

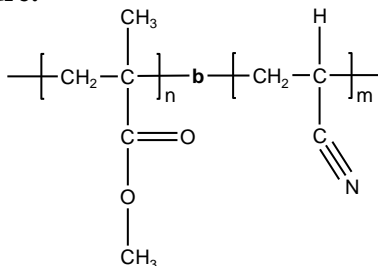
Sample Name:

Poly (Methylmethacrylate-b-Acrylonitrile)

Sample #: **P41213-MMAACN**

PMMA block rich in Syndiotactic fraction

Structure:



Composition:

$M_n \times 10^3$ MMA-b-ACN	Mw/Mn (PDI)
22.0-b-19.5	1.5

Color of the Product: light brown

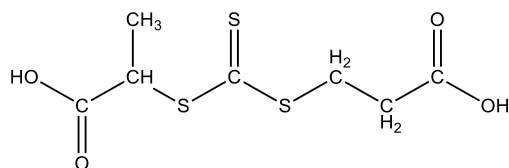
Synthesis Procedure:

The polymer is prepared by RAFT controlled radical polymerization process.

PACN-RAFT macroinitiator prepared by ethylene carbonate as solvent.

Following RAFT catalyst used:

Structure:



Chemical Formula: $C_7H_{10}O_4S_3$

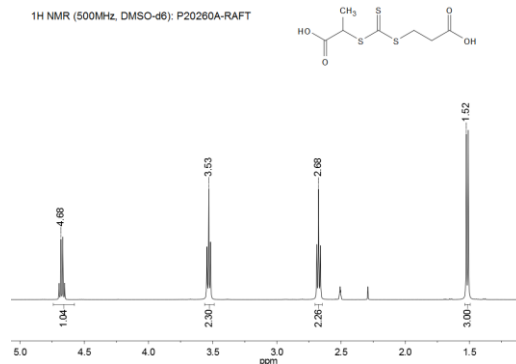
Molecular Weight: 254.3

Purity:	> 95 %
Storage temperature:	2–8°C

Characterization:

The chemical structure of the product was confirmed by FT-IR and 1H NMR.

1H NMR (500 MHz, DMSO- d_6):

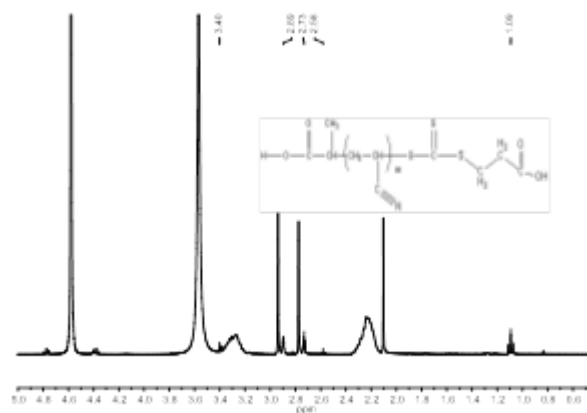


Characterization:

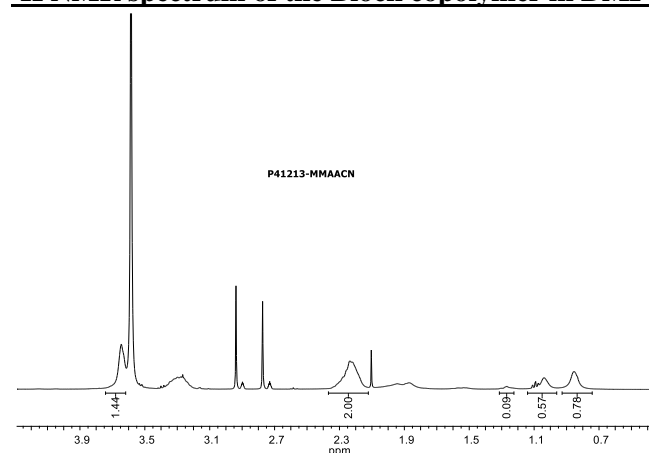
The polymer was characterized by 1H NMR and size exclusion chromatography (SEC) in DMF.

Composition determined by HNMR and Distribution by GPC runs in DMF.

1H NMR spectrum of the PACN-RAFT Macroinitiator in DMF:

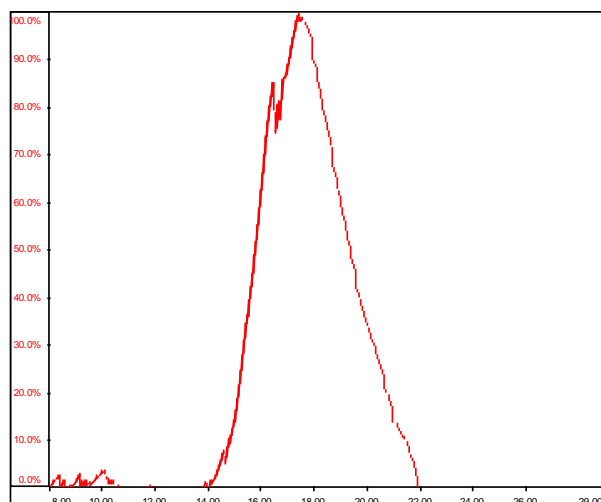


1H NMR spectrum of the Block copolymer in DMF:



SEC elugram of the PACN-RAFT macroinitiator:

Conc	2.4993
dn/dc	0.0840
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS99k_2018-05-30-0000.vcm

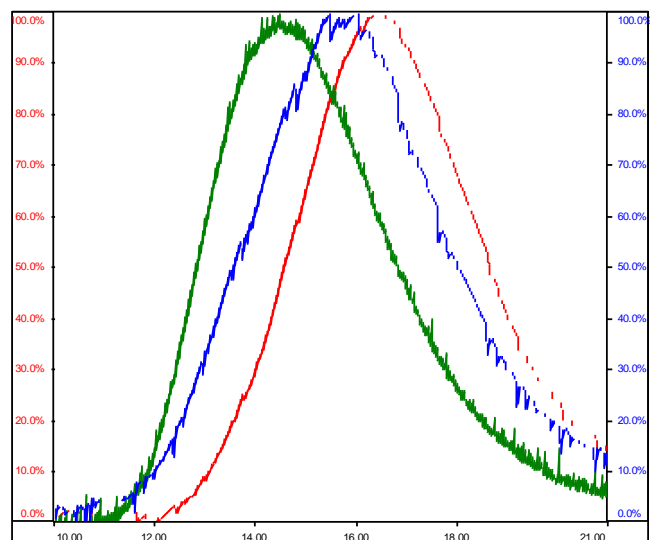


Sample	Mn	Mw	Mp	Mw/Mn	IV
P41208-ACN-RAFT_01.vdt	19,634	28,109	18,692	1.432	0.8388

SEC elugram of the diblock copolymer:

P41213-MMAACN

Conc	4.1147
dn/dc	0.0880
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS99k_2018-05-30-0000.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P41213-2_01.vdt	41,508	73,642	44,900	1.774	1.4551