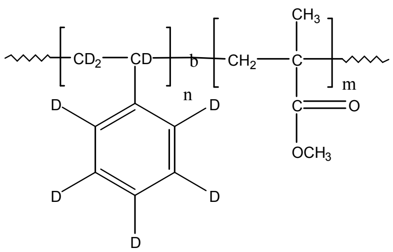
Sample Name: Deuterated Polystyrene (d_8)-Methylmethacrylate (protonated)
Sample #: P19238B-dPSMMA

Structure:



Composition:

Mn x 10^3 (dPS-b-MMA)	PDI
4.5-b-47.0	1.5
T_g for MMA block	134°C

Synthesis Procedure:
Deuterated poly(styrene(D8)-b-methyl methacrylate) is prepared by living anionic polymerization in THF at –78°C.

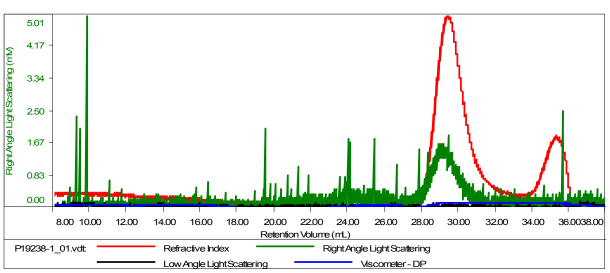
Characterization:By GPC and HNMR

Solubility:
Deuterated polystyrene-d_8MMA is soluble in DMF, THF, toluene and $CHCl_3$. It precipitates from methanol, ethanol, water and hexanes.

SEC of the product:

Sample ID:P19238-dPS

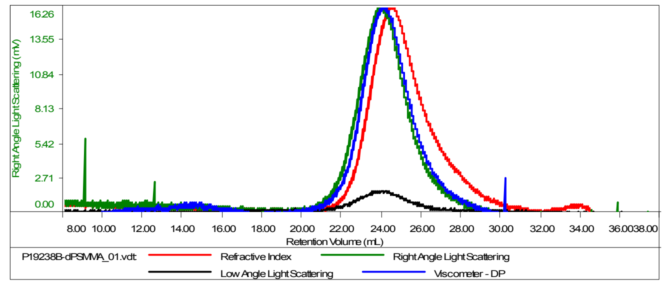
Concentration (mg/mL)	0.3156
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-April 13-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersi	Intrinsic Viscosity (dL/g)
P19238-1_01.vdt	4,606	6,503	4,258	1.412	0.5266

Sample ID:P19238B-dPSMMA

Concentration (mg/mL)	0.8038
Sample dn/dc (mL/g)	0.1300
Method File	PS80K-April 13-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersi	Intrinsic Viscosity (dL/g)
P19238B-dPSMMA_01.vdt	51,488	77,978	78,555	1.514	1.2505

References for further information:

S. K. Varshney, R. Fayt, Ph. Teyssie, and J.P. Hautekeer US Patent 5,264,527 (1993)

1. 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.*
2. 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.*
3. S. K. Varshney, J. P. Hautekeer, R. Fayt, R. Jerome, and Ph.Teyssie *Macromolecules, 1990, 23, 2618-2622.*
4. 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. Fontanaille and A. Guyot Ed., NATO ASI Series *C 215,101 (1987), CA Vol. 108, 12, 094992.*