RevealX™ Detection Technology Leads to A More Efficient Purification Process

Detecting more components from a crude mixture not only reveals more about the sample, but frees time for more value-added work

Save time:

Less evaporation and reconstitution and less work around sample solubility problems

Save time:

Fewer TLC visualization methods

Save time:

Easy system setup & method optimization

Save time:

Collect peaks vs. collect all

Save time:

Minimize skewed testing results by identifying and removing impurities

RevealX™ detection technology reduces waste at every stage of flash purification

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What is the Reveleris® X2 Flash Chromatography System?

An advanced multi-detection flash chromatography system offering:

Flexibility — To purify large quantities and isolate impurities with one system using switchable sensitivity

with

Simplicity — Of easy set up and operation with single screen programming and run control with intuitive Windows® interface

and

Confidence — Knowing more of your sample is collected with minimal sample loss

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Benefits of the Reveleris® X2 Flash Chromatography System

- **Quality**
  - Detect higher purity peaks and fewer fractions with RevealX™ detection technology, saving you time
- **Speed**
  - Purify targets faster without repeating purification runs and analyzing fractions
  - Reveleris® X2 Navigator™ software eliminates the need for TLC
- **Sample Recovery**
  - Maintain control of your target and minimize risk of sample loss, with up to 99.9% sample recovery
  - Solvent level sensors pause the run if solvent levels are low
- **Ease / Simplicity**
  - Focus your time on making target compounds not on your purification
  - Easy single screen programming and run control with intuitive Windows® software

REVELERIS® X2

CONFIDENCE • FLEXIBILITY• SIMPLICITY

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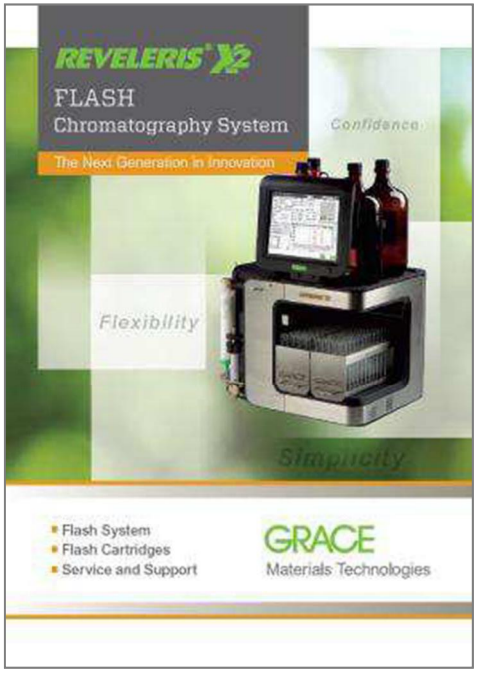
Unique Features of the Reveleris® X2 Flash Chromatography System

The Reveleris® X2 flash system is the only system to offer:

- RevealX™ detection technology for synchronized detection and fraction collection from up to 4 detector signals (ELSD/UV/Vis*) *(U.S.Patent# 8,115,930)*
- Active control of the integrated ELSD and flow-splitter operation *(U.S. Patent# 8,305,581)*
- Selectable ELSD and UV detector sensitivity to control the amount of sample being sent to ELSD *(patent pending)*
- Reveleris® X2 Navigator™ software simplifies method optimization* *(patent pending)*
- Collection of fractions when using chromophoric mobile phase obscures the signal on the UV detector *(patent pending)*
- High pressure HPLC pumping with auto-prime *(patent pending)*



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*Navigator™ and UV-Vis detection are optional upgrades

The Reveleris® X2 flash system brings advanced detection capabilities to flash

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Safe, Ergonomic and Environmentally Friendly by Design

Antistatic Tubing

Helps avoid fire hazard and personal injury

Solvent Safety Alarm

Warns if solvent running low and pauses run

Compact

Small footprint with space for 4 solvent bottles on top

Large Touch Screen

Easy single screen operation and monitoring

Auto Recognition

Identification of cartridge and fraction rack size and presence and stops the flow if no rack is detected

Convenient

Component access for service with easy

Easy Recovery

Easy access to injection valve and tubing in case samples precipitate out of solution

Waste & Vapor Sensors

Spillage & leakage concerns minimized

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Advanced Software with an Intuitive Interface

Viewing
- Easy view 12" touchscreen

File View Tools Help Method: Run:

Column: Reveleris® Silica 12g
Flow Rate: 36 mL/min
Duration Units: min CV
Equilibration: 2.83 min
Run Length: 6.98 min
Air Purge Time: 0.5 min
Collect Peaks
Collect All
Collect None
0 - EF2B
Slope Detection
Sensitivity: High
Threshold Detection:
ELSD 20 mV
UV 0.05 AU
Per-Vial Volume:
Maximum: 0.0 mL
Peak: 25.0 mL
Non-Peaks: 25.0 mL
Detector Sensitivity:
ELSD Low High
UV Low High
UV1 λ: 400 nm
UV2 λ: 254 nm
UV3 λ: 280 nm
Solvents:
A: n-Heptane
B: Ethyl acetate
C: <No solvent chosen>
D: <No solvent chosen>
Table Solvent % ELSD UV1 UV2 UV3 Options Zoom
Time (min)
UV (AU)
PDF to USB
Close

Run Setup
- Fast method set up
- Auto cartridge recognition populates
- Adjustable time, flows and pressures
- Change parameters on the fly
- Select detection monitoring and threshold settings

Control
- Upfront and intuitive action buttons

Simple Single Screen Operation Accelerates System Set-up

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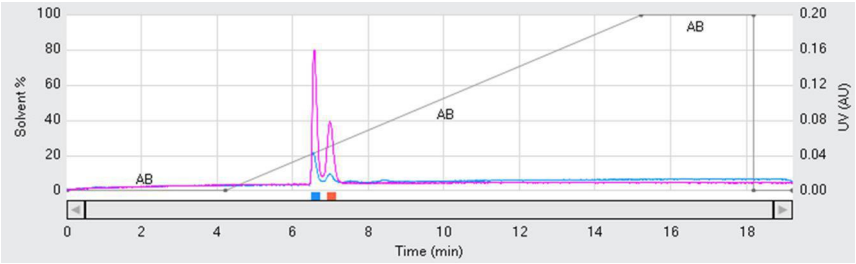
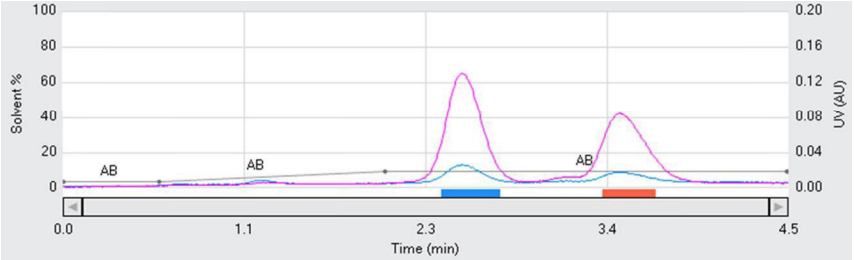
Reveleris® X2 Navigator™ Software Simplifies Method Development

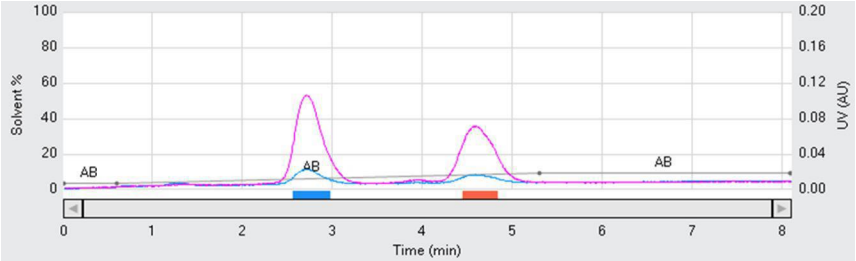
Method development using the Reveleris® X2 Navigator™ software feature optimizes the purification separation and gives confidence of first-time success.



Traditional Flash Chromatography System Method Guidance



Reveleris® X2 Flash Chromatography System Navigator™ Software "Speed" Method



Reveleris® X2 Flash Chromatography System Navigator ™ Software "Purity" Method

Reduce concerns when scaling up closely eluting components on flash

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Reveleris® X2 Navigator™ Software - Controlling Operational Costs

		Reveleris® X2 System Purity	Reveleris® X2 System Speed	Traditional Method
Method Development	Time (min)	52	52	78
	Solvent Used (mL)	50	50	75
Method Performance	Resolution	***2.9***	2.04	1.50
	Time (min)	8.1	***4.5***	19.2
	Solvent Used (mL)	292	162	691
	Total Time (min)	60.1	56.5	97.2
	Total Solvent Used (mL)	**342**	**212**	766

Reveleris® X2 Flash Chromatography System Purity: Improved resolution 2x– from 1.5 to 3

Reveleris® X2 Flash Chromatography System Speed: Reduces run time from 19 to 4.5 min and reduces solvent use from 766 to 212 mL

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Reveleris® X2 Flash System Summary

- Patented and patent pending technologies
- Have **confidence** your purification is done right the first time
- **Flexibility** for wide range of applications
- Maximize purity of target compounds
- Overcomes the limitations of UV-only based detection systems
- **Flexibility** to use multiple solvents
- Be **confident** you are seeing everything in your sample
- Delivers maximum sample recovery and purity
- **Simplicity** of single screen programming and run control monitoring
- Identifies important compounds of interest and separates quickly

CONFIDENCE • FLEXIBILITY• SIMPLICITY

Rely on Graces' experience in silica manufacture and history of innovation

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Reveleris® Prep System
Our Latest Purification Instrument

U.S. Patent Numbers
8,115,930 8,305,581
8,305,582 8,314,917
AUS Patent
2008336091

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Materials Technologies

Reveleris® Prep Description

The **Reveleris® PREP** system is a complete purification solution that allows the chemist to perform both

Flash Chromatography

and

Prep-LC

on one simple, intuitive system while maintaining custody of your sample for the entire purification process. It's unique and powerful technology allows the chemist to detect components that up until now may have been invisible, helping to provide maximum purity and recovery in minimal time.

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Reveleris® Prep Description

The patented **RevealX™** detection technology integrates up to

3 variable UV wavelength

and

ELSD detector

signals using advanced signal processing to help detect and collect all compounds from your sample. Simple selectable sensitivity control enables you to choose from high or low sensitivity, according to the mass of compound being purified or the level of impurities.

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Reveleris® Prep Benefits

- 3UV Detector Signals and Integrated ELSD
- 12" Touch Screen
- Simple software switch between Flash and Prep LC modes
- Automatic Injection valve for Prep LC
- Automatic Cartridge Identification
- Automatic Valve Rinsing
- Extended Solvent Capabilities
- Ethernet and USB Connection
- High Pressure HPLC Pumping with Auto-Prime
- Solvent and Waste Safety Sensors
- Automatic Tray Identification

U.S. Patents
8,115,930 8,305,581
8,305,582 8,314,934
AUS Patent
AU2008336091

Take control of your purification with the Reveleris® PREP purification system

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Reveleris® Prep Benefits

VERSATILITY

Maximise Purity and Recovery of Your Target Molecule

- Choose flash or prep LC
- Uses flash cartridges and Prep LC columns
- Up to 200ml/min and 1500psi
- 3 channel UV-Vis plus ELSD
- Detect chromophores and non-chromophores

SIMPLICITY

Simple Set-Up, Easy Operation

- Large 12" single Touchscreen System Control
- One click software switch between modes
- No time consuming fluidics changes
- Easy cartridge and column installation
- Intuitive, simple software interface

CONTROL

Purify a Broad Range of Samples with Complete Control

- Maintain custody of your sample
- Manage the entire purification process yourself
- One click detector sensitivity choice
- Choose how and what to collect
- Choose speed or purity

Take control of your purification with the Reveleris® PREP purification system

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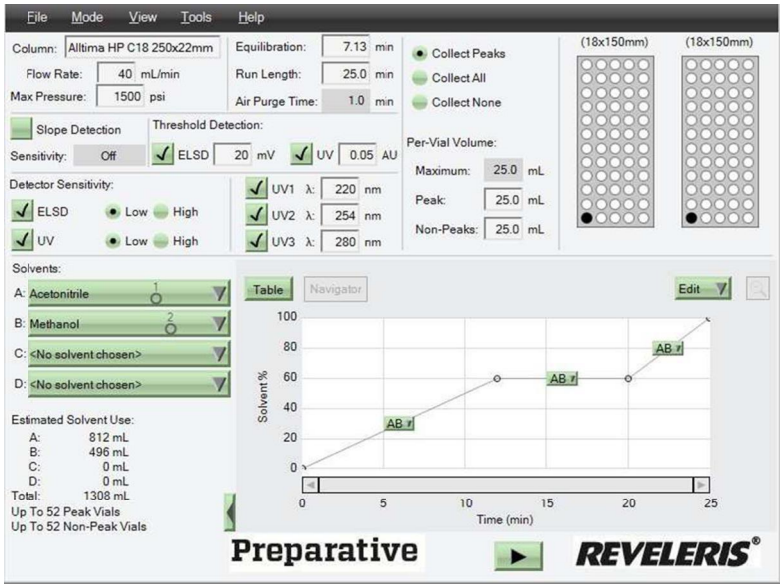
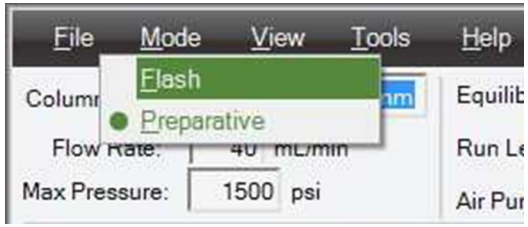
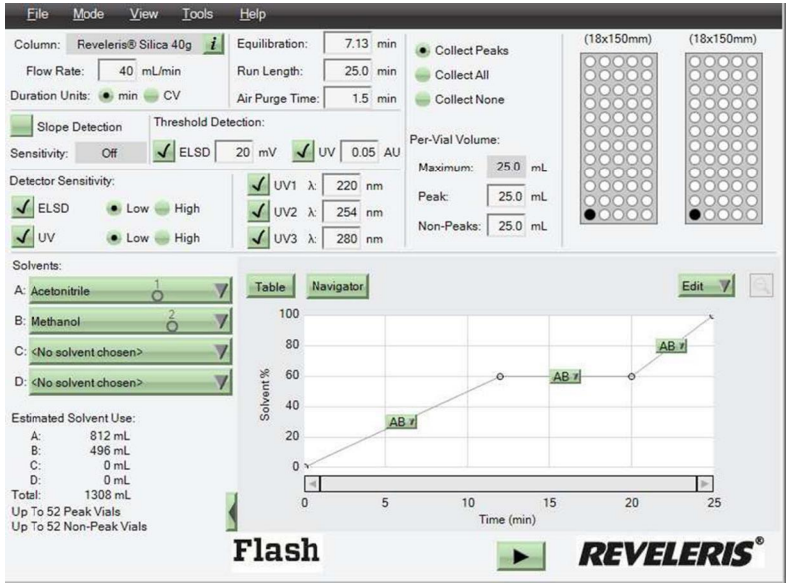
Reveleris® Prep Screens



Prep Mode Screen





Flash Mode Screen