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 contribute to the energy transition in Germany through your work? Then the Helmholtz Institute Erlangen-Nürnberg for Renewable Energy (HI ERN) is the right place for you! The HI ERN forms the core of the close partnership between Forschungszentrum Jülich, Helmholtz-Zentrum Berlin for Materials and Energy, and Friedrich-Alexander-Universität Erlangen-Nürnberg at the Erlangen site. The collaboration relates to the areas of innovative materials and processes for photovoltaic energy systems and hydrogen as a storage and carrier medium for CO2-neutral energy. Support us researching and developing solutions for the climate-neutral, sustainable, and cost-effective utilization of renewable energies. For more information on HI ERN and its main research areas, please visit https://www.hi-ern.de

We are offering an interesting

PhD Position – Development of efficient electro-catalysts for the electrochemical conversion of liquid organic hydrogen carriers

Your Job:

The electrocatalytic interface engineering department, led by Prof. Dr.-Ing. Simon Thiele focuses on the manufacturing, analysis, and simulation of functional materials to find an optimal structure on small scales, ranging from the micrometer to the nanometer scale. The investigated materials and systems play a crucial role in sustainable technologies, such as water- and CO2-electrolyzers, as well as fuel cells. Your main responsibilities include:

- Synthesis and characterization of catalyst particles for electrochemical hydrogenation and dehydrogenation of liquid organic hydrogen carrier (LOHC) in electrochemical ion exchange membrane reactors.
- Manufacturing of catalyst layers using the novel synthesized catalysts by using

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

spray coating or doctor blade-coating technique for application in electrochemical ion exchange membrane reactors like fuel cells or electrolysers
- Physical, spectroscopic, and electrochemical characterization of membrane electrode assemblies prior to, during, and after cell operation
- Participation in project meetings
- Coordination with internal and external project partners
- Publication and presentation of research results in relevant journals or at international conferences

Your Profile:
- Excellent master's degree in Chemistry, Process Engineering, Chemical Engineering, or a similar discipline
- Strong interest in pursuing research on electrochemical systems
- Experience in one or more of the following areas is desirable: electrochemistry, electrocatalysis, electrochemical impedance spectroscopy, additive manufacturing (spray coating, doctor blade, slot-die coating)
- High motivation for pursuing a PhD within 3 years
- Excellent organizational skills
- Ability to show initiative and work independently
- Excellent cooperation and communication skills and ability to work as part of a team
- Fluent spoken and written English skills

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:
- TEAM & ENVIRONMENT: You will work in a motivated team with an international and interdisciplinary focus – at one of the largest research institutions in Europe
- RESEARCH & INFRASTRUCTURE: You will have access to excellent scientific and technical facilities for your work
- 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
- KNOWLEDGE & DEVELOPMENT: Your professional development is important to us – we support you specifically and individually e.g., through training and networking opportunities specifically for doctoral candidates (JuDocS): https://go.fzj.de/JuDocs
- 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
- FIXED-TERM: The position is limited to 3 years
- 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

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.

The following links provide further information on diversity and equal opportunities: https://go.fzj.de/equality and on specific support options: https://go.fzj.de/womens-job-journey

Place of employment: Erlangen