



# SPECTROSCOPY SOLUTIONS FOR PHARMACEUTICALS

The Measure of Confidence

The pharmaceutical industry faces constant challenges, as business, science, and regulatory pressures evolve and collide. The process of bringing drugs to market today is dramatically different to what it was ten years ago.

Agilent Technologies has developed a comprehensive portfolio of measurement platforms to help you meet these challenges. From routine evaluation to the most critical assessments, we believe that companies need smart answers for the future. That's why alongside our well-respected Chromatography products, we have a comprehensive set of Atomic and Molecular Spectroscopy systems – Pharma Lab ready.

**AGILENT SPECTROSCOPY  
SOLUTIONS FOR THE  
PHARMACEUTICAL  
LABORATORY**



**Agilent Technologies**

# NEW TECHNOLOGIES. MORE POSSIBILITIES.

## ATOMIC SPECTROSCOPY



**7900 ICP-MS**  
Inductively Coupled Plasma  
Mass Spectrometer (ICP-MS)

The Agilent 7900 ICP-MS opens up a new dimension in ICP-MS with 10x higher matrix tolerance, 10x wider dynamic range and 10x better signal to noise than the world's bestselling Agilent 7700 ICP-MS Series.

The world's most powerful and automated ICP-MS includes the industry's most effective helium collision mode for unsurpassed interference removal, ensuring superior data quality for the Pharmaceutical laboratory.

- USP 232 and 233 compliance ready
- Unprecedented matrix tolerance — the optional Ultra High Matrix Introduction (UHMI) technology enables you to routinely measure samples containing up to 25% total dissolved solids (TDS)
- Unmatched ease-of-use — the latest generation of ICP-MS MassHunter software features an intuitive dashboard layout with gadgets that guide you through every step of the analysis
- Improved productivity — Ultra-high matrix introduction (UHMI) technology combined with optional Integrated Sample Introduction System (ISIS 3) and ensures almost any sample can be run and quantified across the widest dynamic range, eliminating the extra time and cost associated with reruns due to over range results



**5100 SVDV**  
Inductively Coupled Plasma  
Optical Emission Spectrometer  
(ICP-OES)

The Agilent 5100 Synchronous Vertical Dual View (SVDV) ICP-OES revolutionizes ICP-OES analysis. With its unique Dichroic Spectral Combiner (DSC) technology, you can now run axial and radial view analysis at the same time saving time and money.

At the heart of the instrument is the next generation VistaChip II, a custom designed, hermetically sealed CCD detector, giving you unrivalled productivity. With a range of performance enhancing options and a powerful software platform, the Agilent 5100 will meet your most demanding needs.

- USP 232 and 233 compliance ready
- Measure all wavelengths in one measurement, for higher precision without delays
- Keep ongoing costs low with low Argon gas consumption
- Achieve long term analytical stability with a solid-state RF system that delivers a robust plasma
- Synchronous view, one step measurement of major, minor, and trace elements, plus the fastest warm-up, delivers increased throughput and productivity



**200 Series**  
Atomic Absorption  
Spectrometers (AA)

Agilent offers a wide range of AAS systems including Flame and Zeeman Graphite Furnace systems. Atomic Absorption systems can play a role in the Pharmaceutical laboratory where there is a need for a quick check on higher metal content levels on a Flame system, or with a Graphite Furnace system as a lower cost alternative to ICP-MS where only a few trace metals are of interest.

- 2, 4 or 8 lamp Flame and 4 and 8 lamp Zeeman Graphite Furnace systems
- Zeeman Graphite Furnace for lowest detection limits in challenging samples
- Versatility — Add the Hydride Vapor Generation Accessory (VGA) for Zeeman adaptor to expand the analytical capabilities of the instrument
- Outstanding performance at ppb levels in even the toughest samples with the Constant Temperature Zone furnace design of the Graphite Furnace system

For more information visit:  
[www.agilent.com/chem/atomic](http://www.agilent.com/chem/atomic)  
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# PERFORMANCE. ACCURACY. FLEXIBILITY.

## MOLECULAR SPECTROSCOPY



### CARY 8454 Diode Array UV-Vis

The Agilent Cary 8454 UV-Vis spectrophotometer uses a photodiode array (PDA) for simultaneous measurement of the complete ultraviolet to visible light spectrum in less than one second. The PDA technique brings exceptional reliability and repeatability and is the same technology used in Agilent's Liquid Chromatography products. Using Agilent ChemStation software you get powerful data analysis and data archival to ensure compliance with good laboratory practices (GLP) and pharmacopoeia requirements.

- Easy transfer of methods from existing 8453 systems
- Excellent reproducibility — stable optics, low noise electronics, no moving parts
- Simple operation — task-oriented and application software, direct access to cells and cell holder
- Effortless servicing — pre-aligned deuterium and tungsten lamps exchanged easily
- Good laboratory practices (GLP) — self-test and revisions built into the software/firmware
- Pharmaceutical compliance — regulated software for European and US pharmacopoeia and helps to allow compliance with US FDA CFR 11 requirements
- Works seamlessly with Agilent Dissolution systems and software



### CARY 630 FTIR Fourier Transform Infrared (FTIR)

For routine identification of active pharmaceutical ingredients and other drug components in the pharmaceutical laboratory the Agilent Cary 630 FTIR spectrometer is versatile, innovative and intuitive. It provides superior qualitative sample information, and can also perform quantitative analysis. With a wide range of sample interfaces and high performing optics, - including Agilent's unique and revolutionary DialPath for measuring liquids - the compact Agilent Cary 630 FTIR will give you accurate results — fast.

- Innovative — unique sampling accessories slide on in seconds, with no alignment required, making transmission as easy to use as ATR
- Reliable — field proven, rugged optomechanical system offers outstanding performance and reproducibility, even in humid and tropical environments, providing answers you can trust day in and day out
- Versatile — interchangeable sampling accessories for all your analysis needs, including standard transmission, DialPath, Diamond ATR and more
- Compliant — software helps to allow compliance with US FDA CFR 11 and GLP/GMP compliance
- Compact — taking up only 20 x 20 cm of bench space, the Agilent Cary 630 FTIR is the world's smallest and lightest FTIR benchtop with no compromise on performance



### CARY ECLIPSE Fluorescence Spectrometer

The Cary Eclipse Fluorescence Spectrophotometer uses a Xenon flash lamp for superior sensitivity, high signal-to-noise and fast kinetics, providing a flexible instrument for a range of applications. Using Xenon lamp technology, it captures a data point every 12.5 ms and scans at 24,000 nm/min without peak shifts. The Cary Eclipse is the only spectrophotometer with room light immunity and with an optional microplate reader; it offers full wavelength scanning of 384 samples.

- Four collection modes: Fluorescence, phosphorescence, chemi/bioluminescence and time resolved phosphorescence
- Modular software: application focused software for novice and expert users
- Small volume samples: measures low-volume picomolar fluorescein concentrations (<0.5 mL) and large, odd-sized samples too
- Room light immunity: the instrument operates with the front and top panels removed for easy access to sample and fast installation of large accessories

## For more information

Find out how Agilent's Atomic & Molecular Spectroscopy Solutions can deliver more possibilities for your lab.

Learn more:

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## Trust Agilent to keep your lab running at peak productivity

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