Master student (f/m/d): Anion exchange membranes on porous substrates for Vanadium Redox Flow Batteries

In order to reach CO_2-neutrality, our society has to reduce the consumption of fossil energy sources and scale up renewables instead. Due to their fluctuating availability, renewable energies must be accompanied by suitable energy storage solutions. Here vanadium redox flow batteries (VRFBs) can be part of the solution as stationary storage systems, as they are relatively cheap, easy to scale up, have long cycling stability and a high recyclability. However, the development of cheaper and more efficient membranes for VRFBs are of very high interest and a current focus of research.

For this purpose, we are offering a position for a master thesis to develop and produce efficient and durable anion exchange membranes in a new approach, do performance tests in situ in our test cells and investigate their characteristics ex situ with advanced imaging techniques like electron microscopy or Raman micro spectroscopy.

Your profile

- You are a student in chemistry, functional materials, microsystems engineering, material science or comparable; ideally with experience in Lab-Work
- You are highly motivated to work in the field of renewable energies, sustainable technologies and polymer chemistry
- You enjoy working in the lab
- You have a high level of team spirit and strong intercultural communication
- optional skills: experience in: electrochemistry or solid-state chemistry

The position

- We offer excellent working conditions in the young and interdisciplinary “electrochemical energy systems” group
- Modern infrastructure for material characterization
- The working language is English or German

The junior research group "Electrochemical Energy Systems" works on fuel cells, batteries and electrolyzers. The group is dedicated to integrate latest material developments into state-of-the-art electrochemical energy systems. https://www.ees-lab.org/

Please send your application including CV, transcript of records and short motivation letter via e-mail to
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