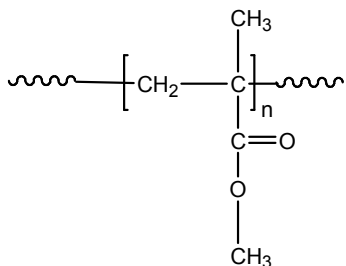


Sample Name: Poly (methyl methacrylate)
Atactic polymer

Sample #: P40545-MMA

Structure:



Composition:

$M_n \times 10^3$	PDI
45.0	1.10

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

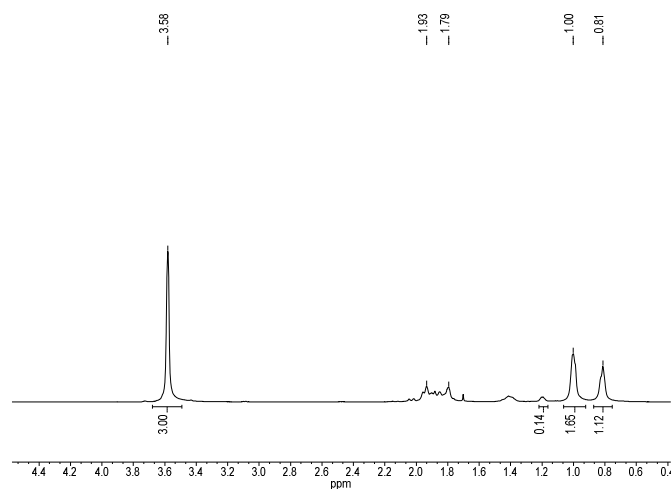
Synthesis Procedure:

The polymer was synthesized by anionic polymerization.

Characterization:

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

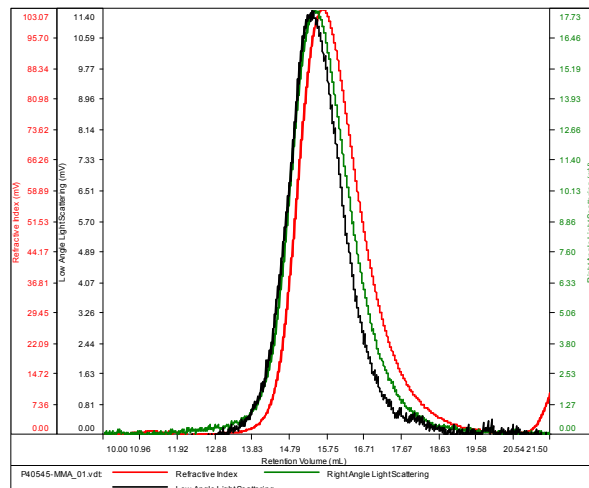
^1H NMR spectrum of PMMA:



SEC elugram of PMMA homopolymer:

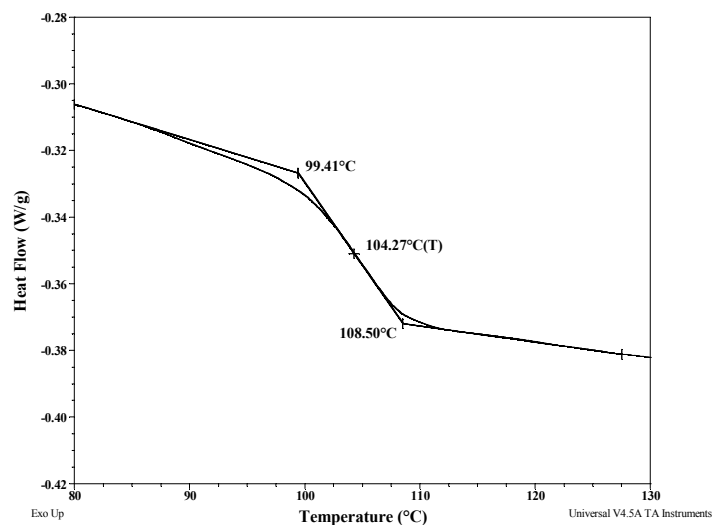
P40545-MMA

Conc	18.9109
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
P40545-MMA_01.vdt	44,742	49,493	48,986	1.106	0.1372

DSC thermogram of the polymer

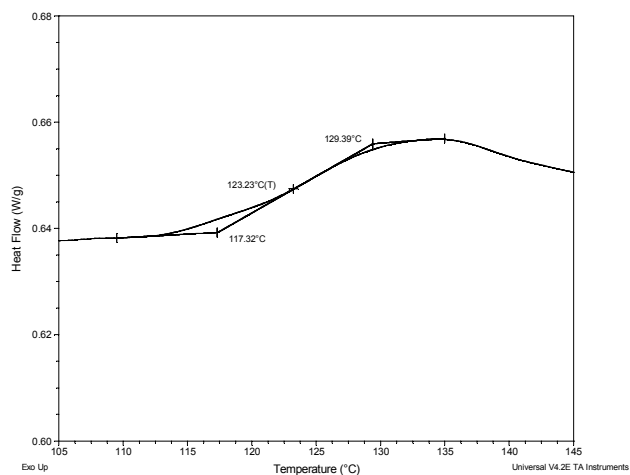


Thermograms of PMMA:

(a) syndiotactic >79%



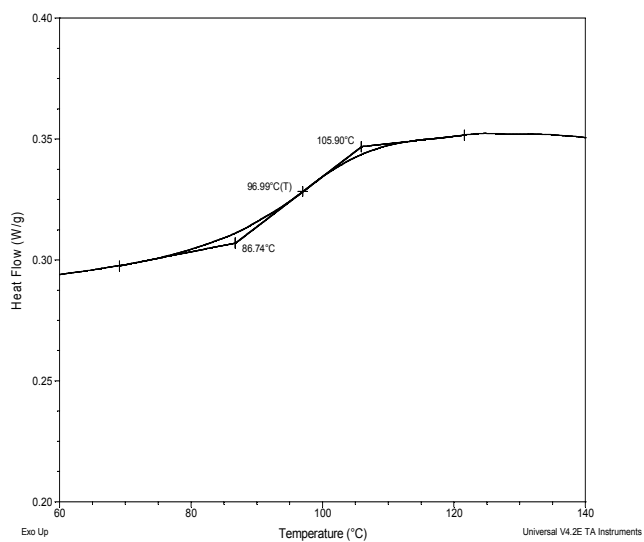
(b) syndiotactic >85%



(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