



5973Network MSD-Based GC/MS Systems: A Family of Products to meet your Analytical Business Needs

GC/MS is an analytical technique used routinely by a wide range of laboratories with different specific analytical and business needs. Common general needs are reliability and ease-of-use: the more reliable and easier-to-use instruments are, the higher lab productivity will be. 5973Network MSD-based GC/MSD systems provide state-of-the art performance in these areas—from the chromatographic system to the mass spectral measurement to the final report. Agilent Technologies offers a family of products to meet a laboratory's specific analytical and financial needs—now and in the future.



MSD Instrument

State-of-the-Art MS That Has Become the Standard of Analytical Laboratories

The 5973Network family of MSDs represent enhancements to the HP5973 MSD that provide even more value to analytical chemists. Excellence in engineering provides reliable, reproducible, legally defensible operation—time-after-time on the same instrument and instrument-to-instrument. Moreover, that same engineering attention to detail also results in instruments that are very easy to use and maintain. Productivity is maximized—whether setting up an instrument, training staff, doing maintenance, getting consistent results across the laboratory, or minimizing rework by getting the right answer the first time. Find technical details in “5973Network Mass Selective Detector,” Pub. No. (23) 5968-7887E.

A Range of Ionization Modes

5973N instruments are operated in not only electron impact ionization (EI) mode but also in positive and negative chemical ionization (PCI, NCI) modes. A comparison of these techniques is found in “Ionization Methods in Gas Phase Mass Spectrometry: Operating Modes of the 5973Network MSDs,” Pub. No. (23) 5968-7957E.

MSD ChemStation

World-Class Software: Control and Data Analysis

The MSD Productivity ChemStation software includes instrument control for all components (GC, MSD, ALS, ChemStation) in a single integrated application. Such an integrated system can analyze a standard, identify compounds, create the calibration database, analyze the first batch of samples, recalibrate itself, analyze the next batch of samples, and generate a report in your own company format without operator intervention. The MSD ChemStation includes numerous “tools” to improve productivity, including four user-selectable modes of data analysis. Each application-oriented mode promotes processing data and creating appropriate reports efficiently—based on requirements widely accepted in the particular industry. Find details in “G1701CA MSD Productivity ChemStation,” Pub. No. (23) 5968-8038E.

Controlling Multiple Instruments

The MSD ChemStation maximizes your investment by allowing acquisition of data from multiple GC and MSD detectors. Up to four detectors may be configured by one ChemStation (with a maximum of two MS detectors). Combined detectors may be GC only, MS only or mixed.



MSD Instrument, *cont.*

A Range of Vacuum Systems to Support Chromatographic and Ionization Requirements of Your Analysis

Standard capillary columns used in GC/MS range from inner diameters of 0.100 mm to 0.530 mm (directing a range of flow rates into the MSD). Moreover, with chemical ionization, there is an additional flow of the CI gas. The 5973N family offers a range of vacuum systems for users to match to their specific combination of application needs and capital budget. Guidelines are found in “5973Network MSDs: GC Column Selection and Pumping Considerations for Electron and Chemical Ionization MSD Operation,” Pub. No. (23) 5968-7958E.

Extending the MS Capabilities When Your Lab Needs To

The family of 5973Network MSDs provides the ability to upgrade from one configuration to another, enabling labs to select the particular MSD configuration most appropriate to current business needs while knowing the capital investment can be enhanced in the future. Refer to “Upgrading 5973Network MSDs,” Pub. No. (23) 5968-8020E.

The Right Information for the Right Person

The MSD ChemStation does not have to be placed right beside the GC/MS instrument(s) being controlled. Put it on an ergonomically comfortable desktop for the chemical analyst while utilizing the Local Control Panel on the MSD for simpler interactions by the operator. Refer to “5973Network MSD Local Control Panel,” Pub. No. (23) 5968-7796E.

MSD ChemStation, *cont.*

Refer to “Multi-Instrument Control with G1701CA MSD Productivity ChemStation,” Pub. No. 5968-7800E. Simultaneous GC-detector and MS signals can be acquired from a single sample with one integrated GC/MS system, with subsequent alignment, calibration, quantitation, and reporting in a combined report. Refer to “Acquisition and Analysis of Combined GC/MSD and GC/FID Data,” Pub. No. 5965-5987E.

Doing Data Analysis Where You Want To

As the need for optimizing instrumentation within the laboratory becomes more critical to productivity, off-loading sometimes-tedious data processing can free up instruments for additional sample acquisition. The MSD ChemStation data analysis software allows the operator automatically to transfer, process and archive GC and MS data—from multiple controlling ChemStations and methods. Details can be found in “Networking GC/MS Data Files for Processing with G1710BA Data Analysis Software,” Pub. No. (23) 5968-2696E.

Create the Reports You Need To

The Custom Reports module allows the transfer of data directly from data analysis into a spreadsheet program where you can create, edit, manipulate and automatically print a custom report for each sample without the aid of a third-party application. Custom Reports also supports setting up a database of results to monitor trends from multiple samples. Refer to “Enhanced Productivity by Integrated Custom Reporting,” Pub. No. (23) 5968-7135E.

5973Network MSD-Based GC/MS Systems

The following summarize the family of 5973Network MSD products. For more details, refer to “5973Network MSD Systems, Ordering Guide,” Pub. No. (23) 5968-7357E.

A la Carte Products

MSD							ChemStation and Software				Mass Spectral Libraries					GC and Autosampling							
	Diffusion	Standard Turbo	Performance Turbo	EI	PCI	NCI		PC and Printer	Control	Data Analysis (DA)		General	Pesticides	Drug	Search Program	Structures Library		MSD-Ready	Auto-Injection	Sampler Tray			
G2577A	I	X	X	I	X	X	+	G1717CA	I	X	I	+	G1033A	I	I	I	I	G1530/40 GC Opt 201	I	X	X		
G2578A	X	I	K	I	K	X		G1728CA	I	I	I		G1035A	I	I	I	X		X	G2613A	X	I	X
G2579A	X	X	I	I	K	K		G1729CA	I	I	I		G1036A	X	X	X	X		I	G2614A	X	X	I
G2588A	X	I	X	I	I	X		G1701CA	X	I	I		G1038A	X	I	X	X		X				
G2589A	X	X	I	I	I	I		G1710CA	X	X	I		G1039A	X	X	I	X	X					
													G1043A	X	X	X	I	X					
													G1044A	X	X	X	X	I					
													G1049A	X	I	X	X	X					

Bundled Products

MSD, ChemStation and Software										Data Analysis (DA)		Mass Spectral Libraries					GC and Autosampling					
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I — Included in product

X — Not included in product

K — Upgrade kit to achieve functionality



Agilent Technologies

Innovating the HP Way

5973 *Network* MSD-Based GC/MS Systems

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