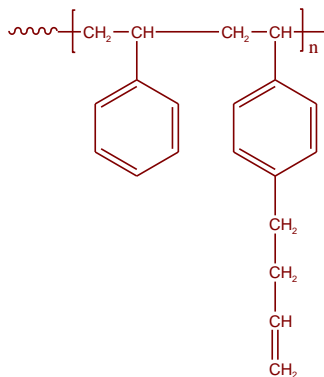


Sample Name: Random copolymer of styrene with 4-butenestyrene

Sample #: **P18331-SSbutene**

Structure:

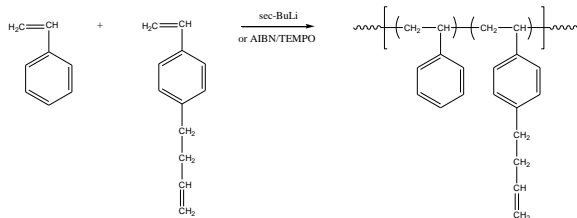


Composition:

Mn x 10 ³	Double Bond mol%	Mw/Mn (Total)
4.8	6.0	1.25

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.



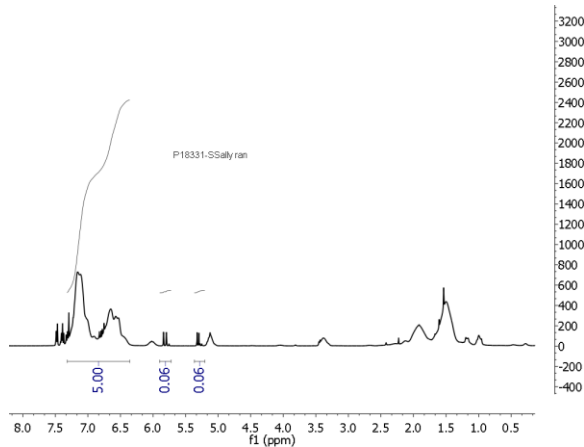
Characterization:

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.

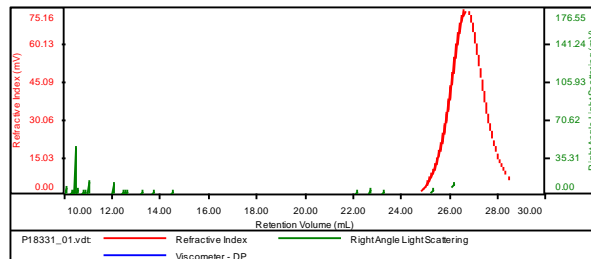
NMR of Polymer:



SEC of Polymer:

Sample ID: P18331-SSallyran

Concentration (mg/mL)	3.2142
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-NOV25-2013-0000.vcm
Column Set	3x PL 1113-6300
System	System 1



Sample	Mn	Mw	Mp	Mw/Mn	IV
P18331_01.vdt	4,809	6,247	5,409	1.299	0.0823

