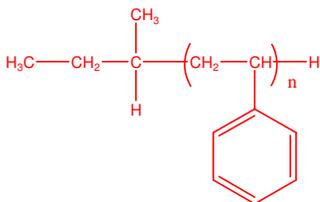


Sample Name: Polystyrene

Sample #: P40028-S

Structure:

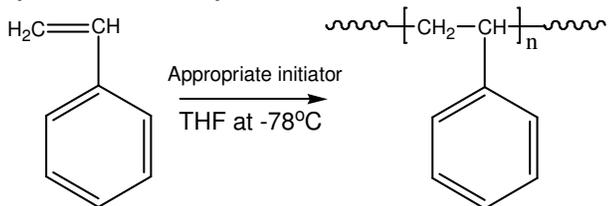


Composition:

Mn x 10 ³	PDI
3.4	1.13

Synthesis Procedure:

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



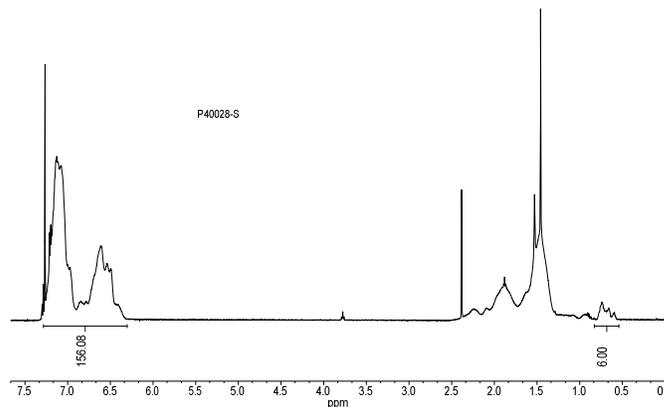
Characterization:

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 CHCl₃. It precipitates from methanol, ethanol, water and hexanes.

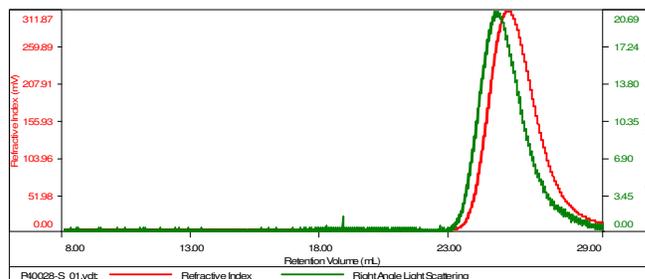
¹H NMR spectrum of the polymer in THF:



SEC elugram of the polymer in THF:

Sample ID: P40028-S

Concentration (mg/mL)	11.1316
Sample conc: (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	N(dL/g)	Mp (Da)
P40028-S_01.vdt	3,433	3,907	1.138	0.0703	3,794