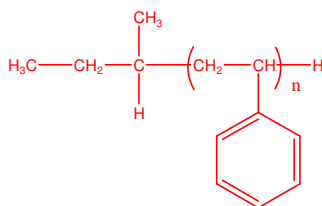


Sample Name: Polystyrene

Sample #: P40041-S

Structure:

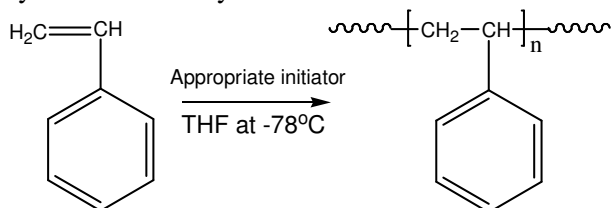


Composition:

Mn x 10 ³	PDI
0.9	1.15

Synthesis Procedure:

Polystyrene is obtained by living anionic polymerization of styrene as illustrated below:



Characterization:

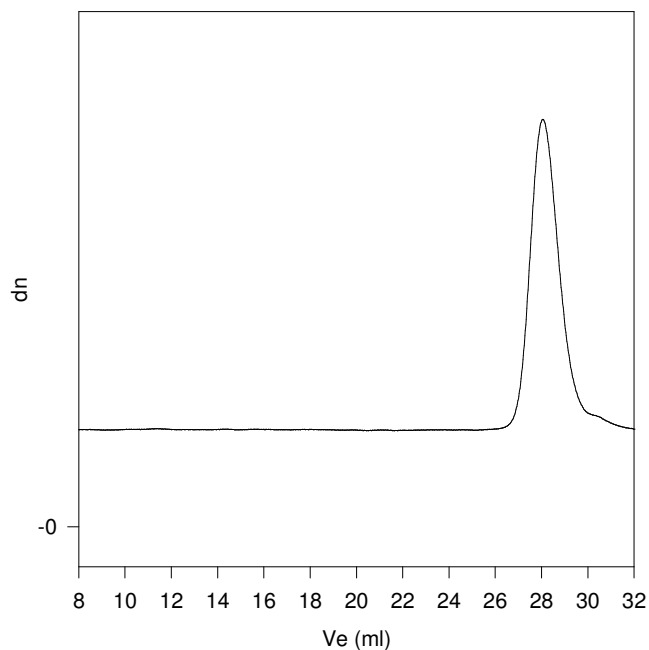
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple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

Solubility:

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

SEC elugram of the polymer in THF

P40041-S



Size Exclusion Chromatography of polystyrene

M_n=900, M_w=1,000, Mp: 850 M_w/M_n=1.15

Mn by HNMR:

¹H NMR spectrum of the polymer:

