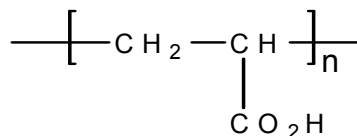


Sample Name: **Isotactic rich Poly(Acrylic acid)**

Sample #: **P40528-IAA**

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup>	Mw/Mn (PDI)
128.0	2.9

**Synthesis Procedure:**

Poly(acrylic acid) is synthesized by anionic process.

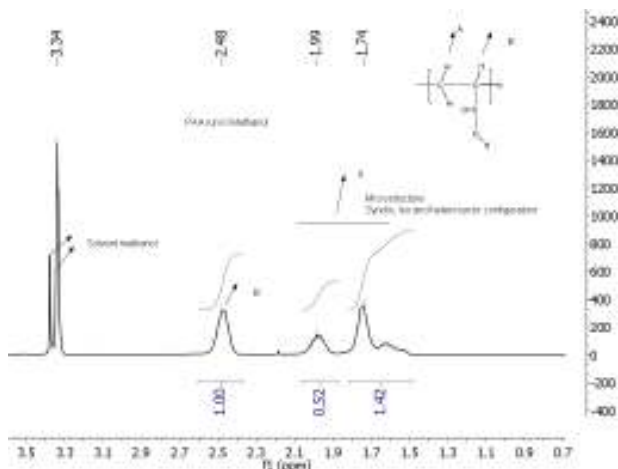
**Characterization:**

Polyacrylic acid and analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI) using water containing 0.1M NaNO<sub>3</sub> and 0.01M NaH<sub>2</sub>PO<sub>4</sub> and 4 Vol% acetonitrile as eluent. The molecular weight can also be verified after converting poly acrylic acid to poly n-butyl acrylate by transesterification process and analyzing the polymers by SEC in organic phase

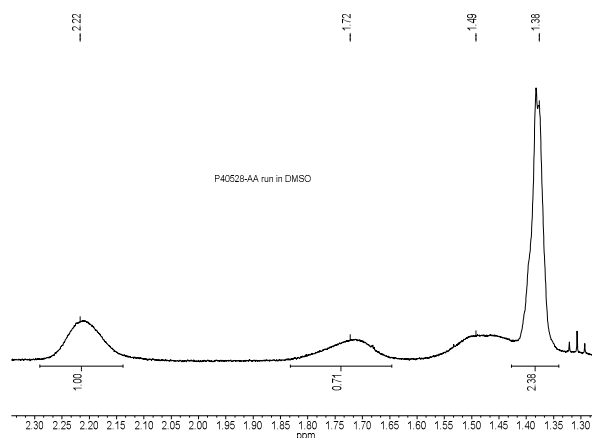
**Solubility:**

Polymer is soluble in water, methanol.

**<sup>1</sup>H-NMR Spectrum of Syndiotactic PAA run in methanol:**



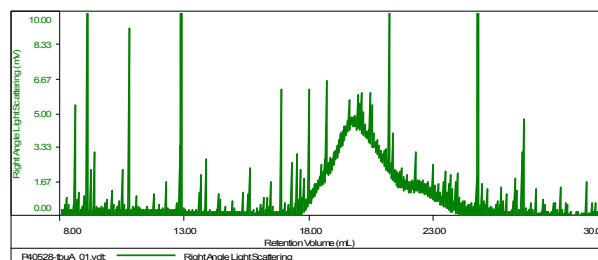
**<sup>1</sup>H-NMR Spectrum of isotactic PAA run in DMSO:**



**SEC elugram of the Polymer run in THF:**

**P40528-tBuA**

Concentration (mg/mL)	0.1215
Sample dn/dc (mL/g)	0.0880
Method File	PS80K-Fds2017-0000.vcm
Column Set	3x PL 1113.6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P40528-tBuA_01.vdt	226,880	671,460	2.960	5.9358	219,209