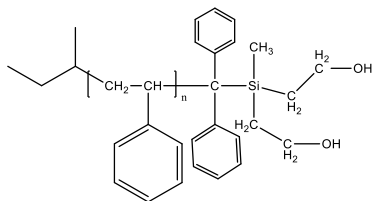


Sample Name: Poly(styrene), ω -(dihydroxy [via silane])-terminated

Sample #: P3723B-S2OH

Structure:

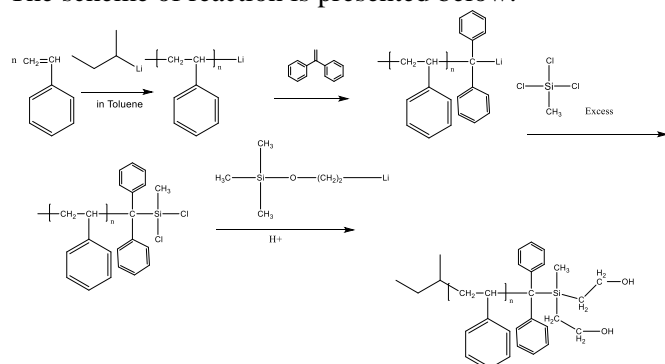


Composition:

$M_n \times 10^3$ (g/mol)	M_w/M_n
10.1	1.05

Synthesis procedure:

Mono- ω -Di(hydroxyl)-terminated polystyrene was prepared by living anionic polymerization of styrene. The scheme of reaction is presented below:



Characterization:

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.

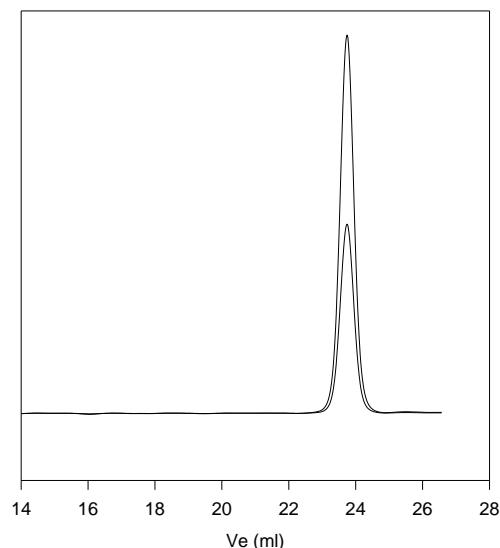
Thermal analysis was performed on TA Instruments Q100 differential scanning calorimeter (DSC) under a nitrogen atmosphere. The glass transition temperature (T_g) of the polymer was measured at a scan rate of 10°C/min shortly after creating thermal history of the sample.

Solubility:

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

SEC elugram of the polymer:

P3723B-S2OH



Size exclusion chromatograph of polystyrene, before and after end capped with chlorosilane:

$M_n=10,100$, $M_w=10,600$ $PI=1.05$

DSC thermogram of the polymer:

