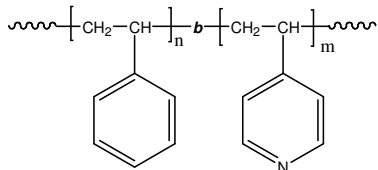


Sample Name: Poly(styrene-b-4-vinyl pyridine)

Sample #: **P19986-S4VP**

### Structure:



### Composition:

Mn x 10 <sup>3</sup> PS-b-4VP	PDI
650.0-b-243.0	1.18

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T<sub>g</sub> for PS block: 103°C

### Synthesis Procedure:

The polymer was synthesized by anionic process.

### Characterization:

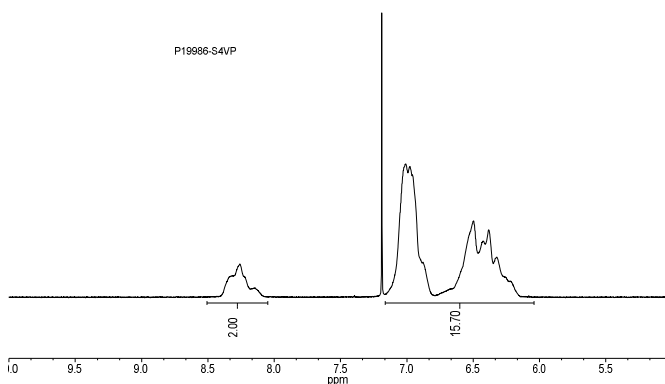
The polymer was characterized by  $^1\text{H}$  NMR and SEC.

Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 15°C/min. The inflection glass transition temperature ( $T_g$ ) of the sample has been considered.

**Solubility:**

Poly(styrene-*b*-4-vinyl pyridine) is soluble in DMF, CHCl<sub>3</sub>. The polymer can also be solubilized in THF depending on its chemical composition. The polymer readily precipitates from hexanes and diethyl ether.

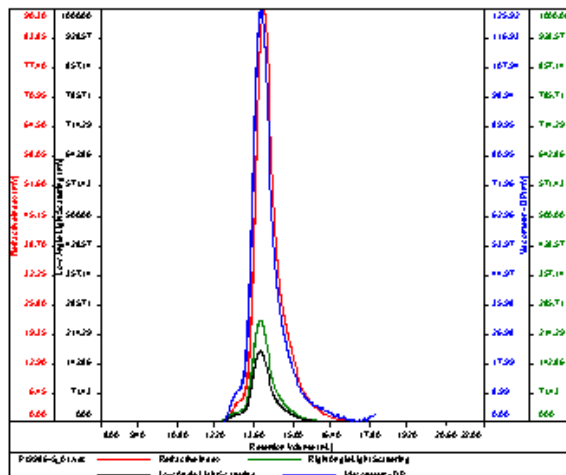
**<sup>1</sup>H NMR spectrum of the polymer:**



**SEC elugram of the polymer:**

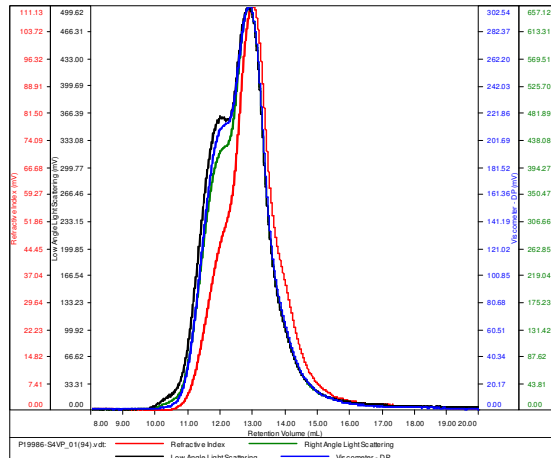
P19986-1

Conc (mg/mL)	1.0000
dn/dD (mL/g)	0.1650
Method	PSS06-July-2016-0002.um
Solvent	DMS w/ 0.023M LiBr
Column	PSS



**Sample ID:19986-S4VP**

<b>Conc (mg/mL)</b>	4.5141
<b>dn/dc (mL/g)</b>	0.1600
<b>Method</b>	PS80k-May-25-2016-0000.vcm
<b>Solvent</b>	DMF w 0.023M LiBr
<b>Column</b>	PSS



Sample	Mn	Mw	Mp	Mw/Mn	IV
P19986-S4VP_01(94).vdt	892,940	1.056 e 6	876,625	1.183	1.4400

**References:**

- (1). S. K. Varshney, X. F. Zhong and A. Eisenberg *Macromolecules*, **1993**, 26, 701-706.
- (2). Z.Gao, S. K. Varshney, S. Wong, A. Eisenberg *Macromolecules*, **1994**, 27, 7923-7927.