Committed to providing Information Rich Detection (IRD) solutions like mass spectrometry, Varian, Inc. is a technical innovator and leader in ion trap MS technology.

And now, deepening our complete line of quadrupole and ion trap LC/MS systems, Varian continues its commitment to develop and manufacture high performance, reliable, value-added IRD solutions.

With the introduction of the 500-MS Varian also presents performance enhancing innovations in LC/MS sample interface technology. These advancements provide the background for delivering outstanding performance and value with the Varian 500-MS ion trap mass spectrometer.
The Varian 500-MS LC ion trap is the instrument of choice for high-throughput LC/MS analysis where sensitivity, reliability, and productivity are essential.

The Varian 500-MS is a new and innovative system that provides a robust platform for demanding LC/MS/MS applications. The system sensitivity, mass resolution, and scan speed reflect the inherent advantages of the ion trap, while the new Enhanced Charge Capacity (ECC™) extends the number of ions that can be stored. The results are greater sensitivity and reduced background noise for reliable quantitation.

By delivering excellent sensitivity over the entire mass range in full scan mode, and exceptional MS/MS and MS^n capabilities, the Varian 500-MS quickly provides superior qualitative information, for even the most complex sample matrices.

Unique sensitivity enhancements include SelecTemp™, the temperature programmable API (Atmospheric Pressure Ionization), for the optimum analysis of thermally labile compounds. These innovations lead to the remarkable performance and capabilities of the Varian 500-MS LC ion trap.

The Varian 500-MS LC ion trap features a patented “tilted” capillary inlet and ion gating optics to ensure the lowest possible chemical noise while delivering premium detection levels.
State-of-the-art API interface

The Varian 500-MS delivers increased sensitivity and selectivity for all analytes. Even highly thermally labile compounds can be reliably analyzed, using Varian, Inc.’s patent pending temperature programmable SelecTemp™ API interface. Maintaining sample integrity is no longer a concern.

SelecTemp’s programmable temperature control delivers optimum drying gas temperatures at every time point throughout a complex analysis. Additional SelecTemp API benefits include reduced interface contamination, improved throughput, simplified setup, and automatically recorded parameters for GLP purposes.

The rugged yet elegant design of the SelecTemp API and its unique capabilities will improve the performance of routine, high sample throughput applications reliably, consistently, and easily while increasing accuracy and productivity.

ECC, triple resonance, and the power of MS^n

ECC ensures the reliable detection of trace amounts in the presence of high concentrations of coeluting compounds and heavy matrices. Patented triple resonance scanning allows scan speeds up to 15,000 Da/sec and preserves chromatographic spectral resolution. The fast scan speed is complemented by rapid ion polarity switching of 200 milliseconds to accommodate optimum detection of ion polarity for every analyte in the sample. Enhanced qualitative information is delivered by the 500-MS with MS^n operation to n=10, expanding the spectral information content for structure elucidation.

Unequaled ownership advantages

The Varian 500-MS versatility and distinctive features allow easy adjustment to accommodate a wide variety of analytical requirements. The standard electrospray ionization source (ESI) of the 500-MS can easily be replaced with an optional Atmospheric Pressure ionization (APCI) source in less than a minute.

LC flow rates from microliters to milliliters can be used with our fully adjustable electrospray ion source and the vortex atmospheric pressure chemical ionization source. The novel design of the ion sources means the 500-MS requires less cleaning, leading to returns in up-time and productivity. The built in syringe pump, diverter valve, and Electronic Gas Control (EGC) provide ease-of-use benefits enhancing productivity even more. Clearly, the performance-driven Varian 500-MS delivers increased selectivity, sensitivity, and accuracy while reducing contamination and downtime. The resounding capabilities of the Varian 500-MS ultimately translate into value through exceptional results, unparalleled economy, and cost of ownership advantages second to none.
Varian HPLC pumps, detectors, autosamplers, and columns can be included to create a complete configuration.

**HPLC Pumps**
- **ProStar™ 200 Series**, from isocratic to quaternary, these compact pumps were designed for easy operation and maintenance. Featuring pump stroke counters and automatic leak tests, ProStar pumps help your laboratory meet established Good Laboratory Practice (GLP) protocols.

**HPLC Detectors**
- **ProStar 300 Series** range from a standard, single-channel UV-Vis detector for basic analysis to multi-wavelength detectors for research applications. For the ultimate in UV-Vis detection, the powerful 335 Diode Array Detector provides full spectral information of every peak in a sample.

**Autosamplers**
- **HTS PAL** is a low loss, high speed, high capacity, robust autosampler offering outstanding flexibility and productivity.
- **ProStar 400 Series** are precise, versatile autosamplers delivering reliable results, particularly when sample volume is limited.

**HPLC Columns**
- **Polaris® columns** provide unique bonded phases that maximize polar retention and selectivity, while virtually eliminating silanol activity. Polaris’ ability to outperform the competition on challenging separations sets the standards for peak symmetry, selectivity, and reproducibility.
- **Pursuit® diphenyl columns** deliver faster separations without sacrificing resolution. Moving through the analytical development process and into production, Pursuit materials meet requirements for resolution critical analytical methods and high quality preparative chromatography.

The complete solution...

More power with Varian MS workstation software
Intuitive instrument control and data processing are simple yet powerful with the Varian MS Workstation software:
- Complete single point control of pumps, autosamplers, and other accessories
- Effortless detector optimization and control
- Superior data transfer rate with dual processors
- Simple navigation while reviewing and processing results
- Full featured network compatibility for file management, printing, and remote access
- Extensive reporting for complete analyses
Varian, Inc. is committed to a process of continuous improvement, driving us to exceed customer expectations in everything we do.

Varian, Inc. – serving markets worldwide

Biosciences
Pharmaceuticals
Clinical Research and Forensics
Food and Agriculture
Chemical Analysis
Environmental
Fuels and Energy
Material Sciences

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