



**CHROMTECH**  
ANALYTICAL INSTRUMENTS

Evolution3 Triple Quadrupole GC-MS/

Transforming the best GC-MS system into something even better.

# CHROMTECH EVOLUTION3

## TRIPLE QUADRUPOLE GC-MS/MS

Transforming the best GC-MS system into something even better.

The CHROMTECH Evolution3 GC-MS/MS system is built upon the market-leading GC-MS system, the Agilent 5973/75/77 series MSD.

This marriage was made in heaven since the outstanding robustness and sensitivity of this GC-MS/MS system is the result of combining the famous Agilent ion source with the CHROMTECH patented IonRail technology collision cell design. User friendly system control and broad data analysis capabilities are key components of the instrument, making analysis of samples containing dirty matrices more reliable and easier than ever.



The CHROMTECH Evolution GC-MS/MS system offers both excellent sensitivity and unsurpassed reliability.

# Sensitivity and reliability at its best.

Quantifying low level pesticides in food, identifying drugs and illicit compounds in biological matrices, as well as specifying biomarkers in geological samples can be challenging due to the complex matrix involved. The CHROMTECH Evolution3 Triple Quadrupole GC-MS/MS system performs all these tasks and more with ease.

The unrivaled selectivity of the MS/MS process in combination with Agilent's leading rugged inert ion source, true hyperbolic quartz Q1 and CHROMTECH's proprietary IonRail collision cell geometry result in the following:

- Ultimate sensitivity in the femtogram range.
- Superb selectivity without cross-talk.
- Extremely low noise detection.
- Fast data acquisition.
- Smallest bench space of any GC-QqQ system.

## Upgrade your existing Agilent 5973/5975/5977 series MSD

It is possible to upgrade your existing Agilent 5973/5975/5977 series MSD to an Evolution3 QqQ system, offering all the possibilities of a state-of-the-art GC-MS/MS system.



### IonRail collision cell

CHROMTECH's proprietary collision cell design reduces neutral noise and eliminates cross-talk, enabling ultra-fast SRM transitions



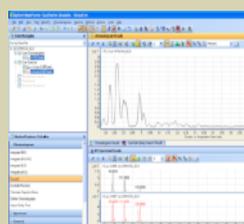
### Smallest bench-space

Due to the curved, 90° collision cell geometry, the footprint for the GC-MS/MS system is minimized. Bench space is comparable to a single quadrupole GC-MS system.



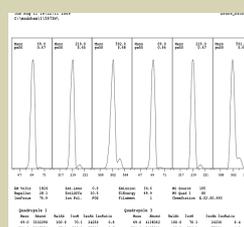
### State of the art electronics

Using the latest electronic PCB design and high-end components, reliability and performance are taken to a new level



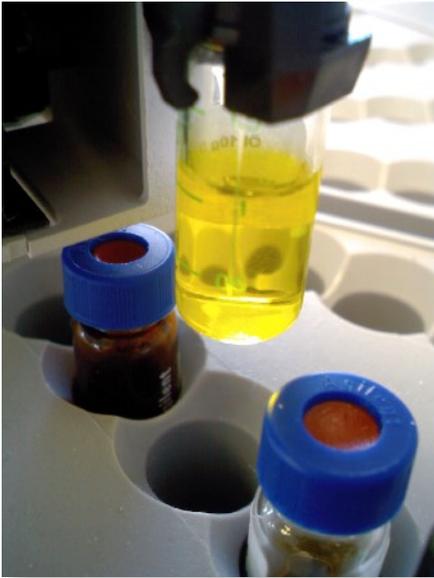
### Agilent GCMS MassHunter

The CHROMTECH Evolution3 QqQ is fully compatible with the Agilent MassHunter Workstation, the next generation of MS/MS data handling software.



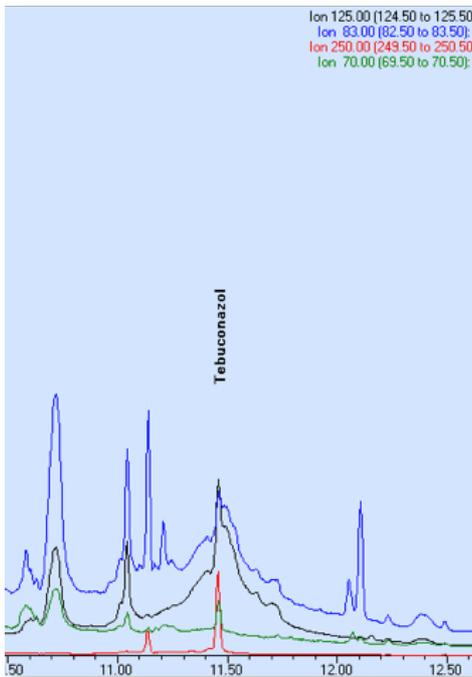
### Fully automated Autotune

Easy-to-use Autotune enables high sensitivity and reliable analysis results, run by run. Manual tune can be done as well for special applications.

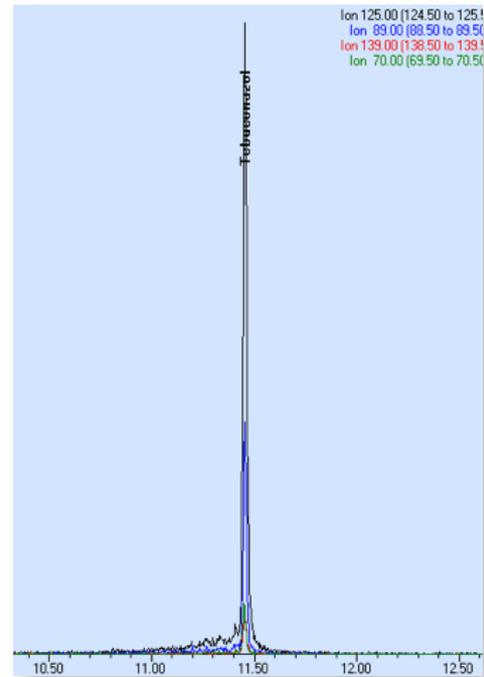


## Don't let the matrix steer you wrong!

Analyzing low amounts of pesticide residues in vegetables and fruits is an exceedingly difficult task due to the complex matrix involved. Even working in SIM mode won't let you eliminate the interfering matrix effects. In order to overcome these matrix-related problems, the use of the MS/MS technique is the gold standard. Offering unsurpassed selectivity and sensitivity, the CHROMTECH Evolution3 Triple Quadrupole GC-MS/MS helps you to unambiguously identify and further quantify your target compounds in the most demanding matrix.

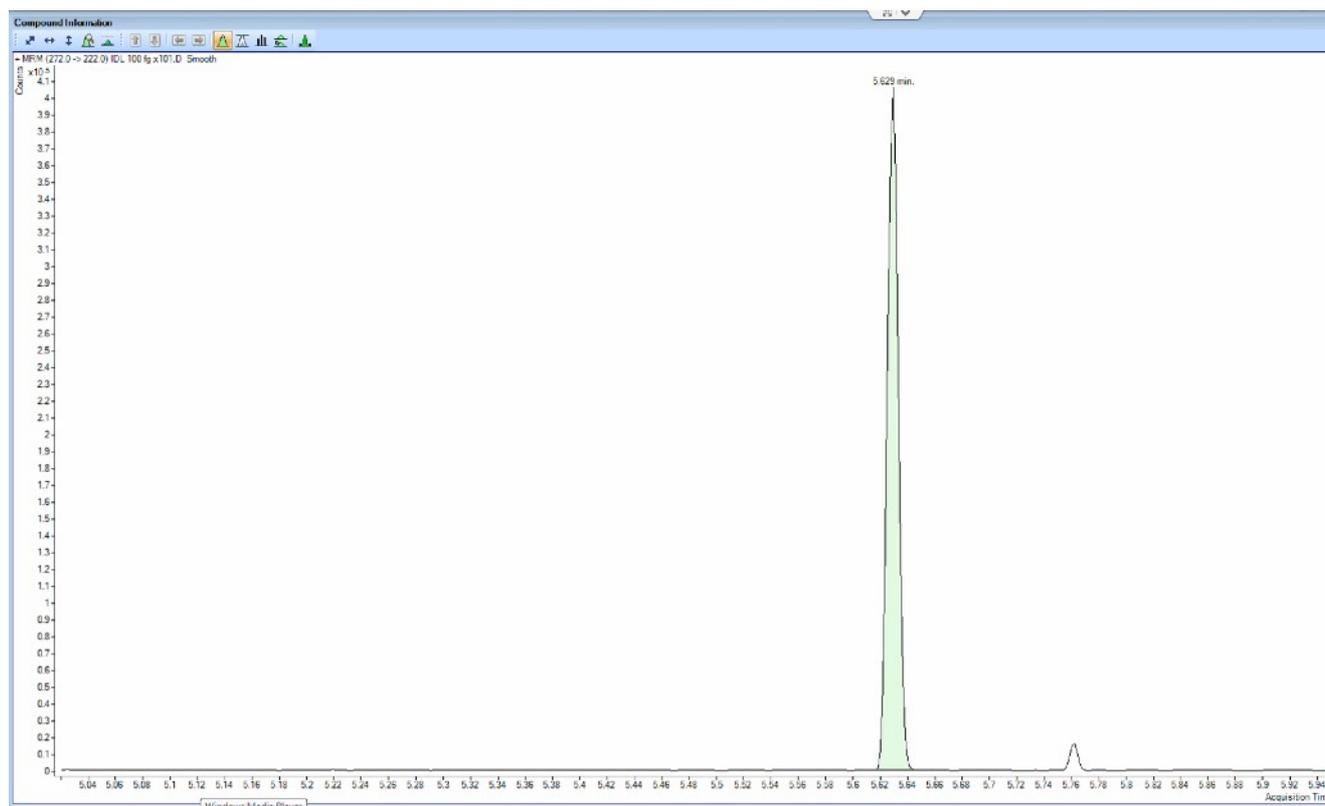


Tebuconazol, SIM mode  
 1 Group containing 4 SIM ions: m/z  
 250, 125, 83, 70

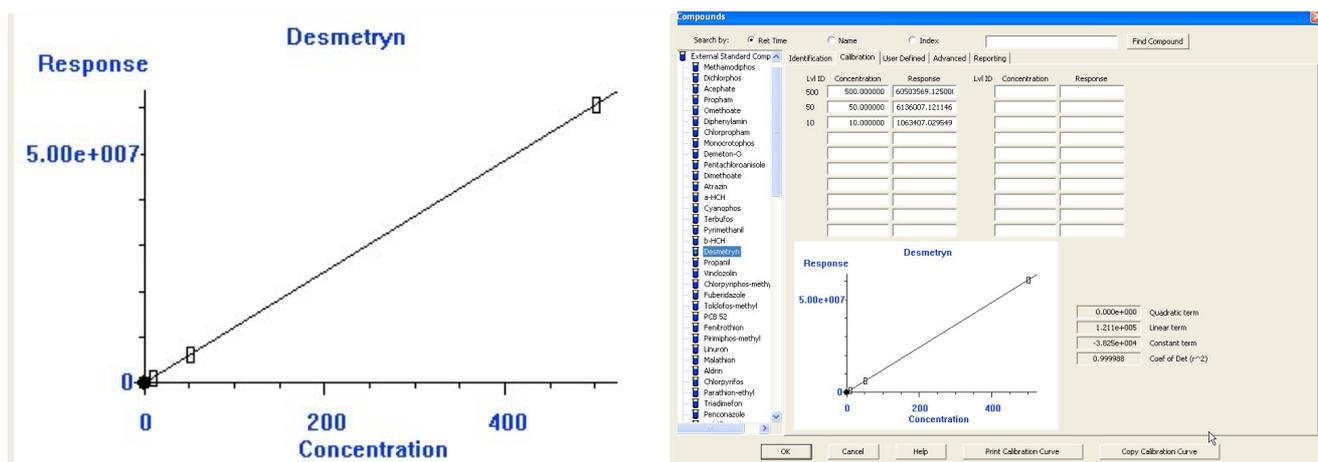


Tebuconazol, SRM mode  
 1 Group containing 4 SRM  
 transitions: m/z 250>125, 125>89,  
 250>139, 250>70

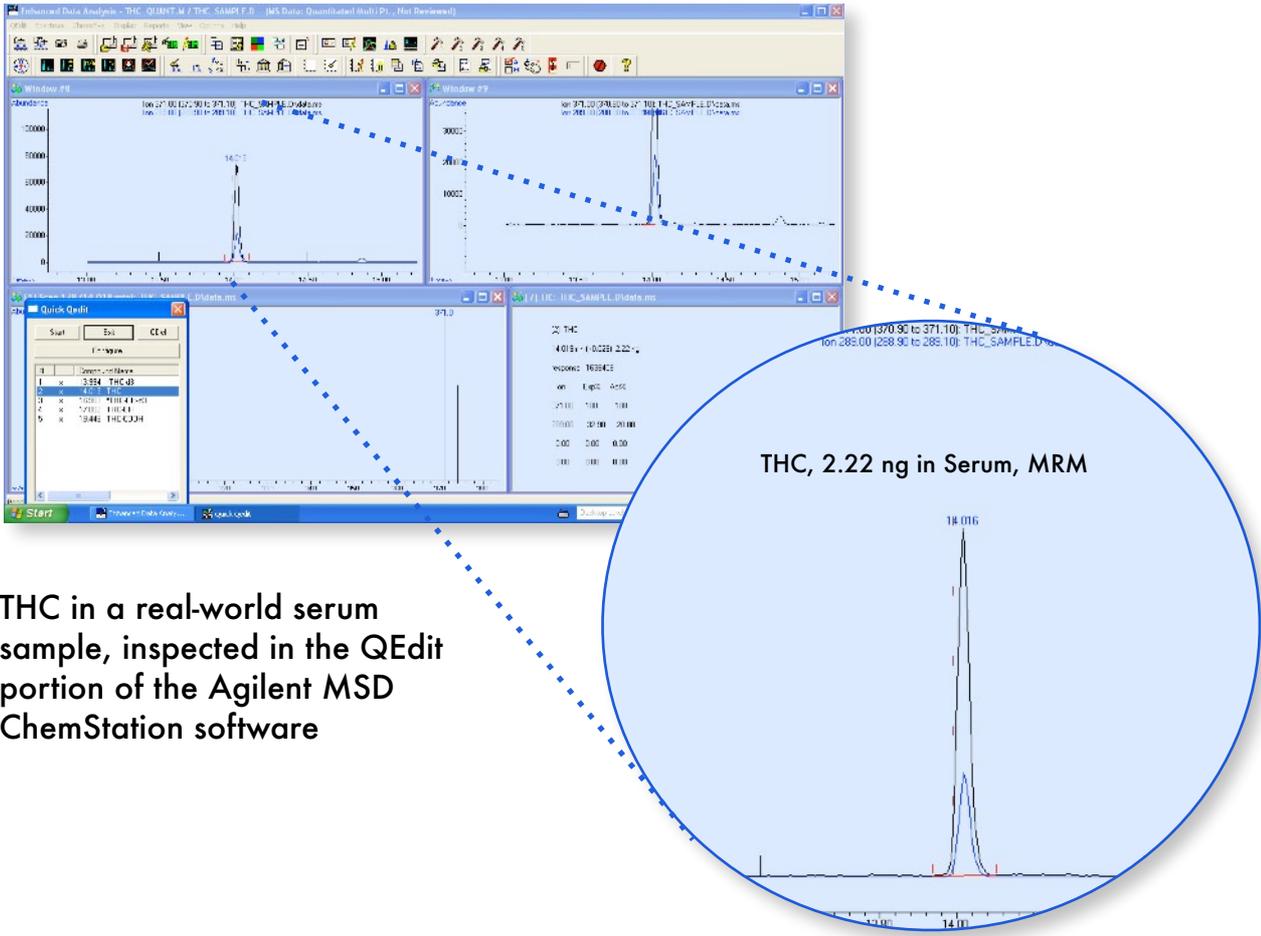
# Superior performance, day after day!



Analysis of 100 fg of OFN: Signal to Noise >7000:1



Calibration plot showing excellent linearity over a broad concentration range from 10 to 100 ppb for Desmetryn in Agilent MSD ChemStation Data Analysis software

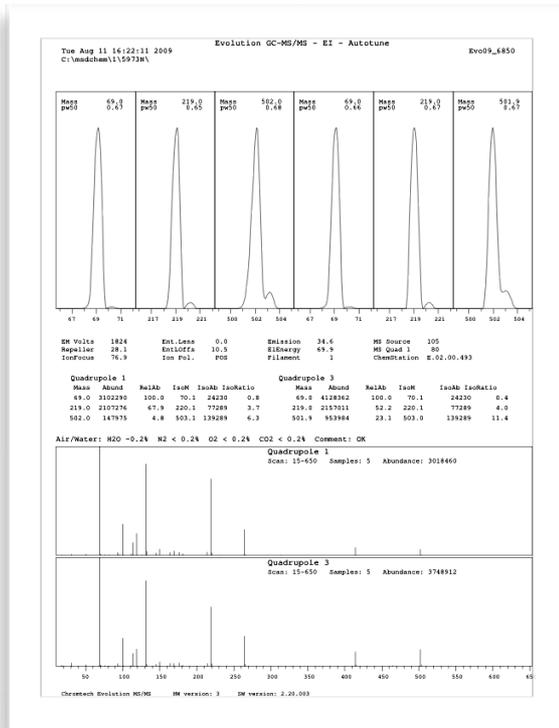


THC in a real-world serum sample, inspected in the QEdit portion of the Agilent MSD ChemStation software



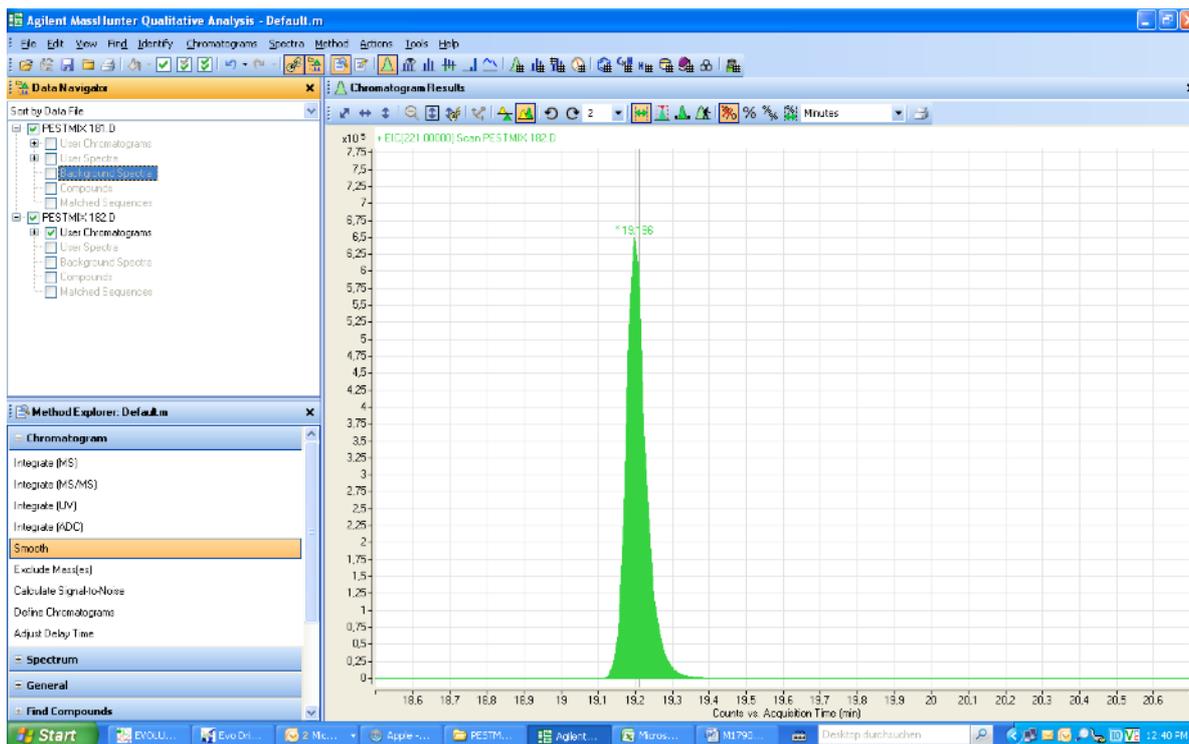
Agilent MSD ChemStation Data Analysis custom report used for analysis of banned substances or its metabolites in urine.

Analyte concentrations in this working standard vary between 20 pg and 200 pg on column.



**CHROMTECH Evolution3 QqQ Autotune report being generated and automatically printed with a single push of a button in GCMS MassHunter Acquisition software.**

**Autotune includes Air & Water Check for easy maintenance, as well as lots of other useful information on one page.**



**Agilent MassHunter Workstation Qualitative Analysis window showing acquired CHROMTECH Evolution QqQ data file.**

**New features include fully customizable report generation, parameter-less integration, new spectral library search routines, compound-centric data navigation, batch processing and more.**

CHROMTECH offers innovative chromatography for customer solutions within the range of chemical analysis instrumentation.

## For more information

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