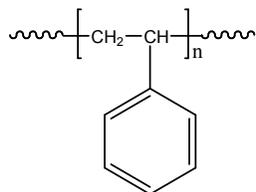


**Sample Name: Polystyrene**

**Sample #: P10503-S**

**Structure:**

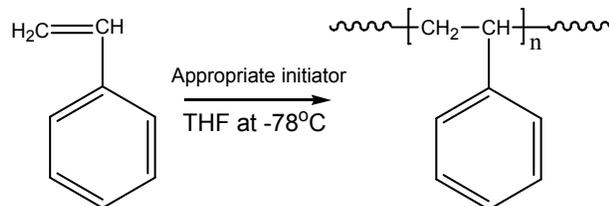


**Composition:**

$M_n \times 10^3$	PDI
86.0	1.04

**Synthesis Procedure:**

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



**Characterization:**

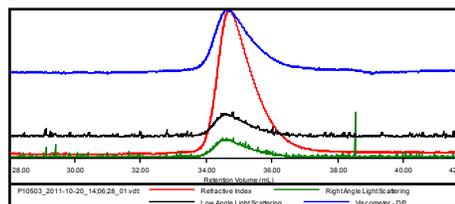
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple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

**Solubility:**

Polystyrene is soluble in DMF, THF, toluene and  $CHCl_3$ . It precipitates from methanol, ethanol, water and hexanes.

Sample ID: P10503

Concentration (mg/mL)	1.0148
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-July-0001.v.cm
Column Set	3x PL 1113-6300
System	System 1



Sample	$M_n$ (Da)	$M_w$ (Da)	$M_p$ (Da)	$M_w/M_n$	IV (dL/g)
P10503_2011-10-20_14:06:28_01.v dt	85,549	89,643	86,489	1.048	0.7810

