FENCELINE MONITORING

REGULATORY COMPLIANCE

OPERATIONAL IMPROVEMENTS

IONICON

Real-Time Fenceline Monitoring

PTR-TOF is the most advanced technology for real-time monitoring of volatile organic emissions

Proton-Transfer-Reaction Time-of-Flight Mass-Spectrometry (PTR-TOF) is the gold standard in real-time air quality monitoring. Developed by IONICON, this system detects and quantifies volatile organic and inorganic compounds with unmatched sensitivity and in real-time.

High sample frequency < 1 min/sample

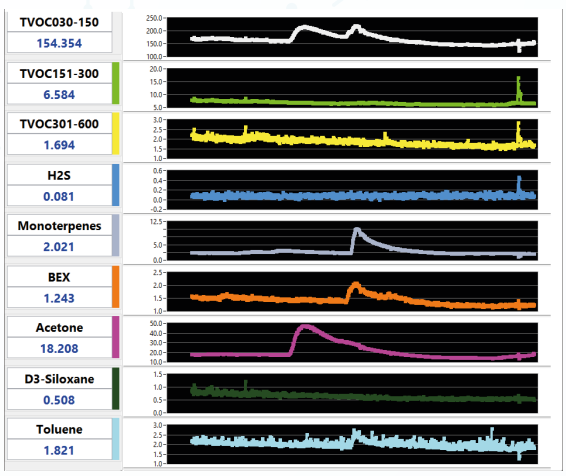
The PTR-TOF measures in real-time and the total time per sample stream, including switching and averaging is typically < 1 minute.

LDL typical < 0.05 ppb

Detection limits as low as 10 ppt fully meet regulatory standards set by U.S. EPA and KSA RC.

Many compounds simultaneously

PTR-TOF measures the complete spectrum containing hundreds of signals, which allows extraction and quantification of numerous compounds simultaneously.



Future ready

Emerging regulatory requirements for additional compounds can easily be implemented via software updates.

Proven Success in KSA with PetroInTech

Collaboration for Fenceline Monitoring

An IONICON fenceline monitoring solution with 40 sampling points was recently installed at a major petrochemical complex in KSA, in partnership with our local partner PetroInTech.

- PTR-TOF analyzer shelters – 4 along the fenceline
- Sample Handling System – 10 sampling points
- Sampling lines – up to 800m

PTR-TOF – The ideal solution for trace gas monitoring

Advanced PTR-TOF Solutions for the Petrochemical, Oil & Gas Industries

Process monitoring and optimization:

PTR-TOF enables monitoring of industrial gas processes — such as syngas or Fischer-Tropsch — for optimization, safety, and quality assurance.

Applications for Petrochemical Industries:

Carbon Capture and Storage:

The IONICON PTR-TOF analyzer monitors emissions of amines and amine degradation products in real-time down to ppt levels to comply with regulatory demands.

Applications for Carbon Capture and Storage:

Leak Testing:

Pipelines, often composed of numerous flanges, require rigorous leak testing. While initial leak testing is essential, continuous monitoring is preferable, as factors like gasket failure, corrosion, mechanical damage and thermal cycling can cause leaks over time.

Clearance Testing:

Before servicing, parts need to be tested to confirm the absence of harmful compounds, ensuring safe handling.

Applications for Industrial Safety:

Dismantling Industrial Complexes:

During the dismantling of industrial facilities, the release of residual toxic substances poses significant health risks to workers and the environment. Continuous monitoring of hazardous emissions is vital to ensure safety throughout the process.

Reach out to our experts. Contact us now!

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