

SOLAR-TRAIN is an innovative project focused on durability and life time assessment of photovoltaic modules. As part of the H2020 Marie Skłodowska-Curie Actions (MSCA) Innovative Training Networks (ITN) SOLAR-TRAIN invites applications for 14 Marie Skłodowska Curie fellowships starting in March 2017. The successful candidates will join the project as early stage researchers (ESRs) for three years with the possibility to write a PhD thesis.

The Polymer Competence Center Leoben GmbH (PCCL) is the leading Austrian “Center of Excellence” for cooperative research in the area of polymer engineering and sciences. In close cooperation with its scientific partners at four universities 100 highly qualified employees are active in a wide field of applications for plastics ranging from automotive and aircraft, to packaging and photovoltaic industries. By linking scientific knowledge to the industrial need for innovation PCCL contributes to the competitiveness of its industrial partners who cooperate on the basis of medium- and long-term R&D-projects with the PCCL.

As of **March 1<sup>st</sup>** the following Marie Skłodowska Curie fellowship will be assigned:

### **Influence of Encapsulant - Backsheet Combinations on PV Module Degradation Modes**

#### **Project description**

This project will advance the state of the art in understanding PV module and material degradation modes with respect to the availability and transport of O<sub>2</sub>, H<sub>2</sub>O and acetic acid, which is defined by the polymers used in the PV module. A comprehensive investigation of the permeation behavior of different polymeric encapsulant and backsheet films is aimed to result in the knowledge of the occurrence of specific degradation processes for the individual material combinations. Special focus will be given to the analysis of factors affecting and changing the permeation behavior the polymer films during operating lifetime. The main objectives are:

- ✓ To obtain detailed understanding of the material and energy flows in and out of a PV module under operating conditions with respect to encapsulant – backsheet combinations
- ✓ To establish correlations between material structure, permeation behavior and PV module degradation modes
- ✓ To investigate factors affecting the permeation behavior in the course of PV module degradation

#### **Your profile**

- ✓ Compliance with the mobility rules laid out in the [MSCA ITN guidelines](#): At the time of recruitment, candidates **must not have legally resided or have had their main activity** in the country of their host organization for more than 12 months in the last 3 years
- ✓ Willingness to move countries for ESR placement and temporary secondments
- ✓ Completed degree (Mag., Dipl.-Ing. or MSc.) in the field of natural science or engineering
- ✓ Profound knowledge in material sciences, esp. physics and chemistry of polymeric materials
- ✓ Experienced in material testing
- ✓ Fluent in English and willingness to travel
- ✓ Advanced knowledge of ORIGIN- and MS Office
- ✓ Personal initiative, reliable, responsibility, teamwork and communication skills

## We provide

- ✓ Advanced research in a multi-disciplinary team
- ✓ Excellent contacts to industry as well as to national and international research organizations
- ✓ Gross income app. € 2.045,- p.m. (14 times per year)
- ✓ Flexible working hours, 40h per week
- ✓ Possibility to perform a PhD at the Montanuniversitaet Leoben

## Application

Please apply till **11 December 2016** according to the instructions on project website [www.solar-train.eu](http://www.solar-train.eu)

