



UNIVERSITÄT
BAYREUTH

At the Chair of Physical Chemistry III (Prof. Dr. Roland Marschall) there is an **open PhD position (f/m/d)** as part of a DFG-funded project within the newly established collaborative research centre (CRC1585, MultiTrans).

The position will be filled starting from 01.10.2023 (or later) and is limited up to 31.06.2027. Salary is based on 13 TV-L 67%.

Within the scope of the project, 2D hexagonally ordered, vertically aligned pore systems based on SiO_2 are used to systematically study the transport characteristics of ionic carriers in such highly anisotropic channels. Measurements of the proton conductivity therein will be fed back to the synthesis of the pore structures with the aim of investigating their influence on the transport of the respective ions. Polymer infiltration will lead to newly developed hybrid membranes for fuel cell applications. 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. Experience with sol-gel chemistry, the synthesis of mesoporous materials, and material characterization of porous materials 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.

The University of Bayreuth values the diversity of its employees and is explicitly committed to the goal of gender equality. Women are strongly encouraged to apply. Applicants with children are very welcome. The University of Bayreuth is a member of the Best Practice Network "Familie in der Hochschule e.V.", and has successfully participated in the HRK audit "Internationalization of the University". Persons with severe disabilities will be given preferential consideration if equally qualified.

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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