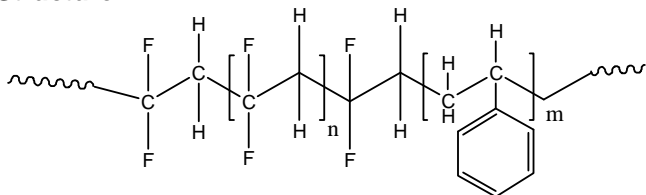


Sample Name:

Poly (Vinylidene Difluoride -b- Styrene)

Sample # P18718-VDFS

Structure:

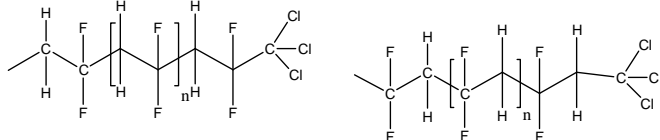


Composition:

$M_n \times 10^3$	Mw/Mn
24.0-b-7.0	1.5

Synthesis Procedure:

Synthesis of trichloromethyl-terminated poly(vinylidene difluoride), P18638-VDF-CCl₃:



Head to Tail arrangement

Head to Tail arrangement

- Radical process using CHCl₃ as chain transfer agent in emulsion polymerization.
- Block copolymerization with styrene using ATRP process

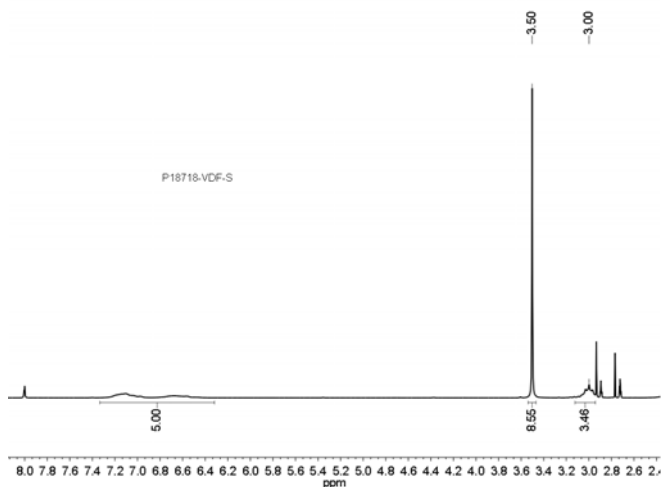
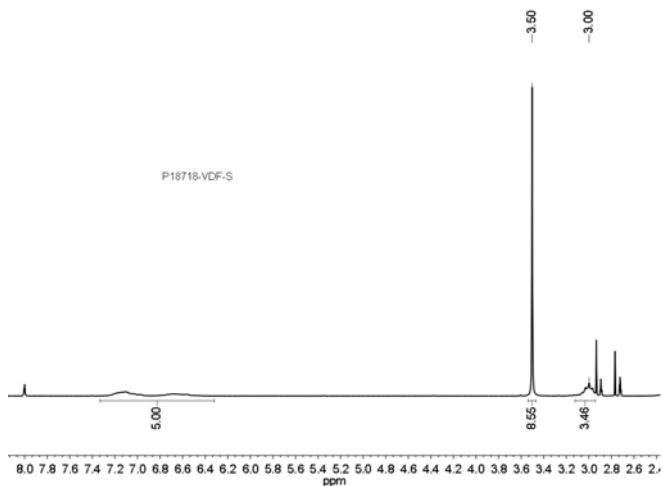
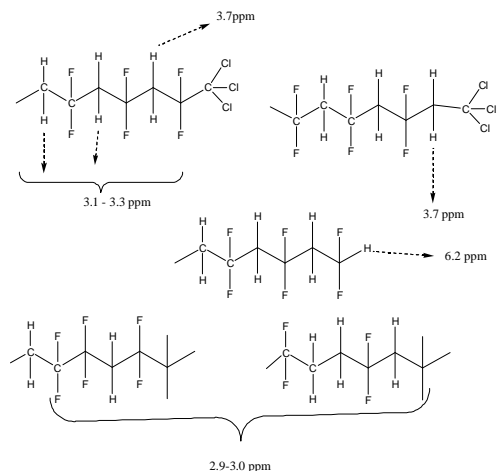
Characterization:

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.

¹H NMR spectra of PVDF-PS diblock copolymer:



Size Exclusion Chromatography:

From SEC data, we determined only Mw/Mn. These values are given relatively to polystyrene as a reference material.