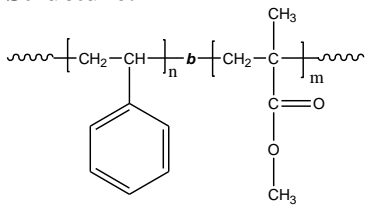


Sample Name: Poly (styrene-*b*-methyl methacrylate)
(polymethylmethacrylate rich in atactic contents)

Sample #: P10938-SMMA

Structure:



Composition:

Mn x 10 ³ S-b-MMA	PDI
4.0-b-59.0	1.7
T _g for PS block: 97°C	T _g for PMMA block: 111°C
Microstructure for PMMA block	Syndio:hetero:iso contents 42:50:8

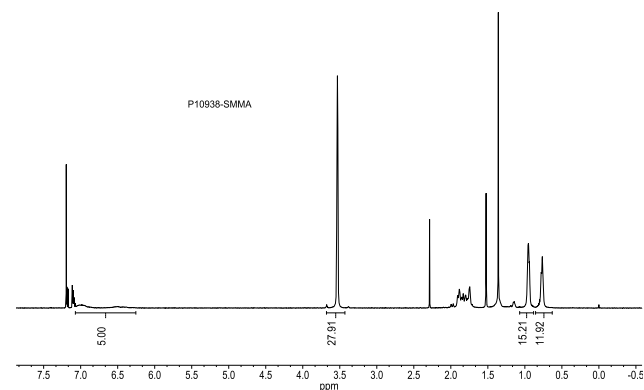
Synthesis Procedure:

Poly(styrene-*b*-methyl methacrylate) is prepared by living anionic polymerization in THF at -78 °C using cumyl potassium initiator in the presence of LiCl. Polystyrene macroanions were end capped with a unit of diphenyl ethylene (DPE) before adding methylmethacrylate (MMA) monomer. For further details please see our published articles.¹⁻⁵

Characterization:

The molecular weight and polydispersity index (PDI) are obtained by size exclusion Chromatography (SEC) and H NMR.

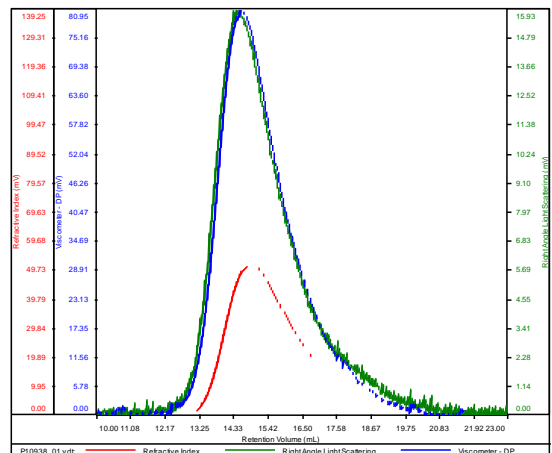
¹H-NMR Spectrum of the sample:



SEC elugram of the Sample:

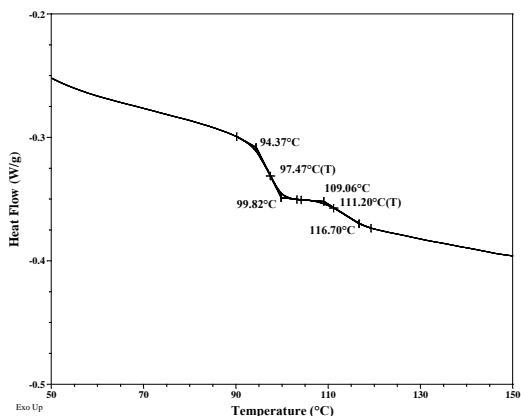
P10938-SMMA

Conc	5.3219
dn/dc	0.0970
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS100k_2017-Oct11-0000.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P10938_01.vdt	62,851	108,014	59,181	1.719	44,7910

DSC thermogram of the sample:



References for further information:

1. S. K. Varshney, R. Fayt, Ph. Teyssie, and J.P. Hautekeer US Patent 5,264,527 (1993)
2. Ph. Teyssie, Ph. Bayard, R. Jerome, S. K. Varshney, and J. S. Wang, *35th IUPAC International Union of Pure & Applied Chemistry International Symposium on Macromolecules* 1994, 67.
3. Ph. Teyssie, R. Fayt, J. P. Hautekeer, C. Jacobs, R. Jerome, L. Leemans and S. K. Varshney *Makromolekular Chemie, Macromol. Symp.*, 1990, 32,61-73.
4. S. K. Varshney, J. P. Hautekeer, R. Fayt, R. Jerome, and Ph.Teyssie *Macromolecules*, 1990, 23, 2618-2622.
5. R. Jerome, R. Forte, S. K. Varshney, R. Fayt, and Ph. Teyssie "The Anionic Polymerization of Alkylacrylates:A Challenge" in the Recent Advances in Mechanistic and Synthetic Aspects of Polymerization: M. Fontanille and A. Guyot Ed., NATO ASI Series C 215,101 (1987), CA Vol. 108, 12, 094992.