





Postdoctoral Researcher position in Iron Photocatalysis for Organic Synthesis

Fabio Juliá´s group (<u>www.fjulialab.com</u>) is looking for highly motivated and enthusiastic candidates for a fully-funded position as Postdoctoral Researcher on the *Development of New Methods for Sustainable Organic Synthesis based on Iron Photocatalysis*.

Our group: Our research program aims to discover innovative reactivity modes in inexpensive and nontoxic first-row metal catalysts to discover new and sustainable tools for organic synthesis. We are particularly interested in using visible light to *exploit the innate reactivity in the excited state of Earth-abundant metals to activate photocatalysis*, which remains a fairly unexplored opportunity to access new and distinct modes of reactivity under mild conditions. This research project is framed in the project **ExCEL**, recently awarded with a Starting Grant from the ERC ($1.5M \in$), which aims to enable unprecedented reactivity modes in iron catalysis that go beyond photoredox catalysis to tackle global challenges of social, academic, and industrial interest.

We are a young and dynamic team with a strong expertise in photoredox catalysis, reaction development, inorganic photophysics and excited-state reactivity. We are based at the **University of Murcia (UMU)** where we have brand new labs located in the Pleiades-vitalys Excellence Research building. **UMU is located in the city of Murcia (southeast of Spain)** and counts with a pleasant sunny Mediterranean weather (30 min-drive from the beach) and a vibrant atmosphere (population >500.000).

light-activation of Fe catalysis





Pleiades-Vitalys Excellence Research building at the University of Murcia

Requirements: Candidates in possession of a (or nearly finished) PhD on Chemistry are eligible. Background in homogeneous catalysis, organic chemistry, and/or organometallic chemistry are preferred. In addition, solid experience in reaction optimization and development, organic synthesis, inert atmosphere techniques or DFT calculations will be valuable. Soft skills such as problem-solving abilities, independence, creativity and willing-to-learn attitude are welcome. In general terms, motivated individuals with interest in developing new reactions, photochemical reactivity and/or increasing sustainability in organic synthesis in academic and industrial (e.g. Pharma) environments are encouraged to apply. Good knowledge of English (writing and speaking) is required.

■Position description: The appointed Postdoctoral Researcher will have a contract for 1+1 years (renewable) with a competitive salary according to the experience of the candidate. The researcher will conduct research supervised directly by Dr. Fabio Juliá, who will closely assist on the career development of the candidate. The researcher should as well be motivated to work in teams and mentor PhD and MSc students. They will develop experimental work in a synthetic lab, involving:

- Design and development of catalytic methodologies to be applied in organic synthesis, exploring the scope of the discovered transformations
- Mechanistic studies supported by different techniques
- Preparation of organic substrates and products, inorganic complexes and ligands

Other tasks will be the preparation of reports and scientific manuscripts, literature search and participation in one-to-one as well as group meetings. Attendance to scientific meetings and conferences is also expected. This research program will challenges of social, academic and industrial interest so possible collaborations will be considered with other academic groups or pharmaceutical industry.

■Application: The position will be opened until March 4th or until a selected candidate is found. Tentative starting date is June-September 2024, although dates are flexible. Interested applicants should submit their CV (containing at least 2 contacts for references) and a motivation letter directly to <u>fabio.julia@um.es</u> with subject line "PDRA position 2024".