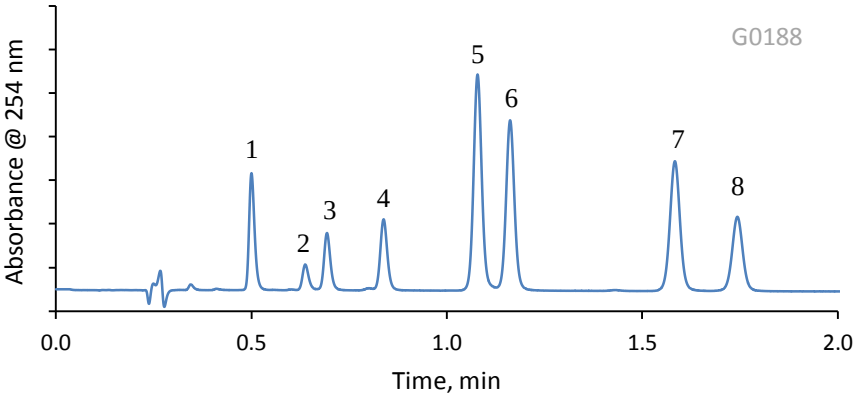
Application Note: 194-AB

Separation of Sulfonamides on HALO® 2 µm Biphenyl



PEAK IDENTITIES:

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

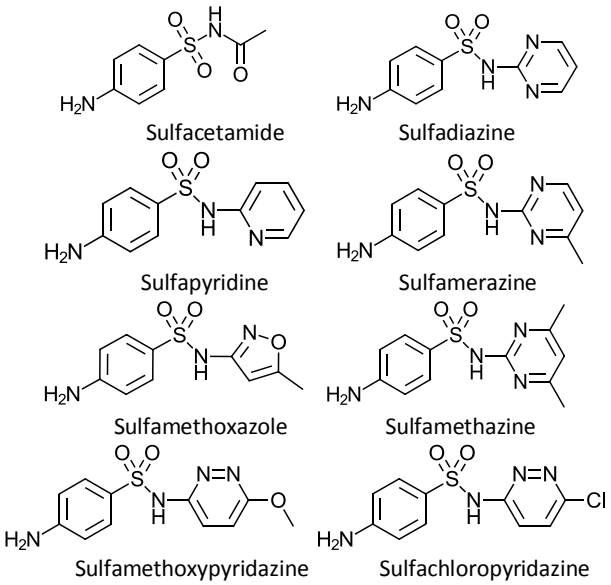
TEST CONDITIONS:

Columns: HALO 90 Å Biphenyl, 2 µm, 2.1 x 50mm
Part Number: 91812-411
Mobile Phase A: Water, 0.1% Formic acid
Mobile Phase B: Acetonitrile, 0.1% Formic acid
Gradient:

Time	% B
0.0	15
2.0	20

Flow Rate: 0.5 mL/min
Initial Pressure: 257 bar
Temperature: 40°C
Detection: 254 nm, PDA
Injection Volume: 1 µL
Sample Solvent: Acetonitrile
Data Rate: 100 Hz
Response Time: 0.025 sec.
Flow Cell: 1 µL
LC System: Shimadzu Nexera X2

STRUCTURES:



A mixture of sulfonamides is separated on a HALO 90 Å Biphenyl, 2 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.

FOR MORE INFORMATION OR TO PLACE AN ORDER, CONTACT: