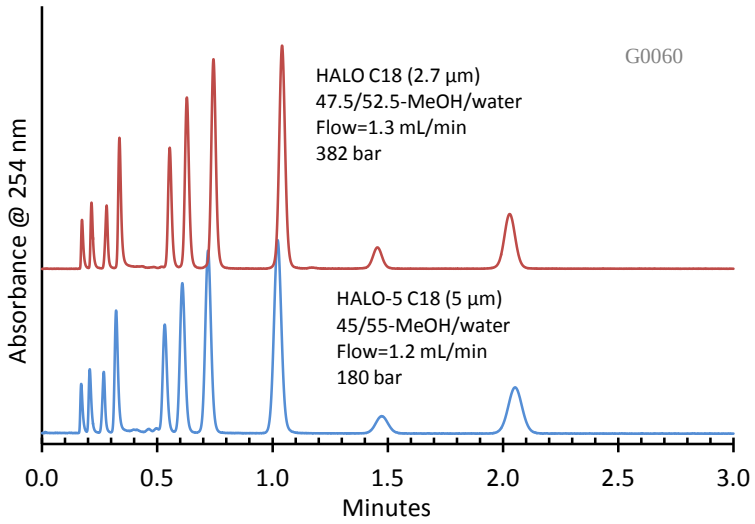
HALO® | Fused-Core® Particle Technology

Application Note: 077-HA

Comparable Selectivity of HALO C18 and HALO-5 C18



PEAK IDENTITIES:

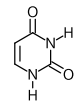
1. Uracil
2. Resorcinol
3. Aniline
4. 4-Chloroaniline
5. Acetoacetanilide
6. Dimethylphthalate
7. Cinnamyl alcohol
8. 2,6-Dinitrotoluene
9. Tolbutamide
10. 4-Chloro-3-nitroanisole

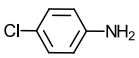
TEST CONDITIONS:

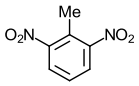
Column: 3.0 x 50 mm, HALO
Part Number: 92813-402, HALO C18 (2.7 µm)
Part Number: 95813-402, HALO-5 C18 (5 µm)
Mobile Phase: See figure.
Flow Rate: See figure.
Pressure: See figure
Temperature: 30°C
Detection: UV 254 nm, VWD
Injection Volume: 1.0 µL
Sample Solvent: Methanol
Response Time: 0.02 sec.
Flow Cell: 2.5 µL semi-micro
LC System: Shimadzu Prominence UFLC XR
ECV: ~14 µL

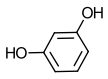
This mixture of compounds with varying functional groups and polarity show the same selectivity on both the 5-micron and 2.7-micron HALO C18 columns with only minor adjustments in flow rate and mobile phase composition being required. This separation demonstrates the ability to change from one HALO particle size to the other without needing to redevelop the method.

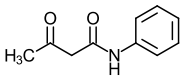
STRUCTURES:

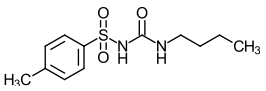

Uracil

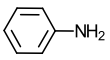

4-Chloroaniline

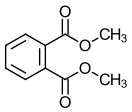

2,6-Dinitrotoluene

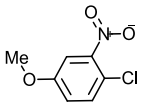

Resorcinol

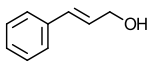

Acetoacetanilide


Tolbutamide


Aniline


Dimethylphthalate


4-Chloro-3-nitroanisole


Cinnamyl alcohol

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