

## Innovative Mass Spectrometer Designed for Small Molecule Analysis

**The Thermo Scientific Orbitrap IQ-X Tribrid mass spectrometer enables confident structure elucidation and unknown analyte identification**

SAN JOSE, Calif., June 7, 2021 /PRNewswire/ -- Small molecule researchers in academia, pharmaceutical, and biopharmaceutical industries can now use a new, intelligent mass spectrometer (MS) to reveal complex chemical structures with confidence, ease and experimental versatility.

The [Thermo Scientific Orbitrap IQ-X Tribrid mass spectrometer](#) has been designed specifically for small-molecule structural elucidation of metabolites and unknown compounds. The wide range of applications include metabolomics and lipidomics research, leachable/extractable impurities identification and forensic toxicology. The MS system provides a fit-for-purpose, new AcquireX workflow enabled by the trusted Thermo Scientific Tribrid architecture to acquire high-quality data. Performance is enhanced by a new Met-IQ workflow that leverages real-time library search with on-the-fly intelligent MS<sup>2</sup> spectral matching for decision-based triggering of MS<sup>n</sup> scan events, providing higher confidence for chemical annotation.

"Along with the enhanced intelligence-based data acquisition, the Orbitrap IQ-X Tribrid MS also uses the new Auto-Ready ion source for automated, remote, and walkaway-calibration enabling the researcher to spend more time obtaining results and less time on instrument setup. Traditionally, ultra-high resolution and accurate mass calibration has been challenging and time consuming. The new system offers researchers higher sample throughput with increased ease-of-use," said Iain Mylchreest, vice president, research and development, analytical instruments, Thermo Fisher Scientific.

The Orbitrap IQ-X Tribrid MS utilizes enhanced Thermo Scientific AcquireX workflows for increased sample throughput and ease-of-use. The MS system provides improved fragmentation for small-molecule analysis with options to add to the platform's experimental flexibility. An ultraviolet photodissociation (UVPD) option provides insights on the lipid double-bond localization, site specific glucuronidation, and complementary fragmentation for structure assignment while the 1,000,000 (1M) resolution option improves confidence for unknown analysis and fine isotope detection.

Joshua Coon, professor, biomolecular chemistry and chemistry, University of Wisconsin-Madison, said, "As a research laboratory, we are always looking to obtain innovative technology to advance our biomedical discoveries. The new Orbitrap IQ-X Tribrid MS provides a user-friendly workflow and allows us to carry out comprehensive analysis of small molecules, such as metabolites and lipids, enhancing our efforts to globally monitor these biomolecules in biological systems."

To find out more about the Thermo Scientific Orbitrap IQ-X Tribrid mass spectrometer, please visit [www.thermofisher.com/OrbitrapIQ-X](http://www.thermofisher.com/OrbitrapIQ-X).

Thermo Fisher Scientific will showcase its newest products, software solutions and collaborations in a company-hosted virtual event, "Innovation Summit: Shaping the Future of LC-MS in Life Science Together," from June 8-10, 2021. Register [here](#) to learn more.

### About Thermo Fisher Scientific

Thermo Fisher Scientific Inc. is the world leader in serving science, with annual revenue exceeding \$30 billion. Our Mission is to enable our customers to make the world healthier, cleaner and safer. Whether our customers are accelerating life sciences research, solving complex analytical challenges, improving patient diagnostics and therapies or increasing productivity in their laboratories, we are here to support them. Our global team of more than 80,000 colleagues delivers an unrivaled combination of innovative technologies, purchasing convenience and pharmaceutical services through our industry-leading brands, including Thermo Scientific, Applied Biosystems, Invitrogen, Fisher Scientific, Unity Lab Services and Patheon. For more information, please visit [www.thermofisher.com](http://www.thermofisher.com).

#### Media Contact Information:

Laura Bright  
Thermo Fisher Scientific  
+1 562-335-8318  
[laura.bright@thermofisher.com](mailto:laura.bright@thermofisher.com)

Janice Foley  
BioStrata  
+1 617-823-5555  
[jfoley@biostratamarketing.com](mailto:jfoley@biostratamarketing.com)

Additional assets available online:  [Photos \(1\)](#)

<https://india.newsroom.thermofisher.com/2021-06-07-Innovative-Mass-Spectrometer-Designed-for-Small-Molecule-Analysis>