The "Helmholtz-Institute Erlangen-Nürnberg for Renewable Energies" (HI ERN) is as IEK-11 a part of Forschungszentrum Jülich. The institute works in close collaboration with the Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) and the Helmholtz-Zentrum Berlin (HZB). The collaboration between the partners is focussed on the research areas of innovative materials and processes for photovoltaic energy and solar fuels, as well as for hydrogen technologies, therefore covering novel approaches for conversion and storage of CO2 neutral energy.

The successful candidate will be part of the Electrochemical Energy Conversion (http://www.hi-ern.de/hi-ern/eec) group led by Dr. Serhiy Cherevko of Electrocatalysis research unit of the HI ERN. Our research interests are primarily in the field of electrochemical performance of materials used in electrochemical energy conversion, i.e. fuel cells and water electrolysis, and photoelectrochemistry. We focus on understanding the complex interplays between materials properties and electrochemical environment and their influences on materials electrochemical performance, in both fundamental and applied research. Together with other groups in the Electrocatalysis unit, we benefit from utilization of internationally unique material and process characterization methods which are based on the sophisticated coupling of novel electrochemical techniques with online analytical tools. Thereby the aim is to significantly contribute to the development of electrochemical energy conversion as a future key player for electromobility and the energy policy in general.

We are offering a

**2020-026 - PhD Position - Investigation of Catalyst Layers Degradation in PEM Water Electrolysis**

**Your Job:**

- In- and ex-situ characterization of anode and cathode catalyst layers
- Development of new characterization methods, especially for in-situ analysis

We look forward to receiving your application until 15.03.2020 via our Online-Recruitment-System!

Questions about the vacancy?
Contact us by mentioning the reference number 2020-026: career@fz-juelich.de
Please note that for technical reasons we cannot accept applications via email. www.fz-juelich.de
• Development of accelerated stress protocols to test anode and cathode PEM water electrolysis electrocatalysts
• Execution of experiments
• Collaboration with partners within HI ERN and outside
• Analysis and communication of the obtained experimental data
• Writing papers and presenting the results in conferences
• Representing of the institute in project meetings

Your Profile:
• Excellent university degree in Chemistry, Physics, Material science, Chemical engineering or a relevant discipline
• Previous experience in fundamental and/or applied electrochemistry and one (or more) of the following is desirable: fuel cells; water electrolysis; development of coupled electrochemical/non-electrochemical techniques.
• Strong interest in pursuing research in a multidisciplinary project related to the optimization of electrocatalysts for fuel cells and water electrolysis
• 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
• High motivation for pursuing a PhD within 3 years

Our Offer:
• A lively scientific environment within the institute and possibilities for cooperation with excellent partners at the Friedrich-Alexander-Universität Erlangen-Nürnberg, the Forschungszentrum Jülich, the Helmholtz-Zentrum Berlin 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 worldwide-unique electrochemical characterization techniques
• Active participation in project meetings, as well as on 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 the industry
• A comprehensive further training programme
• Flexible working hours and various opportunities to reconcile work and private life
• A part-time job with 29.25 hours per week
• Limited for 3 years with possible longer-term prospects
• Salary and social benefits in conformity with the provisions of the Collective Agreement for the Civil Service (TVöD)

Place of employment: Erlangen

Forschungszentrum Jülich promotes equal opportunities and diversity in its employment relations. We also welcome applications from disabled persons.