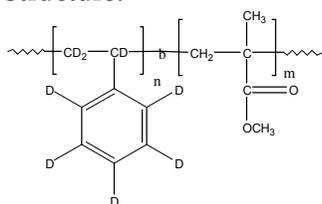


**Sample Name:** Deuterated Polystyrene (d<sub>8</sub>)-Methylmethacrylate (protonated)  
**Sample #:** P19238A-dPSMMA

**Structure:**



**Composition:**

M <sub>n</sub> x 10 <sup>3</sup> (dPS-b-MMA)	PDI
4.5-b-114.0	1.4
T <sub>g</sub> for MMA block	134°C

**Synthesis Procedure:**

Deuterated poly(styrene(D<sub>8</sub>)-b-methyl methacrylate) is prepared by living anionic polymerization in THF at -78°C.

**Characterization: By GPC and HNMR**

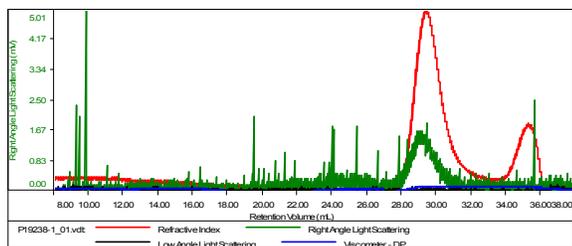
**Solubility:**

Deuterated polystyrene-d<sub>8</sub>MMA is soluble in DMF, THF, toluene and CHCl<sub>3</sub>. It precipitates from methanol, ethanol, water and hexanes.

**SEC of the product:**

**Sample ID:P19238-dPS**

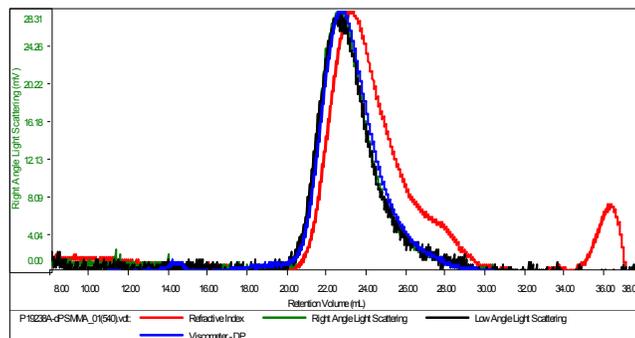
Concentration (mg/mL)	0.3156
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-April13-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



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

**Sample ID:P19238A-dPSMMA**

Concentration (mg/mL)	0.9336
Sample dn/dc (mL/g)	0.1100
Method File	PS80K-April13-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19238A-dPSMMA_01(540).vdt	118,626	168,111	177,050	1.417	1.8301

**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. Fontanille and A. Guyot Ed., NATO ASI Series C 215,101 (1987), *CA Vol. 108, 12, 094992*.