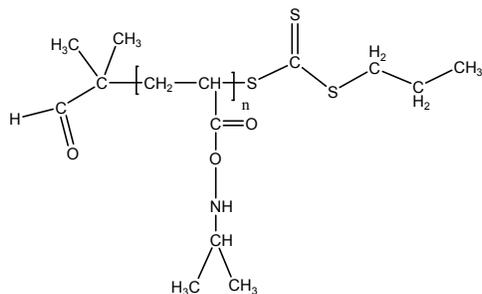


Sample Name: P18069-NIPAMCOOH

COOH terminated Poly(N-isopropyl acrylamide)

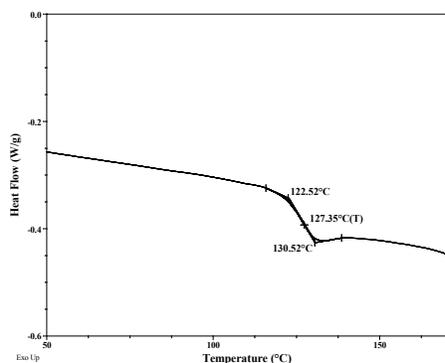


Polymer Sample # P18069-NIPAM (S:H:Iso : 28:28:43)

Molecular composition:

Mn x 10 ³	Mw x 10 ³	(mmm) triad contents %	Solubility in different Solvents				
			Water	Toluene	CH3OH	CHCl3	DMF
11.0	36.5	>1%	Yes	No	Yes	Yes	yes

Tg of polymer: 127 oC mid point

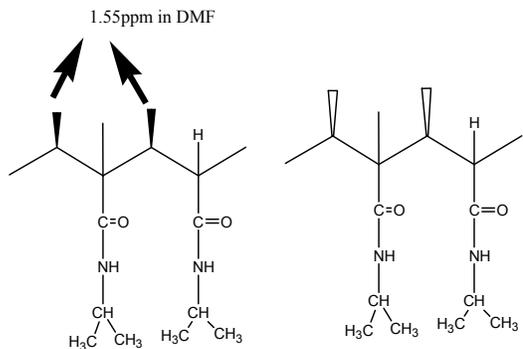


Polymer is synthesized by RAFT polymerization process

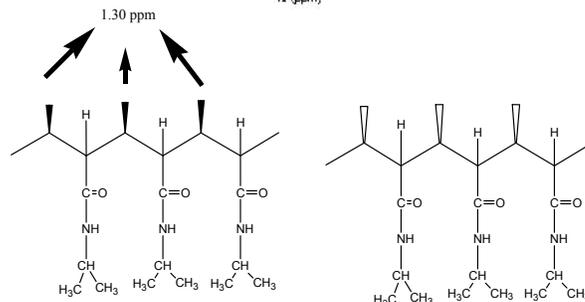
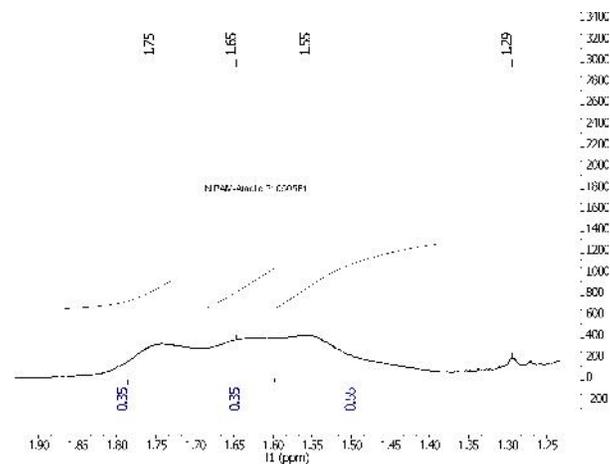
HNMR was carried out in DMF.

Following are the chemical shifts for different microstructures.

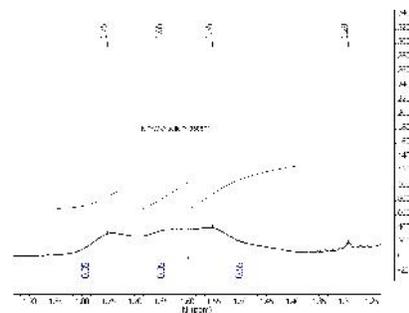
Solubility of Polymer: Solubility of poly NIPAM in water or in methanol dependent on the fraction of triad (mmm) iso contents presence in the polymer.

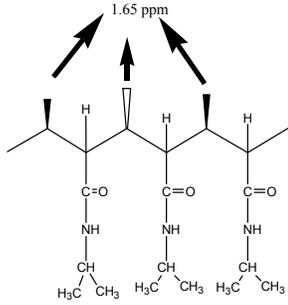


An example of meso diads

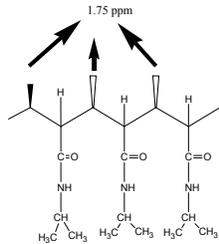
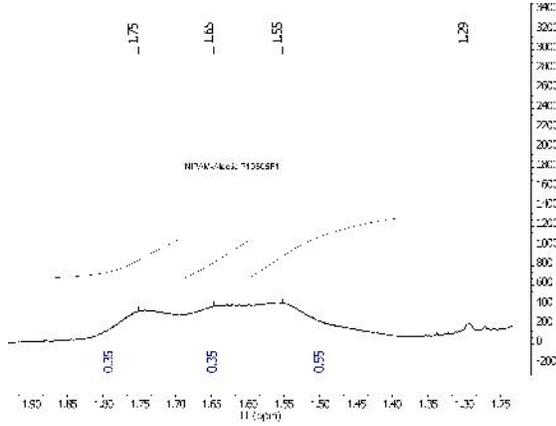


An example of meso triads

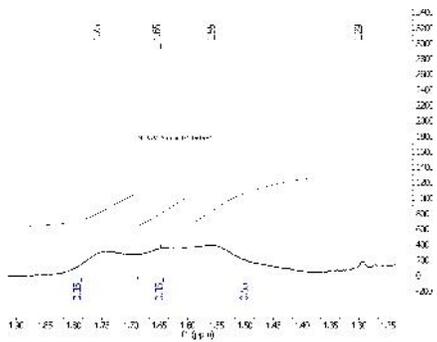




An example of Syndio (rrr) triads



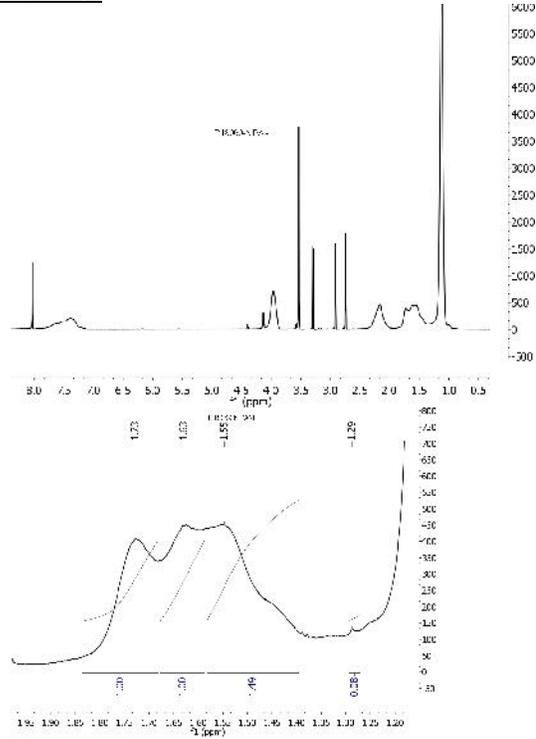
An example of hetero (rmmr) triads



Characterization:

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

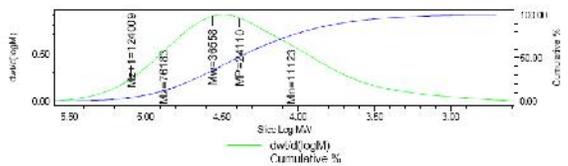
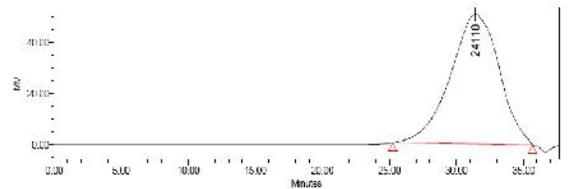
¹H NMR of the Polymer carried out in DMF at 40 °C:



GPC Default Individual Report

Reported by User: System Project Name: GPC Default

SAMPLE INFORMATION			
Sample Name:	P18009	Acquired by:	System
Sample Type:	Polymer (Unknown)	Date Acquired:	7/5/2013 9:00:00 AM
Yield:		Acq. Method Set:	method 1
Injection #:	95	Date Processed:	7/5/2013 9:38:46 AM
Injection Volume:	100.00 ul	Processing Method:	1
Run Time:	45.0 Minutes	Channel Name:	410
Sample Sol Name:		Proc. Chnl. Descr.:	



GPC Sample Results

Retention Time	Mn	Mw	MP	Mz	Poly-dispersity	
1	31435	11123	36580	24110	75183	3.287