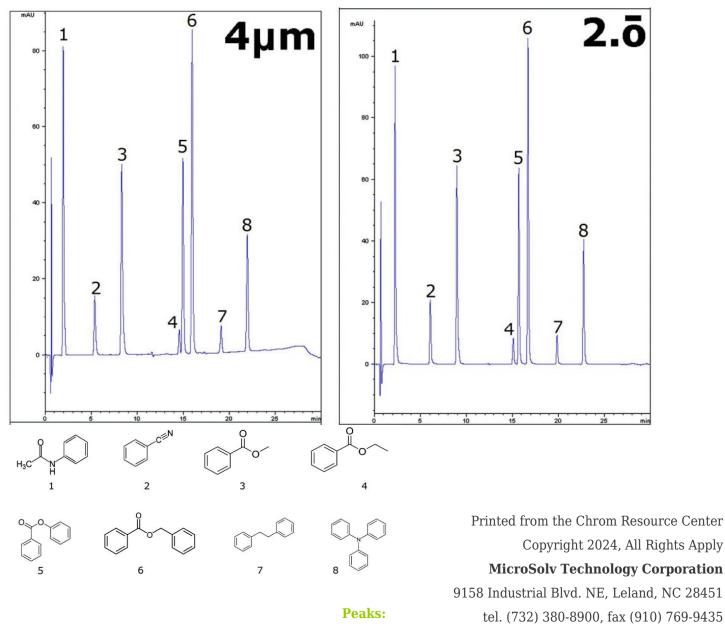
MICROS

Transfer HPLC Method to UHPLC with Hydrophobic Compounds – AppNote

Separation of Hydrophobic Compounds by HPLC & UHPLC

This AppNote shows separation of analytes within a range of hydrophobicity. A simple gradient is used to elute all the compounds and baseline separation is obtained for the critical pair (*peaks 4 and 5*) and the least hydrophobic compound is adequately retained.

A comparison is shown in the figure below with a 4µm Cogent Bidentate C18 Column and a similar 2.0 (2.2µm) Column. The retention profiles are quite comparable, meaning Method Transfer from one Column to the other will be easy to achieve.



1. Acetanilide, 2. Benzonitrile, 3. Methyl Benzoate, 4. Ethyl Benzoatecustomers@mtc-usa.com

Website: www.mtc-usa.com



5. Phenyl Benzoate, 6. Benzyl Benzoate, 7. Bibenzyl 8. Triphenylamine

Method Conditions

Columns: Cogent Bidentate C18 2.0^{TM} , $2.2\mu\text{m}$, 120Å; Cogent Bidentate C18TM, 4um, 100Å

Catalog Nos.: 40218-05P-2; 40018-05P-2

Dimensions: 2.1 x 50mm for both Columns

Mobile Phase:

A: DI Water / 0.1% Formic Acid (v/v)

B: Acetonitrile / 0.1% Formic Acid (v/v)

Gradient:

Time (minutes)	%B
0	20
1	20
25	80
26	80
27	20

Injection vol.: 1 µL

Flow rate: 0.3mL / minute

Detection: UV @ 254nm

Sample Preparation: Mixture of solutes in 80:20:0.1 Acetonitrile / DI Water / Formic Acid Diluent. Peak identities were confirmed with individual standards.

to: 0.7 minutes



Attachment

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