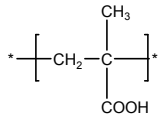
Sample Name:
Poly(methacrylic acid) rich in Atactic contents
Sample #: P10829-MAA
(rich in atactic)

Structure:



Composition:

Mn x 10^3	PDI
418.0	1.09
T_g (°C)	165
Microstructure Syndio:Heter:iso contents	40:49:11

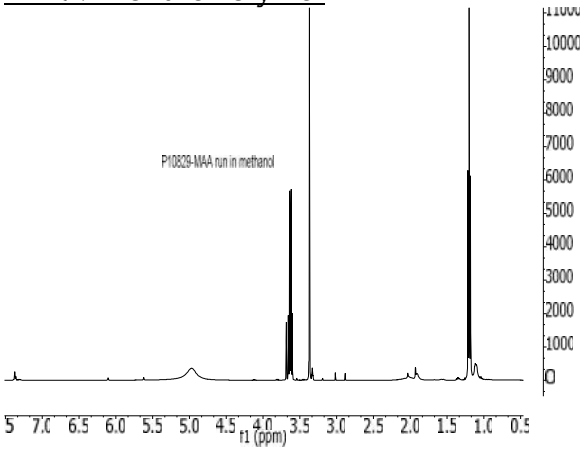
Synthesis Procedure:
Poly(methacrylic) is synthesized by RAFT process

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

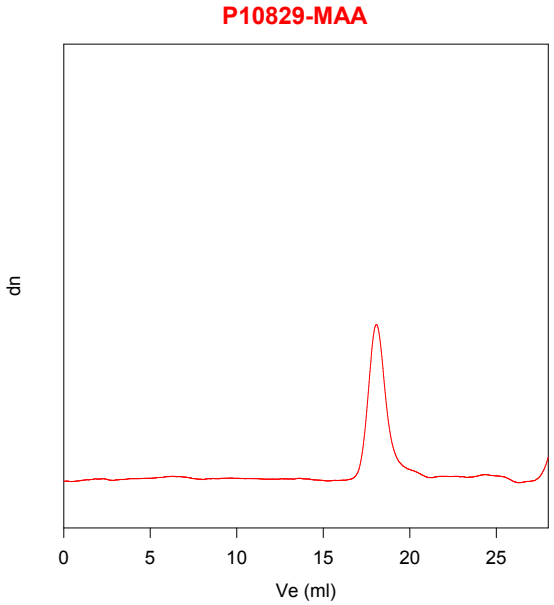
Thermal analysis:
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10 °C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:
Polymer is soluble in methanol and ethanol.

^{1}H NMR of the Polymer



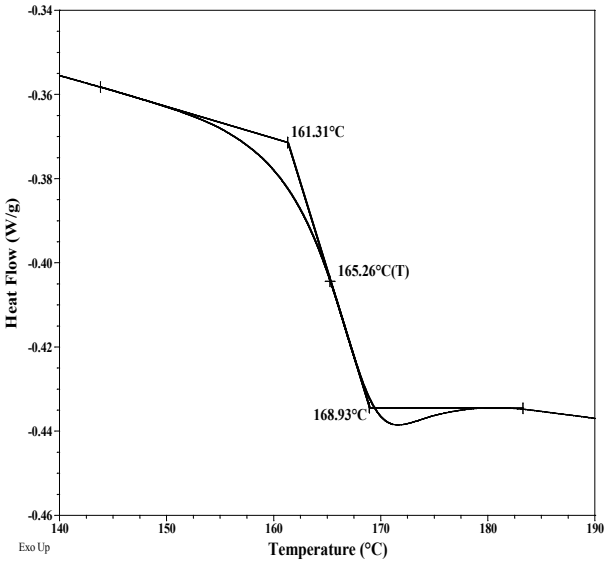
SEC of the homopolymer:



Size Exclusion Chromatography ofpolymer in DMF at 45 oC.

M_n=418,000, M_w=456,000, PI=1.09

Thermogram for the polymer:



Refrences:
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.