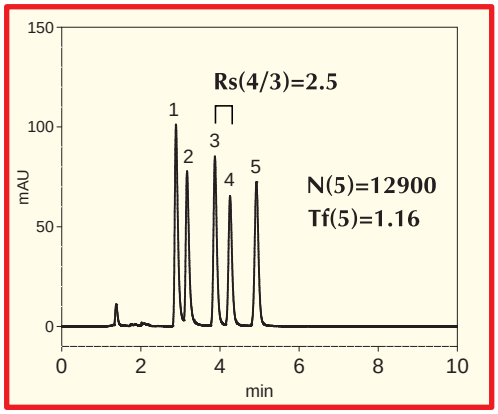
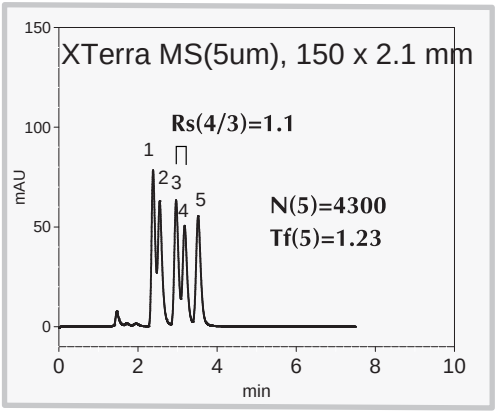
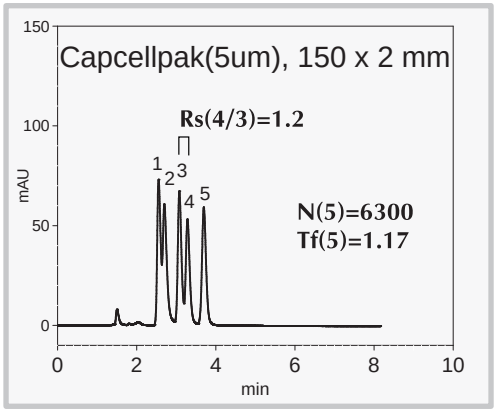
Cadenza CD-C18 150 x 2 mm Technical

Separation Comparison of Basic Compounds

Cadenza CD-C18, 150 x 2.0 mm







50 mM KH2PO4-K2HPO4 (1:1) / MeOH = 10 / 90
0.2 mL/min
37 deg.C
UV at 254 nm

1 desipramine

2 imipramine

3 nortriptyline

4 amitriptyline

5 trimipramine

A tricyclic antidepressant is a base compound with high pKa value. This is a group of chemical compounds that easily shows differences in separation situation and peak shape dependent on what is column is used.

A comparison of separation behavior using semi-micro columns shows a huge difference in the degree of separation and plate numbers using Cadenza CD-C18. Namely, a conventional column shows a resolution (Rs) of 1.1-1.2 while provides Rs = 2.5, more than twice the separation efficiency. Moreover, Cadenza offers more than twice the number of plates. Finally, one can see that the peak shape (Tf) is better as well.

Under the same HPLC conditions, the peak shape and resolution show here demonstrate that Cadenza is superior to our competitor's results in the separation of a basic compound.

As a semi-micro column, Cadenza offers greater efficiency than conventional columns.