

Waters sets new standard in high-resolution mass spectrometry

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New Multi Reflecting Time-of-Flight (MRT) mass spectrometry platform from Waters delivers highest quality resolution at fast speeds



Waters Corporation has introduced the Waters SELECT SERIES MRT, a high-resolution mass spectrometer that combines Multi Reflecting Time-of-Flight (MRT) technology with both enhanced DESI and new MALDI imaging sources. Together, these technologies enable scientists to explore molecular structure and function through the precise identification and localisation of individual molecules in samples, with a unique combination of speed, resolution, and mass accuracy.

For example, a scientist researching how an investigational oncology drug interacts with its intended target, such as a specific brain tumour receptor, can now do so much faster, at speeds up to 10Hz without compromising mass accuracy or resolution.

“The Waters SELECT SERIES MRT opens the door to a greater understanding of molecules and their mechanisms of action in numerous scientific fields,” said Dr Udit Batra, CEO and President, Waters Corporation. “The clarity of images produced by this instrument can yield profoundly important molecular information to scientists in research areas such as targeted therapeutics, to provide insights and enable deep biological discoveries.”

The SELECT SERIES MRT platform is the basis for the next generation of Waters’ high-resolution mass spectrometers. It is the first commercially available instrument of its kind that is capable of attaining 200,000 Full-Width Half Maximum (FWHM) resolution and part-per-billion mass accuracy independent of scan speed.

The superior performance of the SELECT SERIES MRT allows scientists to get the highest quality mass spectrometry data and information faster than any commercial mass spectrometer on the market today. The new MRT-of-Flight technology features an extended flight path of almost 50 metres to give scientists a much clearer picture of structural information, including fine isotope structure.