

## Waters launches new products

04 March 2020 | News

The products were launched at Pittcon 2020 in Chicago



Waters Corporation has 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.

Jonathan Pratt, Senior Vice President of Waters Corporation and President, TA Instruments said, “These new products emphasize our commitment to materials sciences. 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.