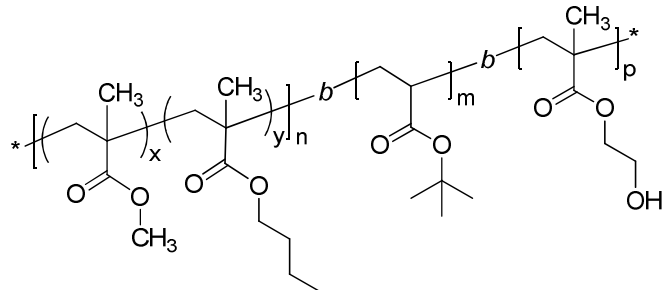


Sample Name:

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

Sample #

P19747-MMA_nBuMA_ran-b-tBuA-b-HEMA

Structure:**Composition:**

$M_n \times 10^{-3}$ (g/mol) [MMA _n BuMA- _t BuA-HEMA]	33.4- <i>b</i> -8.8- <i>b</i> -36.0
M_w/M_n	1.25
MMA : nBuMA molar ratio	50 : 50

Synthesis Procedure:

The above ABC-type triblock copolymer was synthesized by living anionic polymerization. First, methyl methacrylate (MMA) and n-butyl methacrylate (n-BuMA) were copolymerized; then tert-butyl acrylate (t-BuA monomer) was added to obtain the diblock copolymer; followed by addition of 2-[trimethylsilyloxy]ethyl methacrylate (hydroxy-protected HEMA monomer). To replace TMS with hydroxy group, the obtained triblock copolymer was precipitated into acidic methanol solution.

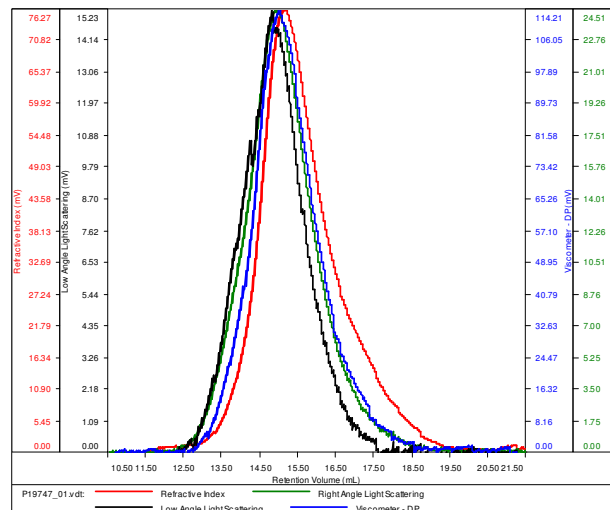
Characterization:

The ratio between MMA:nBuMA was calculated by ¹H NMR spectroscopy. Molecular weight was calculated from proton NMR spectroscopy by comparing the ratio between groups assigned to each block, and compared to SEC data. Polydispersity index (M_w/M_n) was determined SEC.

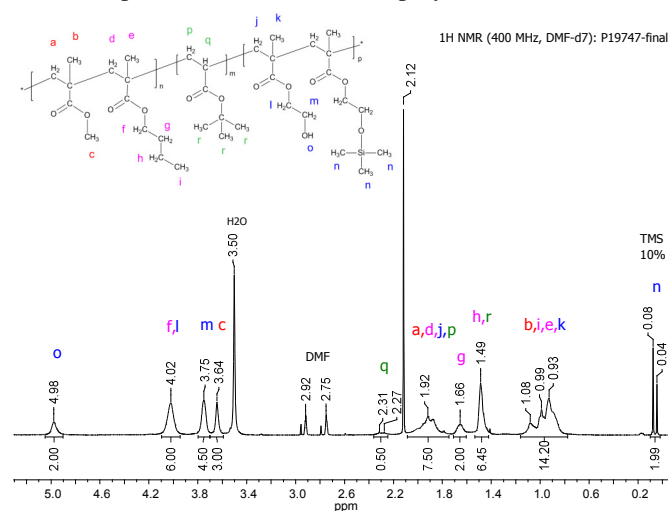
SEC of the triblock copolymer:

P19747 (final)

Conc	9.8708
dn/dc	0.0650
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS80k_2018-02-09-0000.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P19747_01.vdt	78,273	98,115	96,078	1.253	0.2647

¹H NMR spectrum of the triblock copolymer:

Molar ratio MMA : nBuMA : tBuA : HEMA = 1 : 1 : 0.5 : 2