

Isolera™ Dalton

Flash Chromatography with Integrated Mass Identification

Be sure you have your target compound the moment your fraction is collected. Isolera™ Dalton integrates the Biotage approach to flash chromatography with true compound identification using mass detection.

Isolera™ Dalton is the most advanced and innovative purification system available, designed by people who understand flash purification and the chemists who need it.

Streamlined Workflow

Isolera Dalton identifies compounds by mass in real time during flash separation, leading to greater confidence in purification, higher purity, greater recovery, and a significant saving in time. Reduce or eliminate the need for time consuming off-line mass analysis during development programs, increase throughput and effectiveness for both chemists and analytical groups.

Reaction Monitoring

Directly monitor reaction progress or reaction end points, fully compatible with all normal reaction solvents. Mass data and run parameters are transferred automatically to the flash system for automated normal or reversed phase purification.

Tailored Technology

Isolera Dalton automates and takes the hard work out of the compound identification and purification, perfect for chemists whose priorities lie more towards the chemistry than small details of running the analysis.

Minimal user intervention is required, making it available to chemists whose priorities lie in chemistry rather than analysis.

Isolera™ Dalton Mass Detector uses a chip-based electrospray system with a miniaturized quadrupole and internal vacuum pumps, allowing the system to easily fit in a fume hood, with no external pumps.

Intelligent Integration

Seamless interaction between a flash system and a mass detector requires advanced technology. This is all taken care of by Isolera™ Dalton Nanolink interface, an intelligent sampling device that at any given moment provides Isolera Dalton Mass



Detector with the exact amount of material required. Isolera Dalton Nanolink automatically adjusts to changes in flow rate when different types or sizes of flash cartridge are used.

Advantages

- » 30 min. start up time
- » Works with normal phase and reversed phase solvents
- » Compound identification by mass during purification and by direct injection
- » Fully automated integration of flash purification and mass detection via Isolera Dalton Nanolink
- » Automatically accommodates different flash flow rates
- » Simple wizard-based approach to method development
- » Compact system with miniaturized mass detector, easily fits inside a fume hood with no external pumps

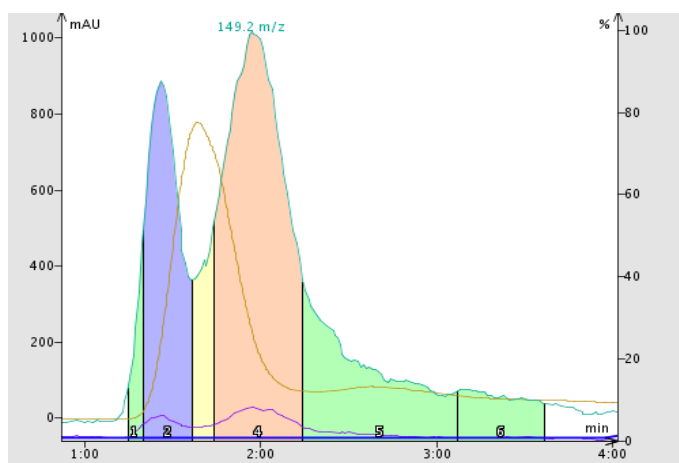


Figure 1. Although the UV trace showed one peak, Isolera™ Dalton fractionated the 149 (nornicotine) mass signal when low levels of nicotine and anabasine appeared, thereby increasing overall fraction purity and providing a separation that UV could not facilitate.

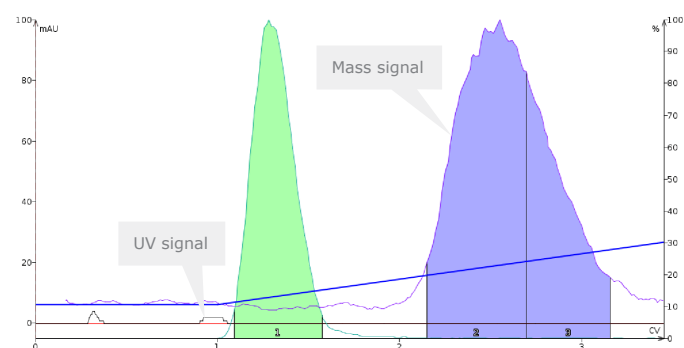


Figure 2. Isolera™ Dalton facilitated fractionation of compounds which had no UV chromophore.

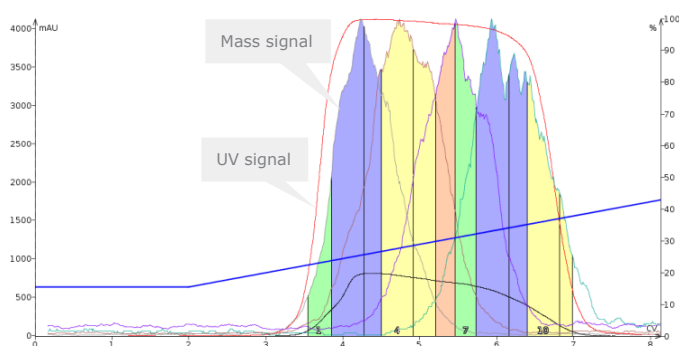


Figure 3. Isolera™ Dalton facilitated fractionation even when the UV trace from the compounds had saturated the detector.

Specifications

Dimensions (W x D x H)	Isolera™ Dalton Mass Detector: 35.5 x 56 x 25 cm Isolera™ Dalton Nanolink: 35.4 x 52.5 x 21 cm Isolera™ Dalton System: 85 x 59 x 62 cm
Weight	Isolera™ Dalton Mass Detector: 32 kg Isolera™ Dalton Nanolink: 10 kg Isolera™: 35 kg Isolera™ Dalton System: 77 kg
Mass analyzer	Miniaturized single quadrupole
Ionization source	Chip based electrospray ionization
Detection range	m/z 80–800
Mass accuracy	± m/z 0.5 in full scan in a temperature controlled environment, ±3 °C
Mass resolution	m/z 0.7 ±0.1 FWHM in full scan in a temperature controlled environment, ±3 °C
Sampling adjustment	Automatic
Start-up time	30 minutes*
Vacuum pumps	Fully integrated
Control interface	Isolera™ Spektra
User serviceable parts	Spraychip™ (chip based ESI source) Vac-chip™ (microengineered atmospheric pressure interface)
Compatible systems	Isolera™ Spektra flash Chromatography systems
Gas requirement	2–6 bar N ₂
Gas consumption	2.5 L/min
Power requirement	100–240 V AC; 50–60 Hz
Power consumption	320 VA (Isolera™ Dalton Detector) 130 VA (Isolera™ Dalton Nanolink)
Certifications	CE, cTUVus

*Includes pump-down to vacuum.

Ordering Information

Product	Part Number
Isolera Dalton Nanolink	ISO-DALT-NLINK
Isolera Dalton Mass Detector	ISO-DALT-DET
Isolera Dalton Installation	SER-DALT-IN
Masscape SW for Personal Computer	413874

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