KORE TECHNOLOGY

HR EI-TOF-MS

Providing analysis of gases for production and research.

Mass resolution >6000 m/δm

Response time ~100ms

Sensitivity 90 ppb in 1 min

High resolution, high sensitivity

Production or research applications

Capillary and membrane inlet

The Kore HR EI-TOF-MS offers real-time, high time resolution, high sensitivity detection of all gas species in parallel. All masses are collected, preserving the maximum amount of information. A dual inlet system comprises a heated capillary inlet for inorganic gases and a permeable membrane concentrator inlet assembly for volatile organic compounds.

Kore Technology: At the heart of innovative analysis

The Kore HR EI-TOF-MS has the ability to generate a single mass spectrum from <0.5 seconds to many minutes' duration, if required.

In 'chromatogram' mode, data is acquired over periods of up to several minutes. The data is streamed to disc for this period, and can be inspected retrospectively, looking at time intervals of as little as 100ms.

'Process monitor' mode is suited to long-term monitoring over hours or days. The user views an updating plot of up to 16 species that have been selected beforehand. Spectra for each measurement are saved to disk, and the user can go back to the data to plot any species retrospectively.

The software allows the user to monitor trends in multiple gases over long periods of time.

HR EI-TOF-MS APPLICATION AREAS

Process monitoring
Catalysis studies
Combustion/pyrolysis research
VOC monitoring
Clean room air quality monitoring
Breath analysis
Homeland security
Odour identification
Fenceline monitoring

FULL SPECIFICATION

Mass range	Unlimited; in practice 1–1000 m/z (limited by gas phase thermochemistry)
Mass resolution	≥6000 m/δm (FWHM)
Response time	~100ms
Sensitivity	Xenon in ambient air: 90ppb in 1 minute
Mass accuracy	1 milli amu (interpolated), 2 milli amu (extrapolated)
Inlet system	Capillary and membrane to 10 bar pressure gas inlet
Inlet heater	Up to 150°C
Power supply	220–240V, 1kW
Dimensions	610 x 1650 x 800 mm
Weight	250kg
Data acquisition	Rack-mounted PC or laptop

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