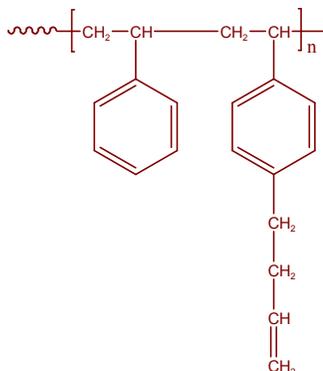


Sample Name: Random copolymer of styrene with 4-Butene styrene

Sample #: P9953-Ssbutene

Structure:

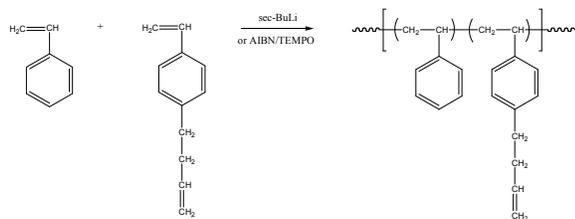


Composition:

Mn x 10 ³	Double Bond mol%	Mw/Mn (Total)
6.0	4.0	1.16

Synthesis Procedure:

Polystyrene-4-butene random copolymer is synthesized by copolymerization of styrene and 4-butene styrene. The brief synthetic route is illustrated as following scheme.



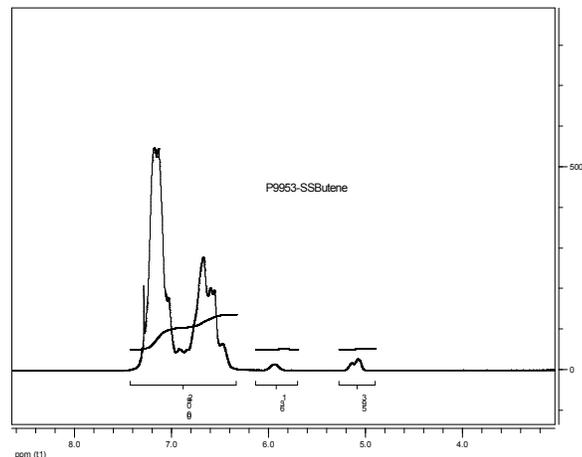
Characterization:

The molecular weight and polydispersity index (PDI) of polymers are obtained by size exclusion chromatography. The composition of grafting polymer is determined by NMR.

Solubility:

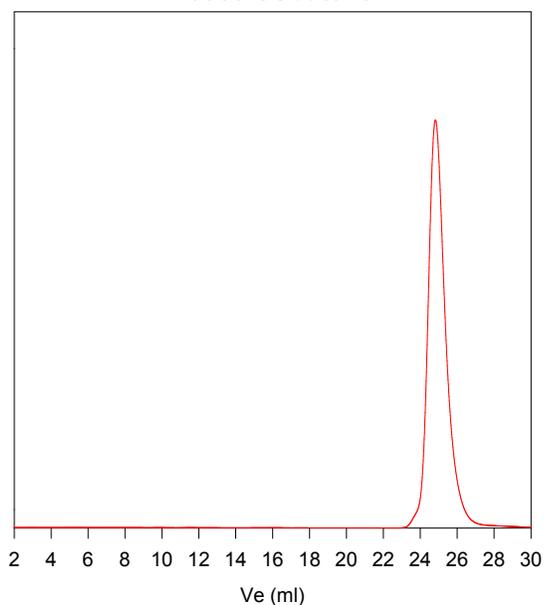
Random copolymer of styrene with 4 butene styrene is soluble in THF, DMF, chloroform, and Toluene. It precipitates from hexanes or methanol.

NMR of Polymer:



SEC of Polymer:

P9953-SSbutene



Size exclusion chromatography of copolymer:

M_n=6000, M_w=7000, PI=1.16