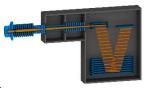


Breakfast

07:00 - 08:00

# 9<sup>th</sup> International PTR-MS Conference 2024



University of Innsbruck, Seefeld in Tirol - Austria 26<sup>th</sup> to 29<sup>th</sup> January 2024

## **Programme**

Friday, 26.01.2024

Breakfast for all participants in their Conference Hotels

Registration	
08:00 - 08:30	Please visit our conference registration desk in front of the lecture hall to collect your conference
	package incl. your name tag.
Morning Sea	ssion: Environmental Science 1 (Chair: Armin Hansel)
08:30 - 09:00	Dylan Millet (University of Minnesota)
	Closing the forest-atmosphere flux budget for VOCs and ozone
09:00 - 09:30	Eva Pfannerstill (FZ Juelich)
	Airborne flux measurements for validation of VOC emission inventories and source attribution
09:30 - 10:00	Giovanni Pugliese (MPI Mainz)
	Volatile organic compound fluxes from Amazon rainforest soil
10:00-10:30	Coffee Break
10:30 - 11:00	Riikka Rinnan (University of Copenhagen)
	Soil – an important sink for VOCs?
11:00 - 11:20	Wiebke Scholz (University of Innsbruck)
	Fate of dimethyl sulfide at cold temperatures
11:20 - 12:00	Flash Talks:
	• Ralf Tillmann (FZ Juelich) – Quality assurance of VOC within ACTRIS
	• Milan Roska (FZ Juelich) – Quantification of OVOC using Collision-Induced-Dissociation
	• <b>Zhensen Zheng</b> (Ionicon) – <i>Insight into spatial variability upon the O3-precursor</i>
	• Crist Amelynck (Royal Belgian Inst. for Space Aeronomy) – Characterization of VOC
	• Vincenzo Magliulo (CNR Isafom) – Cross-correlations of BVOC emissions

Forum Discussion & Poster Session 1	
12:00 - 14:00	Lunch break
14:00 - 16:00	Forum Discussion:
	<ul> <li>Are you curious about Ionicon's flagship instrument FUSION PTR-TOF 10k? Register for your own showcase in front of the lecture hall and see the ultimate performance live</li> <li>Feel free to enjoy social networking with other participants in the beautiful village or on the skiing slopes of Seefeld.</li> </ul>
16:00 - 17:30	<b>Poster Session 1</b> : Present and discuss your research results in front of your posters

**Antonio Manco** (CNR Isafom) – Real-time air concentrations and turbulent fluxes of VOC ...

Yi Jiao (University of Copenhagen) - Biogenic volatile responses of arctic tundra to ...

Afternoon Session: Environmental Science 2 (Chair: Karena McKinney)	
17:30 - 18:00	Thomas Karl (University of Innsbruck)
	Urban VOC Flux Observations Using PTR-TOF-MS
18:00 - 18:30	Georgios Gkatzelis (FZ Juelich)
	Urban enhancement ratios over North America during the AEROMMA campaign
18:30 - 19:00	Yingjun Liu (Peking University)
	Probing composition and sources of VOCs in 10 new apartments in Beijing, China

Dinner	
19:30	<b>Dinner</b> for all participants in their Conference Hotels

## Saturday, 27.01.2024

#### **Breakfast**

07:00 – 08:00 Breakfast for all participants in their Conference Hotels

Morning Ses	ssion: Food Science 1 (Chair: Franco Biasioli)
08:30 - 09:00	Jonathan Beauchamp (Fraunhofer IVV)
	Harnessing the versatility of PTR-MS to explore the multifaceted world of food volatiles
09:00 - 09:20	Corrado Di Natale (University of Rome Tor Vergata)
	PTR-MS and gas sensors: a mutualistic relationship
09:20 - 09:40	Brian Farneti (Edmund Mach Foundation)
	Evaluate, understand and create agri-food biodiversity. Direct injection MS can help us!
09:40 - 10:00	Rutger Brouwer (Wageningen UR)
	Understanding the in vivo flavour release and perception of plant-based meat analogues in relation
	to their structural properties by using proton transfer reaction-mass spectrometry.
10:00-10:30	Coffee Break
10:30 - 11:00	Samo Smrke (ZHAW)
	Fast-GC PTR-MS Analysis of Coffee VOCs
11:00 - 11:20	Nina Cleve (Fraunhofer IVV)
	Insights into aroma extraction during coffee brewing using a coupled LCU-PTR-TOFMS approach
11:20 - 11:40	Daniele Zatta (University of Padua)
	Comparative Analysis of Volatile Abatement Systems from Cooking Emissions
11:40 - 12:00	Valentina Acierno (Wageningen UR)
	PTR-MS in vivo and in vitro measurements of key meat flavor volatile compounds released during
	consumption of plant-based patties

Forum Discussion &	Poster Session 2
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**12:00 – 14:00** Lunch break

#### **14:00 – 16:00** Forum Discussion:

- Are you curious about Ionicon's flagship instrument FUSION PTR-TOF 10k? Register for your own showcase in front of the lecture hall and see the ultimate performance live
- Feel free to enjoy social networking with other participants in the beautiful village or on the skiing slopes of Seefeld.

16:00 – 17:30 Poster Session 2: Present and discuss your research results in front of your posters

Afternoon S	Afternoon Session: Food Science 2 (Chair: Franco Biasioli)	
17:30 - 18:00	Vincenzo Fogliano (Wageningen UR)	
	Volatile compound monitoring to support food products design: the role of PTR-MS	
18:00 - 18:20	Vittorio Capozzi (CNR)	
	Green analytical approaches and sustainable transition of food systems: the potential of PTR-MS to	
	speed up innovation in fermentation	
18:20 - 18:40	Iuliia Khomenko (Edmund Mach Foundation)	
	How not to get your PTR-TOF drunk: automated targeted and untargeted headspace analysis of	
	spirits	
18:40 - 19:00	Michele Pedrotti (Edmund Mach Foundation)	
	Influence of hydrolysis method, lactase purity and temperature on Maillard reactions in lactose-	
	hydrolysed UHT milk	

Dinner	
19:30	<b>Dinner</b> for all participants in their Conference Hotels

## Sunday, 28.01.2024

#### **Breakfast**

07:00 – 08:00 Breakfast for all participants in their Conference Hotels

Morning Ses	ssion: Health Science 1 (Chair: Jonathan Beauchamp)
08:30 - 09:00	Chris Mayhew (University of Innsbruck)
	Clinical Applications of Exhaled Volatiles
09:00 - 09:30	Pritam Sukul (University of Rostock)
	Dynamic nature to metabolic pathway: PTR-MS based discovery of the human origin of breath isoprene
09:30 - 10:00	Stanislas Grassin-Delyle (Hospital Foch)
	Enhanced proton transfer reaction - mass spectrometry breath analysis for the diagnosis of
	COVID-19
10:00 - 10:30	Coffee Break
10:30 - 11:00	Markus Metsälä (University of Helsinki)
	Studies of Volatile Compounds Produced by Pathogenic Oral Bacteria
11:00 - 11:20	Andrea Dell'Olio (Wageningen UR)
	Exploring the impact of dietary substrates on the gut volatilome: non-invasive in-vitro VOCs
	monitoring
11:20 - 11:40	Camille Roquencourt (Hospital Foch)
	New data normalisation methods for PTR-TOF-MS exhaled breath metabolomics
11:40 - 12:00	Jonathan Beauchamp (Fraunhofer IVV)
	The role of PTR-MS in quality assurance in breath analysis

#### **Lunch break & Forum Discussion**

**12:00 – 14:00** Lunch break

#### **14:00 – 17:00** Forum Discussion:

- Are you curious about Ionicon's flagship instrument FUSION PTR-TOF 10k? Register for your own showcase in front of the lecture hall and see the ultimate performance live
- Feel free to enjoy social networking with other participants in the beautiful village or on the skiing slopes of Seefeld.

Afternoon Session: Environmental Science 3 (Chair: Karena McKinney)	
17:30 - 18:00	Roger Seco (IDAEA-CSIC)
	Trace gas exchange by subarctic vegetation under global climate change
18:00 - 18:30	Kajsa Roslund (University of Copenhagen)
	Bacteria isolated from Arctic soil crust and permafrost produce volatile sulfur and nitrogen
	compounds in vitro
18:30 - 19:00	Markus Müller (Ionicon)
	Real-time detection of condensed PAHs on a molecular composition level at low pg m <sup>-3</sup> levels by
	CHARON FUSION PTR-TOF 10k

#### **Conference Gala Dinner**

**20:00 Conference Gala Dinner** for all participants in one Hotel

## Monday, 29.01.2024

Breakfast	
07:00 - 08:00	Breakfast for all participants in their Conference Hotels
	Attention: Check-Out from the Conference Hotels latest at 11:00! Please empty your room and
	bring your luggage either with you to the congress center or ask at the reception for safe storage.

Morning Sea	Morning Session: Instruments, Technology & Future Trends (Chair: Armin Hansel)	
09:00 - 09:20	Riccardo Favaro (University of Padova)	
	Monitoring of volatile emission circadian rhythm in pests using PTR-ToF and GC-MS	
09:20 - 09:40	Jennifer Braun (Hochschule Bonn-Rhein-Sieg)	
	Rapid on-site detection of Acer infested by Anoplophora glabripennis (Motschulsky) by fastGC-PTR-TOF	
09:40 - 10:00	Leander Stark (University of Innsbruck)	
	An Aerosol Thermal Desorption (ATD) inlet for the PTR3 mass spectrometer	
10:00-10:30	Coffee Break	
10:30 - 11:00	Jorge Salazar Gomez (FZ Juelich)	
	From metallurgical gases towards green hydrogen. PTR-TOF-MS - a remarkable companion of the	
	energy transition and defossilization	
11:00 - 11:30	Markus Müller (Ionicon)	
	Introducing IDA, a powerful and fast data analysis suite	
11:30 – 12:00	Tobias Reinecke (Ionicon)	
	Characterization and application of an ultrahigh sensitivity PTR-MS instrument with a well-defined	
	ion chemistry	

#### Lunch break

12:00 – 14:00 Lunch break

Afternoon Session: Industrial Applications (Chair: Jens Herbig)		
14:00 - 14:30	Jens Herbig (Ionicon)	
	From Lab to Fab - Enhancing PTR-TOF for Industrial Monitoring	
14:30 - 15:00	Constance Coquand (STMicroelectronics)	
	Monitoring of the airborne molecular contamination (AMC) in a semiconductor factory with a	
	PTR-TOF-MS	
15:00 - 15:30	Maximilian Muhr (Carl Zeiss SMT)	
	Trace gas analysis with PTR-MS at Carl Zeiss SMT for quality control of Deep UV optical	
	lithography systems	

Departure	
16:00	Shuttle bus to Innsbruck (sponsored by Ionicon) departs.

## **Locations:**

- **Congress Center Seefeld**: Klosterstraße 600, 6100 Seefeld in Tirol <a href="https://www.kongress-seefeld.at/">https://www.kongress-seefeld.at/</a>
- **Hotel Seelos**: Wettersteinstraße 226, 6100 Seefeld in Tirol <a href="https://www.hotel-seelos.at/">https://www.hotel-seelos.at/</a>
- **Hotel Alpenpark Resort Seefeld**: Speckbacherstraße 182, 6100 Seefeld in Tirol <a href="https://www.alpenpark-seefeld.com/">https://www.alpenpark-seefeld.com/</a>

#### **Your emergency contacts:**

- Armin Hansel: <u>armin.hansel@uibk.ac.at</u> | +43 699 10 888 453
- Juergen Dunkl: <a href="mailto:ptrms@uibk.ac.at">ptrms@uibk.ac.at</a> | +43 699 12 148 014