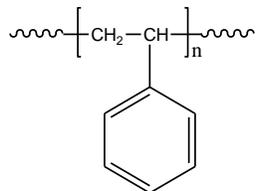


Sample Name: Polystyrene-Broad Distribution

Sample #: P8806-S

Structure:



Composition:

Mn x 10 ³	PDI
40.0	2.0

Synthesis Procedure:

Polystyrene is obtained by free radical polymerization of styrene.

Characterization:

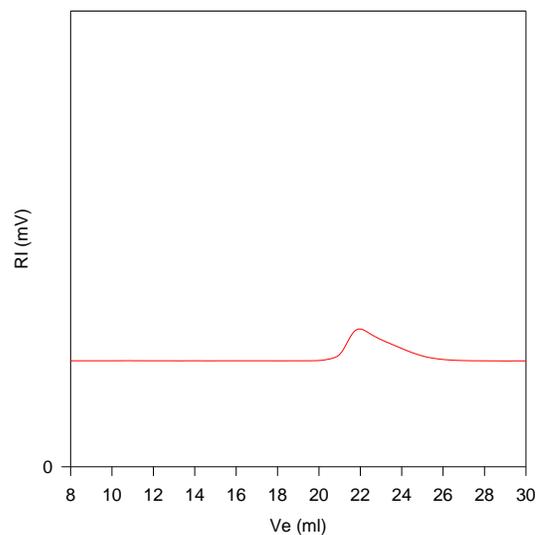
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

Solubility:

Polystyrene is soluble in DMF, THF, toluene and CHCl₃. It precipitates from methanol, ethanol, water and hexanes.

SEC of Homopolymer

P8806-S (broad distribution)



Size Exclusion Chromatography of polystyrene;

— M_n = 40,000, M_w = 80,000, M_w/M_n = 2.0

T_g of polystyrene as function of molecular weight

