

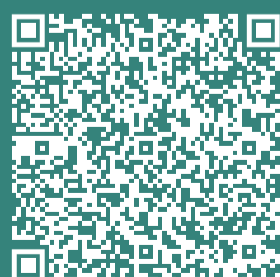


# A workshop on NanoMaterials for Green Hydrogen: Paving the Way to a Sustainable Future

Marking the conclusion of a Marie Skłodowska-Curie Individual Fellowship (CoCaWS, 101027930)

**30<sup>th</sup> September 2024**  
Danilo Mainardi Auditorium  
Scientific Campus  
Ca' Foscari University of Venice

Please register at  
<https://docs.google.com/forms/d/1O5GTFYg7eNwx4kh1G1zrc0ilRrk9GA-sBWNciM7iNml/viewform>



Contact: [tofikahmed.shifa@unive.it](mailto:tofikahmed.shifa@unive.it)

## Overview of the CoCaWS Project

The CoCaWS project, titled "Confined Catalysis in Layered Materials – A Transformational Approach for Efficient Water Splitting," is funded by the EU under the Marie Skłodowska-Curie Actions program. It aimed at developing innovative catalysts to enhance hydrogen production via water splitting. Over the past two years, the project investigated two-dimensional (2D) layered nanomaterials and employed confined catalysis, where reactions occur in nanoscale environments within van der Waals (vdW) gaps. This approach allowed precise confinement of a small amount of ruthenium, within the vdW gaps of MnPSe<sub>3</sub> nanosheets, enabling efficient hydrogen and oxygen generation. The project has also served as a booster for seeding the research on hydrogen production at the Nano4GEA lab at the Department of Molecular Sciences and Nanosystems, and the outcomes have been one of the pillars to build up the proposal for the UNESCO Chair on Technologies and Materials for Green and Energy Applications recently established at Ca' Foscari University of Venice and the Luleå University of Technology (Sweden).

9.30-9.40 **Introductory Comments**  
Prof. **Alberto Vomiero**

Chair: Prof. **Elisa Moretti**

9.40-10.20 Prof. **Tofik Ahmed Shifa** (Ca' Foscari University of Venice), *Confined Catalysis in Layered Materials – A Transformational Approach for Efficient Water Splitting*

10.20-11.00 Prof. **Juan R. Morante**, (University of Barcelona), *Materials research for the energy transition*

*Coffee Break*

11.30-12.10 Prof. **Paolo Fornasiero** (University of Trieste), *Smart catalysts for sustainable chemical processes*

12.10-12.40 Dr. **Beatrice Bonfanti** and Dr. **Enrico Volpi** (De Nora), *The De Nora's strategy toward Energy Transition & Green Hydrogen Production*

12.40-12.50 **Closing Remarks**

*Lunch Break*