



Start your PhD – Apply Now!

Fuel Cell Testing is your passion!

Join our Technical Electrocatalysis Team to develop advanced electrocatalysts for polymer electrolyte membrane fuel cells (PEMFCs) and be involved in high profile research at the forefront of science.

Visit our web page: <http://www.tu-braunschweig.de/itc/oezaslan>

What is the i-V polarization curve of catalyst-coated membranes under PEM fuel cell conditions? What is needed to improve the performance and long-term durability? How to evaluate, predict and design new porous catalyst layers for green hydrogen technology?

Your focus will be on the preparation of catalyst-coated membranes and their electrochemical testing in single cell PEMFC test benches under normal and dynamic operation conditions. Tailoring the structural and mass transport properties of porous catalyst layers enables the improvement of performance and lifetime for PEMFC. You will learn and improve your skills and knowledge in the design and diagnostics of advanced nano-materials for PEMFC applications.

What You Will Do

- Preparation of catalyst coated membranes with controlled structural and mass transport properties.
- Perform advanced microscopic and spectroscopic tools to characterize the porous electrode layers.
- Conduct electrochemical diagnostics on single cell PEMFC test stations.
- Analysis of the i-V polarization curves and degradation data.

What is Required

- Successfully completed Master's degree in Chemical Engineering, Chemistry, Material Sciences, Physics or related fields.

Desired Experiences

- Experience with PEMFC or water electrolysis test stations and/or
- Experience with coating technologies and/or
- Experience in structure/morphology characterization is an advantage and highly desirable.

The position is 67 % (E13 TV-L) funded over a duration of three years and can be filled as soon as possible. Apply now by e-mail to itec-recruiting@tu-braunschweig.de with a single file as pdf format (cover letter, curriculum vitae, copies of Bachelor and Master certificates and references) or by post no later than 30.09.2023.

Any Questions? Send an e-mail to Professor Dr. Mehtap Özaslan m.oezaslan@tu-braunschweig.de

About your new university

The academic community at Technische Universität (TU) Braunschweig (<http://www.tu-braunschweig.de>), Germany founded in 1745, comprises 16,809 students as well as 3,800 staff members and offers an outstanding teaching and research environment with excellent equipment. The TU Braunschweig is a member of the TU9, German Universities of Technology.

Salary is depending on task assignment and fulfillment of personal requirements according to German salary group TV-L E13 (salary agreement for public service employees). The TU Braunschweig seeks a reduction of the underrepresentation in the sense of the NGG in all areas and positions. Therefore, applications from women are highly welcome. Candidates with disabilities will be preferred if equally qualified. Please enclose proof. Personal data and documents relating to the application process will be stored electronically (<https://www.tu-braunschweig.de/datenschutzerklaerung>). Please note that application costs cannot be refunded. Please understand that applications can only be returned against a self-addressed, sufficiently stamped envelope.

Post: Technische Universität Braunschweig, Institut für Technische Chemie,
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