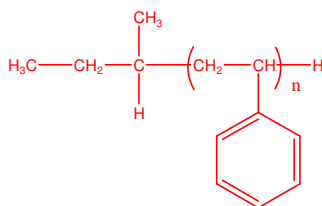


Sample Name: Polystyrene

Sample #: P40067-S

**Structure:**

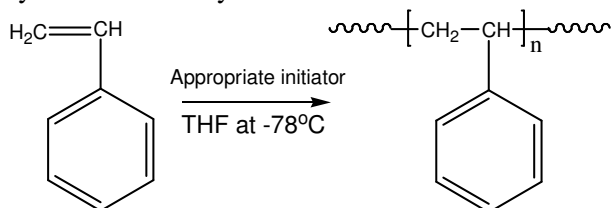


**Composition:**

$\text{Mn} \times 10^3$	PDI
271.0	1.04

**Synthesis Procedure:**

Polystyrene was synthesized by living anionic polymerization of styrene as illustrated below:



**Characterization:**

The molecular weight and polydispersity index (PDI) were 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.

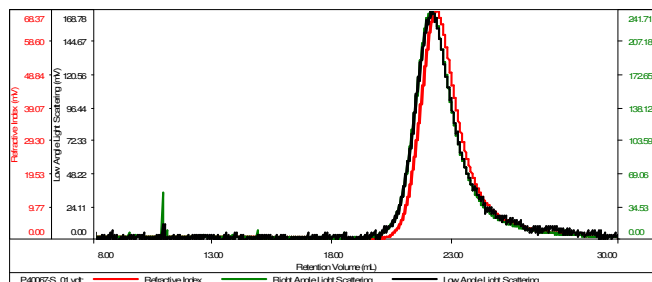
**Solubility:**

Polystyrene is soluble in DMF, THF, toluene and  $\text{CHCl}_3$ . It precipitates from methanol, ethanol, water and hexanes.

SEC elugram of the polymer in THF

**Sample ID:** P40067-S

Concentration (mg/mL)	3.0151
Sample dn/dc (mL/g)	0.1880
Method File	PS80K-4August2016-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P40067-S_01.vdt	271,201	281,441	1.038	0.8438	269,313