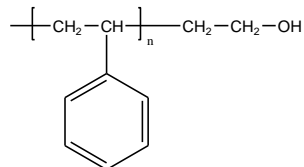


**Sample Name:** Hydroxy Terminated Polystyrene

**Sample #:** P4389-SOH

**Structure:**

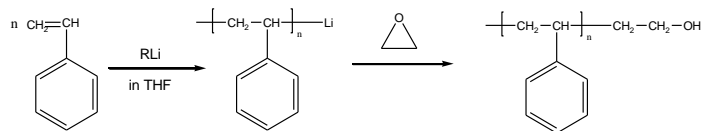


**Composition:**

$M_n \times 10^3$	PDI
60.0	1.09
$T_g (^{\circ}C)$	102

**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 using phenolphthalein as the indicator.

**Thermal analysis:**

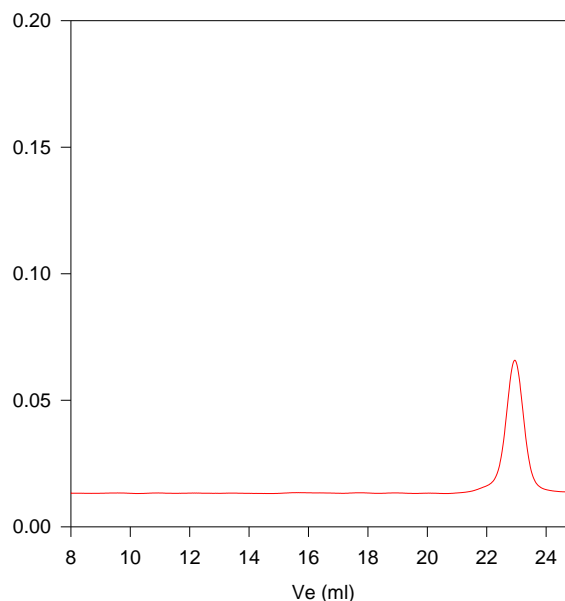
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of  $10^{\circ}C/min$ . The inflection glass transition temperature ( $T_g$ ) has been considered.

**Solubility:**

Polymer is soluble in toluene, THF,  $CHCl_3$  and can be precipitated in water and cold methanol.

**SEC of Sample:**

**P4389-SOH**



Size exclusion chromatography of  $\omega$  hydroxy Terminated polystyrene:

$M_n=60000$ ,  $M_w=65400$ ,  $PI=1.09$ , functionality>98%

**DSC thermogram for the sample:**

