

## Website update – ESR-ER presentation template

### Marie-Curie Fellow

Name: Zoulis

First Name: Georgios

Age: 31

Nationality: Greek

Position (ER/ESR): ESR

Host institution: UM2 – CNRS

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Contract duration: 36 months (starting date 01/12/2007)



### Short Education Background (10 lines max.)

- PhD candidate (starting 2007) with co-direction of thesis between Aristotle University of Thessaloniki, Greece, Physics Department and Université Montpellier 2, Groupe d'Etudes de Semiconducteurs, France.
- Master Degree In Physics of Materials (Material Science) (2005), Advanced Materials and Applications, Aristotle University of Thessaloniki, School of Natural Sciences, Physics Department, Greece.
- University Diploma in Physics (2003), University of Ioannina, School of Natural Sciences, Physics Department, Greece.

### Research focus and main activities carried out in the scope of the project (10 lines max.)

Characterisation using Low Temperature Photoluminescence, Infra Red spectroscopy, Raman spectroscopy and Secondary Ion Mass Spectroscopy (SIMS) of samples grown by different Partners with different methods: Vapour Liquid Solid (VLS) Epitaxy, Sublimation Epitaxy (SE), Continuous Feed Physical Vapour Transport (CF-PVT), Chemical Vapour Deposition (CVD) on VLS samples and SE on VLS samples. By these characterisation techniques it is possible to identify the polytype of SiC and also estimate residual doping values of N, Al and B and to estimate carrier concentration values. It is also possible to identify whether it is n-type, or p-type material, compensation level and certain defects and have an idea of the quality of the material.

### Publications (please specify when the publication has been issued in the scope of the MANSiC project)

#### Before MANSiC

- Ch. B. Lioutas, G. Zoulis, S. Konidakis, E.K. Polychroniadis, D. Stroz, Micron 40, 6–10 (2009)

- P. Szczeszek, A. Amariei, J. Schoene, G. Zoulis, N. Vouroutzis E. K. Polychroniadis. D. Stroz, Journal of Microscopy 224 (1), 121–124 (2006)

### Conferences

- Georgios Zoulis, Adina Amariei, Jan Schoene, Efstathios K. Polychroniadis, Nuno P. Barradas, Victoria Corregidor, Miguel A. Reis, Liesbeth Reijnen and Ray Brunton “On the effects of ion milling on clustering in GaSb samples during the specimen preparation for TEM”, 16th International Microscopy Congress, Japan 2006
- P. Szczeszek, A. Amariei, J. Schöne, G. Zoulis, N. Vouroutzis, E. K. Polychroniadis “A TEM study of GaInAsSb film grown on GaSb substrate”, XII International Conference on Electron Microscopy of Solids, 5-9 June 2005, Kazimierz Dolny, Poland, Proceedings of the XII International Conference on Electron Microscopy of Solids
- A. Amariei, P. Szczeszek, G. Zoulis, E. K. Polychroniadis, F. Dimroth, A.W. Bett “A microstructural study of GaInAsSb film grown on GaSb substrate”, 9th Conference of the Greek And Cyprous Physicists Society.

### MANSiC

- J. Eid, I-G. Galben, G. Zoulis, T. Robert, D. Chaussende, S. Juillaguet, A. Tiberj and J. Camassel, Materials Science Forum, Vols. 615-617 (2009) pp 45-48
- HeteroSiC 09, Extended Abstract (to be published): Low temperature photoluminescence investigations of 3C-SiC quasi-substrates grown on hexagonal 6H-SiC seeds, G. Zoulis, J. Lorenzzi, R. Vasiliauskas, N. Jegenyes, M. Beshkova, S. Juillaguet, H. Peyre, V. Souliere, M. Syväjärvi, G. Ferro, R. Yakimova and J. Camassel
- HeteroSiC 09, Extended Abstract (to be published): Effect of growth parameters on the surface morphology of 3C-SiC homoepitaxial layers grown by chemical vapor deposition N. Jegenyes, J. Lorenzzi, G. Zoulis, V. Soulière, J. Dazord, G. Ferro, and S. Juillaguet
- HeteroSiC 09, Extended Abstract (to be published): Growth and characterization of low doped 3C-SiC layers deposited by VLS technique J. Lorenzzi, G. Zoulis, O. Kim-Hak, S. Juillaguet, G. Ferro and J. Camassel