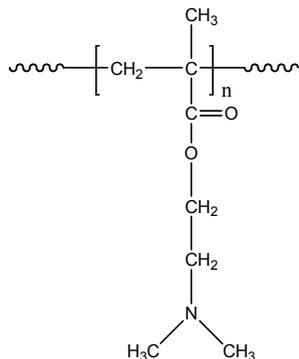


Sample Name:

Poly(N,N-dimethylaminoethyl methacrylate)

Sample #: P8590-DMAEMA

Structure:

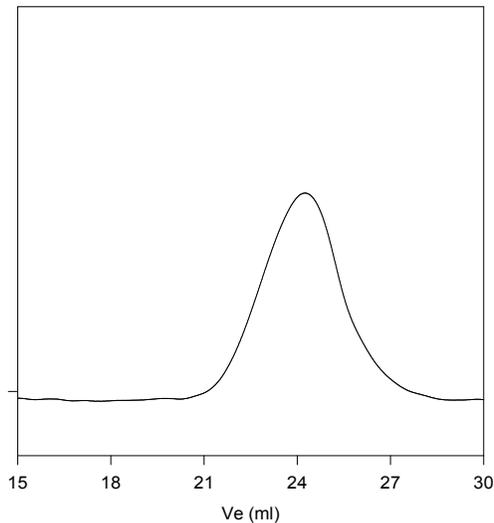


Composition:

$M_n \times 10^3$	PDI
15.0	2.5
T_g ($^{\circ}C$)	02

SEC of Homopolymer:

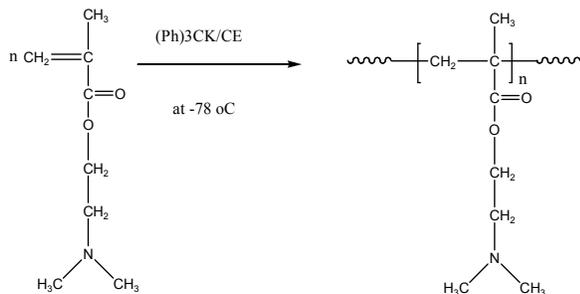
P8590-DMAEMA



Size exclusion chromatograph of Poly(N,N-dimethylaminoethyl methacrylate):
 $M_n=15000$; $M_w=37,500$; $M_w/M_n=2.5$

Synthesis Procedure:

The polymer is synthesized by living anionic polymerization of dimethylaminoethyl methacrylate. The reaction scheme is shown below.



Characterization:

The molecular weight and polydispersity index (PDI) of the polymer are obtained by size exclusion chromatography

Thermal analysis:

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of $10^{\circ}C/min$. 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, ethanol and water, precipitated in hexane.

DSC thermogram for the polymer:

