

Vice Rectorate for Scientific and Technological Policy

Edificio El Olivillo Avda. Duque de Nájera, 12, 11002 Cádiz (Spain) Tel. +34 956 015174 proyectos.europeos@uca.es

Formulario EOI - EXPRESIONES DE INTERÉS

| Contact Person / Scientist in charge (Datos del IP del grupo de investigación o responsable cientifico) | | |
|---|---------------------|--|
| Name and Surname: | Luc Lajaunie | |
| Email: | luc.lajaunie@uca.es | |

| Department / Institute / centre (Datos del departamento donde estaría ubicado el investigador a contratar) | |
|--|---|
| Name: | Departamento de Ciencia de los Materiales e Ingeniería Metalúrgica y Química Inorgánica |
| Address: | Facultad de Ciencias, Campus Río San Pedro s/n, Puerto Real |

Project Description (max. 1800 characteres)

We are seeking for a highly motivated postdoctoral candidate. The candidate will explore the atomic structure and local chemistry of 2D and hybrid nanomaterials for clean energy applications and water purification. Those studies will be developed by using transmission electron microscopes (TEM) microscopes and different TEM techniques: atomic resolution HR(S)TEM, EELS, in situ microscopy and Focus Ion Beam (FIB) microscopy. A strong emphasis will be put on the proper determination of the structure-property relationship and in-situ analyses.

Our department is an interdisciplinary and international research center with a strong access to the Advanced Division of Electron Microscopy (DME-UCA) facility, a Spanish National Facility, which represents a unique initiative, both national and internationally to gather the most advanced existing equipment and infrastructures in electron microscopy. The UCA hosts a large number of laboratories dedicated to materials synthesis, structural and catalytic characterization, including XRD, XPS, Raman spectroscopy, AFM, 3 TEM (including 1 aberration-corrected and monochromated, with monochromator, in-situ sample holders and direct detection camera...), 2 FIB (including Cryo-FIB) and SEM as well as various set-up for electro- and photocatalytic applications.

Candidates should hold a PhD in Physics, Chemistry, Materials Science or other related areas.

| Re | Research Area (select) | |
|----|---|--|
| Χ | Chemistry (CHE) | |
| | Social Sciences and Humanities(SOC) | |
| | Economic Sciencies (ECO) | |
| | Information Science and Engineering (ENG) | |
| | Environmetal Sciences and Gelogy (ENV) | |
| | Life Scientes (LIF) | |
| | Mathematics (MAT) | |



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Physics (PHY)

Applications: documents to be submitted and deadlines

CV and cover letter

Examples: Expression of interest, CV