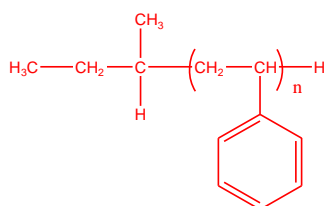


Sample Name: Polystyrene (broad distribution)

Sample #: P40516-S

Structure:

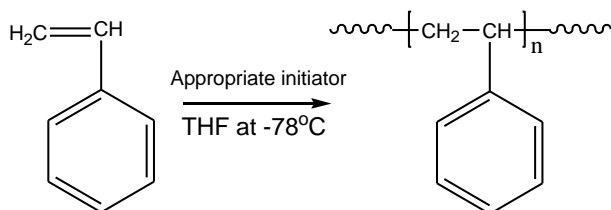


Composition:

$\text{Mn} \times 10^3$	PDI
9.0	1.4
Tg	84 °C

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 chromatography 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.

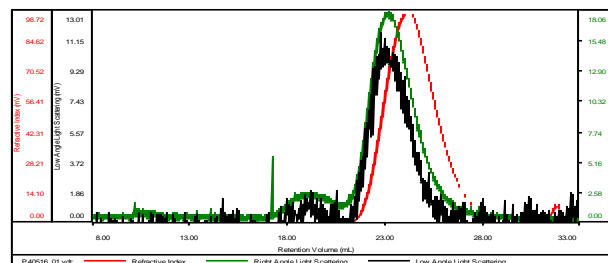
Solubility:

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:

P40516-S

Concentration (mg/mL)	11.4995
Sample dn/dc (mL/g)	0.1700
Method File	PS80K-august2017-0001.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P40516_01.vdt	8,789	12,762	1.452	0.0614	10,229

DSC thermogram of the polymer:

