KORE TECHNOLOGY

PTR 2e

Providing high performance analysis.

Mass resolution > 5000 m/δm

Detection limit < 10 ppt

Sensitivity > 200 cps/ppbv

High Mass Resolution

Rugged and Transportable

Affordable High Performance

Kore Technology designed the world's first time-of-flight mass spectrometer to couple to a proton transfer reactor back in 2002, and we have continued our innovation since. We are pleased to present our larger, higher performance PTR-TOF-MS instrument, the PTR 2e.

The PTR 2e from Kore features a new spectrometer capable of delivering up to 8,000 mass resolution. For routine operation, the instrument operates at >5,000.

The PTR 2e features a new and novel PTR reactor with a Kore-designed ion concentrator as part of the reactor, capable of achieving > 200 cps/ppbv Benzene. This greatly reduces the ion losses that would normally occur in the reactor.

The PTR 2e is designed for easy and safe transportation. It is housed in a purpose-designed vertical rack to permit easy transportation in a standard van. The instrument is floated inside the frame so that it is cushioned during transportation.

PTR 2E APPLICATION AREAS

- Live VOC monitoring while driving (ambient air, product quality control and testing)
- VOC analysis
- Clean room air quality monitoring
- Breath analysis
- Food analysis
- Homeland security

FULL SPECIFICATION

Concentration range	50ppm to ppt levels
Sensitivity	>200cps/ppbv VOCs (measured with Benzene)
Detection limit	< 10ppt
Response time to concentration changes	~100ms
Mass resolution at max sensitivity	>5000 m/δm (FWHM) at m/z 79
Mass resolution	~8000 m/δm achievable
Mass range	unlimited; in practice: 1000m/z (limited by gas phase thermochemistry)
Glow discharge ion source	reagent ions H_3O^+, O_2^+ , NO^+
Dimensions	1030 x 1630 x 650 mm
Weight	~230kg
Power requirement (normal operation)	<750W
Reactor oven heating	30-130°C (150°C transfer line available)
Fully computer-controlled operation, automatic analysis software function	
Option for computer-controlled reagent ion switching	
Option for mass calibration unit (injecting low levels of high mass compound)	

Kore Technology Ltd
Cambridgeshire Business park
Ely
United Kingdom

T: +44 (0) 1353 653030
W: www.kore.co.uk
E: info@kore.co.uk

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