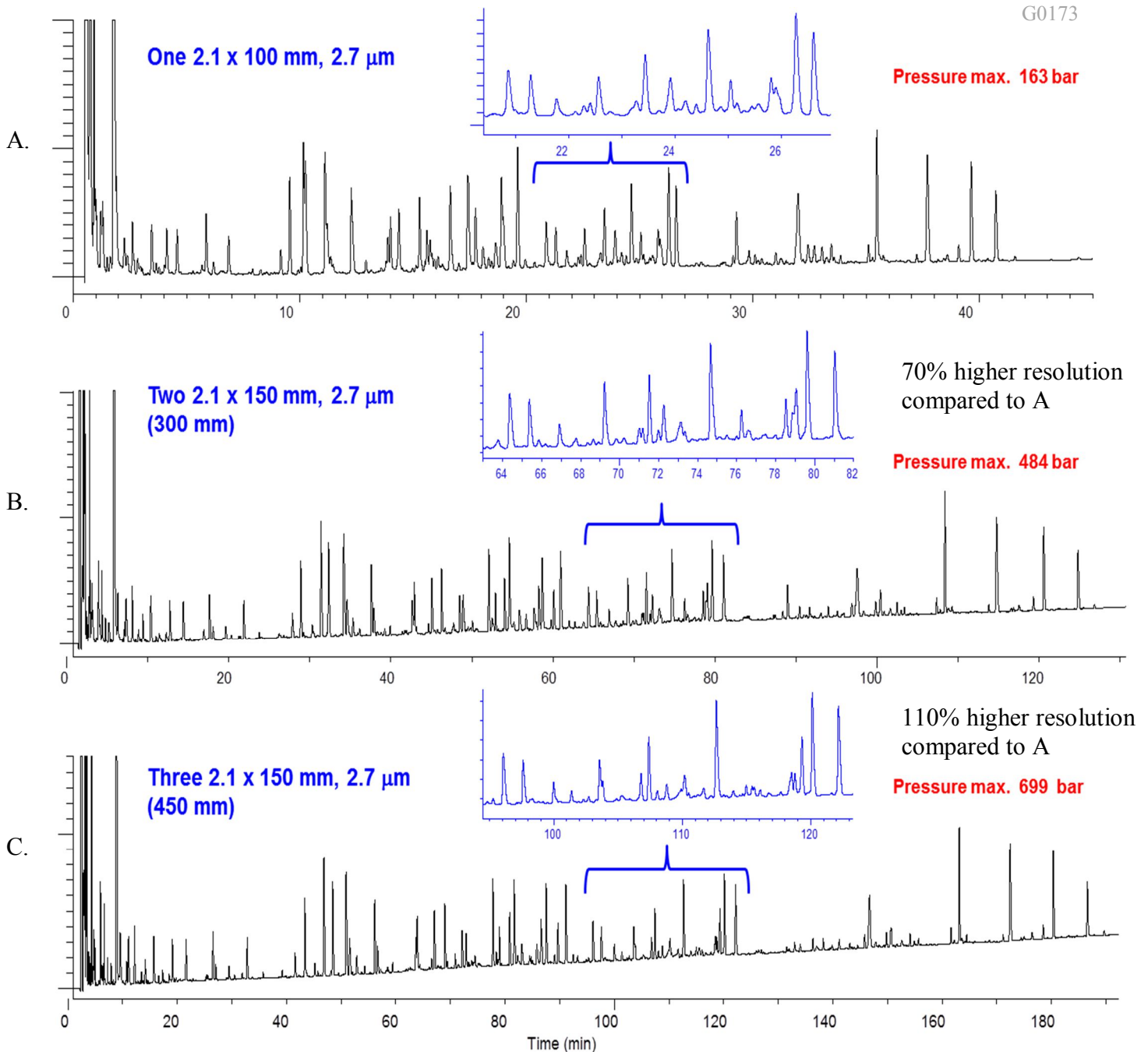


# HALO | Fused-Core® Particle Technology

Application Note: 179-PE

## Analysis of Apotransferrin Tryptic Digest on HALO® Peptide Columns

G0173



[www.advanced-materials-tech.com](http://www.advanced-materials-tech.com)

© HALO and Fused-Core are registered trademarks of Advanced Materials Technology, Inc.

FOR MORE INFORMATION OR TO  
PLACE AN ORDER, CONTACT:

# HALO | Fused-Core® Particle Technology

Application Note: 179-PE

## TEST CONDITIONS:

Column: HALO 160 Å ES-C18, 2.7 µm

Part Number: 2.1 x 100 mm 92122-602

Part Number: 2.1 x 150 mm 92122-702

Flow Rate: 0.4 mL/min

Temperature: 60°C

Mobile Phase A: water with 0.1% TFA

Mobile Phase B: 80/20 acetonitrile/ water with 0.1% TFA

Detection: UV 215 nm, PDA

Injection Volume: 10 µL

Gradient A:	<u>Time</u>	<u>%B</u>
	0.0	5
	60	60

Sample Solvent: water

Gradient B:	<u>Time</u>	<u>%B</u>
	0.0	5
	180	60

Data Rate: 40 Hz

Response Time: 0.05 sec

Gradient C:	<u>Time</u>	<u>%B</u>
	0.0	5
	270	60

Flow Cell: 1 µL

LC System: Shimadzu Nexera X2

The chromatograms on the preceding page show a comparison of an apotransferrin tryptic digest sample analyzed on three different lengths of HALO® Peptide ES-C18 columns: a single 2.1 x 100 mm, two 2.1 x 150 mm columns in series, and three 2.1 x 150 mm columns in series. The insets show examples of the improved performance obtained using longer column lengths along with longer gradient times for demanding samples. Resolution increases of approximately 70% and 110% are achieved by increasing column length by 3-fold and 4.5-fold respectively. Gradient times of 60, 180 and 270 minutes were used for the top, middle and bottom chromatograms, respectively.

Lower pressures afforded by both 2.7 and 5 µm HALO® Peptide particles allow two or more columns to be used in series for additional resolution and peak capacity for challenging peptide mapping analyses. HALO® Peptide ES-C18 is also available in 2 µm particle sizes in 2.1 and 3 mm IDs up to 150 mm length for additional options in run time and peak capacity.



[www.advanced-materials-tech.com](http://www.advanced-materials-tech.com)

© HALO and Fused-Core are registered trademarks of Advanced Materials Technology, Inc.

FOR MORE INFORMATION OR TO  
PLACE AN ORDER, CONTACT: