



Project no. **NMP4-LA-2011-284486**

Project Acronym: SCALENANO

Project title: Development and scale-up of nanostructured based materials and processes for low cost high efficiency chalcogenide based photovoltaics. (Grant agreement no: 284486, ENERGY.2011.2.1-2)

Area: Advanced Materials for Energy Applications

Head of the Area: Prof. Joan Ramon Morante

Group: Solar Energy Materials and Systems, SEMS

Group Leader: Prof. Alejandro Pérez Rodríguez

Fellowship Supervisor: Dr. Edgardo Saucedo – Prof. Alejandro Pérez Rodríguez

Call for Pre-Doc fellowship position

The group of Solar Energy Materials and Systems (SEMS) from the area of Advanced Materials for Energy announces a Pre-Doc fellowship position for a highly motivated candidate to work in the field of:

COST-EFFICIENT SOLAR CELLS BASED ON ADVANCED CHALCOGENIDE ABSORBERS FOR SUSTAINABLE PV TECHNOLOGIES

The Ph.D. candidate will carry out a multidisciplinary activity with the final aim to optimize processes and devices for new photovoltaic (PV) technologies compatible with requirements related to their sustainability, cost-efficiency and compatibility with industrial implementation at mass production levels. These are requirements that will be needed in these technologies in order to be able to answer in the next years to the increasing social and economical demands on energy technologies alternative to the conventional ones based on fossil fuels.



The candidate will work in the framework of the SCALENANO Project (WP1, WP4 and WP6), in the development and characterization of electrodeposited based CIGS solar cells. Special emphasis will be given to Raman scattering techniques as well as in the preparation and optoelectronic characterization of photovoltaic devices. These chemical based devices will be implemented in new cell architectures for higher efficiencies (WP4), trying to solve the most important challenges of these technologies, including the development of a buffer layer on nanostructured substrates. Finally, the candidate will be involved in the development of non-destructive methods for process monitoring and the identification of quality indicators for on-line process monitoring.

Requirements: Candidates must hold/have a Master degree of Materials Engineering, Electronics Engineering, Chemistry, Physics or equivalent (or close to finish it).

Submission of the candidacy: complete information about the presentation of the candidacy is available at: <http://www.irec.cat/beques>

The recruitment process will follow the guidelines of the European Charter of Researchers. For additional information please contact to: Dr. Edgardo Saucedo (esaucedo@irec.cat)

Deadline for applications: June 15th 2012, 12:00 AM (Spain local time)

Incorporation: 1st July- 1st August 2012