



Prep HPLC in Normal Phase on C18 Column - AppNote

“Prep up” in NP with a Step Gradient and “Check Purity” in RP on the Same Column

Two compounds with similar Polarity but different Function Groups, that can be typically Resolved in Isocratic Reversed Phase conditions, are more Separated using this Method with Normal Phase Conditions (non Polar Solvents); without the characteristic hassles associated with Silica or other “Normal Phase” Columns.

Chromatograms A and B can be used to test for purity of either sample.

The Step Gradient shown in Chromatogram C below, offers the Chromatographer extra Capacity to Load much more onto the Column and therefore may be able to use a 250mm x 4.6mm ID Column to “Prep Up” these compounds. The ability to “Prep Up” and check purity on the same Column offers time savings and ease of use and improved efficiency of your SOP.

Printed from the Chrom Resource Center

Copyright 2024, All Rights Apply

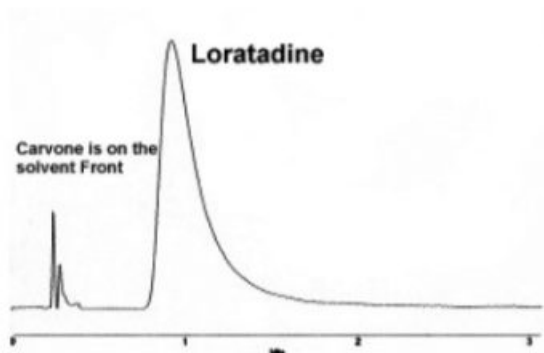
MicroSolv Technology Corporation

9158 Industrial Blvd. NE, Leland, NC 28451

tel. (732) 380-8900, fax (910) 769-9435

Email: customers@mtc-usa.com

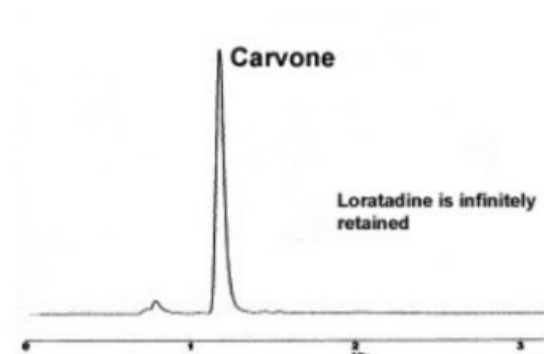
Website: www.mtc-usa.com



Chromatogram A

Hexane 75% THF 25%

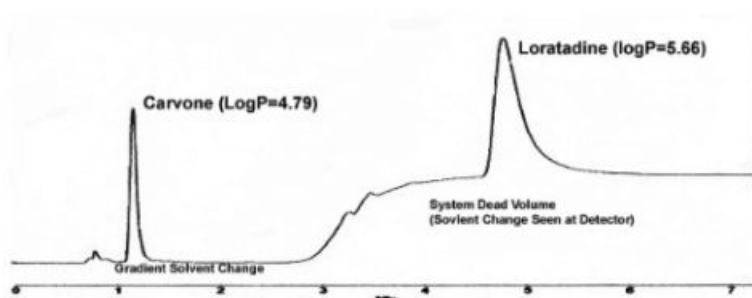
Carvone is on the solvent front



Chromatogram B

Hexane 95% THF 5%

Loratadine is Infinitely Retained



Chromatogram C

Step One: 0-0.1 minutes Hexane 95%, THF 5%

Step Two: 0.1 -7.0 minutes Hexane 75% THF 25%

Method Conditions

Column: Cogent Bidentate C18™, 4µm, 100Å

Catalog No.: 40018-75P

Dimensions: 4.6 x 75mm

Printed from the Chrom Resource Center

Copyright 2024, 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

Mobile Phase Solvents:

A: Hexane

B: Tetrahydrofuran (*THF*)

Flow rate: 1mL / minute

Detection: UV @ 255nm



Attachment

No 15 Prep HPLC in Normal Phase on C18 Column pdf 0.2 Mb [Download File](#)

Printed from the Chrom Resource Center

Copyright 2024, 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