of Conference of Lasers and Electro-Optics, CLEO'99 Baltimore, 154 (1999).

26. Strong piezoelectric effects in unstrained GaN quantum wells,

R. Langer, J. Simon, O. Konovalov, N.T. Pelekanos, R. André, A. Barski, M. Godlewski, MRS'98 Boston, Mater. Res. Soc. Symp. Proc. **537**, G3.19/1 (1999).

25. Piezoelectric properties of GaN self-organized quantum dots,

B. Daudin, F. Widmann, J. Simon, N.T. Pelekanos, G. Feuillet, J.L. Rouvière, MRS'98 Boston, Mater. Res. Soc. Symp. Proc. **537**, G9.2/1 (1999).

24. Growth modes of hexagonal and cubic semiconductor III-V nitrides in RF-molecular beam epitaxy,

B. Daudin, F. Widmann, G. Feuillet, Y. Samson, J.L. Rouvière, N. Pelekanos, Blue Laser Light Emitting Diodes II, (Int. Symp.), 2nd (1998), 64-65. Editors: Onabe, Kentaro. Publisher: Ohmsha, Tokyo, Japan.

***23. Controlling 2D/3D growth of GaN by molecular beam epitaxy: from superlattices to quantum dots,**

B. Daudin, G. Feuillet, F. Widmann, Y. Samson, J.L. Rouvière, N. Pelekanos, G. Fishman, MRS'97 Boston, Mater. Res. Soc. Symp. Proc. **482**, 205 (1998). (1)

***22. Novel piezoelectric heterostructure for all-optical infrared light modulation,**

V. Ortiz, N. T. Pelekanos, G. Mula, MRS'97 Boston, Mater.Res.Soc.Symp.Proc. **484**, 171 (1998).

21. Strain relaxation in CdTe-based wires and dots studied by photoluminescence,

C. Gourgon, H. Mariette, Le Si Dang, N. Pelekanos, C. Vieu, H. Straub, D. Stifter, G. Brunthaler, Proceedings of Nanostructures: Physics and Technology '96 Saint-Petersburg, 272 (1996).

***20. Exciton-phonon quasi-bound states in II-VI quantum wells,**

H. Haas, N.T. Pelekanos, N. Magnea, V. Belitsky, A. Cantarero, Proc.of 23rd International Conference of Physics of Semiconductors, Berlin, 2019 (1996).

***19. Exciton-phonon bound states in II-VI quantum wells,**

H. Haas, N.T. Pelekanos, N. Magnea, V. Belitsky, Technical Digest of Quantum Electronics and Laser Science Conference, QELS'96 Anaheim, 163 (1996).

***18. Absorption electromodulation in CdHgTe heterostructures in the 1.5 μm range ,**

Guido Mula, N.T. Pelekanos, P. Gentile, N. Magnea, J.L. Pautrat, Technical Digest of Conference of Lasers and Electro-Optics, CLEO'96 Anaheim, 298 (1996).

17. Evidence of interface roughness correlation in CdTe/(Cd,Zn)Te quantum wells,

E.J. Mayer, N.T. Pelekanos, J. Kuhl, N. Magnea, H. Mariette, Proc. 9th International Conference on "Ultrafast Processes in Spectroscopy", Trieste Italy (1995), edited by O. Svelto, S. De Silvestri, G. Denardo, Plenum New York, 275 (1996).

16. Dephasing of excitons in multiple quantum well Bragg structures,

M. Hübner, E. J. Mayer, N. Pelekanos, J. Kuhl, T. Stroucken, A. Knorr, P. Thomas, S. W. Koch, R. Hey, K. Ploog, Y. Merle D'Aubigné, A. Wasiela, H. Mariette, in "Hot Carriers in Semiconductors" Chicago 1995, edited by K. Hess, J.P. Leburton, and U. Ravaioli, Plenum New York, 7 (1996). (1)

15. Fabrication and optical properties of CdTe/CdZnTe quantum wires and dots processed by nanolithography,

H. Mariette, C. Gourgon, J. Cibert, Le Si Dang, C. Vieu, G. Brunthaler, H. Straub, W. Faschinger, N. Pelekanos, W. W. Rühle, invited paper, Int. Conf. Semiconductor Heteroepitaxy, Montpellier (1995), published in "Semiconductor Heteroepitaxy", edited by B. Gil and R.L. Aulombard, (World Scientific, Singapore), p.383.

***14. All-optical quantum well modulator device based on strong carrier separation in piezoelectric layers,**

N. T. Pelekanos, Technical Digest of Conference of Lasers and Electro-Optics, CLEO'95 Baltimore, 302 (1995).

***13. Optically controlled quantum confined Stark modulator,**

N. T. Pelekanos, B. Deveaud, J. M. Gérard, J. Hebling, J. Kuhl, Technical Digest of Conference of Lasers and Electro-Optics, CLEO'95 Baltimore, 65 (1995).

***12. Coherent dynamics of resonantly excited quantum well excitons,**

N.T. Pelekanos, E.J. Mayer, M. Hübner, J. Kuhl, W.W. Rühle, R. Hey, K. Ploog, Technical Digest of Quantum Electronics and Laser Science Conference, QELS'95 Baltimore, 248 (1995).

***11. Dephasing mechanisms and homogeneous linewidths of excitons in CdTe quantum wells,**

E. J. Mayer, N. T. Pelekanos, J. Kuhl, N. Magnea, H. Mariette, Technical Digest of Quantum Electronics and Laser Science Conference, QELS'95 Baltimore, 188 (1995).

***10. Contactless quantum confined Stark modulator based on GaAs/AlAs quantum filters,**

N. T. Pelekanos, B. Deveaud, P. Gravey, F. Clérot, J. M. Gérard, J. Kuhl, Proc. of Optical Computing '94, Edinburgh, Inst. Phys. Conf. Ser. 139, 523 (1995). (1)

***9. Strong room temperature exciton absorption and electroabsorption in CdTe/(Cd,Zn)Te quantum wells, at near-IR wavelengths,**

H. Haas, N. Magnea, H. Mariette, N. T. Pelekanos, Technical Digest of Quantum Electronics and Laser Science Conference, QELS'93 Baltimore, 191 (1993).

8. Molecular beam epitaxy of $\text{Zn}_{1-x}\text{Cd}_x\text{Se}/\text{ZnSe}$ heterostructures and their optical properties,

H. Luo, N. Samarth, J.K. Furdyna, H. Jeon, J. Ding, N. Pelekanos, A.V. Nurmikko, Mat. Res. Soc. Symp. Proc. 228, 301 (1992). (3)

7. Room temperature exciton absorption and reduced exciton-phonon interaction in ZnSe-based quantum wells at blue wavelengths,

N. Pelekanos, J. Ding, A. V. Nurmikko, H. Luo, N. Samarth, J. Furdyna, Technical Digest of Quantum Electronics and Laser Science Conference, QELS'91 Baltimore, (1991).

6. Room temperature exciton absorption, excitonic nonlinearities and exciton-phonon interaction in (Zn,Cd)Se/ZnSe quantum wells,

N. Pelekanos, J. Ding, A. V. Nurmikko, H. Luo, N. Samarth, J. K. Furdyna, Proc. Quantum Optoelectronics '91 Salt Lake City, (1991). (1)

***5. Formation of heterojunction bandoffsets: isoelectronic viewpoint in ZnSe:Te quantum wells,**
Q. Fu, J. Ding, N. Pelekanos, W. Walecki, A. V. Nurmikko, S. Durbin, J. Han, M. Kobayashi, R. L. Gunshor, Proc. 20th Int. Conf. Phys. Semiconductors, Thessaloniki, World Publishing, 1353 (1990). (1)

***4. Hot exciton luminescence in ZnTe/MnTe quantum wells,**
N. Pelekanos, Q. Fu, J. Ding, A. V. Nurmikko, M. Kobayashi, S. Durbin, J. Han, R.L. Gunshor, Proc. 20th Int. Conf. Phys. Semiconductors, Thessaloniki, World Publishing, (1990). (1)

***3. Strong electronic confinement in CdTe single quantum wells; excitonic emission from infrared to blue,**
J. Ding, N. Pelekanos, Q. Fu, W. Walecki, A. V. Nurmikko, J. Han, S. Durbin, M. Kobayashi, R.L. Gunshor, Proc. 20th Int. Conf. Phys. Semiconductors, Thessaloniki, World Publishing, 1198 (1990). (1)

2. Hot exciton luminescence in ZnTe/MnTe quantum wells,
N. Pelekanos, J. Ding, Q. Fu, A. V. Nurmikko, M. Kobayashi, R.L. Gunshor, Technical Digest of International Quantum Electronics Conference, IQEC'90 Anaheim, (1990).

1. Radiative recombination in CdTe/MnTe quantum wells; emission from near infrared to blue wavelengths,
J. Ding, N. Pelekanos, Q. Fu, A.V. Nurmikko, S. Durbin, J. Han, M. Kobayashi, R.L. Gunshor, Technical Digest of International Quantum Electronics Conference, IQEC'90 Anaheim, (1990).

CITATIONS:

On September 2018, the total number of citations was about 2830, according to ISI Web of Science.

HIRSCH FACTOR ANALYSIS: <H>=27 (September 2018)

Specifically, using ISI Web of Science numbers:

1. F. Widmann et al., Phys. Rev. B. Rapid Comm. **58**, R15989 (1998). (248)
2. F. Widmann et al., J. Appl. Phys. **83**, 7618 (1998). (200)
3. N. T. Pelekanos et al., Phys. Rev. B **45**, 6037 (1992). (189)
4. R. Langer et al., Appl. Phys. Lett. **74**, 3827 (1999). (164)
5. S. Tsintzos et al., Nature **453**, 372 (2008). (150)
6. J. Simon et al., Phys. Rev. B **68**, 035312 (2003). (145)
7. F. Widmann et al., Appl. Phys. Lett. **73**, 2642 (1998). (139)
8. C. Adelman et al., Appl. Phys. Lett. **76**, 1570 (2000). (125)
9. S. M. Durbin et al., Appl. Phys. Lett. **55**, 2087 (1989). (100)
10. J. Ding et al., Appl. Phys. Lett. **57**, 2885 (1990). (97)
11. E. Martinez-Guerrero et al, Appl. Phys. Lett. **77**, 809 (2000). (71)
12. J.L. Rouvière et al, Appl. Phys. Lett. **75**, 2632 (1999). (69)
13. R. Langer et al., Appl. Phys. Lett. **74**, 3610 (1999). (63)
14. J. Simon et al, Phys. Rev. B **61**, 7211 (2000). (48)
15. S. Haacke et al., Phys. Rev. B **47**, Rapid. Comm., 16643 (1993). (45)
16. E. J. Mayer et al, Phys. Rev. B **51**, Rapid Comm., 17263 (1995). (42)
17. A.G. Kontos et al., Phys. Rev. B **72**, 155336 (2005). (40)
18. N. Pelekanos et al., Phys. Rev. B **43**, Rapid Comm., 9354 (1991). (36)
19. S. Tsintzos et al., Appl. Phys. Lett. **94**, 071109 (2009). (34)
20. N. T. Pelekanos et al., Appl. Phys. Lett. **61**, 3154 (1992). (34)
21. K. Daskalakis et al., Appl. Phys. Lett. **102**, 101113 (2013). (33)
22. E. Iliopoulos et al., phys. stat. sol. (a) **203**, 102 (2006). (32)
23. F. Widmann et al., Microelectronics J. **30**, 353 (1999). (29)
24. N. Pelekanos et al., Phys. Rev. B **41**, 9966 (1990). (29)
25. G. Christmann et al., Phys. Rev. B **82**, 113308 (2010). (27)
26. M. Androulidaki et al., phys. stat. sol. (c) **3**, 1866 (2006). (27)
27. E. Dimakis et al., J. Cryst. Growth **251**, 476 (2003). (27)
28. M. Hocevar et al., Appl. Phys. Lett. **102**, 191103 (2013). (25)

29. B. Daudin et al., *phys. stat. sol. (a)* **176**, 621 (1999). (25)
30. B. Daudin et al., *Jpn. J. Appl. Phys.* **40**, 1892 (2001). (22)

INVITED TALKS in WORKSHOPS/CONFERENCES:

- 18. Ultra-low threshold GaN polariton lasing in a zero dimensional trap,**
E-MRS 2016, Fall meeting, Warsaw, September 2016.
- 17. Νανοφωτονική με ημιαγωγικές νανοδομές,**
1st Hellenic Workshop on Photonics, Athens, May 2016.
- 16. Ultra-low threshold GaN polariton lasing at room temperature,**
31st Panhellenic Conference on Solid-State Physics and Materials Science, Thessaloniki, September 2015.
- 15. Piezoelectric effect for improved semiconductor optoelectronics: from laser diodes and single photon emitters to solar cells,**
Workshop on “Piezoelectric nanodevices: present and future”, Accademia dei Lincei, Rome, September 2012.
- 14. GaAs nanowires for next generation photovoltaics: progress and challenges,**
9th International Conference on Nanosciences & Nanotechnologies (NN12), Thessaloniki, July 2012.
- 13. Next generation nanophotonic semiconductor devices,**
Workshop on “Emerging Technologies in Micro and Nano Electronics and Eco-Friendly Aspects”, Heraklion, July 2011.
- 12. Οπτοηλεκτρονικές Διατάξεις: Νέες Κατευθύνσεις,**
Διημερίδα Micro-Nano, Athens, November 2009.
- 11. Room temperature GaAs polariton LED: A first step towards a polariton laser?,**
ICO-Photonics 2009, Delphi, October 2009.
- 10. Near room temperature GaAs polariton LED,**
International Conference on the Physics of Semiconductors 2008, ICPS 08, Rio de Janeiro.
- 9. Πιεζοηλεκτρικές κβαντικές τελείες: βασική κατανόηση και φωτονικές εφαρμογές,**
Διημερίδα ITE, Ανώγεια, June 2005.
- 8. GaN quantum dots: from basic understanding to unique applications,**
Microelectronics Microsystems and Nanotechnology Conference, MMN'04, Athens (2004).
- 7. Stark-tunable InGaAs laser diodes,**
International Semiconductor Conference, CAS'2002, Sinaia Romania (2002).
- 6. Piezoelectric effects in heterostructures: consequences and applications,**
Novel Index Surfaces 2001, NIS'01, Aspet (2001).
- 5. Growth and Comparative Optical Properties of Hexagonal and Cubic GaN QDs,**
European Material Research Society meeting EMRS Strasbourg (2001).
- 4. Comparative study of optical properties of cubic and hexagonal GaN quantum boxes, International Workshop** on Physics of Light-Matter Coupling in Nitrides, Saint-Nectaire (2000).
- 3. Effets de polarisation dans les nitrures,**
N.T. Pelekanos, Ecole Thématique du CNRS sur les Nitrures d'Éléments III, Orcières-Merlette (2000).
- 2. Effets piézo-électriques géants dans les nanostructures GaN,**
N.T. Pelekanos, in Workshop of Groupement de Recherches sur «Matériaux et Fonctions de l'Optique Non-Linéaire”, Saint Martin Vesubie (1999).
- 1. Fast Photorefractive Materials Using Quantum Wells,**
N. T. Pelekanos, B. Deveaud, C. Guillemot, J. M. Gérard, P. Gravey, B. Lambert, A. Le Corre, J. E. Viallet, in European Material Research Society meeting EMRS Strasbourg (1994).

INVITED TALKS in ACADEMIC INSTITUTIONS:

- 15. Highly uniform GaAs/InGaAs core-shell nanowire arrays for photovoltaic applications,**

Helmholtz-Zentrum Rosendorf-Dresden, January 2018.

14. Highly uniform GaAs nanowires for photovoltaic applications,
University of Crete, Department of Physics, December 2017.

13. Random and periodic arrays of strained GaAs/InGaAs core-shell nanowires for PV applications,
CEA/Grenoble, INAC, June 2017.

12. Ultra-low threshold GaN polariton lasing at room temperature,
CEA/Grenoble, INAC, January 2016.

11. GaN nanowires, membranes, microcavities, and hybrid devices,
EPFL Lausanne, Institut de Photonique et Electronique Quantique, May 2013.

10. III-V nanowires for next generation photovoltaics
CEA/Grenoble, LITEN, December 2010.

9. Room temperature GaAs polariton LEDs: a first step towards polaritronics?
University of Connecticut, Department of Electrical Engineering, August 2008.

7/8. Polarization effects in nitride nanostructures,
University of Athens, Department of Physics, and Institute of Microelectronics in National Research Center
“Demokritos” in Athens, November 1999.

6. Giant piezoelectric and spontaneous polarization effects in GaN nanostructures,
University of Crete, Department of Physics, February 1999.

5. Novel Optoelectronic Devices based on the Piezoelectric Effect,
FORTH, May 1998.

4. Hot (e, A^0) photoluminescence as a method to determine relaxation times of hot electrons,
National Technical University of Athens, January 1998.

3. Photorefractive quantum wells,
Max-Planck-Institut für Festkörperforschung, January 1994.

2. Optical Spectroscopy of II-VI quantum well systems and exciton-phonon interaction,
CEA/Grenoble, Département de Recherche Fondamentale sur la Matière Condensée, November 1991.

1. II-VI heterostructures for blue optoelectronics,
University of Maryland, Physics Department, April 1991.

FUNDING:

European:

-Participation in European contract entitled CLERMONT 4, FP7-PEOPLE-ITN-235114, "Exciton-Polaritons in microcavities: physics and devices" (2009-2013). FORTH budget 314,570 €.

-Participation in European contract entitled ICARUS, FP7-PEOPLE-ITN-237900, "Hybrid organic-inorganic nanostructures for photonics and optoelectronics" (2009-2013). FORTH budget ~410,000€.

-Matching Funds: I have managed 108,572 € since 2001.

-Principal contractor and team coordinator in European contract entitled GaNano, NMP-2002-505641-1, "New Generation of GaN-based sensor arrays for nano- and pico-fluidic systems for fast and reliable biomedical testing" (2004-2006). FORTH budget 364,000€.

-Coordination of European contract entitled QN-Laser II, IST-2001-38982, "Quaternary nitride low-threshold laser II" (2003). FORTH budget 68,000€.

-Coordination of European contract entitled TUNE-Laser, IST-2000-31028, "Tunable laser diode based on the Stark effect" (2001-2002). FORTH budget 100,000€.

-Coordination of European contract entitled QN-Laser, IST-2000-26464, "Quaternary nitride low-threshold laser" (2001-2002). FORTH budget 100,000€.

National:

-Coordination of RIS3Crete project “NANOTANDEM” funded by the Region of Crete, on “*High performance Perovskite/III-V semiconductor Nanostructure Tandem Solar Cells*” (2019-2022). Budget 212,500 €.

-Participation in Infrastructures project “INNOVATION-EL”, co-financed by Greece and the European Regional Development Fund (2018-2021). Budget 13,500€.

-Supervision of Doctoral Fellowship of G. Thyris funded by the Stavros Niarchos Foundation, entitled “*High temperature single photon emitters based on InAs piezoelectric quantum dots*” (2018-2019). Budget 11,500€.

-Participation in KRHPIS II project “AENAO”, co-financed by Greece and the European Regional Development Fund on “*Materials and Processes for Energy and Environment Applications*” (2017-2020). Budget 16,000€.

-Supervision of Doctoral Fellowship of E. Amargianitakis funded by the Hellenic Foundation for Research and Innovation, entitled “*Nitride Polariton Lasers*” (2017-2019). Budget 18,900 €.

-Coordination of LANEF Chair of Excellence 2014 project, funded by the French government, entitled “*Nanowire Innovative Solar Cells*” (2014-2017). Total budget ~300,000 €.

-Coordination of ARISTEIA II project “NILES” funded by the Greek government, on “*Nanowire Innovative Light Emitting devices and Solar cells*” (2014-2015). Total budget 245,000 €.

-Coordination of THALES project “NANOPHOS” funded by the Greek government, on “*Nanophotonic Semiconductor Devices*” (2012-2015). Total budget 540,000 €.

-Coordination of Solar Innovation 2010 Award project funded by the French government on “*III-V Nanowires for Next-generation Photovoltaics*” (2011-2013). Total budget ~250,000 €.

-Coordination of HRAKLEITOS II project funded by the Greek government, on “*Photonic Devices of Piezoelectric Quantum Dots*” (2010-2014). Total budget 45,000 €.

-Συμμετοχή στο Πρόγραμμα Πόλου Καινοτομίας Κρήτης, 2007-2008, πάνω σε χαρακτηρισμό ημιαγωγικού υλικού για χημικούς αισθητήρες. Budget 16,000 €.

-University grant from Public Investments 2006, for the purchase of a “*Femtosecond Ti:Sapphire laser system*” (2006-2007). Total budget 250,000 €.

-Coordination of PENED 2003 project funded by the Greek government, on “*Tunable wavelength semiconductor lasers*” (2006-2009). Total budget 138,480 €.

-Participation in PENED 2003 project funded by the Greek Research Council, on “*Strong coupling in GaN-based microcavities for polariton devices*” (2005-2008). Total budget 80,000 €.

-Participation in PYTHAGORAS project funded by the Greek government, on “*Exploitation of strong light-matter coupling in organic microcavities for optoelectronic devices*” (2005-2006). Total budget 80,000 €.

-Participation in PYTHAGORAS project funded the Greek government, on “*Growth and Properties on Novel III-V semiconductor heterostructures and nanostructures*” (2004-2006). Total budget 80,000 €.

-Coordination of PENED 2001 project funded by the Greek government, on “*UV-emitters*” (2003-2006). Total budget 205,430 €.

-Participation in Program of Excellence (Πρόγραμμα Αριστείας), granted to FORTH/IESL by the Greek government (2002-2006). Personal budget for building a UV micro-photoluminescence setup 100,000 €.

-Participation in program EPEAEK, funded by the Greek government in order to support the Graduate Program on Micro- and Optoelectronics of the Physics Department of the University of Crete for the period 2002-2004.

-Participation in Contrat-Région funded by the French government, on “*Cubic nitride light emitting diodes*” (1998-1999).

-Participation in Contrat-Région funded by the French government, on “*Nitride nanostructures: growth and characterisation*” (1998-1999).

-Participation in PENED with National Technical University of Athens funded by the Greek government, on “*Hot electron-acceptor luminescence as a probe of dynamic relaxation processes in semiconductor heterostructures*” (1997-1999).

Bilateral:

-Coordination of Contrat Franco-Hellenique funded by the Ministries of Foreign Affairs of France and Greece, on “*Piezoelectric quantum dots for photonic applications*” (2006-2008).

-Coordination of IKYDA exchange program between Greece and Germany (Technical University of Ilmenau), funded by IKY, on “*Study for enhancing the performance of GaN-based UV photodiodes and lasers*” (2004-2006).

-Coordination of Contrat Franco-Hellenique funded by the Ministries of Foreign Affairs of France and Greece, on “*Epitaxial growth and fabrication of quaternary nitride lasers with enhanced performance in the UV*” (2003-2005).

-Coordination of Contrat Franco-Hellenique funded by the Ministries of Foreign Affairs of France and Greece, on “*Comparative study of hexagonal and cubic GaN heterostructures*” (2000-2001).

Industrial:

-Participation in research contract funded by France Telecom, on “*Photorefractive quantum wells for optical interconnects*” (1993-1995).

EDUCATIONAL WORK:

Teaching:

-Course on “*Electromagnetism and Optics*” in the 3rd year of the undergraduate program of the Materials Science and Technology Department of Univ. of Crete (fall semester 2003-2018).

-Course on “*Principles of Semiconductor Physics*” in the 4th year of the undergraduate program of the Materials Science and Technology Department of Univ. of Crete (spring semester 2009-2018).

-Course on “*Semiconductor Optoelectronic Devices*” in the Microelectronics/Optoelectronics postgraduate program of the Physics Department and the Materials Science and Technology Department of Univ. of Crete (spring semester 2002-2018).

-Course on “*Optoelectronics and Laser*” in the 4th year of the undergraduate program of the Materials Science and Technology Department of Univ. of Crete (spring semester 2007-2008).

-Course on “*Optoelectronic and Photonic materials*” in the 4th year of the undergraduate program of the Materials Science and Technology, Department of Univ. of Crete (spring semester 2005 and 2006).

-Course on “*Microelectronic, Optoelectronic and Magnetic materials*” in the 2nd year of the undergraduate program of the Materials Science and Technology Department of Univ. of Crete (spring semester 2004).

-Series of lectures on “*Semiconductor Optical Properties and Laser Diodes*” in the Summer school of the Physics Department of Univ. of Crete (July 2002 and 2003).

-Co-directed the Microelectronics’ postgraduate program of the Physics Department of the Univ. of Crete (2001-2003).

-Teaching assistant in “*General Physics*” course in the undergraduate program of the Physics Department of Brown University, USA, (1985-1987).

Supervision:

Post-doctoral fellows:

5. **Siew Li Tan**, developing “*Innovative Nanowire Solar Cells*”, CEA/Grenoble, 2014-2016.

4. **Savvas Germanis**, performing “*Micro-photoluminescence characterization of transition metal dichalcogenides*”, FORTH, 2015-2016.

3. **Charalambos Katsidis**, on “*Simulations of semiconductor nanostructures and devices*”, University of Crete, 2013-2015.

2. **Fotis Kalaitzakis**, developing and characterizing “*Polaritonic light emitting devices in the GaAs and GaN systems*”, University of Crete/FORTH, 2012-2015.

1. **Moira Hocevar**, characterizing “*III-V Nanowires for Next Generation Photovoltaics*”, CEA/Grenoble, 2012-2013.

Ph.D thesis advisor:

12. **E. Manidakis**, on “*Innovative semiconductor double-junction photovoltaic devices*”, Materials Science, University of Crete (10/2018-).

11. **N. Chatzarakis**, on “*Single-Photon and Entangled-Photon Nanophotonic Sources Based on Innovative Semiconductor-Nanostructures*”, Materials Science, University of Crete (9/2018-).

10. **G. Thyris**, on «*High temperature single photon emitters based on InAs piezoelectric quantum dots*», Materials Science, University of Crete (11/2017-).

9. **E. Amargianitakis**, on “*Development of nitride polariton laser structures with improved characteristics*”, Materials Science, University of Crete (4/2016-).

8. **S. Germanis**, on “*Photonic devices based on piezoelectric InAs quantum dots*”, Materials Science, University of Crete (12/2010-10/2015). Subsequently, post-doc at the Pierre et Marie Curie University in Paris, developing emitters based on quantum dot molecules.

7. **R. Jayaprakash**, on “*Novel approaches for robust polaritonics*”, Materials Science, University of Crete (1/2011-10/2015). Subsequently, post-doc at the Department of Physics & Astronomy of University of Sheffield, developing hybrid polaritonic devices.

6. **F. Kalaitzakis**, on “*Development of technology for improved nitride based optoelectronic devices*”, Materials Science, University of Crete (2004-2011). Subsequently, post-doc at the Microelectronics Research Group (FORTH/IESL) developing nitride-based optoelectronic devices.

5. **S. Tsintzos**, on “*Polariton light emitting devices*”, Materials Science, University of Crete (2006-2010). Subsequently, post-doc at the Microelectronics Research Group (FORTH/IESL) developing polaritonic devices.

4. **G. Deligeorgis**, on “*Laser diodes with a variable internal electric field*”, Physics, University of Crete (2002-2008). Subsequently, post-doc at the Microelectronics Research Group (FORTH/IESL) developing e-beam nano-patterning technology, and at LAAS-Toulouse developing graphene-based electronics.

3. **N. Le Thomas**, on “*Diodes laser accordables en longueur d’onde à base de l’effet Stark quantique*”, Physics, Institut Polytechnique de Grenoble (1999-2002). Subsequently, post-doc at the group of U. Woggon in Univ. of Duisburg, and of Prof. Ilegems in EPFL Lausanne.

2. **J. Simon**, on “*Etude des propriétés optiques de nanostructures quantiques à base de nitrures d’éléments III*”, Physics, Université J. Fourier-Grenoble I (1998-2001). Subsequently hired by LETI in CEA/Grenoble.

1. **V. Ortiz**, on “*Etude de dispositifs optoélectroniques à base d’hétérostructures piézoélectriques*”, Physics, Université J. Fourier-Grenoble I (1996-1999). Subsequently hired at THALES Research Center.

M.Sc thesis advisor:

11. **E. Darivianaki**, on «*Hybrid nanowire/perovskite solar cells*», Materials Science, University of Crete (2018-).

10. **E. Manidakis**, on “*Nanowire core-shell heterostructures for photovoltaic applications*”, Materials Science, University of Crete (2017-2018).

9. **F. Miziou**, on “*Nitride microcavities for polariton devices*”, Physics, University of Crete (2016-2018).

8. **G. Thyris**, on «*Development of high temperature single photon emitters based on InAs piezoelectric quantum dots*», Physics, University of Crete (2016-2017).

7. **E. Amargianitakis**, on “*Nitride polariton structures with improved characteristics*”, Physics, University of Crete (2014-2016).

6. **S. Eftichis**, on “*Improved electrical injection of GaAs polaritonic devices*”, Physics, University of Crete (2010-2011).

5. **S. Germanis**, on “*Polarization-resolved single dot spectroscopy of (211)B InAs single quantum dots*”, Physics, University of Crete (2009-2010).
4. **S. Tsintzos**, on “*Tunable vertical-cavity surface emitting lasers*”, Physics, University of Crete (2004-2006).
3. **G. Dialynas**, on «*Influence of piezoelectric field in the lasing characteristics of InGaAs/AlGaAs quantum wells*», Physics, University of Crete (2002-2004).
2. **F. Kalaitzakis**, on “*Fabrication and optical characterisation of laser structures with InAlGaN/GaN quantum wells in the active region*”, Physics, University of Crete (2001-2003).
1. **J. Simon**, on “*Observation par spectroscopie des effets piézo-électriques géants d’hétérostructures à base de Nitrure de Gallium*”, Physics, Université J. Fourier-Grenoble I (1998).

B.Sc diploma work advisor:

3. **E. Darivianaki**, on «*Core-shell GaAs/InGaAs nanowire-based photovoltaic devices*», Materials Science, University of Crete (2017).
2. **N. Vasilantonakis**, on «*Optical characterisation of InGaAs/AlGaAs quantum wells for use in polaritonic devices*», Materials Science, University of Crete (2009).
1. **A. Pantazis**, on «*Study of InAs quantum dots self-assembled on GaAs*», Physics, University of Crete (2002).

CONFERENCE ORGANIZING:

- International Program Committee of the 34th International Conference of the Physics of Semiconductors, held in Montpellier, France, July 2018.
- Chairman of the 30th Panhellenic Conference on Solid State Physics and Materials Science, held in Heraklion Crete, September 2014. (<http://fsk30.materials.uoc.gr/>)
- Organizing and Program Committee of the Micro & Nano 2012 Conference, held in Heraklion, Kokkini Hani, October 2012.
- International Scientific Committee of the Micro & Nano 2010 Conference, held in Athens, December 2010.
- International Scientific Committee of the ICO-Photonics-Delphi2009 Conference on “Emerging Trends and Novel Materials in Photonics” in Delphi, Greece, October 7-9, 2009.
- Co-chairman of the European Workshop on III-Nitrides Semiconductors and Devices (EW3NS), held in Hersonissos Crete, September 2006.
- Programme Committee of the Microelectronics Microsystems and Nanotechnology Conference (MMN’04), held in Athens, November 2004.
- Organizing committee of the 13th Heterostructure Technology Workshop, held in Koutouloufari Crete, October 2004.
- Organizing committee of the XVIII Panhellenic Conference of Solid State Physics, held in Heraklion Crete, September 2002.

EVALUATION EXPERT:

- External Evaluator in several EC-funded projects (2006-2015), such as for instance in Integrated project ZODIAC on quantum dot lasers.
- Evaluation Expert for EC-proposals: SEE-Eranet 2007, IST-2.5.1 “Photonic Components” 2005, IST-FET 2005, INTAS 2004, INTAS 2003.
- Demokritos internal programs 2006. Pythagoras 2003 and Heraklitos 2002 programs funded by the Greek Ministry of Education.

REVIEWING:

-Referee for Phys. Rev. Applied, Phys. Rev. Lett., Phys. Rev. B, Appl. Phys. Lett., J. Appl. Phys, phys. Stat. sol., Nanoscale Research Letters, Microelectronics Engineering.

OTHER:

-Ph.D defense committee of **Savvas Eftychis**, University of Crete, December 2018, with thesis title: “Spontaneous and selective growth of GaN nanowires on Si (111) substrates by molecular beam epitaxy”.

-Ph.D defense committee of **Kyriaki Savva**, University of Crete, July 2018, with thesis title: “Laser assisted development of Graphene and Transition Metal Dichalcogenide nanomaterials”.

-Ph.D defense committee of **George Kakavelakis**, University of Crete, May 2018, with thesis title: “Advanced interface engineering for solution-processable photovoltaics”.

-Ph.D defense committee of **Ioannis Paradisanos**, University of Crete, March 2018, with thesis title: “Excitons in atomically thin tungsten disulfide (WS₂) layers”.

-Ph.D defense committee of **Elena Papadomanolaki**, University of Crete, September 2017, with thesis title: “Epitaxial growth and characterization of III-nitride thin films and heterostructures for photovoltaic applications”.

-Ph.D defense committee of **Panagiotis Tsotsis**, University of Crete, February 2015, with thesis title: “Fabrication and Study of Novel Polaritonic Devices”.

-Rapporteur in the Ph.D defense committee of **Thanh Giang Le Thuy**, Université de Grenoble, July 2014, with thesis title: “Croissance de nanofils III-V par épitaxie par jets moléculaires”.

-Rapporteur in the Ph.D defense committee of **Aparna Das**, Université de Grenoble, June 2012, with thesis title: “Boîtes quantiques de semi-conducteurs nitrides pour des applications aux capteurs opto-chimiques”.

-Ph.D advisory committee of **E. Trichas**, University of Crete, December 2010, with thesis title: “Strong light-matter coupling in GaN microcavities”.

-Ph.D advisory committee of **N. Sofikiti**, University of Crete, December 2009, with thesis title: “Development of chemical sensors and biosensors based on III-nitride heterostructures and nanostructures”.

-Ph.D advisory committee of **Z. Viskadourakis**, University of Crete, June 2009, with thesis title: “Metal Oxides for Magnetotransport and Thermoelectric Applications”.

-Ph.D advisory committee of **E. Dimakis**, University of Crete, January 2007, with thesis title: “Physical mechanisms of molecular beam epitaxy and properties of InN thin films (0001)”.

-Ph.D defense committee of **Stephanie Blanc**, Université Paul Sabatier in Toulouse, November 2002, with thesis title: “Matériaux III-V épitaxiés sur substrats GaAs (111) pour structures lasers émettant au delà du micromètre”.

-Interview for an article appeared in the July 2002 issue of **Compound Semiconductors** regarding the FORTH activity on Quaternary Nitride Low-Threshold Lasers.

-Interview for an article in **Physics World** (May 2008) regarding the demonstration of a near room temperature GaAs polariton light emitting device.