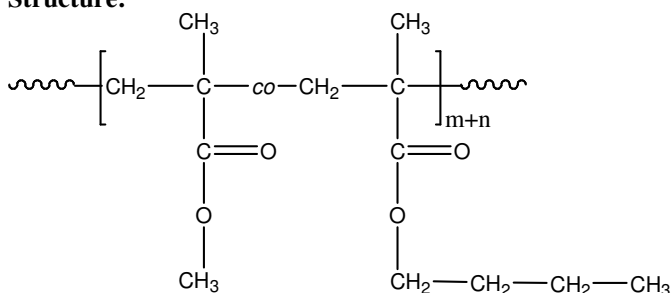


**Sample Name:**

**Random Copolymer Poly(methyl methacrylate-co-n-butyl methacrylate)**

**Sample #: P11169-MMAnBuMAran****Structure:****Composition:**

Mn x 10 <sup>3</sup>	PDI
PMMA-co-PnBuMA	
38.2	1.04
T <sub>g</sub> of random polymer	40.2°C mid point
MMA:nBuMA molar ratio	13:87

**Synthesis Procedure:**

Random Copolymer Poly(methyl methacrylate-co-n-butyl methacrylate) is prepared by anionic polymerization

**Characterization:**

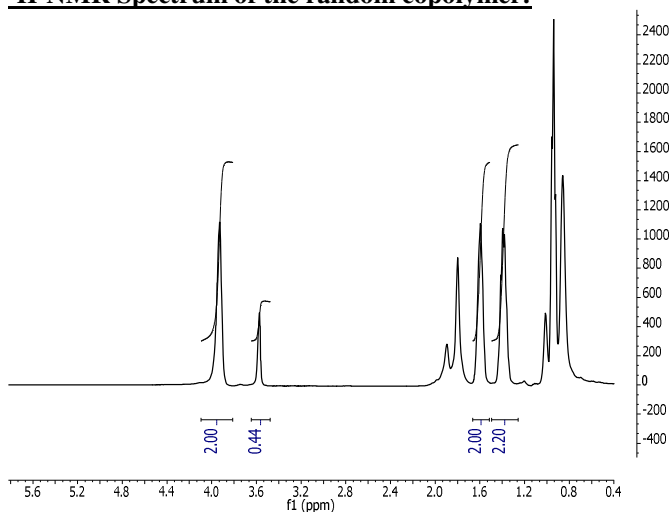
The polymer was analyzed by size exclusion chromatography (SEC). Copolymer composition was calculated from <sup>1</sup>H-NMR.

**Thermal analysis**

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T<sub>g</sub>).

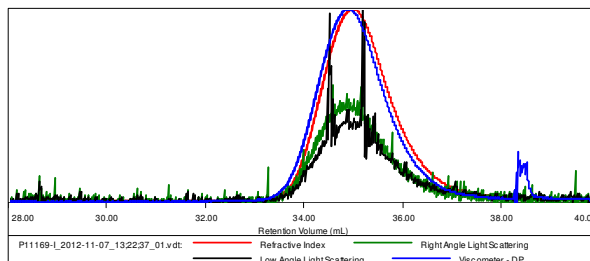
**Solubility:**

The polymer is soluble in CHCl<sub>3</sub>, THF, DMF, acetone and precipitated out from methanol and hexane.

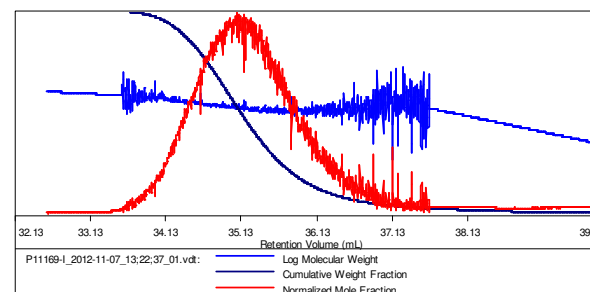
**<sup>1</sup>H-NMR Spectrum of the random copolymer:****SEC of the random copolymer:**

Sample ID: P11169-I-MMAnBuMA

Concentration (mg/mL)	21.2745
Sample dn/dc (mL/g)	0.0800
Method File	PS80K-Nov-2012-0000.vcm
Column Set	3x PL 1113-6300
System	System 1



Sample	Mn (Da)	Mw (Da)	Mp (Da)	Mw/Mn	IV (dL/g)
P11169-I_2012-11-07_13:22:37_01.vdt	38,130	39,763	37,634	1.043	0.2255

**Thermogram for the sample in Duplicate:**

Heating rate: 10 °C/minute:

DSC of P11169-I-MMAnBuMA-1:

