PhD Student/Post-Doc (f/m/d)

Engineering, Physics, Computer Science, Material Science
(or similar disciplines)

Understanding Transport Processes in Hydrogen Fuel Cells

Your task

You will be working in a collaborative EU project on the development of next-generation hydrogen fuel cells. State-of-the-art fuel cells are mainly limited by transport processes in the electrodes. Therefore your aim is to improve the current understanding of those phenomena limiting the performance. For this purpose you conduct electrochemical experiments, but also imaging and modeling of the fuel cell 3d-microstructure using cutting edge 3D imaging methods, such as X-ray and electron tomography (software, models and computer clusters are available).

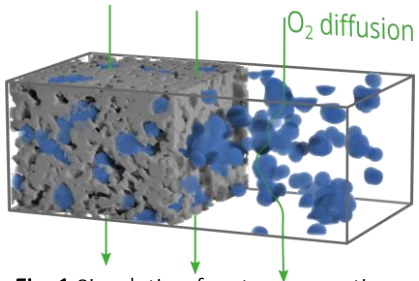

Fig. 1 Simulatin of water generation and O_2 transport in a fuel cell electrode.

Your profile

- You are interested in the development of novel materials for sustainable mobility
- You feel comfortable with basic modeling (Matlab, Python)
- You work target-oriented and structured
- Excellent communication skills and team spirit are absolutely necessary
- (optional) experience in: electrochemistry, fuel cells, modeling or tomographic imaging

The position

- We offer excellent working conditions in the interdisciplinary "electrochemical energy systems" EES group with a nice atmosphere
- You will work with advanced tomography techniques (X-ray, SEM, TEM)
- Typical duration of a PhD is planned for three years (80% TV-L 13)
- The working language is English or German
- Earliest possible start: June 2019

For more information **feel free to contact us**

or visit www.imtek.de/laboratories/mems-applications/research/electrochemical-energy-systems

Please send applications via e-mail to
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