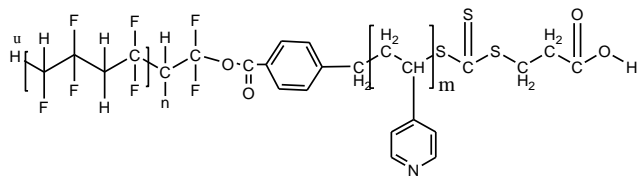


Sample Name:

Poly(vinylidene difluoride-co-trifluoroethylene(about 25 %))-b-poly(4-vinyl pyridine)

Sample #: **P41223-VDFTFEran-4VP**

Structure:



Composition:

Mn x 10 ³	PDI
7.0-b-137.0	1.28
Composition by HNMR	

Synthesis:

The polymer was synthesized by radical polymerization process using 4-chloromethyl benzoyl peroxide as an initiator.

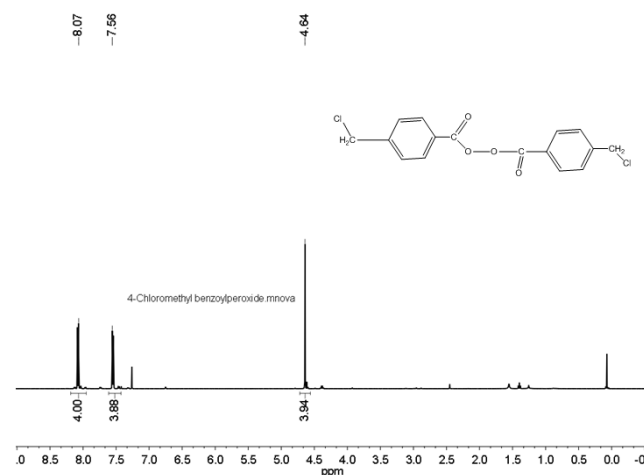
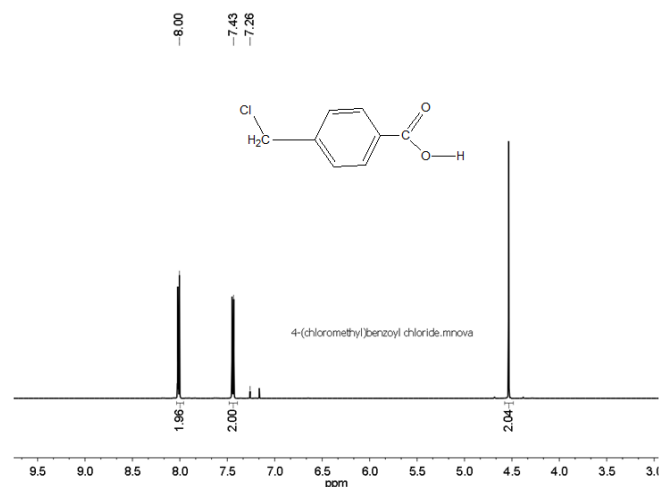
Characterization:

The product was characterized by size exclusion chromatography (SEC) runs in DMF as an eluant and ¹H NMR runs in Acetone.

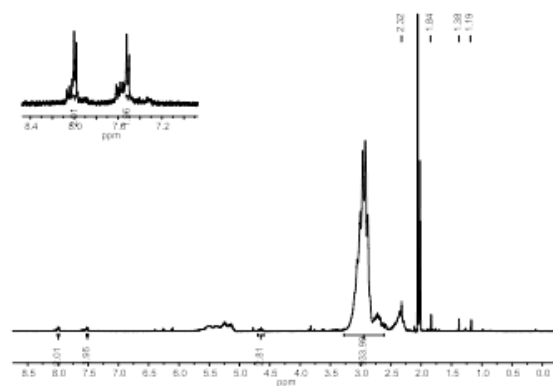
Solubility:

The polymer is soluble in dimethylformamide (DMF), Acetone and in THF.

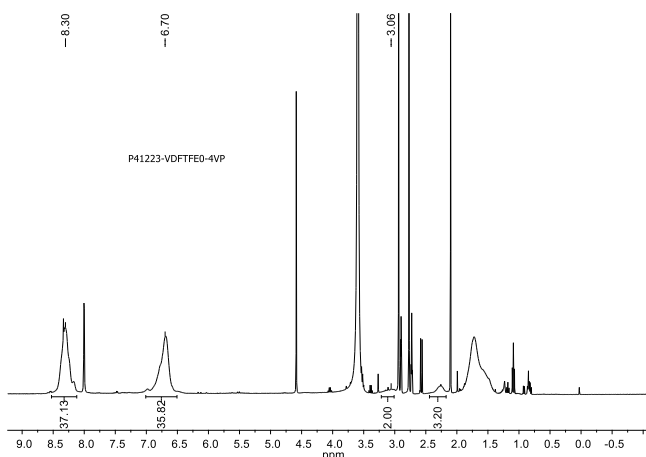
¹H NMR spectrum of the initiator and its precursor:



HNMR spectrum of the PVDFTFE ran terminated vinyl benzyl group (macroinitiator):



HNMR spectrum of the Sample:

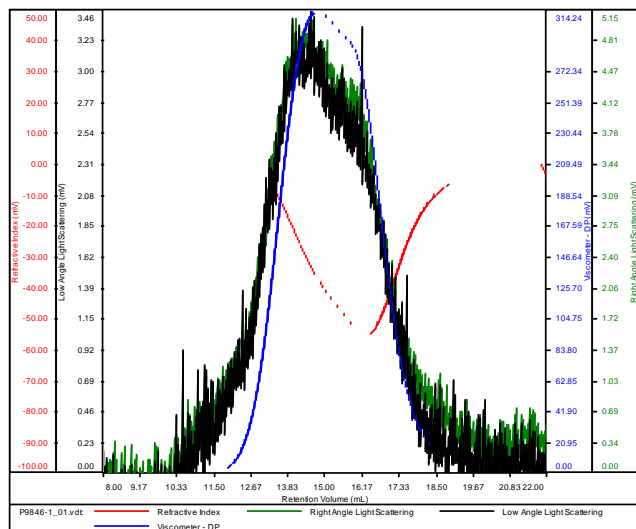


SEC elugram of Macroinitiator of VDF and TFE random copolymer:

RI signal negative due to negative values of dn/dc
Lot# P19846-RAFT used

P19846-VDFTFE

Conc (mg/mL)	3.0235
dn/dc (mL/g)	0.2300
Method	PS80k-May-25-2016-0000.vcm
Solvent	DMF w 0.023M LiBr
Column	PSS



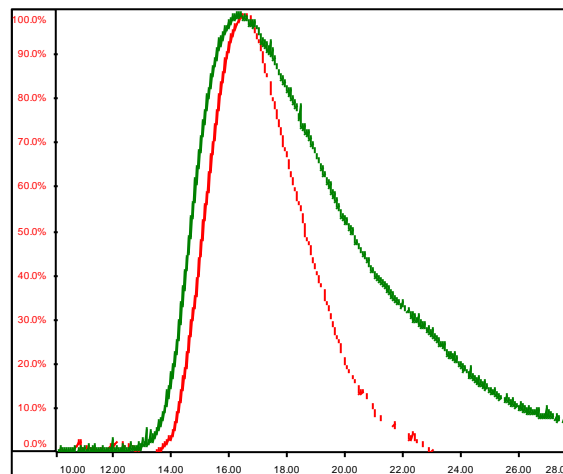
Sample	Mn	Mw	Mp	Mw/Mn	IV
P9846-1_01.vdt	6,986	9,692	5,977	1.387	3.9297

SEC elugram of the Sample:

Block copolymer showing RI signal (negative disappear showing formation of block copolymer)

P41223-VDFTFE-4VP

Conc	2.2997
dn/dc	0.1450
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS99k_2018-05-30-0000.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P41223-VDFTFE-4VP_01.vdt	144,674	184,868	112,702	1.278	1.0192