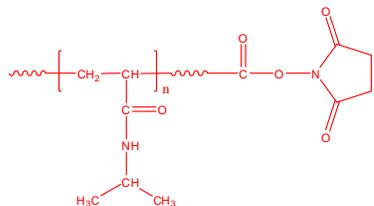


Sample Name:
NHS Terminated Poly(N-isopropyl acrylamide)

Sample #: P42734-NIPAMNHS

Structure:

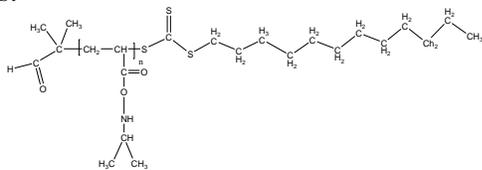


Composition:

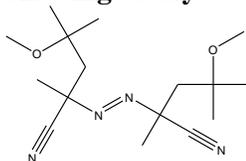
Mn x 10 ³	PDI
13.0	1.09

Synthesis Procedure:

COOH end functionalized poly(N-isopropyl acrylamide) is obtained by RAFT polymerization process.

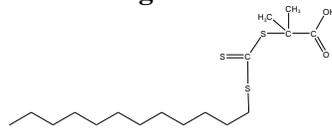


Following catalyst was used:



2,2'-azobis(2,4-dimethyl-4-methoxyvaleronitrile)

RAFT reagent:



2-dodecylsulfanyl-2-methylpropionic acid

Characterization:

The molecular weight and polydispersity index (PDI) were obtained by size exclusion chromatography (SEC) in DMF with polystyrene as standard. SEC analysis was performed on a waters chromatograph equipped with refractive detectors with three SEC columns from PSS.

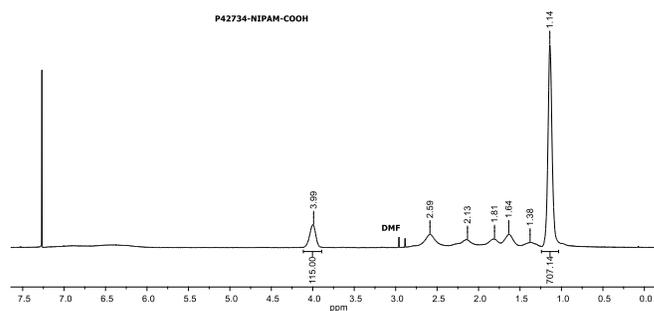
Purification of polymer:

Unreacted monomer was removed by dissolving the product in cold water than warming the solution. The polymer separated out. This procedure was applied 2 times to remove the unreacted monomer. The obtained polymer was dissolved in acetone and precipitated from Hexane.

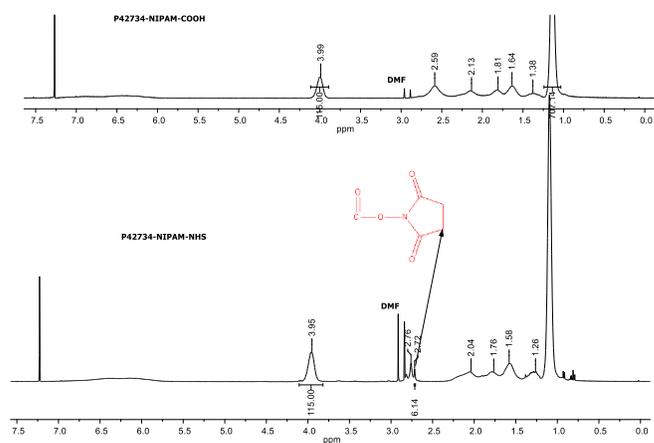
Characterization:

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

¹H-NMR spectrum of COOH terminated PNIPAM:



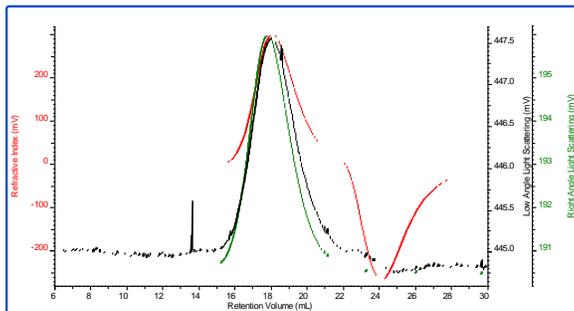
¹H-NMR spectrum of NHS terminated PNIPAM:



SEC elugram of Sample:

P42734-NIPAM-NHS

dn/dc	0.0770
Flow Rate	0.7000
Solvent	DMF with LiBr
Method	PSS column-PMMA60K-Jan3-2019-0016.vcm



Sample	Mn	Mw	Mp	Mw/Mn
p42734-NIPAM-NHS_1_20	13,374	14,584	13,763	1.090

FTIR spectrum:

