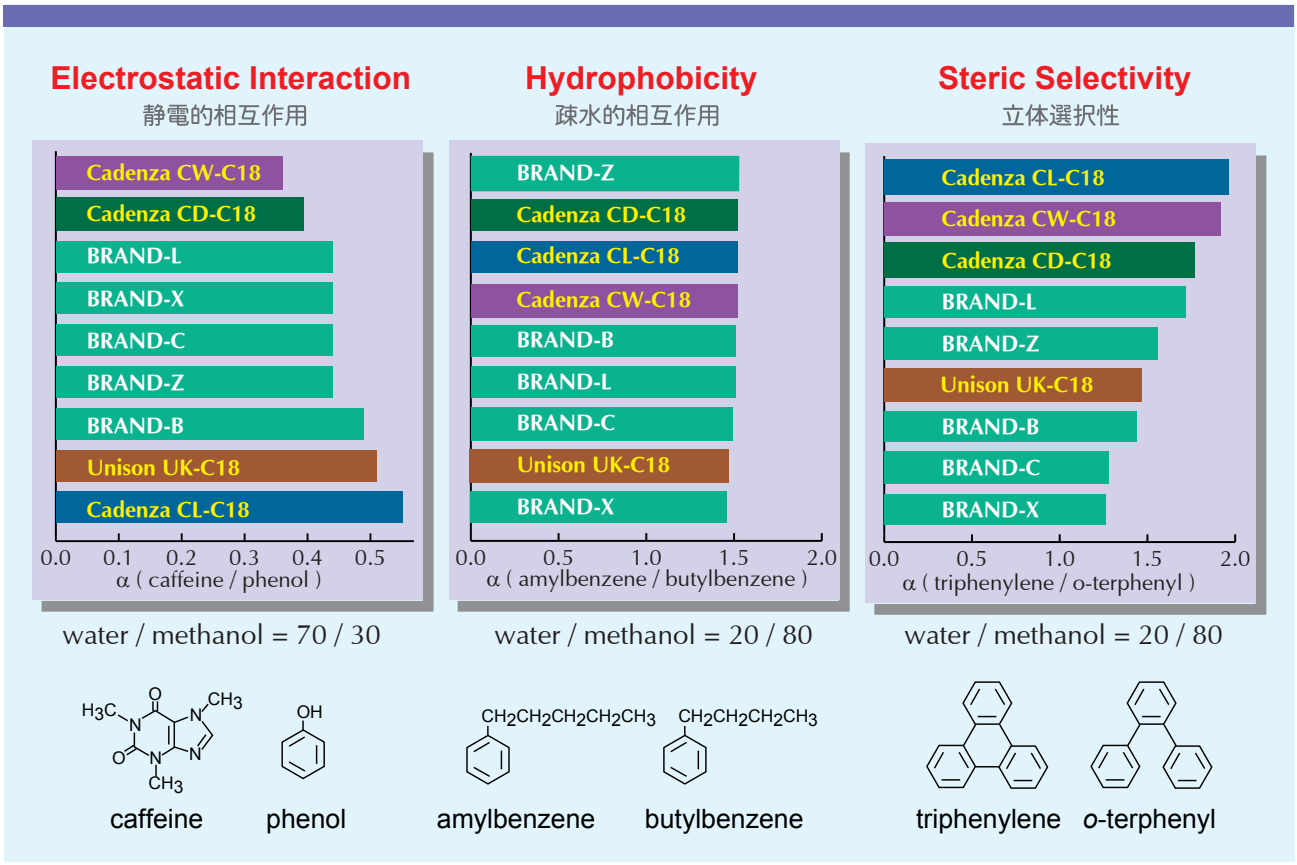
Cadenza CW-C18 Technical

Basic Interaction of Cadenza CW-C18



Ref) N.Tanaka *et.al.*, J. Chromatg. Sci., 27, 721 (1989)

Cadenza CW-C18 is a high-resolution and high-throughput ODS column which consists of 30nm pore and 3um particle size. Due to the larger pore size, there are several key advantages:

(1) Better end-capping efficiency provides improved peak shape
(2) High-speed analysis under the same conditions as conventional ODS column
(3) Improvement of peak response for relatively large molecules

It may provide different selectivity from other ODS phases due to the difference of molecular interaction as follows:

[Hydrophobicity]

Hydrophobicity is a fundamental property of ODS phase. CW-C18 results in almost the same value which means the same ODS ligand density as CD-C18 (same phase structure).

[Electrostatic Interaction]

This interaction is related to the existence of siloxane and silanol on the surface of silica material. CW-C18 showed a minimum value and was similar to CD-C18. These low values come from a unique and effective end-capping technology, "Polymeric-end-capping."

[Steric Selectivity]

High ligand density ODS phase has the ability to recognize steric structure of similar compounds . CW-C18 showed a large value similar to CD-C18. CW-C18 is useful for high-throughput analysis with excellent molecular recognition.