

# Scientific Module "tailoring polymer membrane surfaces for water treatment applications"

## Autor der Umfrage

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## Beschreibung

The module will introduce you to the topics of polymer membranes and their applications in water treatment. Furthermore, preparation and surface engineering of membranes by use of electron beam-initiated reactions will be part of the education.

The hot topics "removal of micropollutants by photocatalysis" as well as "microplastics in water" will be presented and discussed within further courses. Theoretical knowledge should be supplemented and made understandable by practical examples during a lab tour comprising membrane preparation, surface modification, characterization, application and upscaling in pilot scale.

Actual research topics will be part of a mini symposium: here, PhD candidates that are working within the membrane topic will present their posters and welcome the module participants in an open discussion regarding synthesis/characterization/application within a "world café". Also possible collaborations between the participants should be promoted. One highlight will be a presentation by the managing director of qCoat GmbH (and co-founder of another IOM spin-off Solarion) and mentor of the spin-lab Leipzig to show the way from research at the IOM to spin-off companies. A final discussion round should enable the participants to get answers to all questions that arise regarding spin-off processes.

Location: IOM Building 18, Lecture Hall (Permoserstr. 15, Science Campus)

**Date: 6.2.-7.2.2023**

Schedule:

Day 1

9:00 - 10:00 Lecture: Polymer membranes for use in water treatment

10:15 - 11:15 Lecture: Electron beam-initiated reactions on polymers

11:30 - 12:30 Lecture: Photocatalysis with TiO<sub>2</sub> to remove pollutants from water

12:30 - 13:30 Lunch break

13:30 - 15:15 Lab tour: membrane preparation - surface modification - photocatalysis - characterization - upscaling and application

Day 2

9:00 - 10:00 Lecture: Removal of microplastic from water

10:15 - 12:00 Technology transfer - from IOM to spin-off

12:00 - 13:00 Lunch break

13:00 - 14:45 World café: poster symposium

15:00 - 15:15 Questions, feedback, closing

Please sign in for registration and provide your e-mail adress!