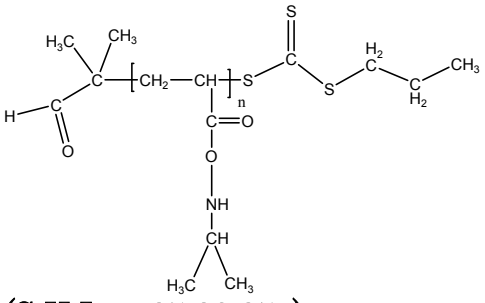
Sample Name: P18079-NIPAMCOOH

COOH terminated Poly(N-isopropyl acrylamide)

DP: 44 mer

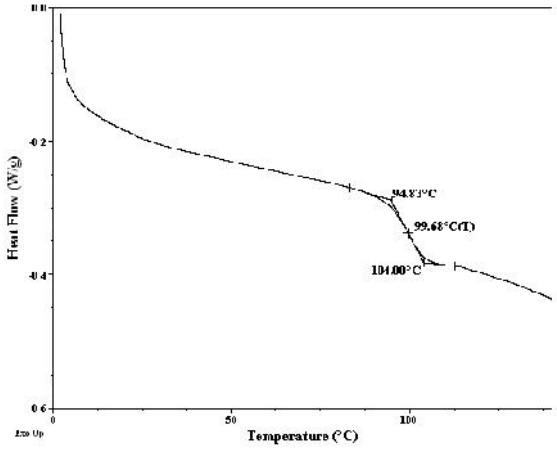


(S:H:Iso : 35:30:35)

Molecular composition:

Mn x 10^3	**Mw x 10^3**	(mmm) triad contents %	Solubility in different Solvents				
			Water	Toluene	CH3OH	CHCl3	DMF
5.0	7.5	0%	Yes	No	Yes	Yes	yes

Tg of polymer: 99 oC mid point

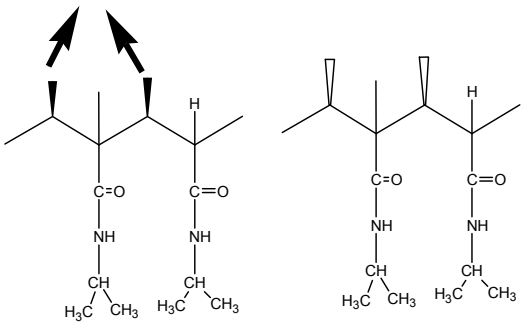


Polymer is synthesized by RAFT polymerization process using TMS protected NIPAM Monomer. Polymerization carried out in different solvents in the presence of ligands such as LiCl, diethyl Zinc, tri isobutyl aluminium and diethyl aluminum.

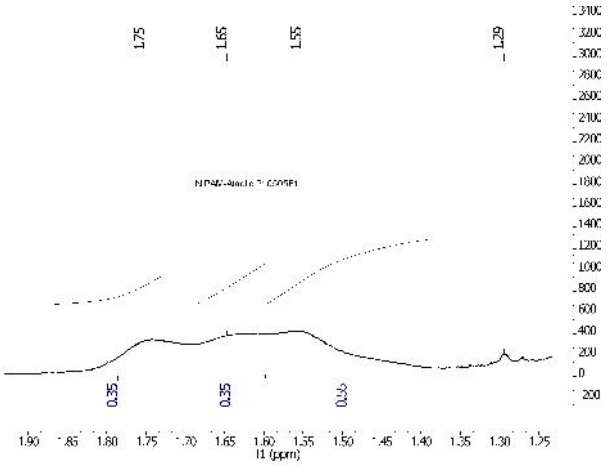
HNMR was carried out in DMF.
Following are the chemical shifts for different microstructures.

Solubility of Polymer: Solubility of poly NIPAM in water or in methanol dependent on the fraction of triad (mmm) iso contents presence in the polymer.

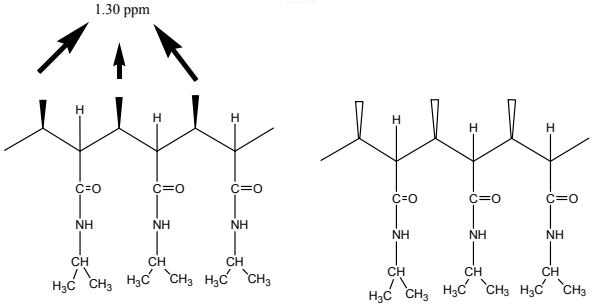
1.55ppm in DMF



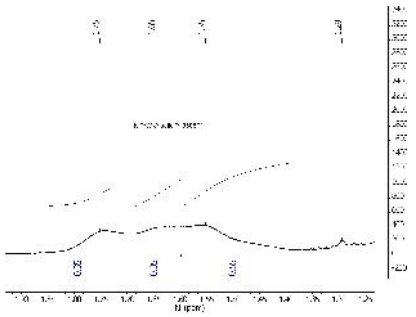
An example of meso diads

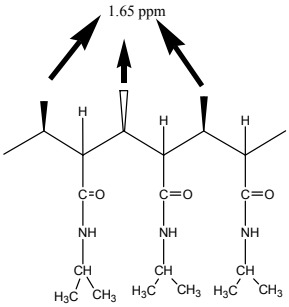


1.30 ppm

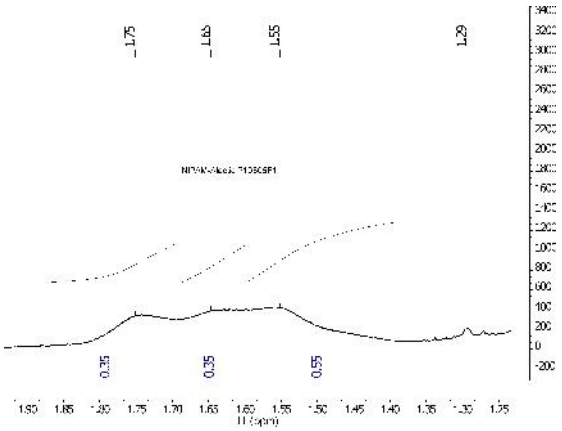


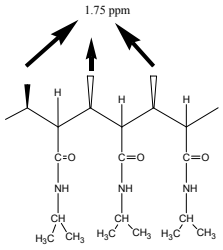
An example of meso triads



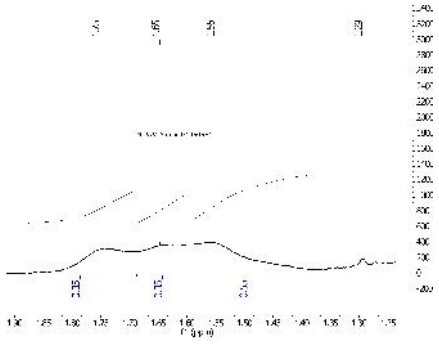


An example of Syndio (rrr) triads





An example of hetero (rmmr) triads



Characterization:

The molecular weight of poly(N-isopropyl acrylamide) are obtained by ^{1}H NMR carried out at 50 oC.

^{1}H NMR of the Polymer carried out in DMF at 40 ^{o}C: