

Curriculum vitae of Nikolaos I. Kornilios



NIKOLAOS I. KORNILIOS

PROFESSOR HMMY

ELMEPA

2021

Curriculum vitae of Nikolaos I. Kornilios 2021**1. PERSONAL DETAILS**

Name: Nikolaos

Surname: Kornilios

Father's name: Ioannis

Citizenship: GREEK

Date birth: 02-06-1958

Place of birth: Heraklion, Crete

Place of residence: Heraklion, Crete

Dramountani 10, PC 713 04 Tel: 2810316743 & Mob: 6945904034

Marital status: Married with two children

2. UNIVERSITY EDUCATION**1. Diplome de Doctorat [Διδακτορικό Δίπλωμα]**

INSTITUT DE PHYSIQUE NUCLEAIRE IN2P3—CNRS

UNIVERSITE LYON - 1 FRANCE 11os /1986

2. 9/84 D.E.A Physique Atomique et Nucleaire

INSTITUT DE PHYSIQUE NUCLEAIRE IN2P3—CNRS

UNIVERSITE LYON - 1 FRANCE

3. MAITRISE DE PHYSIQUE UNIVERSITE PAU FRANCE**3. TEACHING EXPERIENCE**

1. 1988-1995 Lecturer in the Physics Department of the University of Crete with contract PD-407 in the rank of Associate Professor, and Professor I taught the lessons:

1. General Physics I [Laboratory]

2. Introduction to Microelectronics [theory]

3. Electronics II [Digital Electronics, Theory, Laboratory]

4. Semiconductor Physics [Laboratory]

2. 1990-1994 Department of Electrical Engineering of TEI CRETE Extraordinary Professor in which I taught the following courses:

1. Digital design [T-L]
2. Electronics I [T-L]
3. Electronics II [T-L]
4. Optoelectronic Devices and Applications [T]
5. Electrical Engineering [E]
6. Technology of Electronic Components and Circuits [T]

3. P.S.E. "Technology of Medical Systems" STEF TEI CRETE. I taught the following courses:

1. 1998-2002 Theory and Laboratory of Digital Electronics.
2. 2002-2003 Theory of the course Introduction to Electronics.
3. 2002-2003 Theory and Laboratory of the course Instrument Sensors.
4. P.S.E. "Energy and Environmental Technology" STEF TEI CRETE I taught Theory and the laboratory in the courses Applied Electronics and Electrical Laboratory.

5. From 6-12-1994 until today I am a Professor in the EMMY department of ELMEPA where I have taught or am teaching one of the following courses:

1. Digital design --Logical Design [I - E]
2. Electronics I [I - E]
3. Electronics II [I - E]
4. Optoelectronic Devices and Applications [I]
5. Electrical Engineering [E]
6. Technology of Electronic Components and Circuits [I]

4. SUMMER SCHOOLS

I participated in the following three summer schools with the respective topics:

1. NATO-ASI MATERIALS MODIFICATION BY HIGH FLUENCE ION BEAMS
VIANA DO CASTELO - PORTUGAL 24 August, 4 Septembre 1987 The charge state of iron implanted into sapphire. C. J. Mc. Hargue, P.S.Sklad, C.W.White, G.C. Farlow, A.Perez, N.Kornilios, G.Marest.

2. PHYSICAL DEPARTMENT OF THE UNIVERSITY OF CRETE Summer School Courses July 1994 PHYSICAL DEPARTMENT OF THE UNIVERSITY OF CRETE INSTITUTE OF ELECTRONIC STRUCTURE & LASER

3. PHYSICAL DEPARTMENT OF THE UNIVERSITY OF CRETE Summer School Courses July 1995 PHYSICAL DEPARTMENT OF THE UNIVERSITY OF CRETE INSTITUTE OF ELECTRONIC STRUCTURE & LASER

5. RESEARCH EXPERIENCE

1. From 2002 until today Researcher according to the new institution in the KTE [Center for Technological Research] of TEI. CRETE in the field of systems development.

2. 1995- until today from the day of my appointment as a member of the Department of Electrical Engineering of TEI of Crete I remain an unpaid Researcher at I.T.E. in the field of Microelectronics.

3. 11 / 1988-12 / 1994 For 6 consecutive years I was a Principal Investigator in the Microelectronics team of the Institute of Electronic Structure and Laser of the INSTITUTE OF TECHNOLOGY AND RESEARCH [ITE] in Heraklion, Crete. Responsible for the electrical characterization of semiconductors and electronic devices [diodes, photodetectors, transistors, MESFETs, HEMTs, and integrated microwave circuits] as well as their reliability testing. In the above topics I made several publications and presentations at international and Greek conferences with judges. There were also reports on the performance and oversight of the research programs I participated in in the European Union.

4. 2/1987 until 11/1988 I served my military service with the specialty of specialist scientist & research assistant at KEETHA [National Defense Research Center]. I wrote a code that reproduces terrain from digital maps and predicts the spread of radioactive pollutants knowing the meteorological conditions and the terrain of an area.

6. PARTICIPATION IN RESEARCH PROGRAMS OF ITE & UNIVERSITY OF CRETE

During my stay at I.T.E. but also after my appointment to TEI. Of Crete as a collaborating researcher I participated in the following Research Programs of I.T.E.

[Microelectronics laboratory] and the UNIVERSITY OF CRETE. The table below shows the title of the project, the program, the funding body, the budget in millions of drachmas and the work of the program.

- EPET-1 ΓΓΕΤ 60 Microelectronic Integrated manufacturing process circuits
- STRIDE HELLAS 187 ΕΠΕΤ-1 ΓΓΕΤ 75 Microwave Development Circuits
- ESPRIT special action ESPRIT ΓΓΕΤ & ΕΕC 18.5 Microelectronic Technology
- 5018 ESPRIT EOK 350 Participant, devices
- 5031 ESPRIT EOK 99 Participant, devices
- 3086 ESPRIT EOK 58 Participant, devices
- 2289 ESPRIT EOK 95 Participant, devices
- 2035 ESPRIT EOK 66 Participant, devices
- 1270 ESPRIT ΕΕC 228 Coordinator, devices
- 5692 ESPRIT EOK 93 Participant, devices
- 5416 BRITE EOK 45 Participant, devices
- 9500 ESPRIT EOK 30 Participant, devices
- RACE 1027 ESPRIT EOK 200 Participant, devices

7. EXPERIENCE IN PROGRAM MANAGEMENT WITH TEI CRETE

1. 1-11-2010 to 1-11-2015: Scientific Officer of the proposal for the creation at the TEI of Crete of a new and innovative structure, the Employment and Career Structure (DASTA TEI of Crete), within which its operations will be coordinated Liaison Office, Internship and Innovation and Entrepreneurship. The budget of DASTA is € 281,523.63.

2. 2006 Participating researcher Project title: Innovative photovoltaic components and photovoltaic systems of improved efficiency Category: INTERREG III-A Greece-Cyprus Funding body: Ministry of Finance Scientific Officer: Emmanouil Koudoumas 2006 Project period: Project budget: , University of Cyprus, FORTH

3. 2005 Participating researcher Project title: Development of ZnO films for the use of oxidizing gas sensors, Category: ΕΠΕΑΕΚ-Archimedes II, Funding body: Ministry of

Education, Scientific Officer: Achilleas Vairou, Perio7: 2005 Budget: € 50,000, Participants: TEI of Crete, FORTH

4. 2005 Participant Project title: Internship of students of the Department of Electrical Engineering, Category: EPEAEK, Funding Institution: YPEPTH, Scientific Officer: Filippos Papatheocharis, Project period: 2005-2007, Amount: 220.000 €,

5. 2005 Participating researcher Project title: Innovative low cost photovoltaic elements, Category: EPEAEK - Archimedes, Funding Agency: Ministry of Education, Scientific Officer: Ioannis Fragkiadakis, Project period: € 51.585, Participants: TEI of Crete, University of Crete, University of Athens

6. 2004 Scientific Officer Project Title: Nanotechnology sensors and applications Category: EPEAEK - Archimedes, Funding Agency: Ministry of Education, Scientific Officer: Nikolaos Ioannou Kornilios Project Period: 2004-2007, Amount: 52-2007 Of Crete, University of Crete, FORTH

7. 2003 Scientific Officer Title of the project: Reform of the Curriculum of the Department of Electrical Engineering, Category: EPEAEK, Funding Body: Ministry of Education, Scientific Officer: Nikolaos Ioannou Kornilios, Project Period: 16-2008, Date: 2003-2008 : TEI of Crete

8. 1997 Scientific Officer and author of the proposal of EPEAEK I [Upgrade of the study program] of the Department of Electrical Engineering in collaboration with the TEI. Kavala with which the Department of Electrical Engineering of TEIK. was financed with 42 million drachmas.

8. ADMINISTRATIVE EXPERIENCE

1. From 1/9/2016 to 31/08/2018 President of the Department of Electrical Engineering. TE of the TEI of Crete

2. From 1/1/2008 to 31/8/2010 Dean of the School of Technological Applications of the TEI of Crete

3. Academic years 2003 to 2006 President of the Elective Studies Program (PSE) Technology of Medical Systems of the TEI of Crete

4. Academic year 2002-2003 Director of Studies of the Elective Systems Technology Curriculum of the TEI of Crete

5. Academic year 2001-2002 Vice President of the Study Program of Technology Medical Systems of the TEI of Crete

6. Academic year 2001-2002 Deputy Head of the Department of Electrical Engineering of TEI CRETE.

7. Academic year 1995-96, 1996-97, 2001-02 Head of the A Courses Department of the Department of Electrical Engineering of TEI. CRETE.

9. PARTICIPATIONS AND WORK PRESENTATIONS in CONFERENCES, WORKSHOP, WORKSHOPS AND DAYS

1. AUSSOIS 29 - 30 May 1985 France MAGNETISME Groupe Francais de spectroscopie Mossbauer N.I.Kornilios, G.Marest
2. Material Research Society conference STRASBOURG FRANCE MATERIAL RESEARCH SOCIETY 17-06-1986 Presentation: Ion implantation in YIG N.Kornilios, G.Marest, F.Ravel, B.Gilles, Ph.Gerard, M.Brunel.
3. IV Panhellenic Conference on Solid State Physics MARATHON 20-23 SEPTEMBER 1988 Presentation: Formation of a surface ferromagnetic layer inside a paramagnetic monocrystal N. Cornelius
4. Proceedings Meteorology and atmospheric dispersion in a coastal area Παρουσίαση: An analytical study of large barrier effects on sea breeze and dispersion. M. Varvagianni, J.G. Bartzis, N.Kornilios. OCTOBER 25-27 1988 RISO NATIONAL LABORATORIES DENMARK
5. NATO ADVANCED RESEARCH WORKSHOP ON SEMICONDUCTOR DEVICE RELIABILITY Heraclio - CRETE -GREECE June 4-9 1989
6. ESPRIT PROJECT 1270 [Workshop] Advanced processing technology of HEMTS and MESFETS 26-27 February 1990 ATHENS. Presentation: Reliability and failure analysis of GaAs / GaAs and GaAs / Si 1 μ m gate FETS N.Kornilios
7. VI Panhellenic Solid State Physical Conference HERAKLION 26-29 September 1990. Presentation: Reliability test in MESFETS GaAs. N.Kορνήλιος
8. First European Symposium on Reliability of electron Devices, Failure Physics and Analysis. 2-5 October 1990 BARI ITALY ESREF Presentation: Reliability and failure analysis of GaAs MESFETS on GaAs and Si substrates. N.Kornilios

9. *GaAs and Related Compounds* JERSEY SEPT. 1990 JMDumas, S.Mottet, R.Conlon, J.Paugam, C.Vuchener P.Audren, A.Belhadj, N.Kornilios, N.Labat, H.Thomas Presentation: A reliability investigation into MESFETS and HEMTS fabricated with innovative technologies.
10. 5th international Conference Quality in Electronic Components, Failure prevention Detection and Analysis. BORDEAUX FRANCE 7-10 October 1991.
11. VII Panhellenic Conference on Solid State Physics THESSALONIKI SEPTEMBER 1991. Presentation: Determination of the distribution of bodies in semiconductors and structures III-V with the method C-V profiling. N. Kornilios, K. Zekentes, A. Christou
12. VII Panhellenic Conference on Solid State Physics THESSALONIKI SEPTEMBER 1991. Presentation: Construction of high-mobility pseudomorphic transistors on GaAs substrate. K. Michelakis, N. Kornilios, A. Georgakilas, G. Chalkias
13. VIII Panhellenic Conference on Physical Solid State 23-26-SEPTEMBER 1992 IOANNINA. Presentation: Electrical and optical properties of InGaAs / AlGaAs pseudomorphic structures. N. Kornilios, K. Zekentes, G. Chalkias, A. Dimoulas, M. Androulidaki, A. Christou.
14. VIII Panhellenic Solid State Physical Conference 23-26 SEPTEMBER 1992 IOANNINA. Presentation: Reliability of FET GaAs devices on low temperature substrate. N. Kornilios, M. Lagadas, Z. Hatzopoulos, G. Konstantinidis, Ch. Papavassiliou, A. Christou.
15. X Panhellenic Solid State Physical Conference SEPTEMBER 1994 Delphi. Presentation: Stability of Au diodes on SiC. N. Kornilios, G. Konstantinidis, M. Kayambaki, K. Tsagaraki, K. Zekentes and I. Stoimenos.
16. Expert Evaluation and Control of Compound Semiconductor Materials and Technologies, EXMATEC 1996 Freiburg GERMANY M.Lagadas, Z.Hatzopoulos, N.Kornilios, M.Androulidaki, A.Christou and P.Panayotatos Presentation: Electrical properties of n-GaAs epilayers, FET and HEMT structures grown on LT-GaAs by MBE.
17. 1st Conference on Microelectronics Microsystems Nanotechnology. Athens November 20-22 2000 G.Deligeorgis, M.Lagadas, G.Konstantinidis, N.Kornilios, A.Muller, S.Iordanescu, I.Petrini, D.Vasilache, P.Blondy. Slideshow:

Micromachined Low Temperature GaAs / AlGaAs membranes as support for 38 GHz and 77 GHz Filters.

18. 3rd European Space Agency [ESA] Workshop on Millimeter Wave Technology and Applications: circuits, systems, and measurements techniques. 21-23 May 2003 Millilab. Espoo, Finland. G.Konstantinidis, A.Muller, D.Vasilache, M.Lagadas, G.Deligeorgis, L.Bary, R.Plana, I.Petrini, C.Buiculescu, N.Kornilios and D.Niculoiu
Presentation: Recent developments in millimeter wave circuits supported on thin GaAs membranes.
19. XIX Panhellenic Conference on Solid State Physics Thessaloniki 2003
N.Kornilios, I.Alifragkis, G.Konstantinidis
Presentation: Reliability test on HEMT's AlGaN / GaN transistors
20. Two-day conference <Support for research teams at TEI 19-20 March 2006
TEI CRETE
Presentation: Nanotechnology Sensors and Applications-
Construction of a portable soil analyzer N.I. Kornilios
21. International conference in Telecommunications and Multimedia TEMU2006,
Heraclion Crete Greece 5-7 Jul. 2006
Presentation: Processing of chemical sensors measurements. N.I.Kornilios, I. Minadakis, A. Toutountzis and G. Papaioannou
22. International conference in Telecommunications and Multimedia TEMU2006,
Heraclion Crete Greece 5-7 Jul. 2006
Presentation: GalInternational
conference in Telecommunications and Multimedia TEMU2006, Heraclion Crete
Greece 5-7 Jul. 2006 Παρουσίαση: Gallium Nitride-Based Chemical Sensors.
N.I.Kornilios, N. Chaniotakis and G.Konstandinidis
23. The 10th WSEAS International Conference on Circuits and Systems.
Vouliagmeni, Athens, Greece, July 10-12, 2006 Παρουσίαση: Portable seven
sensor soil analyzer N.I.Kornilios, I. Minadakis, A. Toutountzis and G.
Papaioannou
24. European Conference on Hybrid and Organic Solar Cells, Paris, France, June
2006, Kymakis, E; Klapsis, G; Koudoumas, E; Stratakis, E; Kornilios, N; Vidakis,
N; Franghiadakis, Y. Carbon nanotube/PEDOT:PSS electrodes for organic
photovoltaics
25. MEMSWAVE 2007 8th International Symposium on RF MEMS and RF
Microsystems, Barcelona 26-29 June 2007 Παρουσίαση: GaAs membrane-

supported 60 GHz receiver with Yagi-Uda antenna002E D.Necoloiu, A.Muller, D.Vasilache, M.Dragoman, I.Petrini, C.Buiculescu, G.Konstandinidis, A.Stavinidris, Z.Xazoupulos, N.Kornilios

26. Nano2010 X International Conference on "Nanostructured Materials 13-17 Septembre 2010 ROME Three-dimensional carbon nanowall field emission arrays. E. Stratakis, R. Giorgi, M. Barberoglou, Th. Dikonimos, E. Salernitano, N. Lisi, N. Kornilios and E. Kymakis
27. 9ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Αθήνα, Μάιος 2013. Δ. Κωνιός, Γ. Βισκαδούρος, Ν. Κορνήλιος, Π. Τζανετάκης, Ε. Στρατάκης, Ε. Κυμάκης, "Reduction of graphene-oxide and the application of reduced graphene oxide-polymer composites as field electron emitter".
28. HINT Nanostructured Hybrid Materials II: reinforced 3D structures, smart composites, self-healing 22-24 April 2015, Heraklion Crete, Greece "The effect of different reduction methods in the Field Emission properties of Reduced Graphene Oxide Polymer composite" G. Viskadouros, M.M. Stylianakis, N. Kornilios, E. Stratakis, E. Kymakis
29. MEMSWAVE 2015 16th International Symposium on RF-MEMS and RF-Microsystems Barcelona, Catalonia, Spain, June 29th - July 1st 2015 Universitat Politècnica de Catalunya (UPC) Campus Nord UPC, Barcelona, "Pressure sensors based on GHz operating GaN/Si acoustic devices", Ioana Giangu*(a), George Konstantinidis(b), Adrian Dinescu(a), Nikos Kornilios(c), Antonis Stavriniadis (b), Alexandra Stefanescu(a), George Stavriniadis(b), Mircea Pateanu(a), Alexandru Müller(a) (a) IMT-Bucharest, 126A (32B) Erou Iancu Nicolae street, 077190 Bucharest, Romania E-mail: ioana.giangu@imt.ro (b) FORTH-IESL-MRG Heraklion, Crete, Greece, (c) Technical Educational Institute of Crete, Heraklion, Crete, Greece, *"Politechnica" University of Bucharest, 1-3 Iuliu Maniu Blvd., 061071, Bucharest, Romania
30. MEMSWAVE 2016 17th International Symposium on RF-MEMS and RF-MICROSYSTEMS Bucharest, Romania, July 4-6 2016. Thermoelectric generator as in situ temperature sensor for III-nitride power HEMTs. C. Koliakoudakis¹, A. Stavriniadis¹, K. Tsagaraki¹, K. Vamvoukakis¹, M. Kayiambaki¹, V. Prudkovskiy¹, G. Deligeorgis¹, N. Kornilios², G. Konstantinidis¹ 1. Microelectronics Research Group, Foundation for Research and Technology

Hellas Heraklion 71300, Crete, Greece 2. TEI, Estavromenos, Heraklion 71004, Crete, Greece

31. The European Conference on Silicon Carbide and Related Materials (ECSCRM) 25 - 29 September 2016 Halkidiki, Greece (ecscrm2016.org). Capacitances in 4H-SiC TI-VJFETs M. Kayambaki, K. Vamvoukakis, A. Stavrinidis, G. Konstantinidis, N.Kornilios, K. Zekentes
32. 1st Conference of Organic & Perovskite Solar Cells and 6th MC/WG meeting of Cost Action MP1307 19-20 October 2016 Heraklion, Crete, Greece Modelling of Plasmonic Bulk Heterojunction Solar Cells George Viskadourous^{1,2*}, Nikolaos Kornilios¹ and Emmanouil Kymakis¹ ¹Center of Materials Technology and Photonics & Electrical Engineering Department, Technological Educational Institute (TEI) of Crete, Heraklion 71004, Crete, Greece ²Department of Mineral Resources Engineering, Technical University of Crete (TUC), Chania, 73100, Greece
33. 45th International Conference on Micro & Nanofabrication Engineering (MNE 2019) 23th-26th September 2019 Rodos Palace Hotel, Rhodes island, Greece Kklamani G., Stavrinidis G., Michelakis K., Kontomitrou V., Tsagaraki K., Kornilios N., Konstantinidis G. Cell compatibility study of SU-8 microneedles based wearable dry electrodes for electroencephalogram

10. PUBLICATIONS**A. IN JOURNALS WITH REVIEWS**

1. Iron implantation in Yttrium iron garnet. G. Marest, N. Kornilios, A.Perez, F.Ravel, Ph.Gerard, B.Gilles, M.Brunel. Acta Phys. Polonica Vol A72 [1987] No 2 [329-333] Citations:0
2. YIG formation in annealed iron implanted YAG. G.Marest, N.Kornilios, A.Perez, Ph. Gerard Hyperfine Interactions 29 [1986] 1249-1253 Citations:3
3. MORIN transition in annealed iron implanted garnets. G.Marest, N.Kornilios, A.Perez, F.Ravel, Ph.Gerard, B.Gilles, M.Brunel. Hyper..Inter. 35 [1987] 943-946 Citations: 3
4. Medium and high dose iron implantations in various garnets. N.Kornilios, G.Marest, A.Perez, M.Brunel B.Gilles, Ph.Gerard, F. Ravel. Nuclear Instrum. and Methods B 19/20 [1987] 860-864. Citations: 0
5. Iron ion implantation effects in sapphire. C.J.McHargue, G.C.Farlow, S.P.Sklad, C.W.White, A.Perez, N.Kornilios and G.Marest Nuclear Instrum. and Methods B19/20 [1987] 813-821 Citations:63
6. The charge state of iron ions implanted into sapphire. C.J.Mc.Hargue, P.S.Sklad, C.W.White, G.Farlow, A.Perez, N.Kornilios and G.Marest. Mater. Resear. Soc. Vol 100. 119-124 [1988] Citations: 0
7. Reliability and Failure analysis of GaAs MESFETs on GaAs and Si substrates. N.Kornilios, A.Tsagaraki, I.Stoimenos and A.Christou Quality and Reliability Engineering International Vol7, 323-329 1991 Citations:2
8. Degenerate electron gaz effects in the modulation spectroscopy of $Al_{0.32}Ga_{0.68}As/In_{0.15}Ga_{0.85}As/GaAs$ pseudomorphic HEMT structures. A.Dimoulas, K.Zekentes, M.Andoulidaki, N.Kornelios, C.Michelakis, Z.Hatzopoulos Appl. Physics. Lett. 63[10] page 1417 1993 Citations:30
9. A comprehensive optimization of InAlAs Molecular-Beam-Epitaxy for InGaAs/InAlAs HEMT Technology. A.Georgakilas, G.Halkias, A.Christou, N.Kornilios, C.Papavasiliou, K.Zekentes, G.Konstandinidis, F.Peiro, A.Cornet, S.Ababou, A.Tabata and G.Guillot. Journ. Electrochem. Soc. Vol 140, No 5, 1993 pg 1503-1509 Citations:0

10. Material Problems for the Development of InGaAs / InAlAs HEMTs [High Electron Mobility Transistor] Technology. K. Zekedes, G.Halkias, A. Dimoulas, **N.Kornilios**, A.Tabata, T. Benyattou G. Guillot, J. R. Morante, F. Peiro, A.Cornet, A. Georgakilas, A. Christou. **Materials Science and Engineering B20, 1993 page 21-25**

Citations:0

11. Improved performance of MESFET devices with low temperature GaAs buffer layers. M.Lagadas, Z.Hatzopoulos, F.Karadima, G.konstantinidis, **N.Kornilios**, C.Papavasiliou, and A.Christou. **Mat.Res.Soc.. Vol.378, pp 789, 1995** Citations: 0

12. Effects of silicon misorientation angle on the RF and DC characteristics of GaAs-on-Si MESFETs. C.Papavasiliou, G.Konstantinidis, **N.Kornilios**, A.Georgakilas, E.Lochterman and P.Panayotatos. **Mater. Resear. Soc. Vol.379, pp 345-350 1995**

Citations: 1

13. Electron density effects in the modulation spectroscopy of strained and lattice-matched InGaAs/InAlAs/InP high-electron-mobility transistor structures. A.Dimoulas, J.Davidow, K.P.Giapis, A.Georgakilas, G.Halkias, **N.Kornilios** **Journal Appl. Phys. 80[6] page 1996** Citations: 13

14. Electron density effects in the modulation spectroscopy of strained and lattice-matched InGaAs/InAlAs/InP HEMTs. A.Dimoulas, J.Davidow, K.P.Giapis, A.Georgakilas, G.Halkias, **N.Kornilios** **Mater. Resear.Soc. Vol.406, pp 301-306 1995** Citations:0

15. Electrical properties of n-GaAs epilayers, FET and HEMT structures grown on LT-GaAs by MBE. M.Lagadas, Z.Hatzopoulos, **N.Kornilios**, M.Androulidaki, A.Christou and P.Panayotatos. **Material Science & Engineering B, B44 [1997] 355-358** Citations:0

16. Diffusion of gold in 3C-SiC epitaxially grown on Si. Structure characterization. **N.Kornilios**, G.Konstantinidis, K.Zekentes, J.Stoemenos. **Material Science & Engineering B46 [1997], page 189-191** Citations:5

17. High temperature ohmic contacts to 3C-SiC grown on Si substrates by chemical vapor deposition. G.Constantinidis, **N.Kornilios**, K.Zekentes, L.Di Georgio. **Material Science & Engineering B, B46 [1997], page 176-179** Citations:7

18. A reliability investigation into MESFETS and HEMTS fabricated with innovative technologies. J.M. Dumas, S. Mottet, R. Conlon, J. Paugam, C. Vuchener P. Audren, A. Belhadj, **N.Kornilios**, N. Labat, H. Thomas **Inst. Phys. Conf. No112 Chapter 7, page 471-476** Citations:0

19. Carbon nanotube/PEDOT:PSS electrodes for organic photovoltaics. Kymakis, E; Klapsis, G; Koudoumas, E; Stratakis, E; **Kornilios, N**; Vidakis, N; Franghiadakis, Y. THE EUROPEAN PHYSICAL JOURNAL - **Applied Physics**, 36, 257-259 (2007) **Citations:44**
20. Nonlinear optical response of silicon nanocrystals E.Koudoumas, O.Kokkinaki, M.Konstantaki, **N.Kornilios**, S.Couris, S.Korovin, V.Pustovoi, V.E.Ogluzdin **Optical Materials** 30 [2007] 260-263 **Citations:14**
21. Effective mobility and photocurrent in carbon nanotube-polymer composite photovoltaic cells. E.Kymakis, P.Servati, P.Tzanetakis, E.Koudoumas, **N.Kornilios**, I.Rompogiannakis, Y.Franghiadakis and G.A.J.Amaratunga **Nanotechnology** 18 (2007) 435702 (6pp) **Citations:61**
22. Structural and morphological properties of thin ZnO films grown by pulsed laser deposition M. Suchea, S Christoulakis, C. Tibeica, M. Katharakis, **N. Kornilios**, T.Efthimiopoulos, E. Koudoumas **Applied Surface Science** 254 (2008) 5475-5480 **Citations:13**
23. Carbon nanotube doping of P3HT : PCBM photovoltaic devices Emmanuel Kymakis, **Nikolaos Kornilios** and Emmanuel Koudoumas **J. Phys. D: Appl. Phys.** 41 No 16 (21 August 2008) 165110 (5pp) **Citations:69**
24. Zinc oxide films chemically grown onto rigid and flexible substrates for TFT applications M. Suchea, **N. Kornilios**, E. Koudoumas, *Physica B* 405 (2010) 4389-4392 **Citations:1**
25. Capacitances in 4H-SiC TI-VJFETs M. Kayambaki, K. Vamvoukakis, A. Stavriniadis, G. Konstantinidis, **N.Kornilios**, K. Zekentes, *Materials Science Forum* 2016, Volume 897, p:591 **Citations:0**
26. Updating the Role of Reduced Graphene Oxide Ink on Field Emission Devices in Synergy with Charge Transfer Materials. M. Stylianakis, G. Viskadourous, C. Polyzoidis, G. Veisakis, G. Kenanakis, **N. Kornilios**, K. Petridis, E. Kymakis. *Nanomaterials* 2019, 9(2), 137
27. Emphasizing the Operational Role of a Novel Graphene-Based Ink into High Performance Ternary Organic Solar Cells. M. Stylianakis, M. Kosmidis, K. Anagnostou, C. Polyzoidis, M. Krassas, G. Kenanakis, G. Viskadourous, N. Kornilios, K. Petridis, and E. Kymakis, *Nanomaterials* 2020, 10(1), 89
28. Benzothiadiazole Based Cascade Material to Boost the Performance of Inverted Ternary Organic Solar Cells, M. Krassas, C. Polyzoidis, P. Tzourmpakis, D.

Kosmidis, G. Viskadourous, N. Kornilios, G. Charalambidis, V. Nikolaou, A. Coutsolelos, K. Petridis, M. Stylianakis and E. Kymakis *Energies* 2020, 13(2), 450

B. AT AN INTERNATIONAL CONFERENCE WITH JUDGES

1. Growth Temperature Optimization for InAlAs Molecular Beam Epitaxy. A.Georgakilas, A.Christou, G.Halkias, K.Zecentes, **N.Kornilios** A.Dimoulas, F. Peiro, A. Cornet, A. Tabata T, Bonyattou, G. Guillot. Proceedings SOTAPOCS XVII, May 1992 St Louis USA. **Material and Processing Issues for LSI Electr. and Phot. Arrays pp 141-150 May 1992**

2. The Effect of low Temperature Buffer Layers on the Reliability of MBE GaAs MESFETs. **N.Kornilios**, M.Lagadas, Z.Hatzopoulos, G.Konstandinidis, C.Papavasiliou, A.Christou 3th European symposium on reliability of electron devices, failure physics and analysis. ESREF 1992 Schwabisch Gmund GERMANY 5- 8 OCTOBER 92. **ESREF 1992 Conference Proceedings pp 345**

3. Suppression of the kink effect in InGaAs / InAlAs HEMTs grown by MBE by optimizing the InAlAs buffer layer. A.Georgakilas, K.Zecedes, **N.Kornilios**, G.Halkias, A.Dimoulas A.Christou, F.Peiro, A.Cornet, T.Benyattou, A.Tabata, G.Guillot **Proceedings of 4th Intern. Conference on "InP and Related Materials", April 1992 Newport, USA pp 97-100 [IEEE Catalog #92CH3104-7]**

4. Investigation of the effect of GaAs buffer layers grown by MBE at different temperatures on the performances of GaAs MESFETs. M.Lagadas, M.Androulidaki, G.konstandinidis, **N.Kornilios**, Z.Hatzopoulos. **NATO Advanced - Research - Workshop "HEAD 95" Conference Proceedings Heterostructure Epitaxy and Devices October 1995 House of scientists, smolenice castle SLOVAKIA**

5. Micromachined Millimeter Wave Filters Supported on Thin GaAs membranes G.Konstandinidis, **N.Kornilios**, A.Muller, M.Lagadas, G.Deligeorgis, S.Iordanescu, I.Petrini, D.Vasilache, P.Blondy, and D.Dascalu. **International Electronic Devices Meeting. IEDM 2000 USA**

6. Micromachined Low Temperature GaAs/AlGaAs membranes as support for 38 GHz and 77 GHz Filters. G.Deligeorgis, M.Lagadas, G.Konstantinidis, **N.Kornilios**,

A.Muller, S.Iordanesku, I.Petrini, D.Vasilache, P.Blondy. **1st Conference on Microelectronics Microsystems Nanotechnology. Athens November 20-22 2000**

7. Recent developments in millimeter wave circuits supported on thin GaAs membranes. G.Konstantinidis, A.Muller, D.Vasilache, M.Lagadas, G.Deligeorgis, L.Bary, R.Plana, I.Petrini, C.Buiculescu, N.Kornilios and D.Nicoloiu. **3rd European Space Agency [ESA] Workshop on Millimetre Wave Technology and Applications: circuits, systems, and measurements techniques. 21-23 May 2003 Millilab. Espoo, Finland.**

8. Processing of chemical sensors measurements. N.I.Kornilios, I. Minadakis, A. Toutountzis and G. Papaioannou **Proceedings of International Conference in Telecommunications and Multimedia TEMU2006, ISBN: 960-88785-2-7 Heraclion Crete Greece 5-7 Jul. 2006**

29. Gallium Nitride-Based Chemical Sensors. N. I. Kornilios, N. Chaniotakis and G.Konstantinidis **Proceedings of International Conference in Telecommunications and Multimedia TEMU2006, ISBN: 960-88785-2-7 Heraclion Crete Greece 5-7 Jul. 2006**

Citations:

30. Portable seven sensor soil analyzer N. I. Kornilios, I. Minadakis, A. Toutountzis and G. Papaioannou **WSEAS Transactions on Circuits and Systems. Issue 8, Volume 5, page 1372-76, Auguste 2006, ISSN 1109-2734 Citations:**

31. GaAs membrane-supported 60 GHz receiver with Yagi-Uda antenna D.Nicoloiu, A.Muller, D.Vasilache, M.Dragoman, I.Petrini, C.Buiculescu, G.Konstantinidis, A.Stavinidris, Z.Xatzoupulos, N.Kornilios **Proceedings of 8th International Symposium on RF MEMS and RF Microsystems MEMSWAVE 2007, Barcelona 26-29 June 2007**

Citations:1

9. The effect of different reduction methods in the Field Emission properties of Reduced Graphene Oxide Polymer composite. G. Viskadourous, M.M. Stylianakis, N.Kornilios, E.Stratakis, E. Kymakis **HINT Nanostructured Hybrid Materials II: reinforced 3D structures, smart composites, self-healing 22-24 April 2015, Heraklion Crete, Greece**

10. Pressure sensors based on GHz operating GaN/Si acoustic devices. Ioana Giangu*, George Konstantinidis, Adrian Dinescu, Nikos Kornilios, Antonis Stavriniadis, Alexandra Stefanescu, George Stavriniadis, Mircea Pasteanu, Alexandru Müller **MEMSWAVE 2015 16th International Symposium on RF-MEMS and RF-Microsystems**

Barcelona, Catalonia, Spain, June 29th –July 1st 2015 Universitat Politècnica de Catalunya (UPC) Campus Nord UPC, **Barcelona**

11. Thermoelectric generator as in situ temperature sensor for III-nitride power HEMTs. C. Koliakoudakis¹, A. Stavriniadis¹, K. Tsagaraki¹, K. Vamvoukakis¹, M. Kayiambaki¹, V. Prudkovskiy¹, G. Deligeorgis¹, N. Kornilios², G. Konstantinidis¹ **Proceedings of MEMSWAVE 2016 17th International Symposium on RF-MEMS and RF-MICROSYSTEMS Bucharest, Romania, July 4-6 2016.**

12. Capacitances in 4H-SiC TI-VJFETs M. Kayambaki, K. Vamvoukakis, A. Stavriniadis, G. Konstantinidis, N.Kornilios, K. Zekentes, **Proceedings of the European Conference on Silicon Carbide and Related Materials (ECSCRM) 25 - 29 September 2016 Halkidiki, Greece (ecscrm2016.org).**

13. Modelling of Plasmonic Bulk Heterojunction Solar Cells George Viskadourous^{1,2*}, Nikolaos Kornilios¹ and Emmanouil Kymakis **Proceedings of 1st Conference of Organic & Perovskite Solar Cells and 6th MC/WG meeting of Cost Action MP1307 19-20 October 2016 Heraklion, Crete, Greece**

C. IN GREEK CONFERENCES WITH JUDGES

1. Formation of a Fe_{1-x}Ga_x surface ferromagnetic layer within a Gd₃Ga₅O₁₂ paramagnetic single crystal. N.Kornilios IV PANHELLENIC CONFERENCE OF SOLID PHYSICS IN THE MARATHON 20-23 SEPTEMBER 1988
2. Reliability Test on GaETs FETs. N.Kornilios, K.Tsagaraki, I.Stomenos, G.Kyriakidis, and A.Christou VI PANHELLENIC CONFERENCE OF PHYSICAL SOLID CONDITION HERAKLION 1990
3. Determination of vector distribution in semiconductors and III-V structures by the C-V profiling method. N. Kornilios, K.Zekentes, A.Christou Proceedings VII Panhellenic Solid State Physical Conference THESSALONIKI 1991
4. Construction of pseudomorphic transistors of high flexibility in GaAs substrate. K. Michelakis, N.Kornilios, A.Georgakilas, G.Chalkias, A.Christou Proceedings VII Panhellenic Solid State Physical Conference THESSALONIKI 1991
5. Electrical and optical properties of pseudomorphic structures InGaAs / AlGaAs N.Kornilios, K.Zekentes, G.Chalkias, A.Dimoulas, M.Androulidaki,

- A.Christou. VIII Panhellenic Solid State Physical Conference 23-26 SEPTEMBER 1992 IOANNINA.
6. 6. Reliability of FET GaAs devices on low temperature substrate. N. Kornilios, M. Lagadas, Z. Hatzopoulos, G. Konstantinidis, Ch. Papavassiliou, A. Christou. V-III Panhellenic Conference on Solid State Physics 23-26 SEPTEMBER 1992 IOANNINA.
 7. 7. Stability of Au [Schottky] diodes on SiC. N.Kornilios, G.Konstantinidis, M.Kagiampaki, K.Tsagaraki, K.Zekentes, I.Stomenos. X PANHELLENIC CONFERENCE OF PHYSICAL SOLID CONDITION SEPTEMBER 1994 DELPHI
 8. 8. XIX Panhellenic Conference on Solid State Physics THESSALONIKI 2003 Reliability test in HEMT transistors AlGaN / GaN N.Kornilios, A.Adikimenakis, I. Alifragkis, G. Konstantinidis

D. CHAPTERS IN BOOKS

1. **The charge state of iron implanted into sapphire.** C.J.Mc. Hargue, P.S.Sklad, C.W.White, G.C. Farlow, A.Perez, **N.Kornilios** and G.Marest. Materials Modification by High Fluence Ion Beams. [R. Kelly, and M. F. da Siva, eds **KLUWER**, Dodrecht [1988] p.245
2. **Reliability of Gallium Arsenide Microwave Monolithic Integrated Circuits** Edited by A. CHRISTOU, Calce Electronic Packaging Research Center, University of Maryland USA. **John Wiley & Sons Ltd 1994**, pg235, 261 **Κεφάλαιο 7** GaAs on Silicon Performance and Reliability. P.Panayotatos, A.Georgakilas and **N.Kornilios**

11.PARTICIPATION IN CONFERENCE ORGANIZATION

1. **ESREF-1992 3rd EUROPEAN SYMPOSIUM ON RELIABILITY OF ELECTRON DEVICES FAILURE PHYSICS AND ANALYSIS. Technical Programme Committee Member**
2. **ESREF-1993 4th INTERNATIONAL CONFERENCE QUALITY IN ELECTRONIC COMPONENTS FAILURE PREVENTION DETECTION AND ANALYSIS. BORDEAUX FRANCE 4-7 OCTOBER 1993 [ESREF-93] Corresponding Member**

3. ESREF-1994 5th EUROPEAN SYMPOSIUM ON RELIABILITY OF ELECTRON DEVICES FAILURE PHYSICS AND ANALYSIS GLASGOW, SCOTLAND 4-7 OCTOBER 1994 [ESREF-94] Technical Programme Committee Member

12. WRITING TEACHING COURSES

1. Electronics I [Theory] [TEI]
2. Electronics II [Theory] [TEI]
3. Digital [Theory] [TEI]
4. Optoelectronic Devices and Applications [Theory] [TEI]
5. Electrical Laboratory [TEI]
6. Electronics II [Theory] [University of CRETE]
7. Summer School Notes [University of CRETE]
8. Electronics I [Theory] [ELMEPA]
9. Logic Design [Theory] [ELMEPA]

13. Foreign Languages

1. French Language: excellent due to studies in France
2. English: good enough

14. CITATIONS

The Citation-Index test was performed by the Scopus Database named (N.Kornilios, N.Kornelios and N.Cornelios)

	All years	From 2013
Citations	449	117
h-Index	8	5

15. COMMISSIONS

1. Member of the Strategic Planning Committee for the Electronic Integrated Management of Textbooks of Higher Education "EYDOXOS". The project was coordinated by the National Research and Technology Network [GRNET].
2. Member of the 15-member council of the Federation of Teachers' Associations [OSEP] TEI. for 4 years 2006-2010
3. Member of the Postgraduate Studies Committee of the TEI of Crete
4. Member of the Council of the TEI OF CRETE
5. Lecturer for the study program of the Department of Electrical Engineering in December 2001 and which was approved by FORTH [Institute of Technological Research] in February 2002 and implemented in the department from the academic year 2002-2003.
6. Chairman of the Curriculum Committee of the PSE [Elective Curriculum] Medical Systems Technology.