



Conducting research for a changing society: This is what drives us at Forschungszentrum Jülich. As a member of the Helmholtz Association, we aim to tackle the grand societal challenges of our time and conduct research into the possibilities of a digitized society, a climate-friendly energy system, and a resource-efficient economy. Work together with around 7,400 employees in one of Europe's biggest research centres and help us to shape change!

Understanding the fundamental physical and chemical properties of energy materials is crucial for realizing a sustainable and environmentally friendly future. At the Jülich Centre for Neutron Science - Neutron Analytics for Energy Research (JCNS-3), we investigate the structure-property relations of energy materials by employing various scattering techniques. Examples of our research interests covered through this position are the nucleation of sodium islands and the formation of layers in anode-free sodium batteries with grazing incidence techniques, the perspectives of neutron diffraction and dedicated sample environments for energy materials at the High Brilliance neutron Source (HBS), or the exploitation of neutron pair distribution function (PDF) analysis and magnetic PDF for battery materials.

We are looking to recruit a

Postdoc – Neutron Diffraction and PDF for Energy Materials

Your Job:

- Synthesis and physicochemical characterization of energy materials or representative model systems
- Characterization of the structure of energy materials on the atomic, molecular and mesoscopic scale with a focus on X-ray and neutron diffraction as well as PDF analysis, supported by complementary experimental techniques or theoretical simulations
- Hands-on participation in experiments at large scale facilities
- Establishment of cooperation projects with energy-related institutes at Forschungszentrum Jülich
- Initiating grant applications
- Supervision of MSc and BSc students
- Presentation of research results at conferences and publication in peer-reviewed journals
- Representation of JCNS-3 in project meetings and on international conferences

The job will be advertised until the position has been successfully filled. You should therefore submit your application as soon as possible. We look forward to receiving your application via our

Online-Recruitment-System!

Questions about the vacancy?

Get in touch with us by using **our contact form**.

Please note that for technical reasons we cannot accept applications via email. www.fz-juelich.de

Your Profile:

Basic qualifications:

- Completed Master's degree with subsequent PhD in Physics, Chemistry, Material Science or related disciplines
- Profound knowledge of the structural characterization of matter primarily with neutron and X-ray scattering techniques, by powder diffraction, PDF analysis, GI-PDF, and complementary characterization techniques, e.g. IR
- Experience in material synthesis
- Motivated and creative approach to research with the ability to work independently and in collaborative teams

Preferred additional qualifications:

- Good written and oral communication skills in English
- Research background in energy materials (e.g. fuel cells, batteries, heterogeneous catalysts, interfaces)
- Proficiency in high-level programming languages, e.g. Python
- Previous supervision of graduate students, as well as laboratory or instrument responsibilities
- Appropriate publication record

Our Offer:

We work on the very latest issues that impact our society and are offering you the chance to actively help in shaping the change! We support you in your work with:

- The opportunity to be an active part in the establishing of our department
- Comprehensive training programs and individual opportunities for personal and professional development
- Access to a strong research network at the FZJ, and to the infrastructure of the Institute of Crystallography, RWTH Aachen University
- Comprehensive company health management
- Flexible working hours in a full-time position with the option of slightly reduced working hours (<https://go.fzj.de/near-full-time>)
- Within reason, the opportunity to work to some extent from home or any other location
- 30 days of annual leave and provision for days off between public holidays and weekends (e.g. between Christmas and New Year)
- Targeted services for international employees, e.g. through our International Advisory Service

In addition to exciting tasks and a collaborative working atmosphere at Jülich, we have a lot more to offer: <https://go.fzj.de/benefits>

You will be employed for a fixed term of 2 years but with the prospect of longer-term employment. Salary and social security benefits will conform to the provisions of the Collective Agreement for the Public Service (TVöD-Bund), pay group 13, depending on your current qualifications and the precise nature of the tasks assigned to you. All information about the Collective Agreement for the Public Service (TVöD-Bund) can be found on the BMI website: <https://go.fzj.de/bmi.tvloed> The monthly salaries in euros can be found on page 66 of the PDF download.

We welcome applications from people with diverse backgrounds, e.g. in terms of age, gender, disability, sexual orientation / identity, and social, ethnic and religious origin. A diverse and inclusive working environment with equal opportunities in which everyone can realize their potential is important to us.

Further information on diversity and equal opportunities: <https://go.fzj.de/equality>