PhD Thesis Opportunity in UCLouvain, Louvain-la-Neuve, Belgium

Starting date: December 1st 2023, at the latest.
Duration: 24 months, renewable for 24 additional months.
Status : PhD researcher.
Funding: doctoral fellowship (i.e. tax-free with social security contribution included)
Net amount per month: ~2370€

Context

The research project that the postdoctoral researcher candidate will pursue will take place within a "FNRS Wel-T" research program headed by Prof. Ludovic Troian-Gautier.

Research project

The current project seeks to develop novel dye-sensitized photoelectrosynthetic cells (DSPECs) bearing earth-abundant transition metal photosensitizers and catalysts to perform water oxidation and proton reduction, generating O_2 and H_2 as solar fuels. This project deals with the development of innovative series of photosensitizers and catalysts, their in-depth characterization using steady-state and time-resolved spectroscopic techniques (including variable temperature measurements) and their use in photoelectrodes, leading to DSPEC devices. Photoelectrodes and DSPEC devices will be evaluated for catalytic performance, stability and recyclability.

The Wel-T Starting Programme seeks for valorization of the results obtained throughout the research project. As such, the WEL Research Institute oversees the intellectual properties (IP) and valorization aspects. Hence, the candidate will benefit from the expertise of the steering committee and gain knowledge in IP and valorization processes.

Profile

The ideal candidate should have a successful master's degree (minimum required grade "Distinction" i.e. ≥14/20) in experimental Physics, Chemistry or Engineering at the time of application. A strong desire and motivation to tackle cutting-edge innovations for an impact on sustainable transition is strongly advised.

Application

The candidates are requested to send their application by e-mail to Ludovic.Troian@uclouvain.be as soon as possible. Applications will be evaluated until a suitable candidate is hired. The application should include an updated CV, a motivation letter and the name of two relevant persons (academics) that can be contacted for any further references. Candidates will be selected based on scientific excellence and achievements in research.

Additional information

Prof. Ludovic Troian-Gautier, Email: Ludovic.Troian@uclouvain.be
Website: https://uclouvain.be/en/research-institutes/imcn/most/prof-ludovic-troian-gautier.html
Google Scholar: https://scholar.google.be/citations?user=oUYVFI4AAAAJ&hl=en
Wel Research Institute: https://welri.org/cms/c_16995060/en/welri-mission