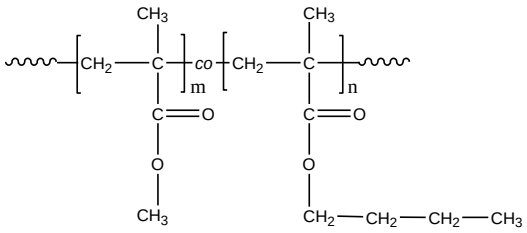
Sample Name:
Random Copolymer Poly(methyl methacrylate-co-n-butyl methacrylate)

Sample #: **P10566-MMAnBuMAran**

Structure:



Composition:

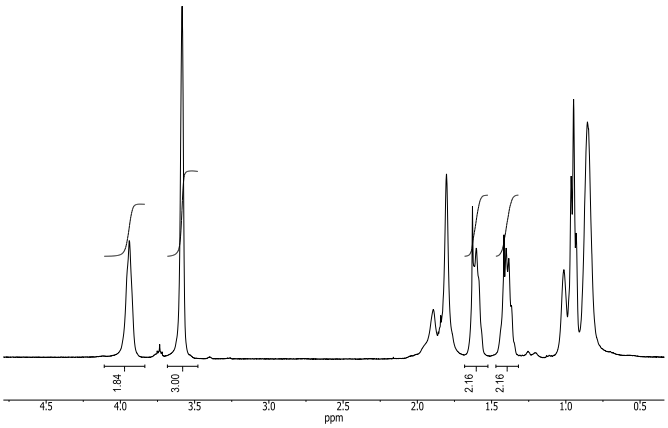
Mn x 10^3 PMMA-co-PnBuMA	31.5
PDI	1.43
MMA:nBuMA molar ratio	52:48

Synthesis Procedure:
Random Copolymer Poly (methyl methacrylate-co-n-buthyl methacrylate) is prepared by anionic polymerization process.

Characterization:
The polymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The copolymer composition was calculated from ^{1}H-NMR spectroscopy by comparing the peak area of OCH3 ester protons from MMA at 3.6ppm and OCH2 protons of nBuMA at 4.0 ppm

Solubility:
The polymer is soluble in $CHCl_3$, THF, DMF, and precipitated out from methanol and hexane.

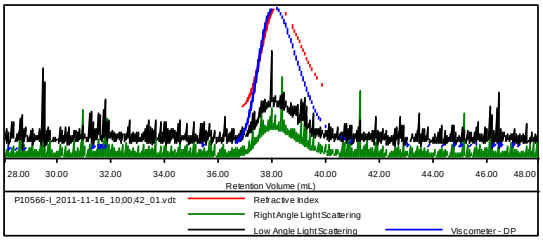
^{1}H-NMR Spectrum of the random copolymer:



SEC of the random copolymer:

Sample ID: P10566-I-MMAnBuMA

Concentration (mg/mL)	6.6808
Sample dn/dc (mL/g)	0.0800
Method File	PS80K-Oct-0000.vcm
Column Set	3x PL 1113-6300
System	System 1



Sample	Mn (Da)	Mw (Da)	Mp (Da)	Mw/Mn	IV (dL/g)
P10566-I_2011-11-16_10;00;42_01.vdt	31,364	45,026	45,950	1.436	0.3176