



Isomer Separation in Milliseconds

S PTR-SLiM-TOF

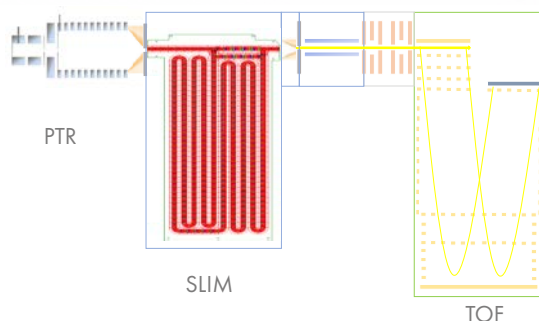
THE SOLUTION FOR REAL-TIME TRACE GAS ANALYSIS

PTR-SLIM-TOF

- SLIM-IMS and PTR-TOF – The perfect match
- Real-time isomer separation
- Unprecedented insights & resolution

Integrating SLIM-IMS with PTR-TOF-MS

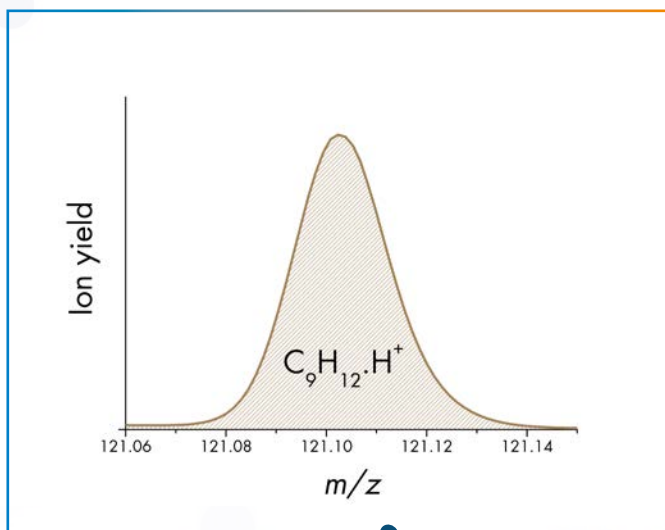
Ion Mobility Spectrometry (IMS) based on Structures for Lossless Ion Manipulations (SLIM) is now complementing Proton-Transfer-Reaction – Mass Spectrometry (PTR-MS). This unique combination of cutting-edge technologies enables real-time quantification down to pptv concentration levels with separation capabilities similar to offline methods such as the gold-standard Gas Chromatography coupled with Mass Spectrometry (GC-MS). The benefits of isomer-separated direct injection analysis for environmental monitoring or food and flavor chemistry, for example, are extraordinary. PTR-SLIM-TOF-MS will advance chemical analysis, particularly in fields where accurate isomer differentiation is essential for quality control, safety assessment, and molecular characterization.



Advantages of PTR-TOFMS

Our PTR-TOF instruments consist of genuine IONICON PTR technology coupled to ionTOF mass analyzers. Key features of all systems include:

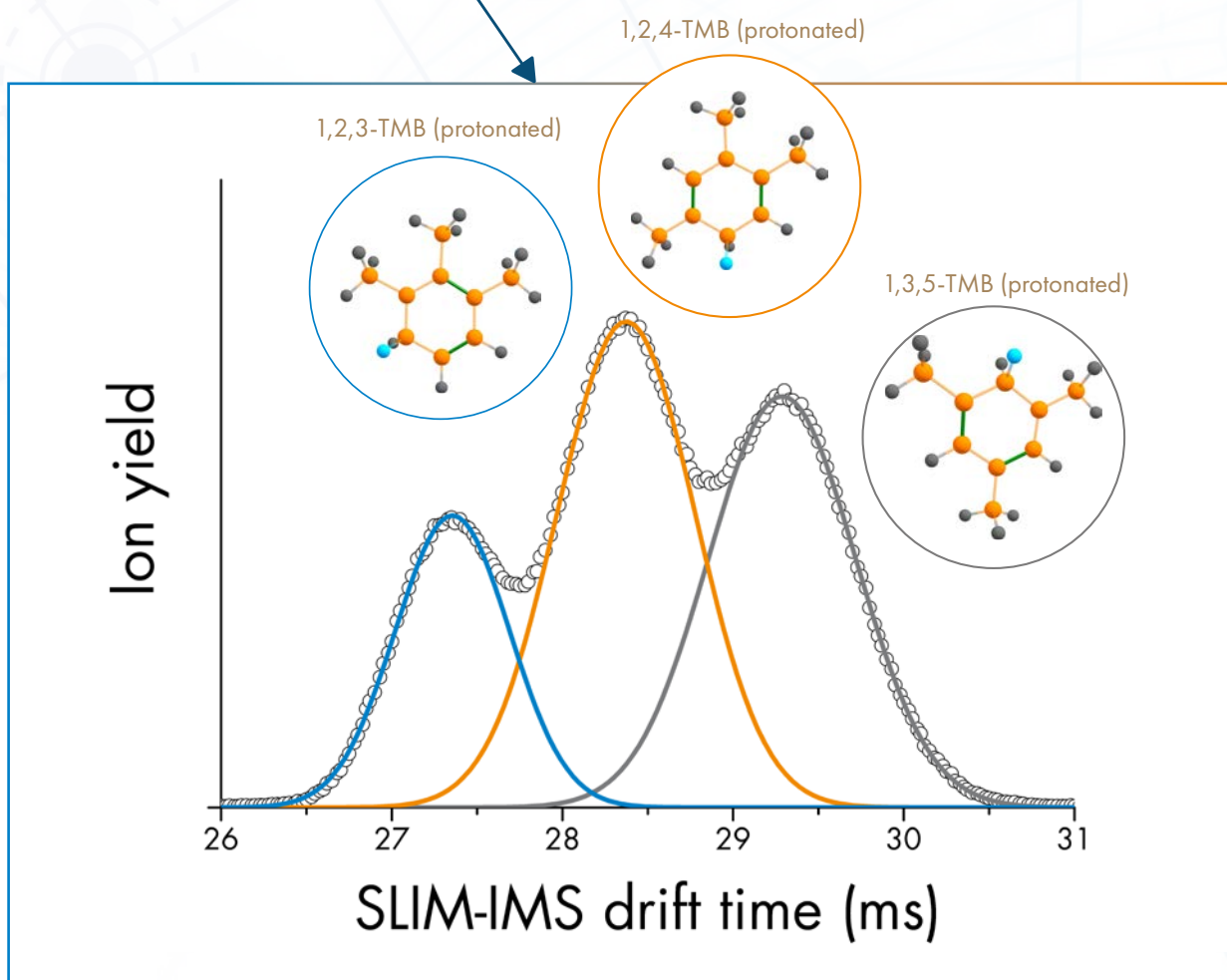
- pptv range detection limit for VOC monitoring
- direct real-time analysis without sample preparation
- full mass range quantified in milliseconds
- robust engineering quality & field proven performance



The mass spectrum shows a single peak at m/z 121.

Additional SLIM separation revealed three isomers of trimethylbenzene (TMB) hidden within this mass peak.

SLIM Separation



This product utilizes a sublicense granted by MOBILion Systems to Ionicon for use of the SLIM technology and is protected under their patents.

Contact us now!

We are the pioneers and global leaders in Proton-Transfer-Reaction – Mass Spectrometry (PTR-MS), a highly sensitive technology for detecting volatile organic compounds (VOCs), developed by our company's founders.

Our trusted PTR-MS analyzers have supported hundreds of high-impact publications and continue to drive discoveries across diverse scientific fields.

With over 25 years of expertise in analytical instrument engineering, our products are known for their reliability, ultra-low detection limits, outstanding sensitivity, speed, and durability.

All our air monitoring solutions are manufactured at our headquarters in Innsbruck, Austria.

Contact us to solve your analytical challenge!

IONICON Analytik GmbH
Eduard-Bodem-Gasse 3
6020 Innsbruck
Austria
+43 512 214 800
info@ionicon.com
www.ionicon.com



SCAN ME

THE WORLD'S LEADING PTR-MS COMPANY