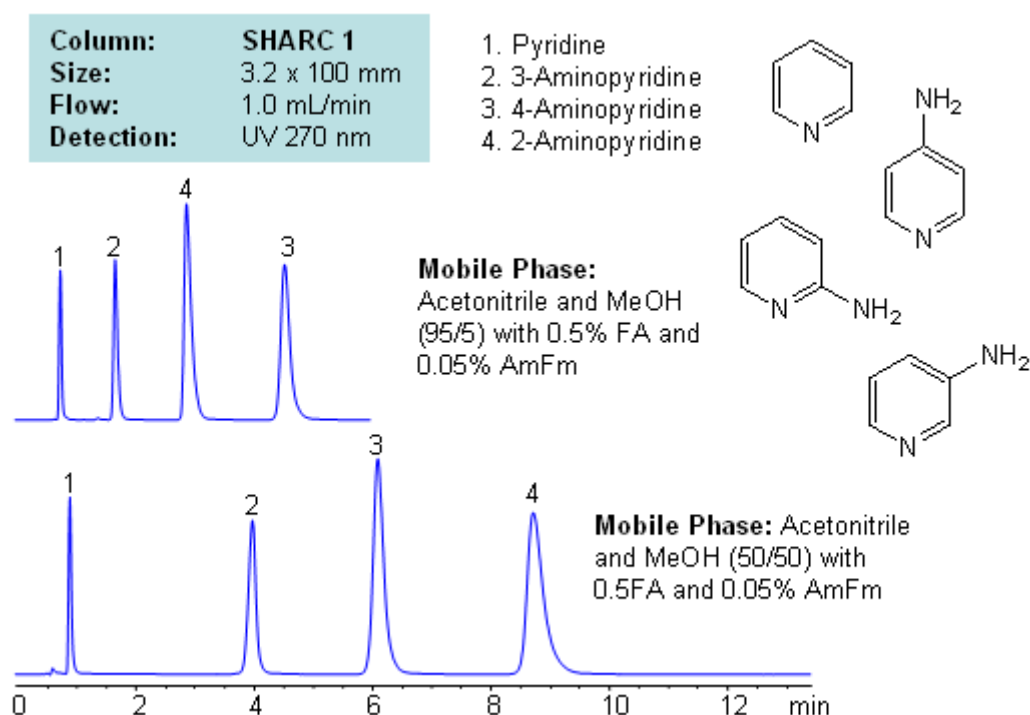


HPLC Separation of Aminopyridines Isomers in Hydrogen-Bonding mode on a SHARC 1 HPLC Column

<https://sielc.com/HPLC%20Separation%20of%20Aminopyridines%20Isomers%20in%20Hydrogen-Bonding%20mode%20on%20a%20SHARC%201%20HPLC%20Column>

Chromatogram



Description

Application Notes: Pyridines and aminopyridines are hydrophilic basic compounds. Traditionally these compounds have been separated and analyzed by GC and HPLC. In the case of HPLC, reversed-phase chromatography with ion-pairing reagent is used along with alternative modes like HILIC for separation. Mixed-mode chromatography can also be used to successfully separate isomers of substituted pyridines. However, we developed a new mode of separation for these compounds with hydrogen bonding. Isomers of aminopyridine are separated based on hydrogen bonding interaction between analyte and stationary phase. Mobile phase utilizes combination of acetonitrile and methanol with additives. Retention time and selectivity are sensitive to variations of mobile phase. The order of elution changes depending on the amount of acetonitrile, methanol, formic acid and ammonium formate. This method and approach is compatible with LC/MS and prep chromatography and can be used for separation of other pyridine based compounds and pyridine based isomers.

Application Columns: SHARC 1, 3.2x100 mm, 5 µm, 100Å, To learn more about SHARC 1 columns click here . To order this column click here . To see more chromatographic separations check our web site.

Application Compounds: pyridine, 2-aminopyridine, 3-aminopyridine, 4-aminopyridine · Detection Technique: UV, LC/MS

Method Parameters

Mobile Phase	MeCN/MeOH
Buffer	Fa, AmFm
Flow Rate	1.0 ml/min
Detection	UV, 270 nm

Class of Compounds	Drug, Muscle strengthener, Hydrophilic, Ionizable, Vertebrate pesticide
Analyzing Compounds	2-Aminopyridine, 3-Aminopyridine, 4-Aminopyridine, Pyridine

HPLC Column Used

Sharc 1, 3.2×100 mm, 5 µm, 100A

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