



ANALYTICAL SCIENCES CHROMATOGRAPHY

Identification, Quantification & Purification

INTERCHIM'S TECHNO QUALITY EXPORTS WORLDWIDE

Since its creation in 1970, Interchim has never stopped striving toward ever higher standards to offer its customers around the world products that live up to both their ambitions and day-to-day challenges whether in the Chemistry, Analytical Sciences, or Biosciences fields.

The specificity of Interchim is its drive to stay true to its *leitmotiv*: to anticipate and listen to the needs of its customers by offering the most advanced and innovative technologies possible through a meticulous selection of the best products that exist on the market or via its **own manufacture of consumables and instruments**. These are now sold on all continents, key to their quality and success. Interchim is the preferred partner of laboratories and industries who ever increasingly around the world continue to place their trust in us, solicit our expertise, and take advantage of our techno quality. Indeed, our products and services are available in over 50 countries, either directly, as in France, Germany, Austria, and Belgium, or through its subsidiaries, as in the United States and the United Kingdom, or in partnership thanks to its distributor network.

The multinational moreover consolidates its position as **leader in the Analytical Sciences and chromatography**.



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**International
network of
distributors**

puriFlash® 5.250

P/N: PFG5E0



up to
80mm i.d.
Col.

250
mL/min

250
bar

Small but limitless

Maximum Versatility & Flexibility.

It brings a unique performance in all circumstances. It is adapted to all needs from routine purification to complex mixtures, impurity separation, or traces enrichment, ...

It is continuously ready to start multiple purifications in normal or reverse phase, flash or preparative.

Small Organic molecules
Impurities Identification
Natural Products
Peptides, Oligonucleotides
Proteins, Bio-drugs
Metabolites Isolation
Traces Enrichment



InterSoft® X "Genius"
User-friendly
Click & Drag Gradient
Intelligent Isocratic Mode



Unit Control
15" touch screen
Remote Control
USB x8 - RJ45

Solvent tray w/drainage system

Pre-cols holder

Quaternary Gradient Pump
Air purge
Washing Disc

Fraction Collector
3 racks Gen5
132 tubes 18x150mm
Drainage system

Injection
Liquid or Dry-Load injection
w/column equilibration.

Load & Go™ technology:
an automated
6 port + 10 port electric valves
manages solid injection

Column i.d. up to
=> 80mm

Modular & Easy to Maintain
Built to last

Integrated cols holder

Detection
PF-5.250: UV: 200-400nm
PF-5.250 + Pack-UVextended: UV: 200-800nm
(Multi wavelength & Scan collection
Spectral view & Purity confirmation)
Flow Cell: 0.3mm / 40µL



Flash&Go



Load&Go



Boost&Go

**Pump**

Flow rate: 250mL/min
 Pressure max.: 250bar
 Quaternary Gradient
 Air purge
 Washing discs
 Solvent tray with drainage system

Injection

6 port + 10 port electrical valves w/loop
 Injection mode: liquid - Dry-load

Columns Holder

Integrated
 Pre-column holder

Detector

UV: 200 - 400nm
 multi wavelength & scan collection
 Spectral view & purity confirmation

Fraction Collector

3 racks Gen5
 132 tubes 18x150mm

System Optimization

Tubings: 1.6mm id
 Flow cell-optical length: 0.3mm / 40µL

Unit control

Touch screen 15"
 USB x 8
 RJ45

Software

InterSoft[®] X "Genius"

Safety

Leak detection (pump, FC, ...)
 Solvent tray w/drainage system
 Collector w/drainage system
 Solvent level monitoring
 RFID
 Fume Encloser

Option pack have to be ordered with the purchase of the instrument.

Unit control

puriVap[™]-6
 MS simple Quad APCI- 1200m/z
 or 2000m/z
 Refractive Index
 Super loop via external pump
 Auto-Sampler
 2nd Collector
 CarouXel
 Multi-waste 1 inlet / 6 outlet electrical valve

**pack-UVextended**

UV : 200 - 800 nm
 multi wavelength & scan collection

P/N: UVEX00

pack-iELSD

Integrated Evaporative Light

Scattering Detector

SAGA technology

P/N: ELSD00

pack-PWD

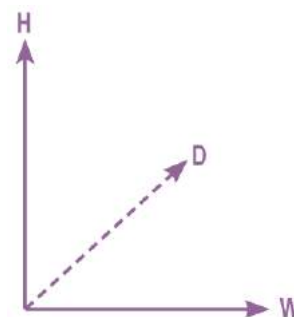
Pump washing disc

P/N: PFPWD0

pack-Multi

6 port electrical valve

P/N: MULT00



W: 15.75" - 40.0cm
 D: 20.0" - 51.0cm
 H: 29.5" 75.0cm



interchim[®]



PURIFICATION-PROCESS

Ultra Performance Flash Purification | Integrated DEDL



Preparative Integrated ELSD

Secure your purification by a Universal Detector

- Even non chromophore are now visible
- Specifically developed for purification Mass response detector
- Full control of the split and the inlet flow
- True purification design nebulizer: no clogging
- Large dynamic range: mg up to hundred g
- Easy access /easy maintenance



P/N: 1A6340

Optimized Low Temperature Technology
Quicker droplets drying at lower temperature
Preserves the integrity of thermo-sensitive compounds

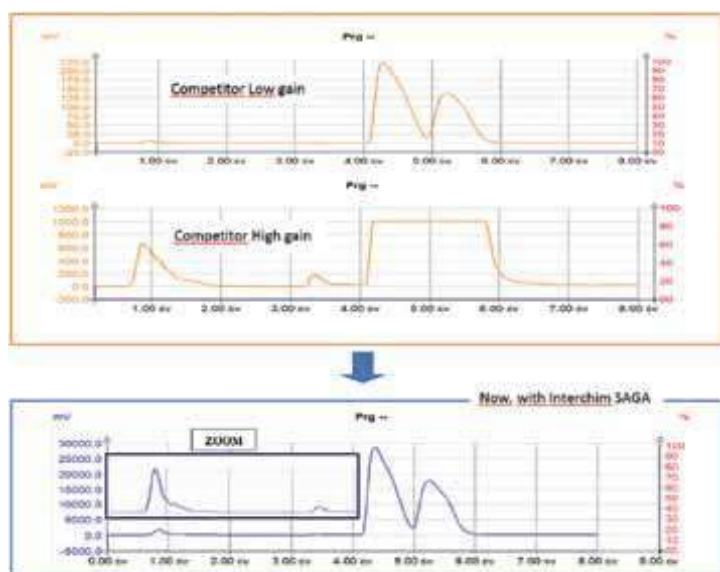
Features:

SEDERE low temperature technology:

This technology provides greater sensitivity due to both the nebulizer that enables droplets selection and effective photomultiplier.

With this patented technology nebulizer, the droplets dry-up faster at low temperature, providing appropriate signal intensities for the semi-volatile compounds. This technology requires no additional peripheral, such as a nebulizer with heating system (spray chamber) or an evaporation tube (Peltier cooling) that can degrade the heat-sensitive compounds.

- Dynamic Gain SAGA
- Detection: high sensitivity photodiode
- Source: LED (470 nm)
- Ambient temperature to 100 ° C
- Dynamic Split: 40 .mu.l / min sample in DEDL
- Sensitivity: <100 ng caffeine (LOD)
- Gas: 2.5 l / min - 2 bar



SAGA is an automatic dynamic gain that avoid all saturations while detecting low amounts.

Low gain decreases the sensitivity and impurities are then not visible. In contrast, a high gain is too sensitive, the impurities are visible, but the signal of the two main compounds is saturated and the peaks are co-detected.

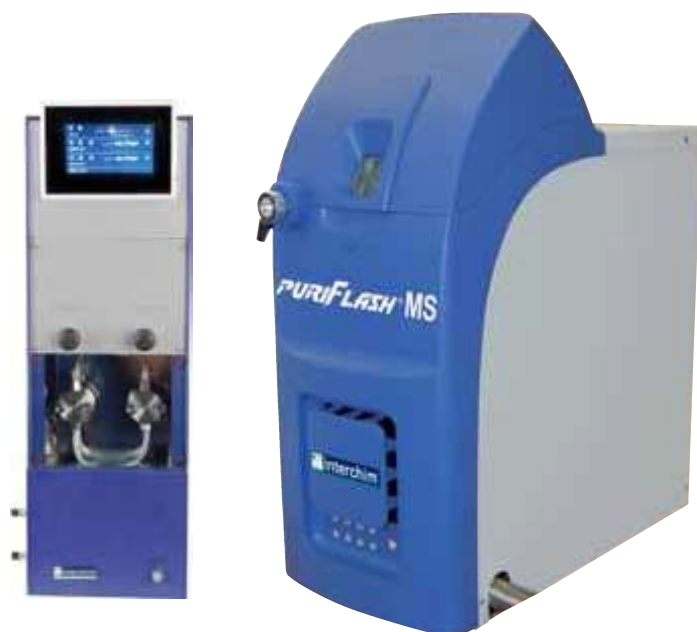
By developing with Sedere the SAGA technology, Interchim® provides an efficient solution that enhance detection sensitivity without saturation.

No adjustment necessary depending on the sample load.

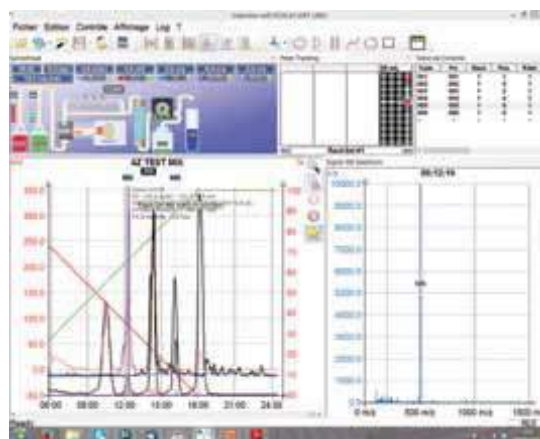


puriFlash® MS

Mass triggered fraction collection from NP & RP Flash Purification & prep-LC



Compact Single Quad - APCI



Real-time reaction monitoring of batch reactions
The hood-based puriFlash® MS reduces the burden
on open-access platforms.

puriFlash® MS interface

Unique Interchim® design Dynamic split & dilution

- High-speed work with all columns sizes without generating backpressure
- Integrated post-split dilution to adjust the concentrations used in the MS source (no concentration limit - no signal saturation)
- Normal & Reverse Phase
- Intelligent Pilot of the puriFlash® system
- Normalized Scale signals MS, UV, ELSD (6 acquisition signals)

puriFlash® MS (1200 m/z)

P/N: 1H5460

puriFlash® MS (2000 m/z)

P/N: 1G6770

puriFlash® MS
for small molecule, synthetic organic chemists.
Upgraded specs for pos/neg switching, faster scanning,
and higher flow rate

puriFlash® MS-HMW
for large molecules - peptide synthesis,
polymer chemistry and natural products

Sources :	APCI - (ESI option)	APCI or ESI
Patented API: orthogonal ion sampling from heated capillary - allows for small single turbo pump.		
Positive/Negative Ionization	Simultaneous Analysis	Simultaneous Analysis
Flow rate range ESI	10 µL/min - 1 mL/min	10 µL/min - 1 mL/min
Flow rate range APCI	10 µL/min - 2 mL/min	10 µL/min - 2 mL/min
mass range (m/z)	10 to 1200	10 to 2000
Scan rate (m/z-units per second)	10000	10000
Resolution (m/z-unites FWHM)	0.5 - 0.7	0.5 - 0.7
Sensitivity (SIM - S/N de 10 pg Reserpine, FIA 5 µl injection à 100 µl/min)	100:1	100:1
Accuracy (m/z)	0.1	0.1
Stability (m/z-units per 24 hour period: 18 - 24 °C)	0.1	0.1



PURIFICATION-PROCESS

Ultra Performance Flash Purification | Auto-Sampler AS-1 & CarouXel



puriFlash® AS-1

preparative LC Auto-Sampler

- Injection volume : from 500µl up to 300ml
- 6 ways "Load & Injection" valve through puriFlash system.
- 1 rack /slots for different test tubes capacity:
96 deep well plates, 2,5ml vials.... up to 1 liter bottles & custom racks
- Needle for septum piercing
- 3 external solvent ways
sample injection and wash
bracketing injection mode
Needle washing
- Temperature control of the rack : 4°C to RT (option)
- Size (W x D x H): 14" x 15" x 18" - 37cm x 39cm x 46cm



P/N: LO8850

puriFlash® Open Access Lab CarouXel

Increase your productivity

- Sequential
- 10x columns up to F0330
- 1x general waste
- 1 waste /column
- Automated cleaning between 2 runs or columns
- Stand-Alone or Piloted through Interchim® software Ver. 5.1



P/N: JO3750

puriFlash® MS platform

makes Purification Easier, Intuitive & Productive

Smaller Particles Size

Selectivity from a large choice
of stationary phases

High Quality Pump

Triple Detection
UV - ELSD - MS

Automation

2D Purification

NP to RP Quick Switch

Intuitive Software

No Downtime / Built to last





puriFlash®1 "Stand Alone" Serie

This module collection allows you to complete your existing instrument set.



Pump

- Gradient Tolerance ~ 3.5%
- HP mixing, static fixed
- Touch screen controller

250 ml/min @ up to 50 bar
Quaternary + Air Purge

P/N: IV8730

250 ml/min @ up to 125 bar
Quaternary + Air Purge

P/N: 0A4750



Detector

- DAD multi-wavelength
- Adjustable flow cell (0.3 mm ; 1,3 mm ; 2,4 mm)
- Dual wavelength collection
- Touch screen controller

UV: 200 - 400 nm

P/N: 0A4650

UV: 190 - 840 nm

P/N: IV8740



Fraction Collector

- Optimum sample recovery
- Fume Enclosure
- 2 long racks – 128 std tubes
- 8 different racks available
- Large collection volume
- 2 collection modes:
 - volume
 - time
- Touch screen controller

P/N: IV2960

RI IOTA 2

Differential refractive Index Detector

- High stability & sensitivity
- Universal non destructive detector for Flash & prep LC

High stability

The unique and patented system provides a fully symmetrical in line beam, specifically designed to avoid all external vibration problems.

Fully automatic

Real autozero system, microprocessor controlled, push-button reference cell filling, RS32 interface...

Analytical or Preparative chromatography

Differential Refractometer is designed to offer high detector stability and sensitivity. Three different cells are available for analytical or preparative analysis.

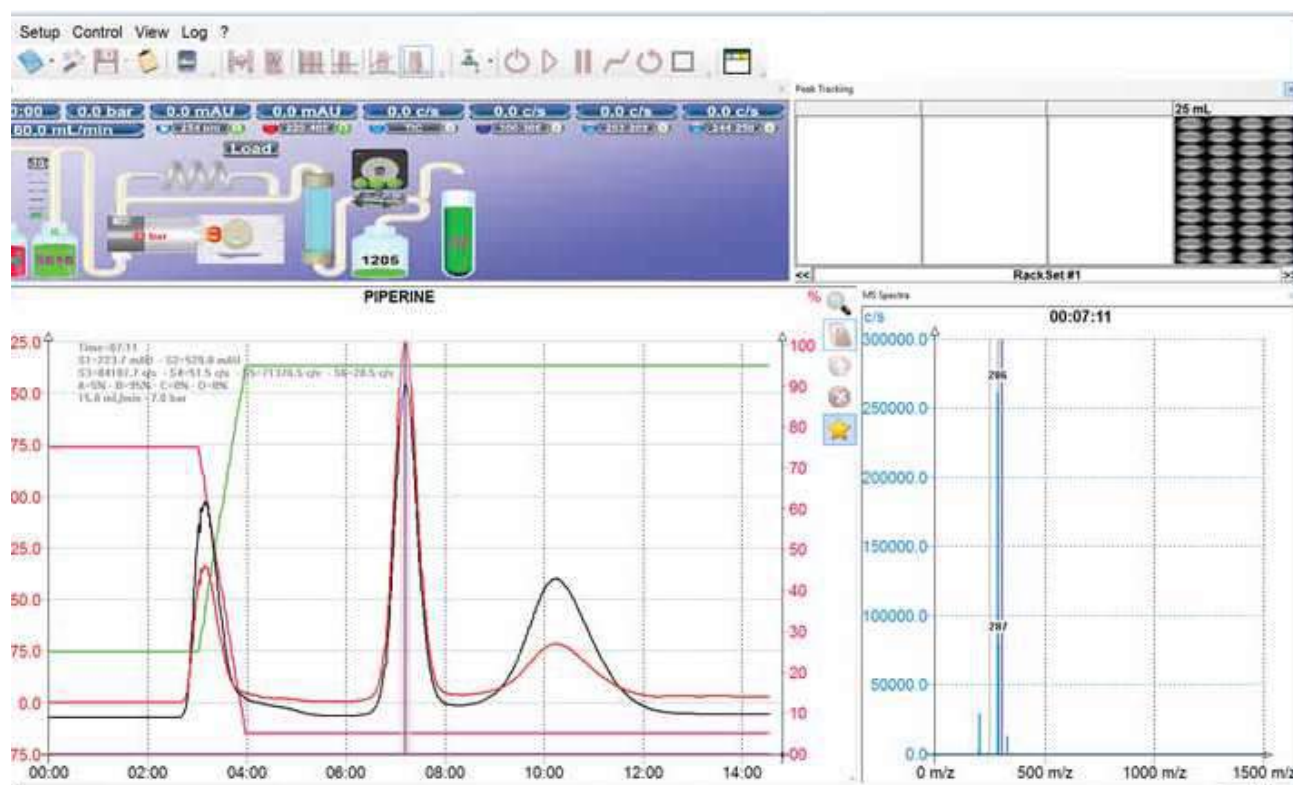
P/N: FSQ600



Large sensitivity range	Light source: 940 nm Sensitivity Range: 1/16. 10 ⁻⁵ to 64.10 ⁻⁵ ΔRIU in 11 steps Noise: 10 ⁻⁸ ΔRIU (analytical), 3.10 ⁻⁶ ΔRIU (preparative) Time constants: 0 ; 0,5s ; 2s ; 5s Drift: <5.10 ⁻⁷ ΔRIU/h (analytical), 5.10 ⁻⁸ ΔRIU/h (preparative)
Automatic reference cell filling	Linearity 5.10 ⁻³ ΔRIU (analytical) ; 5.10 ⁻² ΔRIU (preparative) Cells Cell volume: 8 µl (analytical), 40 µl (preparative) Cell angle: 45 ° (analytical), 10° or 3° (preparative) Flow rate: 0.05 to 20ml/mn (analytical), 1 to 200 ml/mn (preparative) Maximum pressure: 5 bar
Autozero	Signal Outputs Autozero: by the keyboard Event Mark: by the keyboard end external Recorder output: 1 V and 10 mV RS 232 C Interface Physical specifications: Height 140mm ; Width 320mm ; Length 320mm ; Weight 15 kg Power requirements: 220V or 110 V (50/60 Hz)

Interchim® Software

One customizable screen to manage the whole process: to create methods, to launch purifications & to control the process during the purification up to the report.



Click & Drag Gradient - Customizable User profile - Sample Q - Wizard - AGO - Real Time UV Spectral - All wave length collection - Remote Control



Easy control & Monitoring of the Purification from Tablet, Smartphone or PC. Network Connection with your puriFlash system raise your productivity & flexibility.

Service delivery

Concentrate on your core business, reduce your costs and increase your flexibility by entrusting your production to a reliable partner. The service proposed by Interchim meets your needs and is considered with you on a case-by-case basis.

Entrust us with your preparations, upstream or downstream of your processes, and take advantage of our versatility and expertise in the following fields:

Biology

- Labeling of specific antibodies
- Coating
- Grafting on affinity gel
- Antibody purification
- Preparation of buffer solution, protein reagent, saturated solutions

Chromatography

- Preparation of the mobile phase
- Purification of the analysis support medium
- Impregnation of the analysis support medium
- Preparation and custom packaging of analysis support medium in different supports (glass, PP, stainless steel, etc.)

Chemistry

- Aliquoting of products in tubes, microplate, etc.
- Preparation of synthesis intermediate

Miscellaneous

- Aliquoting of stabilizers in vials
- Capping of vials
- Kit assembly with or without preparation of the main component

Contact us so that we can discuss the development of your project in total confidentiality at interchim@interchim.com

How to place your orders

Always attentive to your different needs, Interchim offers 5 solutions to quickly and easily order your products.

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By Internet

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All your orders will be recorded and processed as quickly as possible.

Need advice on choosing the product best suited to your needs?

Our scientific experts are here to share both their knowledge and expertise and advise you.

Please don't hesitate to contact us.