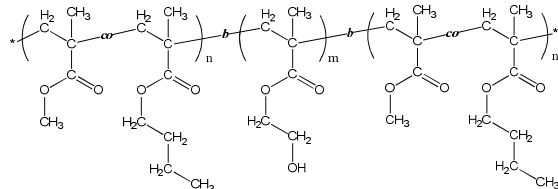


Sample Name: Poly(Methyl methacrylate-co-n-Butyl methacrylate random-b-2-Hydroxy ethyl methacrylate-b-Methyl methacrylate-co-n-Butyl methacrylate random)

Sample #: P40395-MMAnBuMAran-b-HEMA-b-MMAnBuMAran

Structure:



Composition:

$M_n \times 10^3$	PDI
MMAnBuMAran-b-HEMA-b-MMAnBuMAran 37.0-b-16.0-b-97.0	1.25

Molar ratio MMA:nBuMA (mol%):	44:56
Weight ratio MMA:nBuMA (wt%):	38:62
Glass transition temperature, T_{g1} :	72°C
Glass transition temperature, T_{g2} :	112 °C

Synthesis Procedure:

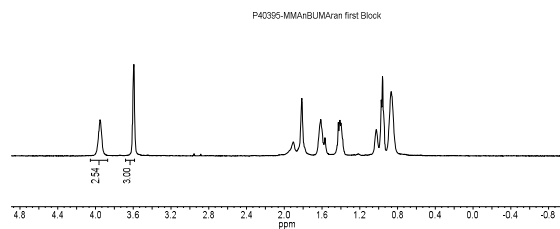
The polymer was synthesized by anionic process by sequential addition of monomers.

Characterization:

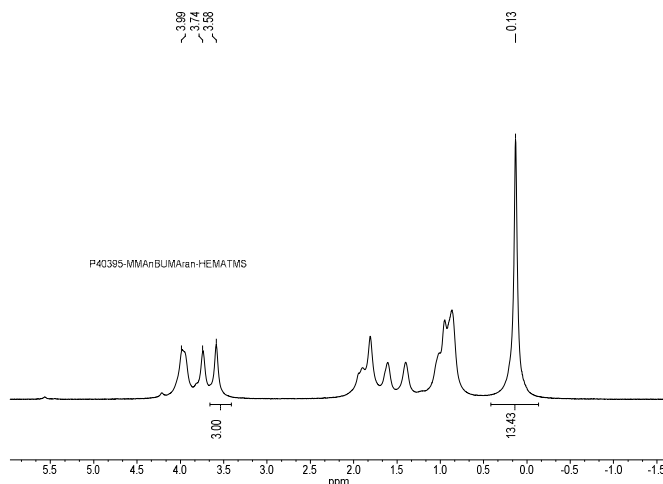
The polymer was characterized by $^1\text{H-NMR}$ and size exclusion chromatography (SEC).

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.

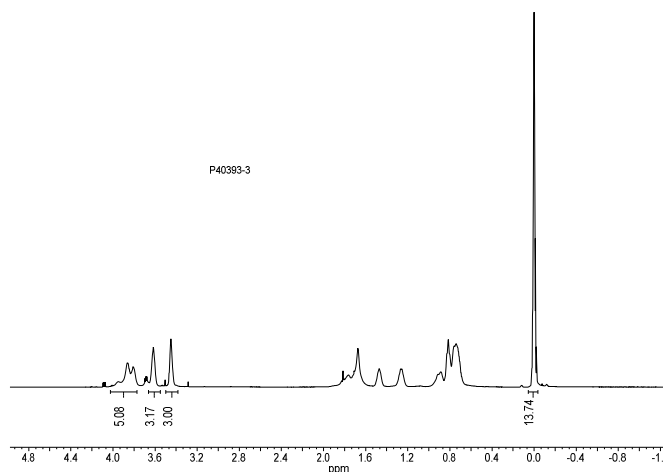
$^1\text{H NMR}$ of the First Block



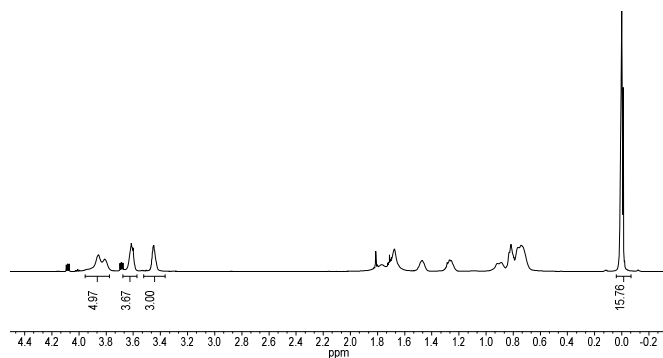
$^1\text{H-NMR}$ of the MMAnBuMAran-b-HEMA-TMS



$^1\text{H NMR}$ of MMA-nBuMAran-HEMATMS-MMAnBuMAran



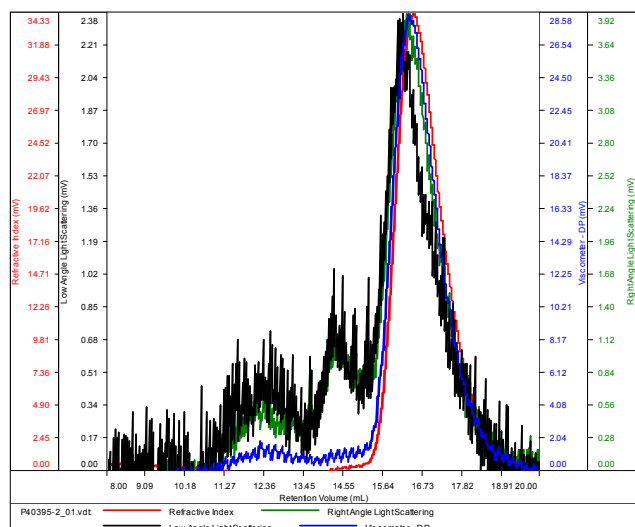
$^1\text{H NMR}$ of MMA-nBuMAran-HEMA-MMAnBuMAran:



SEC elugram of MMAnBUMA ran First Block:

P40395-1

Conc (mg/mL)	4.9789
dn/dc (mL/g)	0.0650
Method	PS80k_December-2016-0004.vcm
Solvent	DMF w 0.023M LiBr
Column	PSS

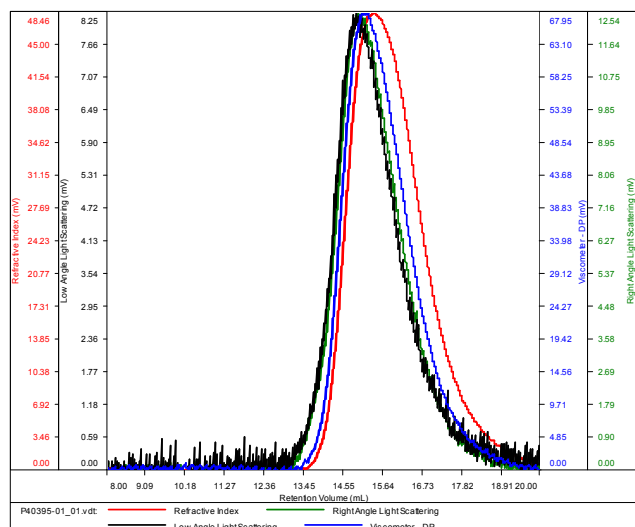


Sample	Mn	Mw	Mp	Mw/Mn	IV
P40395-2_01.vdt	36,965	40,081	35,194	1.084	0.0975

SEC elugram of MManBUMAran-HEMATMS:

P40395-2

Conc (mg/mL)	10.9933
dn/dc (mL/g)	0.0650
Method	PS80k_December-2016-0004.vcm
Solvent	DMF w 0.023M LiBr
Column	PSS

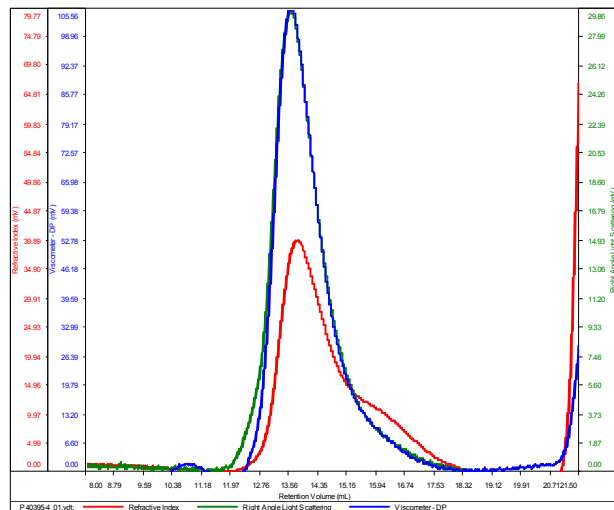


Sample	Mn	Mw	Mp	Mw/Mn	IV
P40395-01_01.vdt	62,216	78,078	81,424	1.255	0.1464

SEC elugram of MManBUMAran-HEMATMS-MManBUMAran:

P40359-MManBUMAran-HEMA-MManBUMA

Conc	6.9443
dn/dc	0.0650
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS80k-March2017-0002.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P40395-4_01.vdt	159,196	199,902	215,270	1.256	0.2583

DSC thermograms (2nd heating scan, 10°C/min):

Sample: P40395
Size: 10.0000 mg

File: P40395.001

