To the MAX

**Eliminate Doubt
with MaxPeak Premier Columns.**

MAXPEAK™
PREMIER

Waters™

Working with doubt.

When it comes to selecting an analytical column for your method, **uncontrolled interactions** between your analytes and the column hardware can cast **doubt** on the accuracy of the results.

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Working with doubt.

Why does it happen?

There are many reasons analytes can bind unexpectedly during an LC separation, but one of the most common causes is **ionic interactions**, where positive and negative charge attraction is at play (e.g. coulombic attraction).

How can binding be avoided?

The only way to suppress unwanted binding is to create an environment where the interactions aren't so strong, or prevent the interaction completely. That's where MaxPeak Premier Columns come in.

Unwanted interactions on metal surfaces

Adsorption to metal oxide surfaces in stainless steel and titanium.

Adsorption of acidic analytes increases as pH becomes more acidic, for example:

› Phosphorylated & carboxylated compounds

› Acidic proteins

› Phosphopeptides

› Oligonucleotides

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Eliminate doubt.
MaxPeak Premier Columns.

Achieve accurate results from your chromatographic separations with MaxPeak Premier Columns.

It's the family of columns with the technology you can rely on to not only hit your targets with absolute precision, but do it faster, with complete control, reproducibility, and confidence.
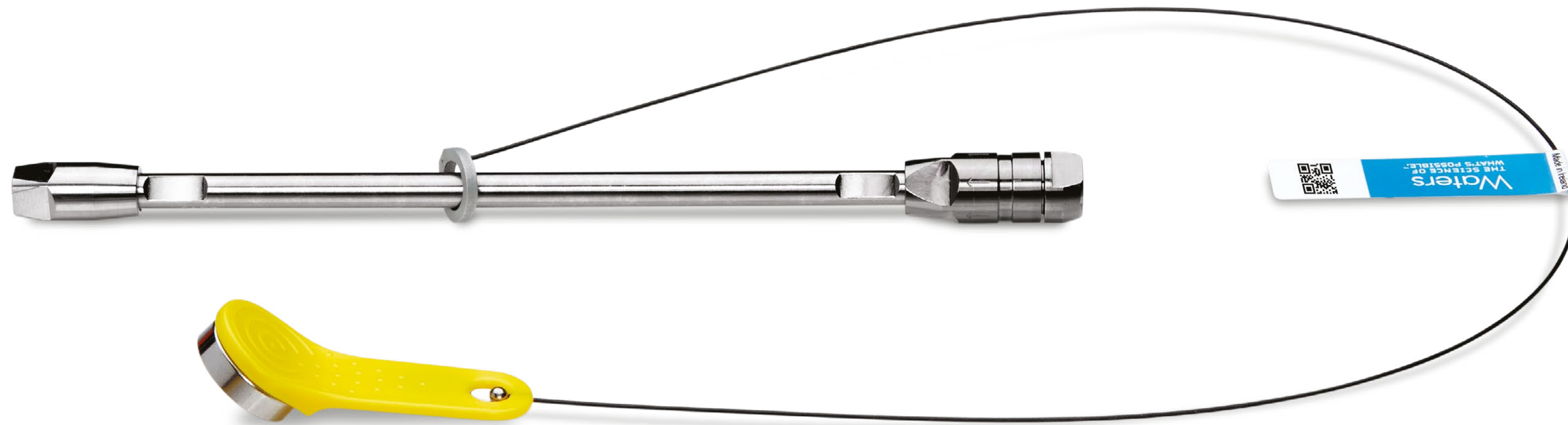
Eliminate doubt with faster results, have full control over your analyses, realize separations, and get reliable results from the start.

It's the reason more and more chromatographers are making the switch...

MAXPEAK™
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The ultimate solution for chromatographic separations

MAXPEAK™
PREMIER

Waters™

To the MAX

up to 10x
assay to assay precision*

30%
faster data processing

5x
increased sensitivity*

Eliminate Doubt.
—
MaxPeak Premier.

34,000
columns sold worldwide since 2020

UP TO 100% RECOVERY*

53%
LESS TAILING FOR ACIDS*

MAXPEAK™ PREMIER

Sources: https://www.waters.com/nextgen/ch/de/library/application-notes/2021/recovery-of-metal-sensitive-analytes-on-the-arc-premier-solution-system-to-system-reproducibility-and-a-multi-system-comparison-to-conventional-lc.html
https://www.waters.com/nextgen/en/library/application-notes/2021/challenge-accepted-arc-premier-system-increases-sensitivity-and-reproducibility-for-hard-to-see-compounds.html
https://www.waters.com/nextgen/ch/de/library/application-notes/2021/recovery-of-metal-sensitive-analytes-on-the-arc-premier-solution-system-to-system-reproducibility-and-a-multi-system-comparison-to-conventional-lc.html
https://www.waters.com/nextgen/en/library/application-notes/2021/challenge-accepted-arc-premier-system-increases-sensitivity-and-reproducibility-for-hard-to-see-compounds.html
https://www.waters.com/nextgen/ch/de/library/application-notes/2021/recovery-of-metal-sensitive-analytes-on-the-arc-premier-solution-system-to-system-reproducibility-and-a-multi-system-comparison-to-conventional-lc.html
https://www.waters.com/nextgen/en/library/application-notes/2021/challenge-accepted-arc-premier-system-increases-sensitivity-and-reproducibility-for-hard-to-see-compounds.html
Analytes: metoprolol, hydrocortisone phosphate, dexamethasone phosphate, prednisone, amitriptyline, dipropyl phthalate.
https://www.waters.com/waters/library.htm?cid=511436&lid=135082823&lcid=135082822
https://www.waters.com/waters/library.htm?cid=511436&lid=135082823&lcid=135082822

Waters™
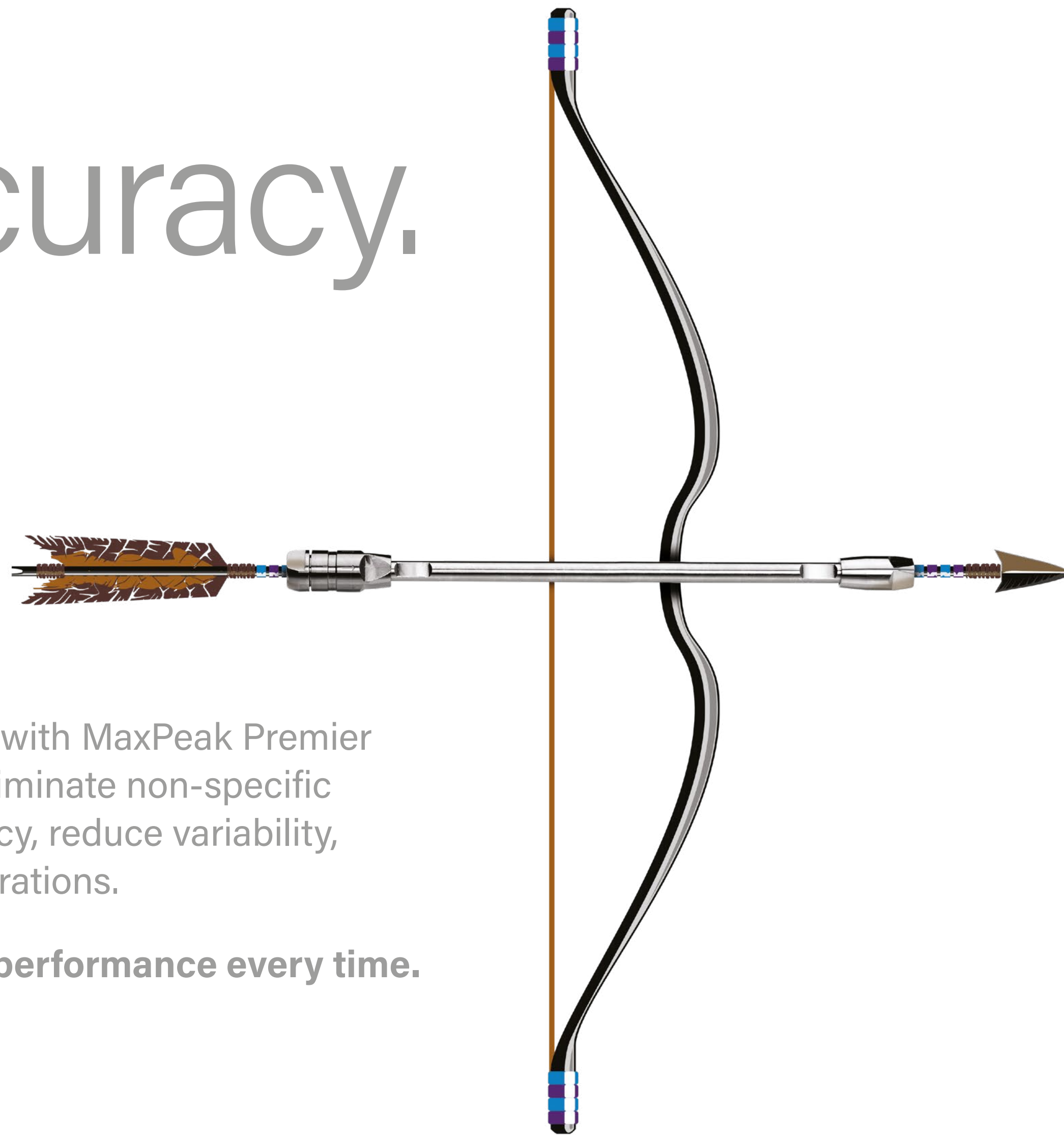
MAX accuracy.

Hit your targeted separation goals with MaxPeak Premier Columns – trusted columns that eliminate non-specific adsorption to improve data accuracy, reduce variability, and boost confidence in your separations.

Eliminate doubt with consistent performance every time.
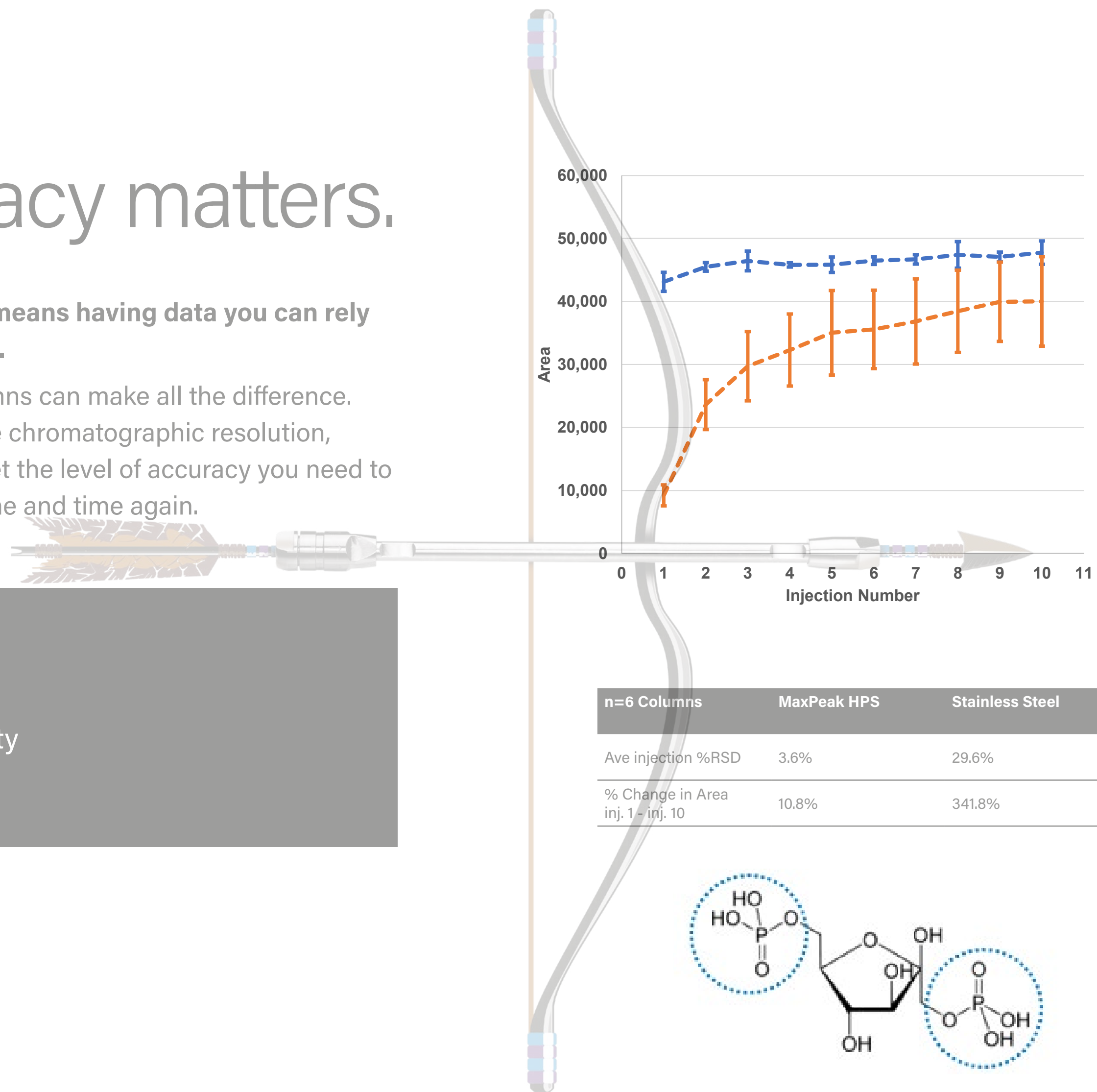
MAXPEAK™
PREMIER

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Why MAX accuracy matters.

Getting accurate data from your LC columns means having data you can rely on to make critical decisions about your work.

That's why switching to MaxPeak Premier Columns can make all the difference. Instead of the doubt that comes with inadequate chromatographic resolution, tailing peaks, and sub-optimal sensitivity, you get the level of accuracy you need to reach your separation goals with confidence, time and time again.

MaxPeak Premier Columns:

〉 Eliminate non-specific adsorption

〉 Improves accuracy & reduces variability

〉 Allows you to hit targets quickly

n=6 Columns	MaxPeak HPS	Stainless Steel
Ave injection %RSD	3.6%	29.6%
% Change in Area inj. 1 – inj. 10	10.8%	341.8%

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MAX control.

Get the control you need with MaxPeak Premier Columns – delivering predictable, reliable performance for routine chromatographic analyses. Manufactured in ISO-certified facilities with strict quality and supply controls, it's the one you can trust when you need it most.

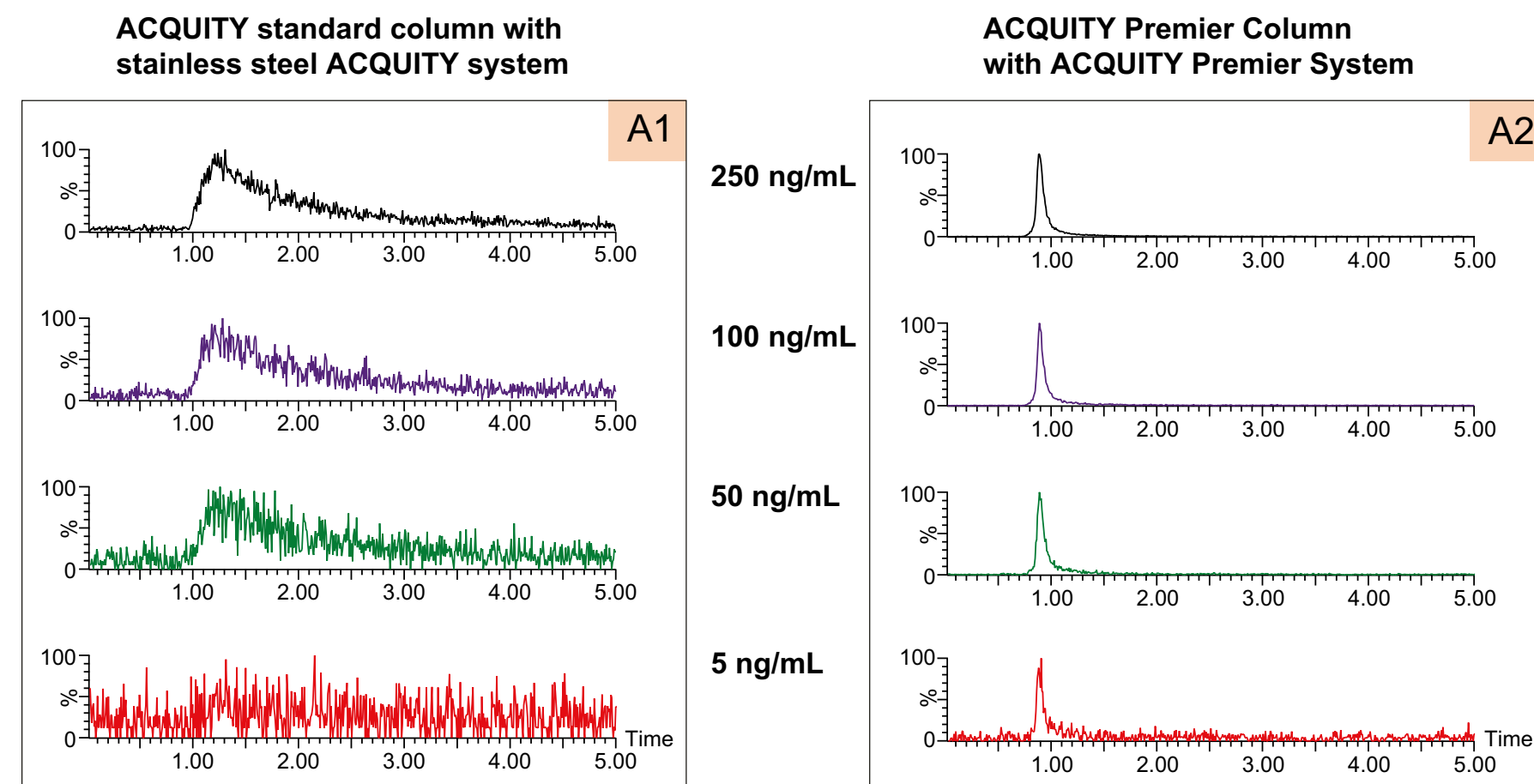**Eliminate doubt with control over your analytical separations and results.**

MAXPEAK™
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Why MAX control matters.

Having complete control over your separations means having control of your analytical results.

That's why using MaxPeak Premier Columns can help put your mind at ease. Instead of the doubt that comes with inconsistent, unpredictable performance, you can expect results from routine analyses you can rely on.

ACQUITY standard column with stainless steel ACQUITY system

A1

250 ng/mL

100 ng/mL

50 ng/mL

5 ng/mL

ACQUITY Premier Column with ACQUITY Premier System

A2

MaxPeak Premier Columns:

› Are made in ISO-certified manufacturing plants

› Deliver predictable performance

› Deliver superior peak shape for phosphorylated and carboxylated analytes

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MAX speed.

Get faster results with MaxPeak Premier Columns – helping you avoid time-consuming column conditioning that comes with non-specific adsorption, so you can achieve the speed you need to get your projects to market quickly.

Eliminate doubt with robust separations and quicker results.
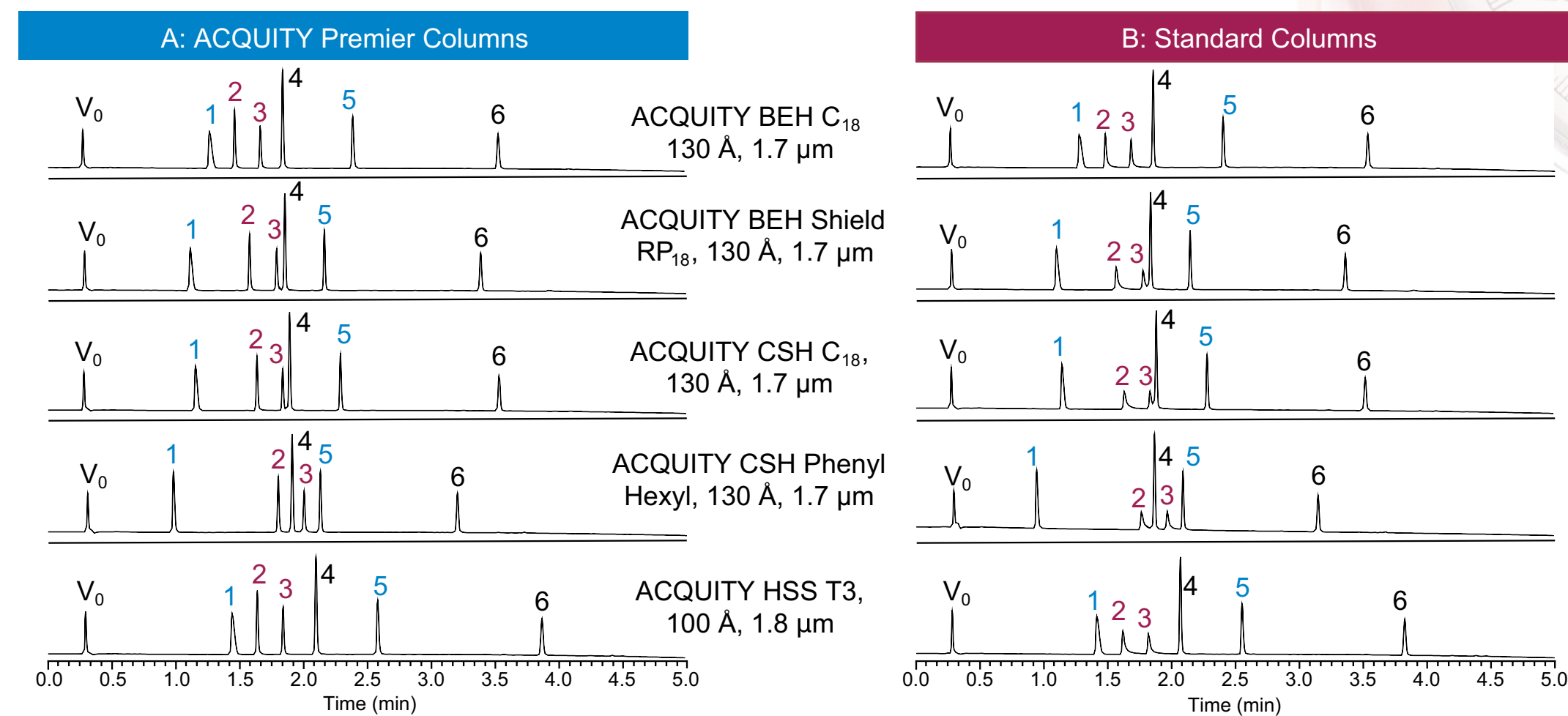
MAXPEAK™
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Why MAX speed matters.

Being able to carry out analyte testing without lengthy column conditioning means being able to get your products to market faster.

That's why choosing MaxPeak Premier Columns matters. Instead of the doubt that comes with navigating time frame and roadblocks, you can expect right-first-time results for a faster route to market.

MaxPeak Premier Columns:

› Delivery right-first-time results

› Save time and costs in lengthy analysis

› Allows you to get your product to market faster

MAX reproducibility.

Achieve reproducible chromatography with MaxPeak Premier Columns – providing cost and time savings in method development through quality control with trusted results. Which means you can spend more time delivering therapies and less time opening investigations.

Eliminate doubt with robust separations you can count on, batch to batch, year to year.
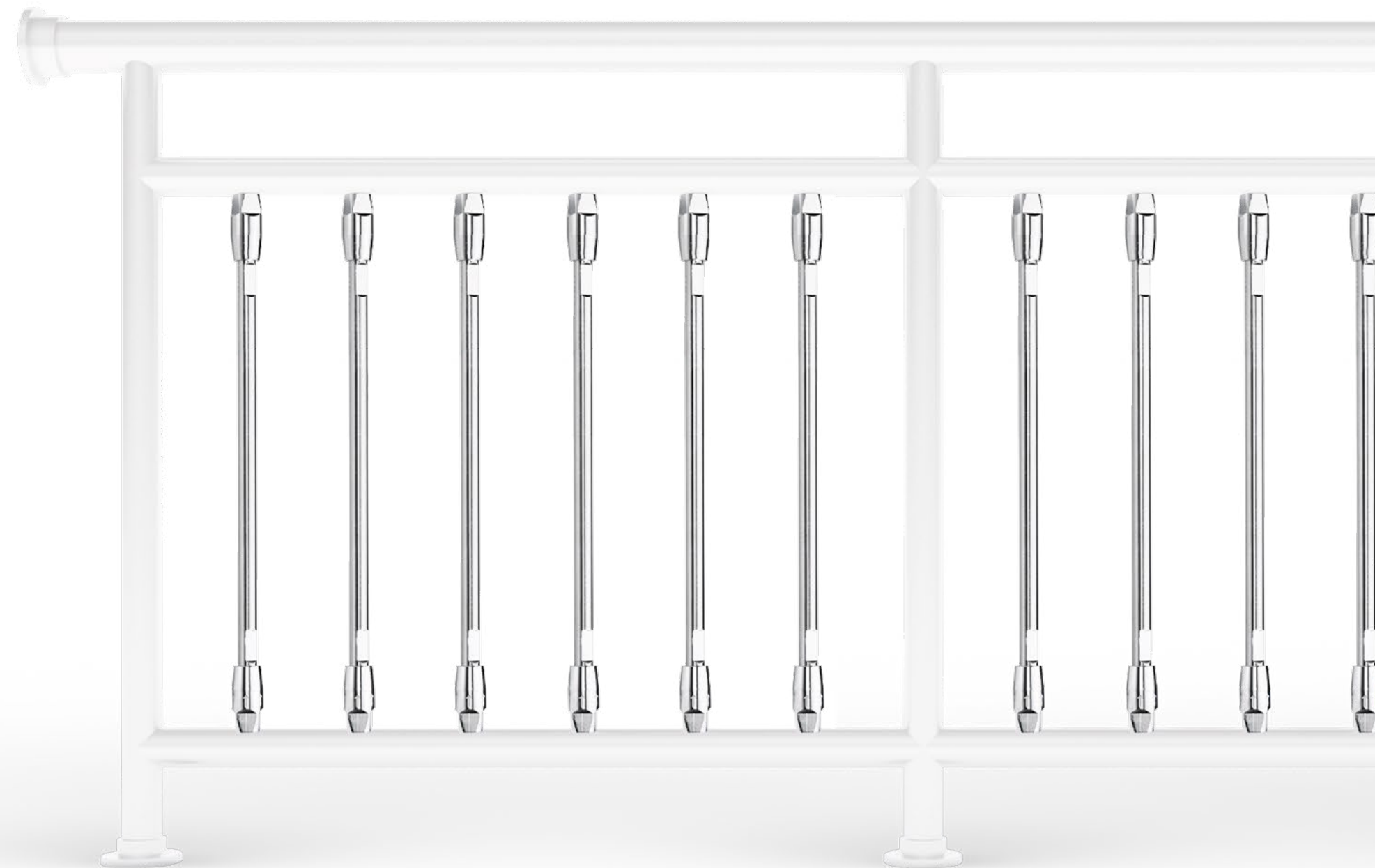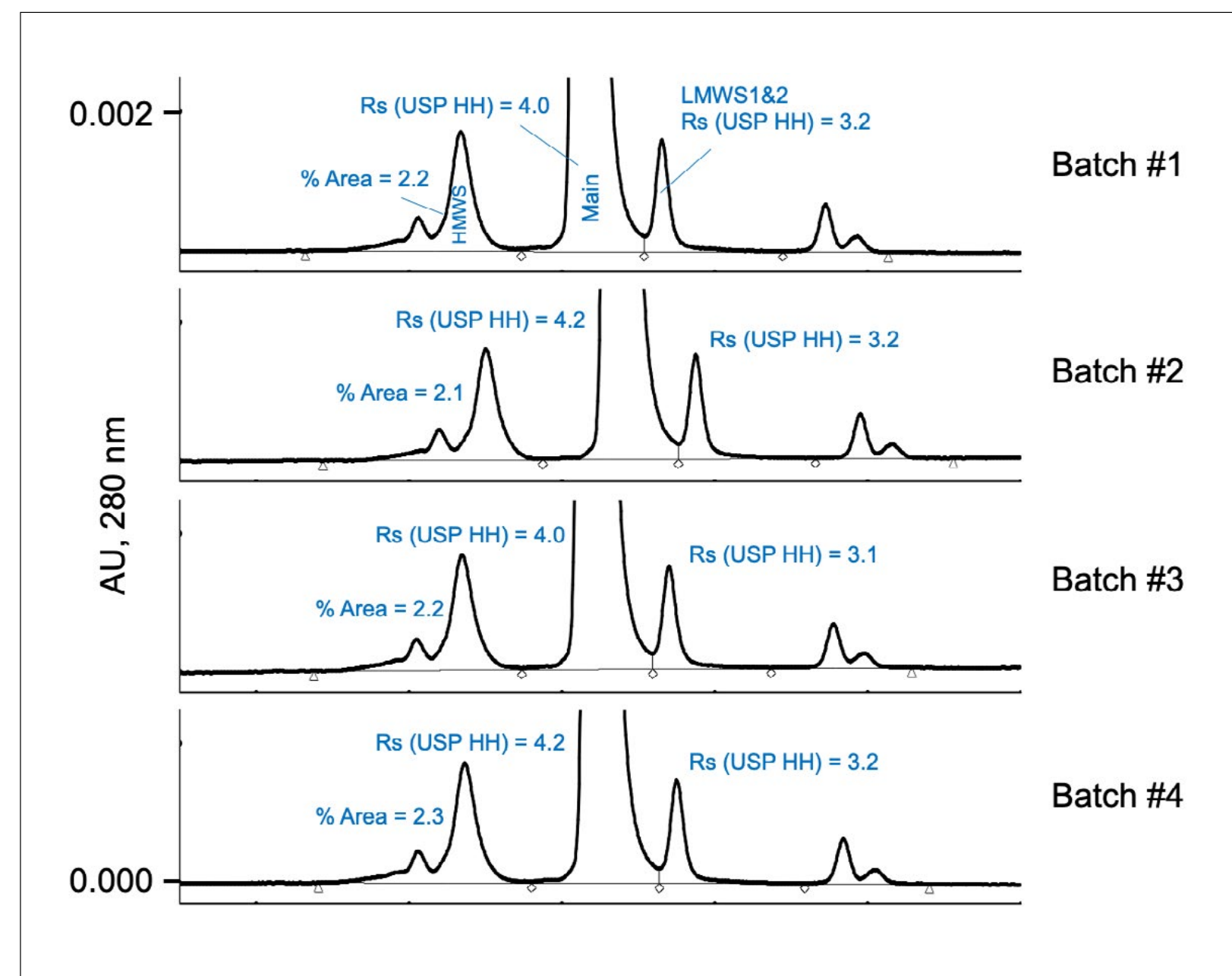
MAXPEAK™
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Why MAX reproducibility matters.

Having a fully reproducible method for your separations means saving time and costs for years to come.

That's why using MaxPeak Premier Columns can make a lasting impact. Instead of discrepancies from non-specific adsorption getting in the way, you can focus on the job at hand, injection after injection.

MaxPeak Premier Columns:
› Offer time and cost savings

› Provide consistency

› Deliver lasting performance

MAX confidence.

Trust in your analytical data with MaxPeak Premier Columns – knowing all peaks have been detected without time-consuming column passivation compensating for non-specific adsorption losses. Leaving you to develop, validate, transfer, and release your methods with confidence.

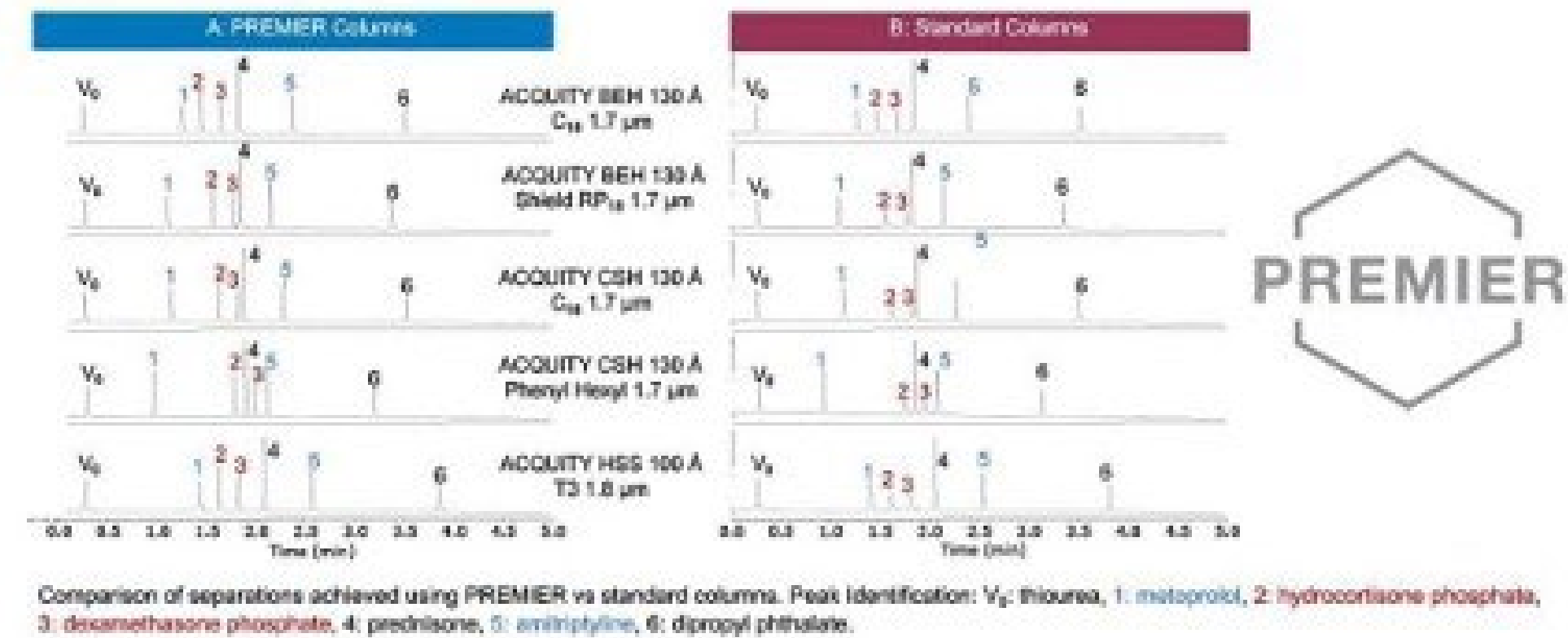**Eliminate doubt with reliable results from the start.**

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Why **MAX** confidence matters.

Working with consistent analytical data from the start means you can develop the robust methods you need across all types of applications.

That's why choosing MaxPeak Premier Columns can give you a boost. Instead of concerns about compatibility with different LC systems and platforms, you can be sure your methods work with all modern chromatographic detection modes.

Comparison of separations achieved using PREMIER vs standard columns. Peak identification: V₀: thiourea, 1: metoprolol, 2: hydrocortisone phosphate, 3: dexamethasone phosphate, 4: prednisone, 5: amitriptyline, 6: dipropyl phthalate.

MaxPeak Premier Columns:

> Allow quick and easy method development

> Deliver on compatibility

> Enhance efficiencies

MAXPEAK™
PREMIER

Waters™

MAX endorsed.

MaxPeak Premier Columns continue to raise the bar in the scientific world, setting a whole new standard in testing. But don't just take our word for it. See what researchers all over the world are saying about the difference.

"Astonishing separation with maximal resolution and confidence"

Rating: 4.7 ★★★★★

Application Area: LC-MS

Waters LC columns have been my choice for a long time now. When the PREMIER column was presented I finally found the absolute best solution for my LCECD system. All previous problems disappeared, now I do not need to wash my column for 3 days to eliminate contamination from metal particles, the system is stable for a long period, and we reduce polishing gold flow cell from once a week to once a month. Peaks are narrower and I can see and quantify impurities with confidence. PREMIER column are proof the Waters is truly a pioneer in liquid chromatography, and all others follow in its footprints.

"Smooth method transfer and significantly lower carry-over for sticky peptides"

Rating: 5.0 ★★★★★

Application Area: Peptide analysis

At our lab we were already using the Waters Acquity HSS-T3 column for the analysis of peptides with very satisfying results. For some peptides, significant carry-over was visible. To minimize carry-over, the Acquity Premier HSS-T3 column was purchased. For us, it was very important that the column would give similar retention times since we are analyzing a lot of peptides in one single run in a routine method. With the Acquity Premier column, the retention times were identical to the Acquity HSS-T3 column, moreover, the carry-over was significantly lower. Price of the Acquity Premier column is comparable to other UHPLC columns.

"An excellent degree of specificity and selectivity"

Rating: 4.0 ★★★★☆

Application Area: TBA

The Waters [MaxPeak] 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. The Waters [MaxPeak] ACQUITY Premier Column is a highly valuable addition to our column test package for the future development of synthetic oligonucleotides analytical methods.

"Material modifications that maintain all the best properties... will be transformative"

Rating: 4.0 ★★★★☆

Application Area: TBA

Mitigation of deleterious analyte interactions with chromatographic columns and systems has always plagued separations scientists striving for perfect peak shapes and recoveries. Material modifications that maintain all the best properties of stainless steel while reducing or even eliminating these secondary binding events will be transformative. Removal of internal passivation procedures and skipping mobile phase additives to address chelation is exciting and is something we are looking forward to exploring more!

Separation, Lab Automation & Lab Equipment winner at Wiley Analytical Science Awards 2023

Wiley Analytical Science Award

Runner up for Best New Separations Product at Analytical Sciences Choice Awards 2021

SCIENTISTS' CHOICE AWARDS

MAXPEAK™ PREMIER

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MAXPEAK Premier Columns

When it comes to liquid chromatography, there's a MaxPeak Premier Column for virtually every application.

Isn't it time you considered taking your work to the MAX?

Learn more about the MaxPeak Premier Column range

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Your questions answered.