

Environmental Analytics: Challenges and Advances in Mass Spectrometry

PEAK-V62/25

Wednesday 19 November 2025

Organisation: Heinz Singer, Thomas Hofstetter, Julie Tolu

Program

<i>Nr.</i>	<i>Time</i>	<i>Content</i>	<i>Speaker</i>
	from 08:15	Registration and Coffee	
0	08:45	Welcome and Introduction	Marianne Leuzinger Heinz Singer
Organic micropollutants			
1	08:55	Sensitive analysis of PFASs in wastewater and sludge	Christa McArdell
2	09:20	The Total Oxidizable Precursor (TOP) Assay and other sum parameters: tools to help estimate "total" PFASs in waste matrices	Steven Chow
3	09:45	Detection of dissolved and particle bound fraction of toxic and non-polar insecticides in surface water samples at the pg/Liter range	Vera Ganz
4	10:10	Detection of very polar, very mobile anionic compounds in different groundwaters using ion chromatography coupled to HRMS/MS	Johannes Schorr
	10:35	Coffee break	
5	11:05	Quantification of illicit drugs and new psychoactive substances (NPS) for wastewater-based epidemiology studies	Stephan Baumgartner
6	11:30	Quantification of multi-class cyanopeptides using Online-SPE-LC-HRMS method	Valentin Rougé
Stable isotopes			
7	11:55	Introduction to traditional and modern stable isotope mass spectrometry	Thomas Hofstetter
8	12:05	Isotope analysis of Oxyanions by ESI-Orbitrap Mass Spectrometry	Nora Bernet
9	12:30	From IRMS to Orbitrap: Perspectives on Stable Isotope Analysis of Organic Micropollutants	Aoife Canavan (TU München)
	12:55	Lunch	

Nr.	Time	Content	Speaker
		Trace elements	
10	14:05	Introduction to mass spectrometry analysis of trace elements	Julie Tolu
10	14:15	Challenge of food contaminant analysis: key role of certified reference materials	Simon Lobsiger (METAS)
11	14:40	Measuring methylated, thiolated or volatile forms of inorganic pollutants (As, Hg, Sb) in the environment using plasma mass spectrometry	Adrien Mestrot (Uni Bern)
	15:05	Coffee break	
12	15:30	Analyzing elemental speciation to understand environmental processes and pathways of trace elements (e.g., As, Se, S)	Lenny Winkel
13	15:55	Solid phase extraction combined to LC-ICP-MS and LC-HR-MS to unravel organic Se speciation in harsh matrices: application to seawater	Pauline Béziat
	16:20	Closing words & online course evaluation	
	From 16:35	Apéro	
	16:45	Visit of the Mass Spec Facility (online & on-site)	