**Publish date February 11th 2022**
**Ref. 9/2022**

**Code:**
**Project: CUSTOM-ART**
**Area: Advanced Materials for Energy**
**Area leader: Prof. Joan Ramon Morante**
**Group: Solar Energy Materials and Systems, SEMS**
**Group leader: Prof. Alejandro Pérez Rodríguez**

The Solar Energy Materials and Systems (SEMS) group announces a postdoc research position (pre-consolidated researcher R2.1.1) in the frame of the Custom-Art project, in the research line of:

## Optimization of upscaled Kesterite PV processes at > 10% in 10x10 $cm^2$ area.

**Position description:** The candidate will carry out a multidisciplinary technical and scientific activity centered in the upscaling of the processes or the synthesis of optimized kesterite solar cells and mini-modules with very high uniformity and reproducibility and efficiencies > 10%, paving the way for the demonstration of the scalability of the processes developed in the frame of the Custom-Art processes. This activity will include the systematic synthesis and advanced characterization of $Cu_2SnZn(Se,S)_4$ (CZTS) kesterite absorbers and PV devices in the frame of the Custom-Art research project. The candidate will be at the forefront of the photovoltaic device fabrication/characterization for the creation of fabrication protocols and standardization that allows to achieve reproducible 10% high efficiency devices in a 10x10 $cm^2$ area deposition.

**Tasks to develop:** The candidate will work on the up-scaling and optimization of the CZTS PV device fabrication baseline with a 10% efficiency in a 10x10 $cm^2$ area incorporating process innovations developed in the Custom-Art project. Additionally, the candidate will be in charge of the preparation of: i) documentation for the CZTS baseline manufacturing standardization, and ii) support in the dissemination actions of the group.

**Requisites:** The candidate must be in possession of a PhD degree in Physics, Materials Engineering or equivalent before the incorporation date, and demonstrable previous research experience in thin film CTZS technologies by physical routes. Additionally, the candidate must have demonstrable experience in materials and device characterization techniques including the following: XRF, XRD, SEM, solar simulator, EQE. Availability for incorporation in the position on November 2021 is also required.

**Candidacy:** Send the CV, a motivation letter and PhD diploma (or certificate) to Prof. Alejandro Pérez-Rodríguez (e-mail aperezr@irec.cat) indicating Ref. 9/2022 in the subject of the e-mail.

**Deadline:** March 3rd 2022

**Starting date:** March 18th 2022

**Expected duration of contract:** 12 months