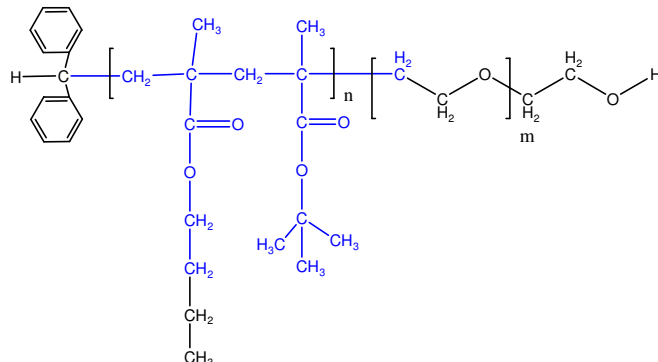


**Sample Name:** Poly(Methacrylic acid -n butylmethacrylate ran-b-Ethylene oxide)  
**Sample #:** P19056A-MAAnBuMAran-b-EO  
**Structure:**

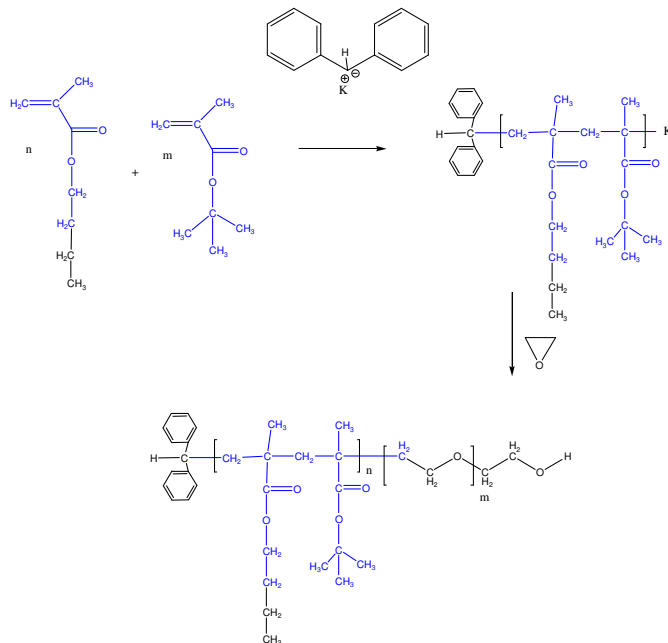


### Composition:

$M_n \times 10^3$ PtBuMA-b-EO	PDI
29.0-b-15.0	1.26

### Synthesis Procedure:

This lot by successive addition of mixture of tBuMA-nBuMA (1:1 ratio) followed by addition of EO monomer.



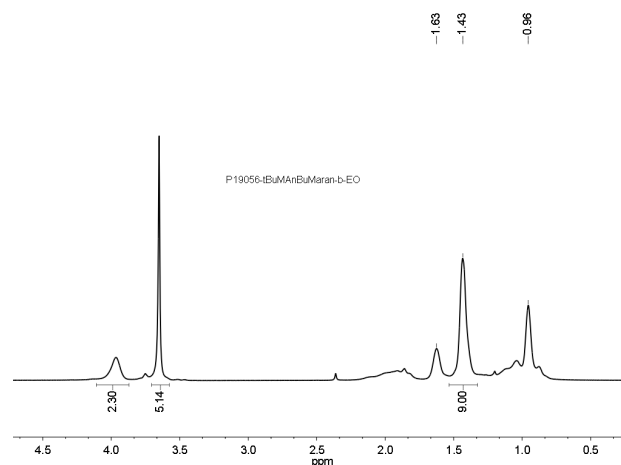
### Characterization:

By SEC and HNMR analysis.

### References:

J. Wang, S. K. Varshney, J. Jerome and Ph. Teyssie  
 "Synthesis of AB (BA) ABA and BAB Block copolymers of tert-butylmethacrylate (A) and ethylene oxide (B) " *CA Vol 117, 16, 151478, J. Polym. Sci., Part-A: Polym. Chem. Ed., 1992, 30, 2251-2261.*

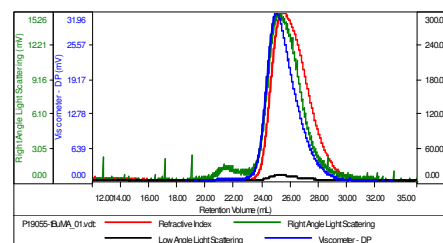
### <sup>1</sup>H-NMR Spectrum of the block copolymer in ester



### SEC of the block copolymer:

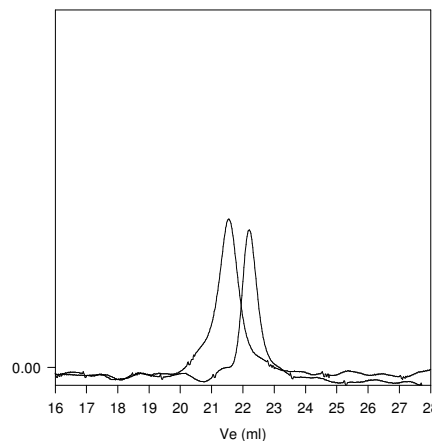
Sample ID: P19056-tBuMA

Concentration (mg/mL)	4.7886
Sample div/c (mL/g)	0.0940
Method File	P590K-Jar22-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19056-tBuMA_01.vdt	37,600	42,900	41,441	1.142	0.3168

**P19056-tBuMA-nBuMAran EO**



Size exclusion chromatography of poly(t-butyl methacrylate-nBuMAran-EO)  
 — Poly(tBuMA-co-nBuMA),  $M_n=36500$ ,  $PI=1.12$   
 — Block Copolymer PtBuMA-nBuMAran(36,500)-b-PEO(15,000 from NMR),  $PI=1.16$   
 After hydrolysis Block Copolymer PnBuMAaMAran(29,000)-b-PEO(15,000),  $PI=1.26$