



UNIVERSIDAD
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Global Science Education and Research Seminars

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Webinar: <https://ucordoba.webex.com/meet/secretaria.iunan>

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The Faculty of Sciences

In collaboration with
the University Institute of Fine Chemistry and Nanochemistry



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Murielle Chavarot-Kerlidou is CNRS Researcher and Deputy Director of the French Solar Fuels Network (<https://solarfuels.cnrs.fr>). She joined in 2009 the Laboratory of Chemistry and Biology of Metals (LCBM, Grenoble, France) to work on bio-inspired hydrogen photoproduction. Since 2018, she is in charge of the research axis on Molecular Artificial Photosynthesis in the SolHyCat group (www.solhycat.com) headed by Vincent Artero.

Her research projects cover various aspects of the field, with the study of bio-inspired cobalt catalysts for hydrogen production, the design of molecular systems for light-driven charge accumulation and the development of dye-sensitized photocathodes for solar fuel production.



Making Fuels from Sunlight and Water: The Holy Grail of Artificial Photosynthesis

Producing fuels from sunlight and abundant raw materials such as water and CO₂ is a major challenge to meet for a clean energy future. In this context, molecular chemists draw their inspiration from Nature to develop dye-sensitized photoelectrochemical cells for the production of solar fuels, such as hydrogen or carbon compounds derived from CO₂ reduction. This artificial photosynthesis approach will be highlighted through different examples from the group covering all aspects from catalyst design to the construction of functional water-splitting devices.

