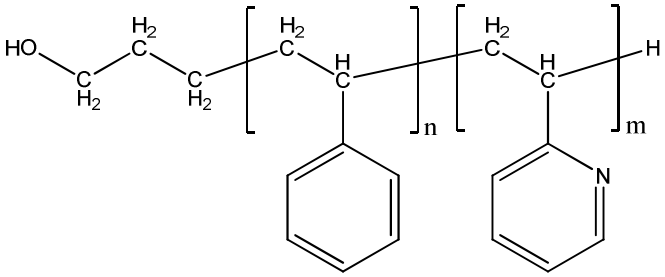
Sample Name: **Hydroxy terminated Poly(styrene-b-2 vinyl pyridine)**

Sample #: **P19901- HOS2VP**

Structure:

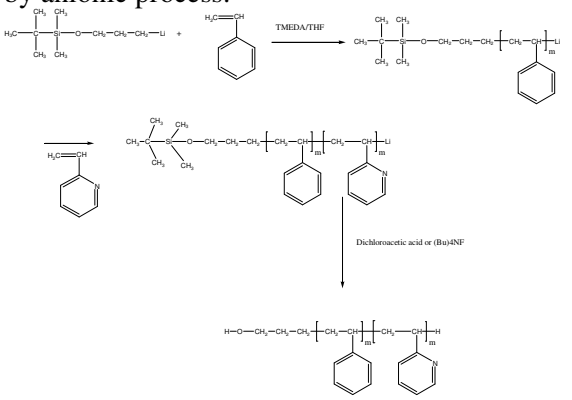


Composition:

Mn x 10^3 S-b-2VP	PDI
34.0-b-15.5 (From ^{1}H NMR)	1.2

T_g for PS block	102^{o}C

Synthesis Procedure: The polymer was synthesized by anionic process.



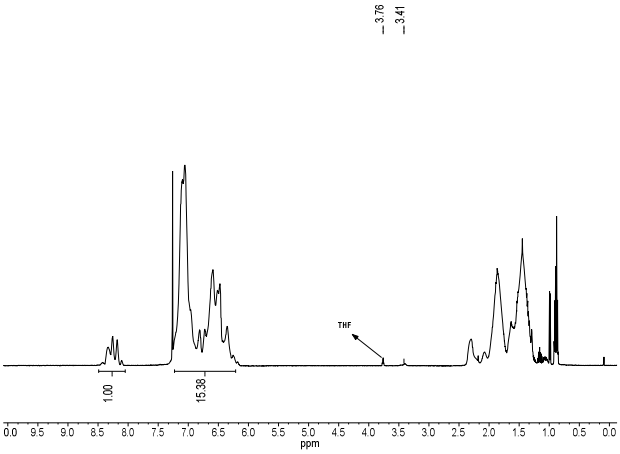
Characterization: The polymer was characterized by SEC and ^{1}H NMR.

Purification:

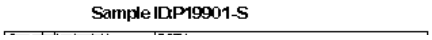
Purification of the obtained polymer was carried out rigorously as follows to ensure the removal of the catalyst side product:

1. Polymer first soxhlet in cyclohexane to remove trace amount of homopolystyrene fraction if any present.
2. Dissolved the polymer in $CHCl_3$ and wash with de-ionized distilled water to remove any soluble organic catalyst side product.
3. Polymer extracted from water with chloroform.
4. Polymer solution in $CHCl_3$ was dried over anhydrous sodium sulfate.
5. Solution filtered and than passed through a column packed with basic Al_2O_3.
6. Solution concentrated on rota-evaporator
7. Solution precipitated in cold hexane
8. Final dried under vacuum for 48h at 5^{0o}C.

^{1}H NMR spectrum of the polymer:

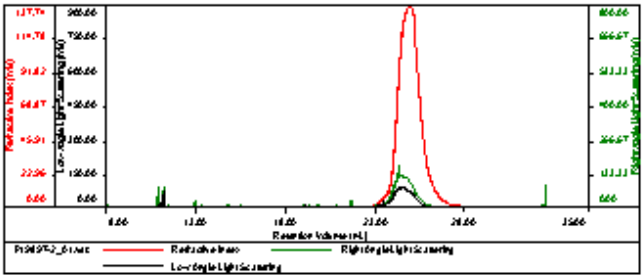


SEC elugram of the product:



Sample ID:P19901- OH Protected S-2VP

Concentration (mg/mL)	2.6516
Sample Inj (mL/g)	0.1350
Method File	PS20K-April-18-2016-0001.vcm
Column Set	3x PL 11 0H-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
2_01.odt	49,970	61,242	1.226	0.7761	56,122