

Preparative Gel Permeation Chromatography - Loading

Technical Overview

Introduction

Loading in preparative gel permeation chromatography (GPC) is dependent on molecular weight and can be much greater for low Mw materials than for polymers. In any case, there should be at least 10 times scale up from analytical to preparative GPC. For very low molecular weight materials such as epoxy resins, the loading can be significantly increased, as shown in Figure 1.

Conditions

Column	2 × Agilent PLgel 10 μm 100Å, 25 × 300 mm (p/n PL1210-6120)
Eluent	THF
Flow rate	9.0 mL/min
Loading	Analytical 5 mg/mL, 1 mL (5 mg on-column) Preparative 100 mg/mL, 3 mL (300 mg on-column)
Detector	RI
System	Agilent 1260 Infinity GPC-SEC Analysis System



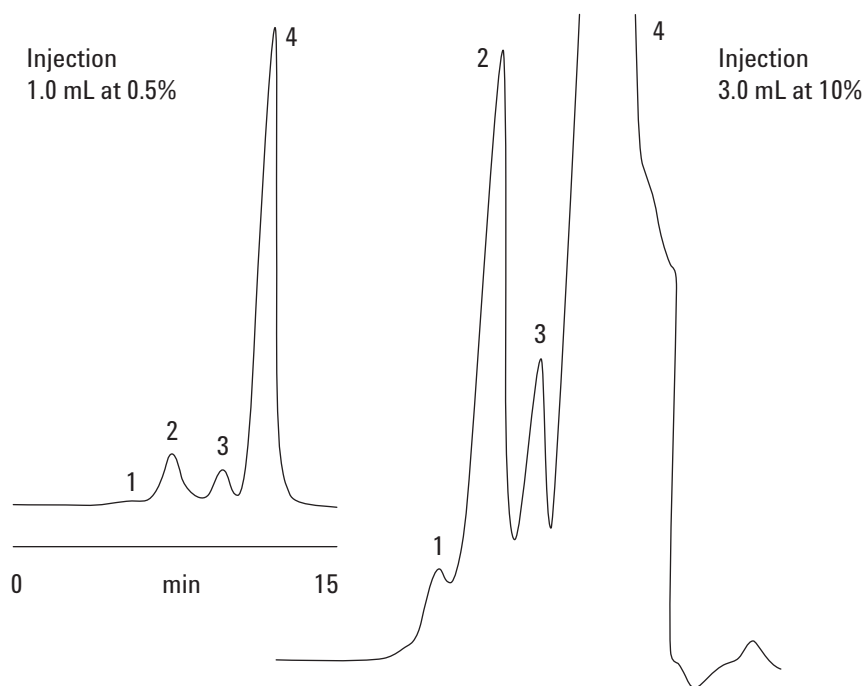


Figure 1. Comparison of analytical (left) and preparative (right) loadings in the quantification of four epoxy resin components on an Agilent PLgel 10 µm two-column set.

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