Understanding energy materials is crucial to the sustainable design of our environment. To achieve this, we employ neutrons as a unique probe to investigate the structure and dynamics of lithium and sodium in battery materials, of oxygen in electrode materials, and of hydrogen both in fuel cells and in catalysis.

Furthermore, at the Jülich Centre for Neutron Science - Neutron Analytics for Energy Research (JCNS-3), we aim to go all the way from fundamental research to real-world applications.

We are looking to recruit a

**Postdoc / Group Leader – Neutron Scattering in Energy Materials**

**Your Job:**
- Direct responsibility for project content and implementation
- Establishment of cooperation projects with other institutes at Forschungszentrum Jülich (e.g. the Institute of Energy and Climate Research (IEK), the Institute for Sustainable Hydrogen Economy (INW), or institutes at RWTH Aachen University)
- Acquisition of third-party funded projects
- Characterization of the structure and dynamics of energy materials on the atomic and mesoscopic scale using neutron methods, complementary X-ray experiments and support of further techniques including computer simulations
- Synthesis and physicochemical characterization of energy materials or their model systems
- Development of sample environments for (in-situ / operando) neutron and X-ray experiments
- Supervision of PhD, MSc and BSc students
- Publication of research results in peer-reviewed journals

**Your Profile:**
Required qualifications and skills:
Scientific university degree (Master's) followed by a PhD in Physics, Chemistry, Material Science or related disciplines

Profound knowledge of the structural characterization of matter using scattering methods, preferably including neutron and X-ray radiation (e.g. powder diffraction, pair distribution function, quasi-elastic neutron scattering)

Extensive experience in large scale research, preferably at neutron sources

Experience with energy materials, e.g. fuel cells, heterogeneous catalysts, interfaces

A distinct advantage would be:

- Experience with high-level programming languages, e.g. Python
- Fluent written and spoken English, knowledge of German is desirable or the willingness to learn/improve it
- The ability to work independently, along with a highly motivated and creative approach to research
- Outstanding teamwork, cooperation and communication skills

Our Offer:
We work on highly pertinent, socially relevant topics and offers the opportunity to actively shape this change.

We support you in your work through:

- Access to a strong research network at Forschungszentrum, such as transmission electron microscopy at the Ernst-Ruska-Zentrum, the Julich Supercomputing Centre, the Neutron-SimLab or various physicochemical characterization methods and workshops.
- The opportunity to help shape a new subinstitute
- Access to the infrastructure of the Institute of Crystallography, RWTH Aachen University.
- Comprehensive training programs and individual opportunities for personal and professional development
- Comprehensive company health management
- Optimal conditions for balancing work and private life as well as a family-conscious company policy
- Flexible working hours in a full-time position (39 hours/week) with the option of slightly reduced working hours
- The opportunity to work flexibly (in terms of location), e.g. partly from home
- 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

We offer you an exciting and varied role in an international and interdisciplinary working environment. The position is initially for a fixed term of 2 years, with possible long-term prospects. Salary and social benefits will conform to the provisions of the Collective Agreement for the Public Service (TVöD-Bund), pay group 13 - 14, depending on the applicant's qualifications and the precise nature of the tasks assigned to them.

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.