



Co-funded by the
European Union



Publish date: February 9th 2023

Ref. 14/2023

Project: Platform-ZERO

Area: Advanced Materials for Energy

Area leader: Prof. Joan Ramon Morante

Group: Solar Energy Materials and Systems, SEMS

Group leader: Prof. Alejandro Pérez Rodríguez

PhD thesis (R1.1) in the frame of the Advanced PV characterization research line

The Solar Energy Materials and Systems (SEMS) group announces a three years position for a First Stage Researcher for carrying out a PhD thesis (R1.1) in the frame of the Advanced PV characterization research line.

Position description: The candidate will be integrated in a multidisciplinary research group with recognized experience in PV technology development and materials characterization. The candidate will carry out a scientific research activities centered in the advanced structural, optical characterization of novel third generation PV materials (CIGS, Perovskites and other new technologies) as well as in the evaluation of the final device performance by optoelectronic techniques. The work will be implemented in the frame of the Advanced PV characterization research line and, in particular, in the frame of the Platform-ZERO project (<https://cordis.europa.eu/project/id/101058459>) with the objective of carrying out a PhD thesis.

The position will be remunerated with an annual gross salary of 18k€ and will include the university taxes for the enrolment in a PhD program, secondments in abroad research centers and attendance to international congresses, workshops, schools and conferences.

Additionally, the position includes training in advanced characterization, data analysis and in the overall field of thin film PV including solar cell device fabrication.

Tasks to develop: The candidate will work on the application of different characterization techniques for advanced materials research including structural (XRD, Raman, photoluminescence), compositional (XRF, EDX, XPS), morphologic (SEM, AFM, confocal),



Co-funded by the
European Union



optical (transmittance/reflectance) and electrical (4-point probe, Hall effect, I-V) characterization for the fundamental and applied analysis of PV-related materials and devices. This also includes the participation in activities for the optimization of the development of thin film PV technologies in collaboration with thin films deposition and synthesis laboratories.

Requisites: The candidate must be in possession of a Master degree in Physics, Materials Engineering or equivalent before the incorporation date. Previous laboratory and/or research experience, especially in materials characterization will be well evaluated. Additionally, the demonstration of research quality (publications in high impact factor of journals, conference presentation, and others) will be well evaluated.

Candidacy: Send the CV and a motivation letter to Maxim Guc (mguc@irec.cat) (with copy to Dr. Victor Izquierdo (vizquierdo@irec.cat)) indicating “Platform-Zero position offer” in the subject of the e-mail.

Deadline: March 10th 2023

Starting date: Preferably before April 2023

Expected duration of contract: 36 months with a 6-month evaluation period