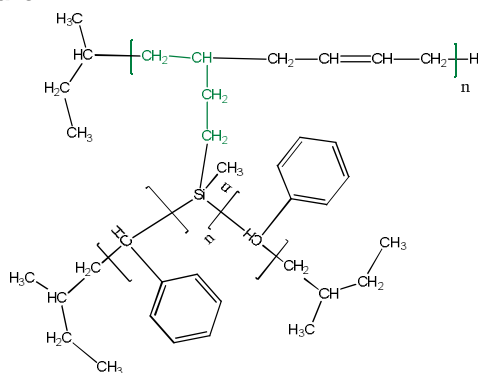


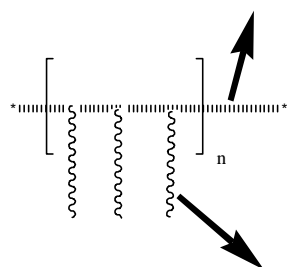
Sample Name:
10-arm Polystyrene grafted on Polybutadiene

Sample # P18375D-10S

Structure:



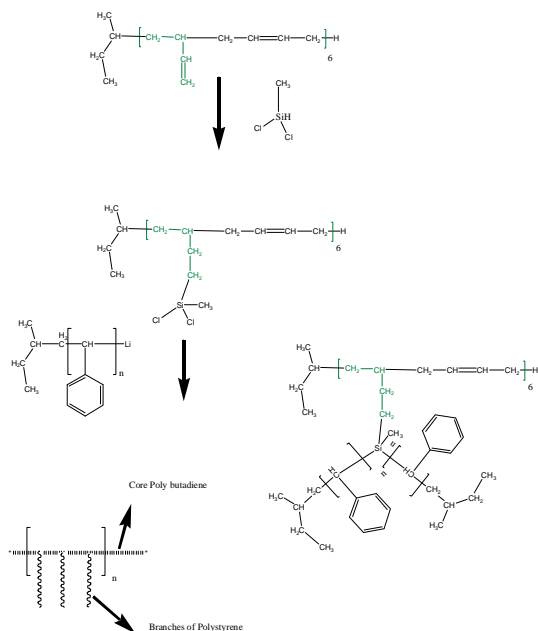
Core Poly butadiene



Branches of Polystyrene

Total Mn x 10 ³	PDI
11.5 (M _n of each arm: 1.0)	1.07

Synthesis Procedure:



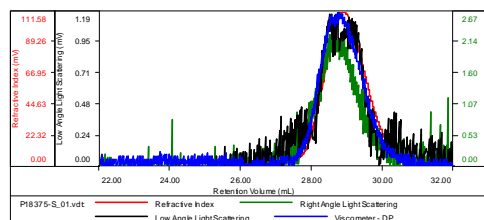
Characterization: molecular weight was determined by size exclusion chromatography (SEC) using Varian liquid chromatograph equipped with UV and refractive

index detectors. SEC columns from Supelco were used with THF as an eluent. The columns were calibrated with monodisperse polystyrene. The molecular weights and the polydispersity indice of the side-arm were calculated. The absolute molecular weight of the star-like polymer was determined by light scattering detector.

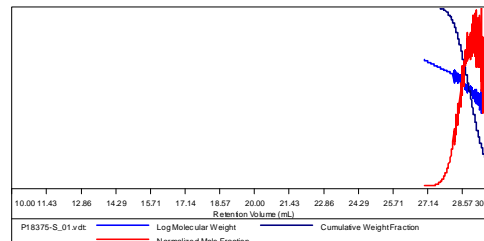
SEC elugram of Polystyrene arm:

Sample ID: P18375-S

Concentration (mg/mL)	4.0164
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-NOV25-2013-0001.vcm
Column Set	3x PL 1113-6300
System	System 1



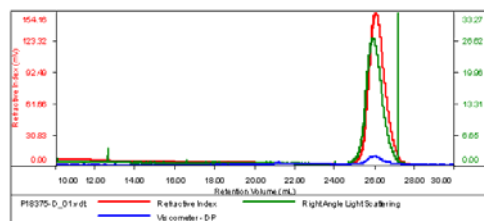
Sample	Mn	Mw	Mp	Mw/Mn	IV
P18375-S_01.vdt	1,141	1,237	1,321	1.085	0.0401



SEC elugram of the star Polystyrene:

Sample ID: P18375D-10 arms PS

Concentration (mg/mL)	3.7391
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-NOV25-2013-0002.vcm
Column Set	3x PL 1113-6300
System	System 1



Sample	Mn	Mw	Mp	Mw/Mn	IV
P18375D_01.vdt	11,308	12,174	11,632	1.076	0.0603

