Agilent

Trusted Answers

Discover the possibilities

Agilent 5977C GC/MSD



For years leader in the field of GC and GC/MS

For over 50 years, Agilent has been a leader in the GC and GC/MS sectors. The history of Agilent's leadership in mass spectrometry begins with the founding of HP in 1938. And at every step of the way, your goals are also our goals: a better user experience, better laboratory operations and more business success.



1971

Tabletop 5930A MS

Introduction of HP's first GC/MS device with oscilloscope and recorder.



1982

5970 MS

This groundbreaking product from Agilent was the first of a large GC/MS product family. While the mass range was almost as good as in the early stand models, the sensitivity was comparable to earlier benchtop devices.



1994

GCD

Gas chromatography/mass spectrometry technology became so popular that we introduced an easy-to-use model, the GCD.



1996

5973 GC/MSD

The 5973 was characterized by an extended Mass range and better sensitivity.
With the help of MSD ChemStation and Local Control Panel could have two GC/MSD from one PC is controlled.



2005

5975 GC/MSD

The 5975 GC/MSD extended the mass range to 1050 m/z, and the sensitivity reached an S/N ratio of 100:1 for 1 pg OFN.



1976

5992A Benchtop GC/MS

Until that time, all GC/MS systems were standing devices that were set up on the ground. The 5992 was the first benchtop device and a milestone in history.



1988

Unix and DOS ChemStation

Unix ChemStation was the successor to the Pascal Workstation. The Agilent DOS ChemStation ran on low-cost PCs: Modern operating systems made it possible to switch to less specialized computer platforms.



1996

Hyperbolic gold-coated quartz quadrupole

The hyperbolic gold-coated quartz quadrupoles improved sensitivity, performance, spectra and isotope ratios.



2007

MassHunter software

The MassHunter software enabled device setting up to data analysis and reporting and made GC/MS analysis a powerful routine application for everyone.



2009

7000A Triple quadrupole GC/MS

The first GC/MS system from Agilent that exploited the selectivity and associated higher sensitivity of true GC/MS/MS.



2012

7200 GC/Q-TOF

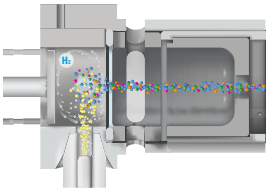
The 7200 GC/Q-TOF was the ideal tool for solving complex problems and complements Agilent's GC/MS portfolio with high-resolution battery masses.



2015

5977B GC/MSD and High Efficiency Source

Ensures unrivalled analytical sensitivity and maximum operational efficiency for ultratrack applications.



2017

Self-Cleaning Agilent JetClean Ion Source

The ion source no longer had to be cleaned often or not at all, which increases the productivity of single and triple quadrupol GC/MS systems.



2019

QuickProbe GC/MS

The Agilent QuickProbe GC/MS system is designed for forensic laboratories to enable direct analysis in real-time and without sample preparation.



2022

7000E and 7010C

Agilent 7000E and 7010C GC/TQ extend device intelligence and enable new data acquisition modes and self-recognizing device diagnostics. The 7000E is also compatible with the Agilent HydroInert source.



2012

Replaceable ion source

The interchangeable ion source (RIS) enables the exchange of EI and CI source technologies in the Agilent 7200 GC/Q-TOF without ventilation.



2013

5977A GC/MSD

With the 5977A, the EI ion source with extractor was introduced, which ensures higher sensitivity and a better thermal profile. In addition, the 7890B GC system and the MSD were able to communicate directly with each other.



2016

7010B Triple quadrupole GC/MS

The Agilent 7010B represented the evolution of proven performance, combining reliable performance and compatibility with the High Efficiency Source and JetClean ion sources. In addition, dynamic MRM data acquisition was introduced.



2017

7250 GC/Q-TOF

The 7250 improved and extended the workflows for high-resolution accurate masses of the predecessor model 7200 GC/Q-TOF, while also offering high resolution and a large dynamic range.



2022

5977C

The 5977C delivers better analytical performance and technologies to maximize device uptime. The new HydroInert source ensures better performance with H2 as carrier gas.



The Agilent 5977C GC/MSD system

Achieve your business goals – today and tomorrow

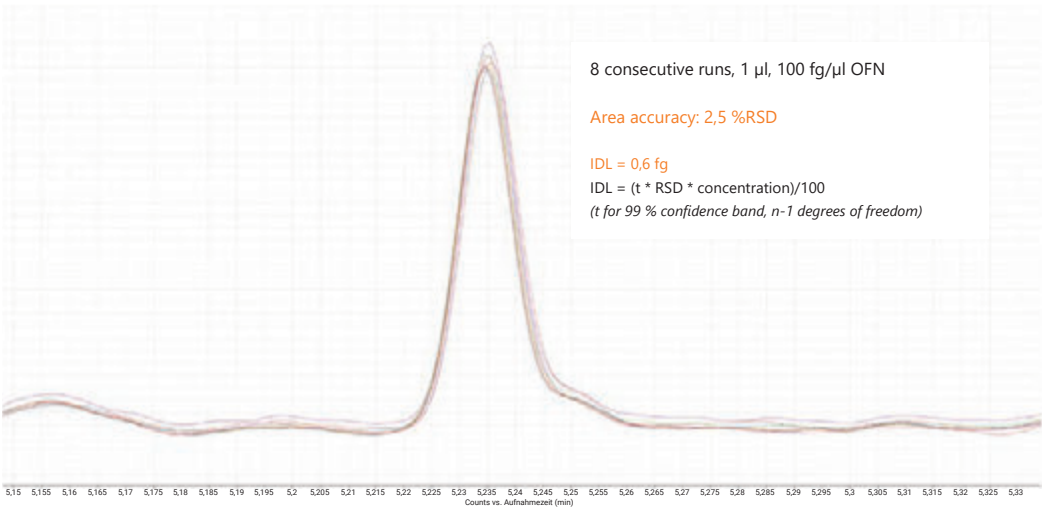
Equipment downtime, quality data, repetition of samples and review of data are just some of the difficult factors affecting processing times. And those turnaround times are critical to your business and reputation. Get to know Agilent 5977C GC/MSD. Combined with new, maximum productivity-enhancing technologies, the 5977C is designed to deliver robust performance every day, allowing you to focus on the things that add value to your lab.



Your GC/MS analyses require the highest performance standards: IDL

The Instrument Detection Limit (IDL) is based on the USEPA definition of MDL (Minimum Detectable Level) and a statistical analysis of the precision (%RSD, relative standard deviation) of 8 consecutive injections. Since the IDL is close to the detection limit, it is a meaningful measured value of the actually achievable device performance.

The accuracy of the instrumental detection limit (IDL)



How does the 5977C perform? The installation of all Agilent GC/MS systems demonstrates IDL and industry-leading performance.

Further information about the IDL can be found in our FAQ.

Mass spectrometric performance that keeps you competitive

Stainless steel ion source	HydroInert source	Extractor ion source	Extractor ion source for EI, CI source for CI	HES source
The traditional stainless steel ion source delivers a largely similar performance to previous Agilent MSD devices at a budget-friendly price. Designed for sample-dependent applications.	The HydroInert source is a novel electron impact ionisation source designed to improve GC/MS results using hydrogen as a carrier gas. It is said to improve the situation with regard to hydrogenation and dechlorination reactions.	The inert EI ion source with extractor enables high analytical sensitivity to active substances that most likely interact with non-inert surfaces. Designed for routine laboratories with different applications in different industries for optimum operational efficiency.	An inert extractor EI ion source provides high analytical sensitivity. The CI-ion source provides more gentle ionisation for determining the molecular formula and for better selectivity.	The inert High Efficiency Source offers unrivalled analytical sensitivity for ultra-track applications. Ideal for laboratories with high sample throughput, which need to save time and money with the highest operational efficiency.
Agilent 5977C EI MSD	5977C Inert Plus MSD with HydroInert source	Agilent 5977C Inert Plus EI MSD	**Agilent 5977C EI/CI MSD**	**Agilent 5977C HES MSD**





Reliable and unrivalled GC separation

The development of a gas chromatography system with the greatest confidence in the world is a continuous process. With each step, we increase speed, improve functionality and create new analytical opportunities without losing sight of the essentials: business outcomes.



Take advantage of the full profitability potential of your laboratory

The Agilent Intuvo 9000 GC is in a class of its own. The innovative compact design offers fast direct heating, ferrule-free fittings, GuardChip technology and clip-free columns for faster sample analysis and fewer and faster column changes. Intuvo continues Agilent's existing experience in reliability and gold standard performance in a compact, high-performance complete solution.



Meet the current and future requirements for your analytics

The Agilent 8890 GC system provides excellent flexibility. The 8890 is the next advanced development of the proven Agilent GC systems, which increases productivity, delivers high-quality data and offers unrivalled reliability to all users.

– Can be configured with any GC/MS system and with a wide
A range of GC detector options can be combined.

The helium savings module offers cost-saving carrier gas options.

Analyzers have pre-configured and tested systems
for a wide range of specific applications.

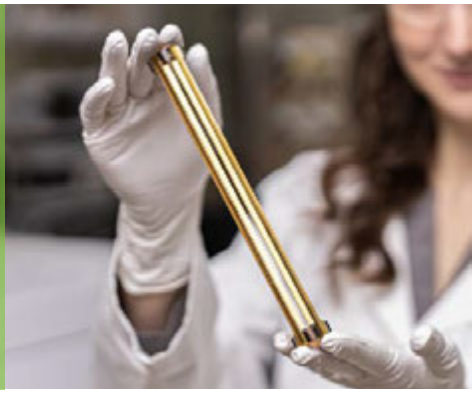


A new perspective on routine gas chromatography

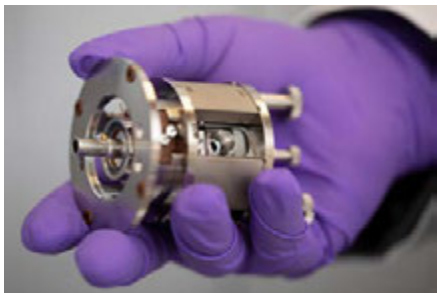
The Agilent 8860 GC system combines simplified operation with the proven reliability of the Agilent GC systems. It can be combined with a range of GC detectors and upgraded with a stainless steel ion source for use with the 5977C GC/MSD system to reliably generate high-quality data. In addition, the 8860 GC system enables user-initiated device diagnostics and has an easy-to-use touchscreen user interface that gives you instant access to the GC setpoints and status.

Innovation for more profitability

Flow rate. Operating time. Efficiency. Operating costs.



These fundamental factors have an impact on profitability – regardless of the business area in which you operate. They are constantly under pressure to analyze more and more samples, although resources are decreasing and analytical challenges are increasing. In your lab, any task can potentially increase or decrease profit. All devices must make their contribution. Each sample counts.



Self-Cleaning Agilent JetClean Ion Source

In routine analysis, matrix deposits are inevitable. Thanks to the self-cleaning Agilent JetClean ion source, the need for manual cleaning of the ion source is greatly reduced or completely eliminated. This means that you have one to two more days per month to carry out analyses. To maximize the operating time of the devices and the sample throughput. The JetClean ion source is available as an option for Agilent single quadrupole and triple quadrupole GC/MS systems.

Learn more about the self-cleaning JetClean ion source.



Integrated GC intelligence

Self-recognizing GC features enable various useful and practical device diagnostics and maintenance options that prevent common GC problems. Via the browser interface, you have remote access over the laboratory network and can use functions without a data system. Users can view device status, perform device diagnostics, check maintenance logs, and view helpful maintenance videos – all from a mobile device.

Learn more about intelligent GC.

"With the combination of 5977 and JetClean, we can take the time we would otherwise have to recalibrate."

of the system, spend work on methods or purification of the ion source, use for processing more samples with greater confidence in the quality of the results achieved. This leads to a real competitive advantage.

– Bob Symons,
Regional Technical Manager, Eurofins | Environment Testing, Sydney, Australia



Smart Alerts

Agilent CrossLab Smart Alerts software monitors device health and issues email-based alerts that indicate when important consumables should be replaced, preventive maintenance must be performed, and when a device is no longer running anywhere in the lab. Using the Remote Assist function, you can immediately send a service request to Agilent.

Learn more about Smart Alerts.



Hyperbolic gold-coated quartz quadrupole

The quartz monolith guarantees optimal alignment of hyperbolic surfaces over the entire life cycle of the mass spectrometer. The gold-coated surfaces remain clean even at high temperatures (up up to 200 °C) and are maintenance-free.



Capillary flow technology

Many GC and GC/MS analyses concern complex samples containing high-boiling compounds. After elution of all target peaks, the Agilent Capillary Flow Technology enables a backflush of the column, with which all remaining compounds are flushed out. Benefits include shorter cycle times, less column maintenance, better data and increased productivity.

Learn more about Agilent Capillary Flow Technology.



Oil-free Agilent IDP-3 scroll pump

The oil-free Agilent IDP-3 scroll pump offers low operating costs thanks to oil-free operation. Dangerous oil leaks, spills and the hazardous disposal of oil are eliminated. It is also characterized by a small footprint and quieter operation in the laboratory. The IDP-3 is compatible with Agilent 5977, 5975 and 5973 GC/MS systems, hydrogen carrier gas devices and JetClean.

Learn more about the oil-free Agilent IDP-3 scroll pump.



Helium savings module

Consume a helium tank filling in months instead of weeks, giving you better control of lab operating costs and fewer interruptions in the workflow. This module allows you to use helium for your GC analyses and switch to another gas (usually nitrogen) when your GC system is not in operation.

Learn more about the helium savings module.

HydroInert source: optimised performance with hydrogen carrier gas

Solve the problems with hydrogen as a carrier gas

Helium is a limited resource, and its production is inefficient and therefore expensive. Hydrogen is a low-cost, renewable gas and the best alternative to helium. The new HydroInert source minimises the sensitivity losses and spectral anomalies associated with the use of H2 gas. HydroInert has unique advantages, including:

– spectral fidelity compared to He as a carrier gas, even for compounds, which have a strong tendency towards hydrogenation.

– Superior peak form of high boilers, especially PAH.

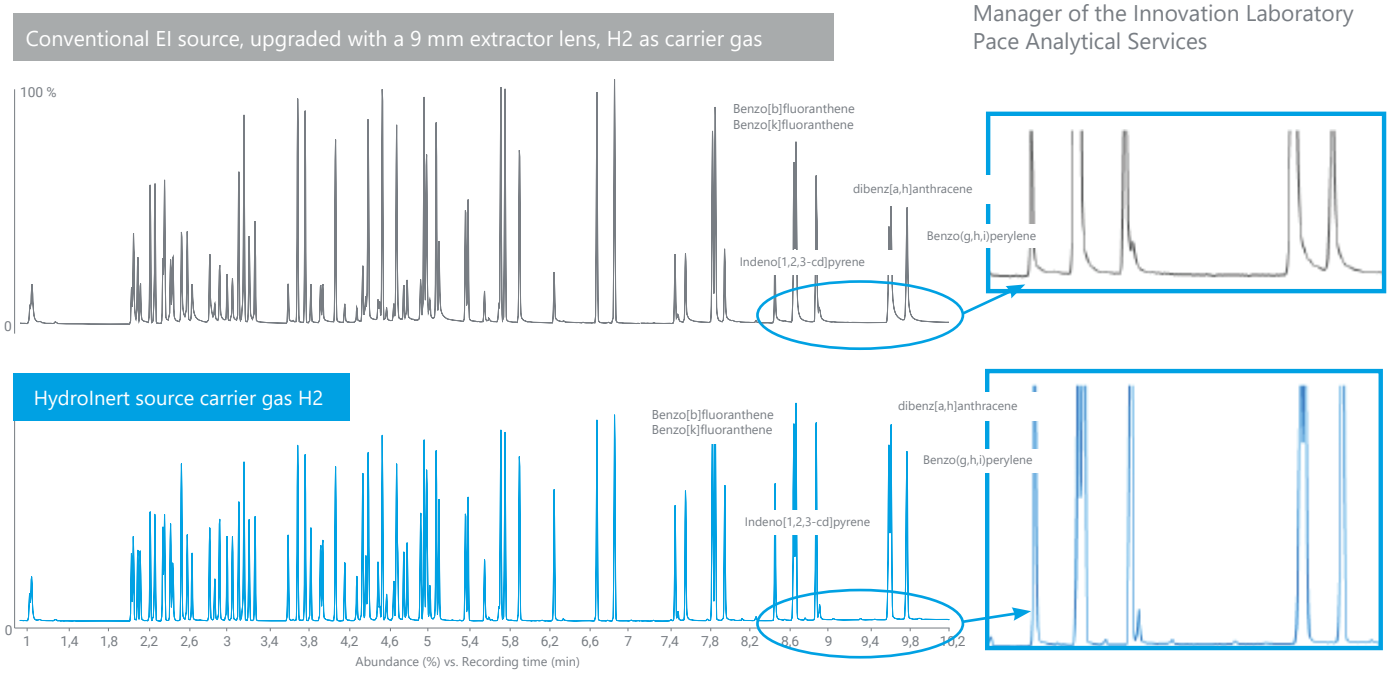
– Unchanged source components and familiar assembly.



"Supply shortages with helium are increasingly common, and this is an excellent alternative to He.

– Bill Mock,
Manager of the Innovation Laboratory
Pace Analytical Services

EPA method 8270 SVOC analysis: 50 ppm standard for a scan with H2 carrier gas



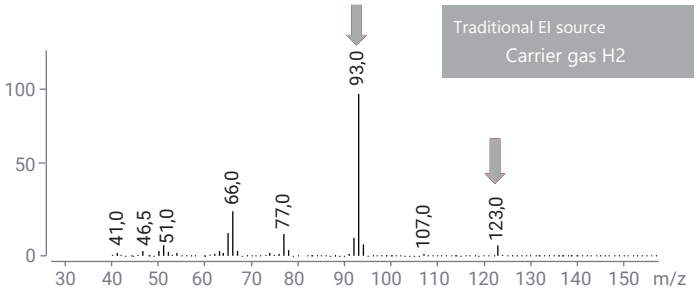
The HydroInert source ensures significantly better peak shape and resolution with H2 as the carrier gas.

Precautionary statements when switching to hydrogen as carrier gas

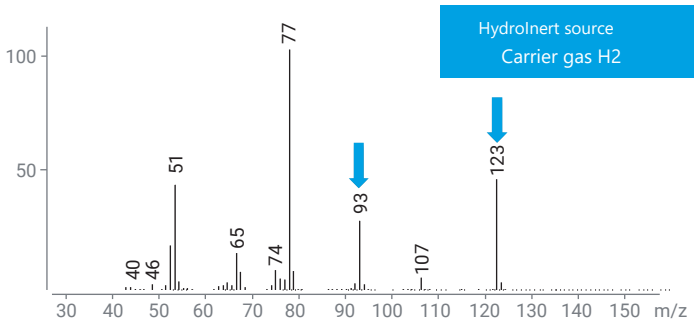
Since hydrogen is combustible, safety in the handling of this gas is paramount. Further safety instructions can be found in the safety manual for working with hydrogen in the context of GC/MS (Hydrogen Safety Manual for GC/MS) by Agilent (order number G7003-90053). Before connecting hydrogen and using hydrogen as a carrier gas, the entire safety manual must be read carefully.

Analysis of nitrobenzene as an example of a compound prone to reactions in the source and hydrogenation

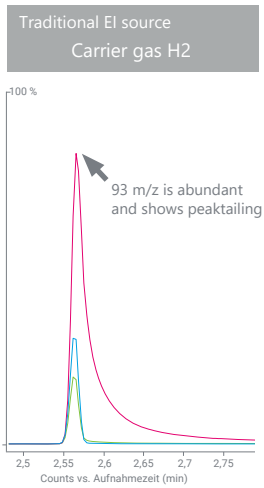
Spectral fidelity, resolution and peak form of HydroInert are significantly better when H2 is used as carrier gas



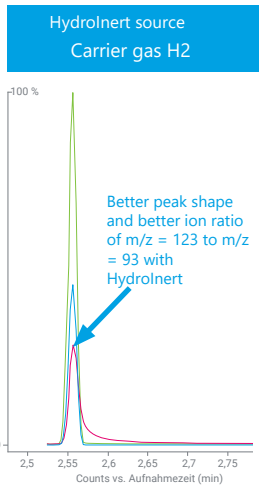
When using the extractor ion source (extraction lens, 3 mm), hydrogenation to aniline was observed, see abundance of the ion with m/z=93.



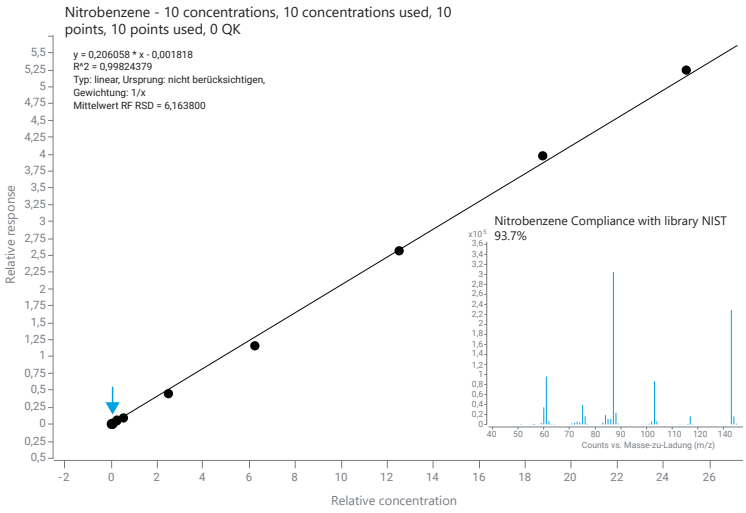
Better spectral fidelity with an excellent ratio of m/z=123 to m/z=93.



An ordinary measurement shows indications of a hydrogenation of nitrobenzene to aniline, see abundance of the ion with m/z=93.



When using the HydroInert source, the mass spectrum is more consistent with nitrobenzene.



The HydroInert source achieves excellent linearity of calibration and spectral accuracy, allowing you to reliably compare the spectra with conventional EI libraries.

Resources for saving or conversion of GC/MS carrier gas

These links provide support for the transition from GC/MS devices to hydrogen

Overcome the helium shortage

Explore how to avoid price fluctuations and possible supply shortages of helium as a carrier gas for GC analysis.

Savings calculator for saving helium

Find out how much you can save with Agilent Gas Saver (with and without nitrogen standby).

Helium savings module

Check the amounts of helium used and avoid interruptions.

User manual for switching Agilent EI GC/MS devices from helium to hydrogen as carrier gas

Detailed instructions for converting Agilent EI GC/MS systems from helium to hydrogen as carrier gas.

MassHunter software: Faster to insights

The Agilent MassHunter software is designed to help you with routine tasks, making your GC/MSD analyses faster, easier and more productive. With MassHunter software, users of any level of knowledge can also achieve reliable results.

This intuitive software supports numerous applications with customizable features and easy-to-use method templates and offers an extensive spectral library with data on retention time and/or retention index. It also supports the device control and data acquisition of your Agilent GC/MSD system.



Simple and intuitive: The
Agilent MassHunter Unknowns Analysis Software provides automated deconvolution and library research to identify the target compounds.

The MassHunter software for quantitative analysis offers:

– Integrated workflow templates that can be viewed through
of the data are dynamically linked.

– A simple selection of parameterless
Integrators with built-in peak validation that allow you to focus on the problem peaks and keep manual reintegration to a minimum.

– Adapting workflows with Unknowns
Analysis and Library Editor to perform a sample analysis with reference to NIST, as well as the creation of user-specific spectral libraries and quantification methods with retention time-locking based on captured scan data using a library search.

Display of associated peaks, spectra and
Calibration data by clicking on a result.

– Target Deconvolution, with which confidence in the
Compound identification is improved.

– Better data integrity standards – provide the
technical means for the secure collection, processing, reporting and storage of data in laboratories. These must be carried out in accordance with FDA 21 CFR Part 11, Annex 11 to the EU Good Manufacturing Practice Guide, GAMP5, as well as ISO/IEC 17025 and 40 CFR Part 160 (EPA).

Learn more about the possible use of Agilent MassHunter software in your laboratory.

Mass spectrometry with OpenLab CDS software

OpenLab CDS Software offers a single-user interface with which Agilent LC, GC, LC/MSD and GC/MSD systems can be controlled. With OpenLab CDS, you can collect, edit and report mass spectrometric data depending on your requirements and workflows.

Tuning and calibration of equipment

OpenLab CDS enables comprehensive control

GC/MSD device tuning, including autotune, checktune and manual tuning.

– Optimize analytical methods using multi-

Scan segments to efficiently exploit the scanning duration.

Data analysis

- Display MS spectra, take

perform a background correction and perform MS spectra searches – either ad hoc, as part of sample examinations or as part of automatic results processing.

– Create manually extracted chromatograms

(EIC) based on a total ion chromatogram (TIC) or directly based on the MS spectrum.

Reporting

OpenLab CDS offers several predefined

MS report templates that can be easily adapted to your requirements.

Acceleration of method development and confirmation of the identified compounds

– By creating an automatic table of

MS compounds in a known sample can be used to quickly create or update compound lists.

– Use the integrated library research,

To identify target substances, or use data from SIM acquisition methods.

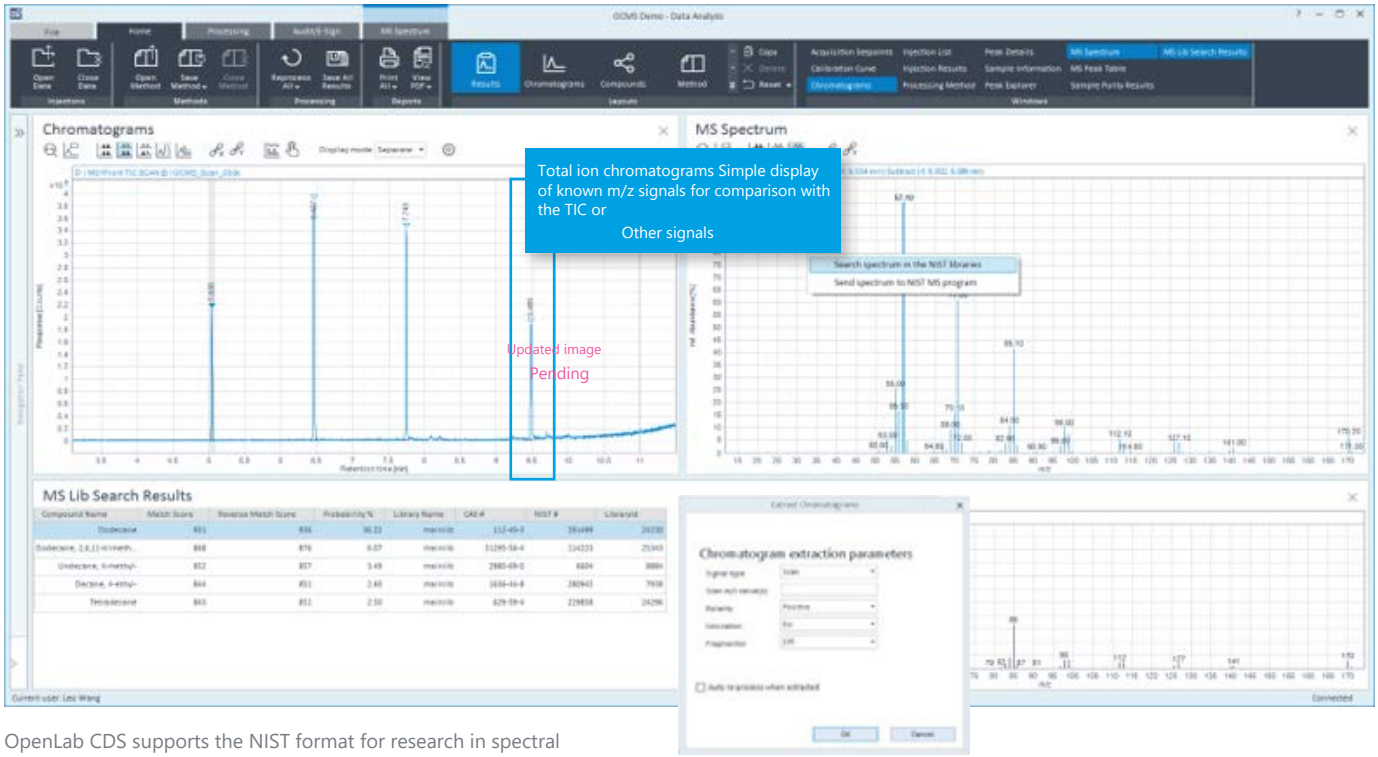
– Confirm the identified target substances

on the basis of qualifications and predefined ratios or by a comparison to reference spectra.

Research in MS spectra library

OpenLab CDS supports libraries that

NIST format, and enables spectral library screening and ad hoc searches in a library.

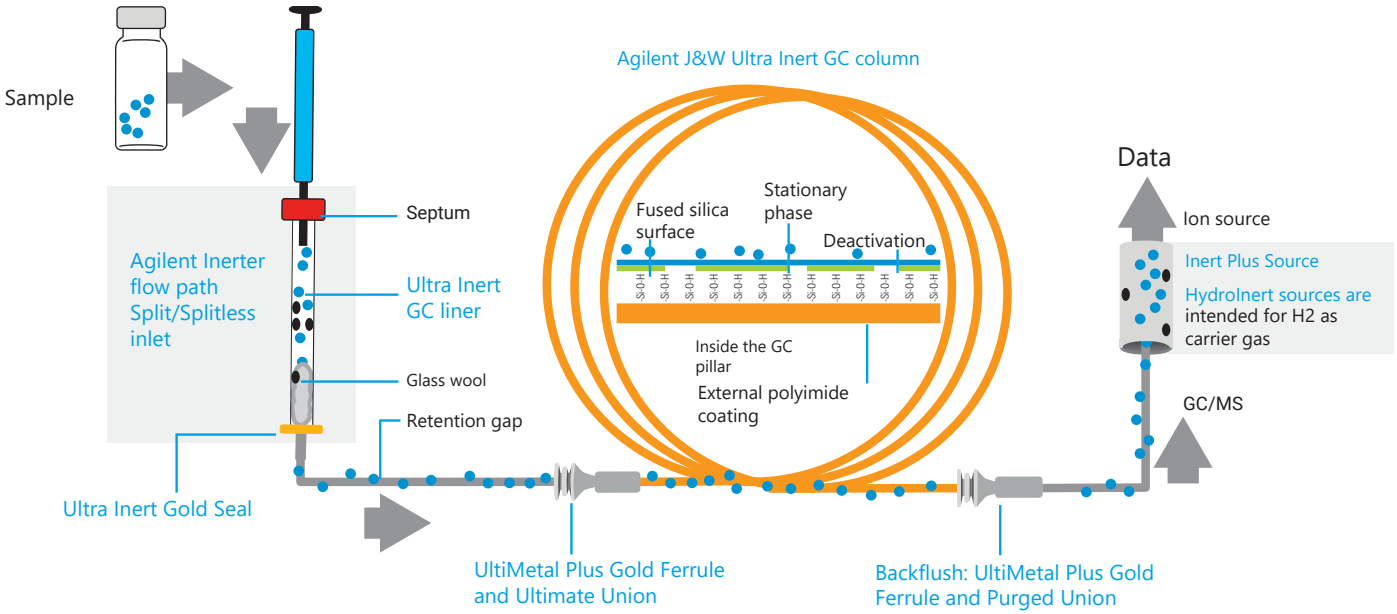


OpenLab CDS supports the NIST format for research in spectral libraries.

Completely inert flow path: as important as never before

Available samples are getting smaller, increasingly active and more complex. Losses due to activity in the flow path can therefore not be afforded. Repeating or reviewing dubious analytical results also contributes to the waste of valuable resources, reduces productivity and negatively affects your operating result. In addition, with active analytes in the trace region, you do not always have a second chance, since there is no sample left for further analyses.







Do not miss anything in your GC/MS analysis

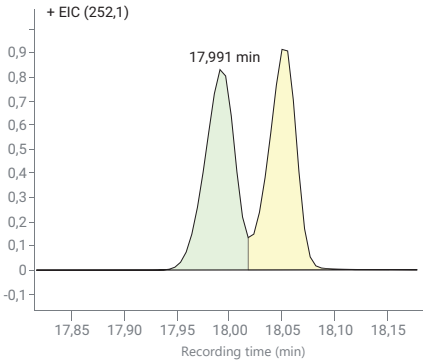
Agilent's solutions for an inert flow path provide greater analytical sensitivity, accuracy, linearity and reproducibility from the analysis of active environmental samples to drug screening. More info

Proven reliability in all applications

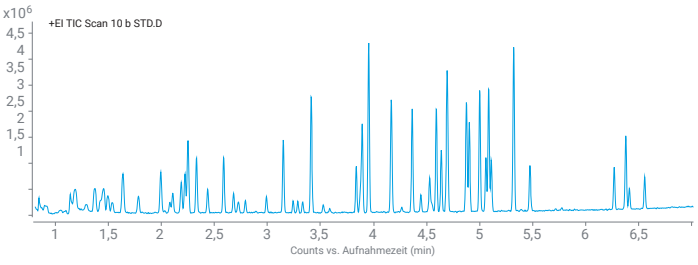


Meet the ever-changing environmental regulations and stay competitive

The methodology described in the U.S. EPA Method 8270 for the GC/MS analysis of semivolatile organic substances provides for a simultaneous measurement of different classes of compounds over a broad concentration range. The 5977C Inert Plus GC/MSD system meets these requirements over a range of 0.2 to 160 ppm using a single injection (one calibration). With better initial calibration results, the calibration remains valid longer. Therefore, more samples can be analysed without intervention, which reduces operating costs. Here we achieved a larger calibration range and a low relative standard deviation of the connections and thus higher laboratory productivity.



Dissolution of the isomers Benzo[*b*]- and benzo[*k*]-fluoranthene at 50 ppm (centre). Split ratio 3:1 (17 ng injected), LPD liner and drawout lens with a diameter of 9 mm. Sufficient resolution is obtained when the height at the centre of the concentration levels is of the valley between two isomer peaks is less than 50 % of the average height of the two peaks (8270D). These data were: an Agilent 7890B GC system connected to an Agilent 5977B; Inert Plus GC/MSD was coupled to an SSL inlet.



TIC scan of 10 ppb VOC calibration standard with H2 as carrier gas and the HydroInert source

Analysis of volatile organic substances in drinking water using headspace GC/MSD using hydrogen as carrier gas and hydroinert source

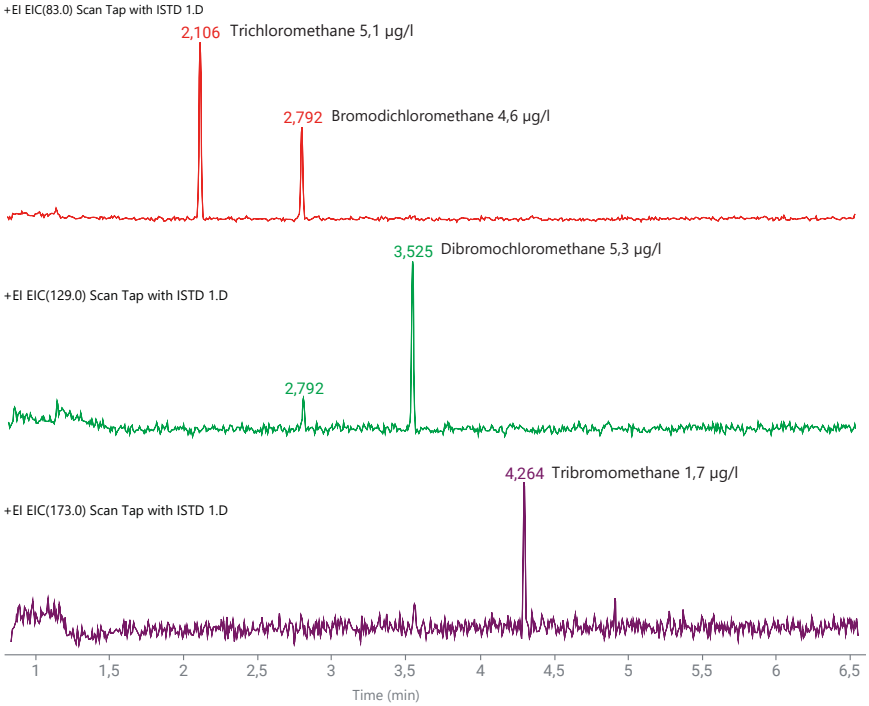
A rapid method for identifying and quantifying volatile substances at concentration levels in the low µg/l range would be useful for studying water contamination. A combination of the Agilent 8697 Headspace sampler, the 8890A GC system and the 5977C MSD – with hydrogen as the carrier gas and the new HydroInert EI source – can meet exactly this requirement. Headspace analysis is often a simpler alternative to purge and trap sampling, if local regulations allow it.

Chinese standard and GB methods for water analysis

Due to their excellent reproducibility, sensitivity and linearity, Agilent GC/MS systems are often used in Chinese GB methods for environmental and food samples.

Test Method	Description
VOC	GB/T5750.8.4.2 55 VOC – Purge and trap GC/MS
	GB/T5750.8.20.1 Epichlorohydrin –GC/MS
	HJ639 Water quality VOC – Purge and trap GC/MS
	HJ810 Water quality VOC – Headspace-GC/MS
Musty, foul odour	GB/T5750.8.75.1 Headspace SME test for geosmine and 2-methylisoborneol
	GB/T5750.8.85.1 2 Thioether test – Purge and trap GC/MS
SVOC	GB/5750.8.15.1 15 SVOC SPE – GC/MS
	GB/5750.9.41.1 Acetochlorine test – SPE GC/MS
	GB/5750.8.88.1 18 PCB test – SPE GC/MS
	GB/5750.10.24.1 8 NDMA test – SPE GC/MS
	HJ699 Water Quality – Organochloropesticides and chlorobenzenes – GC/MS
	HJ715 Water quality – polychlorinated biphenyls (PCBs)
	HJ744 Water Quality – Phenols – GC/MS

VOC analyses of urban tap water



	RT	NIST LMS
Trichloromethane	2,107	93
Bromodichloromethane	2,792	86
Dibromochloromethane	3,526	88
Tribromomethane	4,267	80

Substances in the low µg/l concentration range can also be identified using deconvolated scan data and a NIST search.

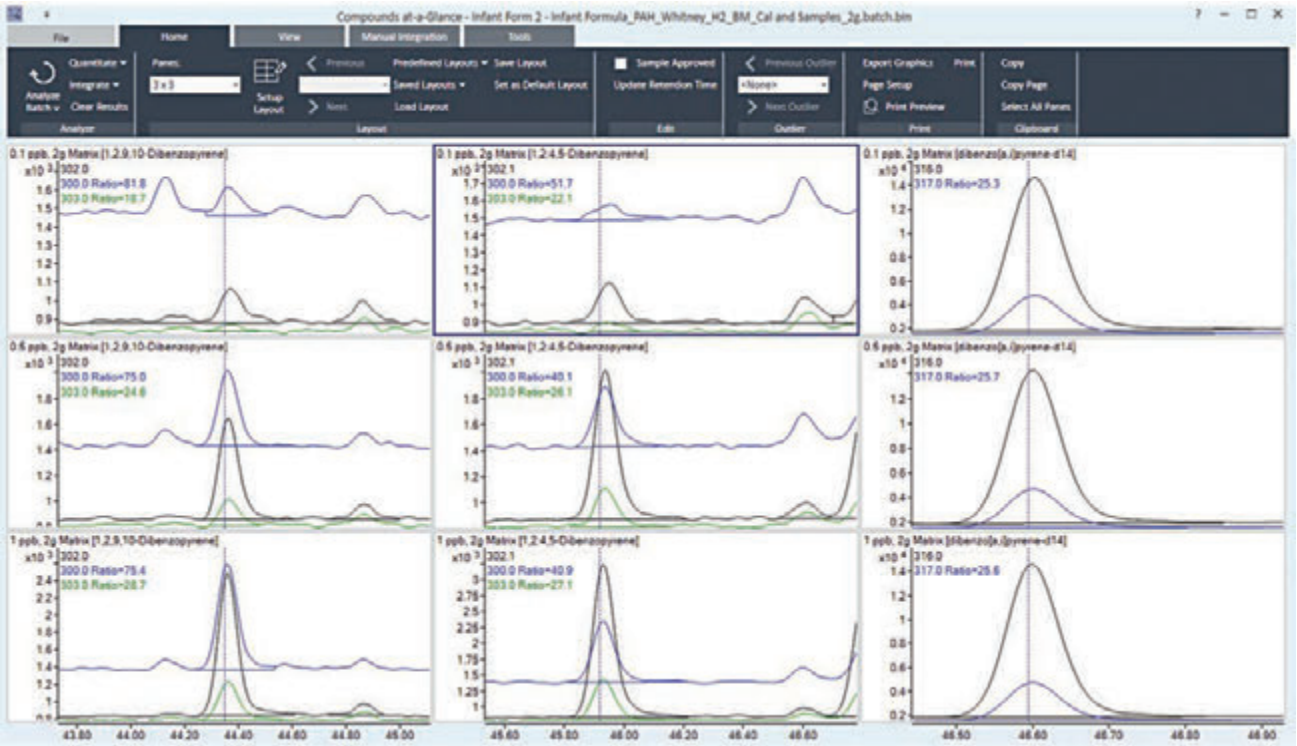
Improved reliability at lower detection limits in food analysis

PAH analyses of infant formula using the novel HydroInert source and hydrogen as carrier gas



The production of basic food products must meet strict requirements with regard to the permitted PAH concentration. The European Commission has established safe maximum levels for the four major PAH markers benzo[a]pyrene, benzo[a]anthracene, chrysene and benzo[b]fluoranthene (Regulation (EU) No 835/2011). According to those provisions, the total concentration of these four important PAHs in infant formulae must be below 1,0 µg/kg. High-fat matrices make sample preparation more difficult and can cause disturbances in GC/MS analysis.

Our optimised sample preparation procedures ensured very efficient and selective removal of lipids from the infant formula matrix with sufficient recovery of hydrophobic PAHs. The resulting, less pronounced matrix interferences enabled GC/MS analyses in SIM mode with a sensitivity in the sub-ppb range.



Highly configurable overview of all compounds: 1,2,9,10-dibenzopyrene, 1,2,4,5-dibenzopyrene and dibenzo[a,i]pyrene-d14 at Calibration concentrations 0.1, 0.5 and 1 ppb.

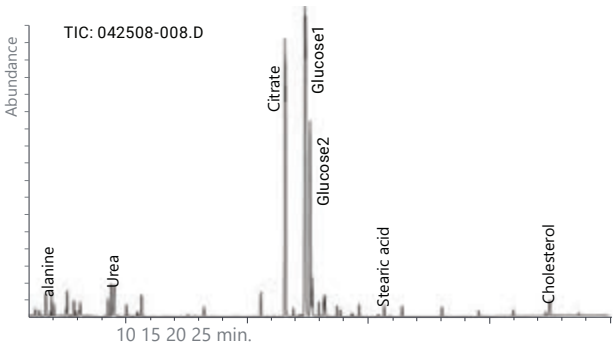
Reliable confirmation of metabolites and deeper insights into biological systems

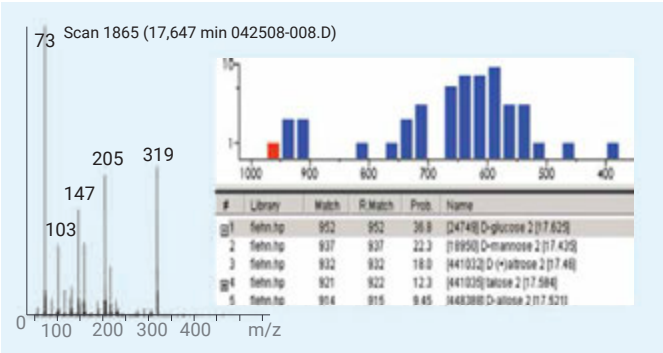
Expand your research, gain new perspectives on metabolism and answer difficult biological questions



Metabolomics typically involves comprehensive metabolite characterisation using coupled GC/MS analytical techniques. This is followed by a known software workflow for processing the GC/MS data files. Agilent provides software workflows to perform this comprehensive metabolite characterisation with GC/MS. With these workflows, features are found in all data files and the results are analyzed using multivariate techniques. Important different traits are identified and visualised on signalling and metabolic pathways to support biological interpretation.

This advanced analytics software relies on the high reproducibility of the data generated by the 5977C GC/MSD system, especially when using the Agilent MassHunter Profinder to identify complex metabolomic data. After statistical analysis with the Mass Profiler Professional, the compounds are identified using the Fiehn-EI database with retention time locking. The data is then displayed with Pathway Architect on signaling or metabolic pathways.





Identification of metabolites in human blood plasma by GC/MS after methoximation and trimethylsilylation. In addition, the Agilent Fiehn database was used. left figure: total ion chromatogram, split injection with 1:10. Right figure: Identification of glucose with the information of the NIST-MS search and retention times.

For research purposes only. Not suitable for diagnostic procedures.

Reliable identification and quantification of chemical, petrochemical and other raw materials

GC/MS Analysis of Phthalate Plasticizers

Positive chemical ionisation (PCI) allows you to clearly identify phthalates due to their intense molecular ion response. You can configure the hardware of the 5977C GC/MSD system to use CI reagents, including hydrocarbons (such as isobutane and methane) and gentler reagents (such as CO2 and NH3) – in all cases with trace analytical sensitivity.

Biofuel characterisation

The 5977C GC/MSD more than meets the criteria for an accurate biofuel analysis with high sensitivity. Thanks to the combination of inert flow path, high-efficiency source and heatable, gold-plated quartz quadrupole, the system ensures robust analysis with high analytical sensitivity across the entire range of biofuel analyses. The system is easy to set up for simultaneous SIM/SCAN data acquisition. This ensures the highest analytical selectivity and sensitivity. At the same time, complete spectra are available for qualitative analyses.



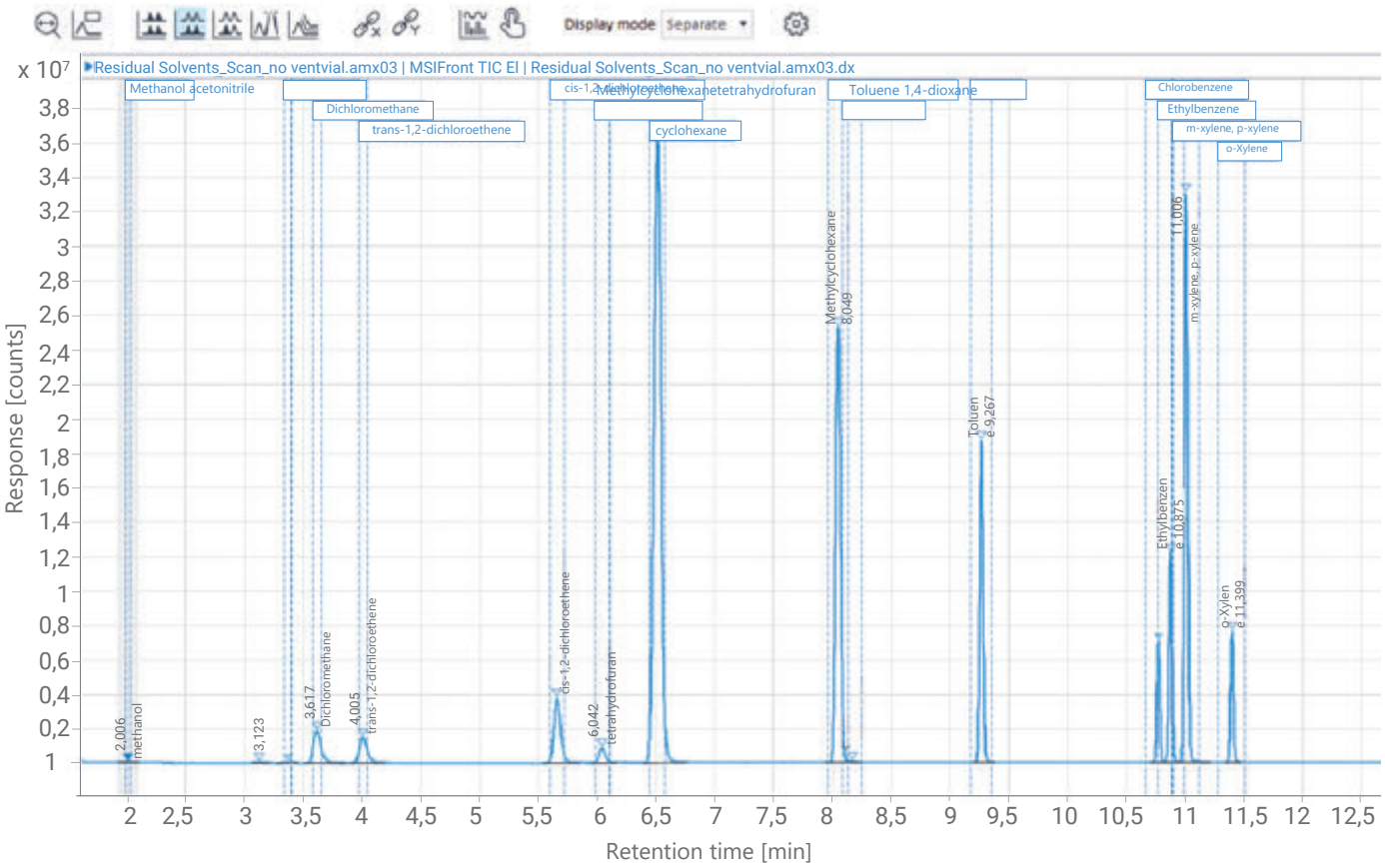
Improve your compliant analysis of residual solvents in medicines

Precise, sensitive and problem-free GC analyses with headspace sample application technology



The Agilent 8697 Headspace sampler is an ideal add-on module for your 5977C GC/MSD system. The 8697's design with advanced hardware features – such as the EPC module with microchannels, air pressure compensation and valve sampling – delivers unprecedented precision and performance.

These features work together with the integrated intelligence of the Agilent 8890, 8860 and Intuvo 9000 GC systems and remote access via a browser user interface. This means that you can get device status updates whether you are in the lab or outside of the lab. In addition, the Agilent OpenLab CDS software helps you to comply with the compliance requirements for the analysis of residual solvents and other relevant applications.



Reference chromatogram for residual solvents of Class 2 (mixture A). The solvents were detected using the Agilent 7697A Headspace sampler and the 5977B GC/MSD using the OpenLab CDS. The software allows you to edit and present the GC/MS data in different ways, ensuring the high level of data integrity expected for FDA-regulated laboratories.

Faster and more reliable quantification of medicinal products and metabolites

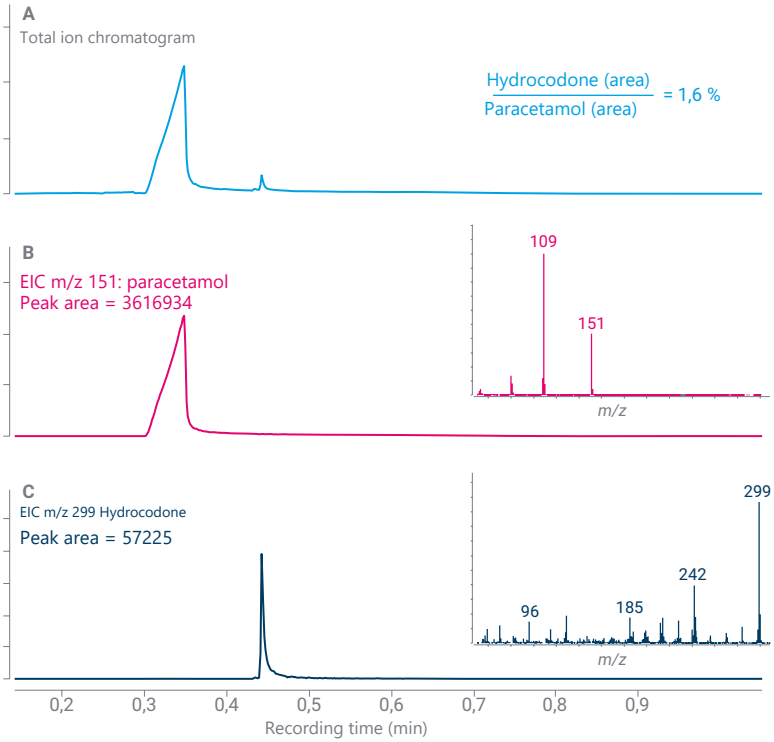
QuickProbe GC/MS analysis of a Vicodin tablet in less than one minute without sample preparation

This technique successfully separated the two main components paracetamol and hydrocodone. In addition, the two active ingredients were identified with an agreement with the NIST library of >90, although hydrocodone was present only to <2% by weight of the paracetamol.



Agilent Deconvolution Reporting Software

Extensive screening for drugs and drugs in forensic samples requires identification and confirmation across the spectrum for countless target substances. It also requires the identification of non-target substances on the basis of spectra. The 5977C, deconvolating reporting software and forensic toxicology database enable screening for a larger number of low-abundance target ions with shorter analysis time. The result is classical spectra, which can be searched in the NIST database.



Analysis of a grated Vicodin tablet (hydrocodone:paracetamol=5:300 mg) in about one minute. A) Total ion chromatogram (TIC. Extracted ion chromatograms (EIC) for paracetamol m/z 151 (B) and hydrocodone m/z 299 (C). Conformity with NIST library was >90 for both components.

For forensic purposes.



Partner for sustainability and business success

The perspective of sustainability transforms the way researchers, scientists and manufacturers view products, processes and supply chains. However, it can be challenging to reduce a laboratory's environmental impact while optimising workflows and costs.

At Agilent, we believe that efficiency, productivity and sustainability are intertwined.

The pursuit of sustainability is an integral part of our business and how we respond to the challenges of our customers. Together, we can ensure that your laboratory meets its sustainability goals while improving performance, losing no accuracy and remaining competitive.

my green lab.

Collaboration with My Green Lab

Agilent is working with My Green Lab to have the devices independently audited for ACT (Accountability, Consistency and Transparency) certification. ACT certifications provide information about the environmental impact of the manufacture, use and disposal of a product and its packaging. This allows buyers to make informed, sustainable decisions. Agilent 5977C, 8860, 8890 and Intuvo 9000 GC systems have been extensively tested and

ACT-certified. Learn more about My Green Lab.

Commitment to zero emissions

Since its founding, Agilent has strived to reduce energy and water consumption, waste and CO2 emissions. Now we go one step further. We are proud to announce that we will reach the zero target for greenhouse gas emissions by 2050. Our sophisticated approach to zero emissions includes the Paris Agreement climate targets, clearly defined interim targets and commitment to the Science Based Targets Initiative (SBTi).

Read the press releases and learn more.

Agilent CrossLab
From Insight to Outcome

Agilent CrossLab Services

CrossLab is a service offering from Agilent that integrates services and consumables to support the success of workflows, improve productivity and increase operational efficiency. With each interaction, we strive to provide insights that help you achieve your goals faster and better. We offer a wide range of products and services – from method optimisation and training to complete lab moves and operational analytics – and help you manage your equipment and lab to achieve optimal performance.

Find out more about CrossLab at www.agilent.com/crosslab

The people behind your service and support

See here what makes Agilent CrossLab service technicians so special

10 years
Average experience with equipment repairs

96 %
Parts are always available immediately

Millions
Parts are available in our global logistics centers

85 %
Repairs are completed on the first visit



30 000
Days for technical training

> 1850
Service technicians worldwide

50+
Technology platforms covered

1 to 2 days
Typical processing time for priority service missions

10-year value proposition

The Agilent value proposition reflects the highest confidence in our industry-wide unrivaled standards in the development and manufacture of quality systems.

From the date of purchase of the desired chromatography, spectrometry or spectroscopy device from Agilent, we guarantee a service life of at least 10 years. When acquiring a newer replacement system, you will be credited with the residual value. We stand behind our systems and with our guarantee we maximize your return on investment by securing your purchase.

Find out more:

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© Agilent Technologies, Inc. 2022
Published in the USA, 16. June 2022
5994-4922DEE

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