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**Chair of Inorganic Active Materials for
Electrochemical Energy Storage
Prof. Dr. Matteo Bianchini**

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At the chair of Inorganic Active Materials for Electrochemical Energy Storage (Prof. Dr. Matteo Bianchini) the following position is available, starting in **March 2024** or soon thereafter:

PhD Student
German salary scale TV-L E13, 67%,
funded for 3.5 years by the European Research Council for the 4SBATT project

Topic: Development of stable interfaces between solid state electrolytes and electrodes for Na solid state batteries

I am looking for an excellent PhD student to integrate our group at the Bavarian Center for Battery Technology (BayBatt, University of Bayreuth) and in particular the team working on the ERC-funded project 4SBATT. The project aims at developing sustainable Na-based solid state batteries as a post Li-ion technology addressing the main issues related to the current Li-ion technology, i.e. safety, energy-density, cost and sustainability. 4SBATT is funded by the European research council for the period 2022-2027 with 1.8 M€. In this context, I am looking for a student motivated to work at the intersection of the interdisciplinary fields of Na-ion batteries and solid-state batteries. Students with a background in inorganic/physical chemistry or materials science are hence particularly welcome to apply. Knowledge of batteries and electrochemistry is a plus.

The PhD deals with the synthesis and characterization (structural, electronic, electrochemical) of novel solid state electrolyte materials. These are inorganic compounds that should possess a high Na conductivity targeting values higher than 1 mS/cm. At the same time, a focus of the work will be for the materials to be compatible (chemically and electrochemically stable) when coupled with the cathodes at high potential, or with the low potential of the anode (close to metallic sodium). These challenges will be faced with a combination of inorganic synthesis, design criteria based on ab initio simulations (in cooperation with other group members and collaborators), as well as with advanced characterization tools including electrochemistry, EIS, in situ/operando XRD, SEM, XPS, Raman, and various advanced methods available at large-scale scientific facilities.

I am striving to build a diverse and inclusive research group, hence open-minded and free-thinking individuals are welcome. The University of Bayreuth values the diversity of its employees and is expressly 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 apply with your CV, transcript of academic records and cover letter specific to this position by February 25th 2024 via email or using the keyword "PHD 4SBATT" via the online application portal of the University of Bayreuth. The documents will be deleted in accordance with data protection requirements once the position has been filled.

For further information about the position, about our group or about the chair, please contact matteo.bianchini@uni-bayreuth.de or visit www.bianchini.uni-bayreuth.de.