



**PHD POSITION AT THE INSTITUTE OF COMPUTATIONAL CHEMISTRY AND CATALYSIS (IQCC)
and UNIVERSITY OF GIRONA (UdG)**

Principal Investigator: Dr. Alicia Casitas



DEVELOPMENT OF
SUSTAINABLE
CHEMICAL PROCESSES WITH
EARTH-ABUNDANT METALS

SUSCHEM-EARTH project focuses on applying a bottom-up approach to catalysis and developing novel reactivity concepts with earth-abundant transition metals for obtaining solutions to important synthetic problems. In this regard, fundamental and applied research involving base metals (Fe, Mn, Co, Ni, Cu) meets the goals of the European Union to develop more sustainable protocols for industrial production of chemicals. To this endeavor, SUSCHEM-EARTH **aims to introduce innovative approaches in catalysis** towards C-H functionalization and heterofunctionalization reactions with Fe and Mn complexes.

Owing to the interdisciplinarity of the research project, students will develop laboratory skills and acquire knowledge in coordination chemistry, organometallic and organic chemistry as well as in spectroscopy and reaction mechanisms. In addition, students will perform cutting-edge research at the emerging areas of photocatalysis and electrocatalysis that are devoted to develop more sustainable catalytic methodologies towards organic synthesis.

INSTITUTION AND FACILITIES

The research activities will take place at the Institute of Computational Chemistry and Catalysis (IQCC), a research institute supported by the University of Girona. Specifically, the research project will be executed in the laboratories of the group of Bioinorganic and Supramolecular Chemistry and Catalysis (**QBIS-CAT**). More details about facilities and instrumentation can be found at the institute website: <http://iqcc.udg.edu/wordpress/> and the QBIS-CAT website: <https://qbiscatwebpage.wordpress.com/>. The website of the research team of Dr. Alicia Casitas is the following: <https://aliciacasitas.wordpress.com>.

REQUIREMENTS

We are looking for outstanding candidates with initiative, creativity and team-working ability with a master degree in Chemistry. Research experience and hands-on-training in the synthesis of coordination and organometallic compounds and their characterization by means of spectroscopic and analytical techniques will be highly appreciated. In addition, experience in organic synthesis and catalysis would also be useful. Good communication skills and proficiency in written and spoken English are essential.

STARTING DATE AND CONDITIONS

A 3-year PhD contract with annual evaluation is offered, the expected starting date is set for October 2018. The SUSCHEM-EARTH project is funded by a JuniorGroup Leader "LaCaixa" fellowship awarded to the principal investigator Dr. Alicia Casitas.

APPLICATIONS

Applicants should send a motivation letter, one recommendation letter from a reference contact, a short CV (2 pages), BSc certificate including a list of the courses/modules taken with grades, and MSc certificate with detailed grades (or equivalent title which provides access to PhD). Finally, applicants are encouraged to provide evidence for their English communication skills by attaching an official language certificate (i.e. CAE, TOEFL, IELTS).

DEADLINE

Applications should be sent before **July 15th, 2018** to alicia.casitas@udg.edu. In case of any doubts, please, do not hesitate to contact me.