

JOB OFFER

SENIOR RESEARCHER

Position: Senior researcher in thermal CO2 reduction

Offer date: DOE publication

Project: CIIAE - Ref^a IS-TÉRMICA CO2 (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>The candidate will study possibility of reducing the CO2 burden in the atmosphere by considering new, thermally-catalysed approaches to utilize captured CO2 directly by making fuels and chemicals, e.g., by reducing the temperature and pressure of operation.</p> <p>The selected candidate is expected to perform the following tasks:</p> <ul style="list-style-type: none"> – Develop an attractive research agenda in the field of thermal CO2 reduction – 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 fuels and chemicals.</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 chemical engineering, industrial engineering, energy engineering, chemistry 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) 	

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Job requirements (have to be fulfilled):	Specific techniques (analytical, software, calculations, prototyping, etc.)	<ul style="list-style-type: none"> – Excellent lab and analytical skills including synthesis, characterisation and testing of heterogeneous catalysts. – The candidate is expected to have experience in the use of characterisation methods (e.g., temperature programmed methods, physisorption, chemisorption, spectroscopy and X-ray diffraction) and reaction gas analysis methods (e.g., mass spectrometry, chromatography, FTIR) – Demonstrated experience with operando and in-situ spectroscopic techniques (e.g., XAS, XRD, Infra-red.) – Experience in materials and reactions related to thermal CO₂ hydrogenation
	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"> – Previous research experience on photochemistry and/or electrochemistry – Knowledge of modelling and simulation directly or by collaborations, e.g., atomistic simulations and CFD – Demonstrated experience with operando and in-situ spectroscopic techniques (e.g., XAS, XRD, near ambient-pressure XPS, Infra-red.) – 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 – 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. 		
Selection process details:		
Technical test: NO		

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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: **Refª IS-TÉRMICA CO2 (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)

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