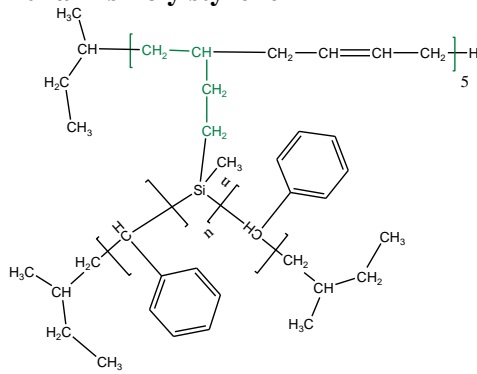
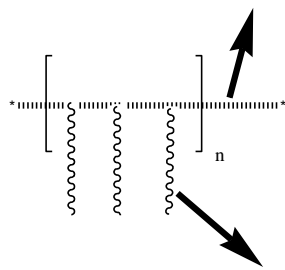


**Sample Name: P18375A-10S**  
**10- arms Poly styrene**



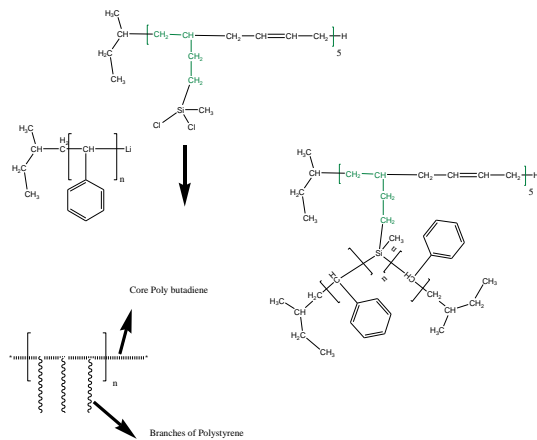
Core Poly butadiene



Branches of Polystyrene

Mn x 10 <sup>3</sup> (total)	PDI
10.5	1.05
Mn of each arm: (1.0)	

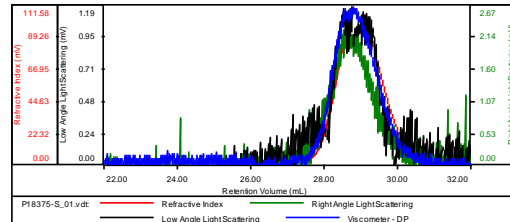
**Synthesis Procedure:**



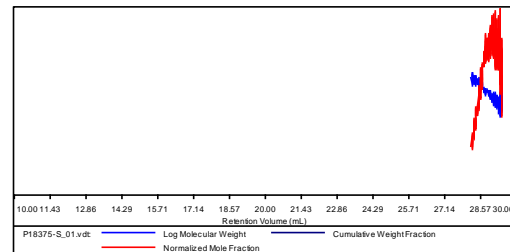
**Molecular Weight:** Size exclusion chromatography (SEC): Varian liquid chromatograph equipped with UV and refractive detector. SEC columns from Supelco were used with THF as the eluent. The columns were calibrated with monodisperse polystyrene. The molecular weights and the polydispersity indice of the side-arm were calculated. The absolute molecular weight of the star-like polymer was determined by light scattering detector.

SEC of the Polymer: (eah branch of Polystyrene)  
**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

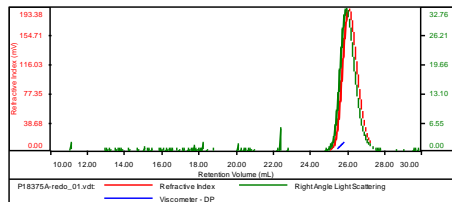


Sample	Mn	Mw	Mp	Mw/Mn	IV
P18375-S_01.vdt	1,141	1,237	1,321	1.085	0.0401



**Sample ID: P18375A-9 arms Polystyrene**

Concentration (mg/mL)	4.7342
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
P18375A-redo_01.vdt	10,505	11,164	10,954	1.063	0.0588

