

NEW JAIGEL-GPC Column – the HR series

High Flow Rate High Throughput High Resolution Solvent Change

- 4X higher flow rate when comparing to the original JAIGEL-H
- Higher throughput and increased sample amount per injection
- Theoretical plate is now 3X greater
- Possible to use and change various organic solvents



JAIGEL-GPC Column

JAIGEL-HR series

Column name	Exclusion limit MW(PS)	Theoretical Plate	IDxLength
JAIGEL-2HR	5,000	28,000	20×600mm
JAIGEL-2.5HR	20,000	28,000	20×600mm

Specifications

Model	LaboACE LC-5060
Pump	P-LA60
Solvent Delivery System	Reciprocating serial double plunger
Flow Rate	0.1~60.0 mL/min
Maximum Discharge Pressure	20 MPa (0.1 ~ 15.0 mL/min) 15 MPa (15.1 ~ 25.0 mL/min) 10 MPa (25.1 ~ 60.0 mL/min)
Plunger	φ7.0 mm
Stroke	8 mm
Discharge Rate per stroke	300 μl
Operation Panel	5.7 inch touch panel screen
Flow Stability	CV less than 0.3
Pressure Display & Limiter	Program and display on LCD
Variable Injector (Manual)	Rheodyne 7725i
Sample Loop	10mL (standard) 3mL, 5mL, 15mL (optional)
Event Marker	Recycle and Collect
Recycle System	With non-Diffusion function Recycling system (patent)
Recycle Method	Switching Scheme of Solenoid Valve
Auto Cleanup Function	Enables to wash flow Channel by program
Pump Stop Timer	Enables to stop pump at 0-999mins
Solvent Volume Alert	Enables to alert the remaining solvent volume
Bottle Capacity	Enables to prevent from overflow in a collection bottle
Alarm Timer	General Timer
Dimensions(mm)	280(W) x 445(H) x 420(D) mm
Power Supply	100V, 500VA/200~240V, 500VA
Weight	18kg
Column Stand	Optional

Chromatogram Acquisition Data Software

Model	JAI Scan
Channel	5 channels
PC Interface	USB2.0
Auto zero	Installed
Event Signal	Marker (recycle and fraction)
Start Signal	Synchronized with Manual injection
PC Spec.	Windows 7 or higher
Data Transfer	CSV
Function	Chromatogram acquisition UV Spectrum scanning (with UV-Vis 4ch LA)

Detectors

Up to two detectors (e.g. UV and RI) can be fitted into the LaboACE body.

UV Detector

UV Model	UV-254 LA	UV-VIS4ch LA
Wavelength	Fixed wavelength UV 1 ch at 254 nm*	4ch variable UV-Vis 4ch from 200-800nm
Measurement Method	Single beam	
Light Source	Deuterium lamp	Deuterium lamp + Tungsten lamp
Drift	0.001ABU/hr	
Sensitivity noise (254nm TC0.75s)	0.00002ABU(254nm)	0.00005ABU(254nm)
Zero Adjustment	Auto zero function	
Flow Cell	0.3mm (option : 1.4mm, 2.4mm)	
Saturated Concentration	Benzene 15% / 0.3mm cell	
Power	Supplied from main body	
Weight	3.9Kg	5.9Kg

※Able to select from 214, 220, 228, 254, 280, 297, 313, 460, 560nm only when ordering

RI Detector

RI Model	RI-700 LA
Measurement Method	Deflection
Flow Cell	8 μl volume
RI Range	1.00-1.75
Reference Purge	Solenoid valve
Temperature	Fixed at 34C, includes 50C fuse
Zero Adjustment	Auto zero function
Power	Supplied from main body
Weight	4.8kg



LaboACE
Recycling Preparative HPLC

New Generation Preparative HPLC

Advanced Separation Efficiency

LaboACE LC-5060



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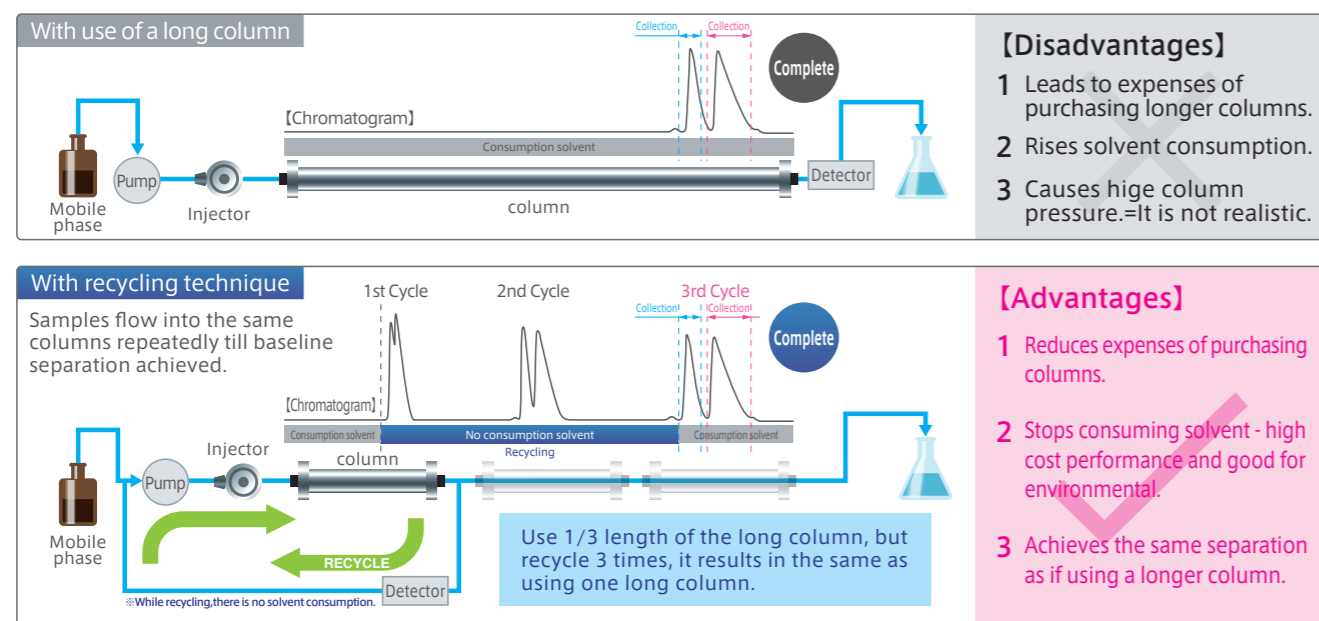
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Recycling Preparative HPLC is...

It provides a fast and elegant approach to purify mg-gram quantities of starting materials, intermediates and final products. The basic concept is to direct samples post-column back to the beginning of the column in a closed loop system. The effective column length and resolution increased accordingly with each cycle. No additional solvents are used during recycling. When the baseline resolution is achieved, samples are collected.

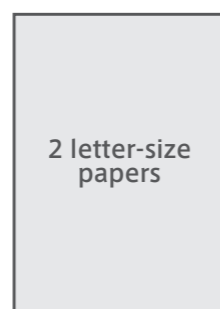


Maximize Benefits of LaboACE

LaboACE is compact enough to fit inside a fume hood or on a benchtop.

As compact as two letter-size papers.

Injector and single port fraction collector are placed in the compact body. Up to two detectors (UV and RI) can also be fitted into the LaboACE body.



Top view



LaboACE LC-5060

LaboACE promises you to make Purification steps simple, quick and easy.

Improved Recycling Efficiency

LaboACE has minimized internal dead volume and installed newly developed non-diffusion unit to prevent the baseline rising between cycles.

Reliable Solvent Delivery

With more than 50 years of experience, optimized serial double plunger pump dedicated for recycling is installed. The recycling efficiency is greatly improved.

LCD Touch Panel

5.7 inch touch panel screen allows anyone to easily use LaboACE without a user manual from injection to fraction collection.



Non-Diffusion Recycling (Patent)

During extended recycling period, the recycled sample in the flow line can diffuse between the cycles and into the solvent with the danger of contaminating the solvent reservoir. The system has non-diffusion device (patent) that prevents the sample from running back into the solvent line and contaminating your sample, columns and damaging detectors with back pressure.

Auto Cleanup Function

Keeps the flow channels clean automatically. Solvent changeover when changing columns is also made much easily.

Right Fraction Timing

The time difference due to dead volume from sample detection to actual fraction will be automatically calculated and no longer need to time it or lose the precious compound.

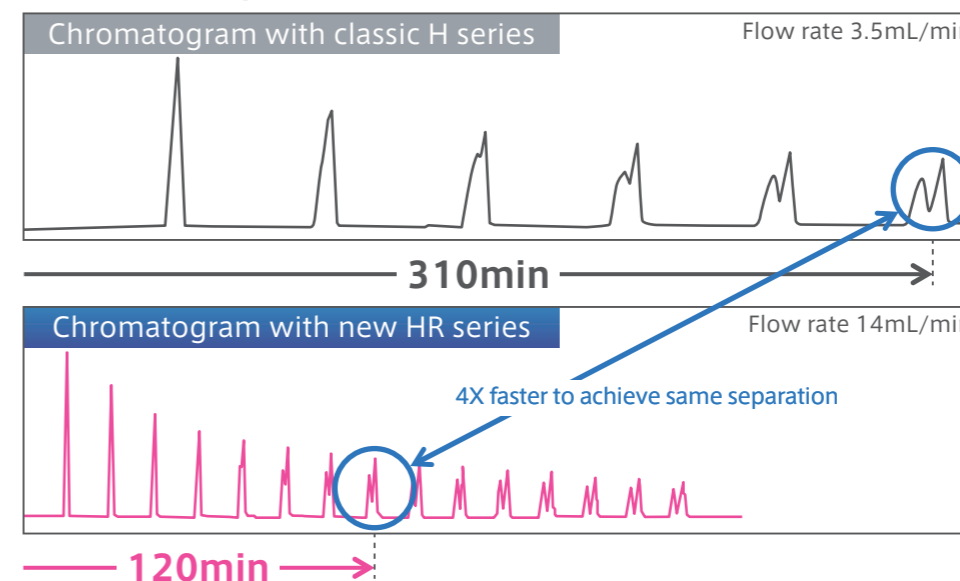
Other Useful Function

Pump stop timer, Solvent volume alert and Fraction bottle capacity function are installed to reduce your concerns of operation.

High speed GPC column JAIGEL-HR series 4X higher flow rate and 3X higher resolution

※For more details, please refer to the column catalog.

JAIGEL-HR performance



Column : JAIGEL-2HR+2HR vs JAIGEL-2H+2H
Flow rate : 14 ml/min vs 3.5ml/min
Eluent : Chloroform
Sample : 100 mg/ml DMTDP+DLTDP
Injection Volume : 200 mg (2 ml)
Detector : RI
DMTDP : Ditetradecyl 3,3'-Thiodipropionate MW:571
DLTDP : Didodecyl 3,3'-Thiodipropionate MW:515

New JAIGEL-HR can use wide range of solvents interchangeably, such as DMF, Dichloro Ethane, Chloroform, THF, Ethyl Acetate and Toluene.