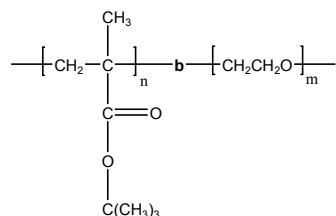


Structure:

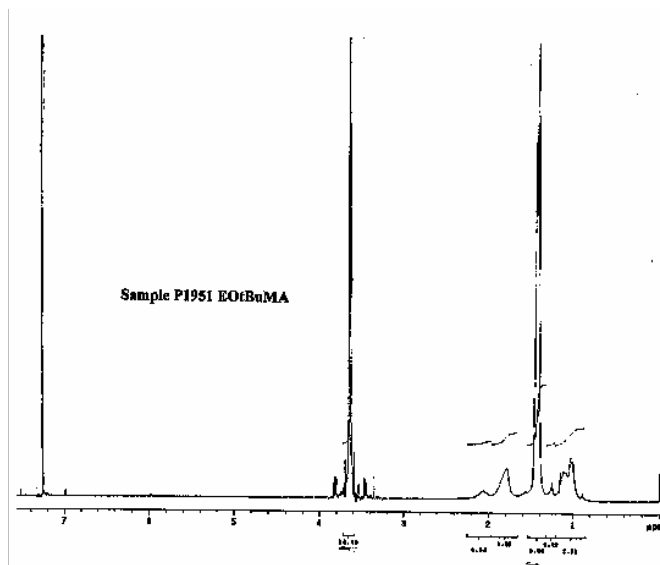


$M_n \times 10^3$ PtBuMA-b-PEO	PDI
14.5-b-25.0	1.30

$$\begin{array}{c}
 n \text{ CH}_2=\text{C}-\text{CH}_3 \\
 | \\
 \text{C}=\text{O} \\
 | \\
 \text{O} \\
 | \\
 \text{C}(\text{CH}_3)_3
 \end{array}
 \xrightarrow[\text{EO}]{\text{Initiator}}
 \begin{array}{c}
 \text{CH}_3 \\
 | \\
 \text{CH}_2-\text{C}- \\
 | \\
 \text{C}=\text{O} \\
 | \\
 \text{O} \\
 | \\
 \text{C}(\text{CH}_3)_3
 \end{array}
 \text{---} \text{b} \text{---} \text{---} [\text{CH}_2-\text{CH}_2-\text{O}]_m \text{---}$$

OR

$$\begin{array}{c}
 \text{O} \\
 \diagup \quad \diagdown \\
 \text{m} \quad \triangle
 \end{array}
 \xrightarrow[\text{n tBuMA}]{\text{Initiator}}
 \begin{array}{c}
 \text{CH}_3 \\
 | \\
 \text{---} [\text{CH}_2-\text{CH}_2-\text{O}]_m \text{---} \text{b} \text{---} [\text{CH}_2-\text{C}- \\
 | \\
 \text{C}=\text{O} \\
 | \\
 \text{O} \\
 | \\
 \text{C}(\text{CH}_3)_3
 \end{array}$$



J. Wang, **S. K. Varshney**, J. Jerome and Ph. Teyssie
 "Synthesis of AB (BA) ABA and BAB Block copolymers
 of tert-butylmethacrylate (A) and ethylene oxide (B) "*CA
 Vol 117, 16, 151478, J. Polym. Sci., Part-A: Polym. Chem.
 Ed., 1992, 30, 2251-2261.*

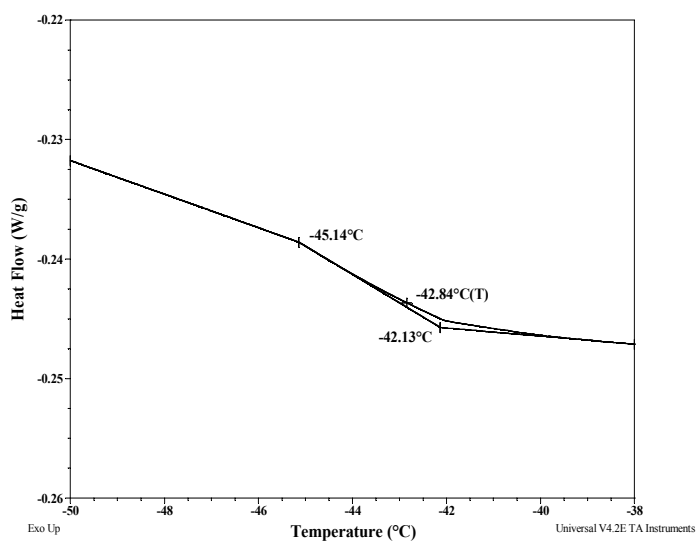
Thermal analysis of the tBuMAEO sample#1951

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).

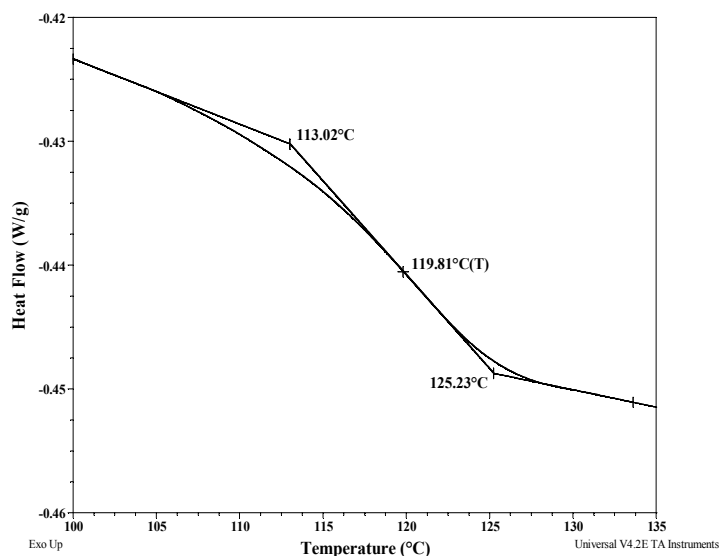
Melting and crystallization curve for the sample

The melting temperature (T_m) was taken as the maximum of the endothermic peak whereas the crystallization temperature (T_c) was considered as the minimum of the exothermic peak.

Thermogram for the PEO block



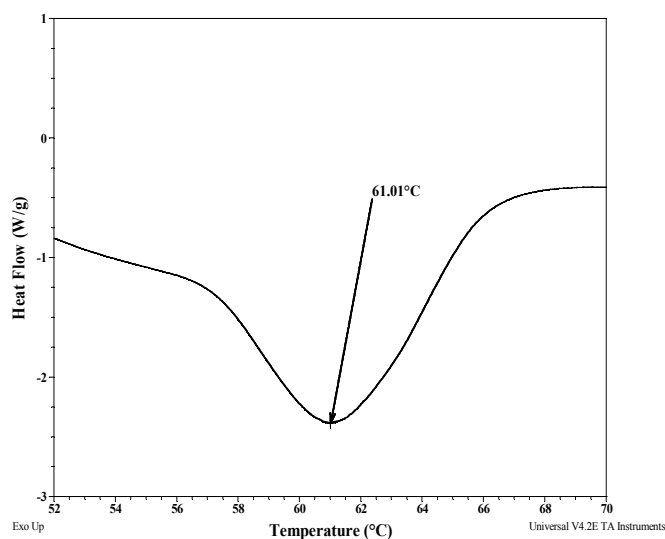
Thermogram for tBuMA block:



Thermal analysis results at a glance

Sample	T_m (°C)	T_c (°C)	T_g (°C)
EO	61	43	-43
tBuMA	-	-	120

Melting curve for EO block:



Crystallization curve for EO block:

