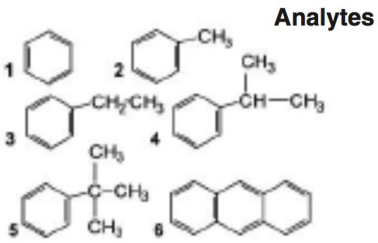
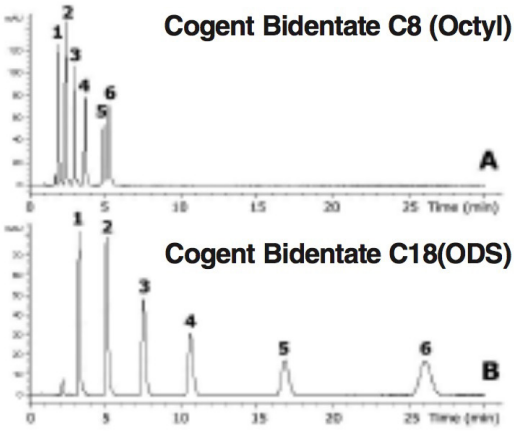
Hydrophobic Compounds

Shorter Analysis Time Using Bidentate C8 Column





Method Conditions

Column: A: **Cogent Bidentate C8™** (Octyl), 4µm, 100Å
B: **Cogent Bidentate C18™** (ODS), 4µm, 100Å

Catalog No.: A: 40008-75P
B: 40018-7.5P

Dimensions: 4.6 x 75 mm

Mobile Phase: 70% Methanol/ 30% DI H_2O

Injection vol.: 5µL

Flow rate: 1 mL/min

Detection: UV 254 nm

Sample: Universal LC Test Mix

Peaks: 1. Benzene
2. Toluene
3. Ethylbenzene
4. Isopropyl benzene
5. tert-Butylbenzene
6. Anthracene

Discussion

For separations requiring a less hydrophobic stationary phase Cogent C8 can be used successfully as demonstrated in the chromatograms. The retention on the C8 column is lower when compared with a C18 column under the same mobile phase conditions, but since the efficiency is excellent the separation goals can be achieved in a shorter time. The C8 phase is suited for more hydrophobic proteins and peptides and large nonpolar organic compounds. For increased retention higher percentages of water in the mobile phase can be used. The diminished hydrophobicity is shown in Table 1.

Notes:

Table 1

Column	k1'	k2'	a=k2'/k1'
A. Cogent C8	4.19	4.57	1.10
B. Cogent BDC18	19.98	31.49	1.58

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