



The Fritz-Haber-Institut (Anorganische Chemie) offers

Postdoctoral
positions.

The Fritz-Haber-Institut (Anorganische Chemie) offers Postdoctoral positions for **electron microscopic and X-ray microscopic investigations of functional materials**.

Your tasks: The successful candidates will have the opportunity to gather experiences in different microscopic techniques for heterogeneous catalysis. In heterogeneous catalysis, the catalytic conversion happens at the surface of a solid and is influenced by the presence of defects. The local geometric and electronic contributions of these local alterations from the ideal structure are difficult to describe by common surface and bulk averaging methods.

In addition, the electronic and geometric structure of solid catalysts in their active states dynamically responds to the applied chemical potential of the gaseous environment. To conclude on relevant morphological and electronic changes structural dynamics have to be tracked *in-situ*.

The successful candidates will, therefore, work on unraveling surface termination, and defect structures at highest resolution and will use different quasi *in-situ* and *in-situ* microscopic techniques to track catalysis induced changes. The applied analytical portfolio ranges from bright field TEM, STEM with different detectors, over EELS/EDX to X-ray microscopy.

The outcome of the projects will directly contribute to the establishment of new structure-activity correlations of heterogeneous catalysts, which will provide new insights into heterogeneous catalysis.

Your profile: We are looking for highly motivated scientists with conceptual skills, who can work independently, and are able to adopt new methods quickly. Required qualifications include a PhD in chemistry, materials science, or physics. A strong proven research background in electron microscopy or X-ray microscopy is mandatory. In addition, knowledge in heterogeneous catalysis is advantageous.

We offer: The postdoctoral positions will be for 2 years with the option on extension and the opportunity for further qualification. The successful candidates will work with state-of-the-art aberration corrected electron microscopes, X-ray microscopes and *in-situ* equipment.

The Department of Inorganic Chemistry provides a stimulating, international research environment for attainment of advanced academic qualification. Berlin is a large, cosmopolitan and tolerant city that offers you a wide variety of culture, art, music, and outdoor opportunities.

Your application: Please mail your application documents including curriculum vitae, list of publications, a description of research interest/plan, and the names and addresses of two referees at your earliest convenience to

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using the **code word “Microscopy” in the subject heading**

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.