CHROMATOGRAPHY

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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 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.

CHR15-042I ION CHROMATOGRAPHY

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.

SPECIFICATIONS

Model	CHR15-042I
Ion Chromatographic Pump	
Type	High-pressure and low-pulse two-piston tandem advection pump
Maximum Pressure	42 Mpa (Stainless steel)
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	
Type	Constant temperature auto-range conductivity detector

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
Operating Temperature Range	Room temperature +5°C~60°C(41~140°F)
Controlling Temperature Accuracy	±0.01°C
Temperature Compensation	1.7 %/°C
Maximum Pressure	10.0 Mpa
Linear Range	≥ 10 3
Instrument Linearity	≥0.999
Quantitative Repeatability	≤1.0%
Qualitative Repeatability	≤0.5%
Minimum Detectable Concentration	Cl- ≤ 0.0005 ug/mL; Li+ ≤ 0.001 ug/mL; BrO3≤ 0.001 ug/mL
Flow System	
Six-way Valve	PEEK material, pressure 5000 psi; Independent automatic collecting and flow function.
Suppressor	
Type	Self-Regenerating electrolytic micro-membrane suppressor
Maximum Pressure	6.0 Mpa
Dead Volume	<50 μL
Other Specifications	
Dimension (LxWxH)	350x470x510 mm
Net Weight	26 kg
Gross Weight	32 kg
Power	150 W

CHR16-035I ION CHROMATOGRAPHY

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.

SPECIFICATIONS

Model	CHR16-035I
Ion Chromatographic Pump	
Type	High-pressure and low-pulse two-piston tandem advection pump
Maximum Pressure	35 Mpa (PEEK)
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	
Maximum Pressure	35 Mpa
Contact Material of the Rotor	PEEK
Control Mode	By Stepper motor
Power Supply	24 V (DC)
Conduction Detection System	
Type	Temperature control and bipolar conductivity detector
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°C~60°C
Controlling Temperature Accuracy	±0.01°C
Maximum Pressure	10.0 Mpa
Linear Range	≥ 10 3
Instrument Linearity	≥0.999
Quantitative Repeatability	≤1.0%
Qualitative Repeatability	≤0.1%
Minimum Detectable Concentration	Cl- ≤ 0.0005 ug/mL; Li+ ≤ 0.001 ug/mL; BrO3≤ 0.001 ug/mL
Flow System	
Six-way Valve	PEEK material, pressure 5000 psi; Independent automatic collecting and flow function.
Suppressor	
Type	Self-Regenerating electrolytic micro-membrane suppressor
Maximum Pressure	6.0 Mpa
Dead Volume	<50 μL
Other Specifications	
Dimension (LxWxH)	350x470x510 mm
Net Weight	26 kg
Gross Weight	32 kg
Power	150 W

CHR17-035I ION CHROMATOGRAPHY

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 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 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 "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:

Mobile app has 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.

SPECIFICATIONS

Model	CHR17-035I
Ion Chromatographic Pump	
Type	High-pressure and low-pulse two-piston tandem advection pump
Maximum Pressure	35 Mpa (PEEK)
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	
Maximum Pressure	35 Mpa
Contact Material of the Rotor	PEEK
Control Mode	By Stepper motor
Power Supply	24 V (DC)

Conduction Detection System	
Type	Temperature control and bipolar conductivity detector
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
Maximum Pressure	10.0 Mpa
Linear Range	≥ 10 3
Instrument Linearity	≥0.999
Quantitative Repeatability	≤0.5%
Qualitative Repeatability	≤0.5%
Minimum Detectable Concentration	Cl- ≤ 0.0002 ug/mL; Li+ ≤ 0.002 ug/mL
Flow System	
Six-way Valve	PEEK material, pressure 5000 psi; Independent automatic collecting and flow function.
Suppressor	
Type	Self-Regenerating electrolytic micro-membrane suppressor
Maximum Pressure	6.0 Mpa
Dead Volume	<50 μL
Other Specifications	
Dimension (LxWxH)	350x470x510 mm
Net Weight	26 kg
Gross Weight	32 kg
Power	150 W

CHR18-035I ION CHROMATOGRAPHY

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	CHR18-035I
Ion Chromatographic Pump	
Type	High-pressure and low-pulse two-piston tandem advection pump
Maximum Pressure	35 Mpa (PEEK)
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	
Type	Temperature control and bipolar conductivity detector
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
Maximum Pressure	10.0 Mpa
Linear Range	≥ 10 3
Instrument Linearity	≥0.999
Quantitative Repeatability	≤1.0%
Qualitative Repeatability	≤1.0%
Minimum Detectable Concentration	Cl- ≤ 0.0005 ug/mL; Li+ ≤ 0.001 ug/mL; BrO3≤ 0.001 ug/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
Maximum Pressure	20 Mpa
Minimum Pressure	5 Mpa
Suppressor	
Type	Self-Regenerating electrolytic micro-membrane suppressor
Maximum Pressure	6.0 Mpa
Dead Volume	<50 μL
Other Specifications	
Dimension (LxWxH)	350x470x650 mm
Net Weight	34 kg
Gross Weight	40 kg
Power	150 W

CHR19-035I ION CHROMATOGRAPHY

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 of 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

SPECIFICATIONS

Model	CHR19-035I
Ion Chromatographic Pump	
Maximum Pressure	35 Mpa (PEEK)
Pressure Display Accuracy	≤ 0.1 MPa
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	
Maximum Pressure	35 Mpa
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

Operating Temperature Range	Room temperature +5°C~60°C(41~140°F)
Controlling Temperature Accuracy	±0.01°C
Maximum Pressure	10.0 Mpa
Linear Range	≥ 10 3
Instrument Linearity	≥0.999
Quantitative Repeatability	≤1.0%
Qualitative Repeatability	≤1.0%
Thermal Buffer System of Eluent	
Thermal Buffer System of Eluent	Before enter into the column,the eluent is preheated. By the way,can avoid the rapid heating up and the bubbles to generate,the baseline is more stable, effectively shorten the start-up balance time and improve the analysis efficiency and effect.
Temperature Range	25~40°C (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
Maximum Pressure	20 Mpa
Minimum Pressure	5 Mpa
Suppressor	
Type	Self-Regenerating electrolytic micro-membrane suppressor
Maximum Pressure	6.0 Mpa
Dead Volume	<50 μL
Other Specifications	
Dimension (LxWxH)	500x500x760 mm
Net Weight	48 kg
Gross Weight	73 kg
Power	350 W

CHR1A-035I PORTABLE ION CHROMATOGRAPHY

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 switch of eluent bottles and pure water bottles.

WI-FI communication, real-time operation:

Being equipped with a tablet/laptop makes real-time operation more flexibly and conveniently.

Upgrade-supported dual detectors (Conductivity Detector and ampere detector) to meet the needs of different industries.

SPECIFICATIONS

Model	CHR1A-035I
Ion Chromatographic Pump	
Type	High-pressure and low-pulse two-piston tandem advection pump
Maximum Pressure	35 Mpa (PEEK)
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	
Maximum Pressure	35 Mpa
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	
Type	Temperature control and bipolar conductivity detector
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
Operating Temperature Range	Room temperature +5°C~60°C(41~140°F)
Controlling Temperature Accuracy	±0.01°C
Maximum Pressure	10.0 Mpa

Instrument Linearity	≥0.999
Quantitative Repeatability	≤0.5%
Qualitative Repeatability	≤2%
Minimum Detectable Concentration	Cl- ≤ 0.005 ug/mL; Li+ ≤ 0.001 ug/mL
Flow System	
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
Maximum Pressure	20 Mpa
Minimum Pressure	5 Mpa
Suppressor	
Maximum Pressure	6.0 Mpa
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

CHR12-399G GAS CHROMATOGRAPHY

PC control, user-friendly interface, and easy to operate.

Heating speed is fast and 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.

Open computer system and chromatography workstation can work together to process data.

Large capacity oven facilitates the installation of packed column and capillary.

Built-in heating wire structure.

RS232 communication port.

SPECIFICATIONS

Model	CHR12-399G
Column Oven	
Temperature Range	15°C – 399°C above room temperature (increment: 1°C)
Temperature Control Accuracy	Better than ± 0.1°C (measured at 200°C)
Hydrogen flame ionization detector (FID)	

Detection limit	Dt ≤ 1x10-10 g/s (octane and hexadecane)
Baseline drift	≤ 2x10– 12 A/h
Linear range	≥ 106
Max. limit temperature	400°C
Other Specifications	
Dimension (LxWxH)	575x480x490 mm
Weight (Kg)	50
Power supply voltage	220 V - ± 22 V 50 Hz ± 0.5 Hz
Power	≤1500 W

CHR11-400G 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 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.

It 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 function.

SPECIFICATIONS

Model	CHR11-400G
Column Oven	
Inner volume	22 L
Temperature Range	5°C – 400°C (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	7°C – 420°C (room temperature)
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	0.1 kpa
Flow setting range	H20 - 200 ml / min N20 – 150 ml / min

Hydrogen flame ionization detector (FID)	
Temperature control range	7°C – 420°C (room temperature)
Number of simultaneous installations	Up to 2
Ignition function	Automatic
Detection limit	≤ 3x10-12 g/s (n-hexadecane)
Baseline noise	≤ 5x10-14 A
Baseline drift	≤ 6x10-13 A
Dynamic range	107
RSD	≤ 3%
Thermal Conductivity Detector (TCD)	
Sensitivity	5000 mV.ml / mg (n-hexadecane)
Baseline noise	≤0.05 mV
Baseline drift	≤0.15 mV / 30 min
Dynamic range	105
Other Specifications	
Power supply voltage	220 V ± 22 V, 50 Hz ± 0.5 Hz
Power	3000 W

CHR13-400G GAS CHROMATOGRAPHY

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.

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.

SPECIFICATIONS

Model	CHR13-400G
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)
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	≥ 106
Thermal Conductivity Detector (TCD)	
Sensitivity	≥5000 mV.ml / mg (C 16)
Baseline noise	≤20 µV
Baseline drift	≤60 µV/h
Linearity range	≥104
Flame Photometric Detector (FPD)	
Detection limit	≤8x10 g / s (P)
≤8x10 g / s (S)	Flame Photometric Detector (FPD): Drift
≤2x10-11 A/30 min	Flame Photometric Detector (FPD): Baseline noise

CHR14-450G 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	CHR14-450G
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%

Labtare USA
82 Wendell Avenue, STE 100, Pittsfield, MA, 01201, USA
Email: info@labtare.com | Website: labtare.com