

[BIOACCORD SYSTEM WITH ACQUITY PREMIER]



Routine Biopharmaceutical Analysis – Accelerated

ACCESS | COMPLIANCE | QUALITY | EFFICIENCY



BioAccord[™]
SYSTEM

Waters

THE SCIENCE OF WHAT'S POSSIBLE.™

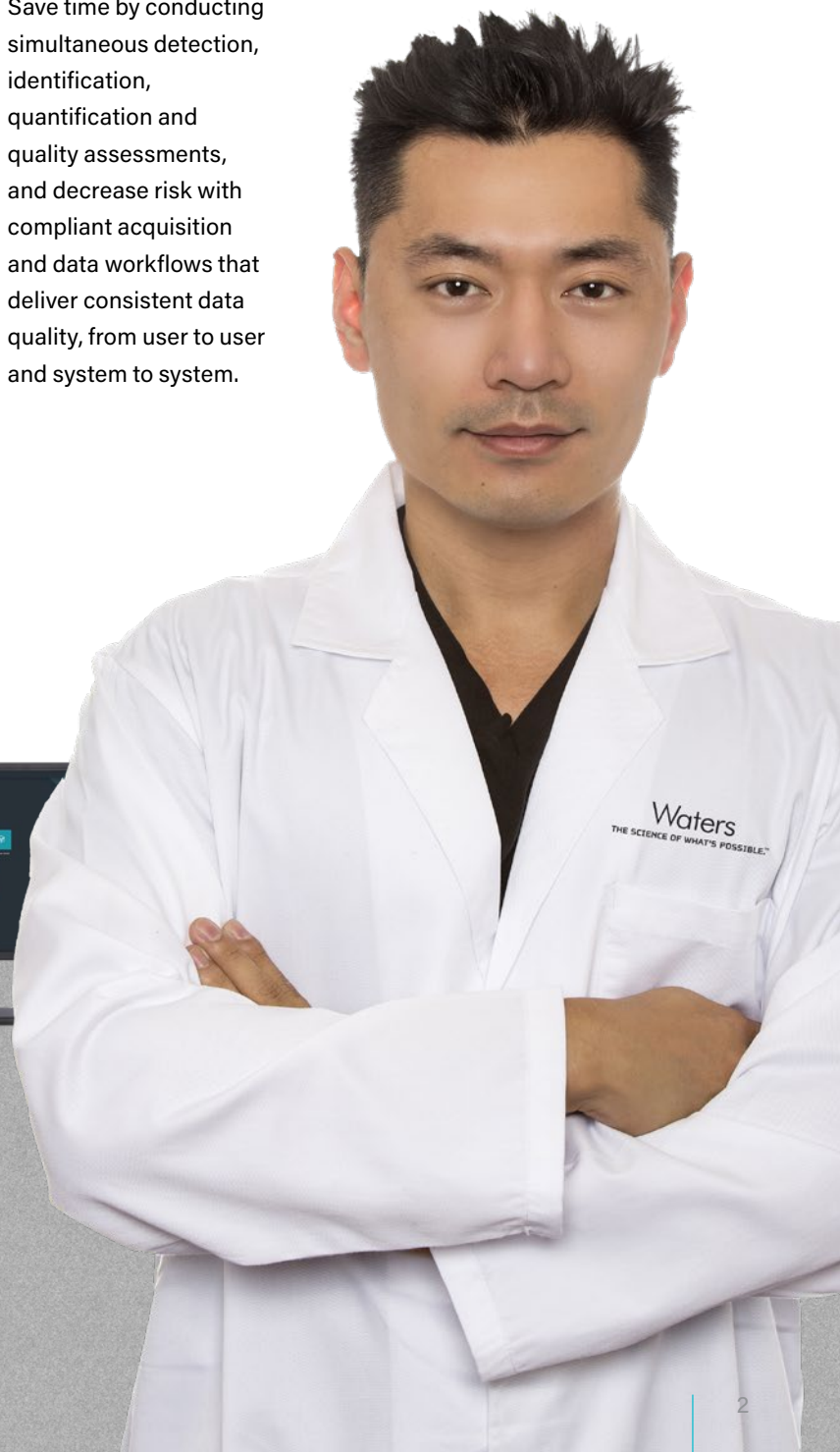
Improving lab efficiency without sacrificing results quality is critical, but that isn't easy. Now you can achieve high quality data while maximizing efficiency with the ability to measure multiple attributes within one LC-MS assay.

More insights. More efficiency. More confidence.

With **Waters BioAccord™ LC-MS System**, you can achieve greater insights through site-specific measurements of product quality attributes using compliant-ready data workflows, all in one platform.

You can analyze a broad range of product attributes, including intact molecules, subunits, digested peptides, or released glycans, all with greater sensitivity, selectivity, and dynamic range than traditional techniques.

Save time by conducting simultaneous detection, identification, quantification and quality assessments, and decrease risk with compliant acquisition and data workflows that deliver consistent data quality, from user to user and system to system.



The BioAccord System with ACQUITY™ Premier. The ACQUITY Premier technology contains flow paths, frits, and columns with MaxPeak™ High Performance Surfaces (HPS) to reduced metal surface adsorption of analytes.

An LC-MS for every lab

Broader LC-MS adoption has traditionally had two barriers to entry: cost and complexity, which have restricted the technology to central laboratories that can more easily manage concerns about system robustness, data consistency, and specialist operator requirements.

Now, more organizations than ever can access LC-MS technology with the BioAccord LC-MS System, designed specifically to conduct routine biopharmaceutical analysis while minimizing disruption through the power of SmartMS™ capabilities.

With BioAccord LC-MS System with ACQUITY Premier, you can:



Achieve fast time to value and consistent performance through automated set-up with SmartMS.



More easily diagnose and fix potential system issues with intelligent health checks in SmartMS.



Focus your team on what matters with a system that doesn't require LC-MS experts for routine operation.



Make more informed, data-driven decisions with trustworthy LC-MS data directly available at the point of decision-making.



Achieve the highest quality data in your lab, comparable to data previously available only from complicated and costly LC-MS systems used for characterization.



"My initial fear that we would need a full-time operator for this instrument did not come true. After a week we could operate the device and fully utilize the system. **The BioAccord cuts a fine figure in the biochemistry lab.**"

CHRISTIAN WINTER
PhD student, University Frankfurt

Data analysis you can trust

MORE TIME FOR DECISIONS, LESS ON DATA COLLECTION

Minimize the time spent generating data and maximize time for actions driven by the data with automated set-up and guided workflows. Use the streamlined workflows with the BioAccord LC-MS System for:

- Intact mass (proteins, subunits, oligonucleotides, mRNA fragments)
- Peptide mapping and multi-attribute methods (MAM)
- Released N-glycan analysis
- Impurity analysis for proteins, peptides, and oligonucleotides

In addition to these core workflows, the BioAccord System with ACQUITY Premier also supports methods like cell culture media analysis and lipid nanoparticle profiling.

DATA QUALITY UP, PRODUCTIVITY UP, MISSED PEAKS DOWN

Non-specific adsorption of metal sensitive compounds is unpredictable and challenging, leading to long system passivation times, large relative standard deviations (RSDs), and broad peaks that can be tough to detect.

BioAccord LC-MS System now incorporates ACQUITY Premier UPLC and Premier chemistries with MaxPeak High Performance Surfaces (HPS) Technology to improve system readiness and consistency for the separation and detection of metal sensitive analytes. Through the application of MaxPeak HPS Technology, you can:

- Increase recovery and consistent detection of problematic peptides for enhanced peptide map and MAM analysis.
- Achieve superior sensitivity and reproducibility for acidic glycans and lipids by minimizing analyte/surface interactions that lead to sample loss.
- Save time and improve productivity by reducing or eliminating passivation for robust oligonucleotide analyses.
- Minimize the risk of undetected peaks by minimizing metal-sensitive analyte loss, improving recovery and the limits of detection.

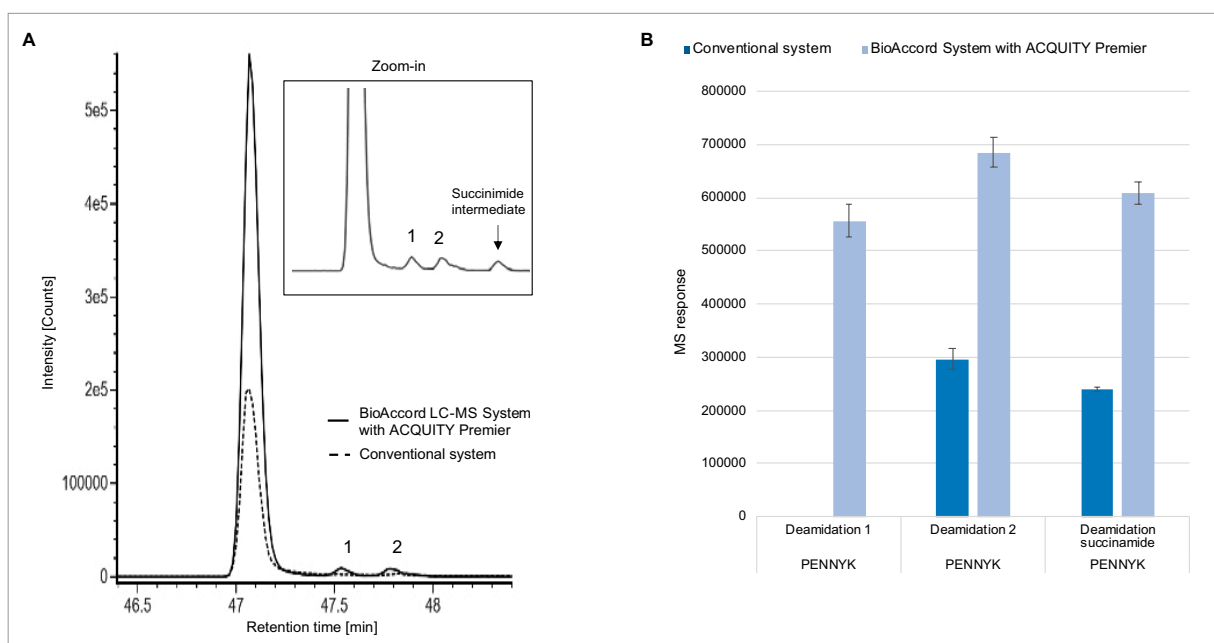


Figure 1. The figure (A) shows the extracted ion chromatograms (XIC) for GFYPSDIAVEWESNGQPENNYK (PENNY) peptide unmodified and deamidated peptides collected for NISTmAb digest. The chromatographic trace in solid line shows the XIC for PENNY peptides acquired on the BioAccord System with ACQUITY Premier. The inset shows all modification of PENNY peptide including succinimide modification. Figure (B) shows the total normalized peak area calculated for PENNY peptides using conventional and ACQUITY Premier systems.

Process workflows made efficient

QUALITY DATA, FASTER THAN EVER BEFORE

Quickly getting the quality data you need for your laboratory to stay productive is paramount – but deploying traditional LC-MS systems is often rather slow. The integrated nature of the BioAccord LC-MS System means the system can be deployed and users can be productive and generating data faster, all through the delivery of system and applications training with pre-defined biopharmaceutical methods.

With the BioAccord LC-MS System you can:

- **Ensure optimal system performance** with application-specific install testing.
- **Enable users to quickly get up to speed** with outcome-based application training.
- **Achieve high-quality data with existing personnel** or respond quickly to staff and project turnover challenges with the reduced training requirements.

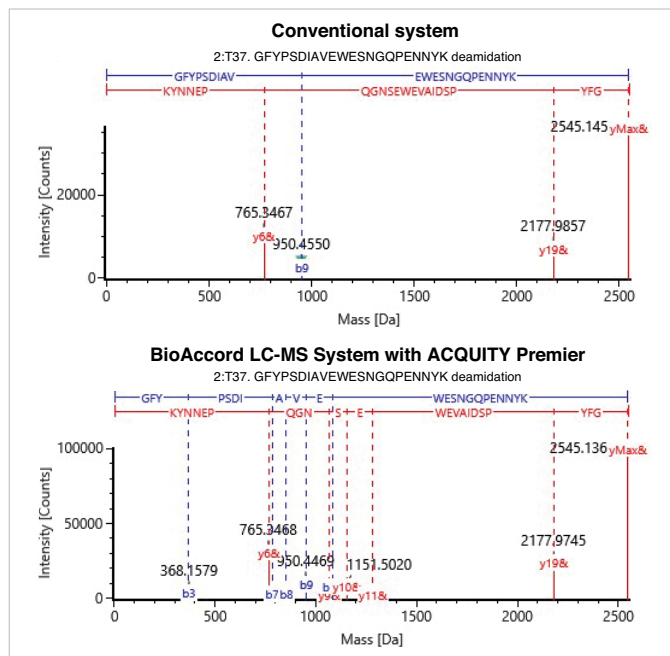


Figure 2. The b/y fragmentation spectra acquired for PENNY deamidation-2 on conventional and Premier systems. The spectra shows improved intensity for fragment ions on the BioAccord System with ACQUITY Premier compared to the b/y fragment ions of the deamidation-2 peptide on the conventional BioAccord System.



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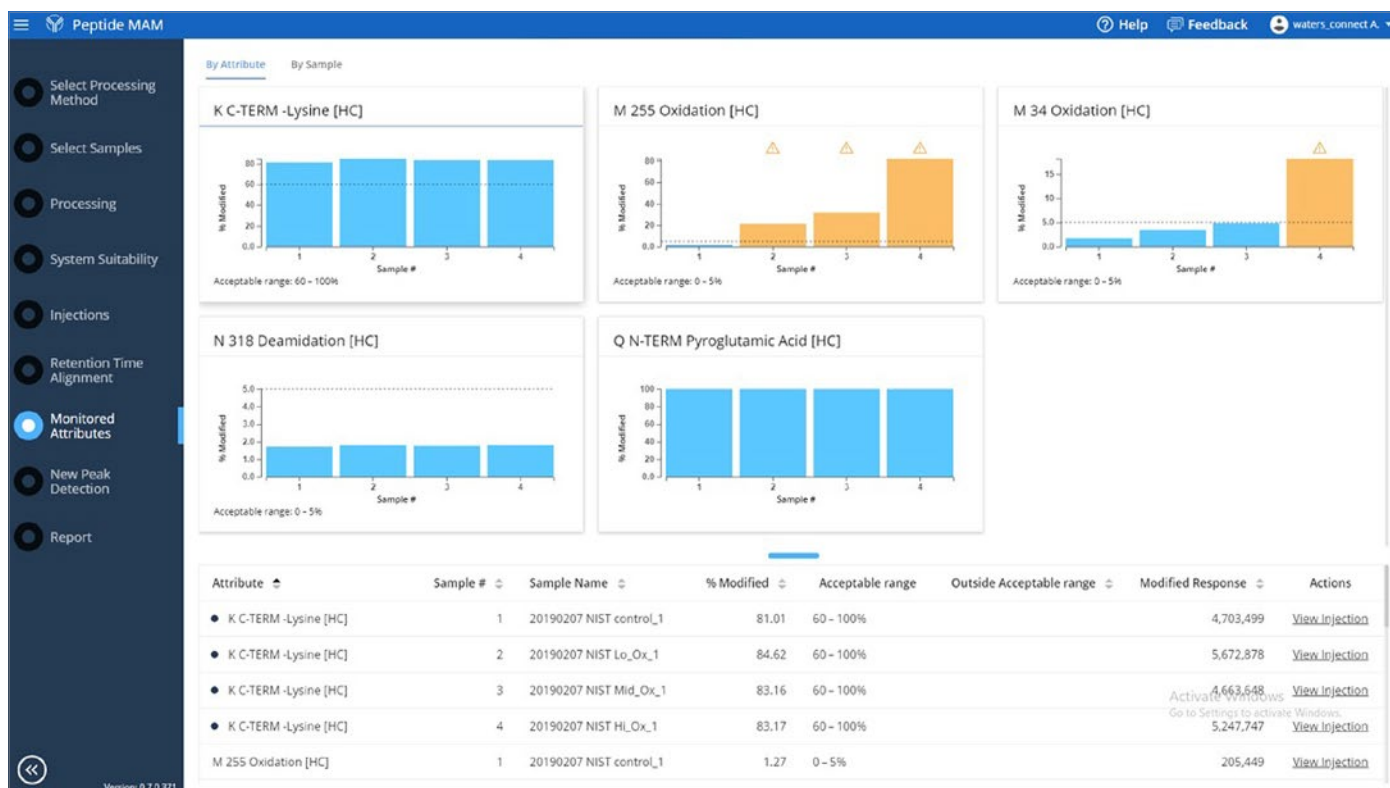


Figure 3. Visualize your data with intuitive and easy to review layouts. These results from a peptide MAM analysis show product quality attributes that are being monitored and flag those that are out of tolerance.

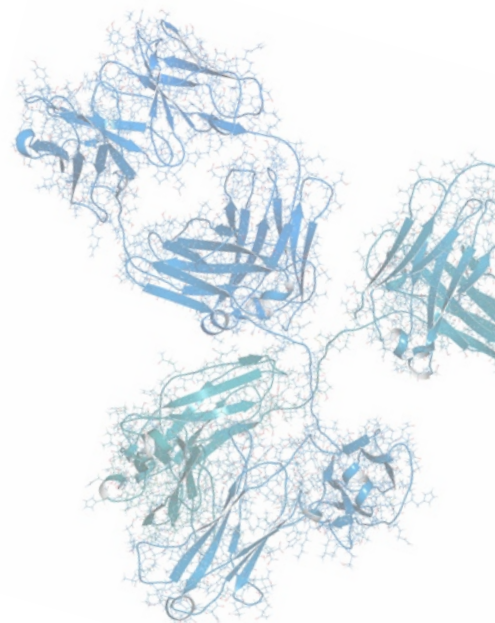
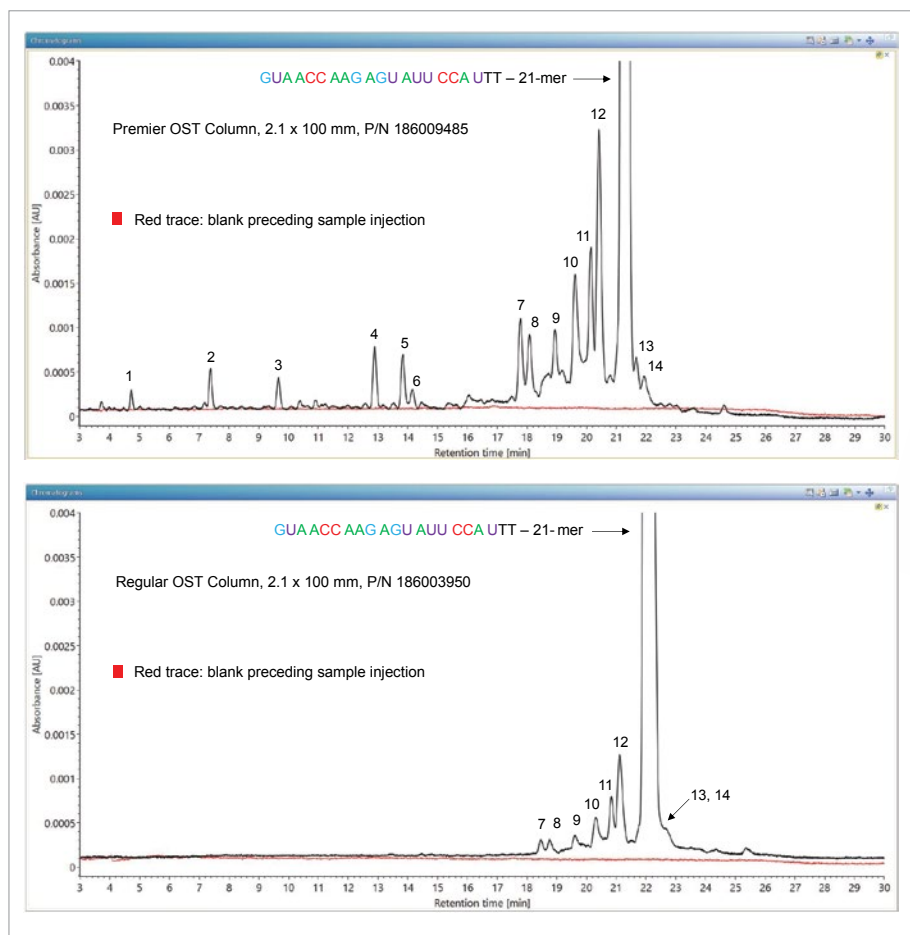


Figure 4. Oligonucleotide impurity analysis. Oligonucleotides adsorb readily onto metal surfaces. MaxPeak HPS Technology delivers better separation and recovery than conventional LC instruments and chemistries to the extent that low level impurities (1-5) for this 21-mer that were not previously detected can be clearly observed.

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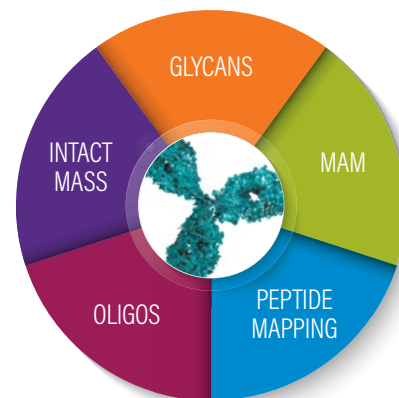
MEETING YOUR REGULATORY REQUIREMENTS, TOGETHER

Meeting every aspect of regulatory compliance and data integrity is critical to your laboratory, and those needs don't change because LC-MS technology is moving into the manufacturing and quality control (QC) release space.

Your data quality and compliance are our priority, too. The BioAccord System with ACQUITY Premier is built on the compliant-ready waters_connect™ informatics platform and backed by a long history at Waters of compliant informatics and professional qualification services to assist in proper deployment.

With Waters, you'll get:

- A single software platform based on a relational database
- A full audit trail for acquisition, processing, and reporting of data
- Administrator-configurable roles and permissions
- Network deployment of systems to support data integrity
- Characterization (Q-ToF) and BioAccord systems on the same network for efficient system, data, and information management
- Professional qualification services



The BioAccord LC-MS System with ACQUITY Premier has application-tailored workflows to efficiently convert samples into results.



 waters_connect



All LC, MS, PC, and Informatics components will be configured, shipped, and installed as a complete system. This ensures the system is ready to use quickly and assures system robustness to boost productivity.

waters.com/bioaccord

Visit videos.waters.com to see the
BioAccord LC-MS System in action

For your local sales
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