Postdoc in MOF photocatalysts for green hydrogen production

Mission

We are seeking an outstanding and highly motivated candidate for a multidisciplinary, industry-facing research project on metal-organic frameworks for low-carbon hydrogen production from seawater, wastewater, and other abundant feedstocks.

The work spans materials synthesis, characterization, testing, and prototype reactor development, with a clear pathway to applied deployment and commercialisation.

Main duties and responsibilities

- Scalable synthesis and shaping of metal-organic framework-based composites
- Structural and optical characterisation (PXRD, BET, UV-vis, SEM)
- Photocatalytic hydrogen evolution measurements and long-term durability testing
- Support in the design and testing of a closed-loop photocatalytic reactor
- Documentation, data analysis, contribution to publications and project reports

Profile

- PhD (or nearing completion of) in Chemistry, Chemical Engineering, Materials Science, or a related field
- Research experience in inorganic/materials synthesis, photocatalysis, or related areas
- Strong experimental skills and familiarity with key characterisation techniques (e.g. PXRD, GC, optical spectroscopy)
- Ability to work both independently and as part of a collborative research team
- Excellent written and oral communication skills in English
- Strong motivation to engage with interdisciplinary research

We offer

- A dynamic research environment with state-of-the-art facilities
- Collaboration with academic and industrial partners
- Opportunities for scientific dissemination and professional development.
- Competitive salary and excellent working conditions (more information can be found on our website https://www.epfl.ch/campus/services/human-resources/en/basic-starting-salary-of-doctoral-assistants-and-postdocs/)

Information

You are asked to supply:

- A brief cover letter (pdf, up to 2 pages).
- A CV, including publication list
- Contact details for three referees

For further information, please contact: fatmah.ebrahim@epfl.ch

Contract Start Date : ASAP
Activity Rate Min : 80
Activity Rate Max : 100
Contract Type: CDD
Reference: 1963