

**Publish Date: December 20<sup>th</sup> 2018**

**N.Ref.: 39/2018**

**Area:** Advanced Materials for Energy Applications

**Head of the Area:** Prof. Joan Ramon Morante

**Group:** Solar Energy Materials and Systems, SEMS

**Head of Group:** Prof. Alejandro Pérez-Rodríguez

**Position:** Coordinator of Chemical Processes in thin film advanced chalcogenide photovoltaic technologies.

The group of Solar Energy Materials and Systems (SEMS) from the area of Advanced Materials for Energy announces an Experienced Research position available for a highly motivated candidate to work in the coordination of the Chemical Processes Workshop at the Solar Energy Materials and Systems Laboratory at IREC, including the coordination of research activities in the development of buffer layers for thin film photovoltaic technologies by chemical routes.

**Activities:** The candidate will be in charge of the coordination of the research activities in the development of innovative chemical processes in thin film advanced chalcogenide technologies at the SEMS Laboratory in IREC, leading the development of new Chemical Bath Deposition (CBD) processes for innovative buffer layers in high efficiency devices, as well as the research on innovative etching and passivation chemical processes in advanced thin film chalcogenide technologies, contributing to the development of advanced solutions for the new technologies under implementation in the Laboratory.

The candidate will be also responsible of the managing and coordination of the technical aspects related to chemical processes at the SEMS Laboratory, including: safety issues, wastes management, purchase and stock of chemical products, and training of new recruited staff and visitor in all these issues.

Tasks involved in the position include: coordination of the Chemical Workshop at the SEMS Laboratory (including the CBD processes) , use of DC and DC-pulsed sputtering as well as thermal evaporation systems, use of conventional and rapid thermal annealing furnaces, demonstrated experience in chemical processes for photovoltaic technologies including chemical bath deposition, fundamental characterization of materials (XRD, SEM, Raman, AFM, XRF, etc), transference of knowledge to scientific and industrial levels.

**Requirements:** Candidate must have a PhD degree in Chemistry, Physics, Material/Electronics Engineering or equivalent. Previous demonstrated experience in fabrication and characterization of Thin Film Chalcogenides Photovoltaic devices and in particular in chalcopyrite and kesterite technologies is strongly required, with special emphasis in chemical processes for photovoltaics. Publications at international scientific journals, experience in the participation in international cooperative research projects in these topics involving both research centres and companies, will be also very well evaluated.

**Proposed Jury:**

Presidència	Titular	Prof. Alejandro Pérez-Rodríguez
Vocal 1	Titular	Dra. Teresa Andreu
Vocal 2	Titular	Prof. Joaquim Puigdollers González (UPC)