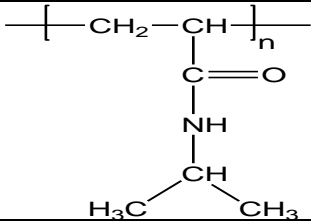


Product Profile

Identification

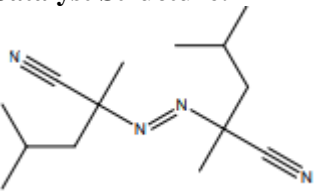
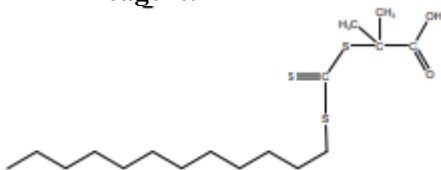
Product Name: Poly(N-isopropylacrylamide)	CAS: 25189-55-3
Abbreviation: PNIPAM	Lot: P10505F5-R-NIPAM
Formula: $\text{CH}_3(\text{C}_6\text{H}_{11}\text{NO})_n\text{CH}_3$	
Product Chemical Architecture:	

Composition:

Mn (g/mole)	55,000
Mw (g/mole)	58,000
Mw/Mn	1.05
dn/dc (mL/g)	0.077

Method of Synthesis

The polymer is prepared by Raft Polymerization.

Catalyst Structure:  <p>2,2-azobis (2,4-dimethyl valeronitrile)</p>	RAFT Reagent:  <p>2-dodecylsulfonyl-2-methylpropionic acid</p>
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Solubility in different solvents

THF	√	DMF	√
Alcohol	√	CHCl ₃	√
Toluene	X	Water (LCST 32°C)	Depending on its LCST

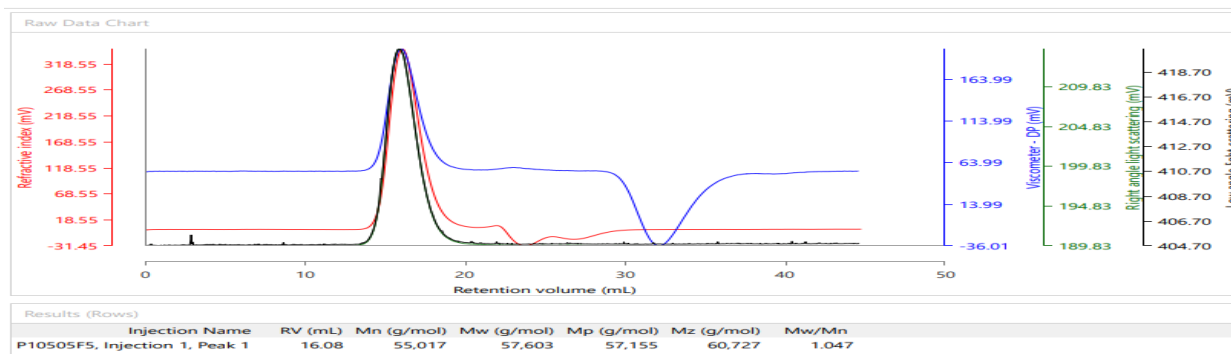
Validation of Architecture

A. Gel Permeation Chromatography (GPC), SEC- Profile:

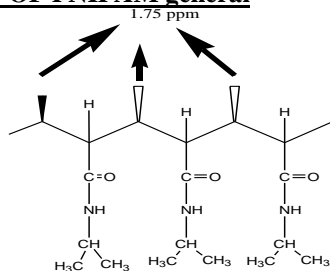
GPC – Malvern Omnisec Triple Detection ,2 Viscotek Mixed 300 x 8.0 mm columns at 35°C, flow 0.7mL/min. Mobile phase (MP): DMF + 0,023M LiBr

Polymer Source

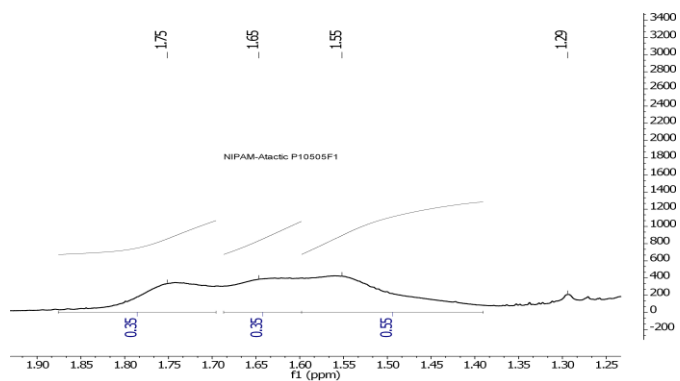
Malvern Panalytical



B. NMR (HNMR) OF PNIPAM general



An example of hetero (rmmr) triads



C. Dependence of glass transition temperature (T_g) of PNIPAM from its molecular weight:

