

Mass Directed Flash Chromatography by Biotage



Why Do Companies Around the World Choose the Biotage Approach to Flash Purification?

As a pioneer of automated Flash purification, Biotage counts many major companies as customers. These organizations have selected Biotage as a partner because they receive the fastest and most cost efficient route to compound purification. They enjoy purification done right, the first time, every time.

Here at Biotage we are committed to developing tools for a seamless workflow that gets projects to completion. Biotage® Selekt and Isolera™ systems, together with Biotage® Sfär columns deliver the most reliable and rapid purifications possible.

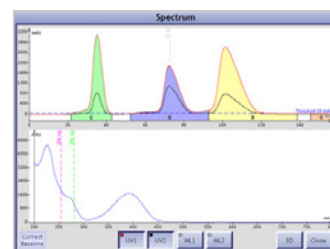
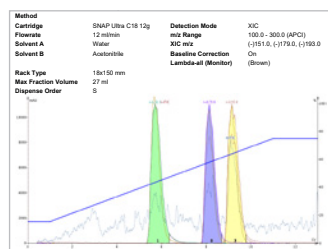
Flash Purification with Mass Detection

Why choose Flash Chromatography with integrated mass identification?

Identification of the mass of eluting compounds as they are isolated provides the information you want, when you want it.

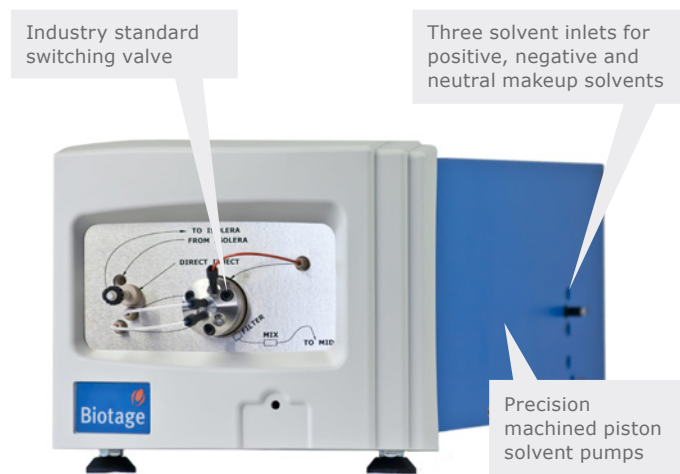
Benefits include:

- » Immediate identification of compounds
- » Samples separated by mass-to-charge ratio
- » Sample crude mixtures directly



Biotage Coupling Technologies

The key to success in mass-directed flash purifications is integrating the high flow rates and broad variety of organic solvents used in flash with the low sample volumes required by mass spectrometers. To achieve this Biotage has developed Isolera™ Spektra enhanced detection and Isolera™ Nanolink. These reliable and robust technologies simplify the day-to-day operation of Biotage Dalton systems.



Isolera™ Spektra

Enabling Isolation of Pure Compounds

Isolera™ Spektra is a powerful software package for Isolera™ flash systems, combining instrument control with extended features for flash purification.

Features

- » Baseline correction
- » Advanced λ -All detection
- » Preview your run in the built-in simulator
- » PDA spectral analysis
- » MS analysis capability through a wizard interface
- » Automatic handling of mass spectrography parameters
- » Allows direct mass spectrography analysis of crude mixtures

Biotage® Nanolink

Integrating Mass Detection with Flash Purification

An intelligent coupling system which ensures worry-free and reliable hyphenated operation between the flash chromatograph and mass detector. Nanolink is fully automated, there's no need for manual adjustments during setup or operation.

Features

- » Eliminates flow splitter optimization
- » Automatic sampling
- » Automatic flow adjustment

m/z Range 10–2000.

Collect on TIC enables you to collect and fractionate based on all compounds seen by the mass detector.

Industry standard direct injection port ensures rapid and precise sample analysis.

Automatically switches between positive and negative ionization.

Supports atmospheric pressure chemical ionization (APCI) and electrospray ionization (ESI) of the sample.

A single quadrupole analyzer filters the ions according to their mass-to-charge ratios (m/z) and directs them into the detection system.



Biotage® Dalton 2000 Mass Detector

Isolera™ Dalton 2000

Full mass spectral analysis capability including post-run analysis, collection based on TIC, and polarity switching during the run.

Applications

- » Mass directed purifications of all types of reaction mixtures
- » Purification of known samples
- » m/z Information from purification of unknown compounds
- » Natural product analysis

Quick Facts

- » m/z Range 10–2000
- » Collect and fractionate based on total ion count or extracted ion signals
- » APCI ion source (ESI optional)
- » Full spectral analysis post run
- » ASAP Probe for liquid and solid phase analysis
- » External roughing pump



Isolera™ Dalton 2000 with Biotage® Dalton 2000 Mass Detector, Isolera™ Four flash system, Biotage® Nanolink and external roughing pump.

Technical Specifications Ordering Information

Dimensions (w x d x h)	28 x 56 x 66 cm
Weight	54 kg
Ion source	APCI (ESI optional)
Flow rate range	Flash separation at 10–100 mL/min
Sampling adjustment	Automatic split flow interface
Acquisition modes	Positive and negative ionization in parallel
Detection range (m/z)	10–2000
Resolution	< 0.7 FWHM m/z
Detection accuracy	±0.1 m/z
Mass fractionation limit	4
Make up solvents	One (pure)
Nitrogen gas pressure	4.1–6.9 bar (60–100 psi), minimum 98% purity
Gas consumption	8 L/min
Accessories	ASAP direct probe analysis
Custom mass intervals	Yes
Collect on TIC	Yes
Automatic stop on target mass	Yes
Post run analysis	Built into software and offline
Vacuum pumps	Internal turbo pump, external rotary vane roughing pump
Control interface	Isolera™ Spektra
User serviceable parts	Heated inlet capillary with o-ring and Corona needle
Certifications	CE, TÜV, FCC

Description	Part Number
Mass Detectors	
Biotage® Dalton 2000 mass detector APCI 230 VAC incl. roughing pump	DALT-2000-APCI-230V
Biotage® Dalton 2000 mass detector APCI 115 VAC incl. roughing pump	DALT-2000-APCI-115V
Biotage® Dalton 2000 mass detector APCI 100 VAC incl. roughing pump	DALT-2000-APCI-100V
Biotage® Dalton 2000 Nanolink Spektra License for Dalton 2000	DALT-2000-NLINK DALT-2000-SW
Mass Detector Accessories	
Dalton 2000 ASAP kit, probe, capillary stand, APCI source port	UP-ASAP-SNL
Dalton 2000 APCI Ion source	IS-APCI-S01
Dalton 2000 ESI Ion source	IS-ESI-S01
Dalton 2000 Glass capillaries for ASAP (pack of 100)	CAP-ASAP
Isolera One	
Isolera™ One, One Channel, Single Collection Bed, 200–400 nm Detector	ISO-1SV
Isolera™ One, One Channel, Single Collection Bed, 200–800 nm UV-VIS Detector	ISO-1SW
Isolera™ One, One Channel, Extended Collection Bed, 200–400 nm Detector	ISO-1EV
Isolera™ One, One Channel, Extended Collection Bed, 200–800 nm UV-VIS Detector	ISO-1EW







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