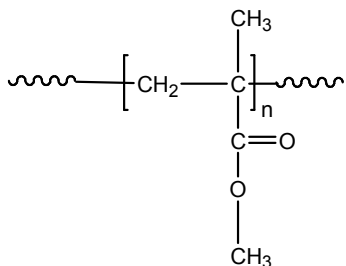


Sample Name: Poly (methyl methacrylate)
Atactic polymer

Sample #: P40543-MMA

Structure:



Composition:

$M_n \times 10^3$	PDI
20.5	1.14

Syndio : Hetero : Iso	38 : 57 : 5
T_g	104°C

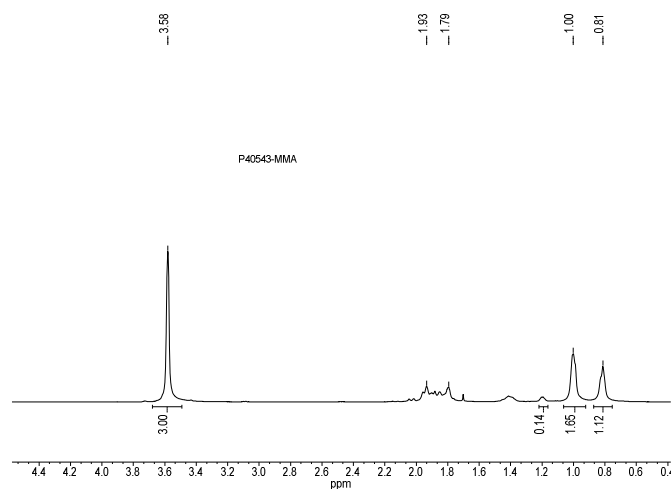
Synthesis Procedure:

The polymer was synthesized by anionic polymerization.

Characterization:

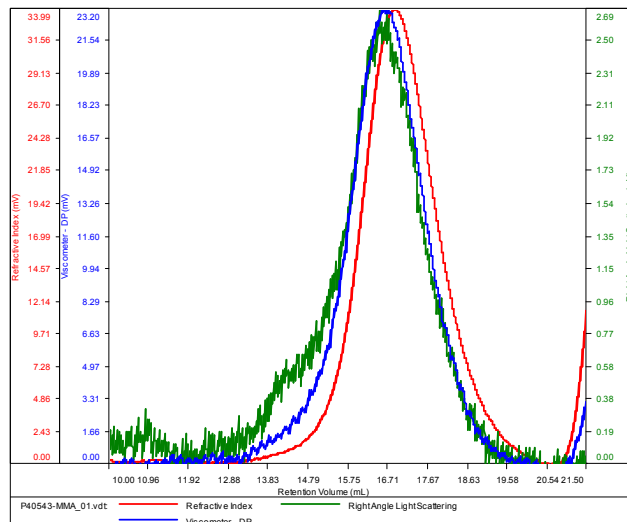
The product was characterized by size exclusion chromatography (SEC) and ^1H NMR.

^1H NMR spectrum of PMMA:



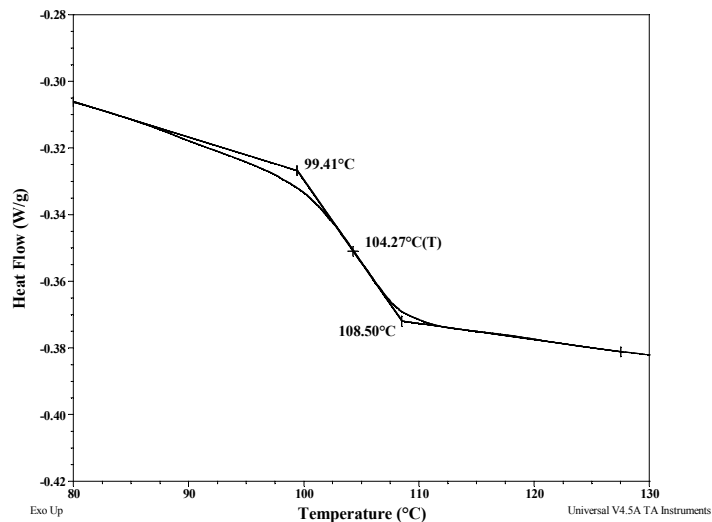
SEC elugram of PMMA homopolymer:
P40543-MMA

Conc	7.0140
dn/dc	0.0650
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS80k-March2017-0002.vcm



Sample	M_n	M_w	M_p	M_w/M_n	IV
P40543-MMA_01.vdt	20,444	23,430	20,476	1.146	0.0814

DSC thermogram of the polymer

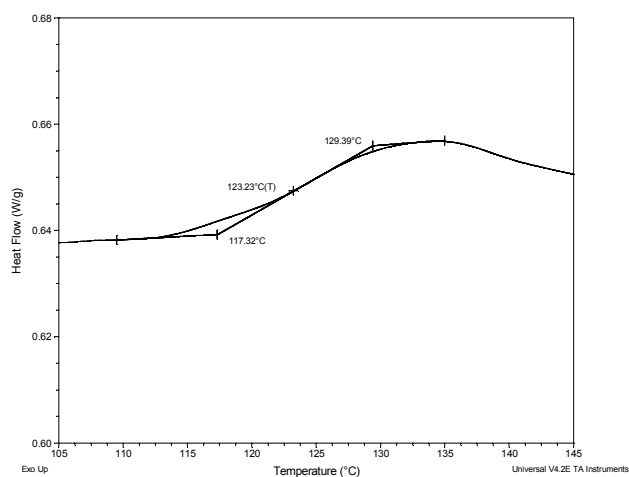


Thermograms of PMMA:

(a) syndiotactic >79%



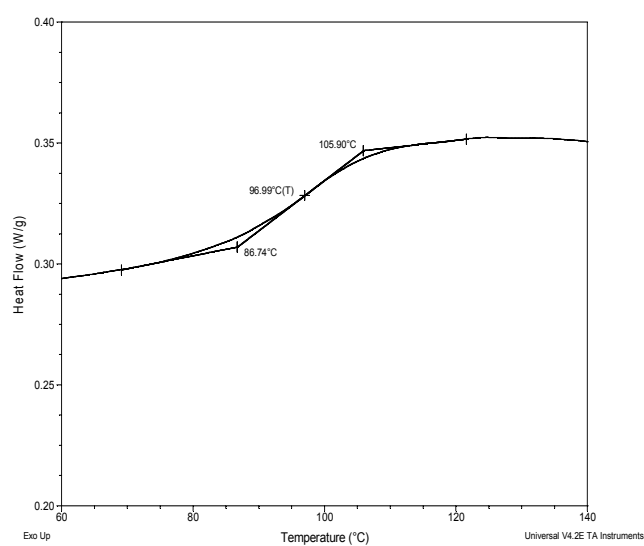
(b) syndiotactic >85%



(c) isotactic >97%



(d) atactic



**Summary of DSC results for PMMA
of different tacticity:**

<i>PMMA microstructure</i>	<i>Tacticity Syndio : Iso : Hetero</i>	<i>T_g (°C)</i>
Syndiotactic >79%	79 : 19 : 2	120
Syndiotactic >85%	86 : 0 : 14	123
Isotactic >97%	0 : 97 : 3	44
Atactic	56 : 6 : 38	97