

# **Proposal Round #2 for Deuteration**

**Wednesday, 1 March 2023 - Wednesday, 31 May 2023**

## **What we offer**

At the JCNS we have deuteration experience especially in polymers and ethoxylation, therefore, we offer several polymers (and their monomers) in combination with ethoxylated materials (especially surfactants).

You can find our current synthesis catalogue at our website (<https://www.fz-juelich.de/en/jcns/jcns-1/expertise/instrumentation-and-methods/deuteration-service>).

In addition, we can realise other materials as well. If you have something in mind which is not explicitly given in our catalogue, simply contact us and find out what we can do for you!

Polymers  
Surfactants  
Org. Synthesis

#### Category I

(standard materials)

Polybutadiene (PB)

polystyrene (PS)

Polymethacrylates (e.g. PNIPAM)

polyethylene oxide (PEO)

Alcohol ethoxylates ( $C_xE_y$ , Brij®)

Polysorbates\* (Tween®)

Sorbitan fatty acid esters\* (Span®)

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#### Category II

(more demanding synthesis)

Polyisoprene (PI)

Polypropylene oxide (PPO)

Polybutylene oxide (PBO)

Polyacrylates

Polymethacrylates (except PNIPAM)

Polydimethylsiloxane (PDMS)

Cationic surfactants

Imidazolium-ILs

Category III

(misc.)

upon request

upon request

upon request

## 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. Other materials not listed here may also be available after prior consultation. 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.