Joint Proposals for Bio- and Chemical Deuteration of JCNS & ILL 2025

Thursday 20 February 2025 - Wednesday 31 December 2025

What we offer

We aim to enable neutron experiments that require chemically deuterated materials such as polymers, surfactants, and small molecules, as well as deuterated biomolecules such as proteins, DNA, lipids, or cells. **Therefore, we offer a joint proposal system for the JCNS deuteration laboratory and the ILL D- and L-Labs.**

The JCNS deuteration laboratory specialises in the synthesis of deuterated polymers, including PEG and PNIPAM, as well as the chemical deuteration of small molecules. This includes surfactants, ionic liquids and a large variety of different organic compounds. We also offer deuterated ethoxylation/PEGylation of a variety of different substrates.

Please contact us (deuterierung@fz-juelich.de) in advance to discuss the feasibility of your request before submitting a proposal.

Deuteration service

The synthesis of the deuterated materials takes place at JCNS-1 in Jülich. Standard materials can be produced by us within a short time period. Materials with a complex synthesis (e.g. polymers from non-commercially available deuterated monomers) require more lead time. We offer development work with priority given to scientifically excellent proposals. Longer-term collaborations are also possible. On-site support in Jülich from the user during synthesis might allow the prompt realisation of more complex syntheses, especially in the case of non-standard materials.