

Your best
analytical answers
start with a few simple questions

"What are our budget constraints?"

"What are our detection limit requirements?"

"Are non-target peaks important?"

"How complex are our samples and matrices?"

"Would a more selective detector decrease our need for sample
preparation and increase our confidence in the results?"

"How important is flexibility in selecting MS operational modes?"

Now, let's talk about which
Agilent GC/MS system meets *your* needs...

Clearly better GC/MS does not stop with our instruments



An integrated approach to inertness: The Agilent advantage

Flow path inertness is vital to your analysis; it is also on the cutting edge of GC. Agilent is leading the way with **Ultra Inert liners**, **Ultra Inert columns**, and **instruments** that, together, create the most inert flow path – giving you the utmost confidence in your results.

Sample preparation: Reliable and accurate results with fewer repeated samples

The **Agilent Bond Elut SPE family of products** offers extraction solutions for the widest range of analytes and matrices, more than 40 bonded silica phases for high-specificity methods, and polymeric phases for rapid method development.

In addition, Bond Elut gives you the largest selection of formats and sorbents available today – including our industry-leading QuEChERS Kits.

Agilent's commitment to your lab

Agilent Advantage Service and Support: Whether you need support for a single instrument or a multi-lab, multi-vendor operation, Agilent helps you solve problems, increase your uptime, and optimize your resources – from installation and upgrade to operation and repair.

Agilent Value Promise: We *guarantee* you at least 10 years of instrument use from your date of purchase, or we will credit you with the residual value of the system toward an upgraded model.

Agilent Service Guarantee: If your Agilent instrument requires service while covered by an Agilent service agreement, we guarantee repair or we will replace your instrument for free.

Visit www.agilent.com/chem/GCMS

to learn more about the Agilent GC/MS Portfolio – including the industry's #1 single quadrupole, triple quadrupole, ion trap, and Q-TOF systems.



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Printed in the USA October 12, 2011
5990-9077EN

The Measure of Confidence



CLEARLY BETTER ANSWERS BEGIN HERE



Agilent GC/MS Instrument Portfolio



The industry's best
GC/MS systems
answer your demands for dependable,
consistent, and *affordable* analysis

Whether your goal is target compound quantitation or the discovery of unknowns, you can count on Agilent GC/MS systems. They are engineered to the highest standards, and meet your most demanding requirements with these essential elements:

- ✓ **Advanced capabilities:** dramatically improve MS resolution, spectral integrity, and detection limits with features such as inert ion source, quartz quadrupole, helium quenching gas, hexapole collision cell, triple resonant scan function, enhanced charge capacity, INVAR flight tube, and 4 GHz ADC electronics
- ✓ **Higher throughput:** advanced automation, faster separations, and comprehensive software enable you to process more samples in less time
- ✓ **Maximum uptime:** expert engineering and broad system intelligence features ensure easier upkeep, predictive support, enhanced self-maintenance, and powerful diagnostics

From our flagship 5975 Series GC/MSD to our 7200 Q-TOF, Agilent GC/MS systems reflect a 40-year tradition of leadership and innovation.

The Measure of Confidence



THE AGILENT GC/MS INSTRUMENT PORTFOLIO: Find clearly better answers to solve your daily analytical challenges... starting *here*

The customer-proven worldwide bestseller Agilent 5975 Series GC/MSD



5975C GC/MSD

Superior performance, reliability, and productivity with industry-leading 7890A GC



5975T LTM GC/MSD

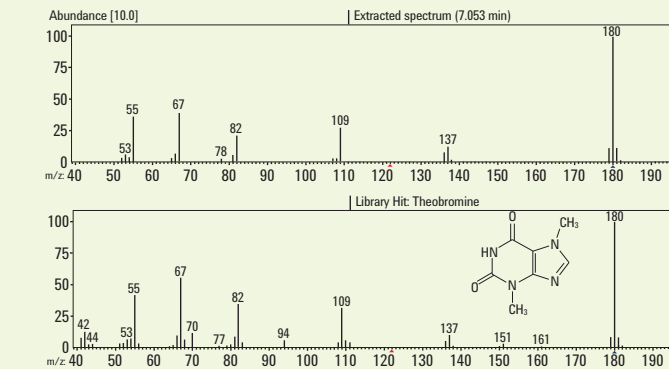
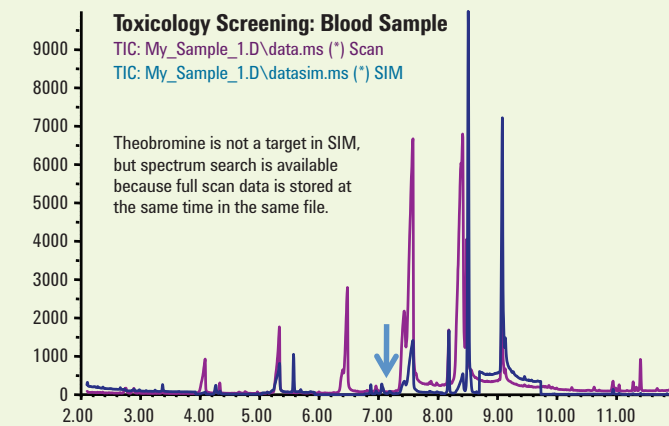
Compact, transportable GC/MS with fast, lab-quality performance



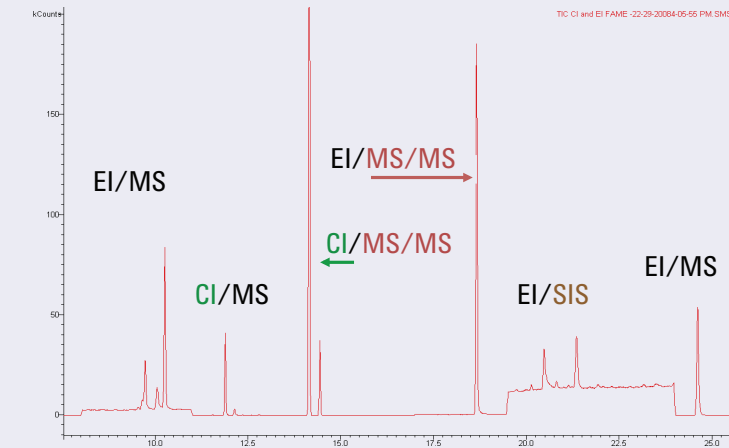
5975E GC/MSD

Affordable GC/MSD with economical 7820 GC

Maximum performance, productivity, and confidence in your results	
Detection limit?	• SIM and Scan options meet most routine detection limits
Non-target peaks?	• Library-searchable spectra for non-target identification
Sample/matrix?	• Deconvolution and DRS allow extraction of trace components from the background signal
Selectivity?	• For most applications, SIM and/or Scan is sufficient
Flexibility?	• EI, CI, SIM, Scan, and SIM/Scan



Synchronous SIM/Scan: Non-target identification and target quantitation can be done with one injection.



Maximum flexibility: Various modes, EI, CI, full scan and MS/MS can be set during the same run.

Flexible, sensitive, and affordable EI, CI, and MS/MS Agilent 240/220 Ion Trap GC/MS



240 Ion Trap GC/MS

The most powerful EI, CI and MS/MS analysis with unmatched full scan sensitivity



220 Ion Trap GC/MS

Compact and budget-friendly design – No.1 Ion Trap system in universities worldwide

More than you expect: Ion Trap technology meets Agilent's 7890A GC	
Detection limit?	• Exceptional full scan sensitivity • MS/MS reduces chemical noise for optimal detection limits
Non-target peaks?	• Library searchable EI spectra for non-target identification
Sample/matrix?	• Highly sensitive CI and MS/MS provide more options for complex samples than SIM or Scan alone
Selectivity?	• Readily available CI and MS/MS reduce matrix interferences
Flexibility?	• Ability to choose all modes of ionization and MS operation in the same run



Generate your best MS data with superior GC separations

Industry-leading GC! Agilent's 7890A GC brings breakthrough separation capabilities and productivity features to Agilent's GC/MS platform – including:

- **Unparalleled performance:** 5th-generation electronic pneumatics control and digital electronics raise the bar on precise retention time locking. Retention times can be readjusted – and databases can be shared – for consistency.
- **Higher productivity:** Faster oven ramp up/cool down and advanced automation features let you get more done in less time.
- **Robust backflush** promotes stable GC retention times and faster analysis cycles for higher throughput. It also shortens the time it takes to remove unwanted matrix from the GC – increasing column life while reducing ion source maintenance.
- **Choice of injections** (split/splitless, on-column, and multimode inlet) lets you run more types of analyses on a single GC.



Start producing high-quality data from day one

Bringing a new application online can stretch your lab to the limit. Agilent solves this problem with our **GC/MS** and **GC/MS/MS Analyzers**, which are factory pre-configured and pre-tested to get you up and running in the shortest possible time. Following are examples of these Analyzers, and new Analyzers are added continually:

- Pesticide Screening GC/MSD Analyzer*
- Pesticide Screening GC/MS/μECD/FPD Analyzer*
- GC/MS/MS Pesticide and Environmental Pollutant Analyzer**
- GC/MS/MS PAH Analyzer
- Environmental VOC Headspace GC/MSD Analyzer
- 3-in-1 VOA, S-VOA, and Pesticides Environmental GC/MSD Analyzer
- Forensic and Toxicology Screening GC/MS Analyzer***

Each arrives ready to run the application, with proven analysis methods, checkout samples, columns, supplies, and an RTL or MRM database that includes hundreds of relevant compounds that, together, can reduce your method development costs by up to 90%.

* Includes RTL database of 900+ pesticides

** Includes MRM database for 1000+ pesticides and environmental pollutants

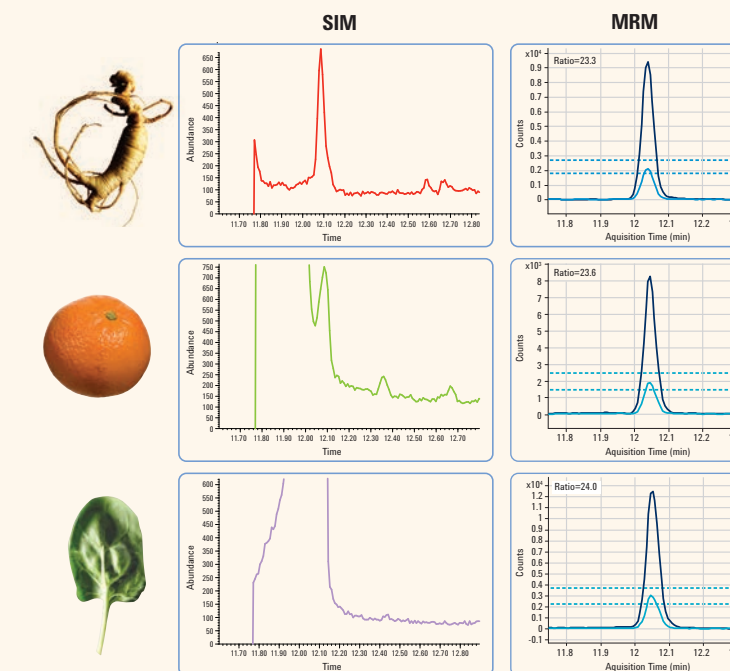
*** Includes RTL database of 700+ forensic and toxicology compounds

Our most powerful trace analysis system Agilent 7000B Triple Quadrupole GC/MS

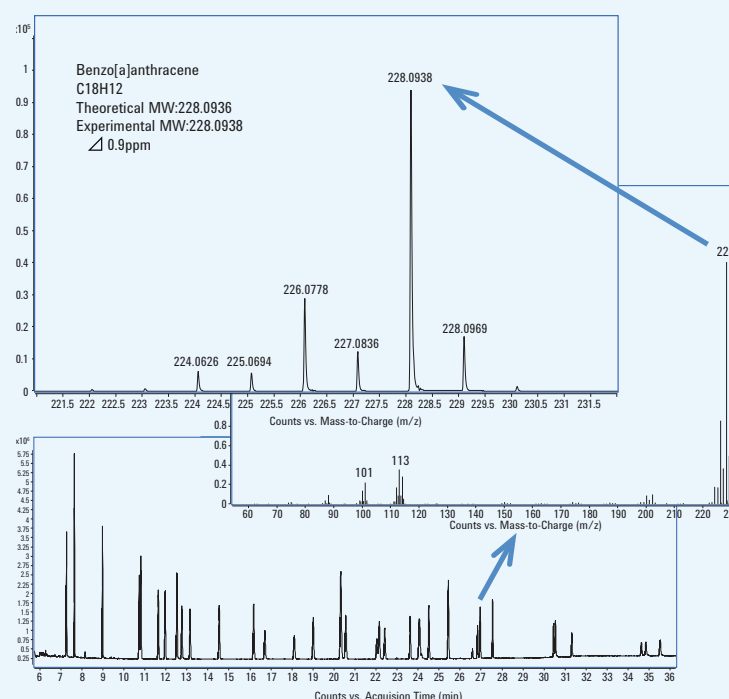


You can rely on Agilent's 7000B Triple Quadrupole GC/MS system for extraordinary sensitivity, selectivity, and day-after-day reliability with your most complex matrices

Accurate trace target analysis in complex matrices	
Detection limit?	• MS/MS provides pg to fg sensitivity in complex matrices
Sample/matrix?	• MS/MS specificity allows the extraction of low-level components from the background signal
Sample prep?	• MS/MS specificity reduces the need for sample preparation
Selectivity?	• MS/MS selectivity provides reliable quant ion data in complex matrices for confident detection



Multiple Reaction Monitoring: MS/MS can extract trace level pesticides from complex food matrices.



Accurate Mass Data: High resolution and accurate mass data provides more structural information.

Your choice for exceptional qualitative analysis Agilent 7200 Q-TOF GC/MS



The world's first Q-TOF GC/MS combines the proven separation power of Agilent's 7890A GC with the high detection selectivity and accurate mass information of a TOF analyzer

High resolution and accurate mass with fast data rate MS and MS/MS	
Detection limit?	• High sensitivity full scan and high resolution reduce background interferences and improve detection limits
Non-target peaks?	• MS/MS selectivity and high resolution accurate mass information produce powerful structural data
Sample/matrix?	• MS/MS selectivity, high resolution, accurate mass, and deconvolution are suitable for most complex samples
Selectivity?	• MS/MS selectivity, high resolution, and accurate mass provide uncompromised quant ion specificity in challenging matrices
Flexibility?	• Separate coeluting compounds with MS/MS, high resolution, and accurate mass

Optimize your workflow with Agilent productivity software

MassHunter software for 7000B Triple Quadrupole and 7200 Q-TOF GC/MS systems

- At-a-glance view and outlier flagging
- A common MS control and data analysis tool across all Agilent MS platforms (GC, LC, and ICP) shortens training time
- Delivers qualitative and quantitative data analysis for Agilent 5975 GC/MSD and Agilent 220/240 Ion Trap GC/MS data

Productivity ChemStation for 5975 GC/MSD systems

- Simplified method configuration with Retention Time Locking, AutoQuant, SIM/Scan, and AutoSIM
- Revolutionary DRS software saves hours of analysis and review time

