JOB OFFER

X-ray Diffraction (XRD) Technician

Position:	**X-ray Diffraction (XRD) Technician**		
Reference:	**IJ-XRD (THERMAL ENERGY STORAGE)**		
Professional category:	**Junior Doctor**	**Social Security contribution group:**	
Workplace:	University of Extremadura, Cáceres Campus		
Number of positions:	**1**	**Reserved quota (%), if applicable:**	
Department:	**Thermal Energy Storage**		
Offer date:	Website publication	**Application deadline:**	**15 calendar days, starting on the day after publication on the website.**
Application form:	**Annex I of the call guidelines.**	**How applicants must submit their applications:**	APPLICANTS MUST SUBMIT ALL THE DOCUMENTATION LISTED IN SECTION 5 OF THE CALL GUIDELINES, indicating **Reference: IJ-XRD (THERMAL ENERGY STORAGE).**
Documents to be submitted with the application:	The documents listed in Section 5 of the call guidelines. In addition to the mandatory documentation listed above, including a detailed CV and supporting certificates, the submission of the following will also be considered: - Cover letter (maximum 2 pages)		
Contact details for submitting applications	FUNDECYT-PCTEX (Science and Technology Park Building), Avda. de la Investigación, s/n, PCTEX Building, University of Extremadura Campus – 06006 Badajoz (Spain) Email: ciiae.personal@fundecyt-pctex.es www.fundecyt-pctex.es www.ciiae.org		
Expected start date:	**February 2027**	**Probationary period:**	**2 MONTHS**
Reserve list	Yes, in accordance with Sections 9 and 10 of the call guidelines.		
Applicant conditions and requirements:	Those established in Section 4 of the call guidelines.		
Members of the selection committee:	**President:** Breogán Pato Doldán		
	Secretary and member: Lucía Cordón Masero		
	Secretary and alternate member: Cristina Cortés Gragera		
	Member: Juan María González Carballo		
	Member: Javier Díez Sierra		
	Member: Manab Kundu		
Duties and responsibilities:	1. Specialist analysis of crystalline materials • Perform and interpret X-ray powder diffraction (XRPD) analyses. • Phase identification and quantification; profile fitting (Pawley, Le Bail) and Rietveld refinement, including lattice parameters, amorphous content, crystallite size and microstrain.		

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- Structure solution from powder diffraction data (simulated annealing, charge flipping).

2. In situ and operando measurements under non-ambient conditions (heating chamber) and with electrochemical control (potentiostat).

3. Development of instrumental methods for the analysis of energy materials. Preparation of protocols for sample preparation, data acquisition and data processing.

4. Laboratory and equipment management
- Operation, alignment, calibration using reference standards, and preventive maintenance of the centre's powder diffractometers (Anton Paar XRDynamic 500, with Cu and Mo radiation).
- Contact with technical service providers, management of consumables, and compliance with radiation protection regulations.
- Laboratory coordination: management of equipment bookings, sample reception and traceability, measurement records, and standard operating procedures (SOPs).

5. User support
- Management of measurement requests and user training.
- Support for the centre's research groups and external collaborators.

6. Proposals, reports and results
- Support in preparing beamtime proposals for synchrotron facilities, neutron sources, etc.
- Preparation of technical reports and management of the data generated.
- Contribution to publications, projects and funding proposals.

NOTE: Given the nature of this position, which requires on-site support for researchers and laboratory users, as well as direct supervision and assistance in the use of the facilities and equipment, remote working is not allowed for this role.
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<tr><td>Required academic qualifications:</td><td colspan="3">PhD in Chemistry, Physics, Geology, Materials Science or Engineering, Crystallography, or a related field.</td></tr>
<tr><td>Additional training:</td><td colspan="3">Additional technical training relevant to the field will be considered, such as courses or schools in crystallography and diffraction.</td></tr>
<tr><td>Contract duration:</td><td colspan="3">Permanent scientific-technical employment contract under Article 23 bis of Law 14/2011, linked to
funding and initially expected to run until 31 December 2027.</td></tr>
<tr><td>Remuneración:</td><td>BS: €38,720.97</td><td>Funding:</td><td>As set out in Section 1 of the Call Guidelines.</td></tr>
<tr><td colspan="4">Selection process details:
- Technical test: NO
- Language assessment: YES
- Job interview: YES</td></tr>
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Evaluation: Evaluation criteria and sub-criteria	**MERIT AND CURRICULUM ASSESSMENT PHASE (COMPETITIVE SELECTION). Maximum score: 60 points** Applicants scoring fewer than 30 points will be excluded.
	Mandatory: Experience in X-ray powder diffraction (XRPD). Experience using at least one crystallographic software package: TOPAS, EVA, FullProf, WinPLOTR, GSAS, GSAS-II, EXPO, FOX, MAUD, CrysAlisPro, HighScore, QualX, etc. **Desirable/ Merits to be assessed:** Experience in profile fitting (Pawley, Le Bail) and Rietveld refinement. **Up to 15 points.** Experience in diffractometer management and maintenance. **Up to 15 points.** Experience in structure solution from powder diffraction data (simulated annealing, charge flipping). **Up to 10 points.** Experience in operando measurements, particularly using accessories such as heating chambers and potentiostats. **Up to 10 points.** Experience in the development of instrumental methods. **Up to 5 points.** Experience with other characterisation techniques: FIB-SEM, TEM, NMR and/or thermal analysis (TGA, DSC). **Up to 5 points.**
	INTERVIEW PHASE **Maximum score: 40 points** Applicants scoring fewer than 20 points will be excluded.
	– Candidate's interest in joining the organisation and motivation for carrying out the duties of the advertised position. **Up to 10 points.** – Suitability of the candidate's knowledge, experience and other required qualifications for the duties to be performed. **Up to 10 points.** – Competences, aptitudes, skills and abilities: organisation, analytical thinking, teamwork and problem-solving. **Up to 10 points.** – Communication skills and language proficiency (Spanish, Portuguese and English). **Up to 10 points.**

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Authorised signatory: Carolina Grau Ferrando, Managing Director of FUNDECYT-PCTEX

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Signed in Badajoz on the date of the electronic signature