BioLAB

PRODUCT CATALOG

CHROMATOGRAPHY

CE ISO9001 CERTIFIED

www.biolabscientific.com

CHROMATOGRAPHY BHB1B1

GAS CHROMATOGRAPHY

As a new generation instrument, Gas Chromatograph applies the computer reverse control technology and can conduct remote detection and fault diagnosis, equipped with a flame ionization detector (FID).

PC control, user-friendly interface, and easy to operate.
Temperature control is of high accuracy (better than ±0.1°C). The heating speed is fast and the overshoot temperature is small.
Self-diagnosis, power protection, oven over-temperature protection, and automatic ignition.
It can accurately display the temperature control settings, actual value, and FID amplifier sensitivity.
The single gas system and precise scale pneumatic control valve contribute to excellent reproducibility and stability and can perform analysis of packed column or capillary with wide diameter of 0.53mm.
Packed columns: on-column injection, instantaneous vaporization injection, gas injection.

SPECIFICATIONS

Model	BHB1B1
Old Model	BCHR-107
Temperature Control	
- Temperature area	column oven, sampler, detector
- Temperature range	15°C ~399°C above room temperature (increment: 1°C)
- Temperature accuracy	better than ±0.1°C (measured at 200°C)
Flame Ionization Detector (FID)	
- Detection limit	Dt≤1x10^{-10}g/s (octane and hexadecane)
- Baseline drift	≤2x10^{-12}A/h
- Linear range	≥10^{6}
- Max. limit temperature	400°C
Others	
- Voltage	220V~±22V 50Hz±0.5Hz
- Power	≤1500W
- Dimensions	575mm (L) x480(W) x490mm (H)
- Weight	50kg
Optional	NJ2000 chromatography workstation
Alt Name	Gas Chromatography

FEATURES

PC control, user-friendly interface, and easy to operate.
Temperature control is of high accuracy (better than ±0.1°C). The heating speed is fast and the overshoot temperature is small.
Self-diagnosis, power protection, oven over-temperature protection, and automatic ignition.
It can accurately display the temperature control settings, actual value, and FID amplifier sensitivity.
The single gas system and precise scale pneumatic control valve contribute to excellent reproducibility and stability and can perform analysis of packed column or capillary with wide diameter of 0.53mm.
Packed columns: on-column injection, instantaneous vaporization injection, gas injection.
An open computer system and NJ2000 chromatography workstation can work together to process data.
A large capacity oven (300mmx280mmx270mm) facilitates the installation of packed columns and capillary.
Built-in heating wire structure.

CHROMATOGRAPHY BHC1B1

GAS CHROMATOGRAPHY

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 a 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.

The control system is designed for monitoring and controlling the instrument via the computer.
Column Compartment/oven with superior thermal performance, multistage (10 ramps) programmed temperature.
Advanced built-in data acquisition system, supporting real time instrument status monitoring, detection signal acquisition and PC control.
The column oven accommodates up to 3 chromatographic columns, and supports quick heat-up and rapid cool-down with automated back-door opening.
Flexible sample introduction system: 3 sample injectors could be installed and operated simultaneously with independent temperature control.
High sensibility and stability detector.
2 independent and analog signals output.

SPECIFICATIONS

Model	BHC1B1
Old Model	BCHR-109
Column Oven	
- Temperature Range	Ambient temperature +7°C ~ 400°C (in 1°C increment)
- Temperature Control Accuracy	± 0.02°C
- Programmed temperature setting	0.1°C ~ 40°C/min (in 1°C increment)
- Program ramps	7 ramps in total (10 ramps available with control workstation)
- Cooling time	400°C to 50°C in 8-10 min at 25°C ambient
- Size (LxWxH)	284x280x241mm (internal) 340x345x281mm (external)
Detector	FID
Hydrogen flame ionization detector (FID)	
- Detection limit	≤ $3x10^{-12}$ g/s (C16)
- Best test result	≤ $3x10^{-12}$ g/s (C16)
- Baseline noise	≤ $5x10^{-14}$ A
- Baseline drift	≤ $6x10^{-13}$ A /30 min
- Linear range	≥ 10^6
Thermal Conductivity Detector (TCD)	
- Sensitivity	≥5000 mV·ml/mg (C16)
- Linearity range	≥10^4
Flame Photometric Detector (FPD)	
- Detection limit (S)	≤$8x10^{-10}$ g/s (S)
- Drift	≤$2x10^{-11}$ A/30 min
Alt Name	Gas Chromatography

FEATURES

The control system is designed for monitoring and controlling the instrument via the computer.
Column Compartment/oven with superior thermal performance, multistage (10 ramps) programmed temperature.
Advanced built-in data acquisition system, supporting real time instrument status monitoring, detection signal acquisition and PC control.
The column oven accommodates up to 3 chromatographic columns, and supports quick heat-up and rapid cool-down with automated

back-door opening.
Flexible sample introduction system: 3 sample injectors could be installed and operated simultaneously with independent temperature control.
High sensibility and stability detector.
2 independent and analog signals output.
M6 software, compatible with GLP/FDA-21 CFR Part 11 requirements and regulations (electronic records and signatures).
Sample injector and evaporation chamber.

APPLICATIONS

Food Testing, Chemical Industry, Beverage Testing, Drug testing, Forensic Science, Pharmaceutical, Molecular Biology, Medical, Research, Laboratory

CHROMATOGRAPHY BHB1C1

GAS CHROMATOGRAPHY

The host uses a 7-inch color touch screen, electronic display gas flow and pressure values.
Computer anti-control (need to choose PC-side anti-control software) and the host touch screen to achieve synchronous two-way control.
Multi-core, 32-bit embedded hardware system to ensure reliable operation of the instrument.
One key to start a function.
Extensible synchronous external triggering function can be initiated by external signals (autosampler, thermal analyzer, etc.) at the same time to start the host and workstation.
Has a perfect system self-test function and automatic fault recognition.
Extended interface with 8 external events, which can be equipped with various fu

SPECIFICATIONS

Model	BHB1C1
Old Model	BCHR-108
Column Oven	
- Inner volume	22L
- Temperature range	5°C - 400°C at room temperature
- Temperature control accuracy	±0.1°C
- Heating rate	0.1 - 60°C / min
- The order of heating of the program	9
- Program temperature repeatability	≤2%
- Cooling method	after the door
- Cooling rate	≤10 mins (250°C - 50°C)
Sampler	
- Temperature control range	room temperature 7°C - 420°C
- Temperature control mode	independent temperature control
- Carrier gas flow control mode	constant pressure
- Number of simultaneous installations	up to 3
- Injection unit type	packed column, shunt
- Split ratio	display
- Pre column pressure range	0 - 400 kPa
- Pre column pressure control accuracy	Pre column pressure control accuracy: 0.1 kPa
- Flow setting range	H2O-200 ml/min, N2O-150 ml/min
- FID, TCD	optional one

Detector	
- Ignition function	automatic
- Detector	Hydrogen flame ionization detector (FID)
- Detection limit:	≤3x10^{-12} g/s (n-hexadecane)
- Baseline noise	≤5x10^{-14} A
- Baseline drift	≤6x10^{-13} A
- Dynamic range	10^7
- RSD	≤3%
- Sensitivity	5000 mV·ml/mg (n-hexadecane)
Thermal Conductivity Detector (TCD)	
- Power supply voltage	220V ±22V, 50Hz ±0.5Hz
Power	Power: 3000W
Alt Name	Gas Chromatography

FEATURES

The host uses a 7-inch color touch screen, electronic display gas flow and pressure values.
Computer anti-control (need to choose PC-side anti-control software) and the host touch screen to achieve synchronous two-way control.
Multi-core, 32-bit embedded hardware system to ensure reliable operation of the instrument.
One key to start a function.
Extensible synchronous external triggering function can be initiated by external signals (autosampler, thermal analyzer, etc.) at the same time to start the host and workstation.
Has a perfect system self-test function and automatic fault recognition.
Extended interface with 8 external events, which can be equipped with various function control valves and operate according to their own timing.
20 sets of sample test mode memory functions.
RS232 communication port.

CHROMATOGRAPHY BHD1B1

ION CHROMATOGRAPHY

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 a 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.

Built-in circulating 3D constant temperature technology:
Temperature stability time is less than 30 mins, ensuring the accuracy and reliability of test data.
The world's leading full-range series of ion chromatographic columns:
High efficiency, large capacity of the columns for detecting ions of varied compositions.
Self-Regenerating Electrolytic Micro-membrane Suppressor:
High pressure resistance, small dead volume, highly responsive to signals.
Auto-range Conductivity Detector:
It can directly detect the signal from ppb to ppm without adjusting the range. Only one conductivity detector can detect anions and cations.
Observatory intelligent workstation:

SPECIFICATIONS

Model	BHD1B1
Old Model	BCHR-101
Ion Chromatographic Pump	
- Maximum Pressure	42 MPa (Stainless steel)
- Type	High-pressure and low-pulse two-piston tandem advection pump
- Pressure Display Accuracy	≤ 0.1 MPa
- Flow Range	0.001 ~ 9.999 mL/min
- Pressure Fluctuation	≤ 0.5%
- Flow Stability	(0.2-0.5) mL/min ≤ 2%; (0.5-1.0) mL/min ≤ 1%; >1.0 mL/min ≤ 1%
Manual Sample Injector	
- Contact Material of the Rotor	PEEK
- Contact Material of Medium	PEEK/Ceramics
Column Heater	
- Operating Temperature Range	20°C~60°C (68~140°F)
- Controlling Temperature Accuracy	±0.01°C
- Allowable Deviation of Column Heater's Temperature	±1°C
- Temperature Stability	≤0.05°C/h
Conduction Detection System	
- Cell Volume	≤0.8μL
- Detection Range	0~35000 μS/cm
- Detection Resolution	≤0.0020nS/cm
- Output Voltage	-6000~+6000 mV (adjustable)
- Electronic Noise	0.02 nS
- Baseline Noise	≤0.001 μS/cm
- Baseline Drift	≤0.02μS
- Temperature Compensation	1.7%/°C
- Linear Range	≥10^3
- Instrument Linearity	≥0.999
- Quantitative Repeatability	≤1.0%
Qualitative Repeatability	≤0.5%
Minimum Detectable Concentration	Cl^- ≤0.0005 μg/mL; $Li+$ ≤0.001 μg/mL; BrO_3^- ≤0.001 μg/mL
Flow System	
- Six-way Valve	PEEK material, pressure 5000 psi; Independent automatic collecting and flow function.
Suppressor	
- Dead Volume	<50 μL
Other Specifications	
- Dimension (LxWxH)	350x470x510 mm
- Net Weight	26 kg
- Gross Weight	32 kg
- Power	150 W
Alt Name	Ion Chromatography

FEATURES

Built-in circulating 3D constant temperature technology:
Temperature stability time is less than 30 mins, ensuring the accuracy and reliability of test data.
The world's leading full-range series of ion chromatographic columns:
High efficiency, large capacity of the columns for detecting ions of varied compositions.
Self-Regenerating Electrolytic Micro-membrane Suppressor:
High pressure resistance, small dead volume, highly responsive to signals.
Auto-range Conductivity Detector:
It can directly detect the signal from ppb to ppm without adjusting the range. Only one conductivity detector can detect anions and cations.
Observatory intelligent workstation:
Integrated control, intelligent start-up, shutdown and maintenance functions. Compatible with a variety of instruments.

APPLICATIONS

Food Testing, Chemical Industry, Beverage Testing, Drug testing, Forensic Science, Pharmaceutical, Molecular Biology, Medical, Research, Laboratory.

CHROMATOGRAPHY BHD1C1

ION CHROMATOGRAPHY

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 a 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.

Temperature-control bipolar conductivity detector:
Greater detection range, better precise analysis.
Built-in circulating 3D constant temperature technology:
Temperature stability time is less than 30 mins, ensuring the accuracy and reliability of test data.
The world's leading full-range series of ion chromatographic columns:
High efficiency, large capacity of the columns for detecting ions of varied compositions.
Self-Regenerating Electrolytic Micro-membrane Suppressor:
High pressure resistance, small dead volume, highly responsive to signals.
Able to detect anions and cations at the ppb level.
Work across a variety of detectors, to expand the scope of applications of ion c

SPECIFICATIONS

Model	BHD1C1
Old Model	BCHR-102
Ion Chromatographic Pump	
- Maximum Pressure	35 MPa (PEEK)
- Type	High-pressure and low-pulse two-piston tandem advection pump
- Pressure Display Accuracy	≤ 0.1 MPa
- Flow Range	0.001 ~ 9.999 mL/min
- Pressure Pulse	≤ 0.5%
- Flow Stability	(0.2-0.5) mL/min ≤ 3%; (0.5-1.0) mL/min ≤ 2%; >1.0 mL/min ≤ 2%
- Allowable Deviation of Flow	(0.2-0.5) mL/min ±5%; (0.5-1.0) mL/min ±3%; >1.0 mL/min ±2%

Numerical-control and Electromagnetic Sample Injector	
- Contact Material of the Rotor	PEEK
- Control Mode	By Stepper motor
- Power Supply	24 V (DC)
Conduction Detection System	
- Cell Volume	≤0.8μL
- Detection Mode	Bipolar conductivity detection
- Detection Range	0~45000 μS/cm
- Detection Resolution	≤0.0020nS/cm
- Output Voltage	-6000~+6000 mV (adjustable)
- Electronic Noise	0.02 nS
- Baseline Noise	≤0.001 μS/cm
- Baseline Drift	≤0.02μS
- Operating Temperature Range	Room temperature +5℃~60℃
- Controlling Temperature Accuracy	±0.01℃
- Linear Range	≥10^3
- Instrument Linearity	≥0.999
- Quantitative Repeatability	≤1.0%
- Qualitative Repeatability	≤0.1%
- Minimum Detectable Concentration	Cl^- ≤0.0005 μg/mL; Li+ ≤0.001 μg/mL; BrO_3^- ≤0.001 μg/mL
Flow System	
- Six-way Valve	PEEK material, pressure 5000 psi; Independent automatic collecting and flow function.
Suppressor	
- Dead Volume	<50 μL
Other Specifications	
- Dimension (LxWxH)	350x470x510 mm
- Net Weight	26 kg
- Gross Weight	32 kg
- Power	150 W
Alt Name	Ion Chromatography

FEATURES

Temperature-control bipolar conductivity detector:
Greater detection range, better precise analysis.
Built-in circulating 3D constant temperature technology:
Temperature stability time is less than 30 mins, ensuring the accuracy and reliability of test data.
The world's leading full-range series of ion chromatographic columns:
High efficiency, large capacity of the columns for detecting ions of varied compositions.
Self-Regenerating Electrolytic Micro-membrane Suppressor:
High pressure resistance, small dead volume, highly responsive to signals.
Able to detect anions and cations at the ppb level.
Work across a variety of detectors, to expand the scope of applications of ion chromatography.

APPLICATIONS

Food Testing, Chemical Industry, Beverage Testing, Drug testing, Forensic Science, Pharmaceutical, Molecular Biology, Medical, Research, Laboratory.

CHROMATOGRAPHY BHD1D1

ION CHROMATOGRAPHY

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 a 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.

Leakage alarm:
When there is liquid leakage in the pipeline, the liquid leakage detector will send out an alarm sound to remind in time when it detects the liquid, and automatically stop the pump and shut down after 5 minutes if there is no human intervention.
Automatic range:
The operation of ion chromatograph does not need to set the range, so it is easy to realize the simultaneous determination of a 5ppb-100ppm concentration sample, and the signal is displayed by digital signal μ s / cm.
Gas-liquid separator:
The presence of bubbles in the eluent will increase the baseline noise and reduce the sensitivity. A micro gas-liquid separator is set up in the pipeline betwee

SPECIFICATIONS

Model	BHD1D1
Old Model	BCHR-103
Ion Chromatographic Pump	
- Maximum Pressure	35 MPa (PEEK)
- Type	High-pressure and low-pulse two-piston tandem advection pump
- Pressure Display Accuracy	≤ 0.1 MPa
- Flow Range	0.001 ~ 9.999 mL/min
- Flow Precision	≤ 0.1%
- Pressure Pulse	≤ 0.5%
- Flow Stability	≤ 0.1%
- Numerical-control and Electromagnetic Sample Injector	
- Contact Material of the Rotor	PEEK
- Control Mode	By Stepper motor
- Power Supply	24 V (DC)
Conduction Detection System	
- Cell Volume	≤0.8μL
- Detection Mode	Bipolar conductivity detection
- Detection Range	0~45000 μS/cm
- Detection Resolution	≤0.0020nS/cm
- Output Voltage	-6000~+6000 mV (adjustable)
- Electronic Noise	0.02 nS
- Baseline Noise	≤0.001 μS/cm
- Baseline Drift	≤0.01μS
- Operating Temperature Range	Room temperature +5°C~60°C ±0.01°C
- Controlling Temperature Accuracy	±0.01°C
- Linear Range	≥10^3
- Instrument Linearity	≥0.999

- Quantitative Repeatability	≤0.5%
- Qualitative Repeatability	≤0.5%
- Minimum Detectable Concentration	Cl^- ≤0.0002 μg/mL; Li+ ≤0.002 μg/mL
Flow System	
- Six-way Valve	PEEK material, pressure 5000 psi; Independent automatic collecting and flow function.
Suppressor	
- Dead Volume	<50 μL
Other Specifications	
- Dimension (LxWxH)	350x470x510 mm
- Net Weight	26 kg
- Gross Weight	32 kg
- Power	150 W
Alt Name	Ion Chromatography

FEATURES

Leakage alarm:
When there is liquid leakage in the pipeline, the liquid leakage detector will send out an alarm sound to remind in time when it detects the liquid, and automatically
stop the pump and shut down after 5 minutes if there is no human intervention.
Automatic range:
The operation of ion chromatograph does not need to set the range, so it is easy to realize the simultaneous determination of a 5ppb-100ppm concentration sample, and the signal is displayed by digital signal μ s / cm.
Gas-liquid separator:
The presence of bubbles in the eluent will increase the baseline noise and reduce the sensitivity. A micro gas-liquid separator is set up in the pipeline between the infusion pump and the eluent bottle to separate the bubbles from the eluent.
Timing startup preheating:
It usually takes about 1 hour for the ion chromatograph to balance the system from start-up to sample injection analysis. When the user has prepared the eluent (or pure
water for eluent generator), you can set the start-up running time of the instrument in advance (24 hours at most), complete the start-up operation, and set all parameters.
Intelligent maintenance:
Set to "intelligent maintenance", the instrument can complete the flow path switch to the pure water path, the flow rate is set to 0.5ml/min, running for 1 hour.
Mobile phone app:
The mobile app has a friendly interface and easy operation.
App monitoring: Put the device in the pocket, no matter where you are, you can turn on the mobile phone to view and control the field device. The mobile app can remotely control the instrument on / off and observe the operation performance index of the instrument.
Intelligent touch screen:
The large screen displays the operation parameters and status of the instrument, which is convenient for the operator to check the equipment status on site, and to complete the operation of instrument on-off, instrument maintenance, etc.

APPLICATIONS

Food Testing, Chemical Industry, Beverage Testing, Drug testing, Forensic Science, Pharmaceutical, Molecular Biology, Medical, Research, Laboratory.

CHROMATOGRAPHY BHD1E1

ION CHROMATOGRAPHY

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 a 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.

Built-in eluent generator, free from configuring eluent, with gradient elution available.
Modular manufacturing process to maintain excellent systemic stability.
Built-in low-pressure degassing technology to eliminate bubble interference for more stability.
Optional intelligent automatic injection system for large sample volumes, which features automatic dilution to save labor and time.
Work across a variety of detectors, to expand the scope of applications of ion chromatography.

SPECIFICATIONS

Model	BHD1E1
Old Model	BCHR-104
Ion Chromatographic Pump	
- Maximum Pressure	35 MPa (PEEK)
- Type	High-pressure and low-pulse two-piston tandem advection pump
- Pressure Display Accuracy	≤ 0.1 MPa
- Flow Range	0.001 ~ 9.999 mL/min
- Pressure Pulse	≤ 0.5%
- Flow Stability	(0.2-0.5) mL/min ≤ 3%; (0.5-1.0) mL/min ≤ 2%; >1.0 mL/min ≤ 2%
Conduction Detection System	
- Cell Volume	≤0.8μL
- Detection Mode	Bipolar conductivity detection
- Detection Range	0~50000 μS/cm
- Detection Resolution	≤0.0020nS/cm
- Output Voltage	-6000~+6000 mV (adjustable)
- Electronic Noise	0.02 nS
- Baseline Noise	≤0.05% FS
- Baseline Drift	≤3% FS
- Operating Temperature Range	Room temperature +5°C~60°C (41~140°F)
- Controlling Temperature Accuracy	±0.01°C
- Linear Range	≥10^3
- Instrument Linearity	≥0.999
- Quantitative Repeatability	≤1.0%
- Qualitative Repeatability	≤1.0%
- Minimum Detectable Concentration	Cl^- ≤0.0005 μg/mL; Li+ ≤0.001 μg/mL; BrO_3^- ≤0.001 μg/mL
Flow System	
- Six-way Valve	PEEK material, pressure 5000 psi; Independent automatic collecting and flow function.

Built-in Eluent Generator	
- Eluent Types	KOH/MSA
- Eluent Concentration Range	0.1-120 mM
- Concentration Increment	0.1 mM
- Flow Rate Range	0.1-5.0 mL/min
- Minimum Pressure	5 MPa
Suppressor	
- Dead Volume	<50 µL
Other Specifications	
- Dimension (LxWxH)	350x470x650 mm
- Net Weight	34 kg
- Gross Weight	40 kg
- Power	150 W
Alt Name	Ion Chromatography

APPLICATIONS

Food Testing, Chemical Industry, Beverage Testing, Drug testing, Forensic Science, Pharmaceutical, Molecular Biology, Medical, Research, Laboratory.

CHROMATOGRAPHY BHC1C1

GAS CHROMATOGRAPHY-MASS SPECTROMETRY

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 a 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.

Hardware:
Electronic pressure/flow control system (EPC/EFC) for self-developed systems.
The 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.
A vacuum system with quality mechanical and turbo molecular pumps guarantees stability and reliability.
Full scale gauges monitor vacuum states in real time.
The self protection system guarantees safety of operators and core parts under abnormal conditions.
RF power supply digital compensation technology ensures better sensitivity and r

SPECIFICATIONS

Model	BHC1C1
Old 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 Diffusent 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 μL
- 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 - 100 eV (normally 70 eV)
- Mass Range	1.5 - 1000 amu
- Resolution	0.7 amu (half peak width)
- Ion Source Temperature	100 - 350℃
- Maximum Service Temperature at Interface	400℃
- Mass Axis Stability	±0.10 amu/48 hrs
- Sensitivity	Full scan, 1 pg 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 (5 m^3/h) and turbo molecular pump (67 l/s), sufficient vacuum ≤ $8x10^{-5}$ mbar
- Detector	High energy dynode electron multiplier
- Scanning Methods	SIM, FULL SCAN, MIX
Others	
- Pressure	220 V (±5%), 50 Hz (±1)
- Ambient Temperature	18℃-30℃
- Relative Humidity	<70%
Alt Name	Gas Chromatography-Mass Spectrometry

FEATURES

Hardware:
Electronic pressure/flow control system (EPC/EFC) for self-developed systems.
The 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.
A vacuum system with quality mechanical and turbo molecular pumps guarantees stability and reliability.
Full scale gauges monitor vacuum states in real time.
The 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 an 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.

APPLICATIONS

Food Testing, Chemical Industry, Beverage Testing, Drug testing, Forensic Science, Pharmaceutical, Molecular Biology, Medical, Research, Laboratory.

CHROMATOGRAPHY BHD1F1

ION CHROMATOGRAPHY

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 a 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.

Cation and anion dual-channel system, with both channels operating independently without disturbing each other and cations and anions being detected simultaneously.
Eluent thermal buffer system in which eluent enters into the columns after preheated, to avoid bubbles generated from rapid heating.
Intelligent flow path mode, one-key operation to complete flow path switch, automatic cleaning to save time and labor.
Built-in low-pressure degassing technology to eliminate bubble interference for more stability.
The world's leading full-range series of chromatographic columns able to detect ions with varied compositions.
Excellent performance to support all your applications.Ion Chromatographic Pump:

SPECIFICATIONS

Model	BHD1F1
Old Model	BCHR-105
Ion Chromatographic Pump	
- Pressure Display Accuracy	≤ 0.1 MPa
- Maximum Pressure	35 MPa (PEEK)
- Flow Range	0.001 ~ 9.999 mL/min
- Resolution of Flow Rate	0.001 mL
- Flow Precision	< 0.1%
- Flow Accuracy	< 0.1%
- Pressure Pulse	≤ 0.5%
- Flow Stability	(0.2-0.5) mL/min ≤ 3%; (0.5-1.0) mL/min ≤ 2%; >1.0 mL/min ≤ 2%
Numerical-control and Electromagnetic Sample Injector	
- Power Supply	24 V (DC)
Column Heater	
- Operating Temperature Range	+20°C~60°C (68~140°F)
- Controlling Temperature Accuracy	±0.01°C
- Allowable Deviation of Column Heater's Temperature	±1°C
- Temperature Stability	≤0.05°C/h
Conduction Detection System	
- Cell Volume	≤0.8μL
- Detection Mode	Bipolar conductivity detection
- Detection Range	0~50000 μS/cm
- Detection Resolution	≤0.0020nS/cm

- Output Voltage	-6000~+6000 mV (adjustable)
- Electronic Noise	0.02 nS
- Baseline Noise	≤0.001 μS/cm
- Baseline Drift	≤0.02μS
- Linear Range	≥10^3
- Instrument Linearity	≥0.999
- Quantitative Repeatability	≤1.0%
Thermal Buffer System of Eluent	
- Qualitative Repeatability	≤1.0%
- Thermal Buffer System of Eluent	Before entering the column, the eluent is preheated to stabilize baseline and improve analysis efficiency.
- Temperature Range	25~40℃ (77~104°F)
Built-in and Low-pressure Degassing Device	
- Vacuum Degree	-70 kPa
- Maximum Flow Rate	10 mL/min
- Internal Volume	30 μL
- Degassing Efficiency	10 mL/min 90%
Flow System	
- Six-way Valve	PEEK material, pressure 5000 psi; Independent automatic collecting and flow function.
Built-in Eluent Generator	
- Eluent Types	KOH/MSA
- Eluent Concentration Range	0.1-120 mM
- Concentration Increment	0.1 mM
- Flow Rate Range	0.1-5.0 mL/min
- Minimum Pressure	5 MPa
Suppressor	
- Type	Self-Regenerating electrolytic micro-membrane suppressor
- Dead Volume	<50 μL
Other Specifications	
- Dimension (LxWxH)	500x500x760 mm
- Net Weight	48 kg
- Gross Weight	73 kg
- Power	350 W
Alt Name	Ion Chromatography

FEATURES

Cation and anion dual-channel system, with both channels operating independently without disturbing each other and cations and anions being detected simultaneously.
Eluent thermal buffer system in which eluent enters into the columns after preheated, to avoid bubbles generated from rapid heating.
Intelligent flow path mode, one-key operation to complete flow path switch, automatic cleaning to save time and labor.
Built-in low-pressure degassing technology to eliminate bubble interference for more stability.
The world's leading full-range series of chromatographic columns able to detect ions with varied compositions.
Excellent performance to support all your applications.Ion Chromatographic Pump: Type - High-pressure and low-pulse two-piston tandem advection pump
Numerical-control and Electromagnetic Sample Injector: Contact Material of the Rotor - PEEK
Numerical-control and Electromagnetic Sample Injector: Control Mode - By Stepper motor
Conduction Detection System: Type - Temperature control and bipolar conductivity detector.

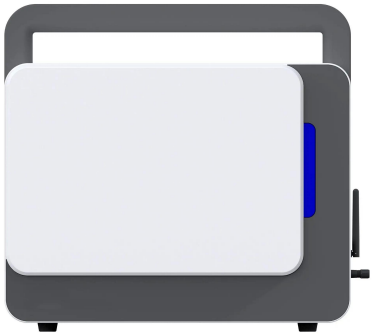
APPLICATIONS

Food Testing, Chemical Industry, Beverage Testing, Drug testing, Forensic Science, Pharmaceutical, Molecular Biology, Medical, Research, Laboratory.

CHROMATOGRAPHY BHD1G1

PORTABLE ION CHROMATOGRAPHY

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 a 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.



Powerful data processing system:
Iconic display, customizable interface, integration of instrument control, data analysis and processing, data sharing module for on-site and remote data sharing through 4G network.
Quick chromatographic columns for 5-min rapid detection:
Original quick chromatographic columns for on-site quick detection of anions and cations.
Intelligent flow path cleaning makes easier cleaning:
The flow path is designed with a switching valve for free switching of eluent bottles and pure water bottles.
WI-FI communication, real-time operation:
Being equipped with a tablet/laptop makes real-time operation more flexible and

SPECIFICATIONS

Model	BHD1G1
Old Model	BCHR-106
Ion Chromatographic Pump	
- Maximum Pressure	35 MPa (PEEK)
- Type	High-pressure and low-pulse two-piston tandem advection pump
- Flow Range	0.001 ~ 9.999 mL/min
- Flow Accuracy	±0.5%
- Flow Repeatability	RSD≤0.1%
- Flow Stability	(0.2-0.5) mL/min ≤ 3%; (0.5-1.0) mL/min ≤ 2%; >1.0 mL/min ≤ 2%
- Numerical-control and Electromagnetic Sample Injector	
- Control Mode	By Stepper motor
- Power Supply	24 V (DC)
Column Heater	
- Operating Temperature Range	Room temperature +5°C~60°C (41~140°F)
- Allowable Deviation of Column Heater's Temperature	±1°C
- Temperature Stability	≤0.5°C/h
Conduction Detection System	
- Cell Volume	≤0.8μL
- Detection Mode	Bipolar conductivity detection
- Detection Range	0~45000 μS/cm (adjustable)
- Detection Resolution	≤0.0020nS/cm
- Output Voltage	-6000~+6000 mV (adjustable)
- Baseline Noise	≤0.5% FS
- Baseline Drift	≤20% FS/30 min

- Controlling Temperature Accuracy	±0.01°C
- Instrument Linearity	≥0.999
- Quantitative Repeatability	≤0.5%
- Qualitative Repeatability	≤2%
Flow System	
- Minimum Detectable Concentration	Cl^- ≤0.005 μg/mL; Li^+ ≤0.001 μg/mL
- Six-way Valve	PEEK material, pressure 5000 psi; Independent automatic collecting and flow function.
Panel Computer	
- Display Screen	12.3 inch
- Internal Memory	2 G
- Weight	786 g
- Minimum Pressure	5 MPa
Suppressor	
- Dead Volume	<30 μL
Other Specifications	
- Dimension (LxWxH)	330x220x310 mm
- Net Weight	8 kg
- Gross Weight	11 kg
- Battery Capacity	5000 mAh
- Power	150 W
Alt Name	Portable Ion Chromatography

FEATURES

Powerful data processing system:
Iconic display, customizable interface, integration of instrument control, data analysis and processing, data sharing module for on-site and remote data sharing through 4G network.
Quick chromatographic columns for 5-min rapid detection:
Original quick chromatographic columns for on-site quick detection of anions and cations.
Intelligent flow path cleaning makes easier cleaning:
The flow path is designed with a switching valve for free switching of eluent bottles and pure water bottles.
WI-FI communication, real-time operation:
Being equipped with a tablet/laptop makes real-time operation more flexible and conveniently.
Upgrade-supported dual detectors (Conductivity Detector and ampere detector) to meet the needs of different industries.

APPLICATIONS

Food Testing, Chemical Industry, Beverage Testing, Drug testing, Forensic Science, Pharmaceutical, Molecular Biology, Medical, Research, Laboratory.

Biolab Scientific Ltd.
Trillium Executive Center, East Tower, 675 Cochrane Dr, Markham, Ontario L3R 0B8, Canada
Email: info@biolabscientific.com | Website: www.biolabscientific.com