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Bayerisches Zentrum für Batterietechnik

Universität Bayreuth, Universitätsstraße 30, 95447 Bayreuth

**Chair of Inorganic Active Materials for  
Electrochemical Energy Storage**

**Prof. Dr. Matteo Bianchini**

Phone: 0921 55-4380

Email: [matteo.bianchini@uni-bayreuth.de](mailto:matteo.bianchini@uni-bayreuth.de)

Web: [www.bianchini.uni-bayreuth.de](http://www.bianchini.uni-bayreuth.de)

At the chair of Inorganic Active Materials for Electrochemical Energy Storage (Prof. Dr. Matteo Bianchini) the following positions are available, starting in **January 2025** or soon thereafter:

### **Postdoctoral researcher**

**German salary scale TV-L E13,**

**Topic: 1) Synthesis and characterization of negative electrode materials for Na-ion batteries**

**2) Development of Na-based solid-state batteries**

I am looking for up to two excellent postdoctoral researchers to integrate our group at the Bavarian Center for Battery Technology (BayBatt, University of Bayreuth). The research work will deal with one of two topics, depending on the background and interests of the applicant:

**1- Synthesis and characterization of negative electrode materials for Na-ion batteries.** In this work the candidate will be placed side by side with a PhD student to synthesize, analyze and ultimately improve the performances of negative electrode composites for Na-ion batteries. These will be based on the interplay between hard carbons and different alloying materials. Various synthetic methods will be potentially employed and tested, covering mechanochemistry, spray-dry, sol-gel, etc. The potential for scale up will be an important criterion for the evaluation of the methods. For the characterization, we have access to a wide range of analytical tools including SEM, XRD, SAXS, Raman, tomography, and we have broad access to large scale instruments.

**2. Development of Na-based solid-state batteries.** This project, funded under the ERC StG 4SBATT (Sustainable Solid State Sodium Batteries), aims at capitalizing the various activities carried out in the group on the development of materials (positive and negative electrodes, as well as solid electrolytes) and developing solutions for their integration into energy dense devices.

PhD holders with a background in inorganic/physical chemistry, materials science or physics are particularly welcome to apply. A priori knowledge of battery materials (either negative electrodes for Li/Na-ion batteries, or solid state batteries) is a mandatory prerequisite. Some specific experience in the subfields/methods required for the above-mentioned projects is beneficial. The initial contract is for 1.5 years with the possibility for further extension. 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 online with your CV, BsC/MsC transcripts and cover letter specific to this position (also mentioning which of the above project is of interest) by 25<sup>th</sup> October 2024 using the key word "Postdoc Inorganic Active Materials" via email or 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](mailto:matteo.bianchini@uni-bayreuth.de) or visit [www.bianchini.uni-bayreuth.de](http://www.bianchini.uni-bayreuth.de).