

Waters Sets New Standards for High Resolution Performance and Speed with Xevo MRT Mass Spectrometer

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News Summary:

- Waters Xevo™ MRT Mass Spectrometer employs next-generation multi-reflecting time-of-flight technology to deliver class-leading combination of high resolution and speed without compromising analytical performance.i
- Delivers up to 6x resolution at maximum speed and up to 2x mass accuracy of competitive systems,ii enabling scientists to process more samples in less time for large-cohort biomedical research and epidemiology-type studies.
- Complete workflows available for metabolomic, lipidomic, and metabolite identification enables customer flexibility and convenience using Waters™ software, columns, and instruments for high throughput separations, and universal data-sharing with third-party software applications.

ANAHEIM, Calif., and MILFORD, Mass., June 3, 2024 /PRNewswire/ -- 72nd ASMS Conference on Mass Spectrometry and Allied Topics – Waters Corporation (NYSE: WAT) today unveiled the Xevo™ MRT, its highest-performing benchtop mass spectrometer (MS), setting new standards for delivering high resolution and speed, critical for large population and epidemiology-type studies. It builds on the innovative technology pioneered by the [Waters SELECT SERIES™ MRT](#) MS. The new Xevo MRT MS combines the raw power and resolution speed of multi-reflecting time-of-flight (MRT) and hybrid quadrupole time-of-flight (QToF) technologies within a flexible benchtop platform.



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Laboratory products that obtain the ACT Ecolabel make it easier for scientists to make more sustainable choices.

"Understanding complex diseases requires analysis of thousands of samples from large human cohorts to provide statistically valid studies. This puts increased pressure on drug discovery scientists to deliver high-quality data in shorter run times," said Dr. Udit Batra, CEO and President of Waters

Corporation. "The Xevo MRT mass spectrometer is a next generation QToF built

from the ground up to address this unmet need, delivering high resolution and speed without compromising analytical performance. Its multi-reflecting time-of-flight design enables simultaneous high sensitivity, high resolution, and speed in a small footprint, accelerating time-to-results and ensuring high-quality experimental outcomes."

The Xevo MRT system delivers a class-leading 100,000 full width half maximum (FWHM) resolution at 100 Hz MS/MS scan speed and <500 parts per billion (ppb) mass accuracy. This enables deeper probing of biologically relevant concentrations with high levels of mass accuracy, independent of acquisition rate.

"A range of mass spec approaches are available for metabolomic, lipidomic, and metabolite identification studies, yet all require compromises to be made - either in data quality or analytical efficiency," said Professor Perdita Barran, Chair of Mass Spectroscopy in the University of Manchester (UK) Department of Chemistry and Director of the Michael Barber Centre for Collaborative Mass Spectrometry at the Manchester Institute of Biotechnology. "The Xevo MRT MS is impressive technology capable of higher sample throughput combined with extremely high precision, which can significantly advance target validation and phenotyping studies. The increase in scan speed and data quality are critical as it can allow us to run more samples in less time without compromising confidence in our data and we are very excited by how this is allowing us to accelerate the development of a diagnostic test for Parkinson's Disease."

The innovative multi-reflecting time-of-flight design of the Xevo MRT MS offers scientists the power to work at maximum resolution with high sensitivity and fast data acquisition rates. This helps ensure confident identification of analytes across a range of samples and complex matrices and generate comprehensive and highly accurate mass data for scientific interpretation.

Waters offers complete workflows for metabolomic, lipidomic, and metabolite identification for the Xevo MRT MS, alongside Waters high throughput [ACQUITY™ UPLC™ Systems](#) and [UPLC Column chemistries](#) and [waters_connect™ Software](#) for data acquisition, processing, and reporting. The system supports universal data-sharing via mzML file formats with third-party informatics software, including popular applications from [Mass Analytica™](#) such as its MARS, Lipostar2, and MassMetaSite software offerings.

The Waters Xevo MRT MS is orderable today for shipment in the second half of 2024.

Additional Resources

- Learn more at www.waters.com/XevoMRT
- View the [Waters ASMS 2024 Online Press Kit](#) for downloadable product photos, spec sheets, infographics and videos.
- Read the solution brief: "[A High-Throughput Lipidomic Workflow Using the Waters Xevo MRT Mass Spectrometer](#)"
- Follow and connect with Waters via [LinkedIn](#), [Twitter](#), and [Facebook](#)

About Waters Corporation (www.waters.com)

[Waters Corporation](#) (NYSE: WAT), a global leader in analytical instruments and software, has pioneered chromatography, mass spectrometry, and thermal analysis innovations serving the life, materials, food, and environmental sciences for more than 65 years. With approximately 7,700 employees worldwide, Waters operates directly in 35 countries, including 15 manufacturing facilities, and with products available in more than 100 countries.

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Contact:

Janice Foley

Senior Public Relations Manager, Corporate Communications

Waters Corporation

janice_foley@waters.com

+1.617.823.5555

i Estimates based on Xevo MRT MS performance comparison to competitor instruments @100Hz @m/z 956 = 100K FWHM and <500ppb mass accuracy.

ii Xevo MRT MS Resolution of 100K FWHM @ m/z 956 is up to 1.5x to 6x competitor instruments @100Hz; Xevo MRT Mass Accuracy of <500ppb is 2x competitor systems @ 1ppm.

iii Xevo MRT MS Resolution of 100K FWHM @ m/z 956 is up to 1.5x to 6x competitor instruments @100Hz; Xevo MRT Mass Accuracy of <500ppb is 2x competitor systems @ 1ppm.

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