



Press release – Innsbruck – 18. December 2017

## CHARON particle inlet for PTR-TOFMS wins 2017 innovation award

The concept of one single instrument for direct monitoring of gas-phase and particulate organics is recognized as one of the most outstanding innovations in 2017 by "The Analytical Scientist".

[IONICON Analytik](#), the Austrian based leading manufacturer of real-time trace gas analyzers and time-of-flight mass spectrometers, is now honored by "The Analytical Scientist" magazine's expert jury for the new [CHARON-PTR-TOFMS](#) only a few weeks after the product launch. CHARON, the revolutionary new inlet for IONICON PTR-TOFMS series instruments enables measuring aerosols directly with the most versatile, reliable and proven technology for VOC analysis available on the market: PTR-MS.

### What to expect from CHARON

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

CHARON in combination with the IONICON PTR-MS technology detects the most abundant range of atmospheric organic carbon, compared to other analyzers or inlet systems on the market. IONICON customers can upgrade their real-time analytical instrument to monitor gas-phase organics and particulate intermediate, semi and low volatile organic compounds (IVOCs, SVOCs and LVOCs, respectively) in  $< \text{ng}/\text{m}^3$  concentrations, with a single IONICON CHARON-PTR-TOFMS analyzer.

Unlike other options on the market CHARON is a direct inlet system that doesn't sacrifice one of the main benefits of PTR-MS instruments: the real-time monitoring capabilities. 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 e.g. levoglucosan and polycyclic aromatic hydrocarbons. One-minute resolved data of hundreds of identified chemical compositions boost the quality of source apportionment 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 300<sup>th</sup> sold PTR-MS instrument.

Learn more about IONICON [here](#).

## Resources

2017 innovation award blog post: <https://blog.ionicon.com/2017/12/charon-particle-inlet-ptr-tofms-wins-2017-innovation-award/>

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

CHARON PTR-TOF 6000 X2 instrument. (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/CHARON-on\\_PTR-TOF\\_2-inlets\\_web.jpg](http://www.ionicon.com/sites/default/files/uploads/images/CHARON-on_PTR-TOF_2-inlets_web.jpg)

CHARON PTR-TOF 6000 X2 instrument in the lab. (Source: IONICON; Suggested caption: CHARON PTR-TOF 6000 X2 instrument with two inlets in parallel for real-time VOC and particle analysis) [https://blog.ionicon.com/wp-content/uploads/2017/12/CHARON-PTR-TOF\\_in\\_lab\\_2\\_web.jpg](https://blog.ionicon.com/wp-content/uploads/2017/12/CHARON-PTR-TOF_in_lab_2_web.jpg)

## Contact:

### IONICON Analytik GmbH

Lukas Märk, CEO

Eduard-Bodem-Gasse 3, 6020 Innsbruck

Austria

Tel: +43 512 214 800

Mail: [info@ionicon.com](mailto:info@ionicon.com)

Web: [www.ionicon.com](http://www.ionicon.com) - [blog.ionicon.com](http://blog.ionicon.com)