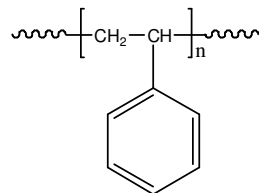


Sample Name: Polystyrene-Broad Distribution

Sample #: P5631-S

Structure:



Composition:

Mn x 10 ³	PDI
790.0	1.6

Synthesis Procedure:

Polystyrene is obtained by free radical polymerization of styrene.

Characterization:

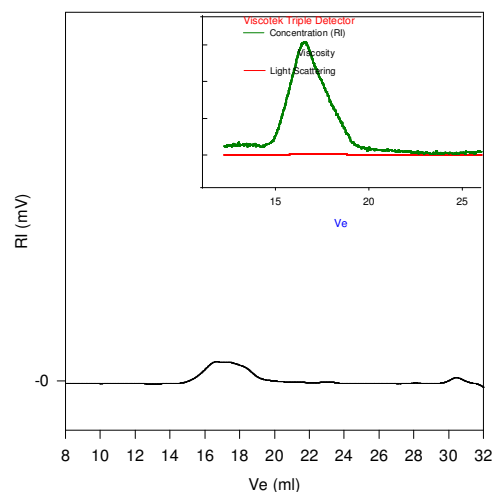
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple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

P5631-S



Size Exclusion Chromatography of polystyrene;

— $M_n = 790,000$, $mw: 1260,000M_w/M_n = 1.6$

In box Light Scattering data from Triple detectors:

dn/dc in THF 0.185ml/g Solution Viscosity in THF at 35 oC: 2.77dl/g
Rgw: 40.14nm

T_g of polystyrene as function of molecular weight

