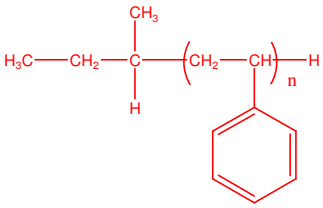
Sample Name: **Polystyrene**

Sample #: **P40042-S**

Structure:

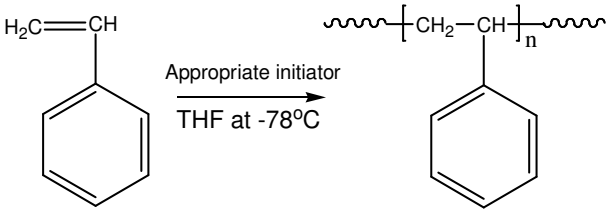


Composition:

Mn x 10^3	PDI
1.2	1.16

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.

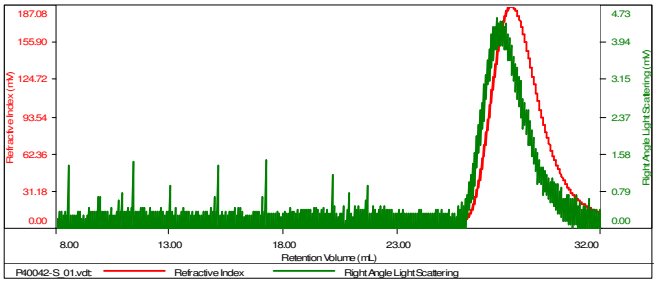
Solubility:

Polystyrene is soluble in DMF, THF, toluene and $CHCl_3$. It precipitates from methanol, ethanol, water and hexanes.

SEC elugram of the polymer in THF

Sample ID: P40042-S

Concentration (mg/mL)	8.3465
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-30JUNE2016-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P40042-S_01.vdt	1,170	1,367	1.168	0.0390	1,280

^{1}H NMR spectrum of the polymer: