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 7,500 employees in one of Europe's biggest research centres and help us to shape change!

Would you like to actively shape the structural change in the Rhenish mining area together with us? With us you have the chance to join the newly founded Institute for a Sustainable Hydrogen Economy (INW) with your ideas right from the start. Together with the H2 demonstration region, the INW forms the "Helmholtz Cluster for sustainable and Infrastructure-Compatible Hydrogen Economy" (HC-H2). Here, scientific foundations are laid in the field of innovative hydrogen technologies in order to advance research and development approaches with high sustainability potential and attractive economic prospects. At the institute division "Catalytic Interfaces for Chemical Hydrogen Storage" (INW-1, Prof. Dr. Hans-Georg Steinrück), we investigate mechanisms and processes in (electro)chemical energy storage systems. For the purposes, we develop and use advanced (X-ray-based) methods as well as modern data reduction und data evaluation methods, including machine learning and big data analytics.

We are looking to recruit a

Postdoc - Understanding catalyst structure and morphology during LOHC (de)ydrogenation using high energy X-ray methods

Your Job:

- Development, preparation, and characterization of state-of-the-art and novel catalysts for LOHC (de)hydrogenation
- Testing of novel LOHC methods
- Operando investigation of catalyst (surface) structures using high energy X-ray methods (scattering, spectroscopy, imaging)
- Design, optimization, and testing/benchmarking of reactors for operando studies
- Unravelling of relationships between catalyst structure and morphology with its performance (reactivity, selectivity, efficiency) and degradation under realistic

We look forward to receiving your application until 10.08.2025 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

deployment conditions
- Coordination and execution of synchrotron beam times
- Collaboration with other groups, in particular at INW and at the European Synchrotron Radiation Facility (ESRF) (Jakub Drnec) and the Christian-Albrechts-Universität zu Kiel (CAU) (Olaf Magnussen)
- Extended visits to synchrotron facilities (ESRF, beamline, ID31)
- Participation in international conferences (including presenting your research results)
- Preparation of scientific publications and project reports
- Supervision of PhD students and other students
- Support in establishing the institute

Your Profile:
- Master`s degree with PhD in physics, chemistry, materials science, chemical engineering, or a related discipline
- Extensive knowledge of X-ray methods
- Knowledge of synchrotron science
- Knowledge of catalysis
- Experience in energy storage
- Experience with programming languages (ideally Python)
- Fluent in written and spoken English
- Very independent and self-motivated way of working but also excellent teamwork skillsy
- High motivation to take on responsibility and develop own research ideas
- Willingness for regular business trips

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:
- Comprehensive training courses and individual opportunities for personal and professional further development
- Extensive company health management
- Ideal conditions for balancing work and private life, as well as a family-friendly corporate policy
- Flexible work (location) arrangements, e.g. remote work
- 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 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 EG 13, depending on the applicant’s qualifications and the precise nature of the tasks assigned to them. All information about the Collective Agreement for the Public Service (TVöD-Bund) can be found on the BMI website: https://go.fzj.de/bmi.tvoed The monthly salaries in euro can be found here: https://go.fzj.de/bmi.tvoed.entgelt

Place of employment: Brainergy Park Jülich

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