

JOB OFFER

PhD Researcher

Position: PhD researcher. Development of novel thermochemical materials
Offer date: WEB publication
Project: CIIAE – Refª PD-TERMOQUIMICO (ALMACENAMIENTO DE ENERGÍA TÉRMICA)
Department: Thermal Energy Storage
Estimated starting date: First quarter of 2024

Workplace:	University of Extremadura. Cáceres campus	
Tasks to be developed:	<p>Thermochemical energy storage based on chemical reactions for storage of thermal energy has huge energy-saving potential for the future energy systems thanks to the high energy storage density and long storage duration. One of the major hurdles on the route from the idea to the fully implemented technology is finding the materials that are stable, inexpensive, and capable of storing large amount of energy under boundary conditions defined by applications, such as utilization of solar energy or industrial waste heat. The PhD candidate is welcome to contribute to this field of knowledge by performing the following tasks:</p> <ul style="list-style-type: none"> • Developing novel stable and tuneable thermochemical materials in close collaboration with other members of the group • Understanding phase transition and the effect of doping on thermochemical transformations • Developing of stabilization techniques such as use of porous matrices and encapsulation • Integrating thermochemical materials into pilot devices • Authoring and co-authoring scientific publications <p>The candidate is expected to acquire the title of PhD, through the reading of its research work in front of a court in a public session.</p>	
Duration of the contract and salary:	Fixed-term contract. End: September 2025. Possibility of extension.	Gross Salary: 19065,34 €
Academic background required:	<p>Graduate degree in Materials Science, Chemical engineering, Chemistry or similar Capability to access a PhD program.</p> <p>Note: Candidates about to finish the master (or equivalent degree that guarantee access to the PhD program) can submit the application. The grade certificate will be required by the time of signing the contract.</p>	
Other education:	<p>Preferrable master's degree in:</p> <ul style="list-style-type: none"> • Materials for Energy Storage and Conversion • Materials science • Chemical Engineering • Energy and Environmental Science 	
Professional experience:	Not required	
Job requirements	Specific techniques (analytical, software, calculations, prototyping, etc.)	<ul style="list-style-type: none"> • Microsoft Office or LaTeX • Programming experience is welcome (Python, R, etc.)
	Participation and/or collaboration in R&D&I/business projects	Not required
	Languages	Written and spoken English (≥C1 level). Valuable: Spanish and Portuguese.

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	Cross-cutting competences	<ul style="list-style-type: none"> • Ability to work in team • Good verbal and written communication skills
	Willingness to travel and stay abroad	This position requires occasional travelling outside of Extremadura
	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.	Not required.
<p>To be evaluated (adds points to the final evaluation)</p> <ul style="list-style-type: none"> • Experience experimental thermal analysis techniques (DSC, TGA, TPD and alike) • Experience in texture and morphology characterization (porosimetry, adsorption, microscopy) • Knowledge of chemical thermodynamics and its application characterization of thermochemical/sorptive transformations • A publication in an indexed journal or participation in a scientific conference would be a benefit • Scholarships or awards would be a benefit • Motivation letter detailing your research experience and relevant qualifications 		
<p>Selection process:</p> <p>TECHNIQUES: Oral knowledge test YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p>LANGUAGE: ORAL YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> (It will be evaluated during the interview)</p> <p>JOB INTERVIEW: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/></p>		

Interested candidates

Please, send all the documents requested by the terms and conditions of the call for proposals, together with all the documents requested by this job offer, and the Application Form. Deadline is 15 calendar days from the day following the publication in the CIIAE web, and indicating the following reference: **ref^a PD-Termoquímico (ALMACENAMIENTO DE ENERGÍA TÉRMICA)** to:

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

Email: ciiiae.personal@fundecyt-pctex.es Phone number: +34 924 014 594

www.fundecyt-pctex.es

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