MOST-H2

PARTNER INTERVIEW

MARIA VASSAKI

Postdoctoral researcher at University of Crete

How would you describe MOST-H2 in one sentence?

The MOST-H2 project focuses on advancing the development of novel metal organic frameworks (MOFs) for the safe and efficient storage of hydrogen, aiming to facilitate the transition from conventional fossil fuels to hydrogen as a low-carbon alternative.

What is your role in the project?

My research is focused in synthesis and characterization of novel metal organic frameworks (MOFs) and also involves evaluating their porosity through argon and nitrogen sorption experiments. The aim is to develop MOFs with specific properties that enable them to serve as secure and efficient storage mediums for hydrogen.

From your point of view: what will be the biggest impact of MOST-H2?

The primary effect of MOST-H2 will revolve around the creation of innovative MOFs that can securely store hydrogen through adsorption. These absorbent MOFs will play a crucial role in substituting conventional fossil fuels with carbon emission-free hydrogen, thus significantly reducing environmental pollution.

Thank You

Learn more about Maria's organisation

UNIVERSITY OF CRETE

The University of Crete is a recognized research and academia institution. The department of chemistry combines long standing expertise and great achievements in the design and synthesis of novel MOFs and the development of advanced computational methodologies incl. machine learning techniques for MOF large-scale screening. The University of Crete has been awarded with the “HR Excellence in Research Award”.

UoC's role in MOST-H2

Leading know-how for effectively pairing computationally guided discovery with synthesis, addressing in an optimal way the intrinsic complexity entailed in the development of the MOF materials.

- Lab-scale synthesis for next generation MOF materials for H2 storage
- Computational Materials Screening
- Algorithm and descriptors to maximize predictions accuracy