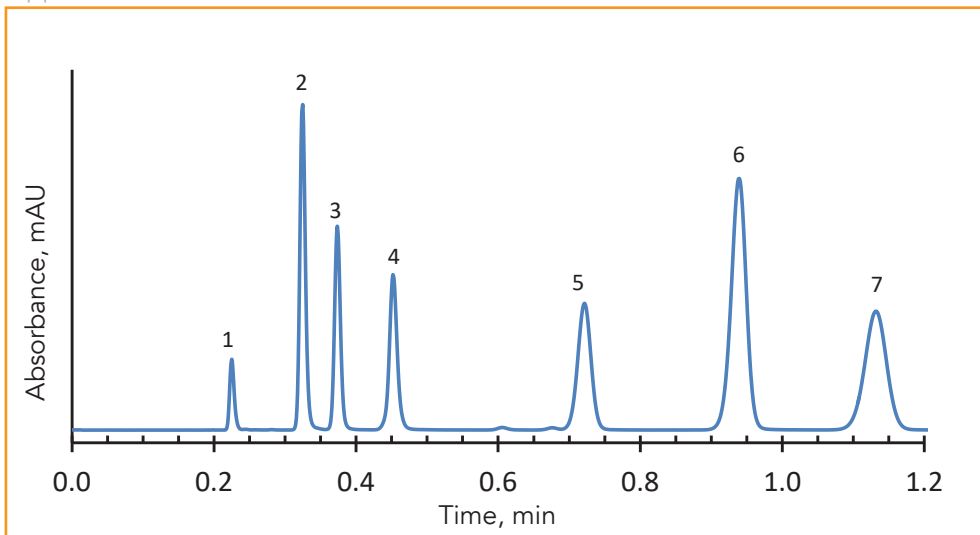




Rapid HPLC Separation of Anticoagulants on HALO® Phenyl-Hexyl Phase

Application Note 34-P



PEAK IDENTITIES:

1. Uracil
2. 4-Hydroxycoumarin
3. Coumarin
4. 6-Chloro-4-hydroxycoumarin
5. Warfarin
6. Coumatetralyl
7. Coumachlor

The coumarins are potent blood anticoagulants that can be used to prevent heart attacks and strokes and in large doses act as poisons for rats and mice. In this separation six coumarins are analyzed in less than two minutes on a HALO® Phenyl-Hexyl column. The high efficiency of the Fused-Core® particles at high flow rates makes this possible.

TEST CONDITIONS:

Column: HALO 90 Å Phenyl-Hexyl, 2.7 µm, 4.6 x 50 mm

Part Number: 92814-406

Mobile Phase: 40/60 - A/B

A: 0.1% formic acid in water, pH 2.66

B: 50/50 methanol/acetonitrile

Flow Rate: 2.0 mL/min

Pressure: 215 bar

Temperature: 45 °C

Detection: UV 254 nm, VWD

Injection Volume: 1.0 µL

Sample Solvent: 50/50 methanol/acetonitrile

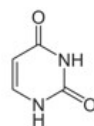
Response Time: 0.02 sec

Flow Cell: 2.5 µL semi-micro

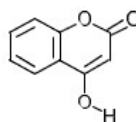
LC System: Shimadzu Prominence UFLC XR

Extra column volume: ~14 µL

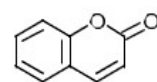
STRUCTURES:



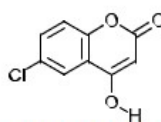
Uracil



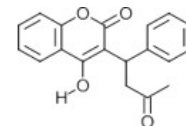
4-Hydroxycoumarin



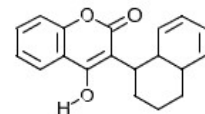
Coumarin



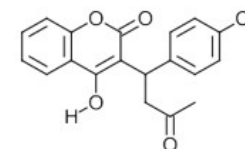
6-Chloro-4-hydroxycoumarin



Warfarin



Coumatetralyl



Coumachlor

