

Research assistant (w/m/d)

40 h/month

Background Chemistry, Material sciences
(or similar)

Catalyst development for proton-exchange membrane fuel cells

Context

The use of hydrogen fuel cells in vehicles and trucks is one possibility to reduce the CO₂-emissions emitted by the transport sector. Since the catalyst is one of the main cost drivers in the system, this area has become the focus of research in the past years.

The junior research group „Electrochemical Energy Systems“ at the Institute of Microsystems Engineering and the Hahn-Schickard-Institute in Freiburg investigates state-of-the-art hydrogen technologies and develops novel fuel cell concepts in cooperation with industry partners.



Your tasks

The core of a hydrogen fuel cell is the membrane electrode assembly (MEA), in which the catalyst is embedded in the electrodes. Your task would be to optimize the synthesis of platinum-based catalysts and to assist with their in-situ (MEA) and ex-situ (SEM, TEM, etc.) characterization. The focus of your tasks may be shifted to your own strengths and interests.

Your profile

- You are communicative and have a high team-spirit
- You are interested in novel materials for energy storage and renewable energies
- You can work in a concentrated, focused and structured way
- You are experienced with practical work and enjoy working in the lab

The position

- We offer excellent working conditions in an interdisciplinary research group with a pleasant collegial working atmosphere
- Modern infrastructure for material characterization
- Possibility of writing a bachelor's or master's thesis
- Working language is English or German
- Earliest starting date: November 2021

Please send your application to:

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For more information please reach out to us or visit:

<https://www.ees-lab.org/>

