JOB OFFER

PhD Researcher

Position: PhD researcher. Integration of PCMs in buildings materials
Offer date: WEB publication
Project: CIIAE – Refª PD-PCM edificios (ALMACENAMIENTO DE ENERGÍA TÉRMICA)
Department: Thermal Energy Storage
Estimated starting date:2023

<table>
<tr><td>Workplace:</td><td colspan="2">University of Extremadura. Cáceres campus</td></tr>
<tr><td>Tasks to be developed:</td><td colspan="2">To reduce the environmental problems caused by the high energy consumption used to maintain comfortable temperatures in buildings, it is necessary to develop alternative energy saving systems. Phase change materials (PCM) can reversibly absorb and release energy and therefore they can be used to reduce this energy demand. Its incorporation in buildings materials has economic and environmental advantages, contributing to the development of more efficient housing from the energy point of view.

The selected candidate is expected to perform the following tasks:
– In collaboration with the group developing new PCMs, scale up their synthesis.
– Development of encapsulation procedures for these materials.
– Study of the interaction between PCMs and construction materials
– Development of highly flexible and efficient heat transfer devices.
– Writing scientific publications and presentation of results at international conferences.

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.</td></tr>
<tr><td>Duration of the contract and salary:</td><td>Fixed-term contract. End: September 2025. Possibility of extension.</td><td>Gross Salary: 19065,34 €</td></tr>
<tr><td>Academic background required:</td><td colspan="2">Graduate degree in Physics, Chemical engineering, Chemistry, Materials Science or similar
Be able to access a PhD program.</td></tr>
<tr><td>Other education:</td><td colspan="2">Valuable master's degree in:
- Chemical Engineering
- Materials science
- Materials for Energy Storage and Conversion.
- Environmental Chemistry
-</td></tr>
<tr><td>Professional experience:</td><td colspan="2">- Not required</td></tr>
<tr><td rowspan="4">Job requirements</td><td>Specific techniques (analytical, software, calculations, prototyping, etc.)</td><td>– Office tools.</td></tr>
<tr><td>Participation and/or collaboration in R&D&I/business projects</td><td>- Not required</td></tr>
<tr><td>Languages</td><td>English. Valuable: Spanish and Portuguese.</td></tr>
<tr><td>Cross-cutting competences</td><td>– Ability to work in a team
— Communication skills</td></tr>
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	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.

To be evaluated (adds points to the final evaluation)

- Experience in: DSC, TGA, laser diffraction, rheometer, zeta potential, DLS (dynamic light scattering), TEM, SEM, thermal conductivity meter, GC and/or ICP-MS.
- Experience in the use of Phase Change Materials (PCMs) for the passive or active storage of thermal energy in buildings.
- It will be positively valued to have collaborated in the publication of a research article in an indexed journal, as well as in participations in research congresses.
- Having obtained competitive research scholarships.
- Experience in laboratory job.
- Experience in industrial collaborations and/or previous experience working in industry.
- Patents.
- Feedback of the 2 references provided by the candidates. Please, include 2 reference letters (for example of university professors with their contact details). These letters should highlight the technical and soft skills that they have identify in the candidate and relevant for the position.
- Motivation letter. Please, describe the skills that makes you the ideal candidate for this PhD position.
- Awards, mentions or other achievements.

Selection process:

TECHNIQUES: Oral knowledge test YES ☐ NO X

LANGUAGE: ORAL YES X NO ☐ **(It will be evaluated during the interview)**

JOB INTERVIEW: YES X NO ☐

Interested candidates

Please send all the documentation required in THE CONDITIONS OF THE CALL and THE JOB OFFER, no later than 15 calendar days from the day after publication on the WEB, indicating: **refª PD-PCM edificios (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)

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