The **Jülich Aachen Research Alliance (JARA)** is an innovative cooperation model between RWTH Aachen University and Forschungszentrum Jülich.

RWTH Aachen University is one of Germany's pre-eminent Universities of Excellence, which entails the highest quality in teaching and world-class research. RWTH addresses bold, scientific questions; it also assumes a profound responsibility toward society and transfers its knowledge into meaningful applications. In a dynamic, creative, and international environment, RWTH develops solutions to tackle both current and future challenges.

Forschungszentrum Jülich is a member of the Helmholtz Association and conducts research in the fields of information, energy, and bioeconomy on a climate-friendly energy system, a resource-efficient economy, and a digitized society. To this end, Jülich combines competence in natural, engineering, and life sciences with world-class expertise in high-performance computing, and utilizes a unique scientific infrastructure. More than 7,000 employees at one of Europe's largest research centres work to bring about societal change: be part of it!

The Institute for a Sustainable Hydrogen Economy at Forschungszentrum Jülich is the core of the Helmholtz Cluster for a Sustainable and Infrastructure-Compatible Hydrogen Economy, which is currently being built (https://www.hch2.de/). This flagship project has been granted funding by the German Structural Development Act (https://www.bmwk.de/Redaktion/DE/Textsammlungen/Wirtschaft/strukturstaerkungsgesetz-kohleregionen.html) for coal-mining regions and will play a key role in transforming the Rhineland into a hydrogen region that will function as a paradigm for Europe.

Joint professorial appointment at Forschungszentrum Jülich and RWTH Aachen University:

Director at the Institute for a Sustainable Hydrogen Economy – Catalytic Interfaces for Chemical Hydrogen Storage (INW-1)

Forschungszentrum Jülich

in line with the Jülich model to be appointed as

Full Professor (W3) for Catalytic Interfaces for Chemical Hydrogen Storage

RWTH Aachen University, Faculty of Mathematics, Computer Science and Natural Sciences

We are seeking to hire an individual to head the newly founded INW-1 and take on responsibility for teaching and research in the field of "catalytic interfaces for chemical hydrogen storage". The professorship shall act as a bridge between RWTH Aachen University and Forschungszentrum Jülich. It will focus on the elementary processes on the catalyst surface during the hydrogenation and dehydrogenation of hydrogen storage molecules. The overall aim is to increase the selectivity and efficiency of the relevant molecular processes at the catalytic interface. To this end, mechanistic investigations – for example, using suitable spectroscopic methods under near-reaction conditions, ideally complemented by state-of-the-art methods of data analysis – are of particular interest.

Suitable candidates have an excellent scientific track record, demonstrated by high-impact publications and/or patents. Experience in heading publicly funded large-scale projects is also desired. The successful candidate will be capable of establishing, maintaining, and efficiently utilizing collaborative networks both internally and externally, starting from an independent scientific vision and methodological foundation. Excellent integration and communication skills in a scientifically competitive and politically sensitive environment are essential, particularly with regard to the impact of research on society. The research activities of INW-1 will be pursued in close collaboration with the other subinstitutes at INW as well as the relevant subinstitutes at the Institute of Energy and Climate Research (IEK) at Forschungszentrum Jülich. Close collaboration in research and teaching is also expected with the Faculty of Mathematics, Computer Science and Natural Sciences at RWTH Aachen University, in line with the "Jülich model". The professorship will be integrated by an associate membership into the Department of Chemistry at RWTH Aachen University. Active involvement in the profile areas of RWTH Aachen University (in particular, Molecular Science and Engineering [MSE]) but also within the Cluster of Excellence "The Fuel Science Center" and the "Hydrogen Clusters4Future" will be encouraged.

Applications should be in English and will be accepted until 8 December 2022. They should be addressed to Univ.-Prof. Dr. Carsten Honerkamp, Dean of the Faculty of Mathematics, Computer Science and Natural Sciences at RWTH Aachen University, and to Prof. Dr.-Ing. Wolfgang Marquardt, Chair of the Board of Directors of Forschungszentrum Jülich, and sent preferably by email to inw-1-catalytic-interfaces@jara.org.

Joint professorial appointment at Forschungszentrum Jülich and RWTH Aachen University:

Director at the Institute for a Sustainable Hydrogen Economy – Reaction Engineering for Chemical Hydrogen Storage (INW-3)

Forschungszentrum Jülich

in line with the Jülich model to be appointed as

Full Professor (W3) for Reaction Engineering for Chemical Hydrogen Storage

RWTH Aachen University – Faculty of Mechanical Engineering

We are seeking to hire an individual to head INW-3, which is currently being founded, and take on responsibility for teaching and research in the field of "reaction engineering for chemical hydrogen storage". The professorship shall act as a bridge between RWTH Aachen University and Forschungszentrum Jülich. It will focus primarily on the development, optimization, and experimental demonstration of hydrogenation and dehydrogenation reactors for chemical hydrogen storage within the context of various hydrogen utilization scenarios. The overarching goal is to increase productivity using an integrated approach (catalyst arrangement, heat management, flow field pattern, operation mode, etc.). The focus will be on experimental methods of process engineering, supplemented by model-based analyses and design. Potential priorities include the development of reactor inserts, dosing concepts, and methods for reactor-integrated hydrogen separation.

Suitable candidates have an excellent scientific track record, demonstrated by high-impact publications and/or patents. Experience in heading publicly funded large-scale projects is also desired. The successful candidate will be capable of establishing, maintaining, and efficiently utilizing collaborative networks both internally and externally, starting from an independent scientific and methodological point of origin. Excellent integration and communication skills in a scientific and political environment are essential, particularly with regard to the impact of research on society. The research activities of INW-3 will be pursued in close collaboration with the other subinstitutes at INW, the relevant subinstitutes at the Institute of Energy and Climate Research (IEK) and the Central Institute of Engineering, Electronics and Analytics (ZEA) at Forschungszentrum Jülich, with a focus on the fields of (energy) process systems engineering, process engineering, electrochemical process engineering, fuel cells, and catalysis. A collaborative approach to research and teaching is also expected with the Faculty of Mechanical Engineering at RWTH Aachen University in line with the "Jülich model". The professorship will be integrated by an associate membership into the collegial association Aachen Chemical Engineering (AVT). Scientific contributions and collaborative research activities within the profile areas of RWTH Aachen University (in particular, Energy, Chemical & Process Engineering [ECPE] and Molecular Science & Engineering [MSE]) but also within the Cluster of Excellence "The Fuel Science Center" and the "Hydrogen Clusters4Future" will be encouraged.

Applications should be in English and will be accepted until 8 December 2022. They should be addressed to Univ.-Prof. Dr. Wolfgang Schröder, Dean of the Faculty of Mechanical Engineering at RWTH Aachen University, and to Prof. Dr.-Ing. Wolfgang Marquardt, Chair of the Board of Directors of Forschungszentrum Jülich, and sent preferably by email to inw-3-reaction-process-engineering@jara.org.

The requirements for all positions include a university degree followed by a doctoral degree and additional substantial research experience, as demonstrated by a habilitation or equivalent accomplishments gained as a university researcher or junior professor or, e.g., in a research position at a university, a research institution, or in industry. Furthermore, strong teaching skills are an essential requirement. Knowledge of German will be considered an asset but is not deemed an essential prerequisite. The application should include the usual supporting documents (CV, certificates, list of publications, teaching experience, brief summary of previous research activities including details of third-party funding, and a research concept for the position applied for).

Please note that communication via unencrypted email poses a threat to confidentiality as it is potentially vulnerable to unauthorized access by third parties. For information on the collection of personal data pursuant to Articles 13 and 14 of the General Data Protection Regulation (GDPR), please visit https://www.rwth-aachen.de/gdpr-information.

We welcome applications from all suitably qualified candidates regardless of gender. RWTH Aachen University and Forschungszentrum Jülich are certified family-friendly employers and have dual career programmes in place. We are committed to encouraging women in their careers and therefore particularly welcome applications from women. Female applicants are given preference if they are equally suitable, competent, and professionally qualified, unless a fellow candidate is favoured for a specific reason. Applications from suitable candidates with disabilities are explicitly encouraged. Upon acceptance of the position, support will be offered in the form of comprehensive professional development.

For further information on joint applications, visit https://go.fzj.de/berufungen.