

DISTINGUISHED SPEAKER SERIES

Catalysis as a Driver for Sustainable Chemistry

By Prof Javier Pérez-Ramírez

Heterogeneous catalysis, one of the cornerstones of the chemical industry, is at the forefront of innovation to make clean energy, use renewable raw materials and minimize waste generation, all of which are key objectives for achieving sustainable development. To meet these challenges, catalytic processes must consider multidimensional phenomena, ranging from the design of active centers at the nanometer scale to environmental footprint assessment at the planetary scale.

This requires a Herculean effort, integrating interdisciplinary fundamental research with state-of-the-art tools and close collaboration with industry to enable implementation. This approach can provide, in addition to rich intellectual satisfaction, decisive processes for society to evolve towards a circular economy. This talk will present recent examples from our lab that will unpack this exciting process in more detail.



Wednesday, 12 April 2023



3 to 4.30pm



Hybrid Session

In Person:

LT3

10 Kent Ridge Crescent
Singapore 119260

Via Zoom:

<https://nus-sg.zoom.us/j/85402530972?pwd=YWptQmUraDJlaTMzUGpVWjNiV0J4Zz09>

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Javier Pérez-Ramírez is since 2010 Full Professor of Catalysis Engineering at ETH Zurich. His research pursues the nanoscale design of catalytic materials enabling the transition towards sustainable chemical and energy production. He studied Chemical Engineering at the University of Alicante and received his PhD degree at Delft University of Technology in 2002. He is currently undertaking a certificate at Massachusetts Institute of Technology to become a Chief Sustainability Officer. Javier is a highly cited researcher in the field of chemistry and has been recognized by several awards, most recently the EFCATS Robert K. Grasselli Award for Catalysis in 2021 and the 2022 Environment, Sustainability and Energy Horizon Prize from the Royal Society of Chemistry in 2022. He serves as the Chair of the Editorial Board of Green Chemistry and directs NCCR Catalysis, a Swiss Centre of Competence in Research devoted to the development of carbon-neutral chemicals across the whole value chain through catalytic processes.