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Area: Advanced Materials for Energy Applications

Head of the Area: Prof. Joan Ramon Morante

Group: Nanoionics and Fuel Cells

Head of Group: Dr. Albert Tarancón Rubio

Title: Research Engineer for the Nanoionics and Fuel Cells Laboratory

Description:

The Nanoionics and Fuel Cells group (NFC) is focused on the development of i) solid oxide cells for power generation and production of synthetic fuels by electrolysis and ii) thin film based solid state energy microdevices such as micro-SOFCs or micro Li-ion batteries.

We are looking for a research engineer able to cover the practical arrangement of the laboratory and the specific technical aspects of our research. Therefore, the candidate will be involved in:

- i) organizational aspects and safety inside the lab
- ii) maintenance and development of new experimental setups and measurement procedures. Especially, the candidate will develop new methods for electrochemical and optical characterization, thin film and nanowires growth techniques and ceramic 3D printing technology

Requirements:

- PhD in Physics or Materials Science is mandatory
- Professional who is highly skilled in planning and organizing. Experience in team and budget management will be positively evaluated
- Capacity to work in a team, high flexibility, initiative and ability to innovate. Proved experience in innovation will be positively evaluated
- Proved experience in managing research infrastructures is mandatory
- Proved capability in developing experimental setups is mandatory. The candidate should be able to code and automate setups in Matlab and Labview. The candidate should master 3D printing technologies for rapid prototyping.
- Specific skills and background on the following techniques will be positively evaluated:
 - o Pulsed Laser Deposition
 - o Chemical Vapour deposition
 - o Stereolithography 3D printing, inkjet printing and robocasting
 - o Electrical measurements in thin films (probe stage with controlled conditions including high vacuum)
 - o Electrochemical measurements (EIS)
 - o Thin film characterization by TEM and AFM
 - o Ellipsometry and Raman spectroscopy
- Fluent English

Proposed Jury:

Presidència	Titular	Dr. Albert Tarancón Rubio
Vocal 1	Titular	Dr. Edgardo Saucedo
Vocal 2	Titular	Dr. Luis Fonseca