JÜLICH
Forschungszentrum

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. You will belong to the INW-4 institute division. INW-4 deals with the process synthesis and validation of overall systems and processes for the production and use of chemical hydrogen storage media such as ammonia, methanol, dimethyl ether or LOHC. This context gives rise to interdisciplinary challenges that lead to diverse scientific topics and tasks at INW-4.

We are offering a

PhD Position - Process and plant engineering for chemical hydrogen storage

Your Job:

Possible doctoral research topics:

- Designing processes and plants for the synthesis and use of chemical hydrogen storage
- Integration of chemical hydrogen storage systems into industrial processes and infrastructures
- Development of control concepts for highly dynamic and load-flexible plants
- Coupling of technical, economic and ecological perspectives for optimised process design
- Experimental support for process development from laboratory to pilot to demonstration scale
- Working with a wide range of simulation tools such as CFD, numerial optimisation

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

and artificial intelligence

Topic-independent activities:
- Analysis and presentation of results at scientific conferences and in journals
- Support in the preparation of third-party funding applications
- Participation in academic teaching and public relations work

Your Profile:
- Completed university degree (Master`s) in a subject with a strong focus on chemical engineering, e.g. process engineering, mechanical engineering, technical chemistry, relevant industrial engineering of similar
- Knowledge of thermal process engineering, reaction engineering, thermodynamics, process engineering, ideally in combination with plant modelling or control
- Experience with simulation of technical systems
- Interest in practical work with catalysts, laboratory setups and pilot-scale plants
- Ability to analyse complex interrelationships and work methodically
- Good written and spoken English
- Independent and team-oriented approach to work

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 offer ideal conditions for you to complete your doctoral degree:
- RESEARCH & INFRASTRUCTURE: You will have access to excellent scientific and technical facilities for your work
- NETWORKING & EXCHANGE: You will participate in (international) conferences and project meetings and actively build your scientific network
- SUPERVISION & SUPPORT: We will accompany your doctoral studies with continuous, expert guidance from your academic supervisor
- WORK-LIFE BALANCE: We offer flexible working hours to help you balance your professional and personal life. You also have the option of flexible working (in terms of location), which is generally possible after consultation and in line with upcoming tasks and (on-site) appointments
- VACATION: You will receive 30 days of vacation
- FAIR REMUNERATION: Depending on your qualifications and assigned responsibilities, you will be classified according to pay group 13 (75%) of the TVöD-Bund. Additionally, you will receive a special payment (“Christmas bonus”) amounting to 60% of one month’s salary. All information about the TVöD-Bund collective agreement can be found on the BMI website (pay scale table on page 66 of the PDF download): https://go.fzj.de/bmi.tvoed
- PERSPECTIVE: The position is initially for a fixed term of 3 years but with the prospect of longer-term employment
- SUPPORT FOR INTERNATIONAL EMPLOYEES: Our International Advisory Service makes it easier for international employees to get started

In addition to exciting tasks and a collegial working environment, we offer you much more: https://go.fzj.de/benefits

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