BioLAB

PRODUCT CATALOG

GAS CHROMATOGRAPHY-MASS SPECTROMETRY
BCHR-110

CE ISO9001 CERTIFIED

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GAS CHROMATOGRAPHY-MASS SPECTROMETRY BCHR-110

Chromatography is a technique that enables the separation, identification, and purification of the components of a mixture for qualitative and quantitative analysis. Our extensive range offers variety of products like Gas, Ion and Portable Ion chromatography products to meet all separation needs, including improved resolution, enhanced sensitivity, faster analysis and consistent performance.
Used in Food Testing, Chemical Industry, Beverage Testing, Drug testing, Forensic Science, Pharmaceutical, Molecular Biology, Medical, Research, Laboratory.
Also known as Laboratory Chromatography.

BCHR-110 GAS CHROMATOGRAPHY-MASS SPECTROMETRY

Hardware:

Electronic pressure/flow control system (EPC/EFC) for self-developed system.

Patented EI filament set provides highly efficient electron emission, a maximum of 350μA.

Quality mass analyzer with pre-filter reduces quadrupole pollution.

High-energy dynode electron multiplier ensures good sensitivity.

Vacuum system with quality mechanical and turbo molecular pumps guarantees stability and reliability.

Full scale gauges monitor vacuum states in real time.

Self protection system guarantees safety of operators and core parts under abnormal conditions.

RF power supply digital compensation technology ensures better sensitivity and resolution in full mass range.

Software:

The software controls auto sampler, gas chromatograph and mass spectrometer, data are acquired and transferred by high-speed network card.

Full Scan and selective Ion Monitoring modes are available, the system supports manual and automatic tuning, display of total ion current and mass chromatogram.

The data processing section searches target compounds based on mass spectra of samples, displays search results which include retention times, structural formula and standard mass spectra, and compares the abundances of standard and real target ions. Users can make accurate qualitative and quantitative analyses.

Superior quality: It uses high-end core parts, which ensures high quality.

Meeting high demands: It provides necessity parts and meets multiple requirements from clients in different fields.

User-friendly design: It facilitates easy operation and convenient maintenance.

High-efficiency ionization source: Modularization design, employing ion source, having high ionization efficiency, and enhancing sensitivity.

Software: Convenient operation, data acquisition and processing.

Highly cost-effective: Offering more benefits while meeting all application demands.

Consumables with favourable price: Most consumables and parts are self-developed, which save a lot of maintenance cost, while providing high performance.

SPECIFICATIONS

Model	BCHR-110
GC Specification	
Inlet	Split / Splitless
Inlet Temperature	Highest temperature 450°C

Electronic Pressure Control(EPC)Range	0-50 Psi, accuracy 0.1 Psi, support constant
Maximum Diffluent Ratio	500:1
Working Temperature in column oven	+10°C - 450°C
Maximum Heating Rate	40°C /min
Platform Warming	8 stages 9 platforms program warming
Sample size	0.1 10 uL
Peak Area Repeatability	< 1 % RSD
Retention Time	< 0.5% RSD
Sweeping Gas Volume	2-10 ml/min
MS Specification	
Ionization Energy (Electron Impact)	10 eV -100eV (normally 70eV)
Mass Range	1.5-1000 amu
Resolution	0.7 amu (half peak width)
Ion Source Temperature	100 - 350°C
Maximum Service Temperature at Interface	400°C
Mass Axis Stability	+/- 0.10 amu/48 hrs
Sensitivity	Full scan, 1pg OFN at m/z 272 with S/N ≥30: 1 (RMS)
Scanning Rate	Max. 10000 amu/s
Accuracy	0.1 amu
Vacuum System	High-performance mechanical backing pump (geometric pumping speed is 5m3/h) and turbo molecular pump (geometric pumping speed is 67 l/s) provide sufficient vacuum for mass spectrometry system (≤ 8×10-5 mbar), and a vacuum gauge with wide measuring range displays real time vacuum information
Detector	High energy dynode electron multiplier
Scanning methods	SIM, FULL SCAN, MIX
Others	
Pressure	220 V(+/-5%), 50 Hz(±1)
Ambient Temperature	18°C~30°C
Relative Humidity	< 70%

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