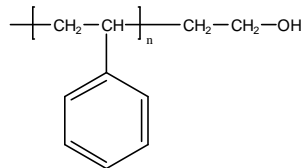
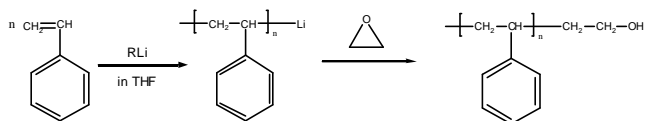


Sample Name:**? -Hydroxy Terminated Polystyrene****Sample #: P10140- SOH****Structure:****Composition:**

Mn x 10 ³	PDI
5.5	1.09
T _g (°C)	80

Synthesis Procedure:

? , -hydroxy terminated polystyrene was prepared by living anionic polymerization. The scheme of the reaction is illustrated below:

**Characterization:**

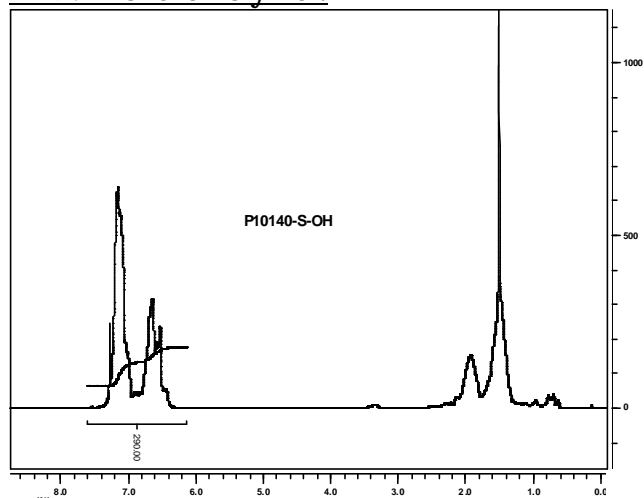
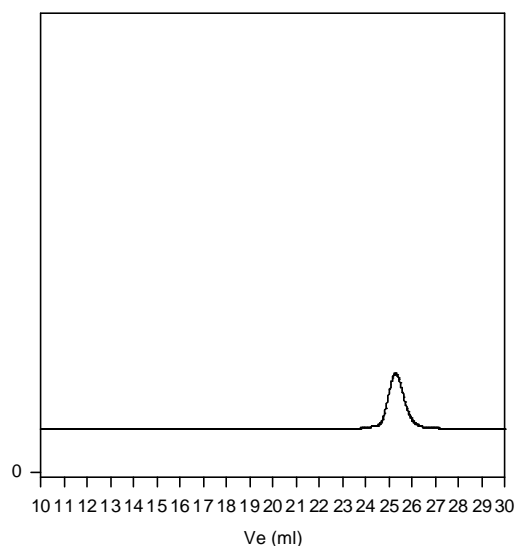
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. Polymer functionality was determined by titration with NaOH solution using phenolphthalein as the indicator.

Thermal analysis:

Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min. The inflection glass transition temperature (T_g) has been considered.

Solubility:

Polymer is soluble in toluene, THF, CHCl₃ and can be precipitated in water and cold methanol.

HNMR of the Polymer:**SEC of Sample:****P10140-SOH**

Size Exclusion chromatography of Hydroxy end poly styrene

— Polystyrene, M_n=5,500, M_w=6,000 PI=1.09**DSC thermogram for the sample:**