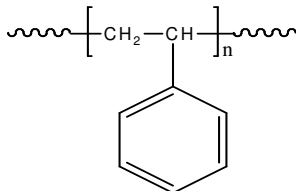


Sample Name: Polystyrene

Sample #: P19929-S

**Structure:**

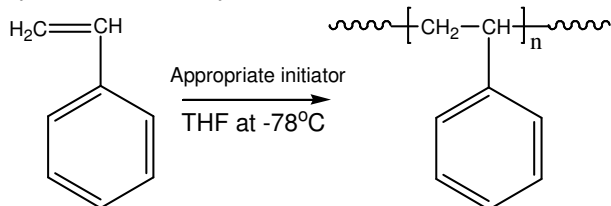


**Composition:**

$M_n \times 10^3$	PDI
253.0	1.05

**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.

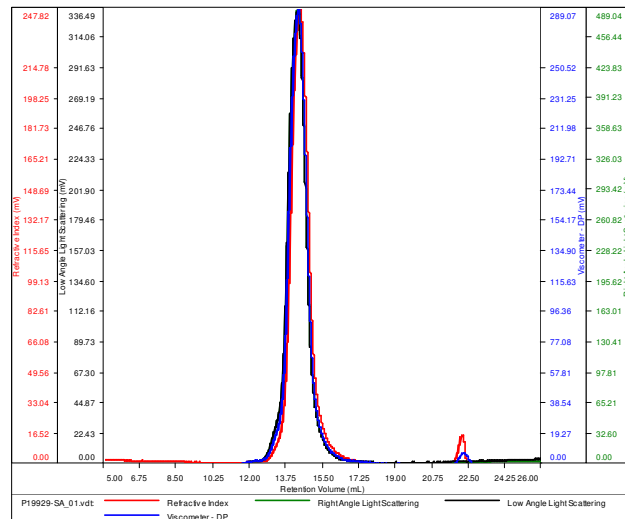
**Solubility:**

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

## SEC elugram of the polymer in THF

**P19929-S**

Conc (mg/mL)	5.8055
dn/dc (mL/g)	0.1650
Method	PS80k-May-25-2016-0000.vcm
Solvent	DMF w 0.023M LiBr
Column	PSS



Sample	Mn	Mw	Mp	Mw/Mn	IV
P19929-SA_01.vdt	253,108	265,737	258,895	1.050	0.5610