

Targeted Mass Spectrometry Imaging (MSI)

Unlock previously inaccessible molecular spatial information

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Waters is pleased to invite all Mass Spectrometry enthusiasts to join our lunchtime seminar at the DGMS in Freising. This seminar will provide you with an opportunity to meet with our experts who will share insights, discuss the latest technology and MS advancements.

Mass spectrometry imaging (MSI) has been successfully used to localize a sample's molecular composition in-situ. However, due to sample complexity, the presence of salt, and other interferences, the detection of low-level analytes can be especially challenging.

DESI XS MSI is typically applied for the mapping of small molecules directly from tissue sections and, combined with time-of-flight (ToF)-based mass spectrometers, is ideally suited to untargeted discovery analysis.

Tandem quadrupole (TQ) mass spectrometers, on the other hand, are renowned for their sensitivity, speed, and quantitative robustness for targeted applications using Multi Reaction Monitoring (MRM) modes of acquisition and are widely adopted for drug quantitation. With a combination of the two technologies, a remarkable and unique technique emerges to perform sensitive, fast, and quantitative MSI directly on surfaces.