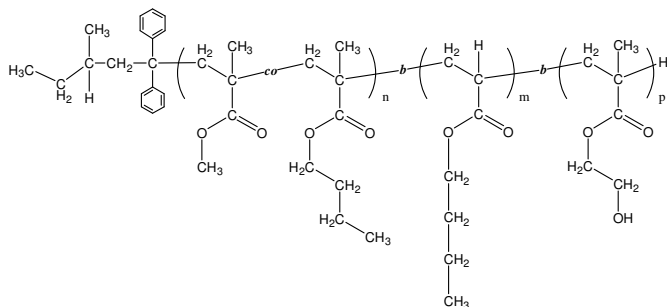


Sample Name:

Poly(methyl methacrylate-*co*(*random*)-*n*-butyl methacrylate)-*block*-poly(*n*-butylacrylate)-*block*-2-hydroxyethyl methacrylate

Sample #: **P19756A-MMAAnBuMara-b-nBuA-b-HEMA**

Structure:



Composition:

$M_n \times 10^{-3}$ (g/mol)	20.5- <i>b</i> -5.0- <i>b</i> -26.0
M_w/M_n	1.12
Molar ratio MMA : nBuMA	52 : 48 (mol/mol)
Weight ratio MMA:nBuMA	60:40
T _g	49 °C

Synthesis Procedure:

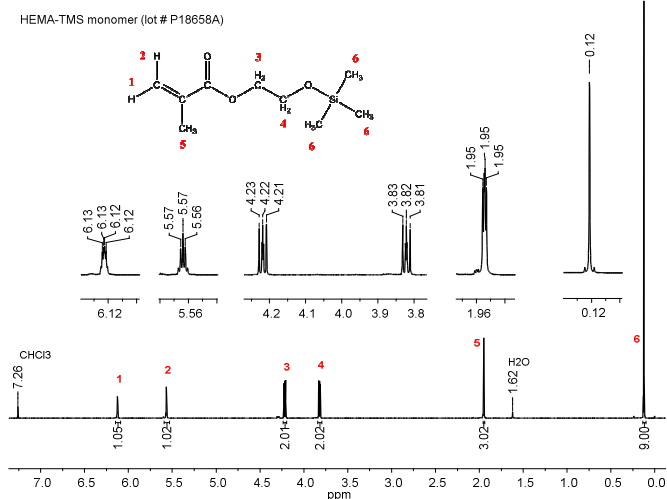
The polymer was synthesized by anionic process.

Solubility: The polymer is soluble in THF, DMF.

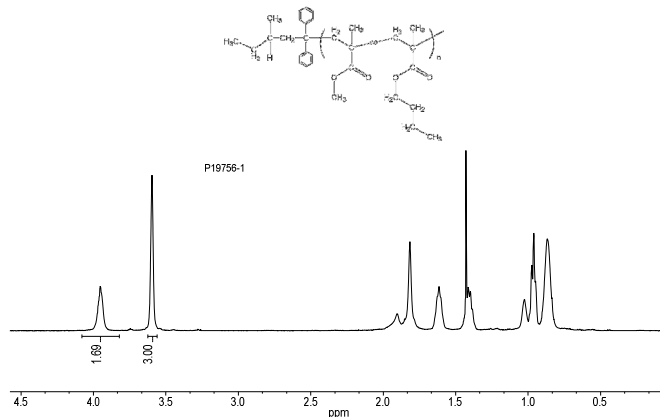
Characterization:

The polymer composition was calculated by ^1H NMR. The average molecular weight and polydispersity index were determined by size exclusion chromatography (SEC). Thermal analysis of the sample was done on a TA Q100 differential scanning calorimeter (DSC) at a heating rate of 10°C/min. The glass transition temperature (T_g) was determined as a midpoint of step change in heat flow curve for the second heating scan.

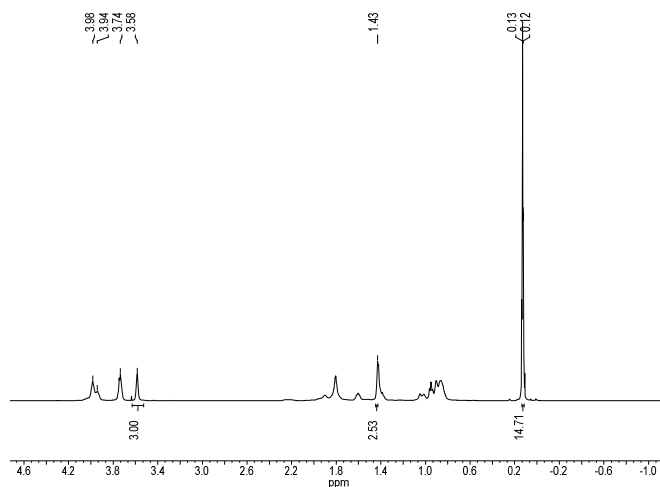
^1H NMR of HEMA-TMS monomer (500 MHz, CDCl_3):



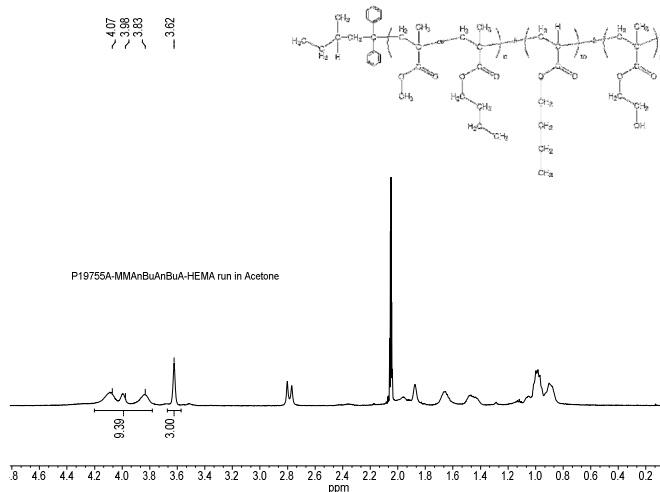
^1H NMR of MMA-nBuMA [first block] in CDCl_3 :



^1H NMR of [MMA-nBuMA]-b-tBuA-HEMATMS triblock copolymer in CDCl_3 :

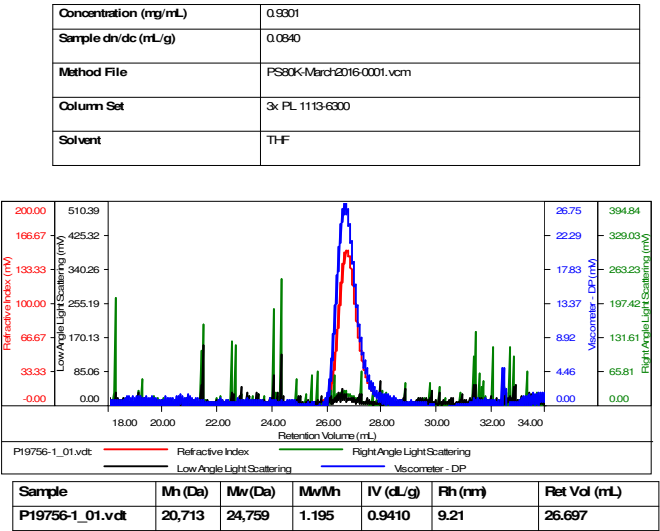


^1H NMR of [MMA-nBuMA]-b-nBuA-HEMA triblock in acetone- d_6 :



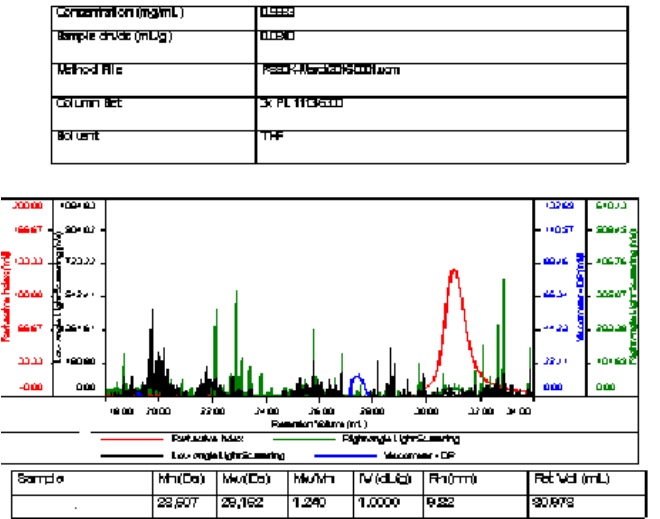
SEC of MMA-nBuMA [first block]:

Sample ID:P19756-1

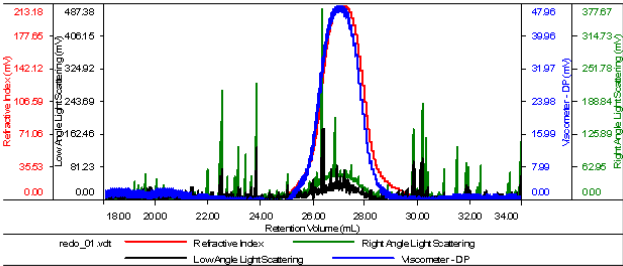


SEC of [MMA-nBuMA]-b-tBuA diblock copolymer:

Sample ID:P19756-2



Concentration (mg/mL)	3.1063
Sample dn/dc (mL/g)	0.0900
Method File	PS80K-March2016-0001.vcm
Column Set	3x PL 1113-6300
Solvent	THF



DSC thermogram (2nd heating run, 10°C/min):

Sample: P19756-A_MMA-nBuAran-nBuA-HEMA
Size: 15.5000 mg

DSC

File: P19756-A_MMA-nBuAran-nBuA-b-HEMA.00

