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Thermo Fisher launches five new products at Pittcon 2018

05 March 2018 | News

With the mission to enable customers to make the world healthier, cleaner and safer, the company helps customers accelerate life sciences research, solve complex analytical challenges, improve patient diagnostics, deliver medicines to market and increase laboratory productivity.

Thermo Fisher Scientific, the world leader in serving science, with revenues of more than $20 billion and approximately 70,000 employees globally, is launching five new solutions in instrumentation, data management, sample preparation and consumables at Pittcon 2018 at the Orange County Convention Center in Orlando. With the mission to enable customers to make the world healthier, cleaner and safer, the company helps customers accelerate life sciences research, solve complex analytical challenges, improve patient diagnostics, deliver medicines to market and increase laboratory productivity.

New product launches include:

The enhanced Thermo Scientific iCAP TQs ICP-MS system: *Its advanced ICP-MS technology provides new levels of ultralow detection and simplicity in a single high-performance solution*

"There's a growing need to push the boundaries of detection, especially in the semiconductor industry and related industrial applications," said Miguel Faustino, senior director and general manager, trace elemental analysis, chromatography and mass spectrometry, Thermo Fisher Scientific. "Our enhanced iCAP TQs ICP-MS will enable customers to ensure quality control in the wafer fabrication process and ultimately improve semiconductor wafer yield."

Semiconductor wafer fabrication plants and ultra-high purity chemical suppliers can now strengthen their monitoring of trace elements within challenging sample matrices with a new triple quadrupole inductively coupled plasma mass spectrometer (ICP-MS), offering sub-parts-per-trillion detection—making it an ideal solution for ultraclean applications.

Thermo Scientific Chromeleon XTR Laboratory Management system: The new Thermo Scientific Chromeleon XTR Laboratory Management system provides users with data software that surpasses traditional chromatography data systems (CDS) and is designed to facilitate global compliance with cFDA, USFDA, MHRA, EU and cGXP. The system will make its global debut at Pittcon 2018 (booth 2353) at the Orange County Convention Center in Orlando.

"We are committed to the development of innovative systems that enable customers to advance their research while meeting increasingly stringent regulations essential for compliance," said David Leitham, vice president/general manager, chromatography and mass spectrometry software, Thermo Fisher Scientific. "The ability to demonstrate data governance and data integrity has become increasingly important to customers. The Chromeleon XTR now offers comprehensive compliance tools to provide our customers with peace of mind while they focus on their research."

Designed for 24/7 continuous uptime, the Chromeleon XTR organizes the user's complete testing process, and can deliver fast and efficient sample testing. Features include:

- **Exceptional data integrity**, through automated version control of all data and user access, and training record controls helps ensure personnel performing analyses received customer-required training
- **Automatically generated barcoded labels**, to enable sample tracking throughout the lab
- **Vendor-independent bi-directional instrument communication** and complete control of analytical data with instrument calibration and maintenance monitoring promotes use of only in-service instruments
- **eWorkflows** aimed at mitigating errors in standard operating procedures
- **SmartLink intelligent data visualization** to support productivity
- **Dynamic data updates** designed to decrease user time required post-analysis

Thermo Scientific Dionex ICS-6000 high pressure ion chromatography (HPIC) system:

Ion chromatographers undertaking time-sensitive analyses or complex research applications can now take advantage of a new high pressure ion chromatography (HPIC) system designed to accelerate the productivity of both routine and research workflows with automated monitoring and diagnostics.

The new Thermo Scientific Dionex ICS-6000 high pressure ion chromatography (HPIC) system is designed to deliver robust performance and enable timely identification of instrument performance issues, helping scientists implement corrective measures to facilitate uninterrupted operation and improve laboratory efficiencies. The system will make its debut at Pittcon 2018 (booth 2353) at the Orange County Convention Center in Orlando.

"For more than 40 years, the Dionex HPIC technology has enabled ion chromatographers around the globe to benefit from a range of flexible systems that can be configured to suit varying analytical requirements," said Tara Tereso, vice president and general manager, ion chromatography and sample preparation, Thermo Fisher Scientific. "We are committed to advancing this technology, highlighted by the new capabilities being introduced to further support our customers to solve complex scientific problems, enabling them to make the world healthier, cleaner and safer."

The new Dionex ICS-6000 builds on the powerful industry-leading Dionex platform and includes an array of productivity-boosting features, including:

- Unity Remote Services software enables remote monitoring of instrument operation, facilitating early detection and diagnosis of issues. This is designed to minimize system downtime and sample and critical data loss. Additionally, laboratories may save on budget that would otherwise be spent on trial-and-error troubleshooting and unscheduled service visits.

- Thermo Scientific Consumables Device Monitor incorporates memory tags into each IC consumable and uses the Thermo Scientific Chromeleon Chromatography Data System (CDS) software to automatically monitor and record data, such as installation date, usage, decommissioning and performance metrics. The memory tag directly stores data for optimal accuracy regardless of the consumable being transferred and repositioned, while the monitor alerts operators when consumables are accidentally mismatched within a system. The monitor can track up to 16 key performance metrics on up to nine different consumables simultaneously. If a key metric begins to deteriorate, the system notifies the operator, who can perform preventive maintenance or replace the consumable thereby minimizing unexpected downtime.

- Thermo Scientific IC PEEK Viper Fittings offer finger-tight connections that seal at the tip, virtually eliminating dead volumes and other challenges often created by conventional fittings, such as reduced efficiencies and poor peak shapes.

- Intuitive Table Control for convenient, continuous system control and status monitoring.

The new Thermo Scientific TSQ 9000 triple quadrupole GC-MS/MS system and Thermo Scientific ISQ 7000 single quadrupole GC-MS system: Increasing compliance and efficiency needs can now be met with scalable, effective and easy-to-use gas chromatography mass spectrometry (GC-MS) solutions, designed to provide advanced levels of performance and throughput for environmental, food and forensic laboratories.

The new Thermo Scientific TSQ 9000 triple quadrupole GC-MS/MS system and Thermo Scientific ISQ 7000 single quadrupole GC-MS system provide effective and efficient analytical solutions through maximum uptime, ease-of-use and

impressive sensitivity to meet increasing resource and regulatory demands. The systems will make their debut at Pittcon 2018 (booth 2353) at the Orange County Convention Center in Orlando.

"Analytical laboratories around the world must meet significant challenges to keep up with increased regulatory requirements," said Morten Bern, general manager, GC/GC-MS, chromatography and mass spectrometry, Thermo Fisher Scientific. "To meet these challenges, and to keep up with evolving resource needs, our newest generation of GC-MS systems has been designed with the performance and scalability to enable both experienced and new users to meet the demands of today and tomorrow."

The TSQ 9000 triple quadrupole GC-MS/MS system is designed to provide exceptional productivity and sensitivity for any laboratory targeting the quantitation of trace compounds in complex sample matrices. Users can benefit from reduced cost-per-sample in a routine analysis environment, without compromising analytical performance or uptime through selective reaction monitoring (SRM) sensitivity.

The ISQ 7000 single quadrupole GC-MS system is a scalable platform from base to highly sensitive configuration intended to boost performance when needed and ready when needed to adapt to continuously changing regulations. It offers extended uptime and robustness that can help customers maximize sample throughput along with routine, easy-to-use smart tools designed to simplify operation and speed up instrument familiarization.

Both systems can be equipped with new advanced electron ionization (AEI) source designed to provide efficient ionization of target compounds with high sensitivity while also extending challenging detection limits. Additionally, both systems feature the new and patented Thermo Scientific NeverVent technology, available in the systems' ExtractaBrite ion source configuration, which is engineered to enhance system uptime by removing the need to vent the mass spectrometer during routine maintenance operations.

"The new AEI source makes analysis and data analysis so much easier," said Katie Banaszewski, method development scientist at Now Foods. "We have improved confidence in the data we obtain from our residue analysis and the highest uncompromised sensitivity."

For robust sample analysis and data management across multiple chromatography platforms, the Thermo Scientific Chromeleon XTR laboratory management software is equipped to manage every aspect of sample analysis – from sample login to testing and final reporting – to facilitate adherence to internal standard operating procedures and regulatory compliance with a full audit trail. Chromeleon XTR can also be used with multi-vendor chromatography systems to remotely manage staff-equipment interaction, supporting compliance while maintaining good laboratory practices for life science applications.

The next-generation Thermo Scientific Vanquish Duo UHPLC systems: The analytical complexity of new and emerging pharmaceuticals and biopharmaceuticals can now be met with advanced ultra-high performance liquid chromatography (UHPLC) systems designed to streamline workflows and help reduce cost per sample.