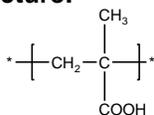


Sample Name:
Poly(methacrylic acid) rich in syndiotactic or isotactic contents

Sample #: P18155-MAA (rich in syndio contents)

Structure:



Composition:

Mn x 10 ³	PDI
4.2	1.4

Synthesis Procedure:

Poly(methacrylic acid) can be synthesized by living anionic polymerization of t-butyl methacrylate or ethoxy ethyl methacrylate or trimethyl siloxy methacrylate followed by hydrolysis of the ester group.

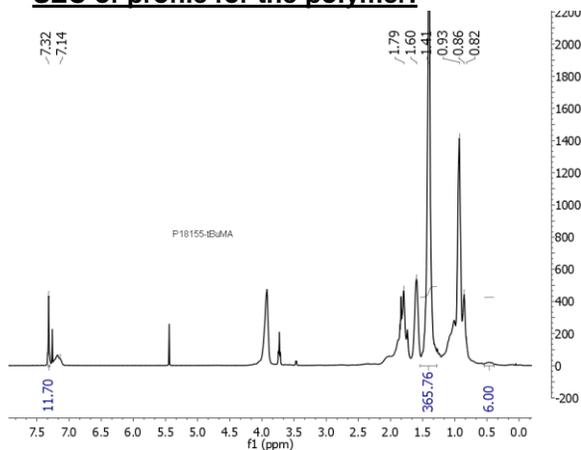
Characterization:

The molecular weight and polydispersity index (PDI) of Poly(methacrylic acid) are obtained by size exclusion chromatography based on its precursor in the ester form.

Hydrolysis: The removal of ester moiety to COOH was checked by their FTIR.

Solubility: Polymer is soluble in methanol, ethanol.

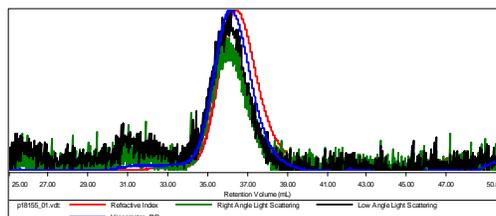
SEC of profile for the polymer:



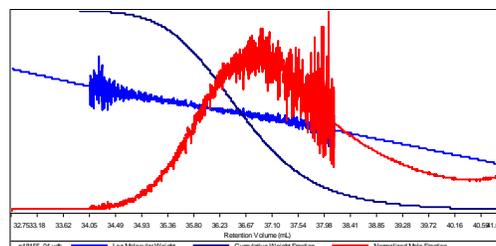
SEC of Homopolymer:

Sample ID: P18155-tBuMA

Concentration (mg/mL)	37.2107
Sample dn/dc (mL/g)	0.0760
Method File	PS80K-Aug30-2013-0000.vcm
Column Set	3x PL 1113-6300
System	System 1



Sample	Mn	Mw	Mp	Mw/Mn	IV
p18155_01.vdt	6,739	9,524	9,185	1.413	0.0826



References:

- 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