Batteries move our world and are ubiquitous – they start the engine of our cars, they move the hands of your clocks and allow us to take pictures with our cell phones. The Helmholtz Institute Münster Ionics in Energy Storage as part of the institute of Energy and Climate research focusses on electrolyte research as a key area for future battery concepts. Major research activities comprise the design, synthesis, characterization and processing of more sophisticated battery electrolytes and chemistries. Our subinstitute is located within the branch office in Münster of Forschungszentrum Jülich in close cooperation with the University of Münster and RWTH Aachen University - in this way fostering joint research efforts while promoting this important forward-looking field of electrochemical energy storage.

We are offering a

PhD position - Polymer electrolytes and organic radical batteries

Your Job:
Electrochemical storage devices for mobile and stationary applications will play an increasingly important role in the future. The main focus of research and development comprises the increase of power and energy density as well as the service life and environmental friendliness of batteries. One promising approach of current materials research is the development of polymer-based organic batteries with radical redox-active materials.

Your tasks in detail include:
• Synthesis of polymeric multilayer electrolytes and organic active materials
• Optimization of synthesis strategies and cell design
• Characterization of the samples including structural and electrochemical properties
• Participation in the DFG priority program SPP2248 "Polymer-based batteries"

Your Profile:
• University degree (Master) in chemistry, completed with excellent results
• Profound experience with synthesis and characterization of organic and polymeric
materials

• Basic knowledge of electrochemistry
• Good written and oral communication skills in German and English
• Distinctive willingness for close cooperation with internal and external project partners
• Ability to work in an international and interdisciplinary team

Our Offer:
• An excellent environment to perform high-quality research at an international Level
• Possibility to participate in project meetings, as well as national and international conferences to present results and to develop further competences
• A lively scientific environment within Hi MS and possibilities for cooperation with our partners at RWTH Aachen, Forschungszentrum Jülich, and WWU Münster and within DFG SPP2248
• Usually a contract for the duration of 3 years
• Doctoral degree conferred by WWU Münster (when requirements are met)
• Pay in line with 67 % of pay group 13 of the Collective Agreement for the Public Service (TVöD-Bund).

Place of employment: Münster

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