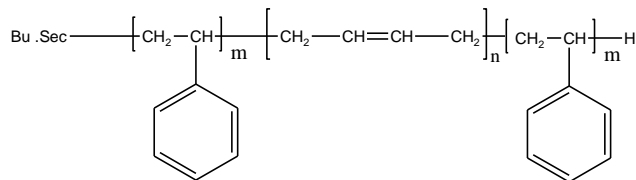


Sample Name:

Poly (Styrene-b-butadiene-b-Styrene)
Poly butadiene rich in 1, 4 microstructure

Sample #: P5999D-SBdS

Structure:

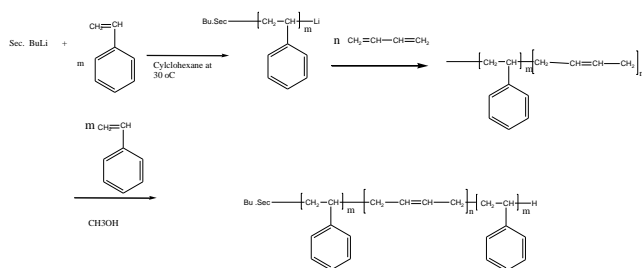


Composition:

Mn x 10 ³ (S-b-Bd-S)	PDI
12.0-b-55.0-b-12.0	1.20

Synthesis Procedure:

Poly (styrene -b- butadiene -b- styrene) is prepared by living anionic polymerization with sequence addition of styrene followed by butadiene and then styrene again. The scheme of the reaction is illustrated below:



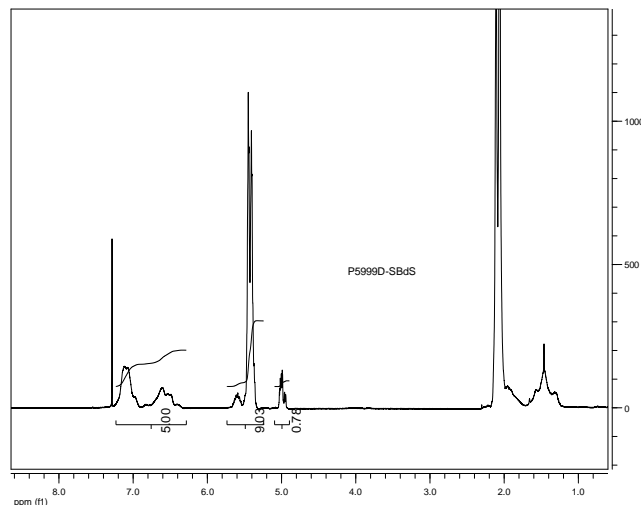
Characterization:

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

Solubility:

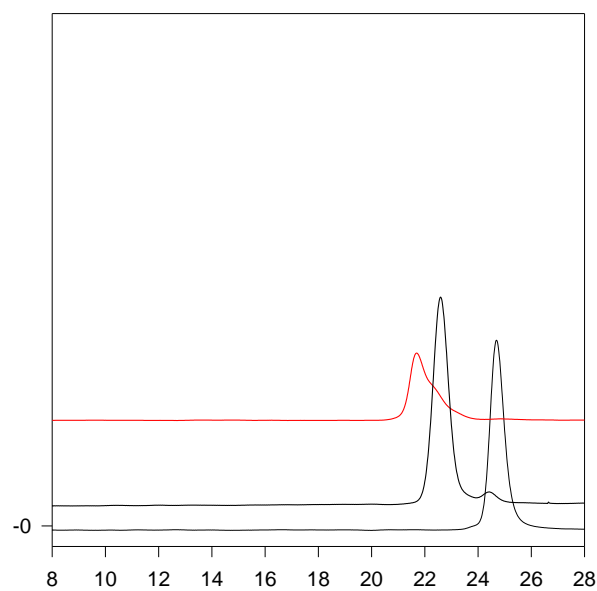
Polymer is soluble in THF, toluene and CHCl₃. It precipitates from methanol, ethanol, water and hexanes (depending on the compositions).

¹H NMR Spectrum of the Polymer:



SEC of Sample:

P5999D-SBdS



Size Exclusion Chromatography of:

— PS block, M_n=12000, Mw: 12,600 PI=1.05

- - - SBd, the diblock PS(12000)-b-PBd(27,500), PI=1.07

— SBdS, triblock PS(12000)-b-PBd(55,000)-b-PS(12000), PI=1.2