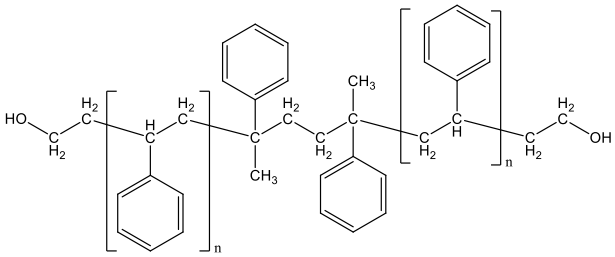
Sample Name:

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

Sample#: **P5306A-S2OH**

Structure:

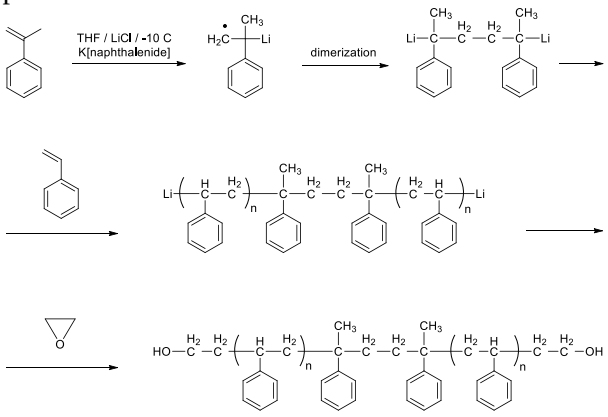


Composition:

$M_n \times 10^3$ (g/mol)	M_w/M_n
8.0	1.2

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:



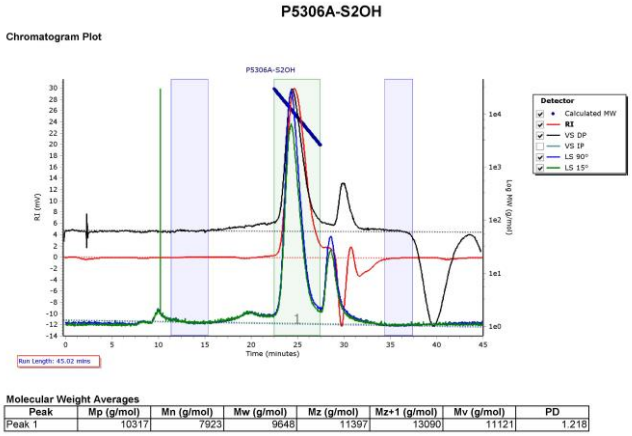
Characterization:

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:



Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	10317	7923	9648	11397	13090	11121	1.218