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IONICON presents the new CHARON aerosol inlet for PTR-TOFMS

All-in-one: a single instrument for real-time VOC, IVOC, SVOC and LVOC monitoring

[IONICON Analytik](#), the Austrian based leading manufacturer of real-time trace gas analyzers, introduces a new sample introduction system for aerosols to complement its PTR-TOFMS series products: [CHARON](#).

This revolutionary new inlet enables IONICON PTR-TOFMS series instruments to measure aerosols directly with the most versatile, reliable and proven technology for VOC analysis available on the market: PTR-MS. One single instrument from the PTR-MS market leader IONICON, covers VOCs and now additionally allows the molecular-level characterization of sub- μm particulate organic matter in real-time.

Future IONICON customers can use their real-time analytical instrument to monitor VOCs, IVOCs, SVOCs and LVOCs with the all-in-one CHARON PTR-TOFMS.

Benefits of CHARON

- On-line and real-time characterization of non-refractory organic sub- μm particulate matter
- Low limits of detection allow for laboratory-based and ambient measurements
- Allows to detect the majority of atmospheric organic carbon with a single instrument
- An exclusive add-on to selected IONICON PTR-TOFMS series instruments

What to expect from CHARON

The new CHEMical Analysis of aeRosol ON-line (CHARON) particle inlet coupled to IONICON [PTR-TOFMS instruments](#) quantitatively detects organic sub- μm particulate matter as well as particulate ammonium and nitrate at single digit ng/m^3 mass concentration levels in real-time.

In addition, the [CHARON particle inlet](#) significantly extends the range of compounds that can be detected by PTR-MS from gas-phase volatile and intermediate volatile organics (VOC and IVOC) to particle-phase intermediate, semi and low volatile organic compounds (IVOC, SVOC and LVOC, respectively).

With its high temporal resolution and the high degree of conserved chemical composition information, CHARON PTR-TOFMS is thus the perfect analytical technique to identify and quantitatively follow atmospheric particulate tracer compounds like levoglucosan and polycyclic aromatic hydrocarbons. One-minute resolved data of hundreds of identified chemical compositions boost the quality of source apportionment (e.g. by positive matrix factorization; PMF) to an unseen level. CHARON is best combined with the new [PTR-TOF 6000 X2](#) for an ultimate performance experience, high mass resolving power and utmost detection sensitivity.

[Contact](#) our experts right now!



About IONICON

IONICON is the world's leading manufacturer of real-time trace gas analyzers for low concentration volatile organic compounds (VOCs) monitoring, based on the unique Proton Transfer Reaction – Mass Spectrometry (PTR-MS) technology, since 1998.

The main scientific application areas include atmospheric chemistry, environmental research, exhaust analysis, food and flavor science, illicit substances detection and breath gas analysis.

In addition to laboratory instruments, IONICON also produces specialized VOC monitoring systems for industrial applications such as the semiconductor industry or for field deployment. A strong technical background allows the company to build its own time-of-flight mass spectrometers for research and OEM customers, sampling and calibration systems for its analyzers, fast gas-chromatography and auto-sampling modules incl. various multiplexing set-ups.

IONICON hosts an application lab at its headquarters in Innsbruck, Austria offering analytical services to its customers, from initial sample tests to long-term studies.

In 2016, the company celebrated its 300th sold PTR-MS instrument.

Learn more about IONICON [here](#).

Resources

CHARON Product Website: <http://www.ionicon.com/product/accessories/charon>

CHARON Particle Inlet Schematic Drawing. (Source: IONICON; Suggested caption: The new CHARON inlet for PTR-TOFMS: direct aerosol & gas-phase monitoring with one analytical instrument)

http://www.ionicon.com/sites/default/files/uploads/images/schematic_drawing_charon_web_0.png

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