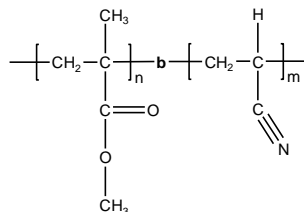


Sample Name:
Poly(Methylmethacrylate-b-Acrylonitrile)

Sample #: P18299A-MMAACN
PMMA block rich in Syndiotactic fraction

Structure:



Composition:

$M_n \times 10^3$ MMA-b-ACN	M_w/M_n (PDI)
14.0-b-8.7	1.25

Synthesis Procedure:

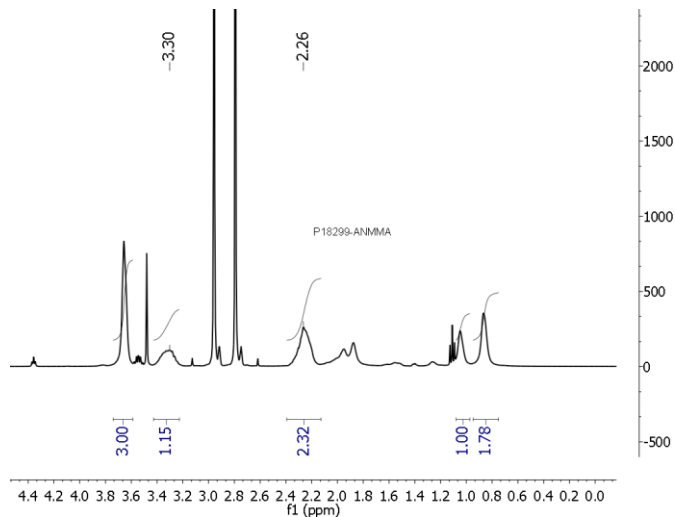
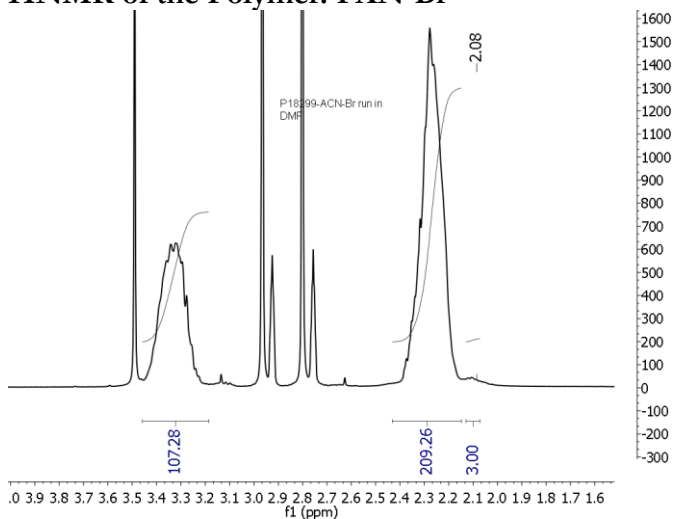
Polymer is prepared by combination of anionic polymerization and controlled radical process.

Characterization: Block copolymer composition was calculated from $^1\text{H-NMR}$ spectroscopy by comparing the peak area of the Methyl ester protons at 3.6 ppm with the peak area and by subtracting the protons of backbone from MMA to Acrylonitrile.

Solubility:

Polymer is soluble in THF, Chloroform, DMF, and precipitated in methanol and hexanes.

$^1\text{H-NMR}$ of the Polymer: PAN-Br



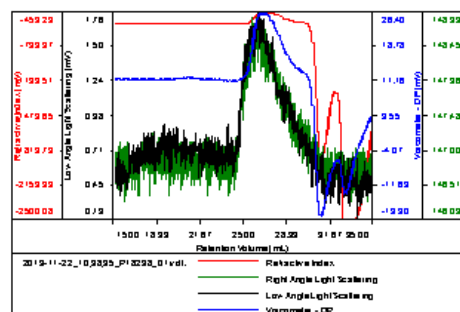
SEC profile of the block copolymer:

Solubility:

Polymer is soluble in DMF

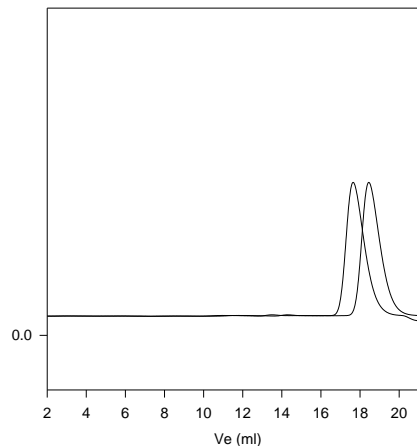
SEC profile of the polymer carried out in DMF

ID	p18299-AN
Comp	0.2500
Flow rate	0.0000
dn/ds	0.1850
Method	PSSEC-AUO-2013-0000-0000
Solvent	DMF w/ 0.05M LiBr
Column	PSS



Sample	M_n	M_w	M_z	M_p	M_w/M_n	RetTime
2013-11-22_10:35:36_P18299A-MMAACN	8,710	10,422	20,124	6,255	1.19	25.80

P18299A-MMAACN



Size Exclusion Chromatography of Monohydroxy in THF

First Block of PAN-br: M_n = 8,700, M_w = 10,500, PI = 1.2
PMMA-b-ACN: 14,000-b-8,700 M_w/M_n 1.25 From $^1\text{H-NMR}$