

EXPRESSION OF INTEREST – CANDIDATE FOR PF GLOBAL

Researcher Profile:

Name and Surname: Juan Manuel Garrido Zoido

Position: Assistant professor (Profesor sustituto)

Department/Unit/Centre: Organic and Inorganic Chemistry/Organic Chemistry/Faculty of Sciences

PhD in Sustainable Chemistry (Organic Chemistry area) from the University of Extremadura since November 2022 (Cum Laude). I am currently a Substitute Professor in the Department of Organic and Inorganic Chemistry at the University of Extremadura.

My research profile focuses on the synthesis of new heterocycles, as well as the application of DFT calculations for the detailed study of reaction mechanisms, transition states, kinetics, and tautomeric and conformational equilibria. I contribute to interdisciplinary environmental remediation projects by supporting the interpretation of experimental results through computational approaches (degradation mechanisms, kinetics, toxicology, and catalytic processes) and by participating in the development of sustainable materials from waste, in line with green chemistry principles and the circular economy.

I have 12 publications in high-impact journals (most of them Q1, some in the top deciles such as Journal of Environmental Management and Journal of Water Process Engineering), 123 citations, and an h-index of 5 (Scopus, May 2026). I am a regular reviewer for Elsevier, Frontiers, and MDPI journals, and have presented communications at international conferences.

I am currently the sole supervisor of two Bachelor's Theses. Previously, I co-supervised another two (2025, graded Outstanding and with Honors) and one Master's Thesis (Outstanding). In these roles, I was responsible for scientific supervision, student monitoring, experimental and computational guidance, and thesis review. Combined with the leadership and organizational skills I developed earlier as a team leader in technology companies, this demonstrates my ability to lead projects, manage resources, and work autonomously, reflecting my scientific maturity.

During the Outgoing Phase, I will transfer to the host group my expertise in the sustainable synthesis of heterocycles and the advanced use of DFT calculations to interpret mechanisms and adsorption/degradation processes. In return, I expect to acquire advanced techniques in asymmetric catalysis, molecular dynamics, molecular docking, or advanced material characterization, knowledge that I will then transfer and further develop at the University of Extremadura during the Return Phase.

Project idea, if any (scientific requirements, topic, discipline):

I do not yet have a fully defined project or a selected host group, but my main interest is to carry out the outgoing phase in Canada, South Korea, or Japan (countries with world-class research groups in organic synthesis and applied computational chemistry). This period would allow me to integrate advanced experimental approaches with my current computational expertise, generating high-impact results in sustainable chemistry, environmental remediation, and/or pharmacology.