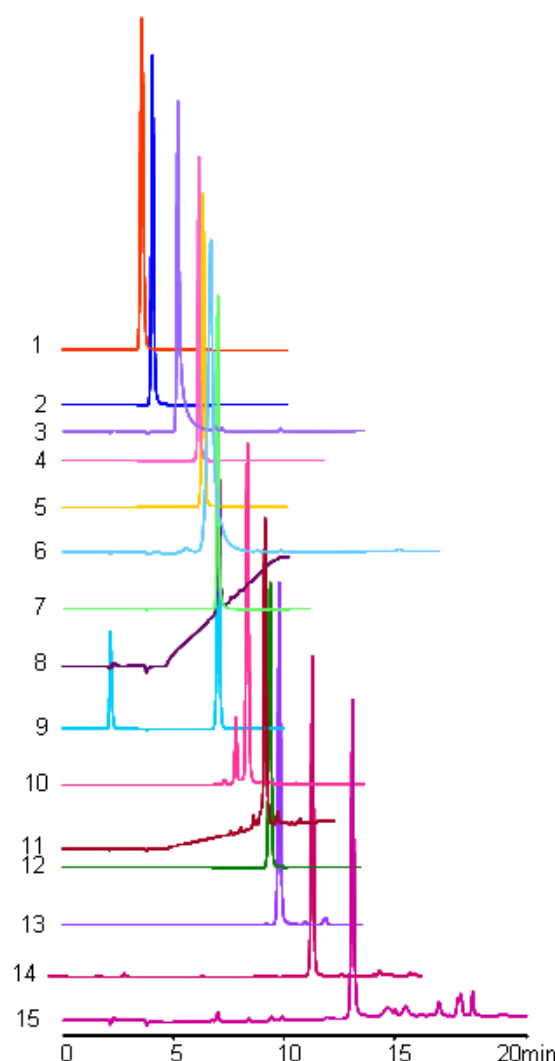


Separation of Antibiotics in Mixed-mode chromatography

<https://sielc.com/Separation%20of%20Antibiotics%20in%20Mixed-mode%20chromatography>

Chromatogram



Column: Obelisc R
Size: 4.6 x 150 mm
Mobile phase: MeCN gradient 0% to 25% in 6 min, then to 70% for 14 min, Formic acid gradient from 0.05% to 0.3% in 6 min, then 0.3% for 14 min
Flow: 1.0 mL/min
Detection: UV 270 nm

1. Sulphanilamide
2. Sulphaguanidine
3. Oxytetracycline
4. Marbofloxacin
5. Sulphadiazine
6. Chlortetracycline
7. Nofloxacin
8. Spiramycin
9. Cefalonium
10. Tylosin
11. Josamycin
12. Sulphamethoxazole
13. Dapsone
14. Sulphaquinoxalline
15. Flumequine

Description

A complex mixture of sulphonamide, macrolide, tetracycline and fluoroquinolone antibiotics were separated in one run using mixed-mode chromatography with LC/MS-compatible conditions. All compounds are separated based on reversed-phase and/or ion-exchange mechanism. Method can be used for analysis of various classes of antibiotics and related impurities in different sample matrices (blood, urine, soil, waste water).

Method Parameters

Mobile Phase	Gradient MeCN – 0-25%, 6 min, 25-70% 14 min
Buffer	Gradient Formic Acid – 0.05%-0.3%, 10 min, 14 min hold
Flow Rate	1.0 ml/min
Detection	UV, 270 nm
Class of Compounds	Antibiotic, Drug, Hydrophobic, Ionizable

Analyzing Compounds

Sulphanilamide, Sulphaguanidine, Oxytetracycline, Marbofloxacin, Sulphadiazine, Chlortetracycline, Nofloxacin, Spiramycin, Cefalonium, Tylosin, Josamycin, Sulphamethoxazole, Dapsone, Sulphaquinoxalline, Flumequine

HPLC Column Used

Obelisc R, 2.1×150 mm, 5 µm, 100A

[Order this column at hplc-shop.de →](https://www.hplc-shop.de)