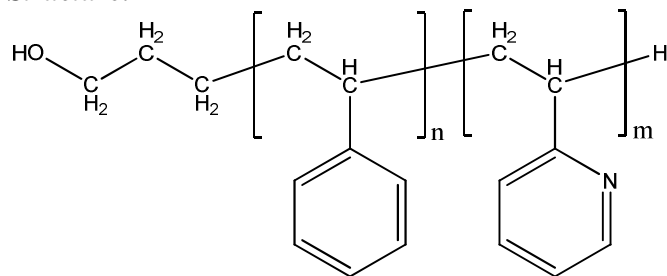


Sample Name: Hydroxy terminated Poly(styrene-b-2 vinyl pyridine)

Sample #: P19895- HOS2VP

Structure:

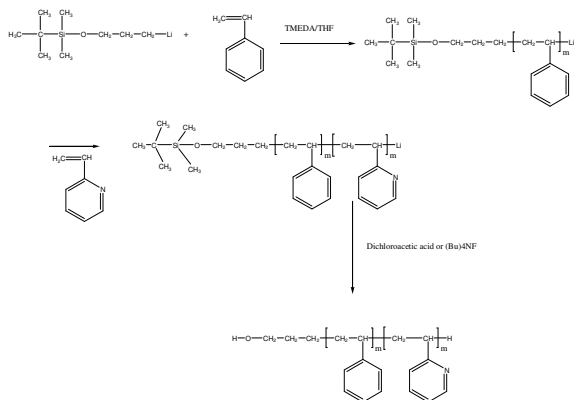


Composition:

Mn x 10 ³ S-b-2VP	PDI
91.5-b-55.0	1.16

T _g for PS block: 102°C	
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Synthesis Procedure: By anionic process



Characterization: The polymer was characterized by GPC and ¹H NMR.

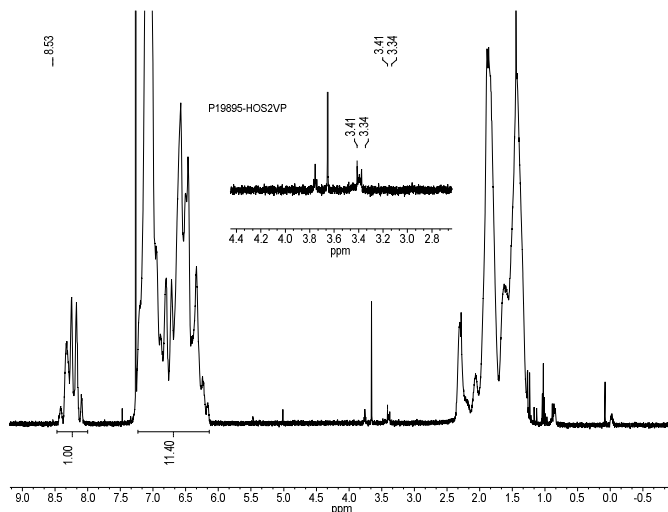
Purification:

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 CHCl₃ 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 CHCl₃ was dried over anhydrous sodium sulfate.
5. Solution filtered and then passed through a column packed with basic Al₂O₃.
6. Solution concentrated on rota-evaporator
7. Solution precipitated in cold hexane
8. Final dried under vacuum for 48h at 5⁰⁰C:

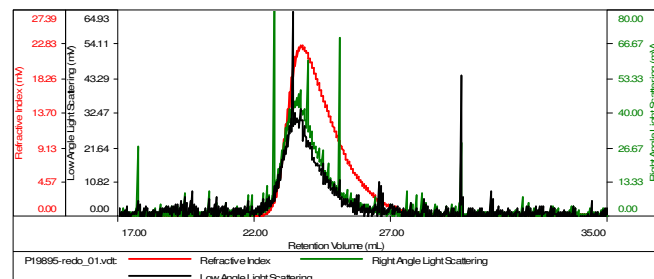
¹H-NMR Spectrum



SEC elugram of the polymer :

Sample ID:P19895-1

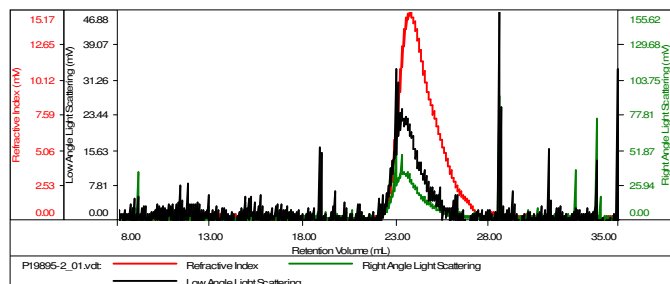
Concentration (mg/mL)	0.5797
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-Mby112016-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P19895-redo_01.vdt	91,536	112,742	1.232	4.8738	131,168

Sample ID:P19895-OH(protected)-S2VP

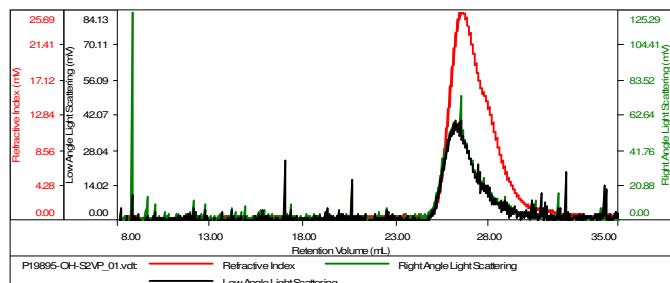
Concentration (mg/mL)	0.5615
Sample dn/dc (mL/g)	0.1410
Method File	PS80K-April-18-2016-0001.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mh (Da)	Mw (Da)	Mw/Mh	IV (dL/g)	Mp (Da)
P19895-2_01.vdt	149,252	184,202	1.234	1.2965	196,772

Sample ID:P19895-OH-S2VP

Concentration (mg/mL)	1.0322
Sample dn/dc (mL/g)	0.1450
Method File	PS80K-April-18-2016-0001.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mh (Da)	Mw (Da)	Mw/Mh	IV (dL/g)	Mp (Da)
P19895-OH-S2VP_01.v	154,203	179,566	1.164	1.7952	209,765