

# MICROPLASTICdays

*Explore the World of Microplastic Research!*

**16-18.4.2024**

Faculty of Chemistry and Chemical Technology  
Ljubljana, Slovenia



## Event program

MICROPLASTICdays are aimed to come together to advance knowledge and collaboration in microplastic research, metrology, and standardization. From seminars and training sessions to presentations and discussions, each activity offers unique insights and perspectives into the world of microplastics.

Join us as we bring together experts, professionals, and enthusiasts from across the field to explore innovative solutions and encourage collaboration. MICROPLASTICdays are more than just a gathering—it is a collaborative effort to drive positive change and make a difference in tackling microplastic pollution.

**What?** MICROPLASTICdays are days dedicated to advancing knowledge and expertise in microplastic research, metrology, and standardization organized by various projects, institutions and researchers.

**When?** 16-18.4.2024

**Where?** Hybrid event: Online or in person at Faculty of Chemistry and Chemical Technology, University of Ljubljana, Večna pot 113, Ljubljana, Slovenia.

**Who Should Attend?** Researchers, professionals, microplastic enthusiasts, and anyone interested in the field of microplastic research and analysis.

**Registration?** Registration is free! **Organized both online and in person.** Reserve your spot now to secure your attendance, register [here](#).

### Day 1: 16.4.2024

- **Training day on basic concepts of metrology and standardization** organized by [COST Action](#). 

This training day is dedicated to selected COST Action PRIORITY participants only. For more information visit PRIORITY [web page](#).

- **Meeting of [PLASTsensing](#) consortium**



This meeting is open only for the members of the consortium.

## Day 2: 17.4.2024

- **Seminar for metrology and standardization** organized by [COST Action](#).



This seminar is **open to all participants in person or online**.

|   |                      |  |
|---|----------------------|--|
|   | <b>8:15 – 8:30</b>   | <b>Opening</b>   |
| <b>Impulse lectures and discussion on international, national, regional and laboratory view of standardization of microplastic measurement procedures and terminology</b> | <b>8:30 – 9:15</b>   | <b>The ISO view: how an ISO standard is developed &amp; discussion</b><br>Ulrike Braun, Umweltbundesamt, Germany   |
|   | <b>9:15 – 10:00</b>  | <b>PlasticTrace contribution for standardization of microplastics analysis</b><br>Andrea Giovannozzi, INRim, Italy   |
|   | <b>10:00 – 10:30</b> | <b>Coffee break</b>  |
|   | <b>10:30 – 11:15</b> | <b>The laboratory and user view: how measurement procedures and SOP are developed in the lack of standards &amp; discussion</b><br>Aleksandra Tubić, University of Novi Sad, Serbia                    |
|   | <b>11:15 – 12:00</b> | <b>PLASTICSFATE contribution to standardization of microplastic research</b><br>Damjana Drobne, University of Ljubljana, Slovenia  |
|   | <b>12:00 – 13:30</b> | <b>Refreshment</b>   |
| <b>Production of reference, quality control and testing materials for microplastic method development, method validation and verification</b>                             | <b>13:30 – 14:00</b> | <b>Production of reference materials an ISO view</b><br>Thomas Meisel, Montanuniversität Leoben, Austria   |
|   | <b>14:00 – 14:45</b> | <b>Production and characterisation of testing materials for health studies and quality control - a laboratory view</b><br>Luke Parker, Dutch Organization for Applied Scientific Research, Netherlands |
|   | <b>14:45 – 15:15</b> | <b>Coffee break</b>  |
|   | <b>15:15 – 15:45</b> | <b>Good laboratory practice in the absence of ISO and national standards</b><br>Thomas Meisel, Montanuniversität Leoben, Austria   |
|   | <b>15:45 – 16:30</b> | <b>Discussion &amp; Recommendations</b>  |
| <b>Afternoon program</b>  | <b>16:30 – 18:30</b> | <b>Social event at the Faculty of Chemistry and Chemical Technology</b>  |

## Day 3: 18.4.2024

- **Seminar on trends in microplastic research** organized by [UL FKKT](#) and microplastic researchers from the [PLANTerastics](#) team.



**FKKT**



This seminar is **open to all participants in person or online.**

|                                |               |   |
|--------------------------------|---------------|---|
|                                | 9:30 - 10:00  | Welcome   |
| Preparation & Characterization | 10:00 – 10:20 | <b>Environmentally relevant particles in microplastic research</b><br>Gabriela Kalčikova<br>University of Ljubljana (FKKT), Slovenia  |
|                                | 10:20 – 10:40 | <b>Preparation of microplastics: The effects of preparation on microplastic properties</b><br>Stefania Federici<br>University of Brescia, Italy                                       |
|                                | 10:40 – 11:00 | <b>Size matters: Techniques and challenges in measuring the size of microplastics</b><br>Tina Skalar<br>University of Ljubljana (FKKT), Slovenia                                      |
|                                | 11:00 – 11:20 | <b>Coffee break</b>   |
| (Eco)toxicity testing          | 11:20 – 11:40 | <b>Effects of microplastics on terrestrial organisms</b><br>Anita Jemec Kokalj<br>University of Ljubljana (BF), Slovenia  |
|                                | 11:40 – 12:00 | <b>Investigating the impacts of micro and nanoplastics on humans: experiences from the EU Project PlasticsFatE</b><br>Damjana Drobne<br>University of Ljubljana (BF), Slovenia        |
|                                | 12:00 – 12:20 | <b>Impact of microplastics on water flea: what can we learn for future testing?</b><br>Dana Kühnel<br>Helmholtz Centre for Environmental Research, Germany                            |
|                                | 12:20 – 13:20 | <b>Refreshment</b>  |
| Analytics                      | 13:20 – 13:40 | <b>The use of laser-based spectroscopy for analysis of environmentally relevant microplastics</b><br>Pavlina Modlitbova<br>Central European Institute of Technology, Czech Republic   |
|                                | 13:40 – 14:00 | <b>Combined laser induced breakdown spectroscopy and laser ablation inductively coupled plasma mass spectrometry in microplastic analysis</b><br>Lukas Brunnbauer<br>TU Wien, Austria |
|                                | 14:00 – 14:20 | <b>Detection of microplastics by means of X-ray computed tomography</b><br>Tomas Zikmund<br>Central European Institute of Technology, Czech Republic                                  |
|                                | 14:20 – 14:40 | <b>Coffee break</b>   |
| Solutions                      | 14:40 – 15:00 | <b>Green solutions for microplastic pollution: Exploring phytoremediation in the aquatic environment</b><br>Ula Rozman<br>University of Ljubljana (FKKT), Slovenia                    |
|                                | 15:00 – 15:20 | <b>Innovative strategies for microplastic mitigation in wastewater treatment</b><br>Aleksandra Tubić<br>University of Novi Sad, Serbia  |
|                                | 15:20         | <b>Closing</b>  |

- **Demonstration of microplastic analysis** organized by [Merel](#).



On the same day, a presentation of micro-Raman spectrometry and a demonstration of the characterization of microplastics with a Raman microscope will take place. The presentation and demonstration will be carried out by representatives of the companies Merel (Slovenia) and Horiba Scientific (France).

During the demonstration, the characterization of microplastic particles on a silicon membrane filter will be performed using an automated workflow that includes the steps from sample placement, particle detection and morphological characterization, Raman spectrum measurement and chemical identification to particle classification and reporting.

**We look forward to meeting you in Ljubljana!**