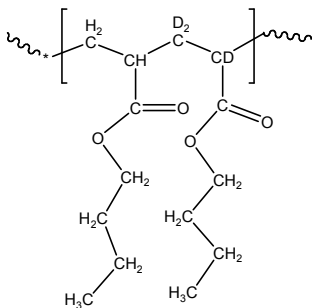


Sample Name:

**Poly n-butylacrylate containing 20% deuterated  
n-butylacrylate as random copolymer**

Sample #: **P10642A-d3nBuAnBuA**

**Structure:**



**Composition:**

$M_n \times 10^3$	PDI
350.0	1.8
% of deuterated n-butylacrylate	20 wt%

**Synthesis Procedure:**

Prepared by controlled radical polymerization process of d3-n-butylacrylate with protonated n-butylacrylate

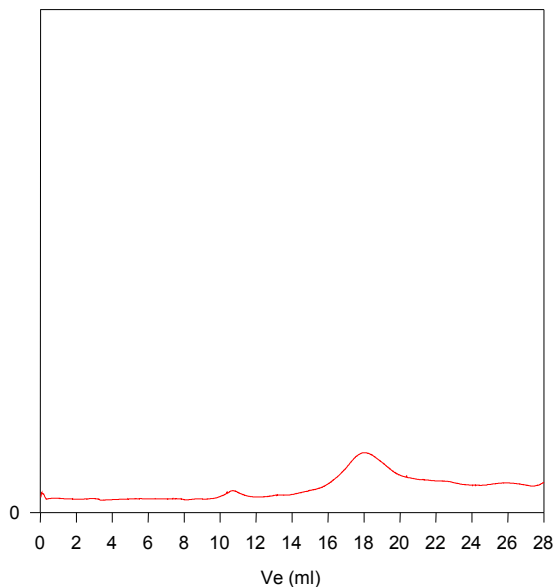
**Characterization:**

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

The molecular weight of the obtained polymer was determined after converting poly(acrylic acid) to poly(n-butylacrylate).

**SEC of Homopolymer ( in ester form):**

**P10642A-d3nBuAnBuA**



Size exclusion chromatograph of polymer:

$M_w=350,000$ ,  $M_n=630,000$ ,  $M_w/M_n=1.8$

**References:**

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. R. Fayt, R. Forte, C. Jacobs, R. Jerome, T. Ouhadi, Ph. Teyssie and **S. K. Varshney**, *Macromolecules*, 1987, 20, 1442-1444.
3. 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.
4. Ph. Teyssie, R. Fayt, C. Jacobs, R. Jerome, L. Leemans, and **S. K. Varshney** *Am. Chem. Soc., Polym. Prepr.* 1988, 28, 2, 52-53