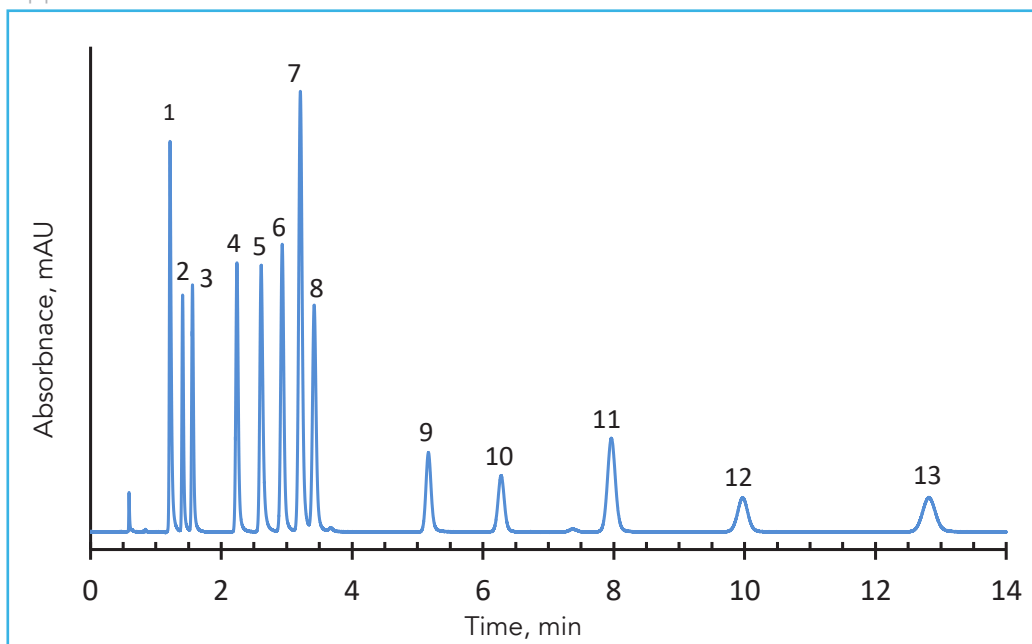




Separation of Nucleosides and Nucleobases on 2.7 µm HALO® Penta-HILIC

Application Note 76-NU



PEAK IDENTITIES:

1. Thymine
2. Uracil
3. Thymidine
4. 2-Deoxyadenosine
5. Adenine
6. Uridine
7. Adenosine
8. Hypoxanthine
9. Cytosine
10. 2-Deoxycytidine
11. 2-Deoxyguanosine
12. Cytidine
13. Guanosine

The new HALO® Penta-HILIC stationary phase is an HPLC phase having a hydroxyl-rich surface for performing separations in the hydrophilic interaction chromatography mode. Here, a mixture of 13 nucleosides and nucleobases are separated isocratically in a short time with excellent resolution. These bonded superficially porous 2.7 µm HALO® particles allow high resolution with modest back pressure.

TEST CONDITIONS:

Column: HALO 90 Å Penta-HILIC, 2.7 µm,
4.6 x 100 mm

Part Number: 92814-605

Mobile Phase: 8/92 - A/B

A: Water

B: Acetonitrile with 0.01 M ammonium
formate, pH 6.0 (adj.)

Flow Rate: 1.5 mL/min

Pressure: 99 bar

Temperature: 35 °C

Detection: UV 260 nm, DAD

Injection Volume: 2.0 µL

Sample Solvent: Mobile phase

Response Time: 0.02 sec

Flow Cell: 2.5 µL semi-micro

LC System: Shimadzu Nexera

STRUCTURES:



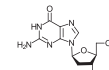
Thymine



Adenine



Hypoxanthine



2'-Deoxyguanosine



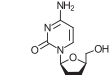
Uracil



Uridine



Cytosine



Cytidine



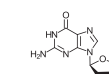
Thymidine



Adenosine



2'-Deoxycytidine



Guanosine



2'-Deoxyadenosine

