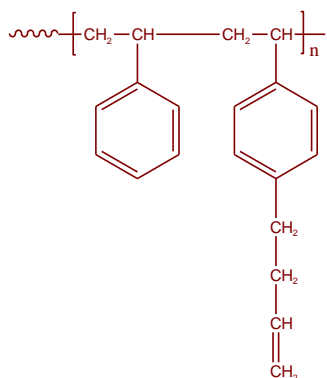


**Sample Name:** Poly(styrene-co-4-[1-butene]-styrene), random

**Sample #:** P41465C-SSbutene

**Structure:**

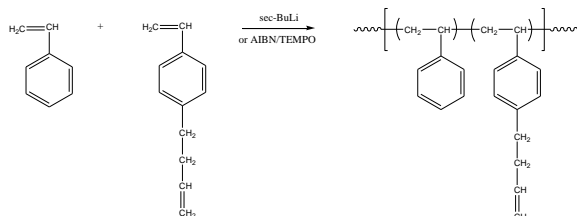


**Composition:**

Mn x 10 <sup>3</sup>	Double Bond mol%	Mw/Mn (Total)
16.5	9.0	1.37

**Synthesis Procedure:**

Polystyrene-g-1-butene is synthesized by copolymerization of styrene and 4-butene styrene. The brief synthetic route is illustrated as following scheme.



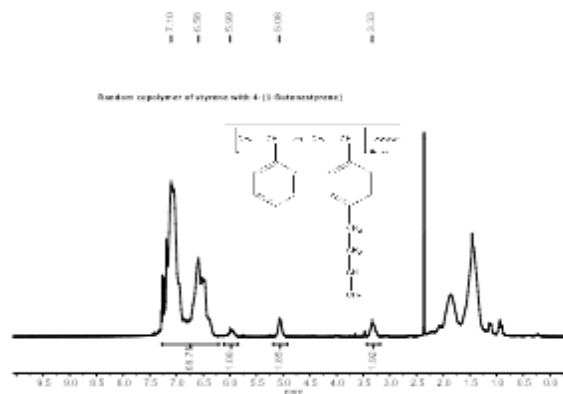
**Characterization:**

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:**

Polystyrene-g-butene is soluble in THF, DMF, chloroform, and Toluene. It precipitates from hexanes or methanol.

**H NMR spectrum of the Polymer:**



**SEC elugram of Polymer:**

Agilent GPC/SEC Software

