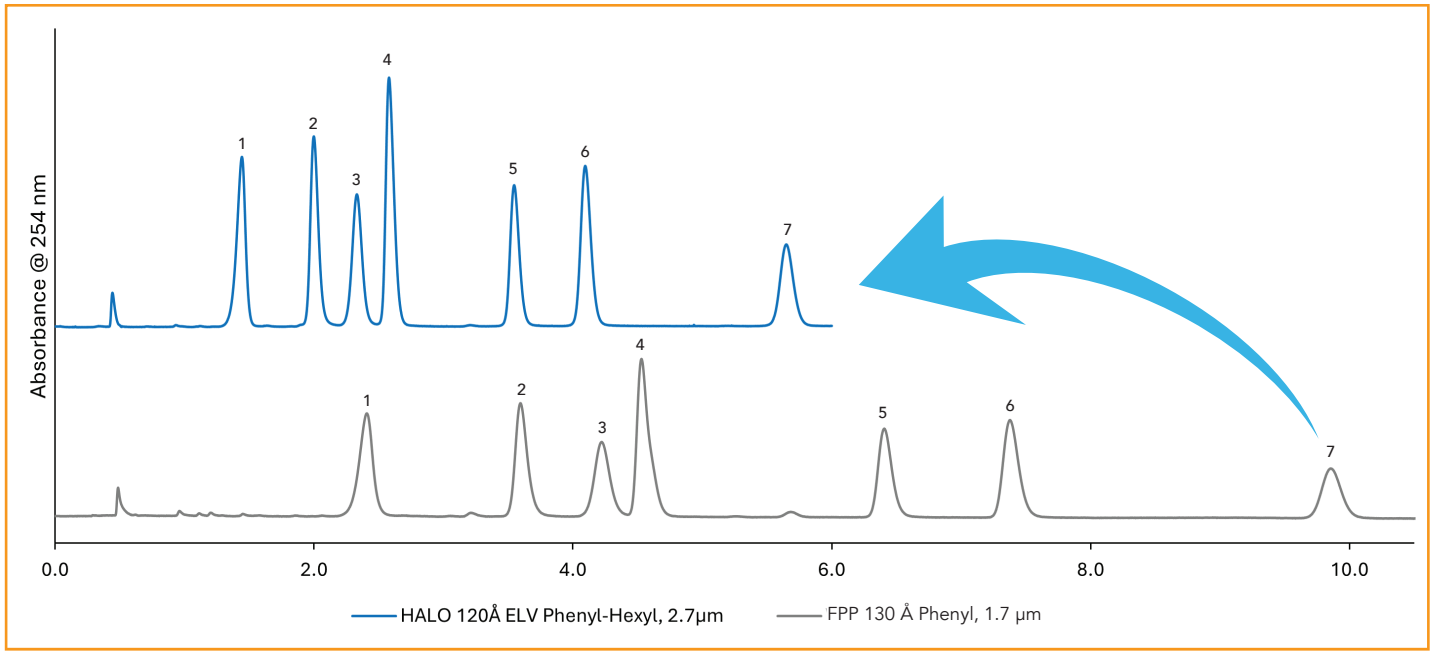
HALO®

PHARMACEUTICALS

Separation of Antidepressants- HALO®ELEVATE Phenyl-Hexyl vs FPP Phenyl Phase

431



TEST CONDITIONS:

Column: Column: HALO 120 Å ELV Phenyl-Hexyl , 2.0 µm, 2.1x100 mm
Part Number: 91272-606
Competitor Column: FPP 130 Å Phenyl, 1.7 µm, 2.1x100 mm
Mobile Phase A: 10 mM Ammonium Bicarbonate, pH:10
Mobile Phase B: Acetonitrile
Isocratic: 45% B
Flow Rate: 0.4 mL/min.
Backpressure: 453 bar
Competitor Backpressure: 587 bar
Temperature: 35 °C
Injection Volume: 0.5 µL
Sample Solvent: 60/40 ACN/ Water
Wavelength: PDA, 254 nm
Flow Cell: 1 µL
Data Rate: 100 Hz
Response Time: 0.025 sec.
LC System: Shimadzu Nexera X2

PEAK IDENTITIES:

1. Amoxapine
2. Desipramine
3. Nortriptyline
4. Doxepin
5. Imipramine
6. Amitriptyline
7. Trimipramine

A separation of antidepressants is achieved under high pH conditions using a HALO® ELEVATE Phenyl-Hexyl column against a competitor FPP column. Increased surface area of smaller particle size enhances interactions between the stationary phase and analytes, producing sharper peaks and improved compound separation. This is reflected in higher theoretical plate counts as shown in the chromatogram above where a 2 µm HALO® was run against the similar FPP column. The separations using HALO® were completed in approximately half the time with improved resolution and 30% less backpressure.

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