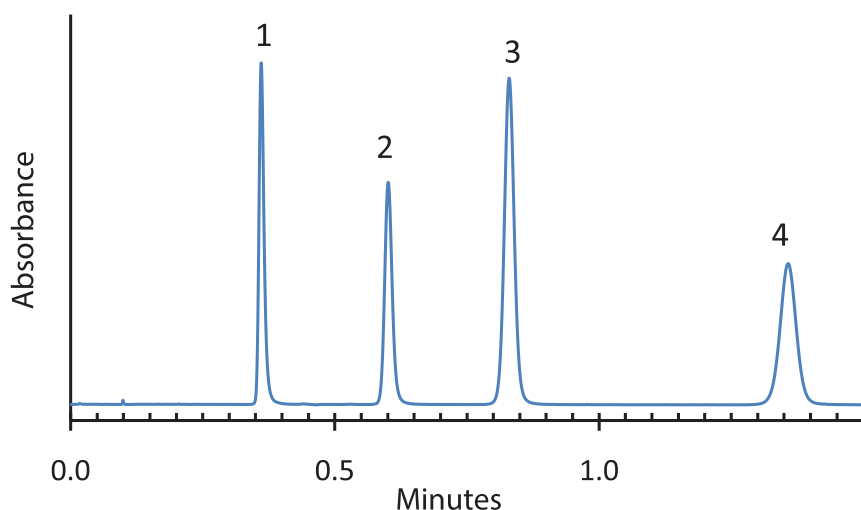




Separation of Xanthines on HALO[®] Phenyl-Hexyl Phase

Application Note 49-XA



PEAK IDENTITIES:

1. Hypoxanthine
2. Theobromine
3. Theophylline
4. Caffeine

These xanthines can be readily separated on a HALO[®] Phenyl-Hexyl column in a buffered methanolic mobile phase.

TEST CONDITIONS:

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

Part Number: 92814-406

Mobile Phase: 70/30 - A/B

A: 0.03 M phosphate buffer, pH 3.0, in water

B: Methanol

Flow Rate: 1.5 mL/min

Pressure: 223 bar

Temperature: 35 °C

Detection: UV 254 nm, VWD

Injection Volume: 0.5 μL

Sample Solvent: 30% methanol in water

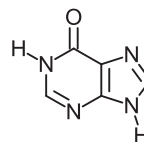
Response Time: 0.02 sec

Flow Cell: 2.5 μL semi-micro

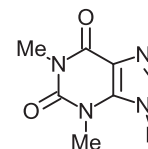
LC System: Shimadzu Prominence UFLC XR

Extra column volume: ~14 μL

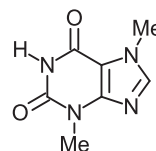
STRUCTURES:



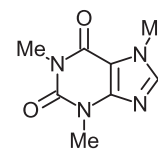
Hypoxanthine



Theophylline



Theobromine



Caffeine

