

Advances in High Resolution Mass Spectrometry with Applications in Imaging and Ion Mobility Mass Spectrometry

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Over the past three years, Waters has introduced a number of technologies that enhance the capabilities of High Resolution Mass Spectrometry (HRMS) platforms. This review will cover the recent additions to the HRMS portfolio, highlighting increased capabilities and their use in various application areas. The SELECT SERIES Multi Reflecting Tof (MRT) provides routine mass resolving power of 200,000, enhancing feature detection in imaging mass spectrometry applications. The Xevo G3 Q-Tof offers increased sensitivity and can extend MS imaging experiments to improve resolving power, enabling the identification of smaller features in tissue sections and other surfaces of interest. The Xevo MRT delivers MRT technology on a benchtop platform, approaching single-cell metabolomic profiling capability. Lastly, the SELECT SERIES cIMS system introduces an ion mobility device that provides scalable high-resolution ion mobility. Applications in protein unfolding, lipid, and glycan analysis will be discussed.



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