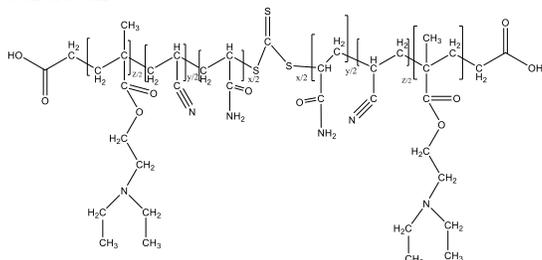


**Sample Name: Random Copolymer**  
**Poly(acrylamide-co acrylonitrile-co--N,N-diethylaminoethylmethacrylate acrylamide)**

**Sample #: P42914A-AAmANDEAEMArAn**

**Structure:**



**Composition:**

Feed molar ratio			Mn (g mol <sup>-1</sup> )	Mw/Mn
AAm	AN	DEAEMA	57,000	1.18
77.0	19.6	3.1		

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

**Synthesis Procedure:**

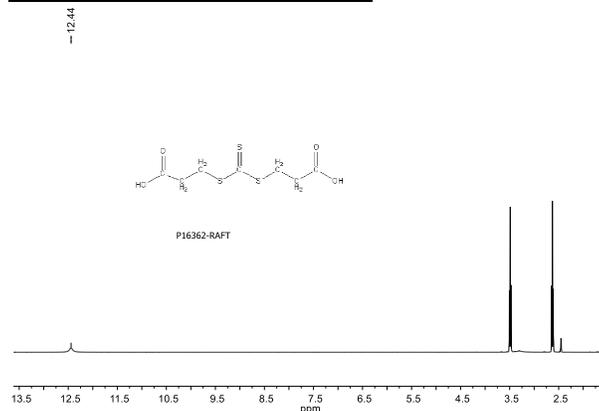
The polymer is prepared by RAFT process using RAFT reagent.

**Characterization:**

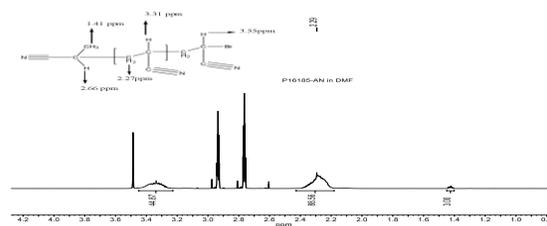
The molecular weight and polydispersity index (PDI) were calculated by SEC using water as eluent. The copolymer composition was calculated from <sup>1</sup>H-NMR spectroscopy.

**Solubility:** The polymer is soluble in water.

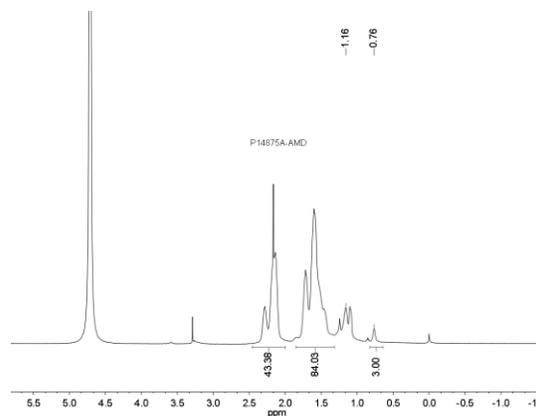
**<sup>1</sup>H-NMR spectrum of RAFT:**



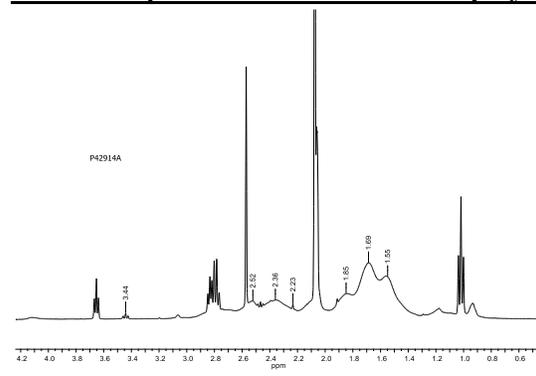
**<sup>1</sup>H-NMR Spectrum of PAN in d<sup>7</sup>-DMF:**



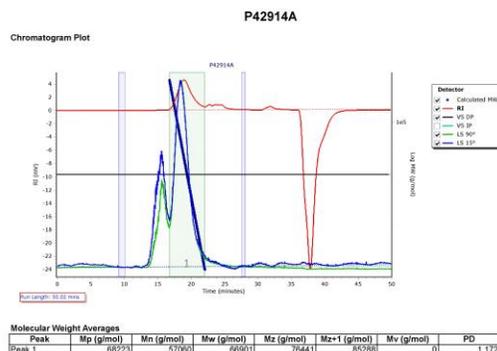
**<sup>1</sup>H-NMR Spectrum of PAAm in D2O:**



**<sup>1</sup>H-NMR Spectrum of the random copolymer**



**SEC elugram of the random copolymer carried out in water:**



**FT-IR spectrum of the sample:**

