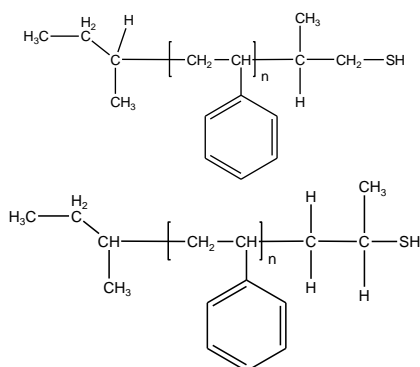


Sample Name: Thiol Terminated Polystyrene

Sample # P43340-SSH

Structure:

Route 2: (possible architectures)



Composition:

Mn x 10 ³ (g/mol)	Mw/Mn
10.0	1.3

-SH functionality	>90%
Tg	92 °C

Synthesis:

The polymer was synthesized by direct termination of anionic living polymerization of styrene by ethylene sulfide or propylene sulfide. Polymerization of styrene by sec-BuLi in THF at -78°C and termination by purified ethylene sulfide or propylene sulfide.

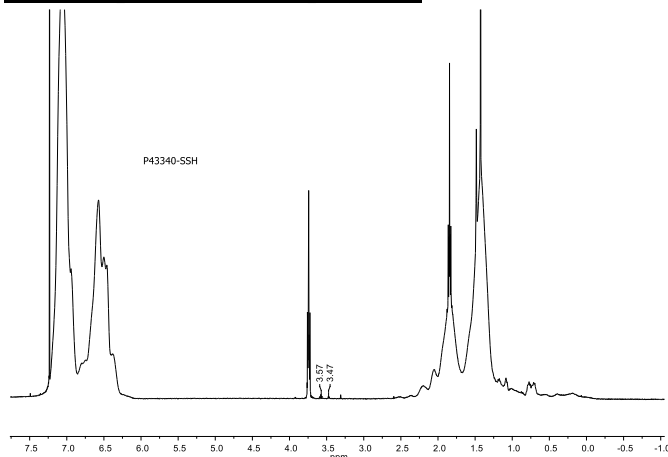
Characterization:

The molecular weight and polydispersity index of the hydroxyl terminated polymer were determined before functionalization with thiol by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with UV-vis and refractive index detectors. Polymer functionality was verified by oxidation of thiol to disulfide.

Functionality:

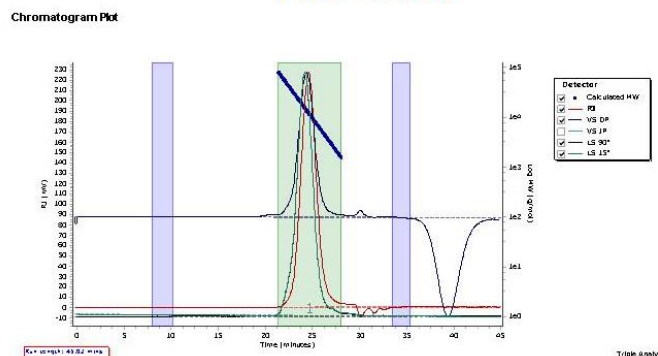
It was determined by oxidation reaction with iodine.

HNMR spectrum of the polymer:



SEC elugram of the Sample:

P43340-SSH



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	12228	10200	13492	17480	22863	16570	1.323

DSC thermogram of the Polymer:

