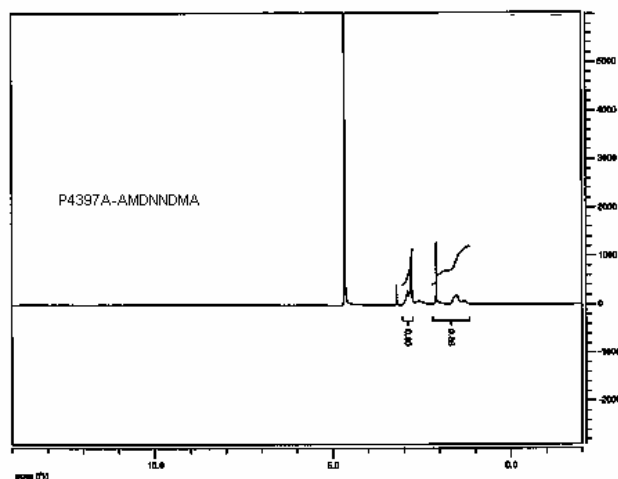
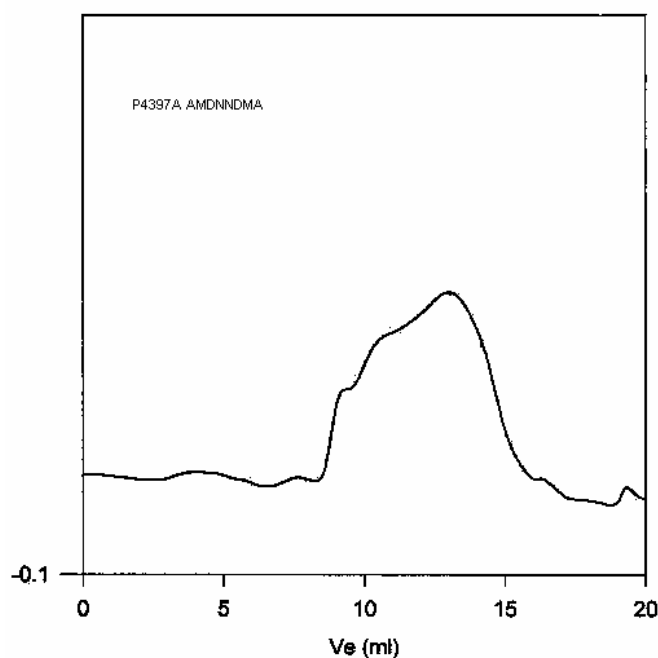


¹H-NMR Spectrum of the random copolymer before hydrolysis:

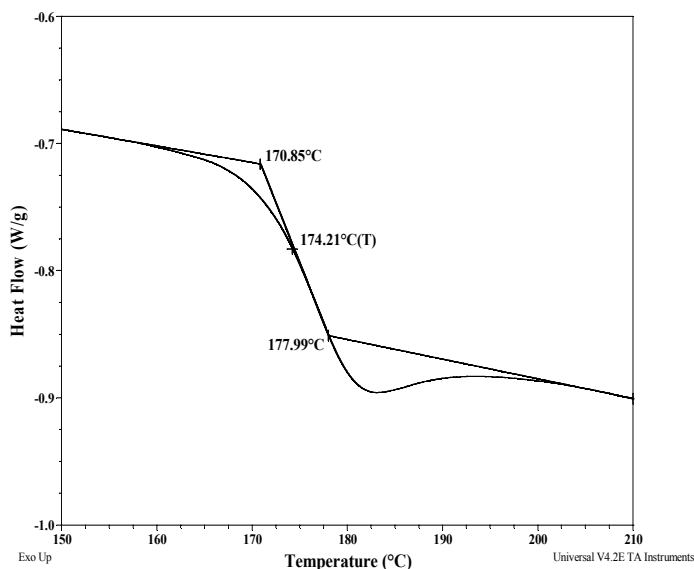


SEC of the random copolymer before hydrolysis:



Size exclusion chromatograph of random copolymer of
Acrylamide and N,N-dimethyl acrylamide:
Eluent: Water containing 0.5M acetic acid and 0.5M NaNO₃
M_w = 800000 Reduced viscosity in water at 30 °C: 260 ml/g

DSC thermogram for the sample:

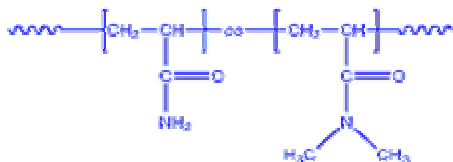


Sample Name:

Random Copolymer Poly(acrylamide-co-N,N-dimethyl acrylamide)

Sample #: P4397A-AMDNNDMA

Structure:



Composition:

PAMD (mol%) : 52

Mn x 10 ³	PDI
800.0	3.5
T _g for the random copolymer	174°C

Synthesis Procedure:

The polymer is prepared by RAFT process.

Characterization:

The molecular weight and polydispersity index (PDI) were calculated by SEC using water as eluent. The copolymer composition was calculated from ¹H-NMR spectroscopy.

Thermal analysis:

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 20°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:

The polymer is soluble in acetone, insoluble in ether, hexane.