DISCOVER

THE NEW

HALO® AQ-C18

100% Aqueous Compatible

HALO®

advancedmaterialstechnology

INTRODUCING HALO® 90Å AQ-C18

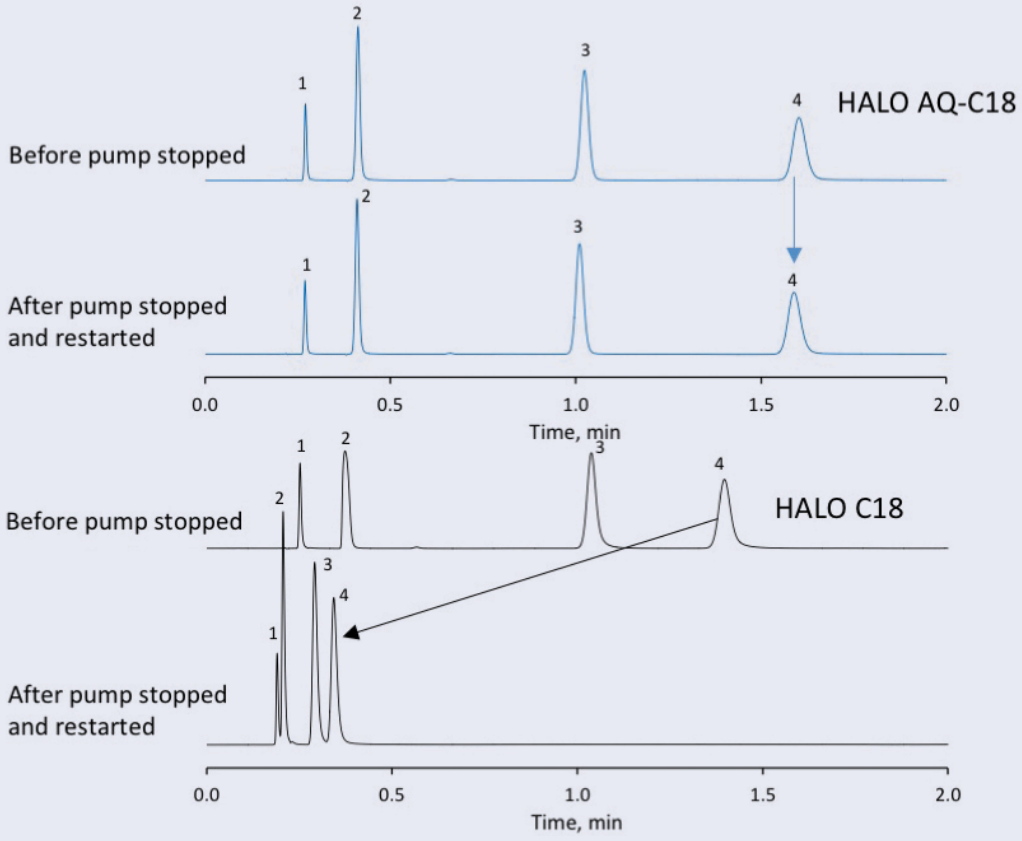
Introducing the new HALO® AQ-C18, a new bonded phase that is available on the Fused-Core® 2.7 µm superficially porous particle design with a 0.5 µm shell and 90Å pores. The AQ-C18 is a C18 bonded phase prepared using a proprietary procedure that increases phase polarity, making the AQ-C18 an excellent alternative C18 to consider, especially in aqueous mobile phases. HALO AQ-C18 is very complimentary to classic HALO C18 and extends C18 usefulness to 100% aqueous mobile phases.

Advantages of the New AQ-C18:

- Resistant to dewetting and compatible with 100% aqueous mobile phases
- Different selectivity than HALO C18, offering another option to resolve difficult peak pairs
- Retains polar molecules more than classic C18 phases under most mobile phase conditions

RESISTANCE TO DEWETTING

Figure 1. The unique polar modified bonded phase of HALO AQ-C18 enables it to be run in 100% aqueous mobile phase without experiencing loss in retention due to dewetting when pressure is relieved. The retention is nearly 100% maintained compared to the HALO C18 after the pump is stopped and restarted.



TEST CONDITIONS:

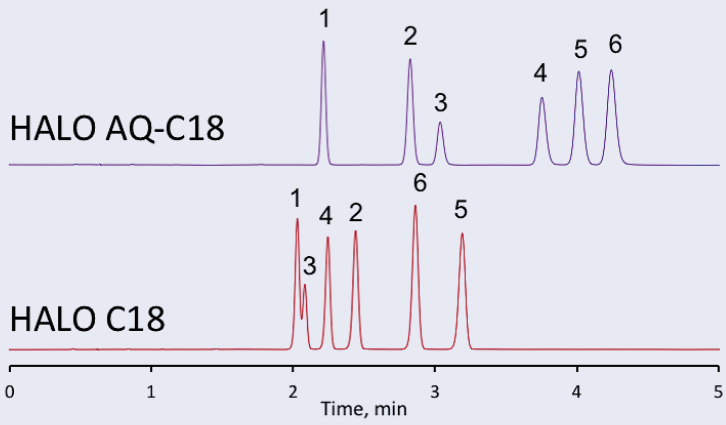
Column: 4.6 x 50 mm
Top: HALO 90Å AQ-C18, 2.7 µm
Bottom: HALO 90Å C18, 2.7 µm
Part Numbers:
Top: 92814-422
Bottom: 92814-402

Mobile Phase: 100% 20 mM Potassium Phosphate buffer, pH 7
Flow Rate: 2 mL/min
Temperature: 30 °C

Detection: 254 nm
Injection: 0.5 µL
Sample: (1) thiourea, (2) 5-fluorocytosine, (3) adenine and (4) thymine

INCREASED RETENTION FOR POLAR COMPOUNDS — DIFFERENT SELECTIVITY

Figure 2. The HALO AQ-C18 column exhibits increased retention of polar compounds along with a different elution order relative to the HALO C18.

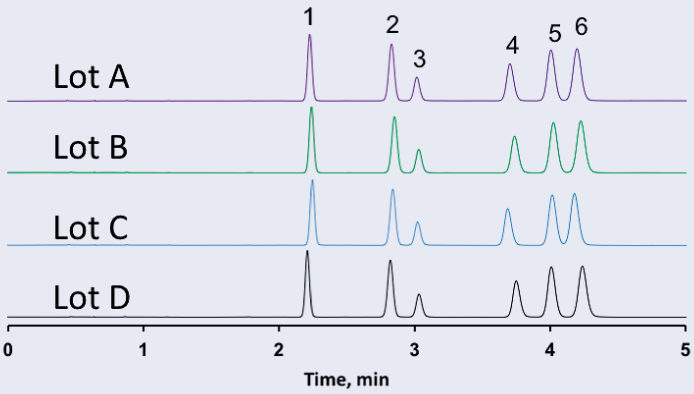


TEST CONDITIONS:

Column: 4.6 x 100 mm
Top: HALO 90Å AQ-C18, 2.7 µm
Bottom: HALO 90Å C18, 2.7 µm
Part Numbers:
Top: 92814-622
Bottom: 92814-602
Mobile Phase A: Water
Mobile Phase B: Methanol
Isocratic: 50/50 A/B
Flow Rate: 1.3 mL/min
Temperature: 35 °C
Detection: 254 nm
Injection: 0.5 µL
Sample: (1) cinnamyl alcohol, (2) 4-bromoacetanilide, (3) nitrobenzene, (4) 3,4-dinitrotoluene, (5) anisole and (6) 2,4-dinitrotoluene

LOT-TO-LOT REPRODUCIBILITY

Figure 3. The manufacturing process of HALO 90Å AQ-C18 is highly controlled, which results in a reproducible product as demonstrated by the lot-to-lot comparisons in Figure 3. The percent RSDs for the retention factors are all below 1.5% while the alpha values of adjacent peaks have percent RSDs lower than 1%.

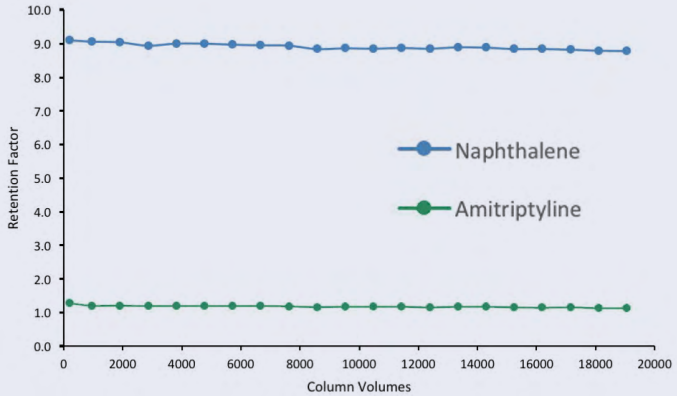


TEST CONDITIONS:

Column: 4.6 x 100 mm
HALO 90Å AQ-C18, 2.7 µm
Part Number: 92814-622
Mobile Phase A: Water
Mobile Phase B: Methanol
Isocratic: 50/50 A/B
Flow Rate: 1.3 mL/min
Temperature: 35 °C
Detection: 254 nm
Injection: 0.5 µL
Sample: (1) cinnamyl alcohol, (2) 4-bromoacetanilide, (3) nitrobenzene, (4) 3,4-dinitrotoluene, (5) anisole and (6) 2,4-dinitrotoluene

HIGH STABILITY AT LOW PH

Figure 4. Stability of the HALO 90Å AQ-C18 columns is demonstrated using pH 2 mobile phase conditions. The retention is maintained after 19,000 column volumes.



TEST CONDITIONS:

Column: 2.1 x 50 mm
HALO 90Å AQ-C18, 2.7 µm
Part Number: 92812-422
Mobile Phase A: 50 mM KCl/HCl, pH 2
Mobile Phase B: Acetonitrile
Isocratic: 60/40 A/B
Flow Rate: 1.0 mL/min
Pressure: 235 bar
Temperature: 60 °C
Detection: 254 nm
Injection: 0.5 µL
Sample: (1) amitriptyline and (2) naphthalene

ACT NOW

Contact your local distributor to be among the first to experience these new HALO® columns!

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HALO®

HALO AQ-C18			
Dimension - ID x length (mm)	Part No.	Dimension - ID x length (mm)	Part No.
2.1 x 20	92812-222	3.0 x 100	92813-622
2.1 x 30	92812-322	3.0 x 150	92813-722
2.1 x 50	92812-422	3.0 x 250	92813-922
2.1 x 75	92812-522	4.6 x 20	92814-222
2.1 x 100	92812-622	4.6 x 30	92814-322
2.1 x 150	92812-722	4.6 x 50	92814-422
2.1 x 250	92812-922	4.6 x 75	92814-522
3.0 x 20	92813-222	4.6 x 100	92814-622
3.0 x 30	92813-322	4.6 x 150	92814-722
3.0 x 50	92813-422	4.6 x 250	92814-922
3.0 x 75	92813-522		

HALO AQ-C18 Guard Columns, 3/Pack	
Dimension - ID x length (mm)	Part No.
2.1 x 5	92812-122
3.0 x 5	92813-122
4.6 x 5	92814-122
Guard Column Holder (1)	94900-001

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