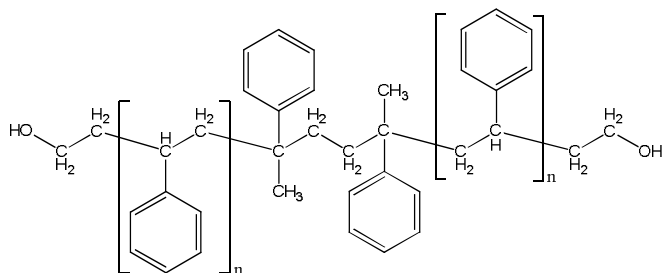


Sample Name:

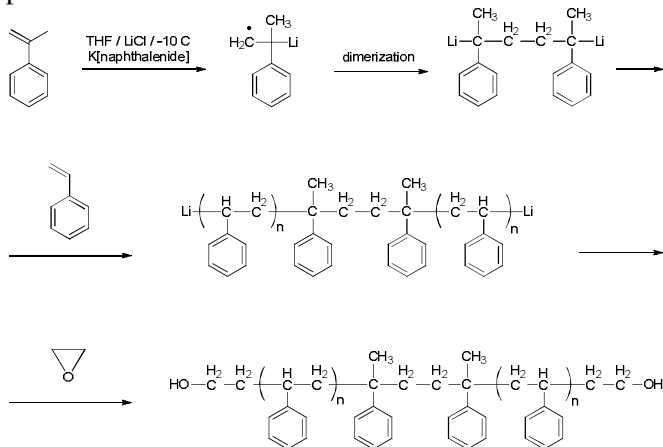
α,ω -Di(hydroxy)-terminated polystyrene,
(with α -methyl styrene dimer group in the middle of polymer chain)

Sample # P5311-S2OH**Structure:****Composition:**

| $M_n \times 10^3$ (g/mol) | M_w/M_n |
|---------------------------|-----------|
| 2.2 | 1.4 |

Synthesis procedure:

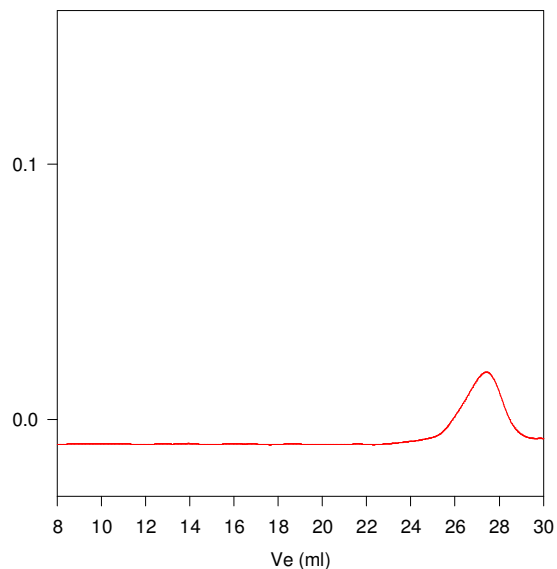
α,ω -Di(hydroxyl)-terminated polystyrene was prepared by living anionic polymerization of styrene using a bifunctional initiator in THF followed by termination with ethylene oxide. The scheme of reaction is presented below:

**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.

Solubility:

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

SEC elugram of the polymer:**P5311-S2OH**

Size exclusion chromatography of ω - α dihydroxy Terminated polystyrene:
 $M_n=2200$, $M_w=3000$, $PI=1.4$, functionality>1.95%