

Liquid Chromatography/
Mass Spectrometry**Key Features**

- Exact mass capability and wide dynamic range facilitate compound identification and quantitation
- Adjustable dual-probe ion source can be fine-tuned to optimize sensitivity and delivers simultaneous spray for advanced internal calibration
- Proprietary Trap and Pulse technology increases sensitivity 3-5x
- V-shaped flight path maximizes ion transmission for superior sensitivity
- High acquisition speed allows for fast chromatography
- Choice of software packages tailored to specific applications and workflows

AxION 2 TOF MS

By offering unsurpassed sample insight, the AxION™ 2 TOF (Time-of-Flight) Mass Spectrometer is the ultimate system for identifying and quantifying compounds to better characterize samples. No matter what your application or matrix, the instrument delivers the speed, sensitivity, exact mass information, wide dynamic range and mass accuracy you need for complete confidence in your results. Powerful 3-D quantitation and full post-processing capabilities on all masses let you minimize false positives and negatives for enhanced productivity.

Identification of unknowns.

By measuring and recording every exact mass in each and every analysis, the AxION 2 TOF MS is the ideal tool for accurate compound identification. The system's impressive resolution and exceptional mass accuracy minimize potential interferences, and its five orders of linear dynamic range allow you to use isotope ratios for further structural identification.

Quantitation of targets.

With its exact mass capabilities, the AxION 2 TOF MS provides a high level of specificity for confident compound confirmation, target analysis and quantitation. The wide dynamic range allows for quantitation across a broad range of concentrations.

Optimizing your chromatography.

Engineered for exceptionally fast acquisition rates, the AxION 2 TOF MS is ideally suited for integration with the fastest LC separations, allowing you to maximize the productivity of your chromatography system and resulting in better signal-to-noise ratios for clearer, more definitive data.



Overcoming your challenges with superior sensitivity.

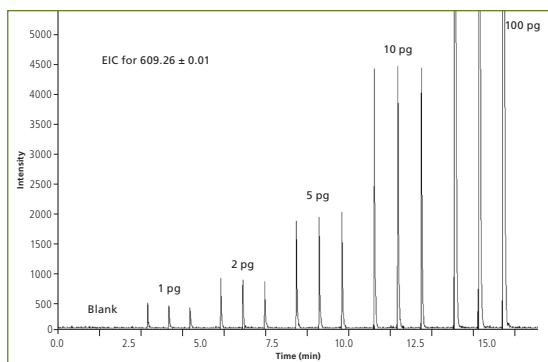
The AxION 2 TOF MS features an orthogonal design for maximum ion selectivity, minimal background chemical noise, and unambiguous results. To complement this design, the instrument has also been engineered with an array of cutting-edge features and capabilities to optimize performance and sensitivity:

Patented Ion Sources—Deliver the most efficient nebulization, fastest desolvation and most effective ionization of any TOF system.

Front-End Collision-Induced Dissociation (CID)—Allows you to modulate the molecular fragmentation in the capillary for more detailed mass-specific and structural information.

Multi-Stage Ion Path—Patented design smoothly guides ions from the source to the pulser region using a variety of proprietary technologies and a gradual, five-step pressure drop to maximize ion transmission.

V-Shaped Flight Path—Delivers the resolution you need while maintaining the highest levels of sensitivity available.



Replicate injections of 5 different concentrations of reserpine showing excellent sensitivity and linearity.

Proprietary Trap and Pulse Technology—Maximizes sensitivity by collecting dense packets of ions before accelerating them into the flight tube. The duty cycle of the pulser is perfectly synchronized with the arrival of the ion packets to ensure maximum ion transport to the state-of-the-art detector. Innovative and highly efficient, Trap and Pulse technology provides a higher amplitude signal and a reduction in baseline noise while maintaining exceptional resolution and mass measurement accuracy during Time-of-Flight MS acquisition.

Innovative sources for higher quality spectra.

For added flexibility, the AxION 2 TOF MS is available with a choice of patented ion sources to optimize the system's performance under any analytical conditions:

Ultraspray™2—A unique, adjustable dual-probe Electrospray Ionization (ESI) source that allows you to optimize the angle of your probes to achieve the best sensitivity. The design also lets you dedicate one inlet to your sample and the other to an internal standard. By doing so, you can avoid contamination in the sample probe and achieve the highest mass accuracy—without affecting sensitivity or resolution—by performing real-time calibrations.

Atmospheric Pressure Chemical Ionization (APCI) Source—A groundbreaking, Field-Free APCI source that maximizes ionization efficiency (and sensitivity) even at very low flow rates, allowing you to achieve optimum results while using less sample and solvent.



Superior technology for superior productivity.

As laboratories are challenged with greater throughput requirements and ever-evolving industry regulations, productivity and sensitivity are more important than ever. That's why there's never been a better time for the speed, efficiency and complete sample insight of the AxION 2 TOF MS. With its range of innovative features and timesaving capabilities, the instrument promises superior uptime, exceptional ease of use, and uncompromising performance.

One-Click Auto-Tune—Enables you to start running samples faster by automatically adjusting the instrument's ion intensity and mass accuracy to ensure optimum performance and reproducibility.

Unique Interchangeable Snap-In Probes—

Allow you to use a different probe for each application to minimize cross-contamination, or to dedicate a probe to a particular user for increased control and speed, ideal for open-access environments.

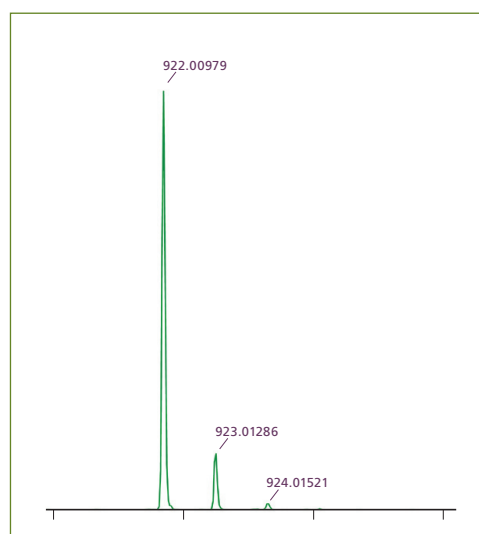
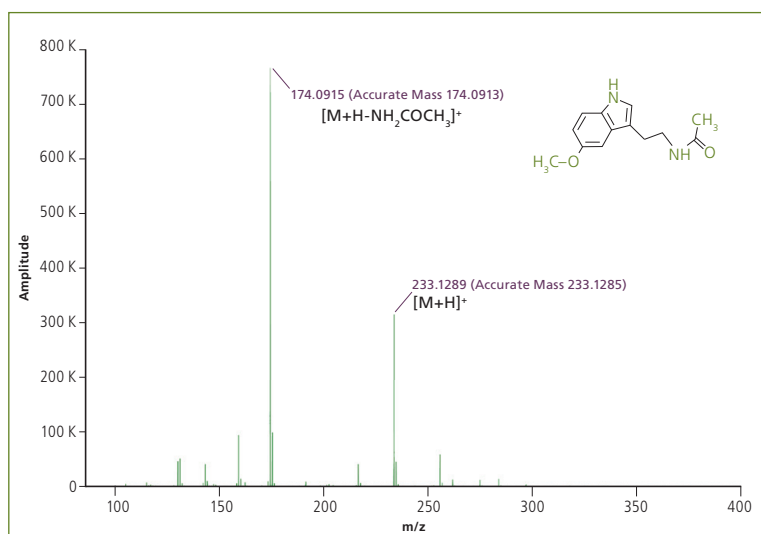


Fast Acquisition Speed—Provides complete characterization of your sample, even under demanding separation conditions like UHPLC. The combination of fast chromatography with the specificity of the TOF allows you to generate signals for a wide variety of compounds in a short amount of time.

Capillary Shutter—Enables the capillary and entire source housing to be removed for maintenance without shutting down the vacuum. The shutter also prevents air from entering the system when the capillary is removed, eliminating the possibility of contamination. This unique feature results in greater instrument uptime for unsurpassed productivity.

Better tools for greater confidence.

The AxION 2 TOF MS has been thoughtfully engineered from the ground up to generate robust and reliable data. With its exact mass performance, wide dynamic range and exceptional resolution, you can count on fewer false positives, fewer wasted runs, and fewer requirements for data redundancy. Identifying unknowns or quantitating target compounds has never been done with greater sensitivity, consistency or confidence.



Resolution at FWHM of higher than 12,000 provides the information necessary to accurately characterize a structure.

Tailored software to streamline your workflow.

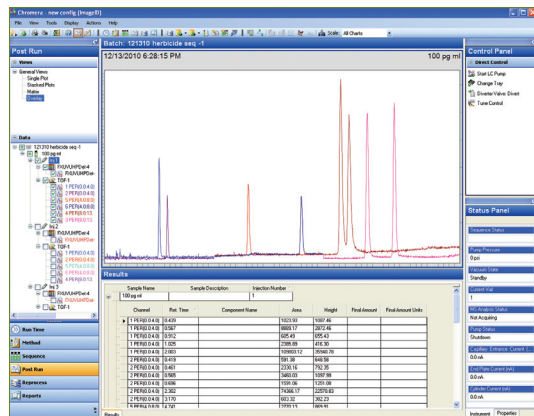
The AxION 2 TOF MS can be equipped with a variety of specialized software packages to simplify everything from controlling your instrument to accessing, managing and reporting data. Whether you're performing compound identification, target analysis, quantitation, or simple data review, there's a robust solution designed specifically for your particular need.

For added flexibility and functionality, the instrument features an entire suite of productivity-enhancing capabilities, including:

- Automatic one-click auto-tune with convenient Pass/Fail reporting.
- Formula-identification software.
- Multiple-charged state deconvolution algorithm.

Chromera® CDS—Provides complete instrument control for your LC/MS system, including acquisition and processing. With its intuitive user interface, Chromera CDS puts all the tools and information you need within easy reach—nothing is more than a couple of clicks away. Features and functionality include:

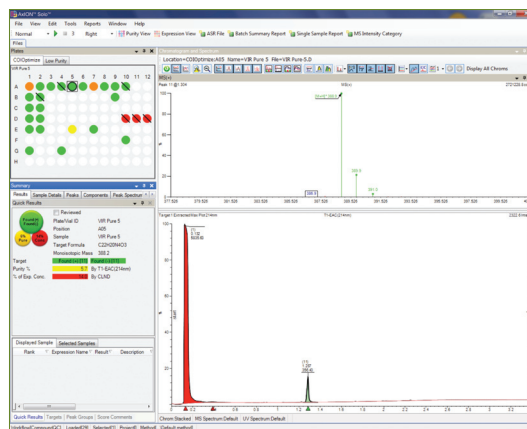
- The ability to combine MS, PDA and analog detector real-time channels for full sample characterization.
- Simple creation of multiple EICs—in real-time and post-processing.
- Calibration and quantitation of multiple compounds in a single run.



Chromera's user interface displays all the information you need in a single view, including instrument status, real-time data and analytical results.

AxION Solo™—An intuitive, compound-centric software that makes it quick and easy to process data, review results and update collected information. Designed to streamline your workflow—maximizing throughput and minimizing costs—the environment allows you to arrange and view windows in a series that mimics your analysis, whether it's for single or multiple target investigations. AxION Solo speeds your data review time, offering both a global results review system—by plate(s), vial(s) or both—and an “at-a-glance” sample summary view that displays all key information for a specific analysis. The software offers extensive report and results publishing capabilities as well as a broad array of evaluation parameters, including:

- Found and pure/not found
- Found contains fragments
- Found with related higher mass chemistry



AxION Solo provides clear, convenient, at-a-glance information on the results of a sequence.

AxION Xpo™—A compound-centric data-viewing environment that lets you analyze and combine data from the MS and a variety of other detectors. Designed with the same intuitive yet intelligent interface as AxION Solo, the software gives you a powerful, easy to use tool with which to assess your results and customize your reporting.

Have confidence in your data. And your choice of instrument.

For more details on the AxION 2 TOF MS, please visit www.perkinelmer.com/TOFMS

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