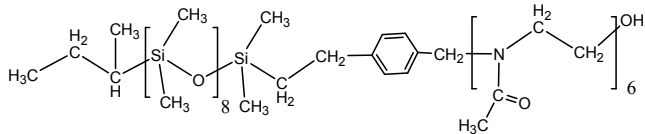


Poly(Dimethylsiloxane-b-2-methyloxazoline) diblock
Copolymer

Sample #: P10619BF1-DMSMEOXZ

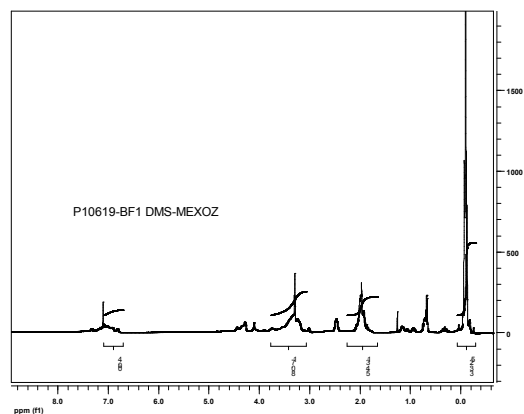
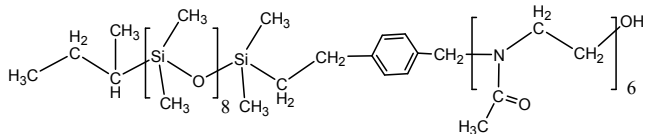
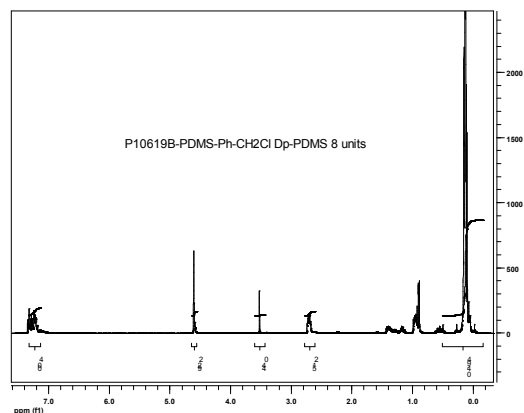
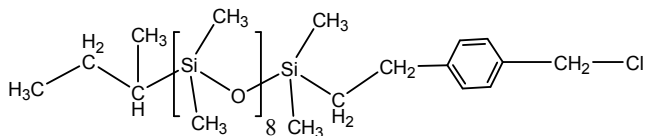
Structure:



Composition:

Mn x 10 ³	PDI
0.82-b-0.40	1.20
Dp of PDMS: 8-b-4 units	
Physical appearance at Room temperature	Honey like soft material

Synthesis Procedure:



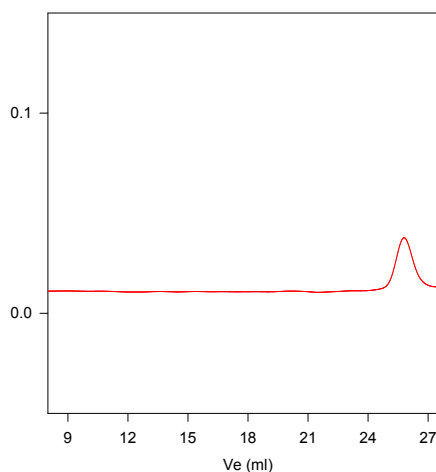
Purification of the Diblock copolymer:

1. After the reaction Chlorobenzene was removed under vacuum.
2. Product was dissolved in a mixture of methanol-acetone
3. Filter to remove NaI
4. Product centrifuge to remove traces amount of salt.
5. Filter.
6. Concentrate and precipitated in cold acetone at -78 oC.
7. Kept at -10 oC over night.
8. Decant the solution and recover the solid product.
9. Dried under vacuum over 24h at room temperature.

Central Block: Size exclusion chromatography (SEC): Varian liquid chromatograph equipped with UV and refractive detector. SEC columns from Supelco were used with THF for the first block (PDMS) Since it can not be eluted in DMF and for the block copolymer in DMF containing 0.06M LiBr at 60 oC as the eluent. 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 block was calculated based on the molecular weight of the first block and the chemical composition.

P10619BF1-DMSMEOXZ run in DMF at 60 oC



Size exclusion chromatography of the product:

$M_w/M_n=1.2$ compositions by HNMR

First block PDMS was eluted in THF