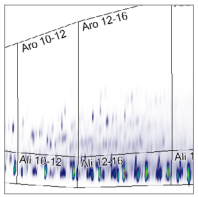
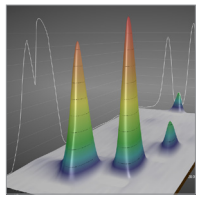
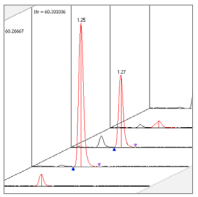
SepSolve Analytical







ChromSpace®

A powerful and versatile
software platform
for multi-dimensional GC

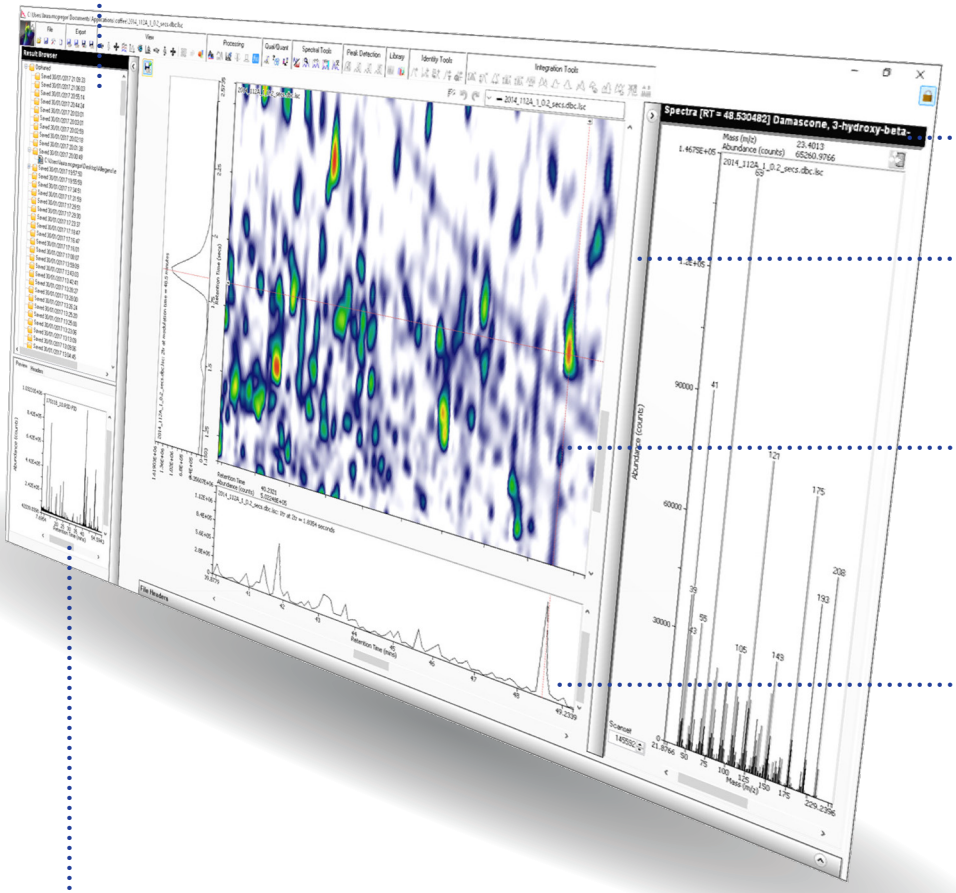
ChromSpace

The GC×GC software you've been waiting for

Comprehensive two-dimensional gas chromatography (GC×GC) is the ideal platform for analysis of complex mixtures, but many analysts are put off by the need for complex data processing.

Designed using feedback from experts in industry and academia, ChromSpace marks a revolution in GC×GC analysis, by providing streamlined, powerful processing in an easy-to-learn interface.

Unlock the power of GC×GC with effortless data exploration in ChromSpace.



View multiple datafiles from the results browser in a single window.

Instant 'one-click' library matching.

Customisable layout using dynamically linked panes for flexible data navigation.

Unique combination of algorithms ensures that even trace-level, masked peaks are not overlooked or incorrectly merged.

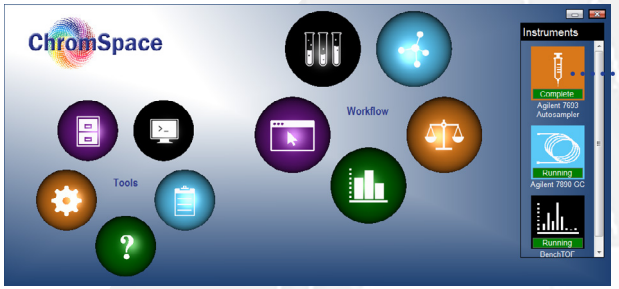
Linked linear chromatograms display the true chromatography.

Multi-vendor support, using .cdf import.

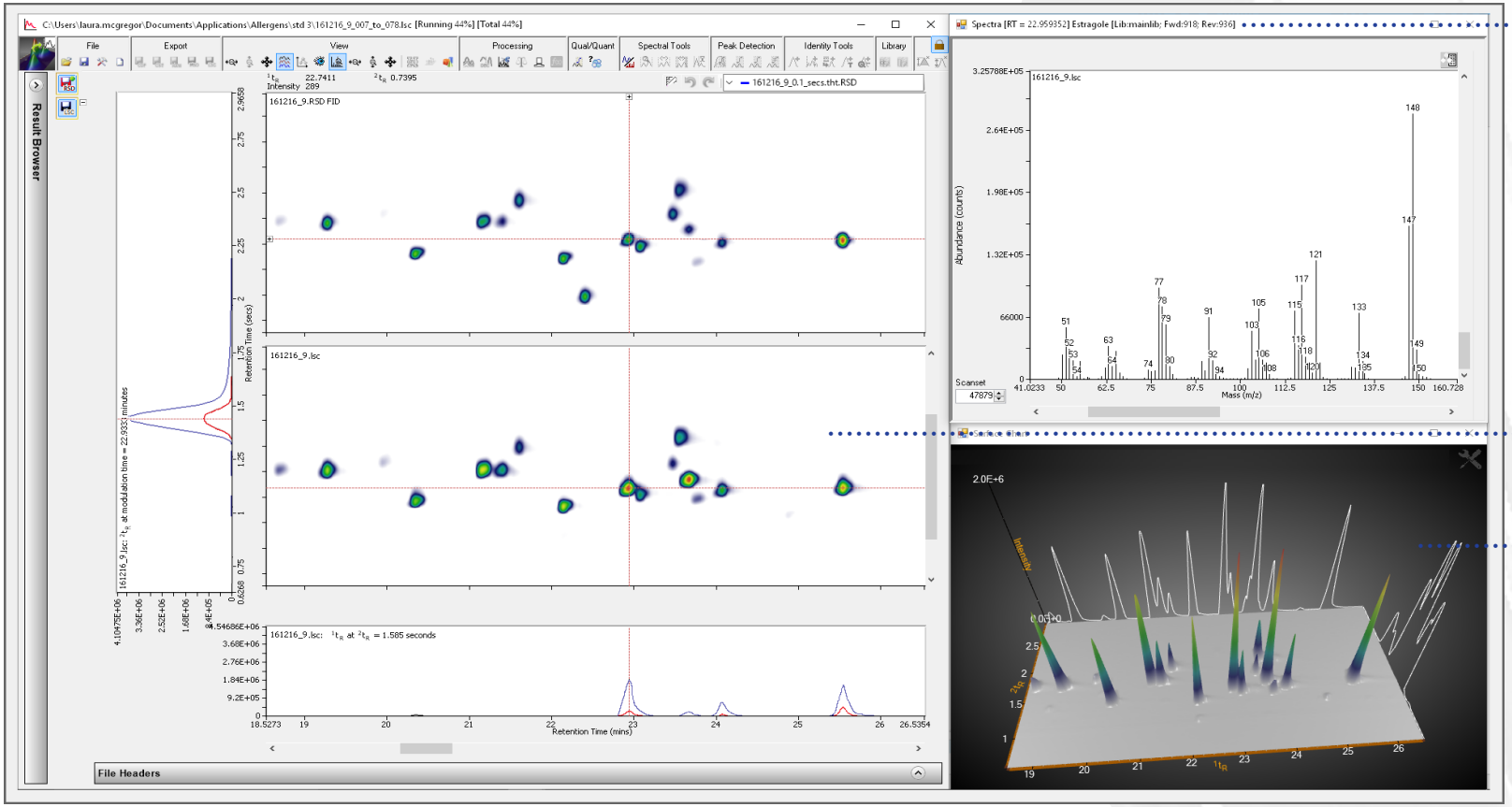
Integrated instrument control and data processing

ChromSpace allows you to enjoy full instrument control and fast method development, while also exploring and processing your GC×GC files within a single software platform.

ChromSpace is also available in a reprocessing-only format, providing multi-vendor support (through .cdf import) to unify your lab's data processing.



Full instrument control, for a selected range of systems, provides streamlined GC×GC workflows.



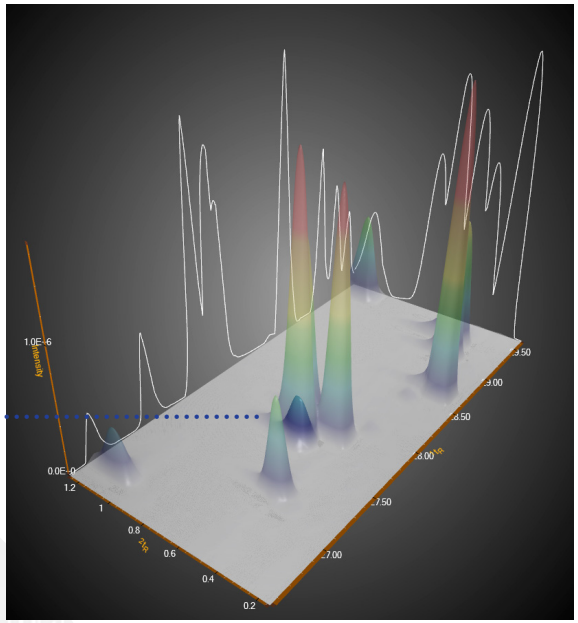
One-click library hit keeps data navigation fast and simple.

Frustrating wait times are avoided in ChromSpace, because colour and surface charts are updated in real time. This means that data can be explored while the sample is still running.

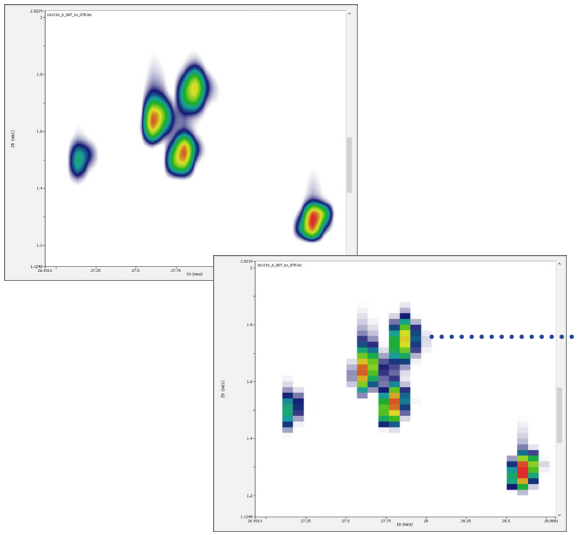
Flexible display settings to suit every user

Interactive 3D charts

3D surface charts can be stacked, overlaid and inverted, with transparency settings allowing TIC and EICs to be viewed simultaneously.



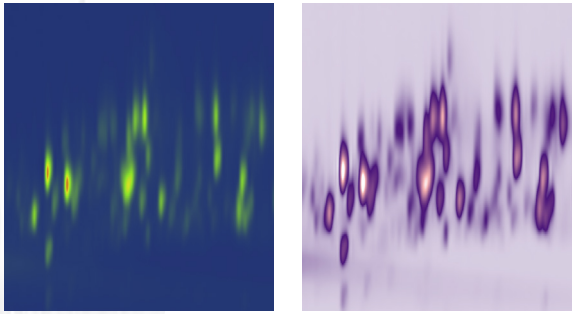
Convenient viewing options



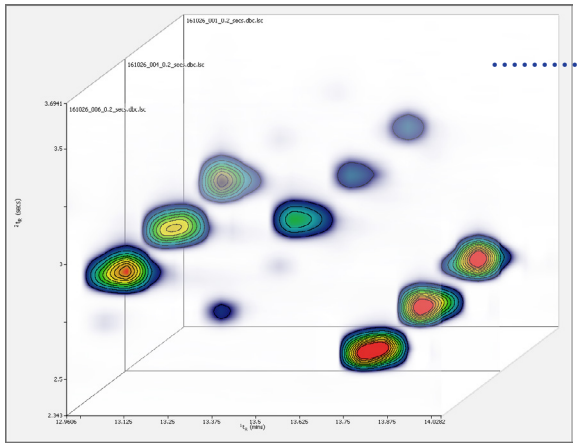
The familiar interpolation can be applied to give colour plots (left), but the raw 'nearest neighbour' view (right) shows the actual slices, e.g. for verifying the optimal number of modulations per peak.

Custom colour palette

A simple colour palette enables custom colour templates to be created and saved quickly and easily.



Simple comparison of multiple files



Contour lines and perspective overlays enable differences between multiple chromatograms to be easily visualised.

Fast and efficient group-type analyses

When numerous GC×GC files require batched processing, it is vital to have flexibility for directing detailed processing across all samples.

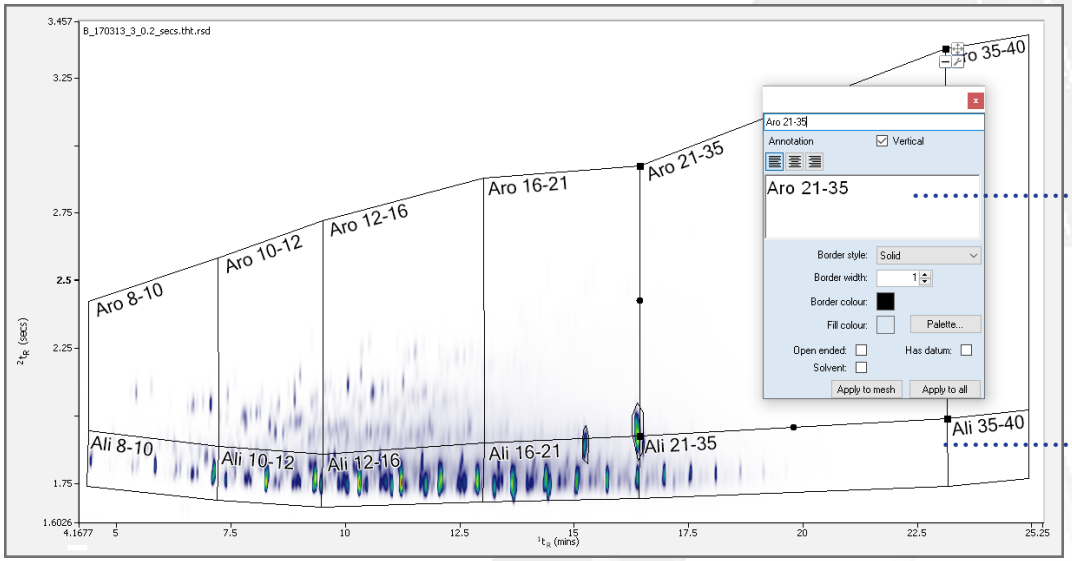
Compound-class stencils

In ChromSpace, classification ‘stencils’ can be overlaid and dynamically scaled with colour plots, enabling specific regions of interest to be filtered according to data or logical qualifications, and easily summed for grouped abundance reporting.

Simple reporting on sample composition

By employing ‘stencils’ defined by a banding standard, real-world samples can be quickly integrated and quantified.

Stencils are easily customised and saved to apply to later files as part of an automated method, for fast group-type reporting.



Flexible stencils can be created in minutes, and moved or reshaped easily.

Contiguous meshes ensure that no gaps are overlooked between chemical classes.

Area Percent

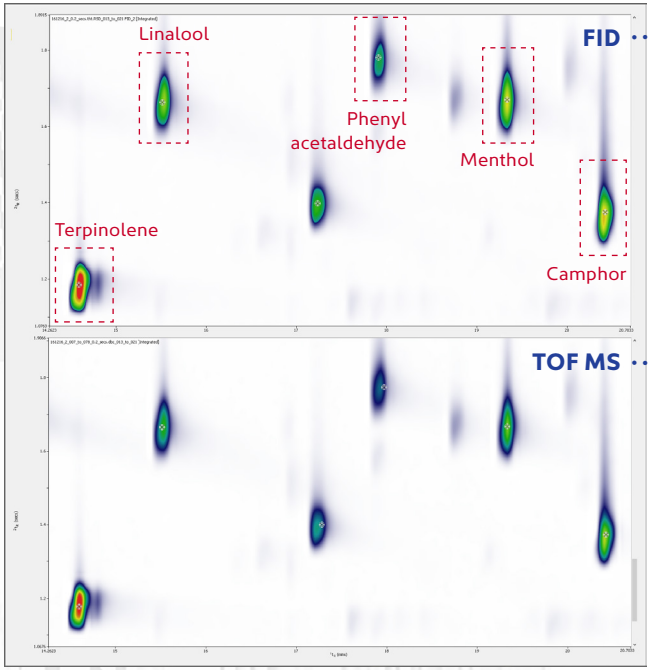
Source	RT	Area	Width	Group	Area %	Status
Ali 08-10		1.16405E+07		Ali 08-10	5.73	Unspecified
Ali 10-12		8.19433E+06		Ali 10-12	4.03	Unspecified
Ali 12-16		1.69039E+07		Ali 12-16	8.32	Unspecified
Ali 16-21		2.04583E+07		Ali 16-21	10.07	Unspecified
Ali 21-35		5.98338E+07		Ali 21-35	29.46	Unspecified
Ali 35-40		2.93418E+07		Ali 35-40	14.45	Unspecified
Aliphatics		1.46373E+08		Aliphatics	72.06	Unspecified
Aro 08-10		1.2257E+07		Aro 08-10	6.03	Unspecified
Aro 10-12		6.55512E+06		Aro 10-12	3.23	Unspecified
Aro 12-16		6.11496E+06		Aro 12-16	3.01	Unspecified
Aro 16-21		5.54705E+06		Aro 16-21	2.73	Unspecified
Aro 21-35		2.62702E+07		Aro 21-35	12.93	Unspecified
Aromatics		5.67443E+07		Aromatics	27.94	Unspecified

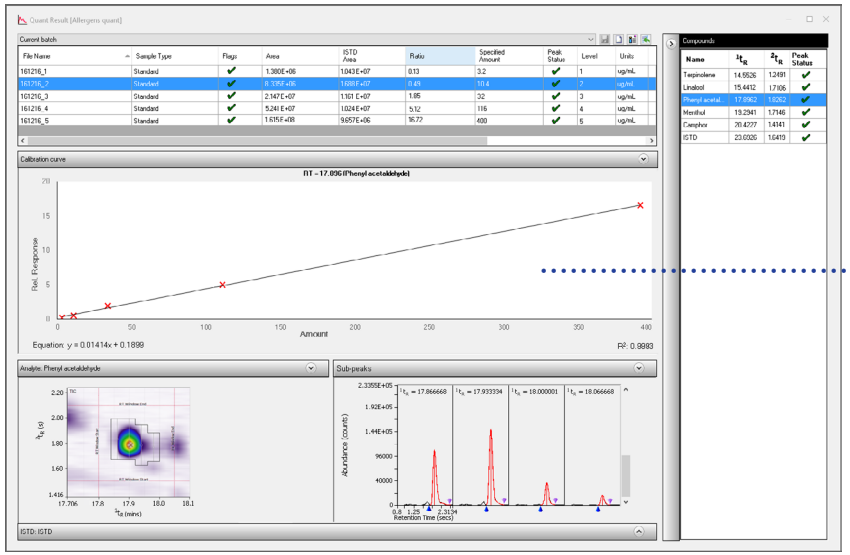
Simple area percent reports provide an overview of sample composition.

Accurate and precise quantitation

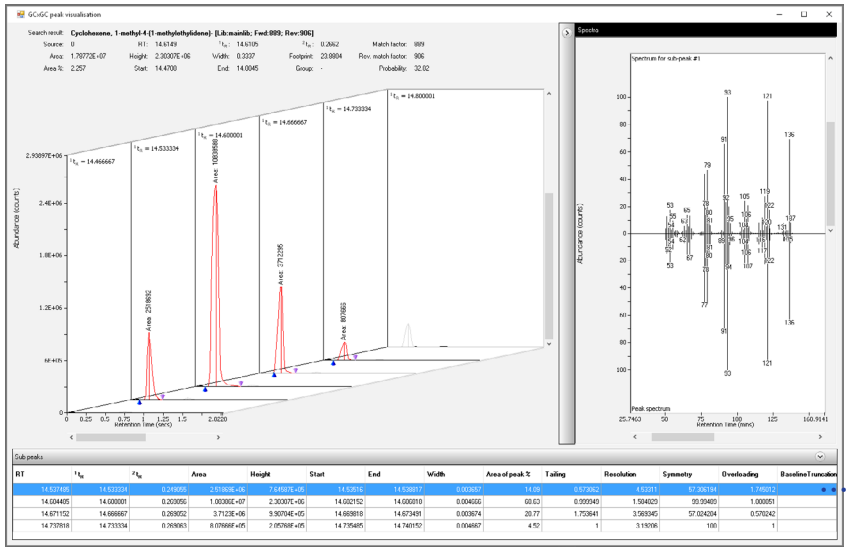
ChromSpace uses a unique combination of peak perception algorithms to ensure that even trace or masked peaks are not overlooked or incorrectly merged – providing firm foundations for reliable quantitation.

ChromSpace allows processing of both MS and FID data – as shown here for a suite of fragrance allergens using parallel detection.





Classical integration of peaks within declared regions leads to precise quantitation.



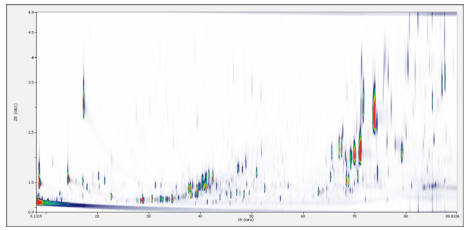
Fast and simple review of peak merging allows sub-peaks to be compared quickly by scrolling through the table, with any issues seen at a glance.

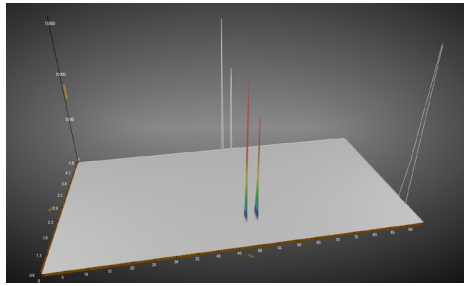
Uncovering hidden peaks

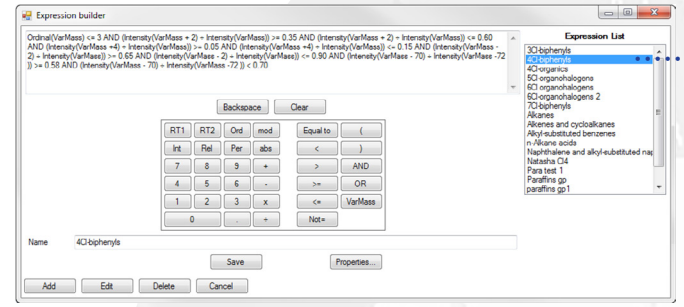
Efficient filtering tools

Scripting expressions are extremely useful to filter complex data and identify target compounds and chemical classes.

ChromSpace includes a simple expressions builder, with preconfigured buttons and error flagging to allow novices to effortlessly create scripts.





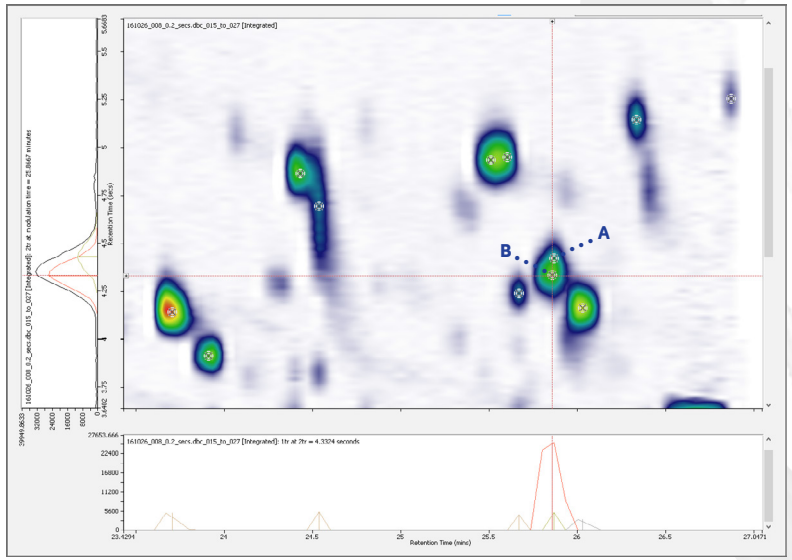


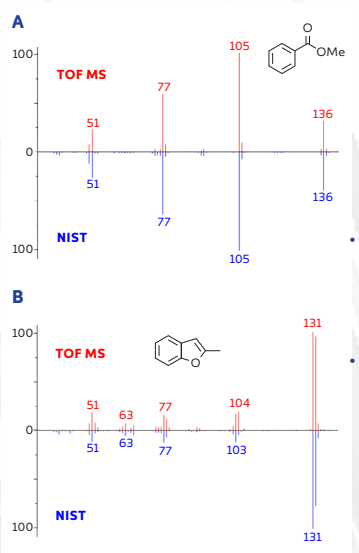
By using a scripting expression to identify chlorinated compounds in a complex cannabis extract, two pesticides are discovered.

Robust deconvolution

In complex samples, co-elutions may remain even after 2D separation. This requires deconvolution for robust component identification and to correctly apportion signal intensities.

Proprietary deconvolution makes ChromSpace the ideal choice for exhaustive screening of samples.





In this analysis of whisky headspace, confident identification of the two components shown was particularly important because of their different aroma qualities.

About SepSolve Analytical

SepSolve Analytical is dedicated to helping analysts select the best equipment for GC and GC×GC analysis.

The wide range of products offered include SepSolve's INSIGHT™ flow modulator for GC×GC, and sample preparation equipment, robotic autosamplers, thermal desorbers and mass spectrometers with novel soft EI capability from leading manufacturers including GL Sciences, CTC Analytics and Markes International.

SepSolve's application experience is extensive, placing it in an excellent position to advise on getting the best from an analysis – in everything from environmental monitoring to petrochemical analysis and food aroma profiling.

SepSolve Analytical Ltd
T: +44 (0)1733 669222 (UK) +1 888-379-3835 (USA)
E: hello@sepsolve.com

www.sepsolve.com