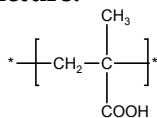


Sample Name:

Poly(methacrylic acid) rich in Atactic contents

Sample #: P10790B-MAA**Structure:****Composition:**

Mn x 10 ³	PDI
410.0	1.2
T _g (°C)	167
Microstructure Heter:iso contents	55:45

Synthesis Procedure:

Poly(methacrylic) is synthesized by RAFT process.

Characterization:

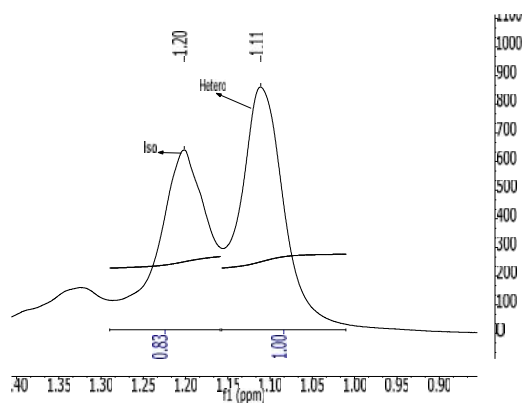
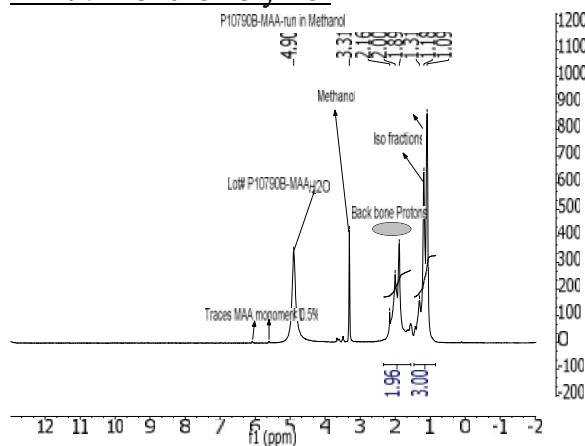
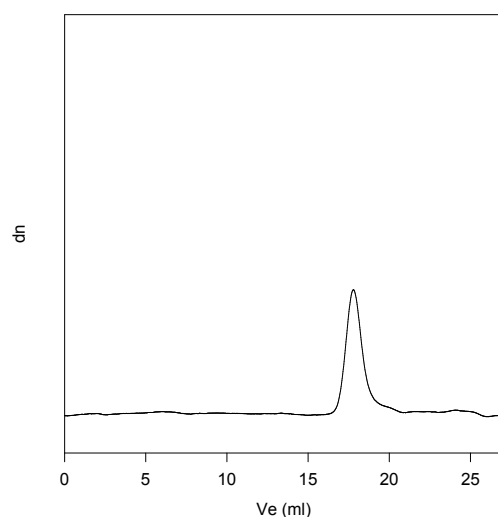
The molecular weight and polydispersity index (PDI) of Poly(methacrylic) are obtained by size exclusion chromatography in DMF at 45 °C.

Thermal analysis:

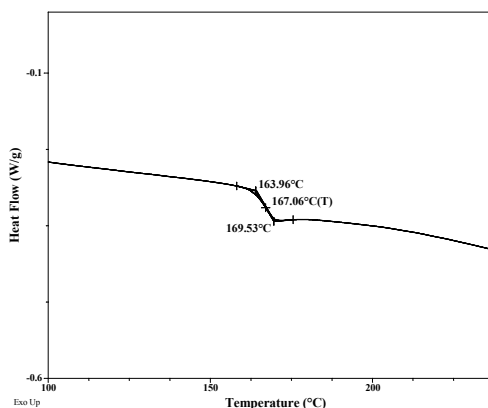
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10 °C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

Polymer is soluble in methanol and ethanol.

¹H NMR of the Polymer**SEC of the homopolymer:****P10790B-MAA**

Size Exclusion Chromatography of polymer in DMF at 45 °C.

M_n=410,000, PI=1.2**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.