

Waters ACQUITY PREMIER Columns Set a New Standard of Performance for Chromatographic Analyses

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Novel Column Technology Designed to Put Disease Research and Drug Development on More Productive and Efficient Path

MILFORD, Mass.--(BUSINESS WIRE)-- Waters Corporation (NYSE:WAT) today introduced **ACQUITY™ PREMIER Columns**, a new family of premium sub-2-micron columns featuring MaxPeak™ High Performance Surface (HPS) technology. The columns are for use with any brand of UHPLC system and can measurably improve data quality by mitigating the loss of sample analytes due to analyte-to-surface interactions. Designed for the analytical laboratory seeking to exercise greater control over their chromatographic separations, the columns improve sample throughput, assay-to-assay reproducibility and overall confidence in analytical results.

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

<https://www.businesswire.com/news/home/20201014005130/en/>

Waters ACQUITY PREMIER Columns are ideal for both small molecule and biopharmaceutical applications. They are available in various sizes and are manufactured with trusted sub-2-micron particle technologies; Bridged/Ethyl Hybrid (BEH) for maximum column stability, Charged Surface Hybrid (CSH) the best choice for mass spectrometry analysis, and High Strength Silica (HSS) for increased retention when analyzing challenging polar compounds.

(Photo: Business Wire)

“Analyte loss due to non-specific adsorption is a significant problem that deserves more attention because of the cost of wasted effort and lost productivity. Most of the time, scientists don’t even know what

they are missing. There are workarounds but they come with their own problems,” said Erin Chambers, Vice President, Chemistry, Waters Corporation. “So we challenged our engineers to come up with an innovative solution that removes one of the biggest impediments to getting quality results. Our ACQUITY PREMIER Columns rectify a

problem that has long-plagued chromatography analyses and enable scientists to create the best quantitative and qualitative analytical methods whether for discovery, development or quality control applications.”

Rising to the Challenge

Waters™ ACQUITY PREMIER Columns feature MaxPeak HPS technology, a hybrid organic/inorganic surface technology that forms a barrier surface layer between the sample and the stainless steel column. The benefits of this new technology are many, among them:

- increased sensitivity for low-level, metal-binding analytes that would otherwise go undetected and unseen
- better all-around peak shapes and peak capacity for more accurate analyte identification and data interpretation
- greater reproducibility for separations prone to adsorptive losses meaning less re-work or troubleshooting, and more confidence in results

Willy Verluyten and Irene Suarez with Janssen Pharmaceutica NV, Belgium, evaluated the columns for their own methods development work.

“The Waters ACQUITY PREMIER Peptide BEH C18 300Å Column shows an excellent degree of specificity and selectivity in denaturing and non-denaturing analysis of synthetic oligonucleotides, due to the absence of non-specific binding properties of this new column hardware in combination with great stationary phase performance,” says Verluyten. “The Waters ACQUITY PREMIER Column is a highly-valuable addition to our column test package for the future development of synthetic oligonucleotides analytical methods.”

From Challenge to Opportunity

The introduction of ACQUITY PREMIER Columns sheds light onto a well-known problem among scientists: the adsorption of sample analytes to the interior wall of steel analytical columns. This is a significant problem when analyzing metal-loving analytes ranging from organic acids and organophosphates to oligonucleotides, peptides, glycans and phospholipids. Organizations are known to spend days and tens of thousands of dollars of precious product (e.g. oligonucleotides), just to condition an LC column prior to analysis in order to minimize adsorptive analyte losses.

Kerri Smith, Principal Scientist, at Waters Corporation has studied organic acid metabolites that play a role in diabetes, cancer and heritable diseases. “If you lose a low-level analyte because of analyte-to-metal adsorption, and don’t detect it in its correct concentration, you’ll never understand if it’s playing an important role in the disease you are studying,” said Smith.

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manufactured with trusted sub-2-micron particle technologies; Bridged/Ethyl Hybrid (BEH) for maximum column stability, Charged Surface Hybrid (CSH) the best choice for mass spectrometry analysis, and High Strength Silica (HSS) for increased retention when analyzing challenging polar compounds. The columns are now available worldwide from Waters.

For more information about ACQUITY PREMIER Columns with MaxPeak HPS, download a free copy of the Waters white paper titled [Low Adsorption UPLC Columns Based on MaxPeak High Performance Surfaces](#).

Additional Resources

Learn more about ACQUITY PREMIER Columns from [this blog post](#)

Learn more about ACQUITY PREMIER Columns [on our web site](#)

Learn more about oligonucleotides analysis from [this applications note](#)

Learn more about peptide analysis from [this infographic](#)

About Waters Corporation (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 more than 7,000 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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