



Polystyrene Standards Separation with Less Solvent

Agilent PLgel 10 μ m MiniMIX-B Columns

Technical Overview

Introduction

Narrow bore GPC columns offer high performance, excellent solvent compatibility and mechanical stability. These columns can be used with conventional GPC equipment and provide high performance, comparable to our conventional ID columns, the benefit of ~ 70 % reduction in solvent consumption, increased operator safety and reduced solvent disposal costs.



Agilent Technologies

To maintain the same linear velocity through the column, the volumetric flow rate must be reduced to 0.3 mL/min, in line with the column cross sectional area. This provides significantly lower solvent consumption. Sample loadings are scaled down in line with the reduced column volume, and system dead volume minimized to avoid excessive band broadening.

A set of three PLgel 10 µm MiniMIX-B columns is recommended. Calibration can be performed by two injections of polystyrene standards.

Conditions

Columns: 3 x PLgel 10 µm MiniMIX-B,
250 x 4.6 mm (p/n PL1110-6100)
Eluent: THF
Flow Rate: 0.3 mL/min
Detection: UV, 254 nm

Peak Identification

1. 4,000,000	8. 9,800,000
2. 500,800	9. 1,550,000
3. 66,000	10. 156,000
4. 9,200	11. 30,300
5. 1,320	12. 3,250
6. 162	13. 580
7. Toluene	14. Toluene

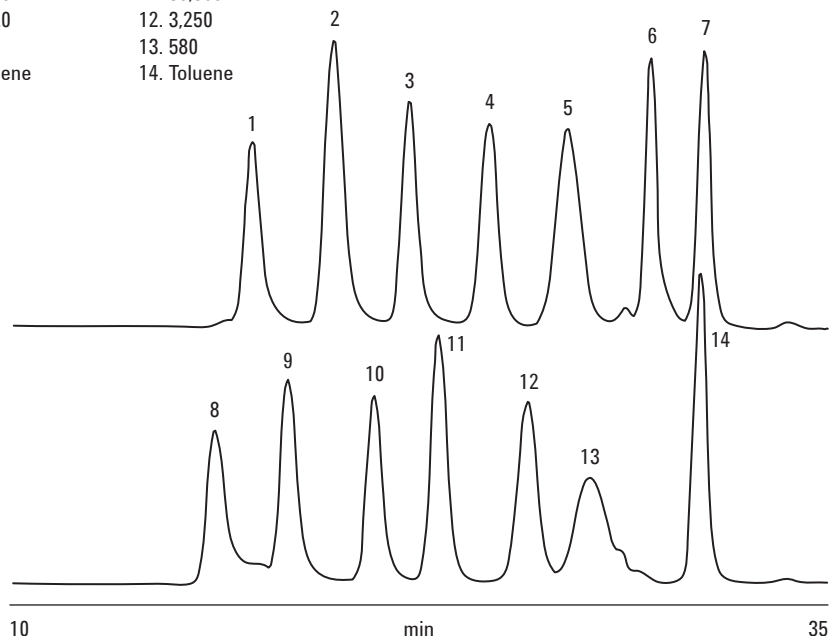


Figure 1. Separation of polystyrene standards on PLgel MiniMIX-B columns.

www.agilent.com/chem

This information is subject to change without notice.

© Agilent Technologies, Inc. 2010

Published in UK, September 23, 2010

SI-01774



Agilent Technologies