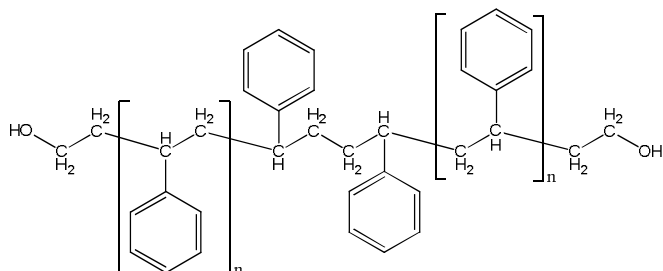


Sample Name:

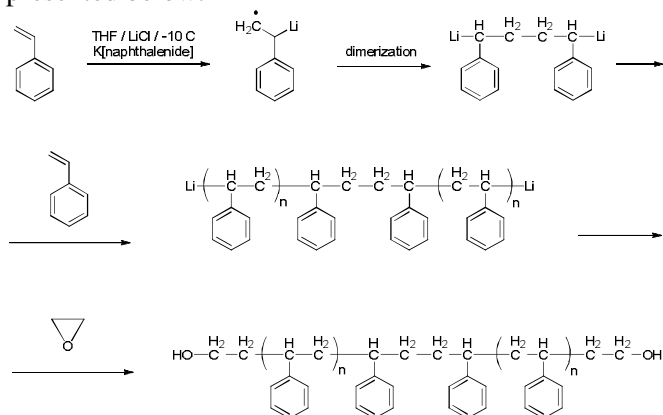
α,ω -Di(hydroxy)-terminated polystyrene,
(with styrene dimer group in the middle of polymer chain)

Sample # P1087-S2OH**Structure:****Composition:**

$M_n \times 10^3$ (g/mol)	M_w/M_n	Functionality
2.1	1.14	1.7

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:

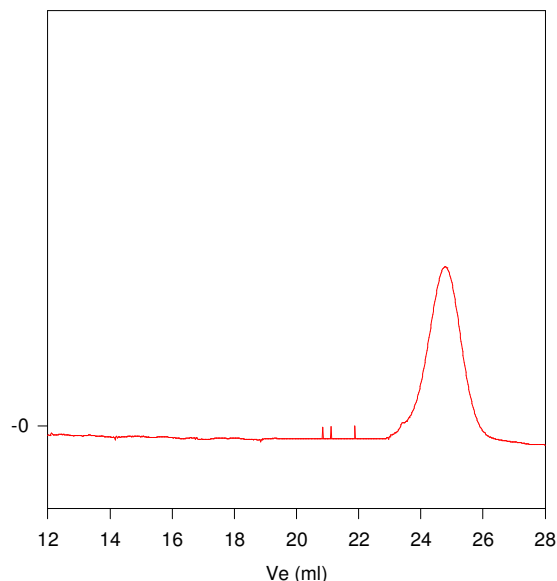
**Characterization:**

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.

SEC elugram of the polymer:**P1087-S2OH**

Size exclusion chromatography of α,ω dihydroxy Terminated polystyrene:

$M_n=2100$, $M_w=2400$, $M_z=2700$, $PI=1.14$, functionality=1.7