HICHROM

Chromatography Columns and Supplies

LC CONSUMABLES AND ACCESSORIES
Drylab

Catalogue 9

Hichrom Limited

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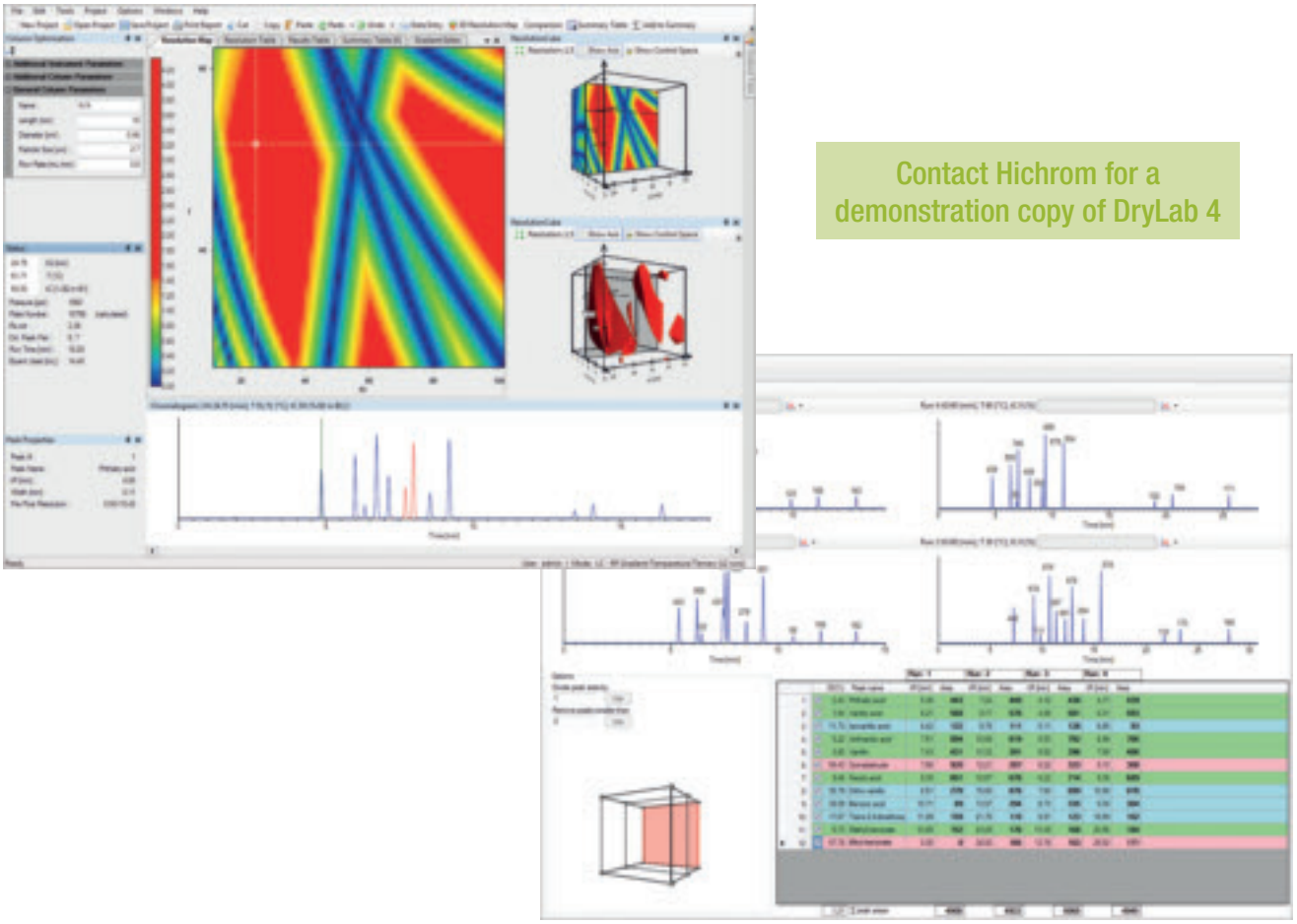
CHROMATOGRAPHY MODELLING AND SIMULATION SOFTWARE

Many chemical, pharmaceutical, environmental and other products are quality controlled and tested by HPLC methods. A reliable and robust HPLC method is therefore a vital and integral component of the production and quality process. DryLab®4 is a tool which helps the chromatographer to produce better more reliable HPLC and UHPLC methods in a shorter time. It helps you to structure and organise your work, so enabling you to save time and consumables used during method development and make the final results more predictable, reliable, transferable and successful.

DryLab®4 – Key Points

- Latest version of the acclaimed DryLab chromatography modelling software, which has evolved over 25 years.
- Allows you to develop better, more robust HPLC/UHPLC methods faster and more efficiently.
- Also allows you to optimise or modify existing HPLC methods for successful transfer to alternative UHPLC/HPLC equipment.
- Features improved "peak tracking" to speed up data entry and improve correct peak identification on imported chromatograms.
- Improved functionality allows for 1, 2 and 3 chromatographic parameters (e.g. % organic, temp, pH etc.) to be modelled simultaneously.
- Allows modelling results to be easily visualised as a "2D colour resolution map" or "3D colour resolution cube".
- From just 12 runs you can model 1,000,000 possible solutions.
- New robustness module allows you to simply and quickly explore the boundaries of robustness, cumulatively or independently, for all specified parameters.
- Fully compatible with the principles of Quality by Design (QbD).

A Truly Powerful Tool for HPLC Method Development



Contact Hichrom for a demonstration copy of DryLab 4

Product Description

DryLab software consists of a core module and two other optional modules. Depending on the modules purchased, DryLab 4 will provide the functions described below. It is available in single or multi-licence format.

1) The Core Module allows 1D & 2D modelling and is required for all applications in DryLab 4.

2) The 3D Design Space Module is required to enable 3D modelling and for the results to be visualised as a 3D cube.

3) The Robustness Module gives you a statistical evaluation of just how robust your method is and highlights which parameters are more important than others. This includes an evaluation of those parameters that are not being directly modelled such as 'flow rate' for example.

To discuss individual requirements and to obtain pricing information please contact Hichrom Limited.

Chromatography Modelling and Simulation Software (continued)

DryLab®4

Why should you invest in DryLab® 4?

DryLab® helps you find the best solutions for your sample separation challenges. For twenty-five years, scientists from major international pharmaceutical and chemical companies, as well as universities and other organisations, have utilised DryLab to create high quality HPLC methods to meet the needs of their demanding applications. Anybody working in the realm of HPLC who wishes to economise on the resources spent developing and running methods will benefit from the advantages offered by DryLab. The most important reasons for adopting DryLab technology into your HPLC laboratory are considered to be as follows:

• To save time and cost

Method development and optimisation with DryLab is a streamlined and efficient process. Methods developed in DryLab often have run times that are 50% shorter compared to methods developed by traditional 'trial and error' approaches. This can mean significant increases in productivity for both equipment and staff. A DryLab model uses real data to accurately simulate literally thousands of experiments, meaning experimental work normally requiring valuable time in the laboratory can be done instantly. How many times has a whole day or week of HPLC method development effort left you no further ahead than you were at the beginning? DryLab can prevent this from happening by providing you with information which allows you to decide which experiments are worth pursuing and which are dead-ends not worthy of your time.

The pharmaceutical industry spends up to 16% of the R&D cost of a new drug on the development and execution of HPLC methods. A non-robust method will be overly sensitive to the fluctuations in parameters typical when a method is deployed across a multitude of instruments, locations, and users. The time spent compensating and adjusting for the problems arising from a non-robust method will cost time and money and may result in production delays or even whole batches of drug substance being lost.

DryLab's method development motto is to make it right the first time. High quality robust HPLC methods can be developed faster than ever before, and the Design Space built into the DryLab model provides a comprehensive knowledge that gives you long-term security and confidence in any future method amendments and validations. In many cases, optimisation of a methanol/acetonitrile/buffer ternary solvent blend in the mobile phase achieves a degree of selectivity not possible with just acetonitrile alone.

Shorter run times mean that more samples can be analysed per column and the use of expensive solvents and mobile phase additives minimised. The use of cheaper alternative solvents such as methanol can be considered from the beginning, often with no sacrifice in method benchmarks like resolution and robustness. Waste disposal costs will therefore fall.

• To help update and transfer methods

DryLab's Gradient Editor predicts the optimum linear gradient for your separation and lets you model multi-segmented gradients or adjust methods for different instrument configurations. It is straightforward to transfer a method to an instrument with a different dwell volume. In addition, you can use DryLab to facilitate updating methods from traditional long columns (250 x 4.6mm, 5µm) onto shorter UHPLC columns with smaller particle sizes.

• To help conform to FDA 'Quality by Design' standards

The new Quality by Design (QbD) concept of the FDA requests the scientific elaboration of the Design Space for the proposed HPLC method. With its comprehensive resolution and robust mapping abilities, Drylab is perfectly geared to this task. Peak movements can be modelled making it easy to determine the tolerance thresholds that define method robustness. You will be able to comfortably assure the FDA regulators about the high quality of your methods using a DryLab model to illustrate the science based reasoning for your choice of working conditions.

• To help teach and train new chromatographers

Training new staff requires a big investment in time and resources, and mistakes made at the instrument can be costly. DryLab lets novices do their initial learning on a computer. As they alter experimental conditions, DryLab updates the chromatogram instantaneously, helping old and new chromatographers alike to quickly gain an insight into a method's properties. Such immediate feedback makes it a powerful tool to teach the fundamental principles of chromatographic retention mechanisms. DryLab comes complete with a detailed Tutorial Guide and many useful examples for practical instruction to help all users get a successful start to DryLab HPLC method development.

The more you use DryLab, the more time and money you save – and the more confidence you have in the methods you develop!