

## Waters Drives Materials Sciences Innovation Forward at Pittcon 2020 with New Instrument Introductions

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New High-Performance Thermal Analysis, Rheology and Microcalorimetry Tools Help Accelerate the Pace of Materials Research

MILFORD, Mass.--(BUSINESS WIRE)-- Waters Corporation (NYSE:WAT) today introduced new products that bring greater productivity and efficiency to materials science research. The new **Discovery™ X3 Differential Scanning Calorimeter**, **Discovery Hybrid Rheometers** and **TAM IV Micro XL isothermal microcalorimeter** support the development of next-generation, high performance materials and products and are being introduced to the world's analytical scientists at **Pittcon 2020**, March 1 – 5 in Chicago.

This press release features multimedia. View the full release here:

<https://www.businesswire.com/news/home/20200302005179/en/>

The Discovery X3 Differential Scanning Calorimeter (DSC) generates three times the amount of experimental data as a standard DSC and is the most versatile, highest-throughput DSC available to scientists. (Photo: Business Wire)

“These new products emphasize our commitment to materials sciences,” said Jonathan Pratt, Senior Vice President of Waters

Corporation and President, TA Instruments. “For scientists exploring the relationship between the structure and property of materials, these technologies enable efficiencies in both streamlining laboratory operations and accelerating new product innovation.”

### Discovery X3 Differential Scanning Calorimeter for Three Times Greater Throughput

Uniquely engineered to eliminate multiple testing steps, the new Discovery X3 Differential Scanning Calorimeter (DSC) generates three times the amount of experimental data as a standard DSC, effectively consolidating three instruments into one. The data quality and sensitivity of the instrument allows researchers to compare various

formulations or competitive materials side-by-side under the exact same test conditions. It is the most versatile, highest-throughput DSC available to scientists.

## Discovery Hybrid Rheometers with Enhanced Measurement Sensitivity

This new trio of high-performance rheometers are five times more sensitive than previous versions and offer class-leading versatility in a platform that makes it easier for users of all experience levels to obtain accurate rheological data. Scientists are now empowered to measure weak intermolecular structures, lower viscosities, and obtain results on smaller volumes of low viscosity or weakly structured fluids than previously possible - a critical consideration when working with scarce or novel materials.

The unique dynamic mechanical analysis feature enables the characterization of solid samples in dynamic tension, bending, or compression mode. Researchers can get both dynamic mechanical and rheological measurements from a single instrument and thereby obtain more information more efficiently.

## TAM IV Micro XL Microcalorimeter for Next-Generation Battery Development

Light, compact batteries power much of today's world and they hold the key to the transition away from fossil fuel dependence. Cost and performance improvements in battery technology continue to drive the need for better, more sensitive measurements.

The new TAM IV Micro XL is a powerful isothermal microcalorimeter (IMC) specifically designed to give researchers a better understanding of battery discharging and charging dynamics, including the precise mechanisms of "parasitic reactions" that shorten battery life.

It is the only sub-microwatt calorimeter capable of addressing a wide range of battery types for use in medical devices, consumer electronics, automobiles and aircraft/spacecraft. Researchers will now be able to access critical information for an array of applications, and develop safer, more powerful and longer-lasting batteries.

## About Waters Corporation ([www.waters.com](http://www.waters.com))

Waters Corporation (NYSE:WAT), the world's leading specialty measurement company, has pioneered chromatography, mass spectrometry, and thermal analysis innovations serving the life, materials, and food sciences for more than 60 years. With approximately 7,200 employees worldwide, Waters operates directly in 35 countries, including 15 manufacturing facilities, and with products available in more than 100 countries.

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