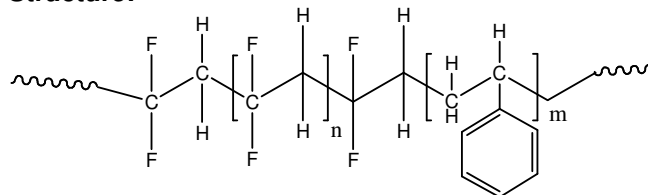


Sample Name:  
Poly (Vinylidene difluoride-b-Styrene)

Sample # P18638G-VDFS

Structure:

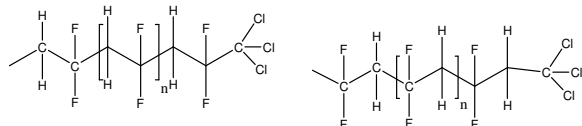


Composition:

Mn x 10 <sup>3</sup>	PDI
11.5-b-160.0	1.5

Synthesis Procedure:

Synthesis of  
Trichloromethyl Terminated Vinylidene difluoride  
P 18638-VDF-CCl<sub>3</sub>



Head to Tail arrangement

Head to Tail arrangement

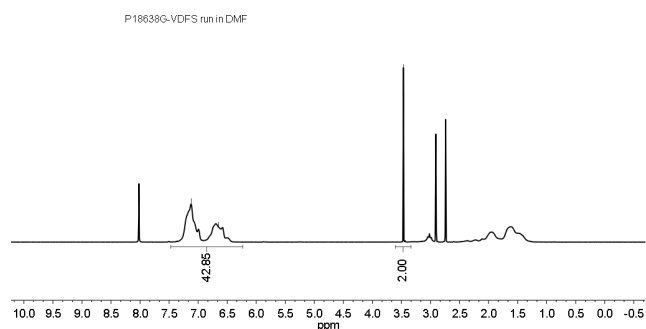
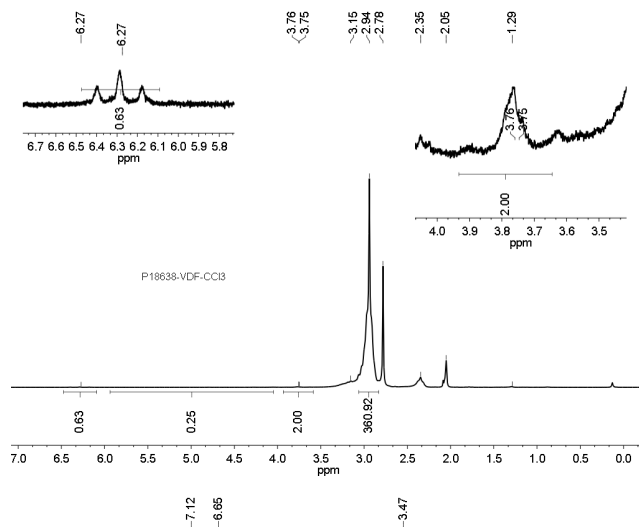
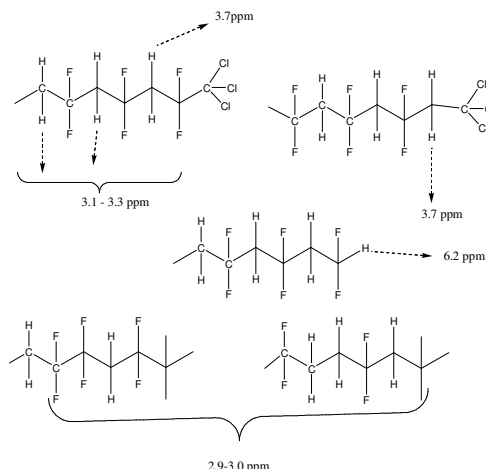
Radical process using CHCl<sub>3</sub> as chain transfer reagent in emulsion polymerization.

Block copolymerization with styrene using ATRP process

Characterization:

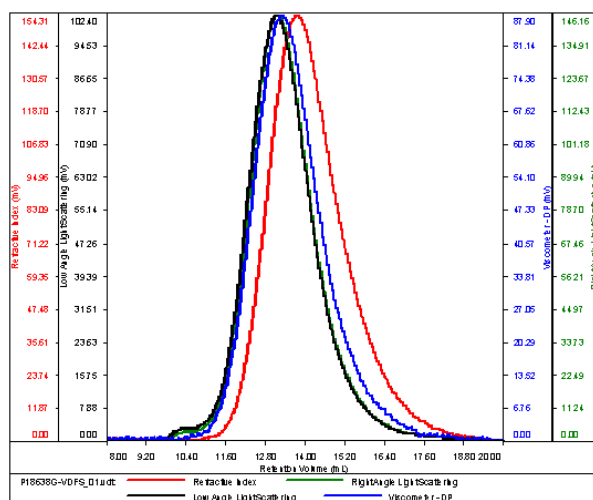
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) in DMF and by HNMR. In DMF it gives negative response because of low dn/dc. It only provide Mw/Mn of the polymer and Mn calculated from its HNMR analysis using end group analysis. GPC of the final polymer with respect to polystyrene as reference material gives much higher values then determine by HNMR analysis. We only consider Mw/Mn of the polymer using this analysis.

Solubility: Polymer is soluble in DMF, THF



VDF-b-S Run in DMF values are w.r.t PS reference  
SAMPLE ID: P18638G-VDF-S

Conc (mg/mL)	3.6013
dn/dc (mL/g)	0.1650
Method	ps80k042014-0000.vcm
Solvent	DMF w/0.03M LiBr
Column	PSS



Sample	Mn	Mw	Mp	Mw/Mn	IV
P18638G-VDFS_01.vtt	201,830	311,292	286,622	1.542	0.6628

From GPC we only indicate Mw/Mn . These values are w.r.to Polystyrene as reference material.