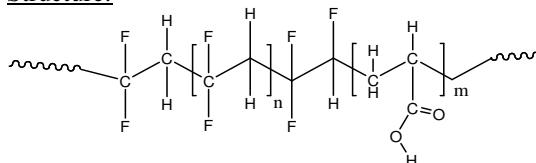


Sample Name:
Poly(vinylidene difluoride-co-trifluoroethylene)-b-
poly(acrylic acid)

Synonym:
Block copolymer of vinylidene difluoride (containing about
17 % trifluoroethylene) and acrylic acid

Sample #: **P19846C-VDFTFEran-b-AA**

Structure:

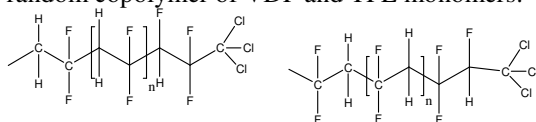


Composition:

$M_n \times 10^3$	PDI
7.0-b-1.5	1.25

Synthesis Procedure:

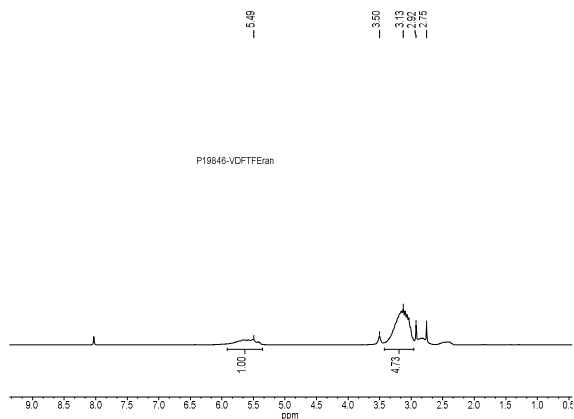
Radical process using CHCL3 as chain transfer reagent for the random copolymer of VDF and TFE monomers:



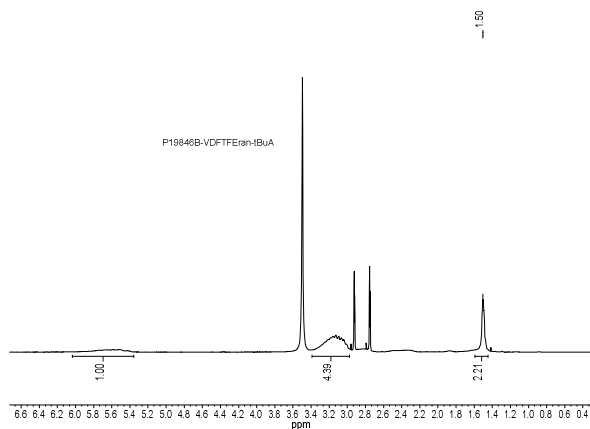
Head to Tail arrangement

Head to Tail arrangement

¹H NMR spectrum of the copolymer VDFTFEran:



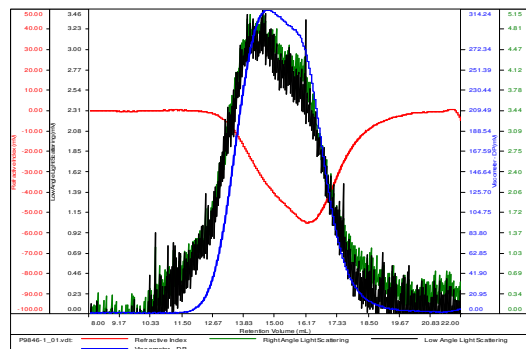
¹H NMR spectrum of the block copolymer: VDFTFEran-tBuA:



SEC elugram of Macroinitiator of VDF and TFE random copolymer:

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



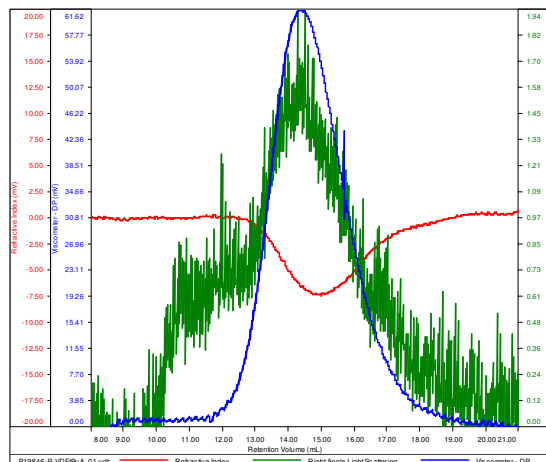
Sample	Mn	Mw	Mp	Mw/Mn	IV
P9846-1_01.vct	6,986	9,692	5,977	1.387	3.9297

Block copolymer showing RI signal Negative due low molecular weight of ptBuA block

SEC elugram of VDFTFEran-b-tBuA copolymer:

P19846B-VDFTFEran-tBuA

Conc (mg/mL)	0.3412
dn/dc (mL/g)	0.2300
Method	PS80k-May-25-2016-0000.vcm
Solvent	DMF w 0.023M LiBr
Column	PSS



Characterization:

The polymer was characterized by FT-IR, SEC in DMF and ¹H NMR in DMF.

Solubility:

The polymer is soluble in DMF, THF.

IR spectrum of the polymer:

