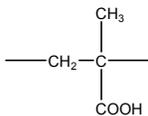


### Sample Name:

Poly(methacrylic acid) rich in Atactic contents

Sample #: P6743C-MAA  
(rich in atactic)

### Structure:



### Composition:

Mn x 10 <sup>3</sup>	PDI
13.0	2.8
T <sub>g</sub> (°C)	165

### Synthesis Procedure:

Poly(methacrylic acid) is synthesized by RAFT process

### Characterization:

The molecular weight and polydispersity index (PDI) of Poly(methacrylic acid) are obtained by size exclusion chromatography in DMF at 45 °C.

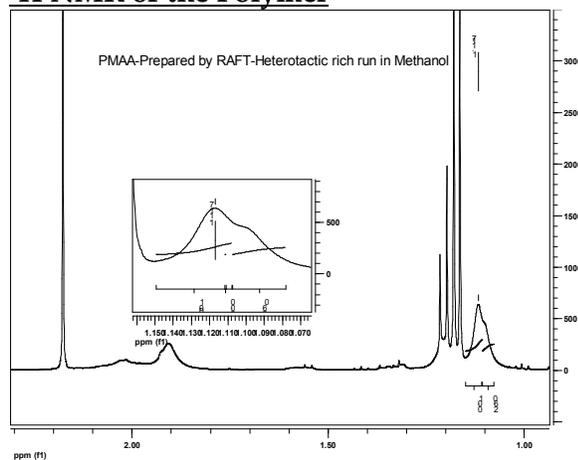
### Thermal analysis:

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>).

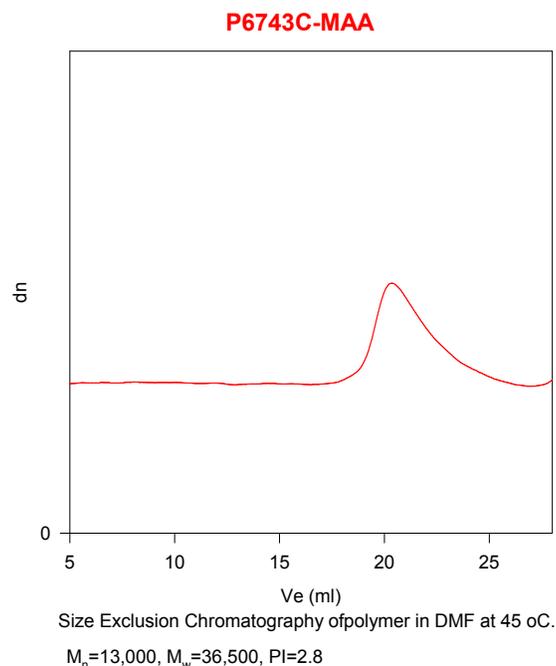
### Solubility:

Polymer is soluble in methanol and ethanol.

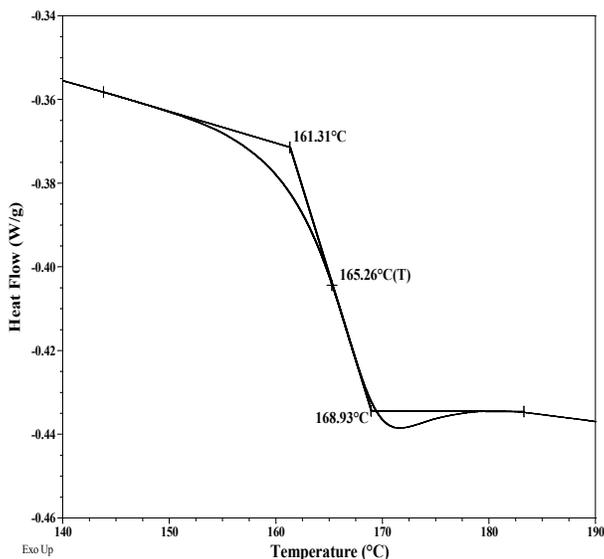
### <sup>1</sup>H NMR of the Polymer



### SEC of the homopolymer:



### Thermogram for the polymer:



### References:

S. K. Varshney, Z. Gao, Xing Fu Zhong, A. Eisenberg "Effect of Lithium Chloride on the "Living" Polymerization of tert-Butylmethacrylate and Polymer Microstructure Using Monofunctional Initiators" *Macromolecules*, 1994, 27, 1076.