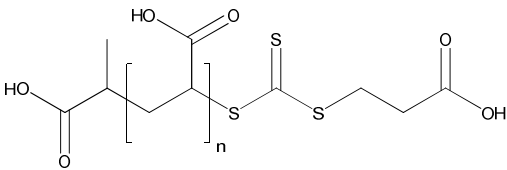


Sample Name: Poly(Acrylic acid)

Sample #: P16016-AA

Structure:

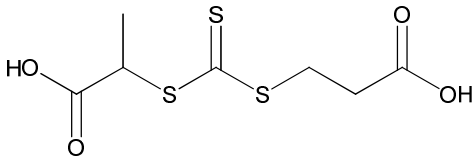


Composition:

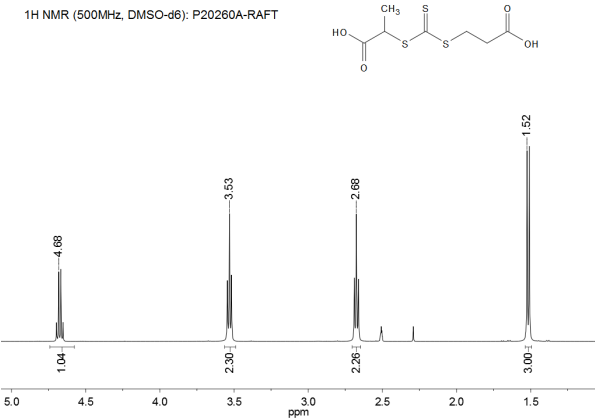
Mn x 10 ³	Mw/Mn (PDI)
3.5 (by NMR)	
4.0 (by SEC in DMF)	1.09

Synthesis Procedure:

Poly(acrylic acid) is synthesized by RAFT polymerization of acrylic acid xanthate as chain transfer agent shown as follows:



¹H NMR spectrum (500 MHz, DMSO-d₆):

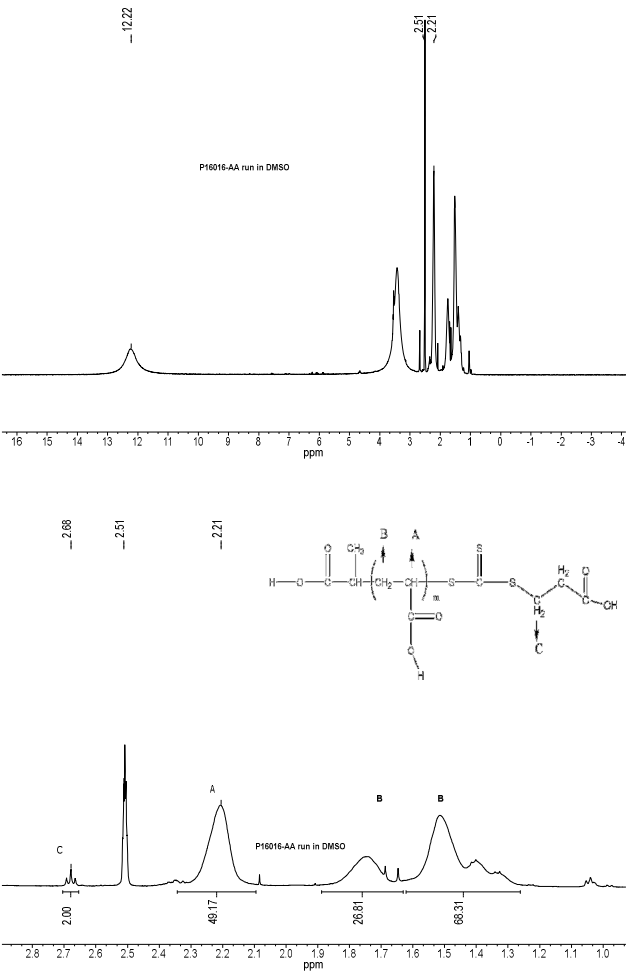


Characterization:

The polymer was characterized by ¹H NMR and SEC

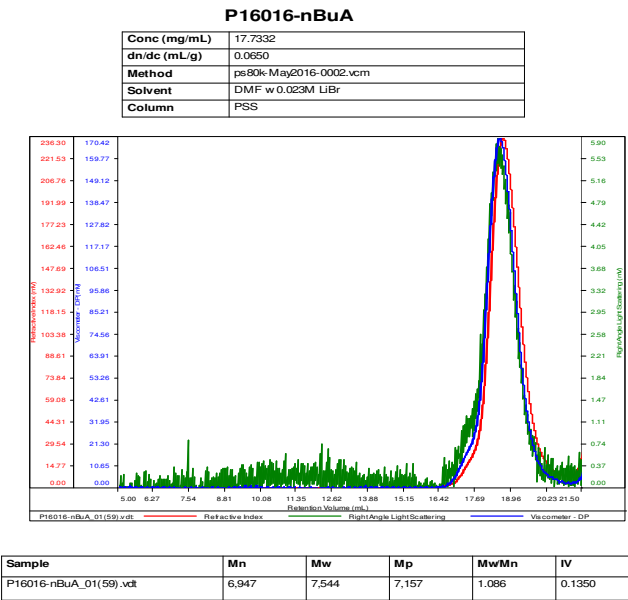
Solubility: Polymer is soluble in methanol and water.

¹H-NMR Spectrum of the Polymer:



SEC was carried out to convert PAA into Poly n-Butylacrylate to determine molecular weight of the poly acrylic acid

SEC of Sample of the poly(n-butyl acrylate):



Sample	Mn	Mw	Mp	Mw/Mn	IV
P16016-nBuA_01(59).vcl	6,947	7,544	7,157	1.086	0.1350