

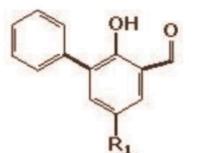
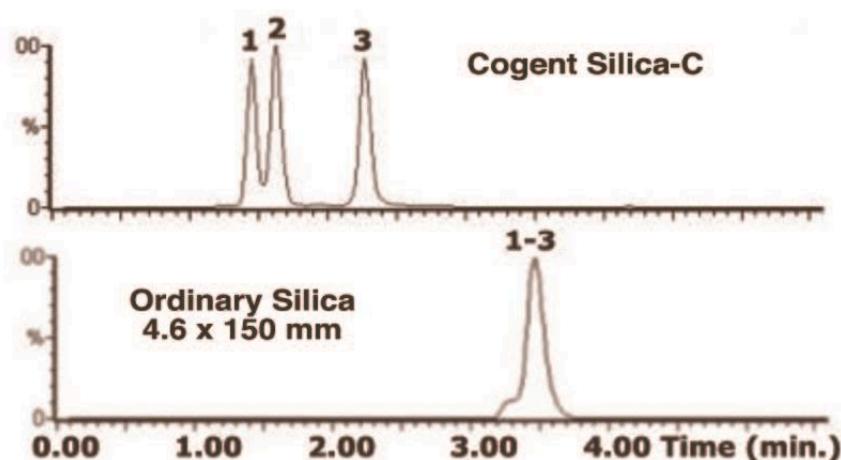


Phenolic Compounds Analyzed and Separated with Normal Phase HPLC on a Silica-C Column - AppNote

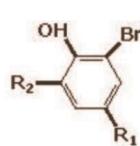
Cogent Silica-C™ compared to standard silica in normal phase HPLC

The Cogent Silica-C™ column was compared with a different brand and type of silica column for separation of three proprietary, large, substituted phenol compounds using normal phase HPLC .

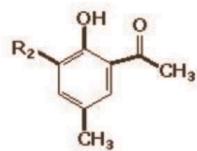
The Cogent Silica-C™ column provided satisfactory selectivity under isocratic elution conditions. The column displayed typical normal phase elution for the phenols, i.e. retention increased as the amount of the least polar component in the mobile phase increased. In addition, the separation, is extremely reproducible (%RSD 0.2) even though the solvents were not dried in any special way. This makes normal phase HPLC much easier to perform.



Compound 1



Compound 2



Compound 3

Peaks:

1. Phenolic with Aldehyde

2. Parent Phenolic Compound

3. Phenolic with a Ketone

Method Conditions

Column: Cogent Silica-C™, 4µm, 100Å

Catalog No.: 40000-75P

Dimensions: 4.6 x 75mm

Mobile Phase: 95:5 Hexane / Ethyl Acetate

Injection vol.: 1µL

Flow rate: 1mL / minute

Detection: UV with a Diode Array

Sample: 1mg / mL of proprietary compounds dissolved in the Mobile Phase: Phenolic Compound with an Aldehyde group, Parent Phenolic Compound, Phenolic with a Ketone group were dissolved in the Mobile 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 Mobile Phase 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+, APCIAPP.*



Attachment Phenolic compounds analyzed with normal phase HPLC pdf [Download File](#)

Printed from the Chrom Resource Center

Copyright 2025, All Rights Apply

MicroSolv Technology Corporation

9158 Industrial Blvd. NE, Leland, NC 28451

Tel: (732) 380-8900

Fax: (910) 769-9435

Email: customers@mtc-usa.com

Website: www.mtc-usa.com