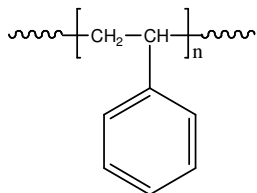


Sample Name: **Polystyrene**

Sample #: **P18977-S**

**Structure:**

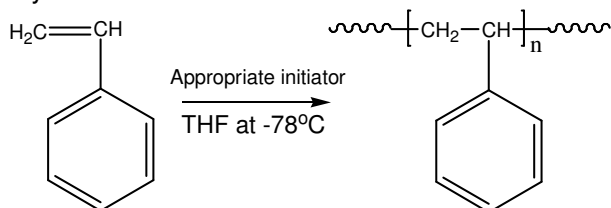


**Composition:**

Mn x 10 <sup>3</sup>	PDI
1,312.0	1.17

**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.

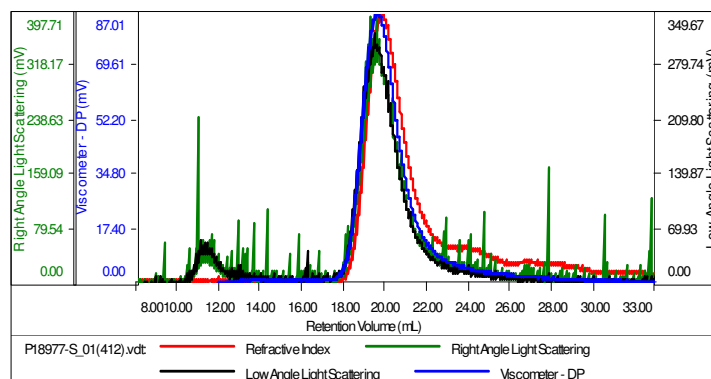
**Solubility:**

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: P18977-S**

Concentration (mg/mL)	2.3015
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-NOV-2014-0003.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)
P18977-S_01(412).vdt	1.312 e 6	1.526 e 6	1.594 e 6	1.163	1.9653