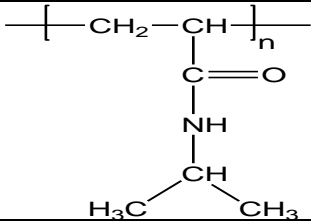


Product Profile

Identification

| | |
|--|--|
| Product Name: Poly(N-isopropylacrylamide) | CAS: 25189-55-3 |
| Abbreviation: PNIPAM | Lot: P18082-R-NIPAM |
| Formula: CH ₃ (C ₆ H ₁₁ NO) _n CH ₃ | |
| Product Chemical Architecture: |  |

Composition:

| | |
|---------------------|--------|
| Mn (g/mole) | 33,000 |
| Mw (g/mole) | 37,000 |
| Mw/Mn | 1.12 |
| dn/dc (mL/g) | 0.077 |

Method of Synthesis

The polymer is prepared by Raft Polymerization.

Solubility in different solvents

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

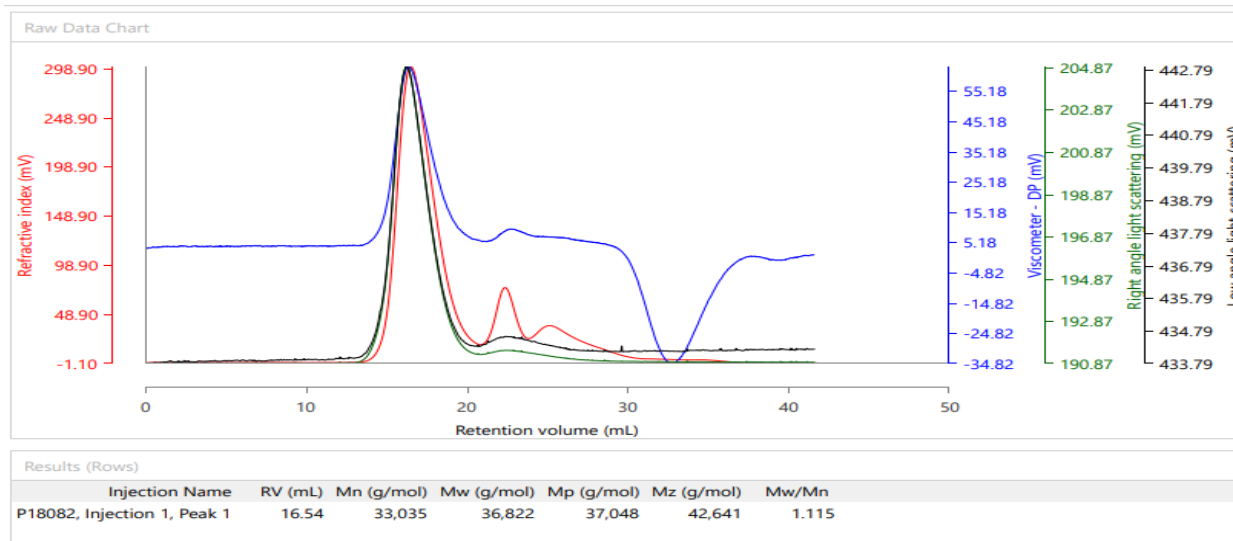
Validation of Architecture

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

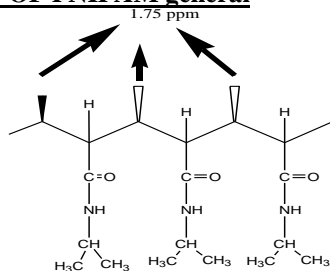
GPC – Malvern Omnisec Triple Detection ,2 Viscotek Mixed 300 x 8.0 mm columns at 35°C, flow 0.7mL/min. Mobile phase (MP): DMF + 0,023M LiBr

Polymer Source

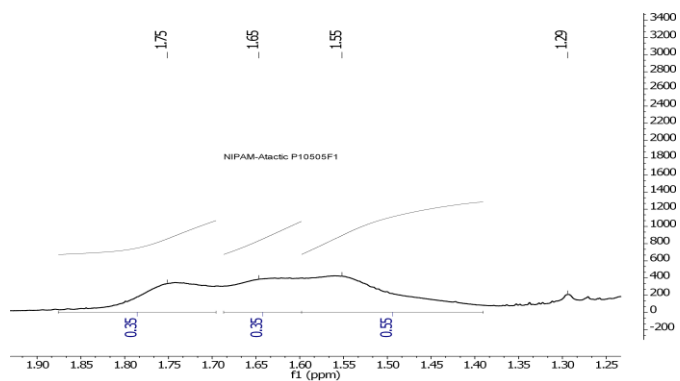
Malvern Panalytical



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:

