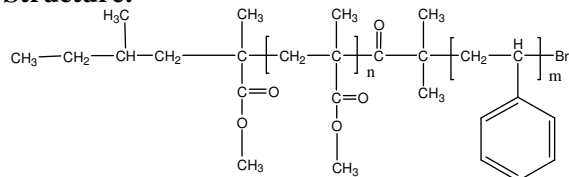


Sample Name: Bromo terminated Poly(methyl methacrylate-b-Styrene) diblock copolymer (Anionic process and controlled radical process) PMMA : Isotactic rich

Sample #: P40015L-MMAS-Br

Structure:



Composition:

Mn $\times 10^3$ (MMA-b-S-br)	PDI
5.0-b-50.0	1.09

Microstructure of PMMA block	S:H:I contents 2:10:88
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T _g for PS block: 104 °C	T _g for MMA block: Not distinct
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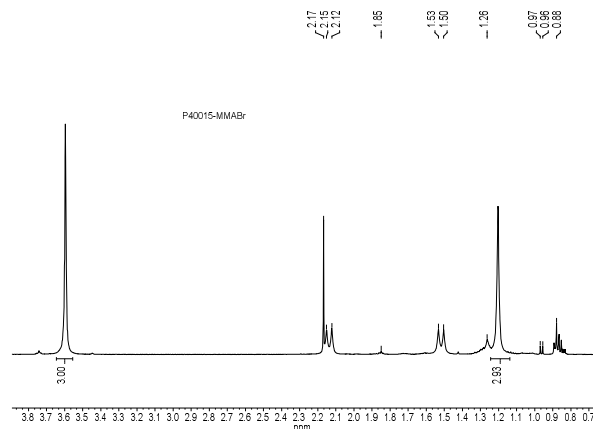
Synthesis Procedure:

Poly(styrene-b-methylmethacrylate-b-styrene) is prepared by using anionic and controlled process. For further details see the following article:

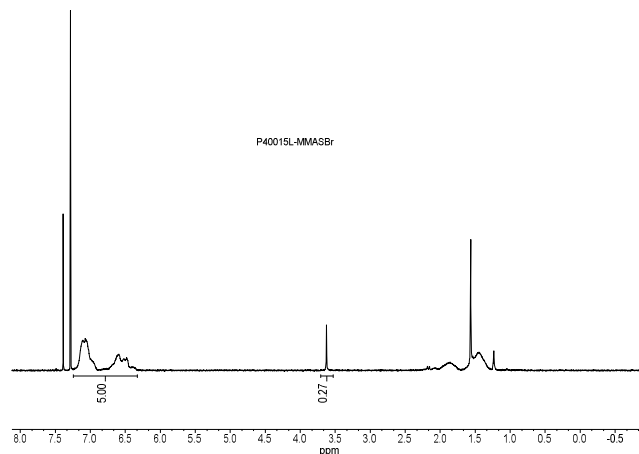
Song, Zhengji / Pelletier, Carole / Qi, Yinghua / Ahmed, Jasim / Varshney, Sunil K. / Jafar Mazumder, M. A. Synthesis and thermal properties of triblock copolymers of methyl methacrylate using combination of anionic and controlled radical polymerization: Poly(methyl methacrylate) center block bearing different microstructures e- Polymers, Volume 12, Issue 1. Pages 788-802

Characterization: The polymer was characterized by SEC and ¹H NMR

¹H NMR spectrum of the MMABr:



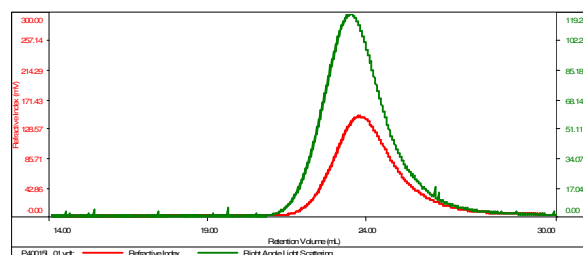
¹H NMR spectrum of the MMASBr:



SEC elugram of the polymer:

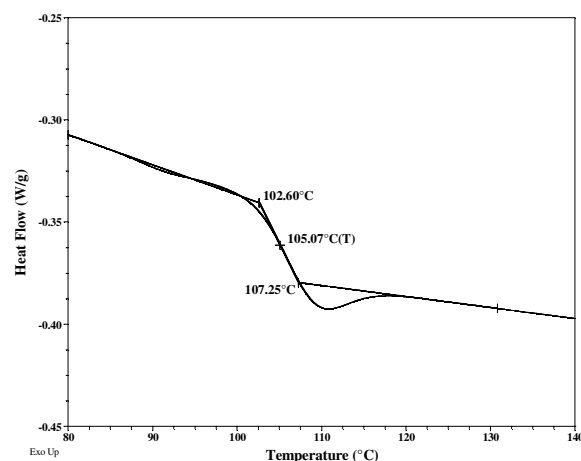
Sample ID: P40015L-MMASBr

Concentration (mg/mL)	8.3373
Sample dn/dc (mL/g)	0.1650
Method File	PS80K-4Aug.st2016-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P40015L_01.vdt	55,308	60,495	1.094	0.3542	58,490

DSC thermogram for PS block:



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.