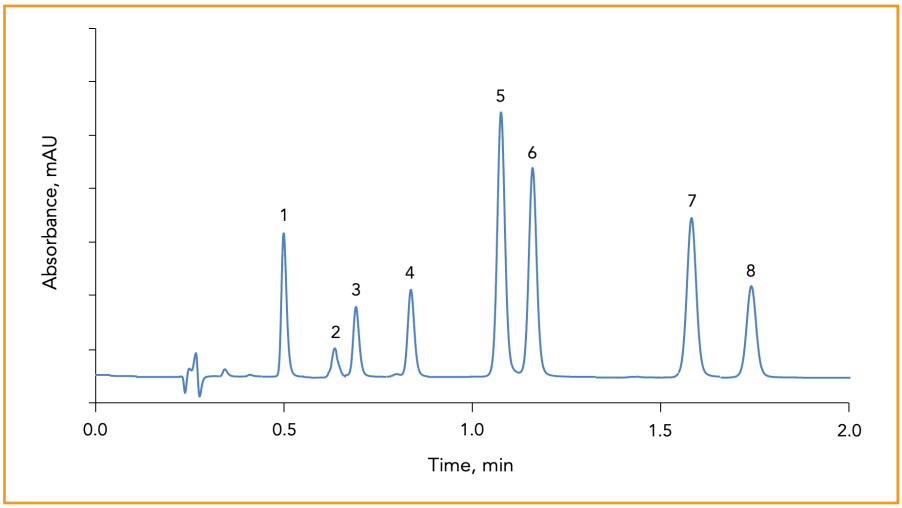
HALO®

PHARMACEUTICALS

Separation of Sulfonamides on HALO® Biphenyl, 2.0 µm

Application Note 194-AB



PEAK IDENTITIES:

1. Sulfacetamide
2. Sulfadiazine
3. Sulfapyridine
4. Sulfamerazine
5. Sulfamethoxazole
6. Sulfamethazine
7. Sulfamethoxypyridazine
8. Sulfachloropyridazine

A mixture of sulfonamides is separated on a HALO 90 Å Biphenyl, 2.0 µm column in less than 2 minutes. These synthetic drugs have several purposes, but are mainly used to treat bacterial infections such as urinary tract infections, eye infections, or ear infections. HALO® Biphenyl shows increased retention compared to alkyl phases due to the enhanced interactions between the aromatic moieties of the sulfonamides and the biphenyl structure. These interactions also enable more retention of polar compounds on the HALO® Biphenyl phase. When a complex mixture contains a variety of polar and non-polar compounds, use a HALO® Biphenyl column as part of the method development screening.

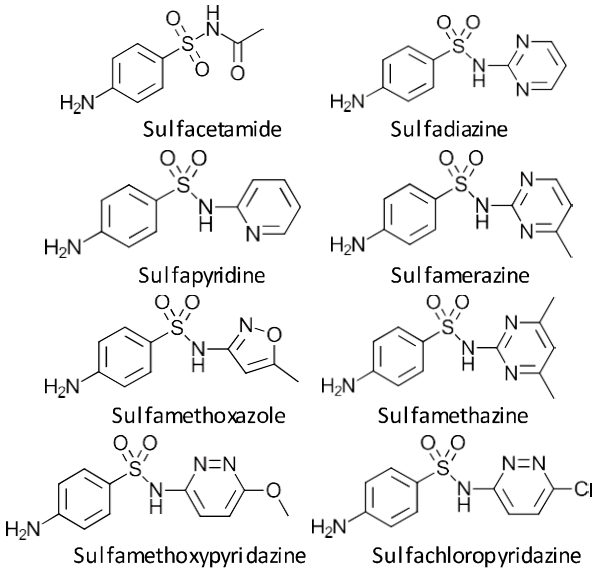
TEST CONDITIONS:

Column: HALO 90 Å Biphenyl, 2.0 µm, 2.1 x 50 mm
Part Number: 91812-411
Mobile Phase:
A: Water, 0.1% formic acid
B: Acetonitrile, 0.1% formic acid
Gradient:

Time (min)	% B
0.0	15
2.0	20

Flow Rate: 0.5 mL/min
Initial Pressure: 257 bar
Temperature: 40 °C
Detection: UV 254 nm, PDA
Injection Volume: 1.0 µL
Sample Solvent: Acetonitrile
Response Time: 0.025 sec
Flow Cell: 1.0 µL
LC System: Shimadzu Nexera X2

STRUCTURES:



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