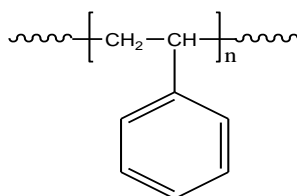


Sample Name: Polystyrene

Sample #: P40947-S

Structure:

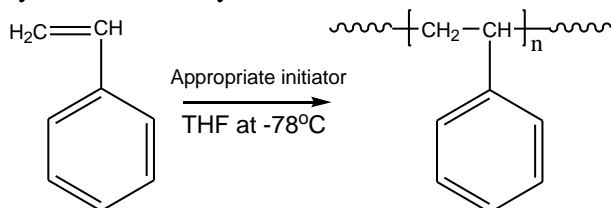


Composition:

Mn x 10 ³	PDI
168.5	1.13

Synthesis Procedure:

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



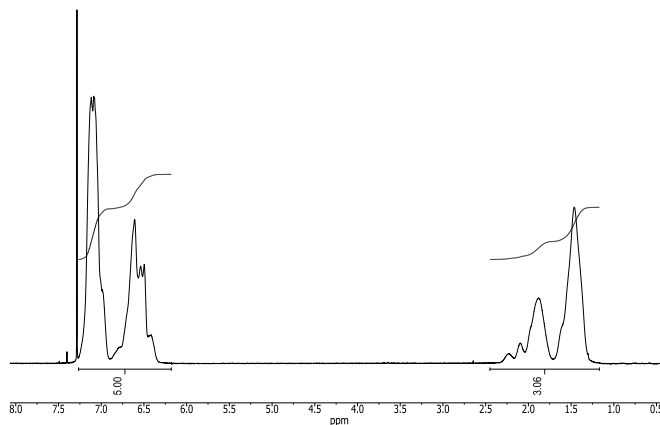
Characterization:

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in DMF. 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.

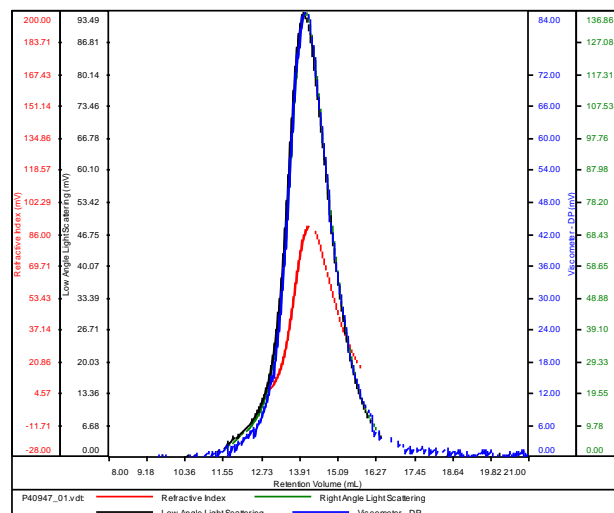
¹H NMR spectrum of the polymer:



SEC elugram of the polymer:

P40947

Conc	3.9411
dn/dc	0.1650
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS80k_2018-01-24-0000.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P40947_01.vdt	168,567	189,272	179,758	1.123	0.4105