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 - Organic Electrosynthesis: monitoring of reaction transients with real-time techniques

Your Job:
The Electrocatalysis research department (https://www.hi-ern.de/hi-ern/Electrocatalysis) is looking for three PhD students, which research area is to investigate fundamental relationships between electrolyte-electrode interface structure and selectivity or efficiency of chemical outcome during the preparation of complex and value-added compounds directly from the readily available feedstock. Organic synthesis under electrochemical conditions is a powerful tool for future sustainable chemical manufacturing, for which robust catalytic materials are of high demand. A unique platform for online real-time analysis of electrochemical processes, developed in the Department of Electrocatalysis, will be applied by You to discover and develop novel Organic Electrosynthetic Protocols. Your tasks for selected electro-organic

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

transformation in detail:

- Design, validation and verification of online and offline analytical methods
- Design, synthesis, and characterization of catalytic materials
- Utilization of the obtained materials as electrocatalysts
- Analysis of the activity, selectivity, and stability of electrocatalysts
- Communication of the experimental data obtained
- Writing papers and presenting the results at conferences
- Representing the institute in project meetings and collaboration with partners within HI ERN and outside

Your Profile:

- Very good MSc degree in Chemistry, Organic chemistry, or a relevant discipline
- Hands-on experience in basic organic chemistry methods - synthesis and purification
- Desirable knowledge of Material science
- Excellent self-organizational skills, ability to show initiative and work independently
- Good cooperation and communication skills and ability to work as part of a team
- Excellent skills in spoken and written English
- Strong motivation for pursuing a Ph.D. degree within three years in a difficult cutting-edge but rewarding multidisciplinary project related to the investigation of electrode-electrolyte interfaces

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:

- A lively scientific environment within the institute and possibilities for cooperation with excellent partners at the FAU Erlangen-Nürnberg, the FZ Jülich, RWTH Aachen, and numerous partners in Germany and abroad
- An excellent international environment to perform sound, high-quality research at the international level and daily, hands-on experience in unique worldwide electrochemical characterization techniques
- Active participation in project meetings, as well as at national and international conferences to present the results and to develop further competences
- Interaction and cooperation with world-leading industrial partners and strong support and mentoring for setting up a future career in science and/or industry
- A comprehensive training program, including soft skills, along with an flexible working hours and various opportunities to reconcile work and private life
- Flexible working hours
- 30 days of annual leave
- Targeted services for international employees, e.g. through our International Advisory Service

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

The position is for a fixed term of 3 years. Pay in line with 75 % of pay group 13 of the Collective Agreement for the Public Service (TVöD-Bund) and additionally 60 % of a monthly salary as special payment („Christmas bonus“). The monthly salaries in euro can be found on the BMI website: https://go.fzj.de/bmi.tvoed.entgelt Further information on doctoral degrees at Forschungszentrum Jülich (including its various branch offices) is available at https://www.fz-juelich.de/en/careers/phd

Place of employment: Erlangen

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