

Research assistant position for electron microscopy at RWTH Aachen University

Our profile

The Joint Laboratory for Electron Microscopy (GFE) is a central institution of RWTH Aachen University and is active in the field of microstructure and surface analysis. In addition, it works intensively with research institutions, partners from large-scale industry and medium-sized companies.

Project description: In cooperation with the project partner IEHK (see also V000002920), material concepts of plasma-nitrided steels are being developed with the aim of reducing costs, energy and CO₂ emissions, on the one hand to achieve efficient process control and, on the other hand, to set up a very hard wear-resistant microstructure in the surface region of the material. In order to understand the metallurgical and mechanical effects, microstructural investigations are carried out using electron microscopy. In particular, the diffusion and precipitation behaviour of the element nitrogen plays a central role in the micro- to nano- analysis.

Your profile

University degree (Master or comparable) in physics, chemistry, materials science, materials engineering or related fields.

You enjoy working independently, are a team player, have organisational skills and are passionate about materials science and microanalytical issues.

Experience in the field of electron microscopy is an advantage.

Good knowledge of scientific programming (e.g. Python).

Very good English and good German language skills (spoken and written).

Your tasks

Your tasks will include independent, goal-oriented project supervision with a high degree of personal responsibility. Within the scope of the projects, you will develop concepts to optimise analytical methods for the characterisation of plasma-nitrided steels. The focus of the work will be on the field emitter microprobe, which is sensitive to nitrogen analysis, among other things.

For the 3D analysis of the microstructure, a plasma FIB system will be used, which has just been installed.

Furthermore, you will have the opportunity to set your own research priorities. You can present your research results at national and international conferences and meetings. In addition, you will assist in the development and acquisition of new research and industrial projects, supervise industrial contracts and participate in teaching and internships.

Our offer

You will be employed as a staff member.

The position is to be filled as soon as possible and is initially limited to two years.

Further employment for a total of at least 4 years with the aim of obtaining a doctorate is envisaged.

The fixed-term employment is within the framework of the fixed-term possibilities of the "Wissenschaftszeitvertragsgesetz".

The position is part-time.

The regular weekly working time is 30 hours.

There is the possibility of a doctorate.

The position is graded according to the TV-L.

The position is rated EG 13 TV-L.

About us

The RWTH is certified as a family-friendly university.

The RWTH offers a variety of health, counselling and prevention services (e.g. university sports) as part of a university health management program. Employees covered by collective bargaining agreements and civil servants have access to a wide range of continuing education programs and the opportunity to purchase a job ticket.

The job advertisement is aimed at all genders.

At RWTH Aachen University, we particularly want to promote the careers of women and therefore welcome female applicants.

Women will be given preferential consideration in cases of equal suitability, ability and professional performance, provided that they are underrepresented in the organisational unit and provided that reasons relating to the person of a competitor do not prevail.

Applications from suitable severely disabled persons are expressly welcome.

In the interest of equal treatment, please refrain from submitting an application photo.

Information on the collection of personal data in accordance with Articles 13 and 14 of the General Data Protection Regulation (DS-GVO) can be found at <https://www.rwth-aachen.de/dsgvo-information-bewerbung>.

Please send your application by 31/05/2022 to

RWTH Aachen
Gemeinschaftslabor für Elektronenmikroskopie
Frau Dr. Richter (Tel.: +49 (0) 241 80-24348, richter@gfe.rwth-aachen.de)