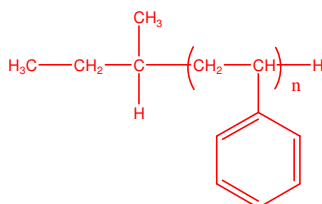


Sample Name: Polystyrene

Sample #: P40029-S

Structure:

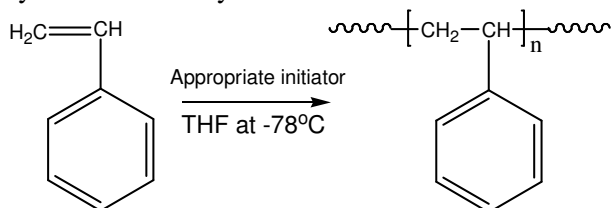


Composition:

Mn x 10 <sup>3</sup>	PDI
2.0	1.10

Synthesis Procedure:

Polystyrene is obtained by living anionic polymerization of styrene as illustrated below:



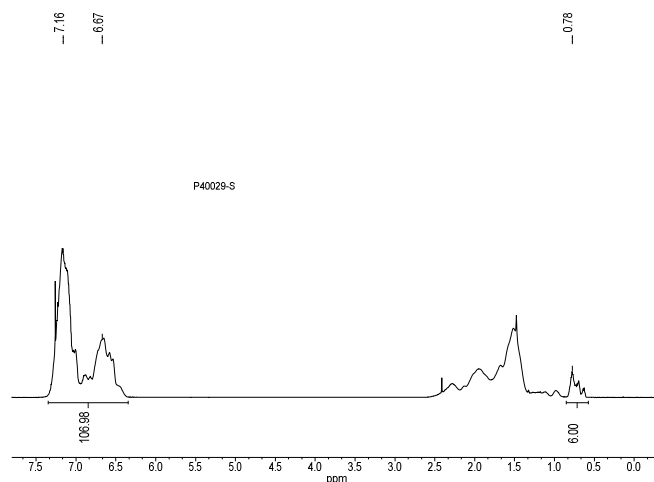
Characterization:

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.

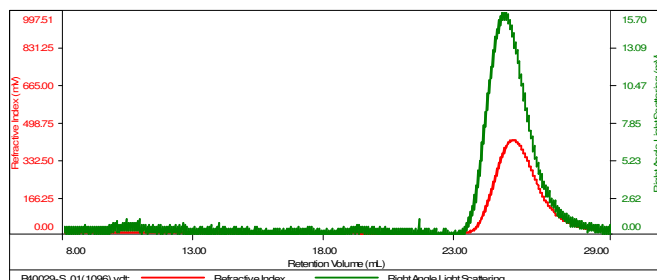
<sup>1</sup>H NMR spectrum of the polymer:



SEC elugram of the polymer in THF:

Sample ID: P40029-S

Concentration (mg/mL)	14.0166
Sample ch/ds (mL/g)	0.1850
Method File	PS80K-30JUNE2016-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mh (Da)	Mw (Da)	Mw/Mh	IV (dL/g)	Mp (Da)
P40029-S_01(1096).vd	2,083	2,306	1.107	1.0000	2,245