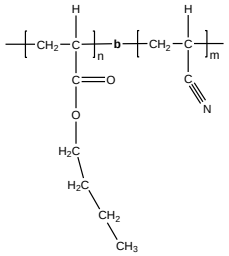
Sample Name:
Poly (Acrylonitrile-b-n-Butylacrylate)

Sample #: **P41214-ACNnBuA**

Structure:



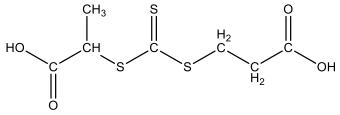
Composition:

Mn × 10^3 ACN-b- nBuA	Mw/Mn (PDI)
19.5-b-11.0	1.5

Color of the Product: ivory

Synthesis Procedure:
The polymer is prepared by RAFT controlled radical polymerization process. PACN-RAFT macroinitiator prepared in ethylene carbonate as solvent.

Following RAFT catalyst used:
Structure:

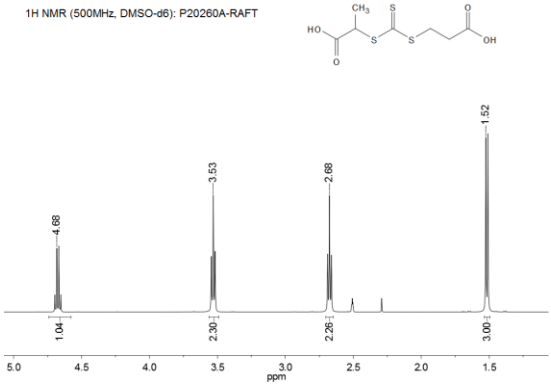


Chemical Formula: $C_7H_{10}O_4S_3$
Molecular Weight: 254.3

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

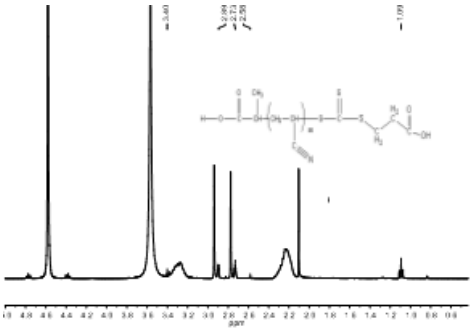
Characterization:
The chemical structure of the product was confirmed by FT-IR and ^{1}H NMR.

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

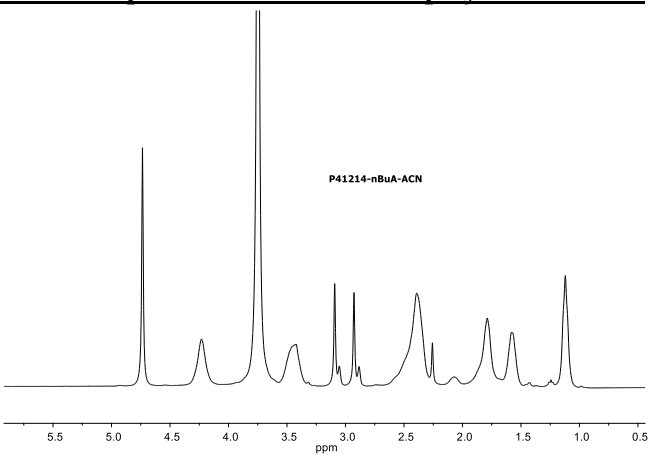


Characterization:
The polymer was characterized by ^{1}H NMR and size exclusion chromatography (SEC) in DMF. Composition determined by HNMR and Distribution determined by GPC in DMF.

^{1}H NMR spectrum of the PACN-RAFT Macroinitiator used in this lot in DMF:

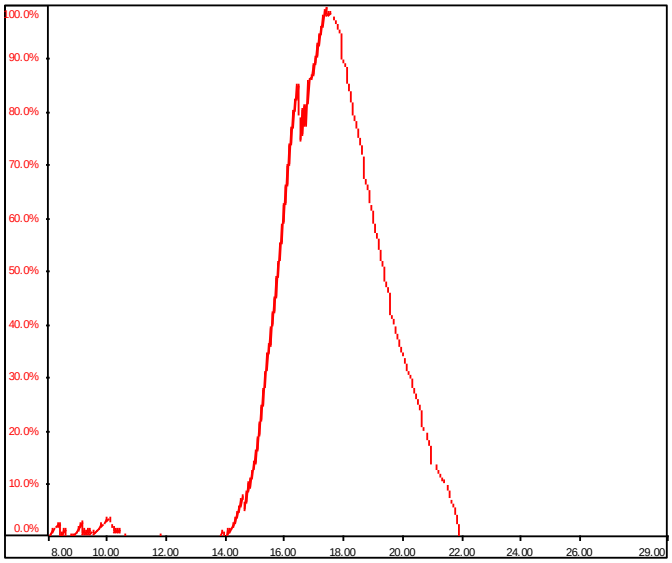


^{1}H NMR spectrum of the Block copolymer in DMF:



SEC elugram of the PACN-Br macroinitiator in DMF:

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

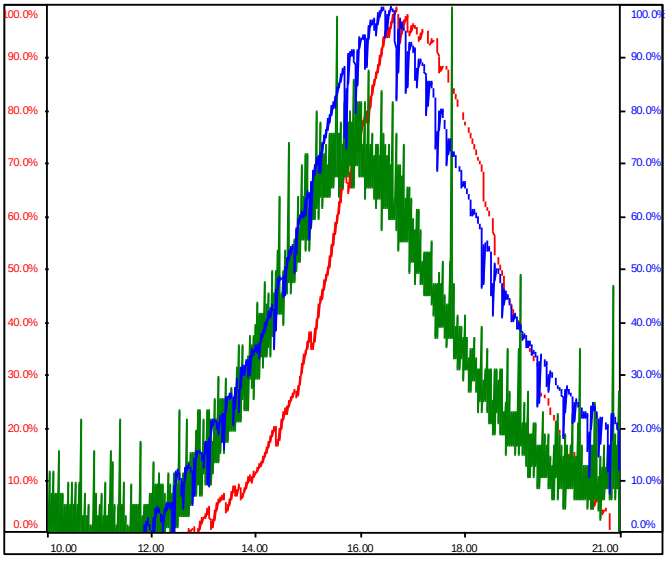


Sample	Mn	Mw	Mp	Mw/Mn	IV
P41208-ACN-RAFT_01.vdt	19,634	28,109	18,692	1.432	0.8388

SEC elugram of the diblock copolymer :

P41214-nBuA-ACN

Conc	1.6958
dn/dc	0.0670
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS99k_2018-05-30-0000.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P41214-2_01(60).vdt	29,696	45,837	29,768	1.543	1.0849