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The Technical University of Munich (TUM) operates the research neutron source Heinz Maier-Leibnitz (FRM II) in Garching near Munich, which is one of the most powerful and modern neutron sources. The leading position in science in the field of research with neutrons is achieved by a cooperation between the TUM and the Forschungszentrum Jülich and Helmholtz-Zentrum Hereon under the name Heinz Maier-Leibnitz Zentrum (MLZ). We are looking for:

Internship - Working Student (m/f/d) Physical Engineering - Electronic Engineering

The FRM II is presently testing and will subsequently install a source for ultra-cold neutrons (UCN) in the reactor. In the central section of this UCN source, helium is used for cooling. To avoid the creation and accumulation of radioactive tritium out of the He-3 portion of the natural helium, isotopically purified He-4 with no traceable He-3 content shall be used.

The method chosen for the production of such isotopically pure He-4 works at temperature levels below 1.5 K and utilizes the superfluid properties of helium.

In a previous bachelor thesis, a small illustrator was built to demonstrate the cool-down procedure. It turned out that there is room for improvements.

This internship shall evaluate and test possible improvements with respect to thermodynamics, mechanical design and controls of the illustrator.



In case of an online application please send the documents compiled in a PDF file.

MLZ is a cooperation between:

