

PhD Student (f/m/d)

with background in Chemistry, Material Science, Engineering or similar

Electrodes for CO₂-Electrolysis

Context

For the transformation to a CO₂-neutral society, new technologies are needed to replace fossil feedstocks of the chemical industry with regenerative carbon sources. The key technology here is CO₂ electrolysis, in which renewable energy can be used to convert CO₂ into feedstock for valuable products using renewable energy, e.g. for synthetic fuels for aviation or synthetics. Membrane-based CO₂ electrolysis promises high efficiency and low costs and is therefore the focus of current research.

Your task

You will be working in a junior group together with other scientists on membrane-based CO₂ electrolysis. The aim is to increase the efficiency of the (mostly Ag) electrodes. For this purpose you will optimize the microstructure of the electrodes, perform simple catalyst syntheses, coat the membrane with electrodes and perform measurements on the electrolysis test bench.



Your profile

- Excellent communication skills and team spirit are absolutely necessary
- You are interested in the development of novel materials for a sustainable society
- You work target-oriented and structured
- You enjoy working in the lab

The position

- We offer excellent working conditions in the interdisciplinary “electrochemical energy systems” EES group with a nice atmosphere
- Cutting edge equipment for electrolysis and material development
- Typical duration of a PhD is planned for three years (80% TV-L 13)
- The working language is English or German
- Earliest possible start: Beginning of 2021
- Family friendly, flexible working hours

For more information feel free to contact us or visit www.imtek.de/laboratories/mems-applications/research/electrochemical-energy-systems

Please send your application via mail to

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