What are the critical properties for an ideal charge and mass transport processes within the porous catalyst-coated membrane? How can you scale the complex interface between electrode and electrolyte to steer the electrochemical performance?

Your focus will be on the development and diagnostics of catalyst-coated membranes for water electrolysis and fuel cell applications. Promising electrode material candidates will be tested in fully automatic test stations under realistic conditions. You will learn and improve your skills and knowledge in preparation, characterization and testing of porous electrode materials for technical applications.

What You Will Do

- Preparation, coating and characterization of catalyst-coated membranes.
- Apply electrochemical diagnostic tools for water electrolysis and/or fuel cells.
- Conduct in situ/ex situ characterization to describe and simulate the electrode – electrolyte interface including ionomers.
- Develop strategies for scalability and configuration of next generation of electrode/electrolyte interface.

What is Required

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

Desired Experiences

- Experience with preparation, coating and characterization of porous electrode materials and/or
- Experience in water electrolysis or fuel cell testing 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 04.09.2022.

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

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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.

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