

## CURRICULUM VITAE

**MARIA KAYAMBAKI**

### ***EMPLOYMENT RESIDENCE***

Microelectronics Research Group (MRG)

Institute of Electronic Structure & Laser (IESL)

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### **Personal Data**

Place-Date of birth : Heraklion, Greece – 28/9/1967

Nationality : Greek

Marital Status : Married, two children

### **Education and work experience**

1992 : B.Sc in Physics from Physics Department, University of Crete.

1992-today :

- Research assistant at Micro-Nano-Electronics Group, Institute of Electronic Structure & Laser, FORTH, responsible for electrical and electrochemical characterization of novel compound semiconductors and devices, such as III-nitrides, SiC, GaAs etc.
- Participation in a large number of National and European funded research projects such as ESA CONTRACT 21323/08/NL/NR , NAVY Grant: N62909-12-1-4011, NATO SfP-978011 "SICPIN" , INTAS Ref.nR 03-56-124 , DECHAD- Greece China, Greece-Romania / Greece-Slovakia / Greece-Hungarian projects, ESTEC NO 21408/08/NL/Lv, GA no 318352 NANORF, ENIAC-ARTEMOS A.II. 1750/16-2-2012, ENIAC-MIRANDELA A.II.1436/9-2-2012, ENIAC-LAST POWER A.II.1431/9-2-2012, ENIAC- SE2A, 09ΣYN-32-1181 AII1432/30-11-2010 ANTI-SiC, GA no 214610 (MORGAN), Co. no NMP4-CT-2003-505641 (GANANO).
- Training of undergraduate, master and PhD students (University of Crete) to methods and techniques for electrical characterization of semiconductor devices.

### **Research Experience**

- Electrical characterization of electronic devices on III-nitrides, III-As, SiC, ZnO, nanowires, quantum wells, quantum dots .
  - Current and Capacitance measurements at various temperatures
  - DC and pulse characterization of high power and high frequency transistors (HEMTs, JFETs, MOSFETs etc)
  - Hall measurements
  - Deep Level Transient Spectroscopy (DLTS)
- Electrochemical characterization and etching of semiconductors
  - Capacitance-Voltage depletion and etching Profiling (ECV) for doping and thickness evaluation
  - Selective etching during the electrochemical C-V profiling for crystal quality evaluation

- Cross Polarizer imaging technique.
- Establishment of new characterization technique for doping determination from secondary electrons imaging.

**Bibliometrics** (scopus, December 2018) : 53 publications, 254 citations, h-index: 9

### **Selected publications**

**M. Kayambaki**, N. Makris, K. Tsagaraki, H. Peyré, A. Stavrinidis, G. Konstantinidis, K. Zekentes  
*4H-SiC p-type doping determination from secondary electrons imaging*  
 (2018) 12<sup>th</sup> European Conference on Silicon Carbide and Related Materials (ECSCRM)  
 To be published in Materials Science Forum

**Kayambaki, M.**, Makris, N., Stavrinidis, A., Konstantinidis, G., Zekentes, K.  
*On the optimum determination and use of SiC VJFET threshold voltage*  
 (2018) Materials Science Forum, 924 MSF, pp. 657-660.  
 DOI: 10.4028/www.scientific.net/MSF.924.657

**Kayambaki, M.**, Vamvoukakis, K., Stavrinidis, A., Konstantinidis, G., Kornilios, N., Zekentes, K.  
*Capacitances in 4H-SiC TSI-VJFETs*  
 (2017) Materials Science Forum, 897 MSF, pp. 591-594. Cited 1 time.  
 DOI: 10.4028/www.scientific.net/MSF.897.591

Trichas, E., **Kayambaki, M.**, Iliopoulos, E., Pelekanos, N.T., Savvidis, P.G.  
*Resonantly enhanced selective photochemical etching of GaN*  
 (2009) Applied Physics Letters, 94 (17), art. no. 173505. Cited 15 times.  
 DOI: 10.1063/1.3122932

**Kayambaki, M.**, Zekentes, K., Tsagaraki, K., Pernot, E., Yakimova, R.  
*Electrochemical characterization of p-type hexagonal SiC*  
 (2001) Materials Science Forum, 353-356, pp. 619-622. Cited 5 times.

**Kayambaki, M.**, Tsagaraki, K., Cimalla, V., Zekentes, K., Yakimova, R.  
*Crystal quality evaluation by electrochemical preferential etching of p-type SiC crystals*  
 (2000) Journal of the Electrochemical Society, 147 (7), pp. 2744-2748. Cited 23 times.  
 DOI: 10.1149/1.1393599

**Kayambaki, M.**, Callec, R., Constantinidis, G., Papavassiliou, Ch., Löchtermann, E., Krasny, H., Papadakis, N., Panayotatos, P., Georgakilas, A.  
*Investigation of Si-substrate preparation for GaAs-on-Si MBE growth*  
 (1995) Journal of Crystal Growth, 157 (1-4), pp. 300-303. Cited 13 times.  
 DOI: 10.1016/0022-0248(95)00336-3

Zekentes, K., **Kayambaki, M.**, Constantinidis, G.  
*Electron traps in  $\beta$ -SiC grown by chemical vapor deposition on silicon (100) substrates*  
 (1995) Applied Physics Letters, p. 3015. Cited 12 times.