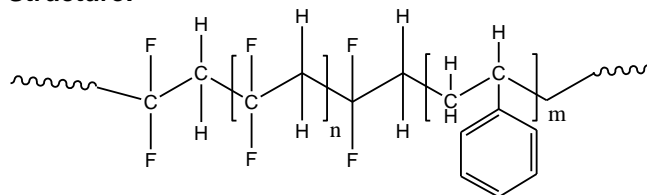


Poly (Vinylidene difluoride-b-Styrene)

Sample # P18738-VDFS

Structure:



Composition:

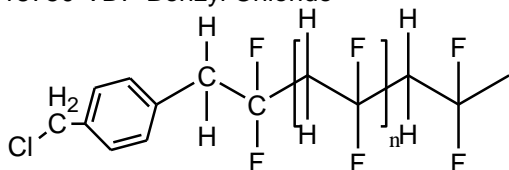
Mn x 10 ³	PDI
5.0-b-17.0	1.5

Synthesis Procedure:

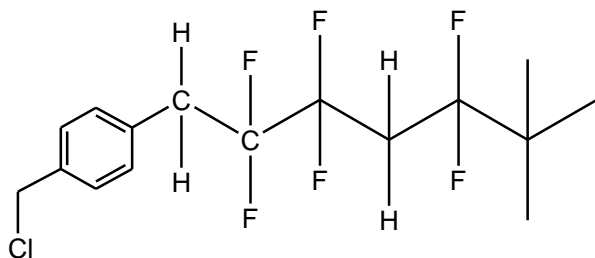
Synthesis of

Benzyl Chloride Terminated Vinylidene difluoride

P 18750-VDF-Benzyl Chloride

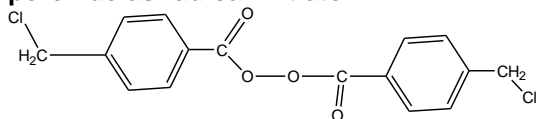


Head to Tail arrangement



Head to Head or tail to tail

Radical process using 4-Chloromethyl benzoyl peroxide as radical initiator



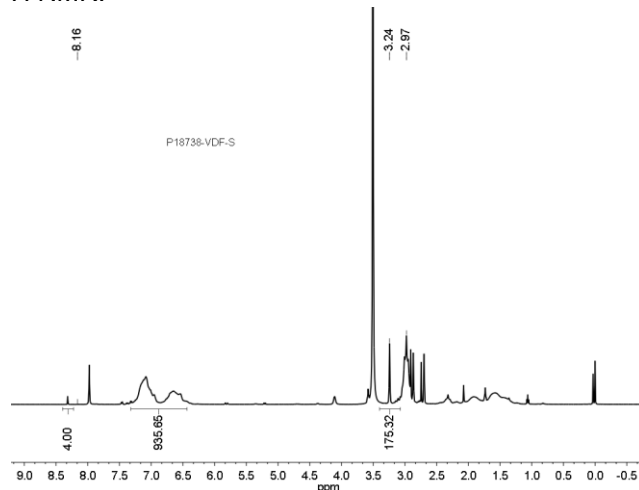
Block copolymerization with styrene using ATRP process

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 M_w/M_n of the polymer and M_n 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 M_w/M_n of the polymer using this analysis.

Solubility: Polymer is soluble in DMF, THF.

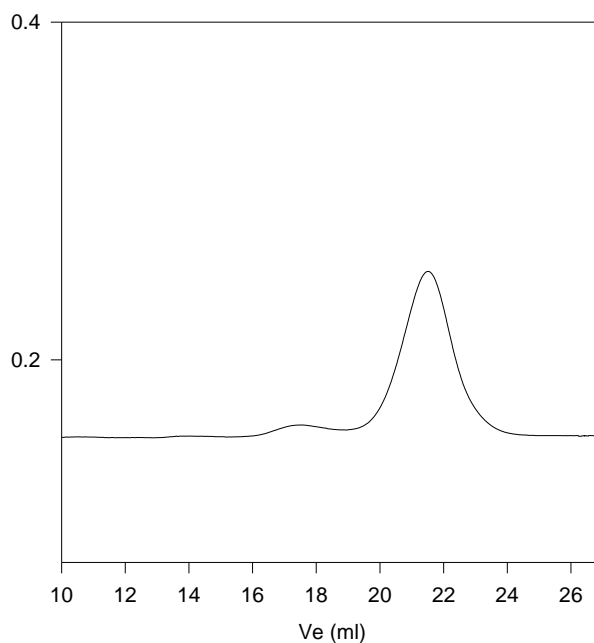
¹H NMR:



VDF-b-S Run in DMF values are w.r.t PS reference

SEC of sample:

P18738 -VDF-S



Size exclusion chromatography result:

———— $M_n=14,000$ $M_w=21,000$ $PI=1.5$

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