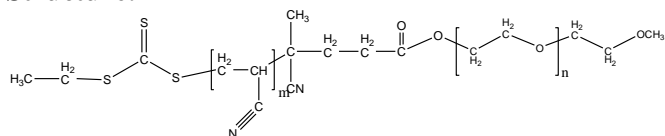


Sample Name:
Poly(ethylene oxide-b-acrylonitrile)

Sample #: **P41495A-EOACN**

Structure:



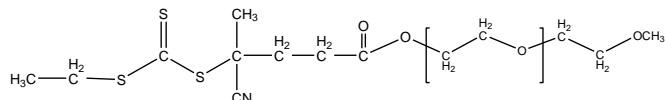
Composition:

Mn x 10 ³ PEO-b-PACN	PDI
42.5-b-246.0	1.7
Color of the polymer	White

Synthesis procedure:

The polymer was synthesized by RAFT polymerization process.

Raft Macroinitiator structure: mPEG-RAFT



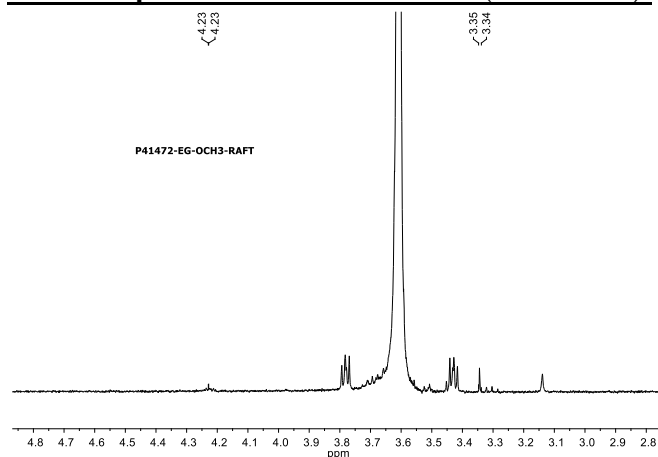
Characterization:

The product was characterized by size exclusion chromatography (SEC) and ¹H NMR.

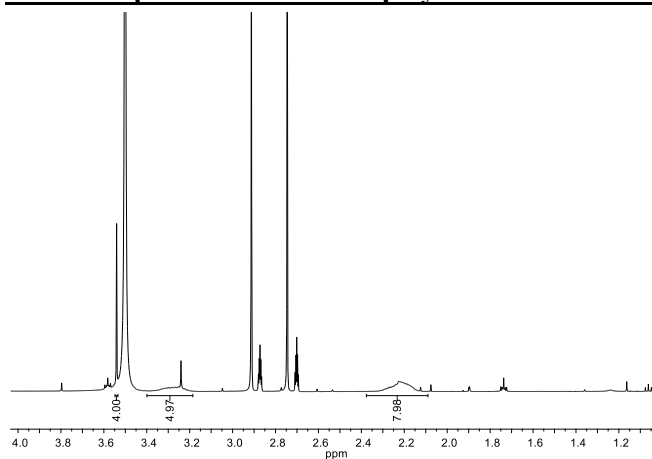
Solubility:

The polymer is soluble in DMF.

¹H NMR spectrum of the PEG-RAFT (lot#P41472):

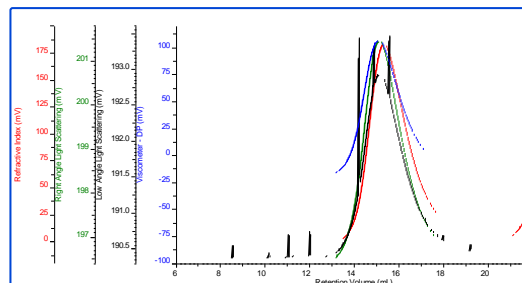


¹H NMR spectrum of block copolymer run in DMF:



SEC elugram of the RAFT macroinitiator:
P41472-mPEG-RAFT

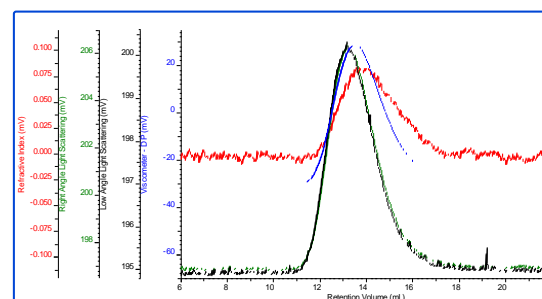
dn/dc	0.0350
Flow	0.7000
Solvent	DMF with LiBr
Method	PSS column-PMMA64K-Oct2018-0008.vcm



Sample	Mn	Mw	Mz	IV	Mw/Mn
P41472_1_2018-11-16	42,676	48,287	64,546	0.4042	1.131

SEC elugram of the Polymer:
P41495A-EOACN

dn/dc	0.0570
Flow	0.7000
Solvent	DMF with LiBr
Method	PSS



Sample	Mn	Mw	Mz	IV	Mw/Mn
P41495A-EOACN_1_	288,099	514,137	686,179	1.0000	1.785

Thermal analysis was performed on TA Instruments Q100 differential scanning calorimeter (DSC) under a nitrogen atmosphere. The glass transition temperature (T_g) of the polymer was measured at a scan rate of $10^\circ\text{C}/\text{min}$ shortly after creating thermal history of the sample.

DSC thermogram of the polymer (2nd heating scan, $10^\circ\text{C}/\text{min}$):

