

## The Benefits of Integrated ELSD and the Reveleris® X2 Flash Chromatography System

### Introduction

The Reveleris® X2 flash chromatography instrument was developed with an integrated ELSD designed specifically for flash chromatography. Some flash system manufacturers are now offering their flash systems with analytical ELSD capability in an effort to provide similar capabilities to the patented RevealX™ detection technology in the Reveleris® X2 flash system. The performance benefits of these flash purification systems are not equivalent to the advanced, patented splitting and detection technology in the Reveleris® X2 flash system.

When comparing the Reveleris® X2 system to other flash systems, consider asking these critical questions before making your decision.

### How Much of Your Sample Can You Afford to Lose ?

Since ELSD is a destructive technique, sample diverted to the ELSD is lost. How much are you willing to sacrifice during purification?

✓ The Reveleris® X2 flash chromatography system only diverts 22-45µL/min of the eluent flow to the ELSD (*depending on the sensitivity chosen*). With a typical 12g cartridge flow of 36mL/min, that means you will collect over 99.9% of your valuable compound\*.

✗ Other manufacturers' ELSD units divert up to 750µL/min of eluent flow to the ELSD (*under the same operating conditions*). You could be losing over 2% of your sample if you are not using a Reveleris® X2 flash system.

✗ On a 4mg cartridge at a typical flow of 18mL/min, you could be losing more than 4% of the sample if you are not using a Reveleris® X2 system.

### Is Your Instrument Ready When You Are?

ELSDs that were not designed specifically for flash chromatography can require optimization of gas flow and temperature with each new sample to get a good response.

✓ The integrated ELSD in the Reveleris® X2 flash system was designed for flash chromatography system, so no optimization of the conditions are needed. Just load your cartridge, press run and feel confident that your sample will be detected and collected first time.

✗ ELSDs from other manufacturers require a number of optimization runs to achieve satisfactory ELSD performance (*depending on the sample and eluent*). Performing your purification without optimization puts your valuable sample at risk.

\*Request tech note M307a for more information

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### How Much Post-Run Analysis Do You Have Time For?

Be confident that your fractions are being collected correctly and that your target compound is in the fractions indicated.

✓ The Reveleris® X2 flash system has patented RevealX™ detection technology that synchronizes the UV and ELSD signals, ensuring that the fractions indicated on screen for your components exactly reflect the collected fractions.

✗ The difference in signal time between UV and ELSD can be as much as 30 seconds on other manufacturers' systems, (*depending upon conditions*). Without the RevealX™ detection technology in the Reveleris® X2 flash system, fractions individually triggered by UV or ELSD can require post run analysis by TLC or HPLC to identify which fractions contain your target molecule, and further re-purification may be necessary to fully isolate it.

### Conclusion

If you are interested in a flash instrument with an integrated or external ELSD, make sure that you consider these questions before making your decision.

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to Request a Demo



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W. R. Grace & Co.-Conn.  
7500 Grace Drive, Columbia, MD 21044

Grace Discovery Sciences Regional Headquarters:

AUSTRALIA:  
Rowville  
Tel: +61 3.9237.6100  
Email: [discoverysciences.AU@grace.com](mailto:discoverysciences.AU@grace.com)

BRAZIL:  
Sorocaba  
Tel: +55 15.3235.4705  
Email: [discoverysciences.BR@grace.com](mailto:discoverysciences.BR@grace.com)

CHINA:  
Shanghai  
Tel: 86 21 5467 4678  
Email: [dsbiz.asia@grace.com](mailto:dsbiz.asia@grace.com)

EUROPE:  
Lokeren, Belgium  
Tel: +32 (0)9.340.65 65  
Email: [discoverysciences.EU@grace.com](mailto:discoverysciences.EU@grace.com)

INDIA:  
Pune  
Tel: +91 20.6644.9900  
Email: [pune@grace.com](mailto:pune@grace.com)

NORTH AMERICA:  
Deerfield, Illinois  
Tel: 1.847.948.8600  
Email: [discoverysciences@grace.com](mailto:discoverysciences@grace.com)

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