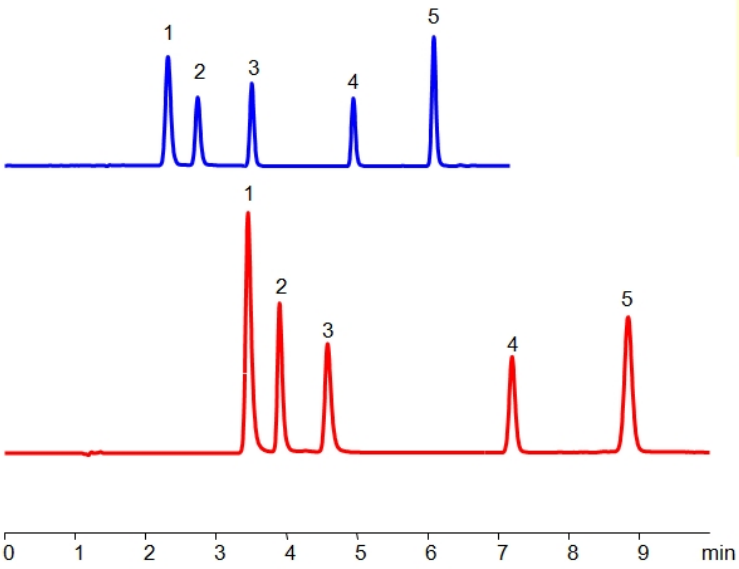
HPLC Separation of Antibiotics on Newcrom A Column

https://sielc.com/hplc-separation-of-antibiotics

Chromatogram



Column:	**Primesep 200**
Size:	4.6 x 100 mm, 5µm, 100A
Mobile phase:	MeCN/H2O/H2SO4: 5/95/0.05 to 50/50/0.5 in 5 min, 3 min hold
Flow:	1.0 ml/min
Detection:	UV 275 nm

1. **Sulfanilamide**
2. **Sulfadiazine**
3. **Sulfaguanidine**
4. **Dapsone**
5. **Sulfaquinoxaline**

Column:	**Newcom A**
Size:	3.2 x 100 mm, 5µm, 100A
Mobile phase:	MeOH/H2O/H2SO4: 0/100/0 to 50/50/0.5 in 5 min, 5 min hold
Flow:	0.5 ml/min
Detection:	UV 275 nm

Description

High Performance Liquid Chromatography (HPLC) Method for Analysis of Sulfanilamide , Sulfadiazine , Dapsone , Sulfaguanidine , Sulphaquinoxaline .

Antibiotics are widely used for treatment and prevention of bacterial infections.

Sulfanilamide is a sulfonamide antibacterial drug with the chemical formula C 6 H 8 N 2 O 2 S . It's height of use was during World War II to treat and prevent the spread of infections among the Allies. Due to later discovery of more effective antibiotics, it is no longer as widely used. You can find detailed UV spectra of Sulfanilamide and information about its various lambda maxima by visiting the following link.

Sulfadiazine is a sulfonamide antibiotic with the chemical formula C 10 H 10 N 4 O 2 S . It is the treatment of choice for toxoplasmosis and is considered the second-line treatment against numerous other infections. It works by blocking the synthesis of folic acid in bacteria, which prevents cell reproduction. Sulfadiazine can be either taken orally or applied topically. You can find detailed UV spectra of Sulfadiazine and information about its various lambda maxima by visiting the following link.

Sulfaguanidine is a sulfonamide antibiotic with the chemical formula C 7 H 10 N 4 O 2 S . It is a guanidine derivative of sulfanilamide that works through inhibiting the synthesis of folic acid in bacteria. Most often, it is used to treat Bacillary dysentery.

Dapsone is a sulfone antibiotic with anti-inflammatory properties. As a gel, it is sold under the brand name Aczone as acne treatment, but it can also be used as part of treatment for other skin conditions including leprosy and dermatitis herpetiformis. It's chemical formula is C 12 H 12 N 2 O 2 S .

Sulfaquinoxaline is a sulfonamide antibiotic that is typically used in veterinary medicine. It is used to treat Coccidiosis in cattle and sheep, as well as a variety infections in poultry. It is deemed not suitable for human use. It's chemical formula is C 14 H 12 N 4 O 2 S .

Method Parameters

Mobile Phase	MeOH Gradient
Buffer	H2SO4 Gradient
Flow Rate	0.5 ml/min
Detection	UV 275 nm
Class of Compounds	Drugs, Antibiotics
Analyzing Compounds	Sulfanilamide,Sulfadiazine,Dapsone,Sulfaguanidine,Sulphaquinoxaline

HPLC Column Used

Newcrom A, 3.2 x 100 mm, 5 µm, 100 A, dual ended

Order this column at hplc-shop.de →