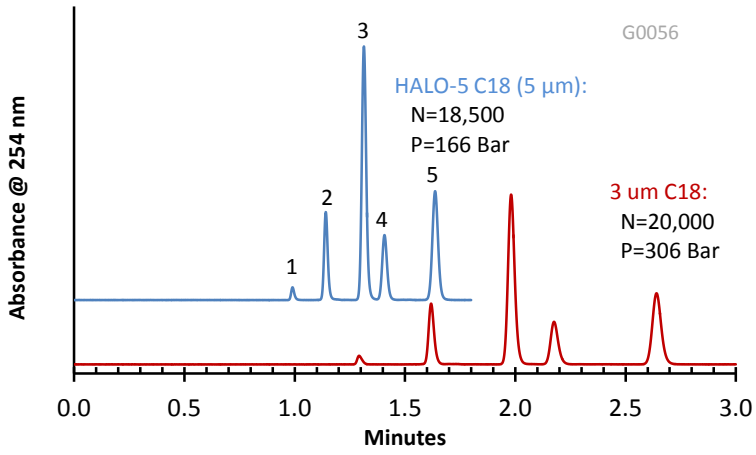
HPLC Application Note: 073-PS

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



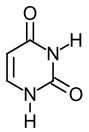
PEAK IDENTITIES:

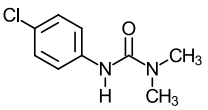
1. Uracil (t_0)
2. Fenuron
3. Monuron
4. Fluometuron
5. Diuron

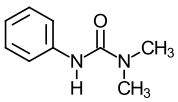
TEST CONDITIONS:

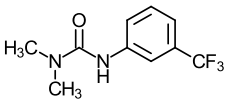
Columns: 4.6 x 150 mm, HALO-5 C18 5 µm (Part Number: 95814-702) and a 4.6 x 150 mm, 3 µm totally porous C18 column
Mobile Phase: 25/75: A/B
A= 0.02 M Potassium phosphate buffer, adj. to pH=3
B= Methanol
Flow Rate: 1.3 mL/min.
Pressure: 166 Bar (HALO-5)
Pressure: 306 Bar (3 µm)
Temperature: 30°C
Detection: 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:

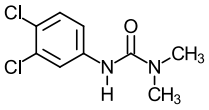

Uracil


Monuron


Fenuron


Fluometuron

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.


Diuron

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