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 7,400 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 is also the subinstitute IEK-11 of Forschungszentrum Jülich and 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 a

PhD Position - CO2 Electrolysis and Real-Time Mass Spectrometry Monitoring

Your Job:

Organic Electrosynthesis has recently emerged as a powerful application for future sustainable chemical processes, Its selectivity and efficiency however rely on developing dedicated catalytic materials. Due to the poor time resolution of offline analytical methods, conventional try-and-error experiments are generally non-informative concerning monitoring electrode process transients and thus inapplicable for high-throughput experimentations, essential for the complexity of reaction parameters to optimize. You will be part of a team to advance and utilize a unique platform for online real-time analysis employing Mass Spectrometry for the investigation of selective and efficient chemical CO2 utilization in electrochemical processes.

- Design, synthesis, and characterization of catalytic materials
- Utilization of the obtained materials as electrocatalysts

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

- Validation of online and offline analytical methods
- Analysis of the activity, selectivity, and stability of electrocatalysts
- Communication of the obtained experimental data
- Writing papers and presenting the results at conferences
- Representing the institute in project meetings
- Collaboration with partners within HI ERN and outside

Your Profile:

- Excellent Master degree in Chemistry, Organic chemistry, or a relevant discipline
- Experience in basic electrochemical methods
- Desirable knowledge of Material science
- Excellent organizational skills, ability to show initiative and work independently
- Excellent 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 ambitious and 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:

- Outstanding scientific and technical infrastructure
- Opportunity to participate in (international) conferences and project meetings
- Continuous scientific mentoring by your scientific advisor
- The development of our employees` potential is important to us - Individual further training measures are therefore a priority
- 30 days of vacation and an arrangement for bridging days off (e.g. between Christmas and New Year)
- Flexible work (location) arrangements, e.g. remote work
- Targeted services for international employees, e.g. through our International Advisory Service

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“).

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.