FRITZ-HABER-INSTITUT
MAX-PLANCK-GESELLSCHAFT

Department of Interface Science · Director: Prof. Dr. Beatriz Roldán Cuenya
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The Department of Interface Science (https://isc.fhi-berlin.mpg.de) headed by Prof. Beatriz Roldan Cuenya at the Fritz-Haber-Institute carries out cutting-edge research on advanced functional materials with applications in heterogeneous catalysis, energy conversion and electrochemistry. By combining unique synthesis methods, state-of-the art tools for experimental characterization and advanced approaches to data analysis, atomistic details of thermal catalysis and electrochemical reactions at gas/solid and liquid/solid interfaces are revealed. In particular, structure-reactivity correlations on nanostructured materials can be established, paving the way for the rational design of novel catalytic materials.
The Department of Interface Science at the Fritz-Haber-Institut offers

1 Postdoctoral and 1 PhD position

PROJECT:
Probing the structure of advanced materials for thermal and electrocatalysis using synchrotron radiation

Synchrotron radiation facilities are powerful X-ray sources that can host numerous experimental techniques, such as X-ray spectroscopies, scattering and imaging. Unique features of synchrotron radiation, including high intensity and broad energy spectrum, make these sources ideally suited for in situ and operando investigations of advanced materials. A central aspect of this project is the application and development of complimentary synchrotron radiation techniques (X-ray absorption spectroscopy, high-energy X-ray diffraction coupled with pair distribution function analysis, small-angle X-ray scattering) that provide information about the transformations of the catalyst structure and composition on different length scales under catalytically relevant conditions.

The PostDoc position is initially limited to two years with the option for an extension. The PhD position is typically for three years.

REQUIREMENTS
For PostDoc applicant:

PhD degree in physics, chemistry, material science or related field. Experience with synchrotron-based techniques (X-ray absorption spectroscopy, high-energy X-ray diffraction coupled with pair distribution function analysis or small-angle X-ray scattering) is required. Good language and communication skills in English are needed. Basic programming skills and experience and interest in data analysis and data science would be profitable.

For PhD applicant:

Master degree in physics, chemistry, material science or related field. Previous experience with synchrotron-based techniques (X-ray absorption spectroscopy, high-energy X-ray

diffraction coupled with pair distribution function analysis or small-angle X-ray scattering) would be beneficial but not mandatory. Good language and communication skills in English are needed. Basic programming skills and experience and/or interest in data analysis and data science would be profitable.

YOUR APPLICATION

Interested applicants should send a cover letter, list of publications, a curriculum vitae and the names and contact information for three references by email as PDF files to the Group Leader Dr. Janis Timoshenko (janis@fhi-berlin.mpg.de). Applications will be accepted from immediately until the position is filled. We thank all applicants for their interest; however, only those individuals selected for an interview will be contacted.

Send your application **as soon as possible** by email to janis@fhi-berlin.mpg.de but latest **by November 01, 2019**.

MAX PLANCK SOCIETY

The Max Planck Society aims to increase the participation of women in research. Therefore, applications by women are particularly welcome. Handicapped individuals are especially encouraged to apply. These applicants will be given priority in the case of same qualifications.

We handle applications electronically, observing the German data privacy laws. By sending the application, the applicant declares his or her consent.

BERLIN

The Fritz Haber Institute (FHI) is located in the quiet south-west of Gemany's capital Berlin, which is a large, tolerant and cosmopolitan city. Berlin offers a wide variety of culture, art, music, and outdoor opportunities.