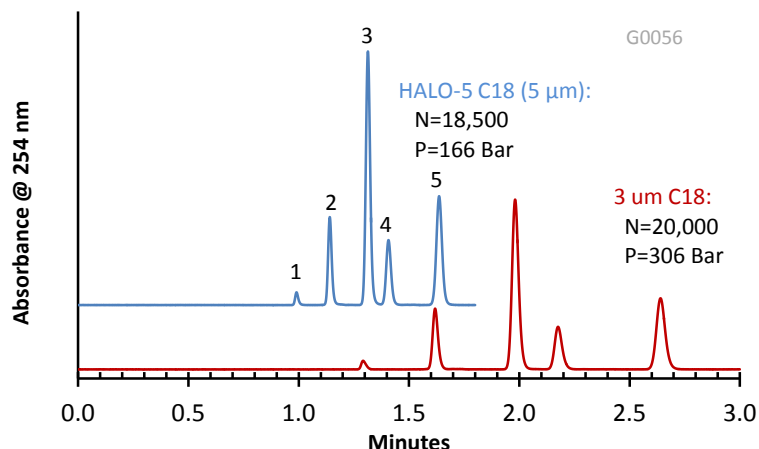


HPLC Application Note: 073-PS

Comparison of Separations on HALO-5 Fused-Core C18 and a Competitive 3 Micron Totally Porous C18 Phase



PEAK IDENTITIES:

1. Uracil (t_0)
2. Fenuron
3. Monuron
4. Fluometuron
5. Diuron

TEST CONDITIONS:

Columns: 4.6 x 150 mm, HALO-5 C18 5 µm (Part Number: 95814-702) and a 4.6 x 150 mm, 3 µm totally porous C18 column

Mobile Phase: 25/75: A/B

A= 0.02 M Potassium phosphate buffer, adj. to pH=3

B= Methanol

Flow Rate: 1.3 mL/min.

Pressure: 166 Bar (HALO-5)

Pressure: 306 Bar (3 µm)

Temperature: 30°C

Detection: UV 254 nm, VWD

Injection Volume: 0.5 µL

Sample Solvent: 50/50: Water/methanol

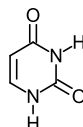
Response Time: 0.02 sec.

Flow Cell: 2.5 µL semi-micro

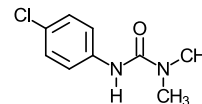
LC System: Shimadzu Prominence UFLC XR

ECV: ~14 µL

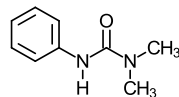
STRUCTURES:



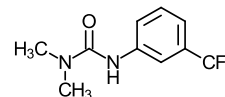
Uracil



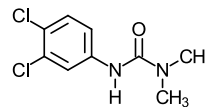
Monuron



Fenuron



Fluometuron



Diuron

The chromatograms pictured show similar column efficiencies between the two packings but with much lower back pressure in the case of the HALO-5, allowing users with lower pressure HPLC instruments to get 3 micron particle performance with the lower pressure requirement of a 5 micron particle.