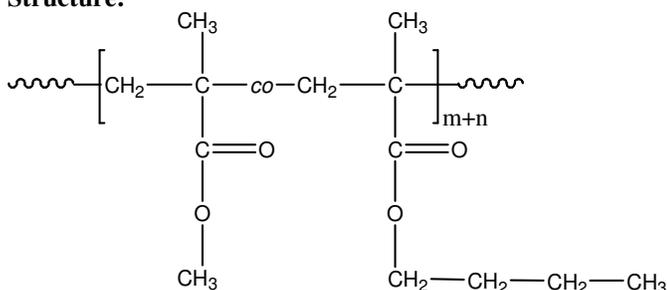


Sample Name:

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

Sample #: P11169-MMAnBuMAran

Structure:



Composition:

Mn x 10 ³	PDI
PMMA-co-PnBuMA	
38.2	1.04
T _g 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 ¹H-NMR.

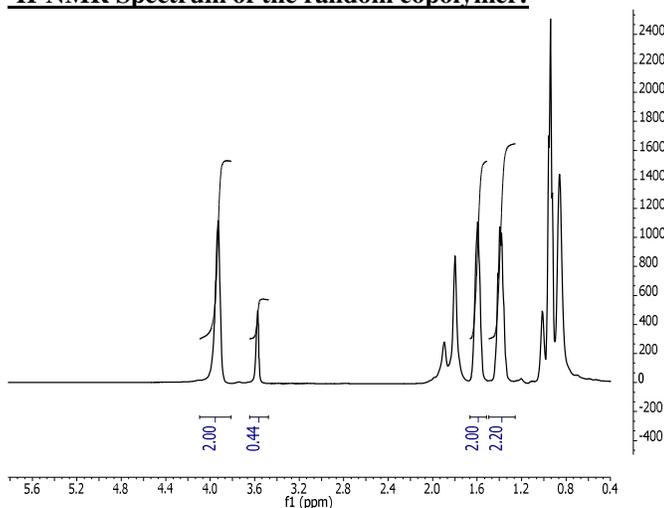
Thermal analysis

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_g).

Solubility:

The polymer is soluble in CHCl₃, THF, DMF, acetone and precipitated out from methanol and hexane.

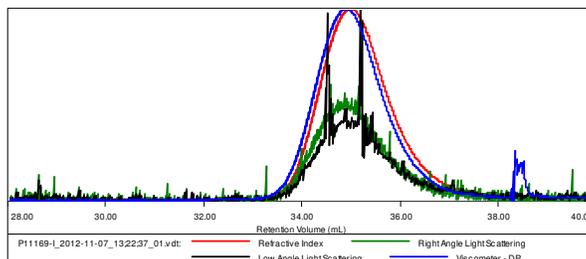
¹H-NMR Spectrum of the random copolymer:



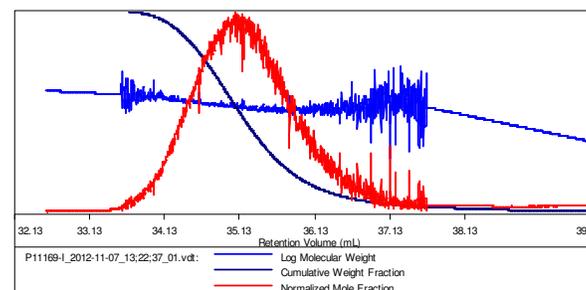
SEC of the random copolymer:

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:

