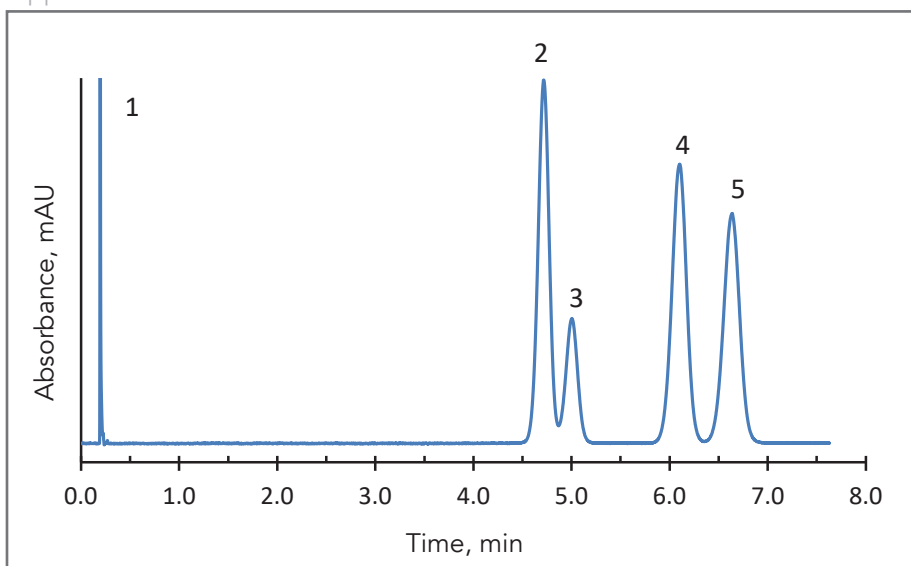




Isocratic Separation of Dinitrotoluenes on HALO[®] RP-Amide Phase

Application Note 35-EX



PEAK IDENTITIES:

1. Uracil
2. 2,4-Dinitrotoluene
3. 2,6-Dinitrotoluene
4. 3,4-Dinitrotoluene
5. 2,3-Dinitrotoluene

These dinitrotoluenes are difficult to separate, but can be separated with almost baseline resolution in under 7 minutes using a 50 mm long HALO[®] Fused-Core[®] RP-Amide column.

TEST CONDITIONS:

Column: HALO 90 Å RP-Amide, 2.7 μm,
4.6 x 50 mm

Part Number: 92814-407

Mobile Phase: 80/20 - A/B

A: Water

B: Acetonitrile

Flow Rate: 2.5 mL/min

Pressure: 257 bar

Temperature: 27 °C

Detection: UV 254 nm, VWD

Injection Volume: 1.0 μL

Sample Solvent: 50/50 acetonitrile/methanol

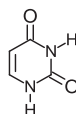
Response Time: 0.02 sec

Flow Cell: 2.5 μL semi-micro

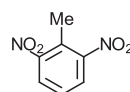
LC System: Shimadzu Prominence UFLC XR

Extra Column Volume: ~14 μL

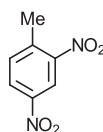
STRUCTURES:



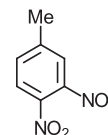
Uracil



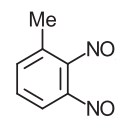
2,6-Dinitrotoluene



2,4-Dinitrotoluene



3,4-Dinitrotoluene



2,3-Dinitrotoluene

