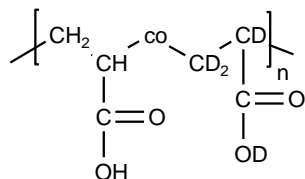


Sample Name: Random Copolymer Poly (acrylic acid)-co-(deuterated acrylic acid-d4)

Sample #: P14374A-AAAd4AA

Structure:



Composition:

Mn x 10 ³	PDI
84.0	1.4
% of deuterated acrylic acid-d4	20 wt%

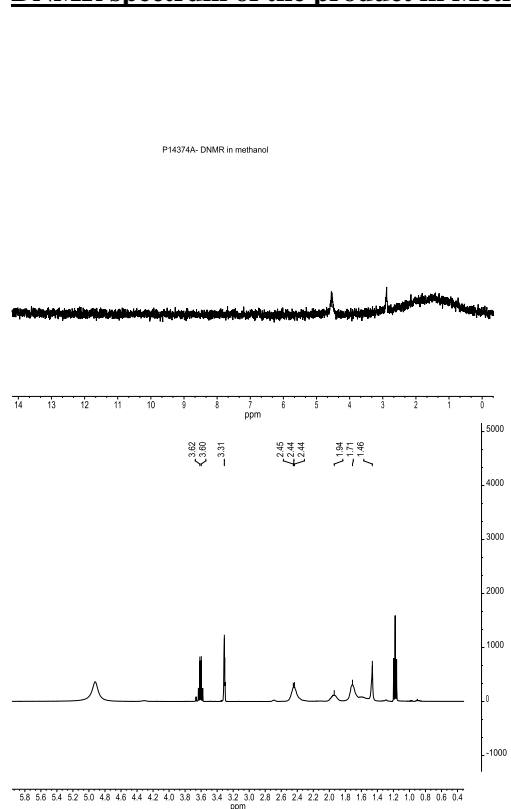
Synthesis Procedure:

The polymer was prepared by RAFT polymerization of acrylic acid and deuterated acrylic acid-d4.

Characterization:

The polymer was characterized by size exclusion chromatography (SEC) in DMF and ¹H NMR.

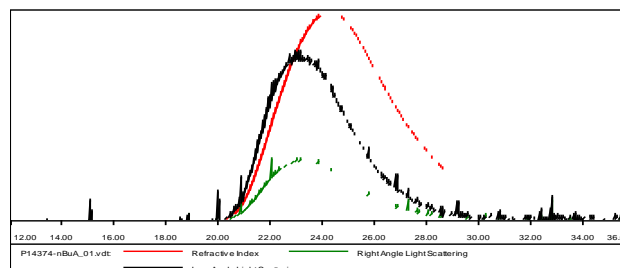
DNMR spectrum of the product in Methanol:



SEC of random copolymer converted to its ester form to obtain molecular weights

P14374A-nBuA

Concentration (mg/mL)	15.5510
Sample dn/dc (mL/g)	0.0640
Method File	PS80K-jan-2018-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P14374-nBuA_01.v	148,836	208,558	1.401	0.6821	221,789

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