



Federal Ministry
of Education
and Research

Research. Water. Innovation.

Made in Germany

Visit us at

IFAT 2018

May 14–18, 2018

Hall B2, Stand 115/214

www.bmbf.de

WELCOME!

How can micro-sized plastic particles be identified in waters?
Which risks do microplastics pose?
And how can particles be effectively removed from wastewater?

The Federal Ministry of Education and Research (BMBF) will present its ongoing activities in the areas of water research and innovation at IFAT 2018, the world's leading trade fair for water, sewage, waste and raw materials management. This year's focus is on the BMBF initiative "Plastics in the Environment". Find out more about current projects through the interactive exhibits, an array of infotainment opportunities and the attending water experts. We look forward to welcoming you at Stand 115/214 in Hall B2.

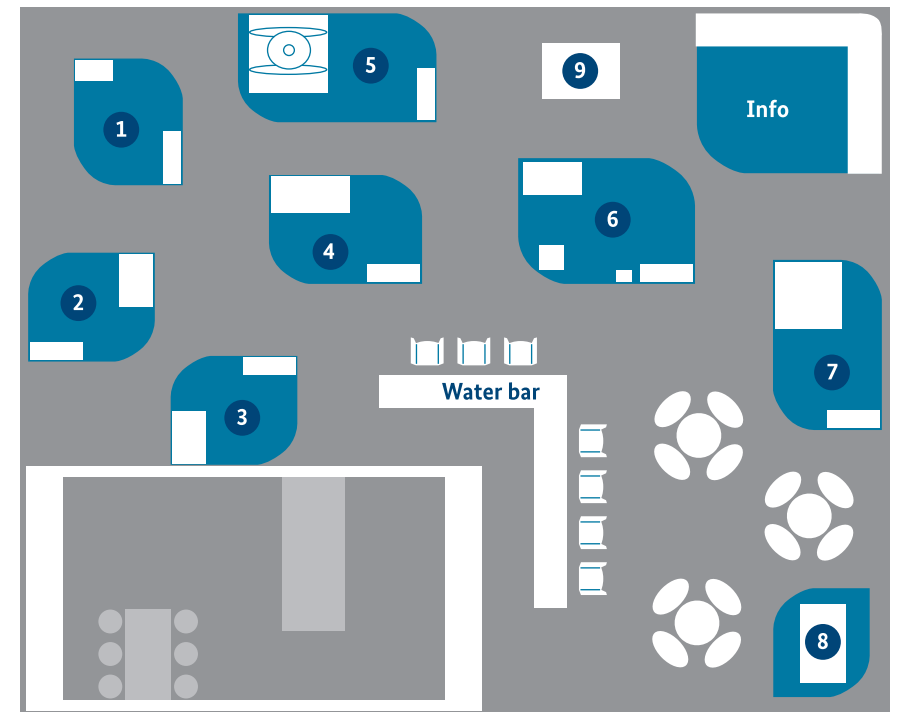
We wish you an exciting and informative time at the trade fair.

Imprint

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OUR STAND with our exhibitors



- | | | |
|---|-----------------------------------|--|
| 1 | EmiStop | Electroflotation for removing microplastics |
| 2 | KuWert | Vessel-based treatment of plastics |
| 3 | SubµTrack | Innovative analysis tools for sub microplastics detection |
| 4 | solvoPET | Presentation of PET waste recycling method |
| 5 | RiverView | Monitoring boat with modular measurement technology for integrated capturing of water bodies |
| 6 | REWARD | Recycling technology for commercial laundry wastewater |
| 7 | MULTI-ReUse | Modular treatment and monitoring for direct water reuse |
| 8 | Interactive water research | Use our touchscreens to find out about BMBF water research |
| 9 | Plastic waste exhibit | New BMBF research focus "Plastics in the Environment" |

Microplastics in industrial wastewater



Microplastics in industrial wastewater and the suitability of individual wastewater technologies for their removal remain largely unknown. The EmiStop joint research project evaluates microplastics removal technologies. The exhibited electroflotation system from EnviroChemie uses the slow ascension speed of tiny gas bubbles to transport microplastics to the water's surface. The data collected on the suitability of technologies will significantly improve the removal of microplastics from industrial wastewater.



www.emistop.de

Reducing the input of plastic waste in the oceans



Plastic waste endangers the environment and marine ecosystems in particular. Approximately 10 million tons of plastic waste end up in the seas each year. The vessel-based treatment of plastics will contribute to the creation of value chains in underdeveloped countries and prevent the input of plastics in the environment. The goal is to create value chains for the trade and recycling of plastic waste in underdeveloped countries and supply plastics to secondary raw material markets.

www.kuwert.hs-bremen.de

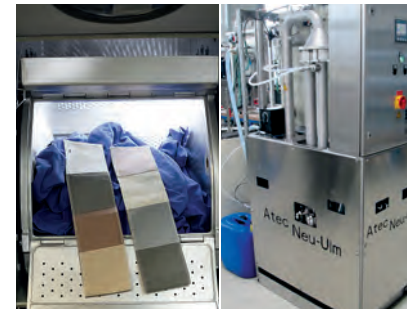
Reusing water in industry and agriculture



Further treatment of conventionally purified wastewater requires new technologies. A pilot plant is combining various processes in a modular fashion to produce different water qualities. This water can be used in place of drinking water in industry, agriculture or for artificial groundwater recharge. The project additionally includes quality control processes and an assessment tool. The stand exhibit demonstrates the MULTI-ReUse process chain.

www.water-multi-reuse.org

Effective water and detergent recycling



Developing efficient recycling technology for commercial laundry facilities is demanding because the quality and hygiene of laundry processes must be maintained. REWARD is overcoming this challenge by combining dipole induction technology (through pulsed high voltage) with customized membrane filtration. The process leads to high recycling rates in detergent ingredients – particularly surfactants – while protecting membranes against blocking and safeguarding flux behaviour. This increases cost efficiency and environmental protection in the laundry industry.

www.hohenstein.de | www.atec-nu.de | www.aqon-gmbh.com

Integrated river monitoring system



No integrated approach to monitoring water bodies above and below the water currently exists. To this end, RiverBoat has been equipped with modular measurement technology. This makes it possible to

collect representative, high-resolution temporal and spatial, and exact geo-referenced data for water management planning and monitoring processes. Using an autopilot, water bodies can be digitalised along exactly the same measurement stretches at different times to document and track their development processes. www.river-view.de

The circular economy in action



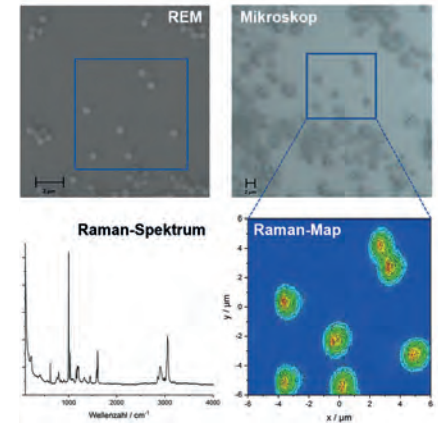
The demand for recycled materials in the consumer goods sector is high and cannot be met by recycled PET bottles alone. The solvoPET process reduces PET to its basic components. The basic monomers possess the quality of virgin material and can be used in any application. The solvoPET process is being developed for the circular economy to create materials with virgin manufacturing quality from secondary raw materials of heterogeneous quality. The stand exhibit details the steps of the solvoPET production process. www.solvopet.de



Innovative analytical methods to detect sub microplastics



Particularly small microplastics (sub micro-particle $< 1 \mu\text{m}$) cannot be analyzed currently due to a lack of analyses methods. The joint research project SubµTrack is developing new methods to investigate the occurrence and toxicological relevance of sub microplastics in aquatic systems. The project will result in validated analytical methods and toxicological data that will inform a risk assessment and serve as a basis for developing potential mitigation strategies for action. The particles of different materials, size ranges and after controlled aging experiments can be viewed through an optical microscope at the booth.



www.wasser.tum.de/submuetrack

Our EVENTS at IFAT 2018

Panel discussion “Current Developments in Water Politics – Strategic Approaches to Trace Elements and the Demands on Reusing Treated Wastewater”

Monday, May 14, 2018 | 2 pm – 5:30 pm | Forum Water/Sewage, Hall B2

DWA Water Resources Innovation Panel Discussion

Tuesday, May 15, 2018 | 9:30 am – 3 pm | Session Area Water, Hall B2

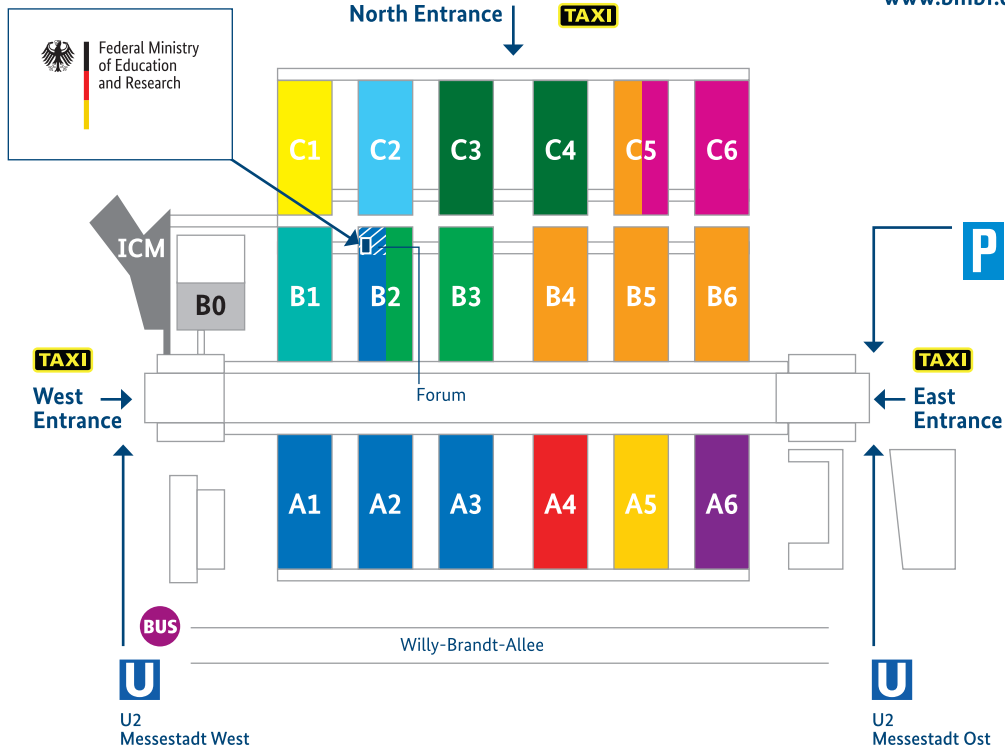
Event “BMBF: Water Research and Innovation”, followed by a reception at the BMBF booth

Wednesday, May 16, 2018 | 12:30 pm – 2 pm | Forum Water/Sewage, Hall B2

Visit us at: Hall B2, Stand 115/214



www.bmbf.de



Process measuring and control technology / Analysis and laboratory techniques



Fittings



Construction and maintenance of water supply and sewerage systems



Pumps



Ducts, pipes and sewers



Construction of water and wastewater treatment plants / Hydraulic engineering and well construction



Vehicles and superstructures / Street cleaning, maintenance and winter road services



Refuse treatment and recycling / Recycling, conditioning and utilization of secondary raw materials / Decontamination of old sites and soil treatment



Generating energy from secondary raw and waste materials / Flue-gas scrubbing and air extraction, air-pollution control



Refuse collection and transport



Waste recycling and disposal services / Consulting and engineering services / Information technology