

Sample Name:

Amino-terminated poly(N-isopropyl acrylamide)

Sample # **P10405E-NIPAMNH2**

Structure:

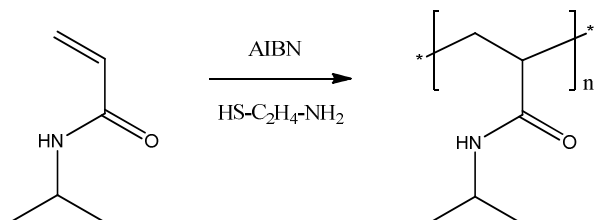


Composition:

$M_n \times 10^3$ (g/mol)	M_w/M_n
16.5	2.8

Synthesis Procedure:

Amino-terminated poly(N-isopropyl acrylamide) was prepared by free-radical polymerization of N-isopropyl acrylamide in presence of an amino-group containing chain-transfer agent. The product was purified by fractionation. The scheme of reaction is shown below:



Characterization:

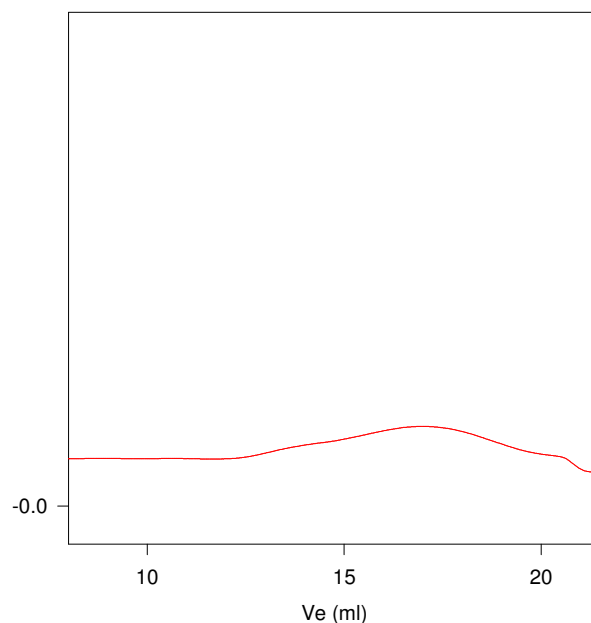
The molecular weight and functionality degree of the polymer were calculated by titration using HClO_4 /Crystal violet in CHCl_3 /acetic acid. The polydispersity index (M_w/M_n) was determined by size exclusion chromatography (SEC) on a Varian liquid chromatograph equipped with a triple detector.

Solubility:

The polymer is soluble in water, THF, chloroform and dichloromethane; and is insoluble in hexane and ether.

SEC elugram:

P10405E-NIPAMNH2



Size exclusion chromatography of poly(N-isopropylacrylamide)

With respect to polystyrene (M_n :58,000) Eluent: DMF

$M_w/M_n=2.8$ M_n by titration: 16,500