Title
1 Postdoctoral Position
PROJECT: Correlated Microscopy and Spectroscopy of Catalysts under Reaction Conditions

Institution
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.

Position
The PostDoc position is initially limited to one year and renewable up to three years.

Responsibilities
The successful applicant will work together with scientists in the Department of Interface Science and perform in situ electron microscopy experiments to study the behavior of nanoscale catalysts during electro catalytic or thermo-catalytic reactions. The applicant will also collaborate with the electrochemistry and operando hard x-ray spectroscopy groups to explore correlated microscopy and spectroscopy approaches to further investigate the chemical changes that take place in the catalysts. These studies aim to understand how the morphology of heterogeneous catalysts change under working conditions and how these correlate with changes in the catalysts’ properties.

Requirements
Applicants should have a Ph.D. degree in the physical sciences. Expertise with transmission electron microscopy (TEM) is required. Outstanding candidates with a strong background in scanning transmission X-ray microscopy will also be considered. Candidates with experience in one of the following areas are preferred.
1. Liquid cell TEM, especially with electrochemistry
2. Environmental electron microscopy
3. Electron tomography
4. Ptycography
Application procedure (deadline etc.)

Go to www.fhi.mpg.de/open-positions and submit your application via our online application portal as soon as possible but latest by June 30, 2020 including the following documents:
· curriculum vitae
· a list of publications
· names and email addresses of three references

Contact

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