

Eawag

Swiss Federal Institute of
Aquatic Science and Technology

High resolution mass spectrometry – a tool for the identification of organic contaminants

PEAK Applied Course A34/22
Wednesday, 16 November 2022, Dübendorf, hybrid



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Objectives

High resolution mass spectrometry (HRMS) is the method of choice for the detection and identification of organic contaminants in environmental samples nowadays. The course offers an introduction to advanced applications of HRMS and delivers practical use cases. The participants will learn how analysis and data processing workflows for the screening of target, suspect and non-target compounds are composed and applied. Opportunities and pitfalls for the successful application of HRMS/MS and processing workflows will be discussed with illustrative case studies.

For whom

Lab staff who have already worked with high-resolution mass spectrometry or intend to use it in future. Basic knowledge in organic analytical chemistry is advantageous and for the exercises an own laptop should be brought.

Course Subjects

The course imparts theoretical and practical knowledge for the application of high-resolution mass spectrometric methods to environmental samples for the screening of target, suspect and non-target pollutants. The course focuses on the use of high-resolution mass spectrometry coupled to liquid chromatography and the processing of the data using openly accessible pipelines. In a first part, fundamentals of high-resolution mass spectrometry are illustrated by method applications from ongoing research projects and monitoring examples from practice. In the second part, freely available processing software such as SIRIUS are introduced and their use demonstrated with selected examples.

Lecturers

Kasia Arturi, Stephan Baumgartner, Teofana Chonova, Juliane Hollender, Elisabeth Janssen, Tarek Manasfi, Simon Mangold, Corina Meyer, Heinz Singer
Michael Stravs, Eawag
Wolfgang Schulz, former Landeswasserversorgung, Langenau, DE

Course Leader

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Course Secretariat

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Registration

Online: peak.eawag.ch, deadline: **26 October 2022**

Course Documentation

The course documentation will be available online (in English) before the course start. The participants will receive a certificate of attendance.

Language

English

Course Fee

CHF 350.–

The fee includes course documentation and material, lunch, refreshments and apéro. Other meals and hotel accommodation are not included.

Eawag's general terms and conditions apply:

eawag.ch/gtc

Date, Time, Place

Wednesday, 16 November 2022, from 9 am to 5 pm

Location

Eawag, Überlandstrasse 133, 8600 Dübendorf
Forum Chriesbach C20

online Link will be communicated

Eawag

Eawag is a research institute within the ETH domain and one of the world's leading research institutions in the field of water and aquatic ecosystems. It focuses on concepts and technologies for the sustainable use of water resources, while striving to reconcile the ecological, economic and social aspects of the water bodies. Eawag also undertakes teaching and consultancy work, and thereby acts as an important link between research and practical application. About 500 staff are employed by Eawag in Dübendorf and Kastanienbaum.

eawag.ch

PEAK

Eawag offers a continuing education programme to practising professionals, which goes by the name of PEAK (practice oriented Eawag courses). The courses are based on current research work and experiences. Several courses are run every year, which, alongside PEAK's purpose of knowledge transfer, serve as a forum for dialogue between the participants, and between research and practice.

peak.eawag.ch

Getting to Eawag Dübendorf

eawag.ch/en/aboutus/locations-contact/getting-to-duebendorf