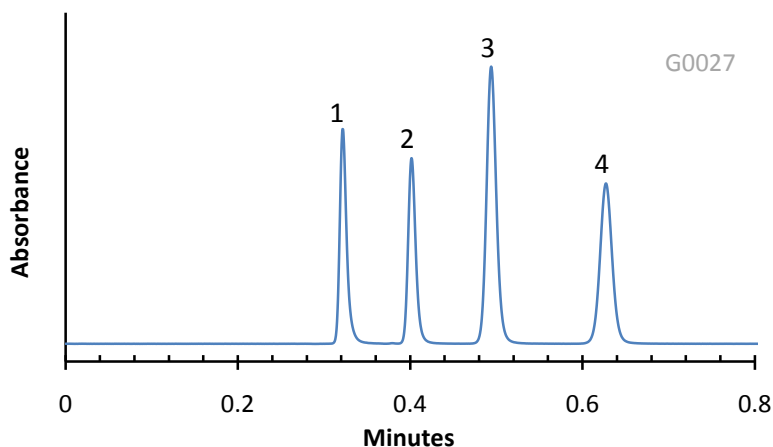


Application Note: 048-XA

Separation of Xanthines on HALO RP-Amide Phase



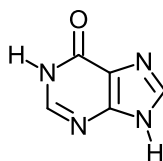
PEAK IDENTITIES:

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

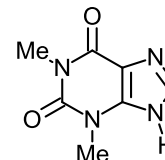
TEST CONDITIONS:

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

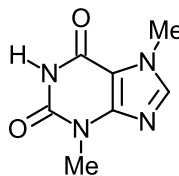
STRUCTURES:



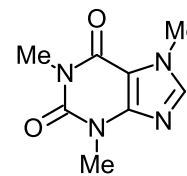
Hypoxanthine



Theophylline



Theobromine



Caffeine

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