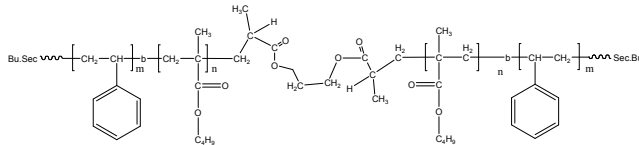


Sample Name:

**Poly(Styrene-*b*-methylmethacrylate-*b*-Styrene)
(radical process) PMMA :**

Sample #: P11109-SMMAS

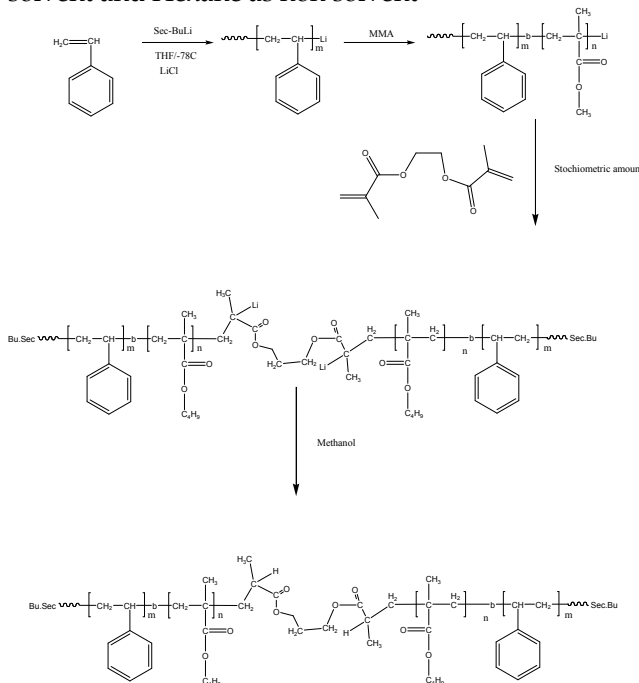
Structure:

**Composition:**

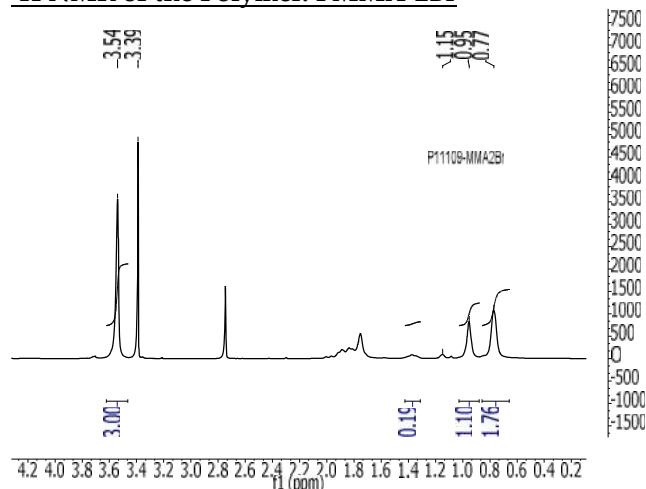
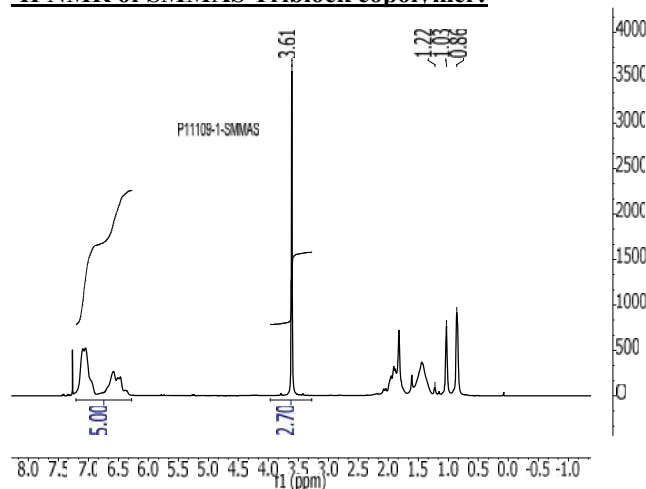
Mn × 10 ³ (S- <i>b</i> -MMA-S)	PDI
9.0- <i>b</i> -19.0- <i>b</i> -9.0	1.26
Microstructure of PMMA block	S:H:I contents 59:37:4
T _g for PS block: 100 oC	T _g for MMA block: 116 °C

Synthesis Procedure:

Poly(styrene-*b*-methylmethacrylate-*b*-styrene) is prepared by Anionic process and the obtained polymer was fractionated repeated time to remove unreacted diblock copolymer using Aceton-THF as solvent and Hexane as non solvent

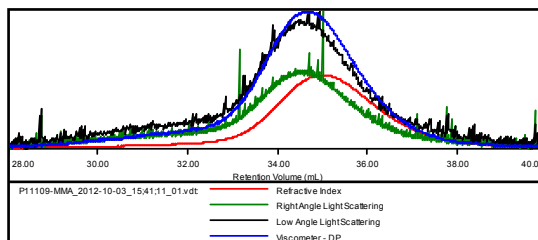
**Characterization:**

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

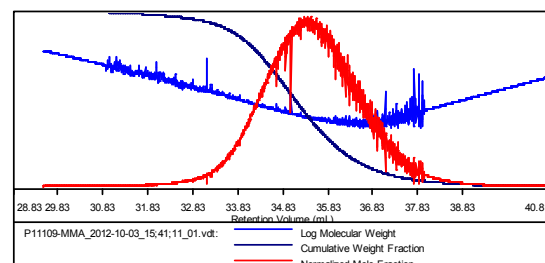
¹H NMR of the Polymer: PMMA-2Br**¹H NMR of SMMAS Triblock copolymer:****SEC of PMMA-2Br**

Sample ID: P11109-MMA

Concentration (mg/mL)	14.0396
Sample dn/dc (mL/g)	0.0840
Method File	PS80K-Oct-2012-0001.vcm
Column Set	3x PL 1113-6300
System	System 1



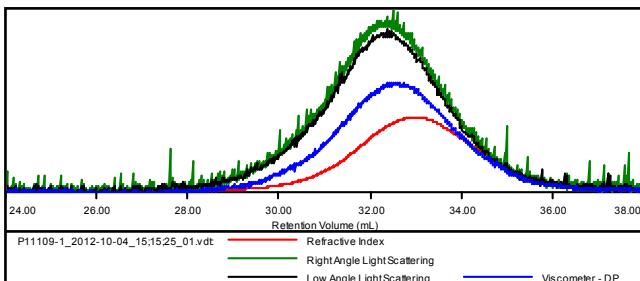
Sample	Mn (Da)	Mw (Da)	Mp (Da)	Mw/Mn	IV (dL/g)
P11109-MMA_2012-10-03_15:41:11_01.vdt	18,990	24,204	18,448	1.275	0.1510



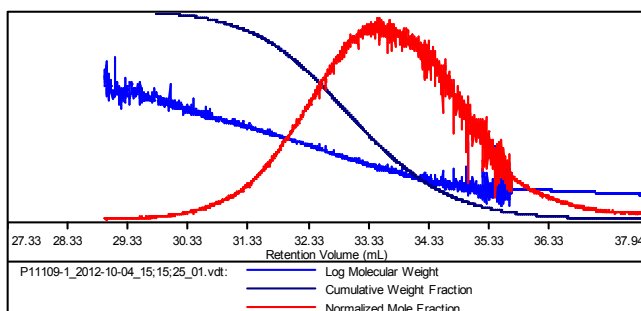
ABA triblock:

Sample ID: P11109-1-SMMAS

Concentration (mg/mL)	3.0280
Sample dn/dc (mL/g)	0.1445
Method File	PS80K-Oct-2012-0001.vcm
Column Set	3xPL 1113-6300
System	System 1



Sample	Mn (Da)	Mw (Da)	Mp (Da)	Mw/Mn	IV (dL/g)
P11109-1_2012-10-04_15:15:25_01.vdt	36,114	45,503	38,268	1.260	0.3037



Reference:

S.K. Varshney, P. Kesani, N. Agarwal, J. Xin. Zhang, and M. Rafailovich. Synthesis of ABA type thermoplastic elastomers based on Polyacrylates, *Macromolecules*, 1999, 32, 235.