

LC-6000

Preparative HPLC



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Analytical Technologies Limited

An ISO 9001 Certified Company

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The system is integrated design, the mobile phase delivery unit, detection unit and fraction collection unit is integrated in one set of shelves. It is beautiful and generous, the dead volume of the pipe connection is reduced and the column efficiency is significantly improved. All wetted material is metal-free for bio-molecular purification.

System configuration

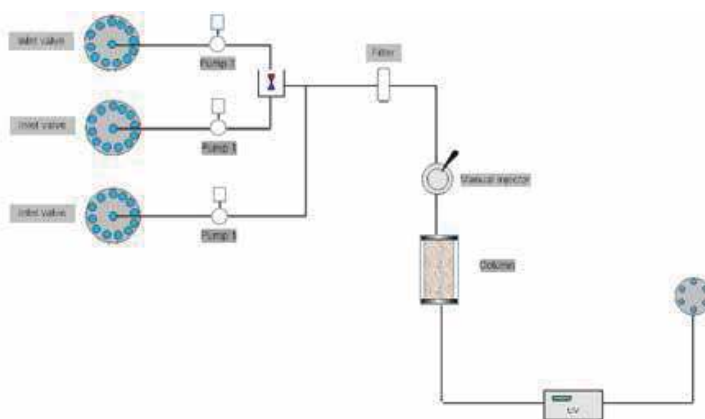
Pump /Max. pressure	100ml pump head 30Mpa 250ml pump head 15Mpa 500ml pump head 10Mpa 1000ml pump head 10Mpa
Detector	UV detector/or RI detector
Fraction collector valve	Azura 2.1L, 6 channels or 12 channels
Online filter	48mm or 100mm filter
Sample valve	A1360 sample injection valve
Mixing	Preparative mixing chamber
Frame and tube	System frame, converter, tube
Safety Features	Leak and pressure sensors
Software	Clarity from DataApex
Kit	System start-up kit and accessories kit
Document	User manual, IQ/OQ/PQ

Note:

- 1.The mobile phase or sample selection valve is optional in system
- 2.Fraction collector valve is standard configuration. The alternative is fraction collector.
- 3.The flow cell of detector match flow rate of system
4. Sample pump is an optional in the system

SYSTEM REQUIREMENTS

Dimension	500mm*320mm*700mm
Communication	LAN
System connection	Ferrule
Wetted material	PEEK and PTFE etc.
Power	Less than 1500W



The Flow path of LC system
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P6000 PUMP	0.1~99.9ml /min	30Mpa
	0.1~249.9ml /min	15Mpa
	0.1~499.9ml/min	10Mpa
	0.1~999.9ml/min	10Mpa
Pressure pulsation	1% at 10Mpa	
Flow rate accuracy	$\pm 1\%$	
Flow rate reproducibility	$RSD \leq 0.5$	
Gradient accuracy	$\pm 2\%$	
Pump inlet tube	$\Phi 4$ (100ml, 250ml, 500ml)	$\Phi 6$ (1000ml)
Pump outlet tube	1/8" (100ml, 250ml, 500ml)	DN4 (1000ml)

sample pump

Flow rate	0.1~49.9ml /min	30Mpa
Pressure pulsation	1% at 10Mpa	
Flow rate accuracy	$\pm 1\%$	
Flow rate reproducibility	$RSD \leq 0.5$	
Pump inlet tube	$\Phi 3$	
Pump outlet tube	1/16"	

UV DETECTOR

Wavelength range	190-400nm, 400!800nm
Band width	8nm
Wavelength accuracy	$\pm 2\text{nm}$
Wavelength reproducibility	0.4nm
Baseline noise	3×10^{-5} Au
Base line draft	1×10^{-4} Au/h
Flow cell	1/16", PEEK, optical path 10mm
PH Sensor Range	0 to 14
Conductivity sensor range	0 to 900ms.cm

PDA DETECTOR

Wetted Materials:	Stainless Steel/PEEK*, T, Glas
Baseline Noise:	$< 10 \times 10^{-6}\text{AU}$ (@254 nm, 1 sec. Risetime)
Slit width:	1.2 nm
Sensitivity mode	8nm
Sensitivity Setting Range	0.0001 - 2.000 AUFS
Baseline Drift:	$\leq 1.0 \times 10^{-4}$ h/UA
Number of Diodes:	256/512/1024

Bandwidth:	1.2 nm
Wavelength Range:	190 – 720 nm (256 Diodes) 190 – 800 nm (512 Diodes) 190 – 1015 nm (1024 Diodes)
Wavelength Precision:	± 0.1nm
Wavelength Accuracy:	±0.5 nm (256 Diodes); ±1nm(512 Diodes); ±0.1 nm(1024 Diodes);
Wavelength Repeatability	±0.1nm
Element Resolution:	1.2 nm/element
Date Acquisition:	Up to 100 Hz
Temperature Range:	5 - 50°C
Mean Pixel Pitch:	2.2 nm (256 Diodes), 0.8 nm (1024 Diodes)
Resolution (λFWHM):	7 nm (256 Diodes), 1.2 nm (1024 Diodes)
Linearity:	<5% at 2.0 AU min (ASTM)
Light Source	Deuterium Lamp(D ₂ >2000hr lifetime without drop in the energy level with appropriate backup from software and hardware)Tungsten Lamp 10mm Lamp optimization software software to maintain light energy,
Detector features	4-Wavelength channels to measure chromatograms at 4 different wavelengths at the same time
Wavelength Program:	Programmable, 10 steps
Analog Output:	- (optional : 4x 1V)1 Hz - 100 Hz
Cell volume:	Semi-micro flow cell 2.5μl Conventional flow cell 10μl, 10mm cell path length(Analytical and Preparative flow cell 0.5mm), 12Mpa Pressure
Flow cell:	Temperature controlled flow cell

Flow cell design: Taperslit for reduced RI effect and better peak shape.

Control Features: Internal Peak Detector with +24V solenoid switching output.and thermostability

Operating mode Both 2D and 3D

Digital Resolution 1.2nm - 600nm (3D mode)

Dimensions: 396 x 165 x 478 mm

Power Supply: 100 - 250 ~V (47 - 63 Hz)

Digital and Optical mode: 3D

EVAPORATIVE LIGHT SCATTERING DETECTOR

Light Source Tungsten / Halogen/LED 470mm

Temperature Range +5°C to 100°C,0.1°C Increment, feedback accuracy to 0.1°C

Flow Rate 0.1mL/min - 2.5mL/min (standard)

Air Consumption <3.0L/min

Air Required >5L/min nitrogen gas or air, 65 Psi

Nebulizer(high flow rate) 100-3000 µl/min

Nebulizer chamber Nebulizer chamber

Gain Setting 0-1000

Sample Rate upto 80 Points

Optics Heated Optics Bench

Lamp calibration Pre aligned assembly

Detector PMT

Scattering angle 60 Degree

Measurement range	0.1-2000light scattering units full scale
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Angle Output	2, LS units nebulizer,drift tube, CHM Gas pressure
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SELECTION VALVE

Valve type	6 ports multi!position
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Valve head material	PEEK/PPS
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Rotor seal material	vespel
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Maximum pressure stability	150BAR
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Capillary connection	1/8"
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FRACTION VALVE

Pump /Max. pressure	250ml/min with 5 MPa pressure
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Valve type	6 ports multi!position
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Valve head material	PEEK/PPS
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Rotor seal material	vespel
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Tubes	120 (each max capacity: 12ml and 20ml with a waste tank)
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Capillary connection	1/8"
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SOFTWARE

Package	ClarityChrom
compliance	21CFR Part 11 compliance
Operating system	Windows XP SP3, Windows Vista SP2 32!bit and 64!bit, Windows 7 32!bit and 64!bit, Windows 8 32!bit and 64!bit Windows 10 (32 and 64 bit)
Multiuser environment	Selectable system of user accounts with independently customizable behavior and appearance for individual users
Instrument connection	Supports RS!232, Ethernet, PCI interface card, A/D!D/A interface
Recommended PC hardware	Pentium 2 GHz, 2 GB RAM, 10 GB free hard disk space, separate graphics card if one PC should control more than one system
Graphics capabilities	Multiple chromatogram view and overlay, PDA view
Integration	27 integration parameters (peak width, threshold, tangent slope ratio etc.) integration parameters programmable in time, automatic re!
Security and GLP	Installation qualification test of the software; FDA 21 CFR Part 11 conformance, validation with virtual detector
Instrument control	method!based instrument control, Instrument status display and Direct!Control mode
Chromatogram operations	Overlay view, custom labels and settings, also applying mathematical operations to chromatograms
Automation	Sequences, automatic launch of selected commands or applications immediately following chromatogram acquisition – Post run, Batch
FRC option	for preparative HPLC, adds tools for detector controlled fraction collection and solvent recycling
FRC features	Fractionation can be controlled by time (volume), level, slope including AND/OR combination of these criteria, manual control of fractionation during a run
System suitability test	automates the calculation of system suitability parameters for system validation

HPLC Servicing, Validation, Trainings and Preventive Maintenance :

HPLC Servicing :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

Trainings :We also take up preventive Maintenance to reduce downtime of HPLC's Trainings.

AMC's/CMC :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-shooting.

Validations :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

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Total Organic
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CLIA



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RTPCR



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Reach us @



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