

JOB OFFER

SENIOR RESEARCHER

Position: Senior researcher in advanced membrane electrolysis

Offer date: DOE publication

Project: CIIAE - Ref^a IS-ELECTRÓLISIS (HIDRÓGENO Y POWER-TO-X)

Department: Hydrogen and Power-to-X

Estimated starting date: January 2023

Workplace:	University of Extremadura. Cáceres campus	
Tasks to be developed:	<p>Green hydrogen is a key energy vector for the energy transition. The production of low cost and efficient green hydrogen with electrolysis is therefore must needed. The candidate is expected to research on, at least, both alkaline and PEM electrolysis</p> <p>The selected candidate is expected to perform the following tasks:</p> <ul style="list-style-type: none"> – Developing an attractive research agenda in the field of advanced membrane electrolysis (low temperature) – Acquisition of competitive funding, both private and/or public, e.g., PhD students and postdocs. – Successful Collaboration with universities, research institutes and companies at national and international level. – Successful guidance of PhD, postdocs and master students, i.e. they meet their own requirements – Writing papers as first authors (e.g., 1 paper p.a.) in a high-ranked journal – Project management and project administration (internal and external), also towards the department and CIIAE <p>Challenges: Increasing the efficiency, reducing the cost, improving the lifetime and reducing the environmental impacts of hydrogen generation.</p>	
Duration of the contract and salary:	Temporary Contract Initial duration: November 2024, with the possibility of extension	Gross Salary + S.S. Fees Gross Salary Range: 41 000 € - 45 000 €
Academic background required:	A PhD in material sciences, electrochemistry, chemistry, chemical engineering, or similar	
Other education:		
Professional experience:	<ul style="list-style-type: none"> – At least 2 years of post-doctoral experience – Proven experience in acquiring and/or writing competitive project proposal, for example, project or career funding – Proven experience in supervising PhD and/or master students (for example, as daily supervisor) 	

JOB OFFER

Job requirements (have to be fulfilled):	Specific techniques (analytical, software, calculations, prototyping, etc.)	<ul style="list-style-type: none"> – Excellent lab and analytical skills in fabrication of catalysts coated membranes (e.g., ink formulation and deposition, nanoparticle synthesis) – Demonstrated experience in fabrication, modification and testing of polymeric membrane electrochemical cells (PEMFC, PEM electrolyzers, alkaline-PEM), e.g., DC methods and AC impedance spectroscopy, degradation, mass transport and electrical resistance, potentiostatic/galvanostatic polarization methods. – Proven knowledge of the chemical and mechanical side of polymer sciences
	Participation and/or collaboration in R&D&I/business projects	Proven participation on at least 3 R&D projects
	Languages	Excellent oral and written skills in English
	Cross-cutting competences	<ul style="list-style-type: none"> – Ability to lead a team towards financing and objectives – Commitment to open science in terms of research methods, data and publications – Proven experience with industrial collaborations and/or previous experience working on industry – Experience on collaborating with other colleagues from the same department and beyond
	Willingness to travel and stay abroad	The candidate is expected to travel, both nationally and internationally, in the context of projects and conferences
	Publications: scientific articles (in journals indexed in Web of Science and/or Scopus), theses (PhD and/or Master's), presentations at conferences, reports, technical reports, technical guides, etc.	Strong track-record of academic publications as first author and co-author as the candidate is expected to publish in top journals in the field. At least 10 publications in Scopus indexed journals.
To be evaluated (adds points to the final evaluation):		
<ul style="list-style-type: none"> – Knowledge of synthesis of new polymers for membranes (new monomers) – Ability to test new membrane material in cells – Experience with some diffraction, microscopic and spectroscopic characterization techniques for structural and microstructural characterization such as X-ray diffraction (XRD), scanning electron microscopy (SEM), transmission electron microscopy (TEM), atomic force microscopy (AFM), energy-dispersive analysis (EDS), X-Ray photoelectron spectrometry (XPS) – Knowledge of computational fluid-dynamic and Multiphysics modelling (Comsol, Ansys, ...) applied to reactor design would be an advantage – Experience in membrane processing and electrochemistry is highly desired – Experience is scaling up from lab to prototypes – More than 2 years of post-doc experience – Being the principal investigator of at least 1 project – Proven experience in competitive project proposal writing – Publications as last author – Knowledge of Spanish and or Portuguese – Motivation letter (maximum 2 pages) included in the application. – Evaluation provided by 2 references via telephone conversation. The contact details of the references (e-mail and telephone) are provided by the candidates in their application. 		

JOB OFFER

Selection process details:

Technical test: NO

Language (English): yes (**will be evaluated during the interview**)

Job interview: yes

Interested candidates:

Please, send the curriculum vitae, with the deadline being 15 calendar days from the day following the publication in the DOE (Official Journal of Extremadura) indicating the following reference: **Ref^a IS-ELECTRÓLISIS (HIDRÓGENO Y POWER-TO-X)**

FUNDECYT-PCTEX (Edificio Parque Científico Tecnológico), Avda. de la Investigación, s/n, Edificio PCTEX, Campus de la Universidad de Extremadura – 06006 Badajoz (España)

Email: ciae.personal@fundecyt-pctex.es Phone number: +34 924 014 600

www.fundecyt-pctex.es

www.ciae.org