

Víctor de la Peña is the Head of Photoactivated Process Unit at IMDEA Energy Institute. My research interest is focused on heterogeneous catalysis, theoretical chemistry, in-situ characterization and reactor design and built-up applied to energy and environmental technologies such as **CO<sub>2</sub> uses and artificial photosynthesis, sustainable fuels production and energy storage**, covering a wide range of experience on: 1) ***Design and synthesis of multifunctional materials***; 2) ***Advanced in-operando characterization combined with theoretical studies***, 3) ***Construction of automatized reactors from lab to pilot plant scale*** and 4) ***Development of self-driving labs assisted by artificial intelligence***, covering wide range of application from heterogeneous catalysis and solar chemistry technologies

I obtained my **degree in Chemistry** from the UAM in Quantum chemistry (1999) and Geochemistry (2002). working on the development of theoretical studies of the photophysical behaviour of molecular dye sensitizers. In 2000, I was awarded with the **prestigious grant of the REPSOL-YPF Foundation** to carry out my doctoral studies, focused on the "*Properties of cobalt and iron supported catalysts for Fischer-Tropsch synthesis*" supervised by Prof. Jose L. García Fierro at ICP-CSIC. In 2004, I was awarded a **Juan de la Cierva** fellowship at the Barcelona University to develop catalysts for the selective transformation of biomass derived products into H<sub>2</sub>. During this stay, I got the grade on **MSc in Physics**. In 2008, he got a **Ramon y Cajal fellowship** at IMDEA Energy, where I started my independent career. Thanks to the achievements in this field he was awarded an **ERC Consolidator Grant**, with which he has consolidated the Photoactivated processes Unit.

I'm co-author of more than **180 publications, 6 book chapters, 4 patents and more than 170 contributions to scientific conferences**. In the last 5 years, I have developed more than **28 actives projects acting as Coordinator/PI or tutor in 25 of a total funding in the last 5 years >17.4 M€ (>7 M€ for IMDEA Energy)** among them: *ERC CoG, ERC PoC (2), FET-PROACT, CSA-FETFLAGSHIP (2), RETOS Colaboracion (2), Lineas estrategicas (1), Transición ecologica y digital (1), Comunidad de Madrid (2), Fundación Ramon Areces (1)*, Guarantor researcher of "Maria de Maeztu" program awarded to the IMDEA Energy Institute as well as industrial projects with chemical and energy companies. I have supervised **10 defended doctoral theses and 8 PhD in progress**, 16 post-doctoral researchers of which 5 are in the industrial sector and 11 are developing their scientific careers. Supervision of more than 20 students in their undergraduate, postgraduate and internship projects.

I have involved on the organization of more than 15 Conferences/Symposia/Schools, including to 3 symposiums on Biannual RSEQ\_conference. Furthermore, I'm developing several institutional responsibilities such as: *General Secretariat of the Spanish CO<sub>2</sub> Technology Platform, Member of the working groups of Hydrogen Europe Research association and MI5 "Solar Fuels" (recently re-called Sunlight to X) of Mission Innovation, Coordinator of Spanish Solar Fuels Network, member of Governing board GE3C specialized group of the RSEQ*, among others. Recently, I'm the president RSEQ Specialized Group on Energy and Sustainability (GEEN). In addition, I have received several awards and recognitions, such as: Best ERC project in the Regional government of Madrid, and selected as innovative project in the 10<sup>th</sup> Anniversary of ERC, and COP25.