



UNIVERSITÄT
BAYREUTH

At the Chair of Physical Chemistry III (Prof. Dr. Roland Marschall) there will be an open 50% position from January 1st 2022 on, as part of a DFG-funded project, for a limited period of 3 years for a

Research Associate (m/f/d)

The remuneration is based on salary group 13 (TV-L).

Within the scope of the project, mesoporous SiO₂ nanoparticles shall be synthesized using sol-gel approaches, and loaded with organic functionalities for high proton conduction. Subsequently, the nanoparticles from dispersions are to be assembled into fibre mats by means of electrospinning and processed into proton-conducting membranes for **fuel cells**. The investigation of the proton conductivity of the materials is a focus of the project. In addition, there is the comprehensive characterization of the materials and membranes by means of elemental analysis, electron microscopy, XRD, NMR, IR, Raman, TGA and sorption methods. The results should be documented, evaluated and then published. The opportunity to do a doctorate is given alongside work on the project.

Requirement profile: You have completed a scientific university degree (diploma or MSc) in chemistry or materials science. Very good previous knowledge of sol-gel chemistry, the synthesis of mesoporous materials, and material characterization of porous material is advantageous. Applicants should be interested in an academic exchange with other working groups. The project also takes place in cooperation with other research groups, so very good knowledge of English and excellent communication skills are also part of the requirement profile.

Handicapped applicants will be preferred if equally qualified. The University of Bayreuth aims to increase the proportion of women and therefore especially encourages women to apply.

Please send your inquiries and your electronic application with all important documents by Email to:

Prof. Dr. Roland Marschall, Tel: 0921 55-2760

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