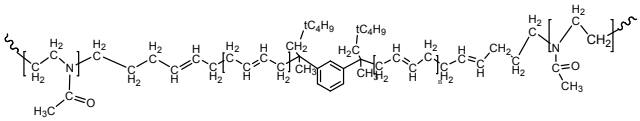
Sample Name:
Poly(2-methyloxazoline-b-Butadiene-b-2-methyloxazoline) Triblock Copolymer
Sample #: **P10678A-MOXZBdMOXZ**

Structure:



Composition:

Mn x 10^3	PDI
0.6-b-2.5-b-0.6	1.3
Dp of each block 6-b-46-b-6	

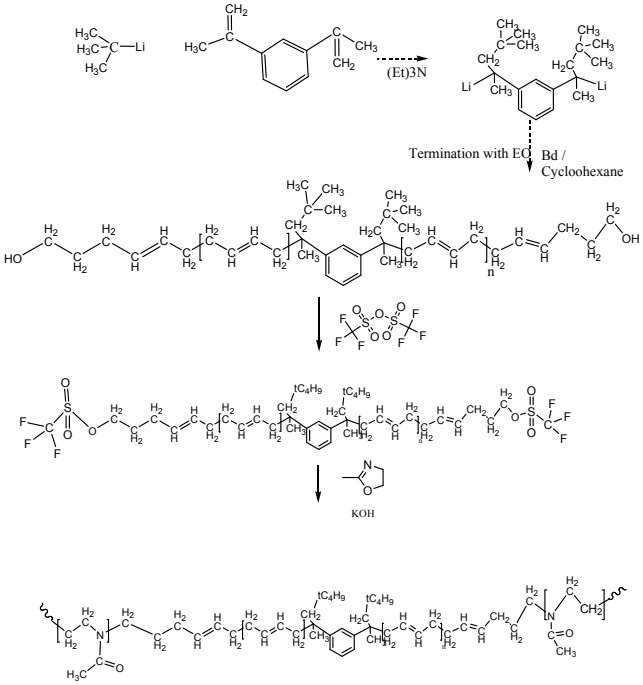
Synthesis Procedure:

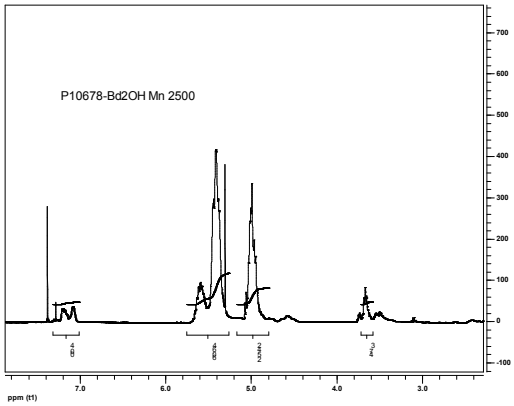
Characterization:

Centeral Block: Size exclusion chromatography (SEC): Varian liquid chromatograph equipped with UV and refractive detector. SEC columns from Supelco were used with THF and for the block copolymer in DMF as the eluent. The columns were calibrated with monodisperse poly(butadiene). The molecular weights and the polydispersity indice were calculated.

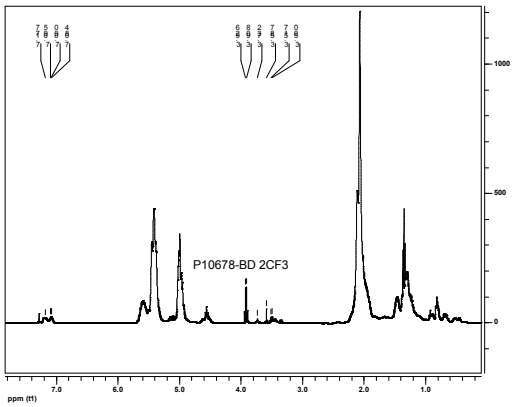
Side Block: The chemical composition was extracted from proton NMR, which was recorded from Varian 500MHz instrument using $CDCl_3$ as solvent. The molecular weight of side block was calculated based on the molecular weight of centeral block and the chemical composition. The polydispersity index of block copolymer was obtained by SEC as described above.

The reaction of polymerization can be illustrated as follows:

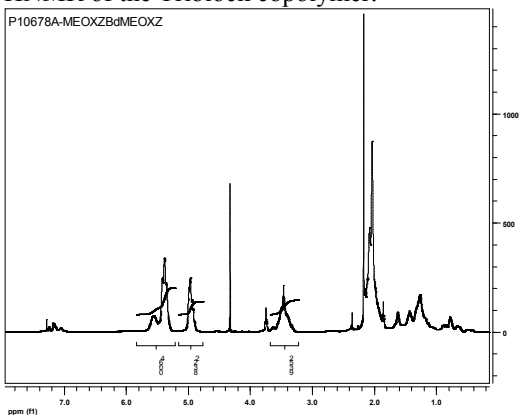
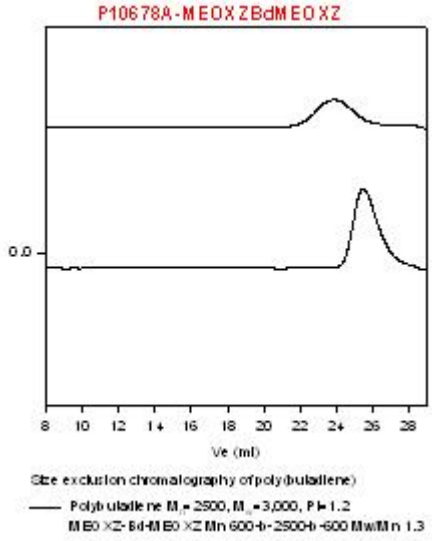




HNMR of the α−ω Triflurosulfonic acid terminated Poly butadiene



HNMR of the Triblock copolymer:



SEC of the Block copolymer: