

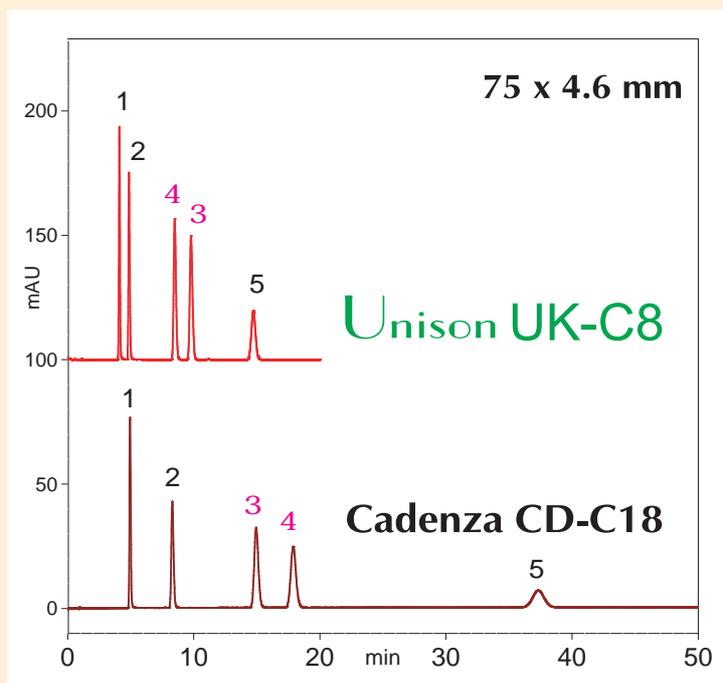
Unison UK-C8

75 x 4.6 mm

Technical

High-throughput and selectivity benefits of a C8 column

More balanced and higher-speed separation than ODS



-  1. nitrobenzene
-  2. benzene
-  3. ethylbenzoate
-  4. toluene
-  5. naphthalene

water / methanol = 52 / 48, 1.0 mL/min, 37 deg.C, 260 nm

Conventional C8 columns are known for shorter retention times and faster elution than their ODS counterparts.

This chromatogram illustrates the isocratic elution of everything from nitrobenzene to naphthalene. The ODS column provides good separation but the analytical time is extremely long due to large retention of naphthalene. Unison UK-C8, on the other hand, offers an optimal hydrophobicity and the presence of a polar group. This shrinks analysis time by 50% and speeds up the entire analysis while maintaining a balanced separation.

There are times when separation selectivity differs between ODS and C8 columns. The above chromatogram reverses the elution of ethylbenzoate and toluene. This is caused by the dipole-dipole interaction that happens between the polar group stemming from the ester structure in ethylbenzoate and polar group (siloxane) on the stationary phase surface of the UK-C8 column. The interaction for toluene is small so UK-C8's retention of ethylbenzoate is larger than that of CD-C18 resulting in the elutions being reversed.

The Unison series provides you with a mechanism to achieve the finest separations. The products are designed to optimally serve a wide variety of your needs. From high-speed to high-resolution, you have a rich variation in columns when using Unison.