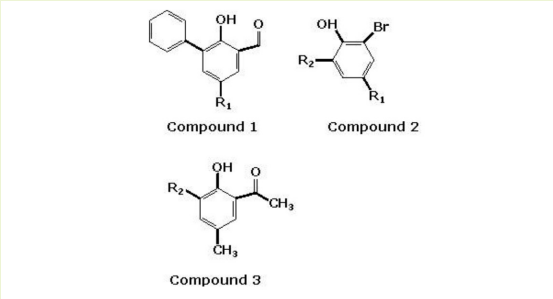
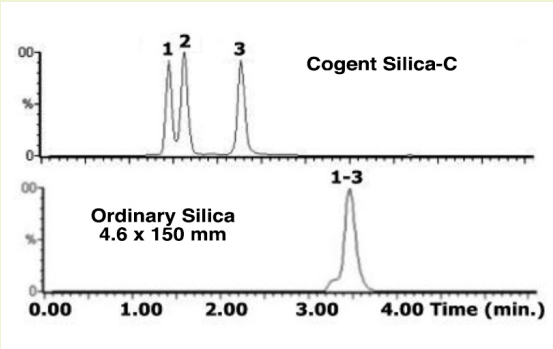
Large Substituted Phenolic Compounds

Cogent Silica-C vs. Leading Brand by Normal Phase





Notes: With the Cogent Silica-C column, almost all of the silanols on the silica surface are substituted with Si-H and water is not strongly associated by the stationary phase. Drying of the MP solvents is not essential and subsequent analyses are very reproducible, day to day as well as run to run.
The identity of the peaks was confirmed using Atmospheric Pressure Chemical Ionization in the positive and negative mode: APCI+, APCI-

Method Conditions

Column: **Cogent Silica-C™**, 4µm, 100Å

Catalog No.: 40000-75P

Dimensions: 4.6 x 75 mm

Mobile Phase: 95% Hexane/ 5% ethyl acetate

Injection vol.: 1µL

Flow rate: 1 mL/min

Detection: Diode Array

Sample: 1 mg/mL of proprietary compounds dissolved in the mobile phase.
Phenolic with aldehyde, parent phenolic compound, phenolic with a ketone. Dissolved in the mobile phase

Peaks: 1. Phenolic with aldehyde
2. Parent phenolic compound
3. Phenolic with a ketone

Discussion

The Cogent Silica-C column was compared with a leading brand Silica HPLC column for separation of three proprietary phenol compounds using normal phase conditions. The Cogent Silica-C column provided satisfactory selectivity under isocratic elution conditions. The column displayed typical normal phase elution for the phenols, i.e. retention increased as the amount of the least polar component in the mobile phase increased.

In addition, the separation, when using the Cogent Silica-C column is extremely reproducible (%RSD 0.2) even though the solvents were not dried in any special way. This makes normal phase much easier to perform.

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