

POST-DOC POSITION

Institute: Laboratory of Photonics and Interfaces (LPI), Ecole Polytechnique Federale de Lausanne, Switzerland.

Laboratory Director: Prof. Michael Grätzel

Job Description: We are looking for a talented and motivated postdoc candidate to pursue research in designing photoelectrochemical devices for artificial photosynthesis. The project, funded by EU H2020, aims at developing Cu₂O-based photocathodes with co-catalysts for efficient conversion of CO₂ to ethylene and understanding the interface using the state-of-the-art techniques. The duration of the project is three years with the expecting starting date of May 1, 2020.

Requirements: The candidate should hold a Ph.D. degree in Chemistry, Materials Science, Chemical Engineering or other related disciplines. Demonstrated experience in photoelectrochemistry or electrocatalysis is a must. The candidate should enjoy teamwork and be willing to collaborate among the group members. English is the working language.

How to apply: Interested candidates should send a CV and three representative publications (reprint) in pdf format via email to dan.ren@epfl.ch before 31st January. Only shortlisted candidate will be contacted and scheduled for interview.

About LPI: The main focus of research at LPI is on photo-systems that generates electric power or fuels from sunlight. The great majority of devices examined in our laboratories employs mesoscopic structures composed of nano sized particles as a key substrate element. In fact, it was the Grätzel's group at LPI that pioneered the use of such mesoscopic architectures for the solar production of electricity and fuels.

The solar fuel sub-group in LPI is interested in developing efficient photoelectrodes and electrocatalysts for converting small molecules such as H₂O and CO₂ to value-added products including H₂, CO, C₂H₄ and ethanol. Apart from electrode/catalyst design and system engineering, employing the state-of-the-art operando Raman spectroscopy and operando synchrotron techniques to gain the mechanistic insights into the electrode/electrolyte interfaces is also our research interest.