



POLITÉCNICA
"Ingeniamos el futuro"

Instituto de Sistemas Optoelectrónicos y Microtecnología
Departamento de Ingeniería Electrónica
(www.isom.upm.es)

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06/04/2015

Postdoctoral researcher position:

Infrared Semiconductor Optoelectronics (ZOTERAC FET-H2020 EU Project)

Starting Date 01/09/2015

The goal of the position is to contribute to the EU Project *Zinc Oxide for TeraHertz Cascade Devices (Zoterac)* through the analysis and development of mid and far infrared photodetectors using ZnO/ZnMgO multiple quantum wells (QWs). The researcher will be in charge of the optical analysis and determination of the basic physical properties of the structures using various optical and optoelectronic spectroscopies. In addition, he/she will be involved in the optimization of the processing technology and analysis of test devices and quantum well infrared photodetectors (QWIPs). The final goal will be to develop quantum cascade devices and lasers (QCLs), collaborating with the Zoterac partners: CNRS-Univ. Nice (France), Univ. Paris-Sud (France), ETH-Zurich (Switzerland) and Tech. Univ. Wien (Austria).

Benefits:

- 2 year-long contract with full social benefits.
- Very competitive salary dependant on excellence of applicant.
- Health Insurance.
- Full coverage of research stays at other institutions and attendance to international conferences.

Prerequisites:

- PhD in Physics, Electrical or Material Science Engineering.
- Previous Postdoctoral experience a plus.
- Excellent research history.
- Background on semiconductor physics, optical spectroscopies and optoelectronics; some know-how of TEM analysis a plus.
- High level of English (Spanish not necessary).

Applications:

-Email personal Letter of Presentation, Curriculum Vitae, BS/MS/PhD Diplomas with Courses and Grades, and Reference Contacts.