

## Publications

### A. Peer – Reviewed Scientific Journals

1. **C.C Katsidis** , D.I. Siapkak, D. Panknin, N. Hatzopoulos and W. Skorupa  
'*Optical characterization of doped SIMOX structures using FTIR spectroscopy*'  
Microelectron. Eng. Vol. 28, p. 439-442 (1995)
2. T. Zorba, D.I Siapkak and **C.C. Katsidis**  
'*Optical characterization of thin and ultrathin surface and buried cubic SiC layers using FTIR spectroscopy*', Microelectron. Eng. Vol. 28, 229-232, (1995)
3. D.I. Siapkak, N. Hatzopoulos, **C.C Katsidis**, T. Zorba, C.L Mitsas and P.L.F Hemment,  
'*Structural and Compositional Characterization of High Energy SIMOX structures using FTIR spectroscopy*' J. Electrochem. Soc., Vol. 143 (9), p. 3019-3032 (1996)
4. **C.C. Katsidis**, D.I. Siapkak, A.K. Robinson and P.L.F. Hemment  
'*Formation of Conducting and Insulating Layered Structures in Si by Ion Implantation: Process Control Using FTIR Spectroscopy*' J. Electrochem. Soc., Vol. 148 (12), pp. G704-G716, December 2001
5. **C.C Katsidis** and D.I. Siapkak  
'*General transfer matrix method for optical multilayer systems with coherent, partially coherent and incoherent interference*' Applied Optics, Vol. 41(19) p. 3978-3987, July 2002<sup>1</sup>
6. **Charalambos C. Katsidis**  
'*Depth profiling of ion implanted materials with skewed doping distributions using Fourier transform infrared spectroscopy*' Applied Optics **47**(2) 213-223 (2008).
7. **Charalambos C. Katsidis**  
'*Refractive index, free carrier concentration and mobility depth profiles of ion implanted Si: optical investigation using FTIR spectroscopy*' J. Opt. Soc. Am. B **25**(5) 854-864 (2008).
8. **C. C. Katsidis**, P. S. Anastasiades and V. G. Zacharopoulos  
'*e-learning at the Technological Educational Institute of Crete: An Evaluation Based on the Student Experience*' WSEAS Transactions on Advances in Engineering Education, **5** (8), 529-538 (2008)
9. **C. C. Katsidis** and D. I. Siapkak  
'*Optical properties of ion-implanted silicon and separation by implantation of oxygen silicon-on insulator substrates in the infrared: study of B<sup>+</sup> and P<sub>2</sub><sup>+</sup> implantation doping*' Thin Solid Films, **517**(15) 4309-4319 (2009).
10. D. Stratakis, A. Miaoudakis, **C. Katsidis**, V. Zaccaropoulos and T. Xenos  
'*On the uncertainty estimation of electromagnetic field measurements using field sensors: a general approach*' Radiation Protection Dosimetry, **133** (4), 240-247 (2009).
11. **C. C. Katsidis**, A. O. Ajagunna and A. Georgakilas  
'*Optical characterization of free electron concentration in heteroepitaxial InN layers using Fourier transform infrared spectroscopy and a 2 × 2 transfer-matrix algebra*' Journal of Applied Physics **113** (2013): 073502.

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<sup>1</sup> This paper has been cited in **Scopus** more than **210** times (August 2017)  
In year 2016 it was the most read publication of the Department of Materials Science & Technology in **Researchgate**

12. N. Florini, G.P. Dimitrakopoulos, J. Kioseoglou, S. Germanis, **C. C. Katsidis**, Z. Hatzopoulos, N. T. Pelekanos, and Th. Kehagias.  
'Structure, strain, and composition profiling of InAs/GaAs(211)B quantum dot superlattices' Journal of Applied Physics, **119**, 034304 (2016),  
DOI:<http://dx.doi.org/10.1063/1.4940419>
13. K. Moratis, S. L. Tan, S. Germanis, **C. Katsidis**, M. Androulidaki, K. Tsagaraki, Z. Hatzopoulos, F. Donatini, J. Cibert, Y. -M. Niquet, H. Mariette and N. T. Pelekanos.  
'Strained GaAs/InGaAs Core-Shell Nanowires for Photovoltaic Applications' Nanoscale Research Letters (2016) **11**:176 DOI: 10.1186/s11671-016-1384-y
14. S. Germanis, **C. Katsidis**, S. Tsintzos, A. Stavrinidis, G. Konstantinidis, N. Florini, J. Kioseoglou, G. P. Dimitrakopoulos, Th. Kehagias, Z. Hatzopoulos, and N. T. Pelekanos.  
'Enhanced Stark tuning of single InAs (211)B quantum dots due to nonlinear piezoelectric effect in zincblende nanostructures' PHYSICAL REVIEW APPLIED 6, 014004 (2016).  
DOI: [10.1103/PhysRevApplied.6.014004](https://doi.org/10.1103/PhysRevApplied.6.014004)

## B. Chapters in Books

1. **C.C Katsidis** and D.I. Siapkas  
'SIMOX thin films, structural and electrical characterization using FTIR spectroscopy' in 'Application of particle and laser beams in materials technology' P. Misaelides editor, NATO ASI Series, Series E: Applied Sciences, Vol. 283, p. 603-612, Kluwer Academic Publishers, (1995) DOI: 10.1007/978-94-015-8459-3\_42

## C. Lecture Notes

1. **C. C. Katsidis** (2007) 'Introduction to Microelectronics' (ETY-482). Department of Materials Science and Technology. University of Crete. Available at the website: <http://www.materials.uoc.gr/el/undergrad/courses/ETY482/> (Last access: February 23, 2014)

## D. Conferences

1. **C.C Katsidis** and D.I. Siapkas  
'Lattice vibration, free carrier, band-gap and sub-gap infrared absorption of semiconductive iron disilicide' The 12<sup>th</sup> Greek-Bulgarian symposium on semiconductor Physics, Thessaloniki 1991, σελ. 256-259
2. I.Lelidis, **C.C Katsidis**, D.I. Siapkas, C.Julien and C.L. Mitsas  
Sixth International Conference on Solid Films and Surfaces, France 1992, ICSFS-6 p. 51, (1992)
3. **C. C. Katsidis**, D. I. Siapkas, A.K. Robinson και P.L.F. Hemment  
'Study of the effects of impurity implantation in silicon and SIMOX structures using Fourier spectroscopy in the infrared'. IX Panhellenic Conference in Solid State Physics, Patra 1993, p. 327-330
4. N. Hatzopoulos, D. I. Siapkas, **C. C. Katsidis**, T. Zorba, P.L.F. Hemment and W. Skorupa  
'Structural characterization of simple and complex SIMOX structures using Fourier spectroscopy in the infrared'. IX Panhellenic Conference in Solid State Physics, Patra 1993, p. 331-335

5. **C.C Katsidis** and D.I. Siapkas  
*'Phonon properties of amorphous and crystalline InSe thin films'* The 13<sup>th</sup> Bulgarian-Greek symposium on semiconductor Physics, Sofia 1992, Ann. Univ. Sofia Vol. 86, p.79-85, (1994)
6. **C. C. Katsidis**, and D. I. Siapkas  
*'Study of 2.5 MeV As<sup>+</sup> ion implantation and activation in silicon and SIMOX structures using fast Fourier transform infrared spectroscopy'* X Panhellenic Conference in Solid State Physics, Delphi 1994
7. T. Zorba, **C. C. Katsidis** and D. I Siapkas  
*'Characterization of thin and ultrathin, surface and buried layers of cubic SiC using fast Fourier transform spectroscopy in the infrared'* X Panhellenic Conference on Solid State Physics, Delphi 1994
8. N. Hatzopoulos, D.I Siapkas, **C.C. Katsidis**, T. Zorba and P.L.F Hemment  
*'Refractive index and compositional depth profiles in High Energy SIMOX structures'* Proceedings of the Sixth International Symposium on Silicon-On-Insulator Technology, 185<sup>th</sup> Meeting of the Electrochemical Society, May 22-27, 1994, San Francisco, editor S. Cristoloveanu, Proc. Vol. 94-11, p. 173, The Electrochem. Soc., (1994)
9. T. Zorba, **C.C. Katsidis** and D.I. Siapkas  
*'Infrared Optical Probing of Thin and Ultrathin Surface and Buried Cubic SiC Layers'* The 16<sup>th</sup> Greek-Bulgarian symposium on semiconductor Physics, Sofia 1995, σελ. 57-66
10. **C.C Katsidis** , D.I. Siapkas, W. Skorupa, N. Hatzopoulos and D. Panknin  
*'Study of the high energy doping in Si and the formation process of doped high energy SIMOX structures using FTIR spectroscopy'*, Proceedings of the X International Conference on Ion Implantation Technology, Proc. Ion Implantation Technology – 94, S. Coffa, G. Ferla, F. Priolo and E. Rimini editors, p. 959-962, Elsevier Science, (1995)
11. C. L. Mitsas, T. Zorba, **C. C. Katsidis**, K. M Paraskevopoulos and D. I. Siapkas,  
*'Characterization of semiconductive materials using spectroscopic microscopy in the infrared'* XII Panhellenic Conference on Solid State Physics, Thessaloniki, September 1997, p. 197
12. **C. C. Katsidis**, C. L. Mitsas, T. Zorba, K. M. Paraskevopoulos and D. I. Siapkas,  
*'Rapid evaluation of the chemical composition in layered structures using FTIR spectroscopy'*, 1<sup>st</sup> International Conference of the Chemical Societies of the South-East European Countries on Chemical Sciences and Industry. June 1- 4, Chalkidiki, Greece Vol. I, po315 (1998).
13. **C.C. Katsidis** and D.I. Siapkas  
*'Formulation of a general transfer matrix for the representation of the optical response of multilayers'* The 18<sup>th</sup> Greek-Bulgarian symposium on semiconductor Physics, Thessaloniki, February 15-19, 1999.
14. **C.C Katsidis**  
*'Electromagnetic Absorption in a Multilayer Model of Biological Materials'*  
 Proceedings of the annual conference on Telecommunications and Multimedia, TEMU2005 , p. 186-194, Heraklion, June 2005
15. **C.C Katsidis**  
*'A simple model for the analysis of light absorption and temperature rise in human skin: the role of surface roughness'* International Conference of Telecommunications and Multimedia, July 5-7 TEMU2006 , Heraklion, 2006

16. D. Stratakis, T. Xenos, T. Yioultsis, B. Zacharopoulos, N. Farsaris, I. Zacharopoulou and **C. C. Katsidis**  
'Automation in Electromagnetic Field Measurements' International Conference of Telecommunications and Multimedia, July 5-7, TEMU2006, Heraklion, 2006
17. **C. C. Katsidis**, P. S. Anastasiades and V. G. Zacharopoulos  
'Assessing student satisfaction in an asynchronous e-learning environment' 5<sup>th</sup> WSEAS/IASME International Conference on Engineering Education, Heraklion, Crete Island, Greece, July 22-24 2008.
18. **C. C. Katsidis**, Z. Hatzopoulos and N. Pelekanos  
'Optical Properties of  $Al_xGa_{1-x}As/GaAs$  Heterostructures in the Far-Infrared'  
Proceedings of the XXIV Panhellenic Conf. on Solid State Physics & Materials Science, 205, Fodele 21-24 Sept.2008
19. **C. C. Katsidis**, A. O. Ajagunna and A. Georgakilas  
'Non-destructive determination of heteroepitaxial InN layer bulk conductivity using FTIR spectroscopy' 19<sup>th</sup> European Workshop on Heterostructure Technology, **HeTech 2010**, Fodele, Crete, Greece (2010)
20. S. Germanis, **C. Katsidis**, A. Stavrinidis, S. Tsintzos, G. Konstantinidis, Z. Hatzopoulos, and N.T. Pelekanos  
'Stark Effect on the Emission of a Single Piezoelectric InAs Quantum Dot at Liquid Nitrogen Temperature' 32nd International Conference on the Physics of Semiconductors **ICPS 2014**. Session: Optical Properties of Heterostructures V. August 10-15 Austin, Texas. USA.
21. K. Moratis, S. Germanis, **C. C. Katsidis**, M. Androulidaki, K. Tsagaraki, Z. Hatzopoulos, and N. T. Pelekanos.  
'Piezoelectric GaAs-InGaAs core-shell nanowires for photovoltaic applications'.  
6th International Conference on Micro-Nanoelectronics, Nanotechnologies and MEMs, "Micro&Nano 2015", Athens, Greece, Volume: Micro&Nano 2015 Book of Abstracts, p.4-5 (2015)
22. K. Moratis, S. Germanis, **C. C. Katsidis**, M. Androulidaki, K. Tsagaraki, Z. Hatzopoulos, and N. T. Pelekanos.  
'Growth and optical characterization of GaAs-InGaAs core-shell piezoelectric nanowires on silicon substrates'. XXXI Panhellenic Conference on Solid State Physics and Materials Science, At Thessaloniki, Greece, Volume: Book of Abstracts, Photonics & Optoelectronics Session, p.252-253 (2015).
23. Thomas Kehagias, Nikoletta Florini, Joseph Kioseoglou, George Dimitrakopoulos, Savvas Germanis, **Charalambos Katsidis**, Zacharias Hatzopoulos, Nikolaos Pelekanos.  
'Quantitative evaluation of the (211)B GaAs/InAs quantum dot heterostructure.' The 16th European Microscopy Congress 2016, Lyon, France. Proceedings. 588–589. Wiley  
**DOI:** 10.1002/9783527808465.EMC2016.5706  
<http://emc-proceedings.com/abstract/quantitativeevaluation-of-the-211b-gaasinas-quantum-dot-heterostructure/>. Accessed: October 24, 2016  
<http://onlinelibrary.wiley.com/doi/10.1002/9783527808465.EMC2016.5706/full>

24. N. Florini, J. Kioseoglou, G. P. Dimitrakopoulos, S. Germanis, **C. Katsidis**, Z. Hatzopoulos, N. T. Pelekanos, Th. Kehagias.  
*'Strain and composition variations in the (211)B GaAs/InAs quantum dot heterostructure'*. XXXII Panhellenic Conference on Solid State Physics and Materials Science Conference Center "Carolos Papoulias", 18-21 September 2016, Ioannina, Greece