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Thermo Scientific launches High-Resolution Mass Spectrometer

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New High-Resolution Mass Spectrometer Redefines Productivity in Characterization, Identification and Quantitation in Unknown Small Molecule and Peptide Mapping Applications



Scientists working across small molecule applications require systems that support extensive, in-depth analysis of multiple complex samples, while simultaneously increasing output and decreasing costs. Thermo Fisher Scientific's newest Orbitrap high-resolution mass spectrometer is designed to deliver proven measurement capabilities in a system developed for increased productivity.

The new Thermo Scientific Orbitrap Exploris 120 mass spectrometer delivers demonstrated qualitative and quantitative capabilities synonymous with Orbitrap high-resolution accurate-mass spectrometry (HRAM), that supports consistent data quality and decision making. The system features fast scanning modes and rapid polarity switching that result in comprehensive sample coverage and increased productivity—delivering significant benefits for high-throughput screening and quantitation assays.

"Scientists running small molecule studies and applications in areas such as metabolomics, environmental analysis, metabolite identification, forensic toxicology, and anti-doping, require complete sample coverage in their analyses, without compromising productivity," said August Specht, vice president, research and development, chromatography and mass spectrometry, Thermo Fisher Scientific. "The Orbitrap Exploris 120 mass spectrometer was designed specifically for laboratories to safeguard their current assays and enhance their provision of high-throughput and differentiated services, while simultaneously minimizing required training and method development times."

Dwayne Schrunk, laboratory manager, analytical chemistry services, Iowa State University, said, "The Orbitrap Exploris 120 mass spectrometer allows us to react to emergency testing situations in a variety of matrices without having to do a lot of method development. This enables us to provide high-quality data for veterinary drug residue testing to our clients."

The new system extends the Thermo Scientific Orbitrap Exploris portfolio of high-resolution accurate mass systems, which is now comprised of the Thermo Scientific Orbitrap Exploris 480 mass spectrometer, launched in 2019, and the newly introduced Thermo Scientific Orbitrap Exploris 240 and Thermo Scientific Orbitrap Exploris 120 mass spectrometer, allowing users to easily transfer knowledge and methods from research and discovery to routine testing. In combination with

the Thermo Scientific Vanquish HPLC and UHPLC liquid chromatography systems, and Thermo Scientific ion chromatography systems, the Orbitrap Exploris 120 mass spectrometer offers market-leading technology in a system that provides performance and speed.

Performance of the Orbitrap Exploris 120 mass spectrometer is further enhanced with compatibility to Thermo Fisher's latest software updates.

- With Thermo Scientific Compound Discoverer 3.2 software, small-molecule researchers are supported through extensive characterization capabilities, access to multiple mass spectral fragmentation library and structural database sources. Access to the large Thermo Scientific mzCloud mass spectral fragmentation library enhances connectivity and characterization for small molecule applications to help identify compounds.
- Routine laboratories will benefit from Thermo Scientific TraceFinder 5.1 software, which simplifies and optimizes the high-throughput screening and quantitation of compounds with improved integration of difficult peaks and streamlined reporting.

Thermo Fisher Scientific will showcase its newest products and software solutions in a company-hosted virtual event, vLC-MS.com, from May 26-28, 2020, and at the American Society for Mass Spectrometry (ASMS) Reboot Program, from June 1-12, 2020.