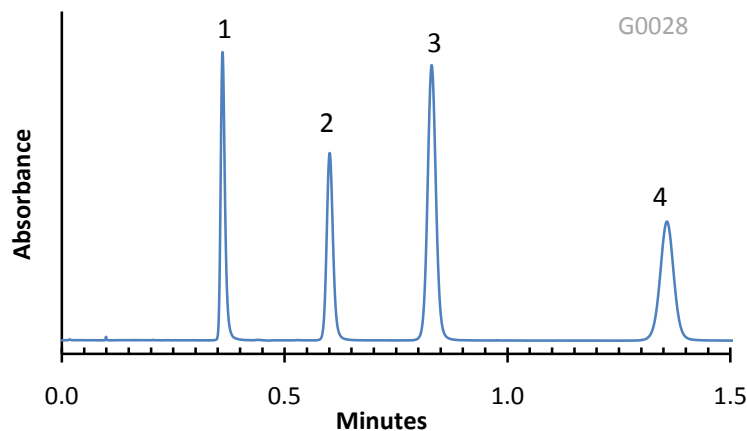


Application Note: 049-XA

Separation of Xanthines on HALO Phenyl-Hexyl Phase



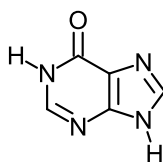
PEAK IDENTITIES:

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

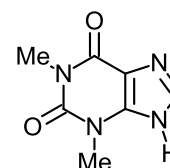
TEST CONDITIONS:

Column: 4.6 x 50 mm, HALO Phenyl-Hexyl
Part Number: 92814-406
Mobile Phase: 70/30: A/B
A=0.03 M phosphate buffer, pH=3, 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
ECV: ~14 µL

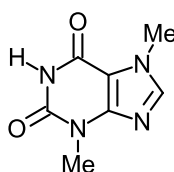
STRUCTURES:



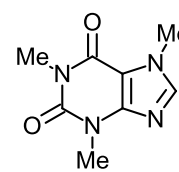
Hypoxanthine



Theophylline



Theobromine

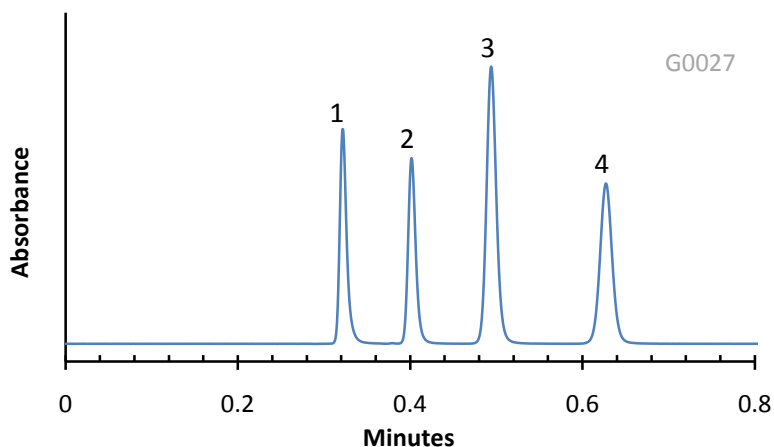


Caffeine

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

Application Note: 048-XA

Separation of Xanthines on HALO RP-Amide Phase



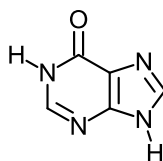
PEAK IDENTITIES:

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

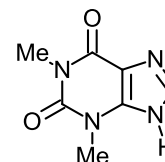
TEST CONDITIONS:

Column: 4.6 x 50 mm, HALO RP-Amide
Part Number: 92814-407
Mobile Phase: 85/15: A/B
A=0.03 M phosphate buffer, pH=3, in water
B= Acetonitrile
Flow Rate: 1.5 mL/min.
Pressure: 150 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
ECV: ~14 µL

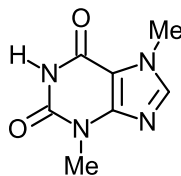
STRUCTURES:



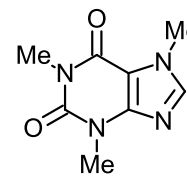
Hypoxanthine



Theophylline



Theobromine



Caffeine

These xanthines can be readily separated on a HALO RP-Amide column in less than one minute.