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## The source for ultracold neutrons (UCN source) at the FRM II

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Precision experiments with UCN, such as the search for a possible electric dipole moment (EDM) of the neutron or the measurement of the lifetime of the free neutron, require high UCN densities. Stronger UCN sources are presently developed worldwide, based on the principle of superthermal UCN production, using cryo-converters made of solid deuterium (sD2) or superfluid helium. At the FRM II a UCN source with a sD2 converter and sH2 pre-moderator, placed in a distance of ~60 cm from the central fuel element inside the horizontal, through going beam tube SR6, is currently under construction.

The UCN source has started its non-nuclear test phase. In these tests all parameters how to operate the cooling machines and all necessary auxiliary systems will be varied and optimized in order to freeze out deuterium and hydrogen in a dedicated way, with the simulated nuclear heat load of the FRM II. After the tests, which shall be finished until end of 2018, the whole cooling machine will be transferred to the FRM II, and all the other parts of the source and auxiliary systems will be built and installed.

This talk gives an overview of the current status of the UCN source project at the FRM II.

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