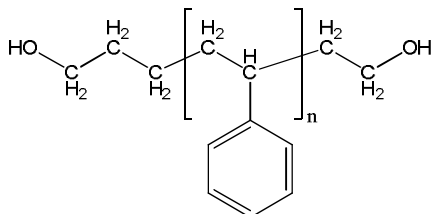
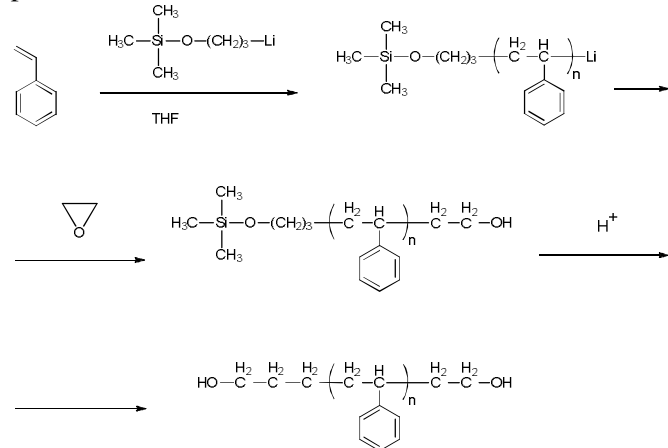


Sample Name: **α,ω -Di(hydroxy)-terminated polystyrene****Sample # P18705A-S2OH****Structure:****Composition:**

$M_n \times 10^3$ (g/mol)	M_w/M_n
14.0	1.1
-OH functionality:	> 85%

Synthesis procedure:

α,ω -Di(hydroxyl)-terminated polystyrene was prepared by living anionic polymerization of styrene using a hydroxyl-protected initiator, followed by termination with ethylene oxide. The scheme of reaction is presented below:

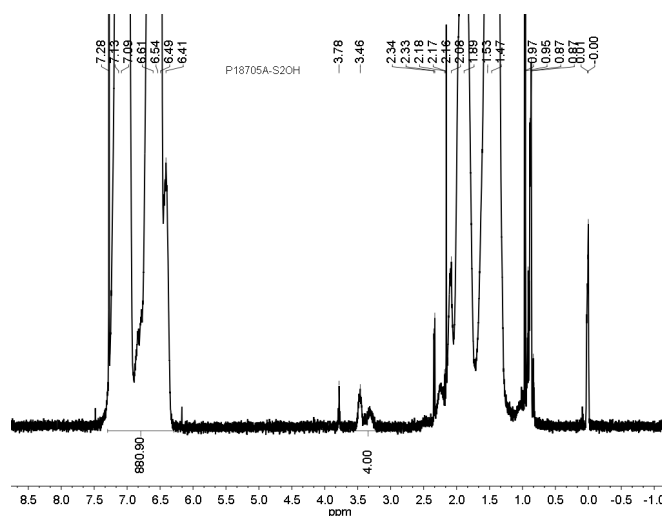
**Characterization:**

End-group functionality of the polymer was confirmed by ^1H -NMR spectroscopy.

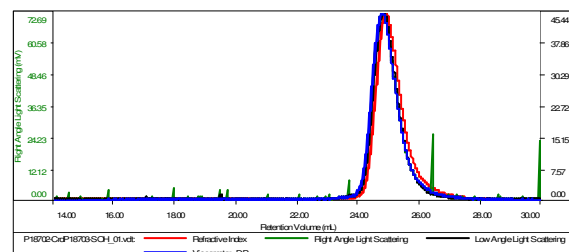
The molecular weight and polydispersity index of the polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detectors.

Solubility:

Polystyrene is soluble in toluene, THF, chloroform; and it precipitates from cold methanol, water.

 ^1H NMR (500 MHz, CDCl_3):**SEC elugram of the polymer:****Sample ID: P18705-S2OH**

Concentration (mg/mL)	18.3834
Sample dn/dc (mL/g)	0.1850
Method File	PS80< Apr15 2014-0000.vcm
Column Set	3x PL 1113-6000
Solvent	THF



Sample	Mh	Mw	Mp	Mw/Mh	IV
P18702-0dP18703-SOH_01.vdt	13,671	14,674	14,744	1.073	0.0588

