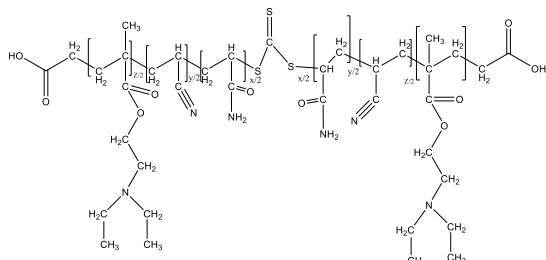


Sample Name: Random Copolymer
Poly(acrylamide-co acrylonitrile-co--N,N-diethylaminoethylmethacrylate acrylamide)

Sample #: P42914-AAmANDEAEMArAn

Structure:



Composition:

Feed molar ratio			Mn (g mol ⁻¹)	Mw/Mn
AAm	AN	DEAEMA	49,000	1.18
81.9	16.7	3.1		

5mg polymer in Water gives cloudy solution with some insoluble particles. By bubbling CO₂, it gives clear solution immediately.

Synthesis Procedure:

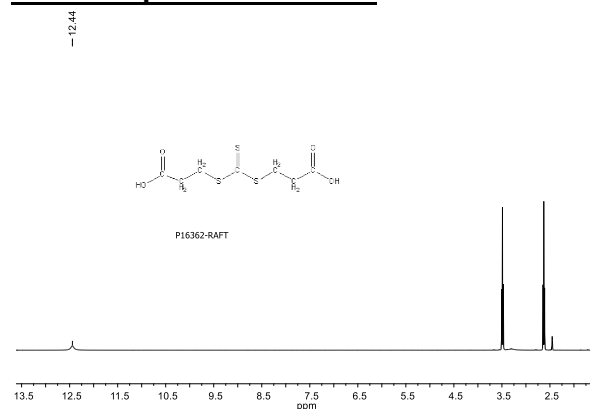
The polymer is prepared by RAFT process using RAFT reagent.

Characterization:

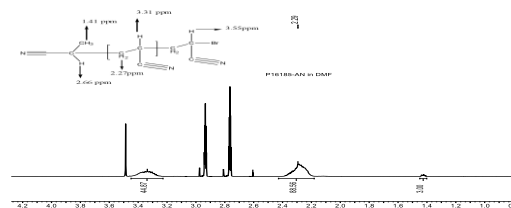
The molecular weight and polydispersity index (PDI) were calculated by SEC using water as eluent. The copolymer composition was calculated from ¹H-NMR spectroscopy.

Solubility: The polymer is soluble in water

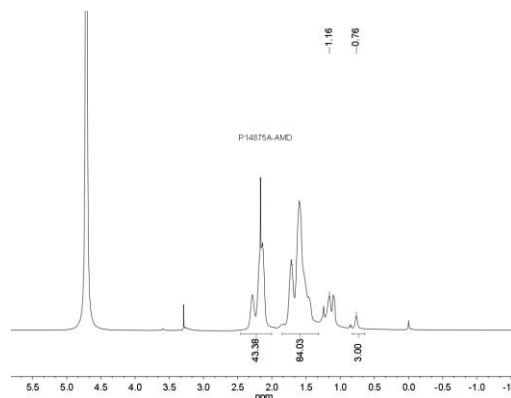
¹H-NMR spectrum of RAFT:



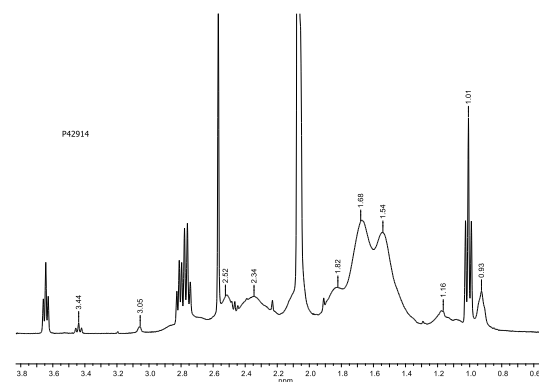
¹H-NMR Spectrum of PAN in d⁷-DMF:



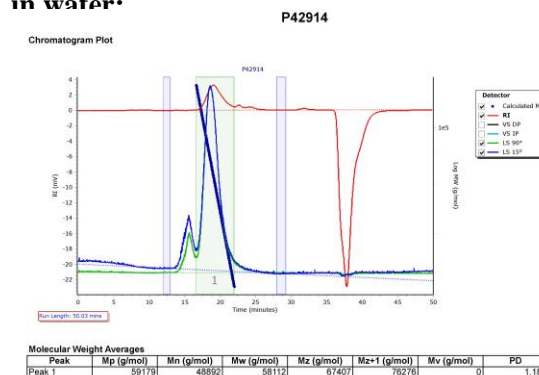
¹H-NMR Spectrum of PAAm in D2O:



¹H-NMR Spectrum of the random copolymer



SEC elugram of the random copolymer carried out in water



FT-IR spectrum of the sample:

