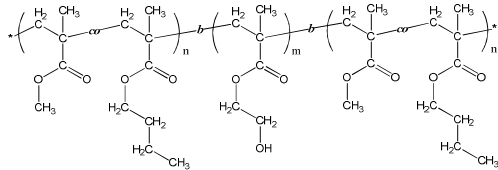


Sample Name: Poly(Methyl methacrylate-co-n-Butyl methacrylate random-b-2-Hydroxy ethyl methacrylate-b-Methyl methacrylate-co-n-Butyl methacrylate random)

Sample #: P40461-MMAnBuMAran-b-HEMA-b-MMAnBuMAran

Structure:



Composition:

$M_n \times 10^3$	PDI
MMAnBuMAran-b-HEMA-b- MMAnBuMAran 17.0-b-42.0-b-17.0	1.11

Molar ratio MMA:nBuMA (mol%):	51:49
Weight ratio MMA:nBuMA (wt%):	42:58
Glass transition temperature, T_{g1} :	73 °C
Glass transition temperature, T_{g2} :	112 °C

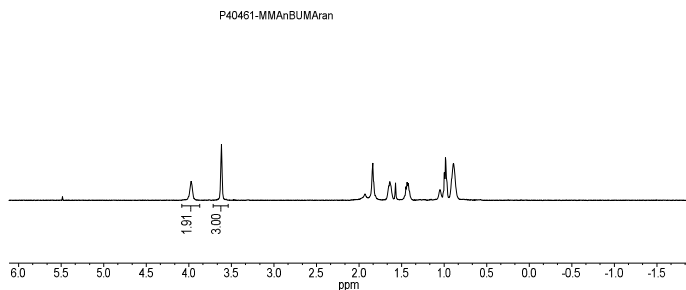
Synthesis Procedure:

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

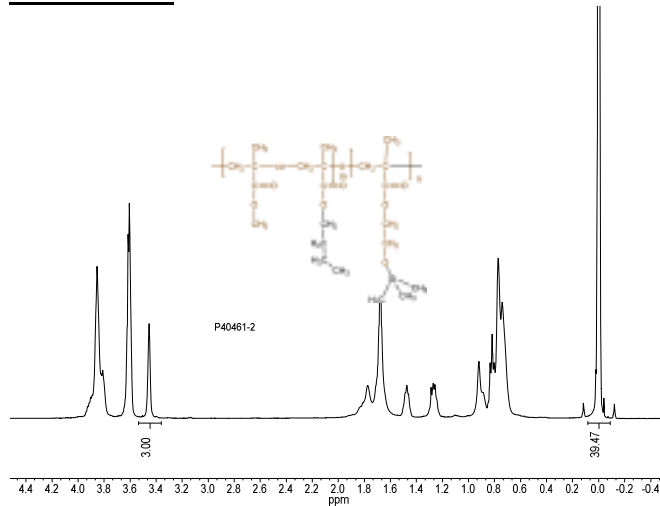
Characterization:

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.

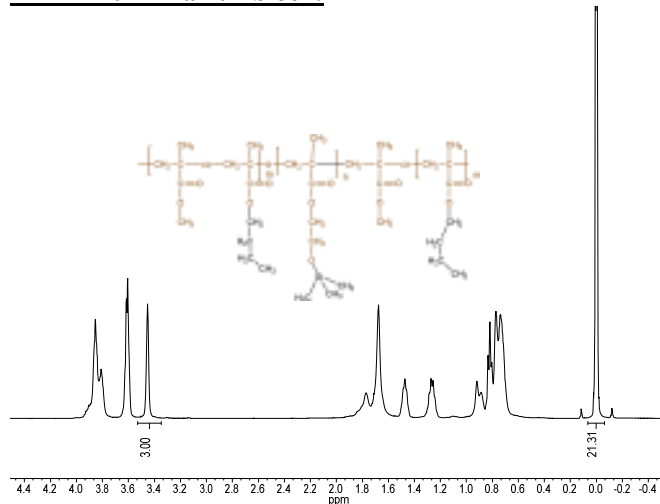
$^1\text{H-NMR}$ of the MAnBUMAran First Block:



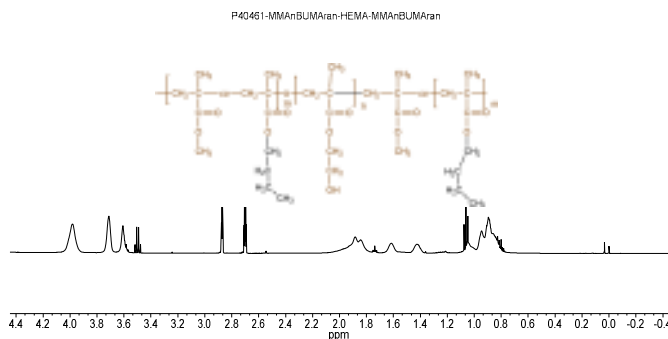
$^1\text{H-NMR}$ of the MMAnBUMAran-HEMATMS:



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



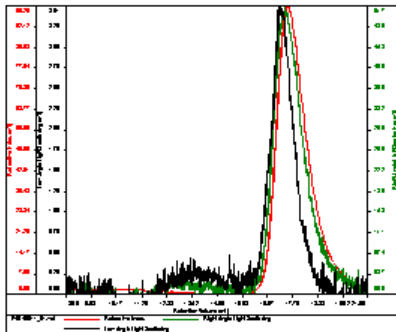
$^1\text{H-NMR}$ of the MMAnBuMAran-b-HEMA-b-MMAnBuMAran tri block:



SEC elugram of the MManBUMAran First Block:

- MManBUMAran-

Conc(mg/mL)	14.3852
dn/dc (mL/g)	0.0650
Method	PS80k_December-2016-0004.vcm
Solvent	DMF w 0.023M LiBr
Column	PSS

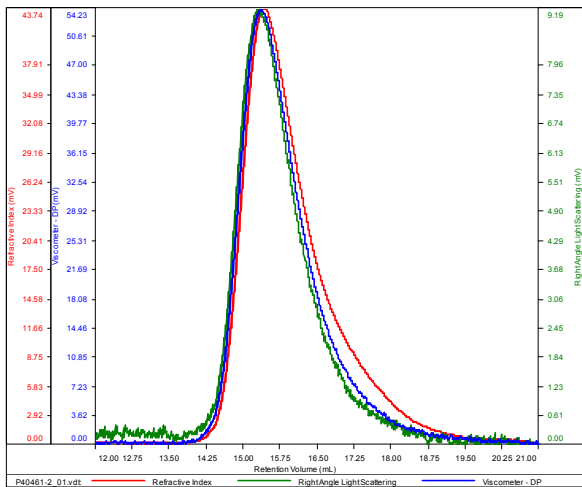


Sample	Mn	Mw	Mp	Mw/Mn	IV
P40461-3_01.vdt	77,312	86,084	87,729	1.113	0.1674

SEC elugram of the MMA-nBuMAran-HEMA:

P40461-2- MMnBuMAran -HEMA

Conc (mg/mL)	6.9238
dn/dc (mL/g)	0.0650
Method	PS80k_December-2016-0004.vcm
Solvent	DMF w 0.023M LiBr
Column	PSS

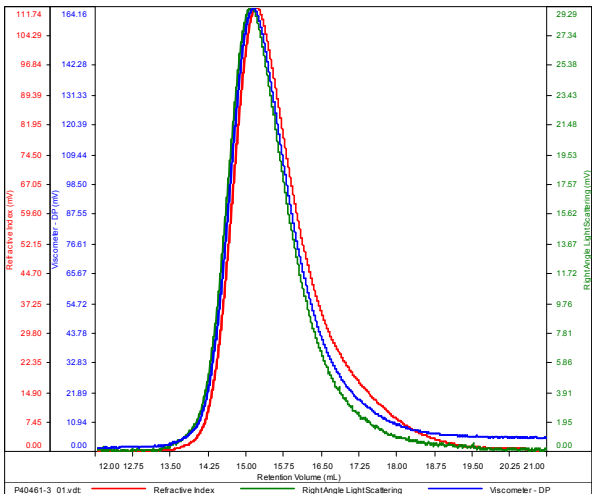


Sample	Mn	Mw	Mp	Mw/Mn	IV
P40461-2_01.vdt	59,545	66,077	69,858	1.110	0.1348

SEC elugram of the MMA-nBuMAran-HEMA:

P40461-3 MMnBuMAran -HEMA-MManBuMAran

Conc (mg/mL)	17.7257
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
P40461-3_01.vdt	77,312	86,084	87,729	1.113	0.1674

DSC thermogram of MManBuMA-b-HEMA-b-MMA-nBuMA (2nd heating scan, 10°C/min):

Sample: P40461_MManBuMA-HEMA-MManBuMA
Size: 14.6000 mg
DSC
File: P40461_MManBuMAran-b-HEMA-MManBuMA

