

# High-Resolution Mass Spectrometry – a Novel Tool for the Identification of Organic Contaminants

PEAK Applied Course, 20 November 2017



## High-Resolution Mass Spectrometry – a Novel Tool for the Identification of Organic Contaminants

PEAK Applied Course A34/17

**Objectives** The course offers an advanced introduction to high-resolution mass spectrometry and its application to environmental samples. The presentation of practical methods as well as hands-on experience for data processing with open access software will be provided.

**Target Audience** 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. Due to practical work with computers the number of participants is limited to 20.

**Contents** The course imparts theoretical and practical knowledge for the application of high-resolution mass spectrometric methods to natural water and sediment 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 open access pipeline like e.g., enviMass. 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 are introduced and the use of open access software pipelines, e.g. enviMass, MetFrag are demonstrated with selected examples.

**Lecturers** Prof. Dr Juliane Hollender, Eawag  
Philipp Longree, Eawag  
Dr Martin Loos, Eawag  
Dr Jennifer Schollée, Eawag  
Dr Wolfgang Schulz (Tobias Bader),  
Landeswasserversorgung, Langenau, Deutschland  
Dr Emma Schymanski,  
Luxembourg Centre for Systems Biomedicine  
Heinz Singer, Eawag  
Bernadette Vogler, Eawag

Cover photo: LC-HRMS Dübendorf (Eawag)

**Information** Heinz Singer, Eawag  
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Juliane Hollender, Eawag  
Phone +41 (0)58 765 54 93, juliane.hollender@eawag.ch

**Course Documentation** The participants will receive course documentation.

**Course Language** The course will be conducted in English.

**Confirmation** The participants will receive a course certificate.

**Course Secretariat and Registration** Eawag, Geschäftsstelle PEAK, 8600 Dübendorf  
Phone +41 (0)58 765 56 25  
peak@eawag.ch or www.peak.eawag.ch  
**Registration deadline: 3 November 2017**

**Course Fee** CHF 350.–  
The fee includes taxes, course material, lunch, refreshments, Aperitif.  
Hotel accommodation is not included.

**General Terms and Conditions** Eawag's general terms and conditions apply:  
[www.eawag.ch/agb/index\\_EN](http://www.eawag.ch/agb/index_EN)

**Date, Time** Monday, 20 November 2017 from 9 am to 5 pm,  
followed by an Aperitif  
**In case of too many participants the course will be repeated on 27 November 2017**

**Location** Eawag  
Überlandstrasse 133  
8600 Dübendorf, Switzerland

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.

[www.eawag.ch](http://www.eawag.ch)

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.

[www.peak.eawag.ch](http://www.peak.eawag.ch)

Eawag, Überlandstrasse 133, 8600 Dübendorf  
[www.eawag.ch/en/aboutus/locations/duebendorf/](http://www.eawag.ch/en/aboutus/locations/duebendorf/)



Please stamp

Eawag  
Geschäftsstelle PEAK  
Überlandstrasse 133  
8600 Dübendorf  
Switzerland

## Registration

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Monday, 20 November 2017 (possibly repeated on 27 November 2017)

- Please send me the hotel list.
- Please send me the general terms and conditions by mail.

Name \_\_\_\_\_

First Name \_\_\_\_\_

Organisation \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

Billing address \_\_\_\_\_

Please mail this form to: Eawag, Geschäftsstelle PEAK, Überlandstrasse 133, 8600 Dübendorf, Switzerland, [peak@eawag.ch](mailto:peak@eawag.ch) or register online [www.peak.eawag.ch](http://www.peak.eawag.ch)