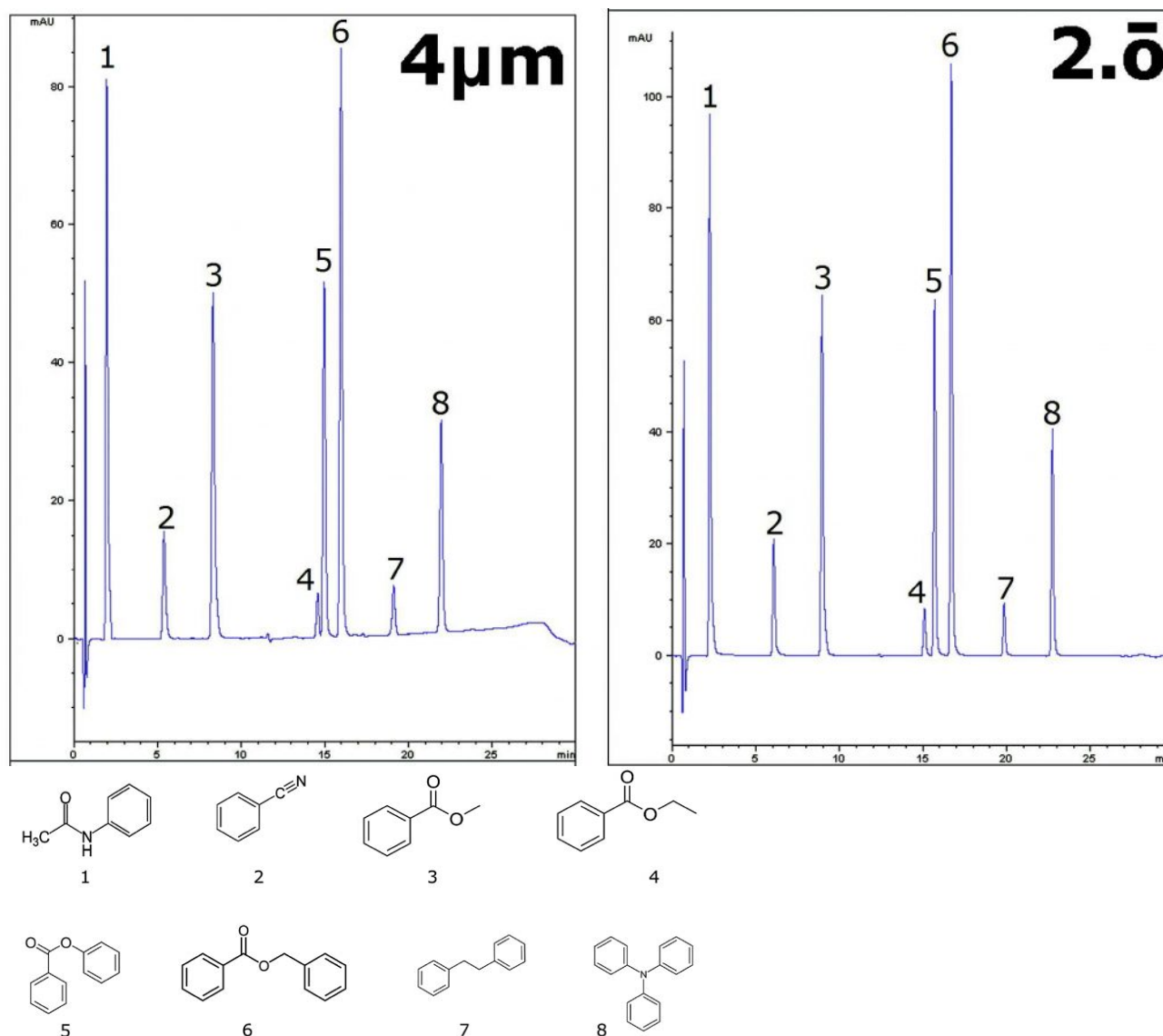


## Transfer HPLC Method to UHPLC with Hydrophobic Compounds – AppNote

### 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 4 $\mu$ m Cogent Bidentate C18 Column and a similar 2.0 (2.2 $\mu$ m) 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 Benzoate,  
5. Phenyl Benzoate, 6. Benzyl Benzoate, 7. Bibenzyl 8. Triphenylamine

## Method Conditions

**Columns:** Cogent Bidentate C18 2.0™, 2.2µm, 120Å; Cogent Bidentate C18™, 4µm, 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.

**t<sub>0</sub>:** 0.7 minutes



### Attachment

**No 274 Transfer HPLC Method to UHPLC with Hydrophobic Compounds pdf** 1 Mb [Download File](#)

Printed from the Chrom Resource Center

Copyright 2024, All Rights Apply

**MicroSolv Technology Corporation**

9158 Industrial Blvd. NE, Leland, NC 28451

tel. (732) 380-8900, fax (910) 769-9435

Email: [customers@mtc-usa.com](mailto:customers@mtc-usa.com)

Website: [www.mtc-usa.com](http://www.mtc-usa.com)

Date: 09-26-2024