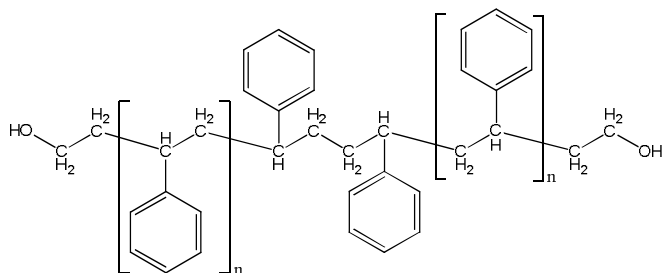


Sample Name:

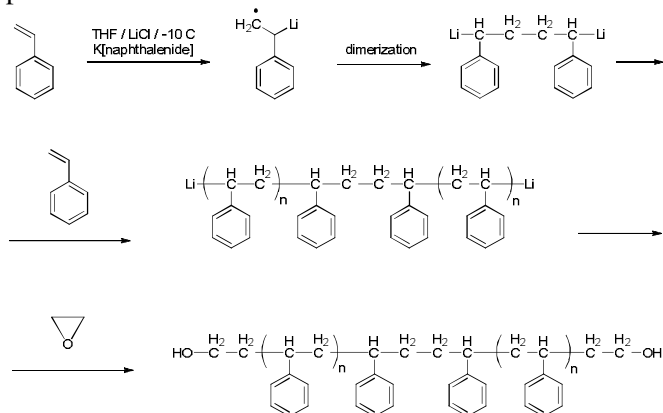
α,ω -Di(hydroxy)-terminated polystyrene,
(with styrene dimer group in the middle of polymer chain)

Sample # P4574-S2OH**Structure:****Composition:**

$M_n \times 10^3$ (g/mol)	M_w/M_n	Functionality
6.0	1.1	1.98

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:

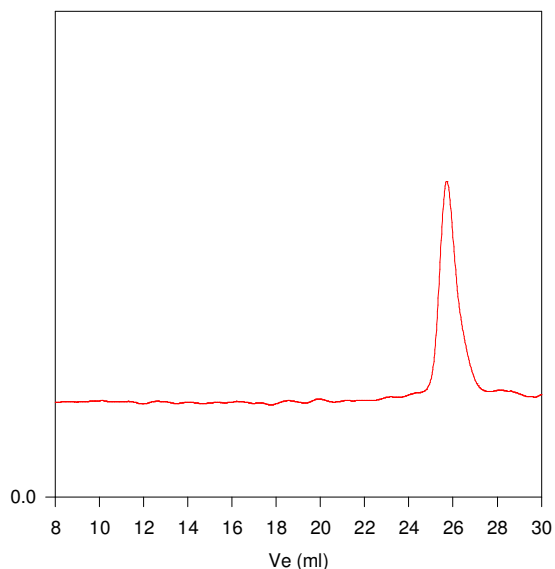
**Characterization:**

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:**P4574-S2OH**

Size exclusion chromatography of ω - α dihydroxy Terminated polystyrene:
 $M_n=6000$, $M_w=6600$ PI=1.10, functionality >1.98