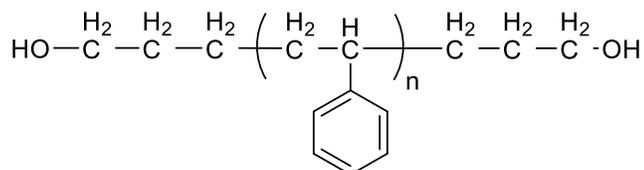


Sample Name:

α,ω -Di(hydroxy)-terminated polystyrene

Sample#: P42538-S2OH

Structure:

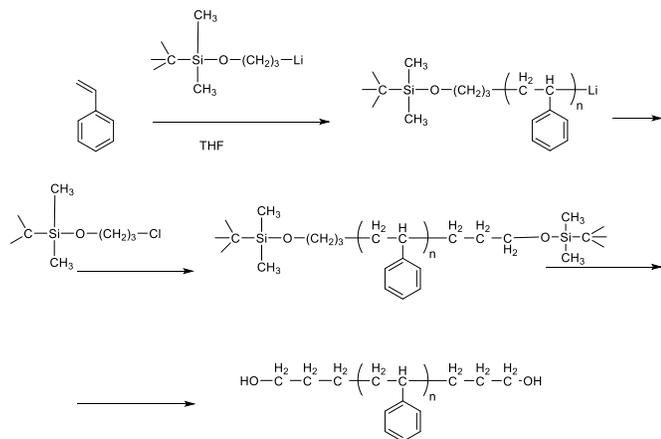


Composition:

$M_n \times 10^3$ (g/mol)	M_w/M_n
19.0	1.22

Synthesis procedure:

α,ω -Di(hydroxyl)-terminated polystyrene was prepared by living anionic polymerization of styrene using a hydroxyl-protected initiator, followed by termination with tert-Butyldimethylsiloxy Propyl chloride. The scheme of reaction is presented below:



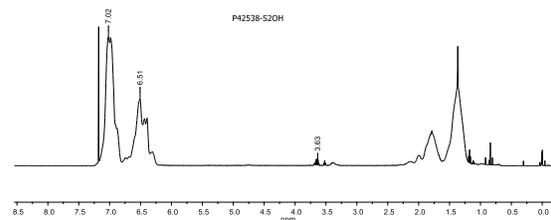
Characterization:

End-group functionality of the polymer was confirmed by $^1\text{H-NMR}$ 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.

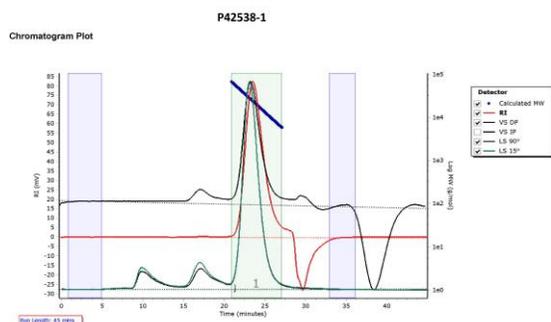
Solubility:

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

$^1\text{H-NMR}$ spectrum of the polymer:



SEC elugram of the polymer:



Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mx (g/mol)	PD
Peak 1	23889	18699	22654	28506	30176	25543	1.211