Nuclear Fuel Development at the Research Neutron Source Heinz Maier-Leibnitz (FRM II)

With the Heinz Maier-Leibnitz Research Neutron Source (FRM II) in Garching near Munich, the Technical University of Munich (TUM) operates one of the most powerful and modern neutron sources. TUM's leading scientific position in the field of research with neutrons is underpinned by its cooperation with the Jülich Research Centre and the Helmholtz-Zentrum Hereon within the framework of the Heinz Maier-Leibnitz Zentrum (MLZ). **In this stimulating environment, we offer interesting opportunities for**

Working Student / BSc Thesis (m/f/d) – Characterization of Nuclear Fuel Foils

Metallic foils are important components in the development and qualification of advanced fuel systems. Within an industrial research project, newly manufactured foils will be examined to assess their quality, homogeneity and microstructure. The work includes metallographic sample preparation as well as characterization using optical and scanning electron microscopy. The results will contribute to the evaluation of the manufacturing quality and further development of the materials.The project can be carried out as a student assistant position or Bachelor's thesis. Planned start: August 2026.

Your tasks:

Investigate the quality and microstructure of metallic foils from an international research project; Prepare samples by cutting, mounting, grinding and polishing; Characterize the samples using optical and scanning electron microscopy; Identify defects and relevant microstructural features; Analyse the results and contribute to reports and scientific publications.

Your skills:

Enrolled in materials science, physics, engineering, chemistry or a related field; Interest in microscopy and experimental laboratory work; Careful, reliable and motivated working style.

More job offers

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