

**Jobnumber: 34254**

**Institutskennziffer: 542110**



## **Instrument Responsible Diffraction with polarised neutrons - Scientific Staff (f/m/d) Outstation at the MLZ in Garching**

**Institute of Crystallography**

### **Our Profile**

The Institute of Crystallography of RWTH Aachen operates jointly with the Jülich Centre for Neutron Science (JCNS) the single crystal diffractometer POLI at the neutron research reactor (FRM II) at the Heinz Maier-Leibniz-Centre (MLZ) in Garching close to Munich. This innovative and modern instrument uses hot, polarized neutrons and offers outstanding, worldwide unique opportunities to study e.g. complex magnetic systems. Future developments span amongst others the installation of a 2D detector and a novel in-situ polarizer. We are looking for an instrument scientist in full time at the earliest possible date for the scientific support and methodological advancement of POLI at FRM II.

### **Your Profile**

Applicants must have a doctorate/Ph.D. or equivalent.

- Ph.D. in Physics, Chemistry, Materials Science or related fields.
- Experience in neutron scattering and/or instrumentation is required, ideally with polarized neutrons.
- Knowledge about scattering/crystallography is mandatory; understanding of magnetism is welcome.
- We expect interest in the methodological advancement of the diffractometer, e.g. for the long-term application in polarized powder diffraction (total scattering). Programming skills (e.g. python, C++) are advantageous.
- Ideally, you bring along your own research topics, which match the instrumental possibilities of POLI, possibly taking into account future developments of the instrument.
- In light of the international working environment, very good English skills are indispensable. German skills or the willingness to acquire them over the next years are an add-on.
- You should be self-motivated and possess an independent and target-oriented way of working. You should have good interpersonal communication skills and demonstrate capacity for teamwork, in order to cooperate with (PhD) students, scientists and technical staff.
- User operations at the facility also take place outside normal office hours and occasionally also on weekends. For this reason, you must be willing to be present outside of normal office hours.
- The occupation takes place at a nuclear facility and therefore requires not only a positive safety check on the applicant but also a special degree of responsibility and the willingness to work closely with radiation protection.

### **Ihre Aufgaben:**

- As instrument scientist, you are expected to provide qualified scientific and methodological advice and support for users of the instrument. You are responsible for the preparation and execution of individual user experiments including the supply of necessary specific sample environments, as well as for the support of data analysis. You instruct users on the instrument and you are involved in the compliance with occupational safety as well as legal requirements and regulations (nuclear facility, radiation protection).
- You are responsible for the further methodical and scientific development of the diffractometer in collaboration with expert teams, e.g. at JCNS. This involves amongst others the implementation of an ultralow temperature (< 1 K) option, an area detector and a novel polarizer.
- In the area of planning and organizational tasks, you are responsible for the proper use of the financial resources for the instrument.
- You will have the opportunity to conduct your own research with neutrons and to develop your research profile further.
- You will publish scientific results in peer-reviewed journals. You contribute to the presentation and external representation of the instrument operated by RWTH/JCNS at scientific conferences.

- To a smaller extent, you will also have teaching tasks, e.g. in the conduction of workshops or the guidance of students and doctoral candidates.

### **What We Offer**

The position is limited to 3 years and to be filled at the earliest possible date.

This is a full-time position.

The salary corresponds to pay grade EG 14 TV-L of the German public service salary scale (TV-L).

RWTH is a certified family-friendly University. We support our employees in maintaining a good work-life balance with a wide range of health, advising, and prevention services, for example university sports. We also offer a comprehensive continuing education scheme and a public transportation ticket available at a significantly reduced price.

RWTH is an equal opportunities employer. We therefore welcome and encourage applications from all suitably qualified candidates, particularly from groups that are underrepresented at the University. All qualified applicants will receive consideration for employment and will not be discriminated against on the basis of national or ethnic origin, sex, sexual orientation, gender identity, religion, disability or age. RWTH is strongly committed to encouraging women in their careers. Female applicants are given preference if they are equally suitable, competent, and professionally qualified, unless a fellow candidate is favored for a specific reason.

As RWTH is committed to equality of opportunity, we ask you not to include a photo in your application.

You can find information on the personal data we collect from applicants in accordance with Articles 13 and 14 of the European Union's General Data Protection Regulation (GDPR) at <http://www.rwth-aachen.de/dsgvo-information-bewerbung>

### **Contact**

If you have any questions, please contact

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For further information, please visit our website at: <http://www.ifk.rwth-aachen.de> (on our institute), <https://mlz-garching.de/poli> (on the instrument POLI)

Please send your application by August 15, 2021 to

**Prof. Dr. Mirijam Zobel**

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Applicants are invited to submit their applications via email to [zobel@ifk.rwth-aachen.de](mailto:zobel@ifk.rwth-aachen.de). For data protection reasons, however, we recommend sending applications via mail.