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**

www.scalenano.eu

Group : NEXCIS
Group Leader : Dr. Pierre – Philippe GRAND

Call for Post-Doc Position

Established in March 2009 and based in Rousset (in the former STMicroelectronics 6" manufacturing plant), NEXCIS is a young start-up, associated to the Industrial Group EDF, which develops an innovative technology based on the manufacturing of CIGS thin film photovoltaic modules.
This technology differentiates itself through:

- Low KWh manufacturing costs,
- Minimal environmental effects from an ecological and aesthetic standpoint,
- Optimization of productivity on the solar panels.

The aim is to facilitate the introduction of this source of renewable energy within the energy mix.
NEXCIS develops its technology in collaboration with industrial partners, small and medium sized companies and numerous academic research laboratories.
NEXCIS thus contributes to the French solar power industry, at one of the most strategic positions of the value chain : the development and manufacturing of modules.
The company is experiencing considerable growth since its creation in March 2009 and today employs 86 people.

- NEXCIS announces a Post-Doc (2 years) position for a highly motivated candidate to work in an EU-funded project in the field of:

Electroplating Process for high efficiency chalcogenide based Photovoltaics

- Suitable candidates are requested to submit:

  - Presentation letter with a declaration of interest
  - Curriculum Vitae, including contact details

The formal application should be submitted to pierre-philippe.grand@nexcis.fr before 1er january 2013

This 2-year Postdoc Position (m/f) is proposed within the SCALENANO European project. The objectif of this project is the development and the scale-up of nanostructured based materials and processes for low cost high efficiency chalcogenide based photovoltaics.

In this context, you will realize by Electrodeposition semi-conducting thin film alloys with a good control of the structure, morphology and composition.
Structural characterization of the thin film will be investigated by SEM, XRF, GDOES, XRD…. Proposal for electrolytic bath improvement will be made. Innovative bath formulation will be tested. After a first step on small size (cm2), the proposed operating mode will be validated on large area scale (m2) with already existing Nexcis tools.
The intrinsic film quality will be evaluated by finishing solar cells and by measuring the device quantum efficiency. This new process will be exploited for the production of high efficiency and low cost photovoltaic devices and modules and should be compatible with mass production requirements.
The candidate will receive excellent multidisciplinary training across a number of scientific fields including electrochemistry, thin film analysis and photovoltaic cell processing.

Requirements :

PhD degree in Chemical Engineering, Material Science and Engineering, or equivalent.
Strong experience in the field of electrolytic deposition processes (deposition of metal, alloy or semiconductor) and in chemistry (bath speciation, formulation).

The recruitment process will follow the guidelines of the European Charter of Researchers. For additional information please contact to: Pierre-Philippe Grand (pierre-philippe.grand@nexcis.fr)