GEORG-AUGUST-UNIVERSITÄT
GÖTTINGEN

The Collaborative Research Center CRC 1073 “Atomic scale control of energy conversion” at the Georg-August Universität Göttingen and associated institutions invite applications for a

PhD Position

(Salary group 13 TV-L, at least 50 %, i.e.19.9 h/week) in the project

Controlling electron-driven chemistry by intercalation

The position is available starting October 1st 2017 and is limited to three years.

The CRC consists of a team of more than 50 doctoral students, post-docs, and professors from different scientific disciplines working together to investigate the fundamental mechanisms of energy conversion in complex materials at the atomic scale. Through a series of cutting edge research projects, we aim to understand and control the elementary steps of energy conversion in materials with tunable excitations and interactions. For further information, please refer to our website: www.sfb1073.uni-goettingen.de.

Job profile:

The focus of this project is to apply in-situ transmission electron microscopy (TEM) to investigate multi-electron transfer reactions at manganite spinel surfaces. Studies on electrochemical lithiation and delithiation of the spinel will be performed in vacuum and in a liquid cell in the TEM. Subsequently, electrocatalytic oxygen evolution at the spinel surface will be investigated using the liquid cell. Methods for optimum use of a liquid cell holder in the TEM will be developed and applied. High resolution characterization methods will be performed both in-situ and post-mortem, including STEM-EELS, scanning nanodiffraction, and EDS. There will be close collaboration with a doctoral student performing electrochemical investigations of the same reactions, both under standard conditions and during in-situ x-ray spectroscopy measurements.

We are looking for highly motivated PhD candidates with a strong university degree in physics, chemistry, materials sciences, or related field. The successful candidate is expected to participate in the structured doctoral program of the CRC and to closely interact with the other PhD students in the program. They are expected to present their work at national and international conferences and to publish in peer-reviewed international journals. Further, a very good knowledge in writing and speaking English is required, and good German language skills are desirable. Prior experience with electron microscopy methods and sample preparation, as well as with basic electrochemistry, is highly desired.

The University of Göttingen is an equal opportunity employer and places particular emphasis on fostering career opportunities for women. Qualified women are therefore strongly encouraged to apply in fields in which they are underrepresented. The university has committed itself to being a family-friendly institution and supports their employees in balancing work and family life. The University aims to employ a greater number of severely disabled persons. Applications from severely disabled persons with equivalent qualifications will be given preference.

Please send your application in electronic form to:

Georg-August-Universität Göttingen
SFB 1073 - Office
Friedrich-Hund-Platz 1, 37077 Göttingen
eMail: SFB1073@ump.gwdg.de

by September 30, 2017 and explicitly mention the project “C05”. For further information about the scientific aspects of this position, please contact Prof. C.A. Volkert (volkert@ump.gwdg.de).

FAMILIE IN DER HOCHSCHULE
Mitglied des Best Practice-Clubs