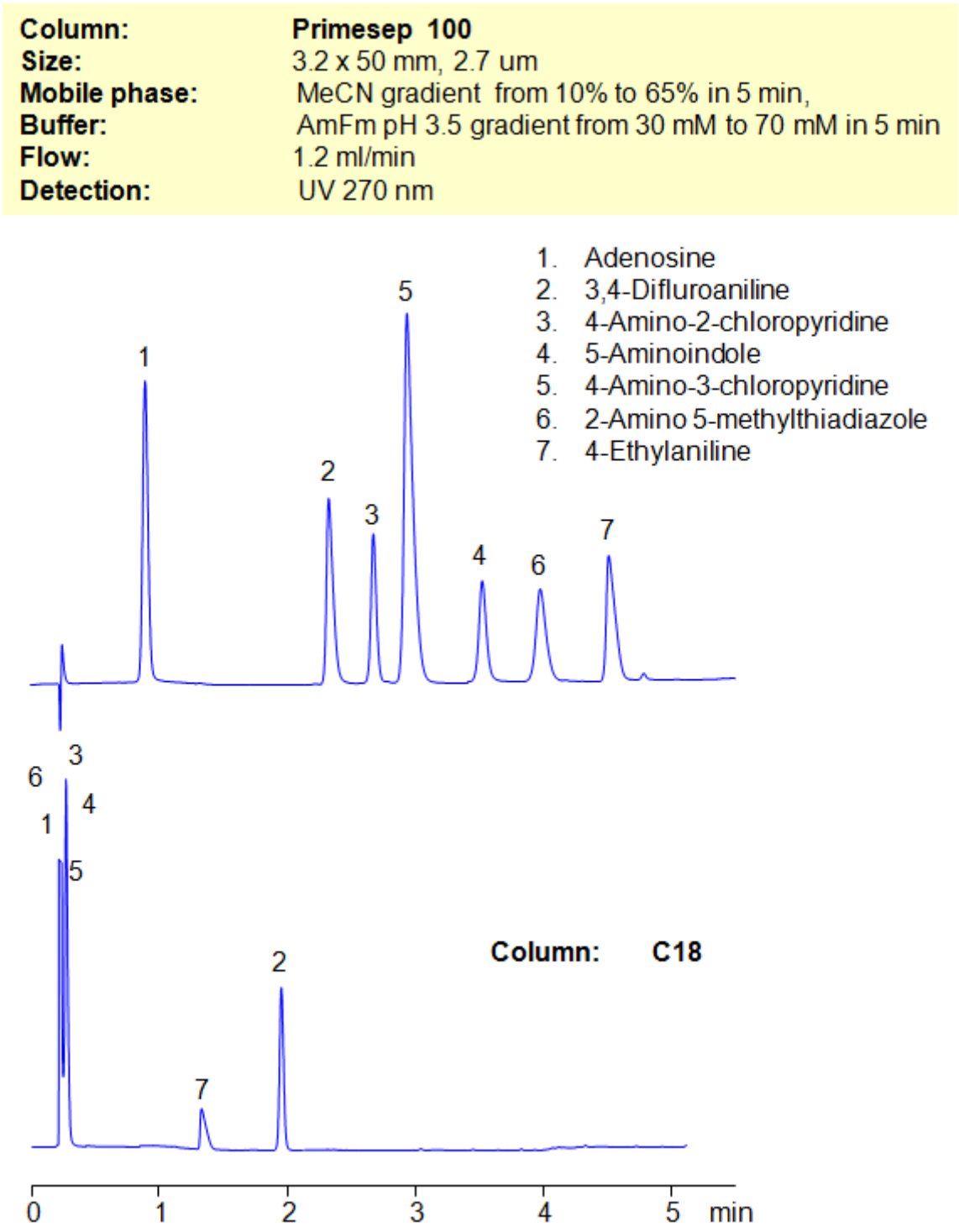
Separation of Model Compounds in Reversed-Phase and Mixed-Mode

https://sielc.com/separation-of-model-compounds-in-reversed-phase-and-mixed-mode

Chromatogram



Description

· Separation type: Liquid Chromatography Mixed-mode

High Performance Liquid Chromatography (HPLC) Method for Analysis of Adenosine , 3,4-Difluoroaniline , 4-Amino-2-Chloropyridine , 4-Amino-3-Chloropyridine , 2-Amino-5-Methylthiadiazole , 2-Amino-5-methyl-thiazole , 4-Ethylaniline ,

5-Aminoindole .

Many compounds are difficult, if not impossible, to separate on reverse-phase columns in HPLC. Other compounds cannot be separated on ion-exchange columns. That’s where the mixed-mode columns come in. By using a stationary phase with both hydrophobic and ion-exchange properties, allows the chromatographer to have additional controls over separation conditions. Here, we demonstrate the separation of compounds that can’t be achieved on a C18 column. By using both an organic gradient and buffer gradient of ammonium formate (AmFm), we can separate structurally similar compounds that can’t be separated on a reverse-phase column alone.

Method Parameters

Mobile Phase	Gradient MeCN – 10-60%, 5 min
Buffer	Gradient AmFm pH 3.5- 30 – 70 mM, 5 min
Flow Rate	1.2 ml/min
Detection	UV, 270 nm
Class of Compounds	Drug, Basic, Hydrophilic, Hydrophobic, Ionizable.
Analyzing Compounds	Adenosine,3,4-Difluoroaniline,4-Amino-2-Chloropyridine,4-Amino-3-Chloropyridine,2-Amino-

HPLC Column Used

Solid-Core Primesep 100, 3.2 x 50 mm, 2.7 µm, 90 A, dual ended