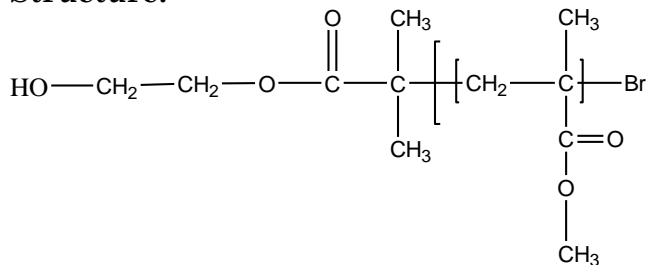


Sample Name: α - Hydroxy ω - Bromo
Terminated Poly(methyl methacrylate)

Sample #: P6647-MMAOHBr

Structure:

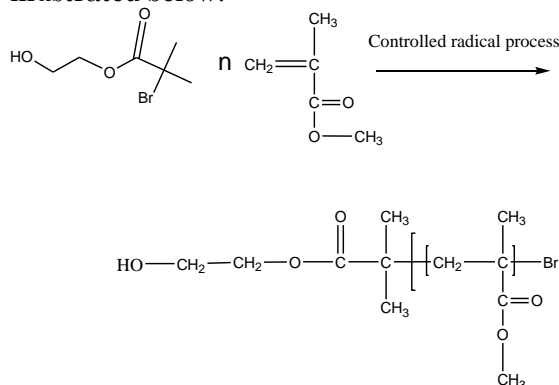


Composition:

$M_n \times 10^3$	PDI
25.0	1.3
Iso:hetero:syndio:	4:35:61 ratio
T_g ($^{\circ}\text{C}$)	116

Synthesis Procedure:

α - Hydroxy ω - Bromo terminated poly(methyl methacrylate) was prepared by controlled radical polymerization. The scheme of the reaction is illustrated below:



Characterization:

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

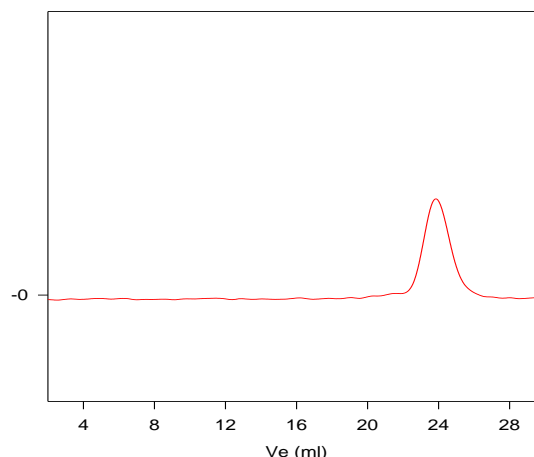
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of $10^{\circ}\text{C}/\text{min}$. The inflection glass transition temperature (T_g) of the sample has been considered.

Solubility:

Polymer is soluble in DMF, THF, toluene and CHCl_3 . It precipitates from methanol, ethanol, water and hexanes

SEC of Sample:

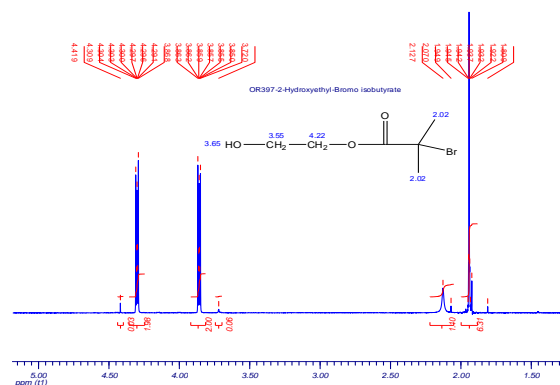
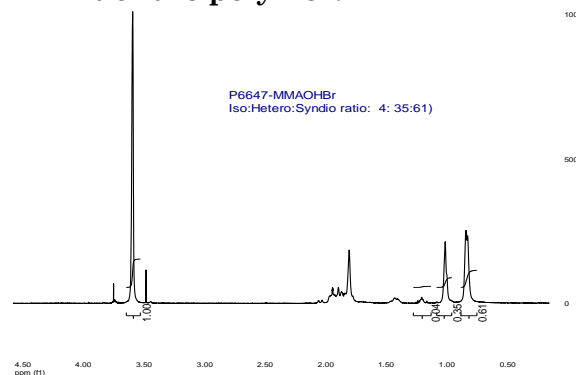
P6647-MMAOHBr



Size exclusion chromatograph of polymer:

$M_n=25000$, $M_w=32500$, $M_w/M_n=1.3$

^1H NMR of the polymer:



DSC thermogram:

