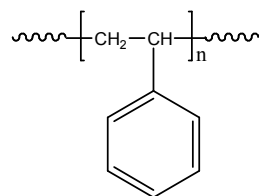


Sample Name: **Polystyrene**

Sample #: **P19419-S**

(Initiator was tert.butyl lithium)

**Structure:**

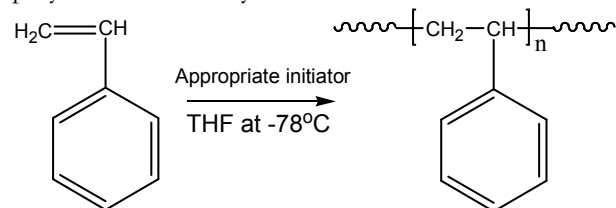


**Composition:**

Mn x 10 <sup>3</sup>	PDI
42.0	1.25

**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.

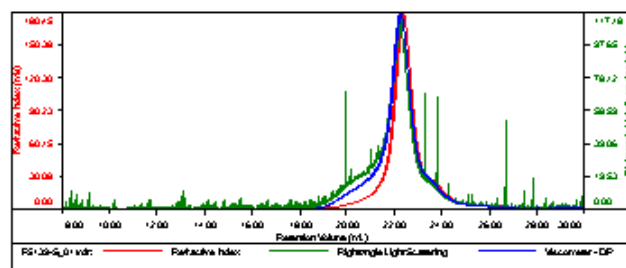
**Solubility:**

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

**SEC of the Sample**

**Sample ID**P19419-S

Concentration (mg/mL)	1.1103
Sample chkb (mL/g)	0.1850
Method File	P880KJune30-2015-0000.vdm
Column Set	3x PL 1113-6000
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
S_01.vdt	41,508	52,885	37,875	1.257	1.3541