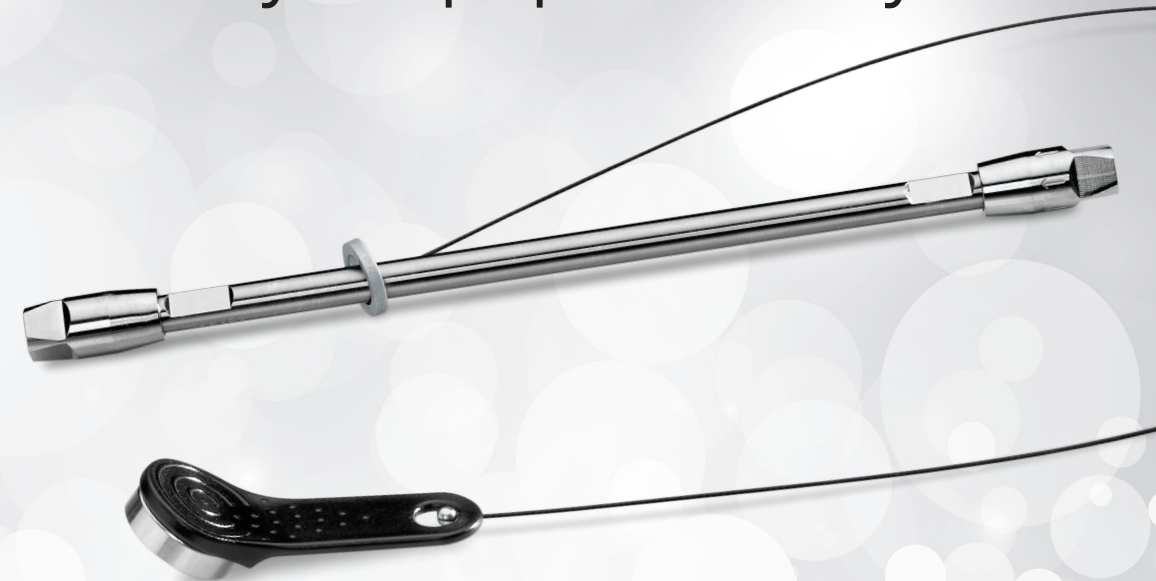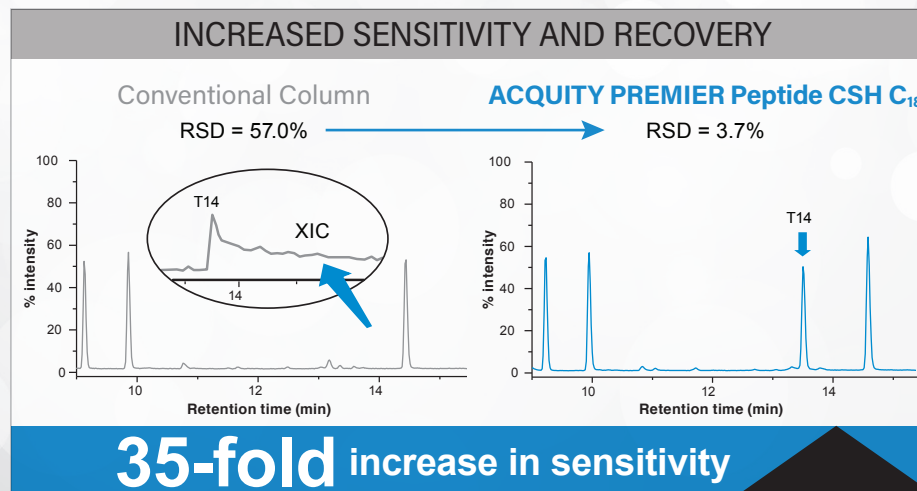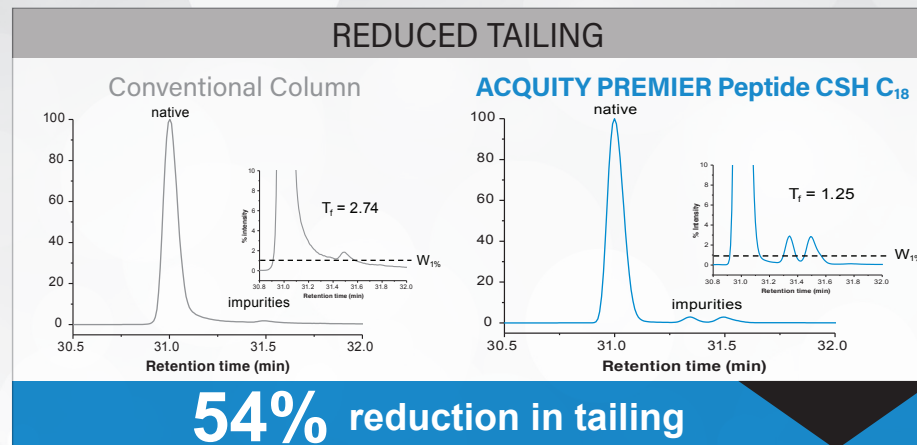# What can ACQUITY PREMIER do for your peptide analysis?

PREMIER

Ensure PREMIER performance for ALL separations

ACQUITY™ PREMIER solutions utilize MaxPeak™ High Performance Surfaces that are designed to increase analyte recovery, sensitivity, and reproducibility by minimizing analyte/surface interactions that can lead to sample losses.

MAXPEAK HPS™

REDUCED TAILING

Conventional Column

ACQUITY PREMIER Peptide CSH C_{18}

native — $T_f = 2.74$ — $W_{1\%}$ — impurities

native — $T_f = 1.25$ — $W_{1\%}$ — impurities

Retention time (min)

54% reduction in tailing

INCREASED SENSITIVITY AND RECOVERY

Conventional Column — RSD = 57.0%

ACQUITY PREMIER Peptide CSH C_{18} — RSD = 3.7%

T14 — XIC

T14

Retention time (min)

35-fold increase in sensitivity

Precision chemistry for particles and surfaces
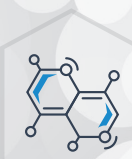
Progressive, integrated technologies

Protection from RISK

Performance without sacrifice for ALL analytes

**Corrosion resistance to prevent column and MS fouling leachates**

Hybrid inorganic/ organic LC surfaces to protect metal-sensitive analytes

Waters
THE SCIENCE OF WHAT'S POSSIBLE™

PREMIER

Each batch of peptide particle material is chromatographically tested with digested peptides as part of peptide mapping qualification. The results are held to narrow specification ranges to assure excellent, reproducible performance.

HYBRID ORGANIC/INORGANIC TECHNOLOGY

PARTICLES   SURFACES
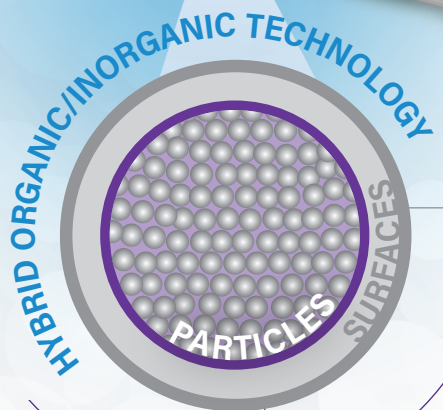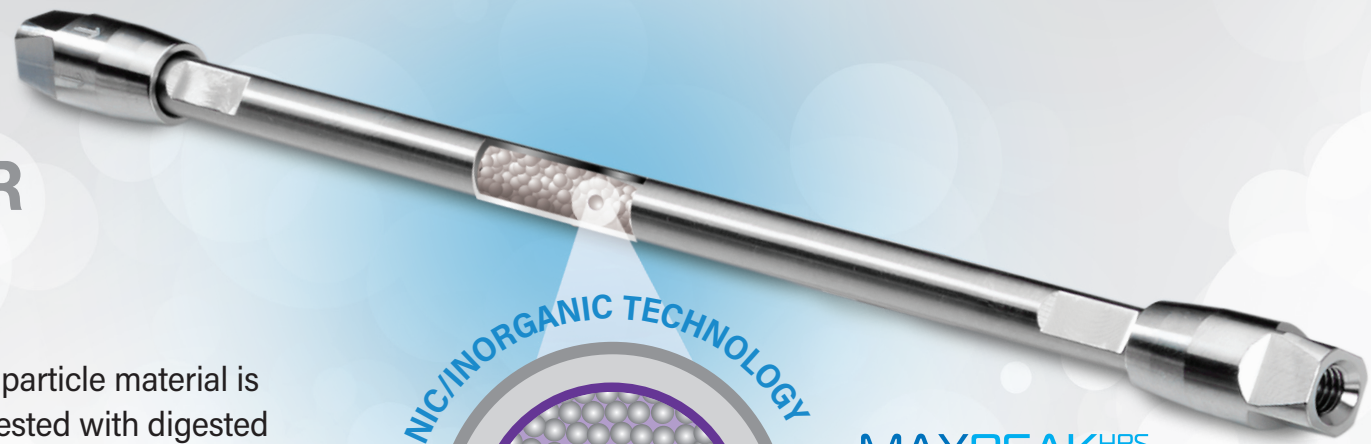
MAXPEAK HPS™

HSS
HIGH STRENGTH SILICA

BEH Technology™

Trifunctional C_{18} ligand, fully end-capped and bonded to the **Ethlyene-Bridged Hybrid (BEH)** particles.
- Outstanding peak capacity and superior peak shape in TFA, DFA, and FA
- Two pore sizes (130 Å and 300 Å) providing different separation selectivities

CSH™ Technology

Trifunctional C_{18} ligand, fully end-capped, bonded to the **Charged Surface Hybrid (CSH™)** particles.
- Accepts greater peptide mass loads for detection of low-level impurities
- Excellent performance with TFA for optical applications, FA for MS applications, and DFA for dual detection.

Trifunctional C_{18} ligand, fully end-capped, bonded to **High Strength Silica (HSS)** particles.
- Ideal choice for the separation of small, hydrophobic peptides since retentivity is greater than that obtained with Waters hybrid-based peptide separation columns.

Ordering Information

ACQUITY PREMIER Peptide Columns

Description	Dimension	Part Number
BEH C_{18}, 130 Å, 1.7 µm	2.1 x 50 mm	186009481
	2.1 x 100 mm	186009482
	2.1 x 150 mm	186009483
CSH C_{18}, 1.7 µm	2.1 x 50 mm	186009487
	2.1 x 100 mm	186009488
	2.1 x 150 mm	186009489
HSS T3, 1.8 µm	2.1 x 50 mm	186009490
	2.1 x 100 mm	186009491
	2.1 x 150 mm	186009492
BEH C_{18}, 300 Å, 1.7 µm	2.1 x 50 mm	186009493
	2.1 x 100 mm	186009494
	2.1 x 150 mm	186009495

For Method Validation Kit (MVK) part numbers, visit waters.com/PREMIER.

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