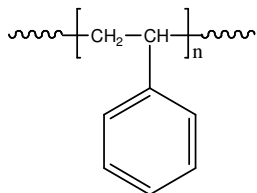


Sample Name: **Polystyrene**

Sample #: **P19020-S**

**Structure:**

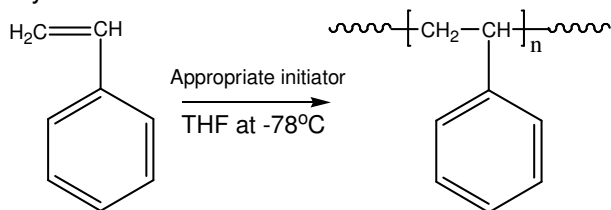


**Composition:**

Mn x 10 <sup>3</sup>	PDI
1,168.0	1.07

**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.

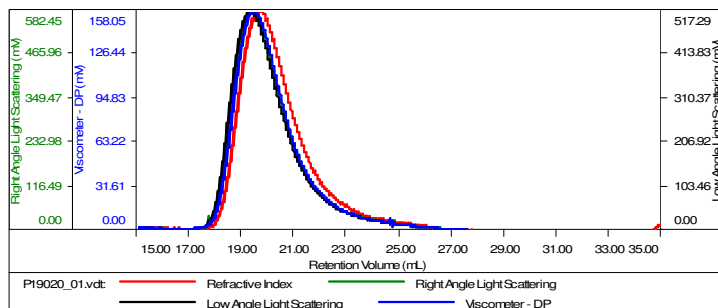
**Solubility:**

Polystyrene is soluble in DMF, THF, toluene and CHCl<sub>3</sub>. It precipitates from methanol, ethanol, water and hexanes.

**SEC elugram of the polymer:**

**Sample ID: P19020-S**

Concentration (mg/mL)	1.0232
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-Dec17-2014-0000.vom
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19020_01.vdt	1.168 e 6	1.248 e 6	1.241 e 6	1.069	8.5881