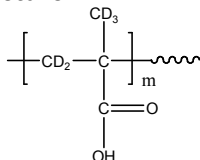


Sample Name:
Deuterated Poly(methacrylic acid) rich in atactic contents

Sample #: **P19276-D5MAA**

Structure:



Composition:

| | |
|----------------------|------|
| Mn x 10 ³ | PDI |
| 855.0 | 1.26 |

Synthesis Procedure:

Deuterated Poly(methacrylic) is synthesized by controlled radical process using d5 MAA monomer.

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. Obtain polymer was trans-esterified into its methyl ester and characterized in THF. Molecular weight of the polymer then calculated for the polymethacrylic acid.

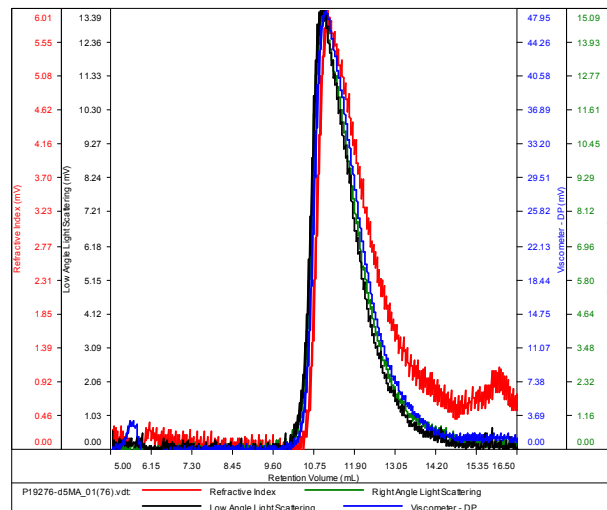
Solubility:

Polymer is soluble in methanol, ethanol.

SEC of the polymer (poly methyl methacrylate) to calculate molecular weights for poly methacrylic acid.

SAMPLE ID: P19276-d5MMA

| | |
|--------------|------------------------|
| Conc (mg/mL) | 0.5220 |
| dn/dc (mL/g) | 0.0650 |
| Method | ps80k-May2015-0000.vcm |
| Solvent | DMF w 0.03M LiBr |
| Column | PSS |



| Sample | Mn | Mw | Mp | Mw/Mn | IV |
|------------------------|---------|-----------|-----------|-------|--------|
| P19276-d5MA_01(76).vdt | 991,985 | 1.252 e 6 | 1.408 e 6 | 1.263 | 1.5541 |

References:

1. S. K. Varshney, Z. Gao, Xing Fu Zhong, A. Eisenberg, "Effect of Lithium Chloride on the "Living" Polymerization of tert-Butylmethacrylate and Polymer Microstructure Using Monofunctional Initiators" Macromolecules, 1994, 27, 1076.