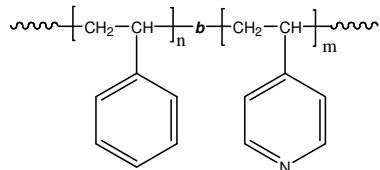


Sample Name: Poly(styrene-b-4-vinyl pyridine)

Sample #: P19988-S4VP

Structure:



Composition:

| | |
|----------------------------------|------|
| Mn x 10 ³ PS-b-4VP | PDI |
| 642.0-b-9.0 | 1.05 |

| | |
|------------------------------------|-------------------------------|
| T _g for PS block: 103°C | T _g for 4VP block: |
|------------------------------------|-------------------------------|

Synthesis Procedure:

The polymer was synthesized by anionic process.

Characterization:

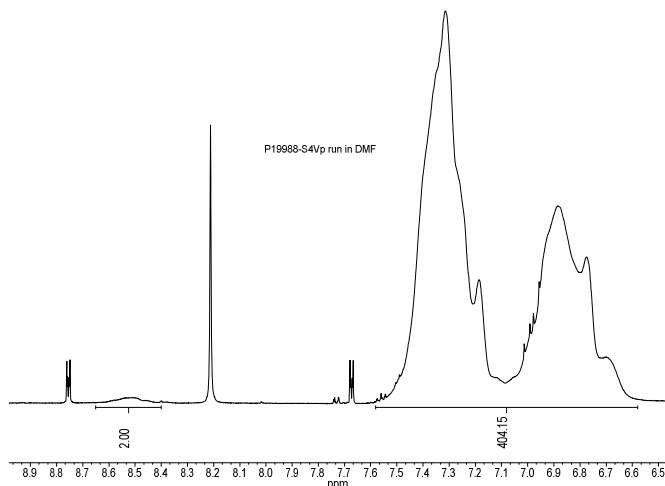
The polymer was characterized by ¹H NMR and SEC.

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, CHCl₃. The polymer can also be solubilized in THF depending on its chemical composition. The polymer readily precipitates from hexanes and diethyl ether.

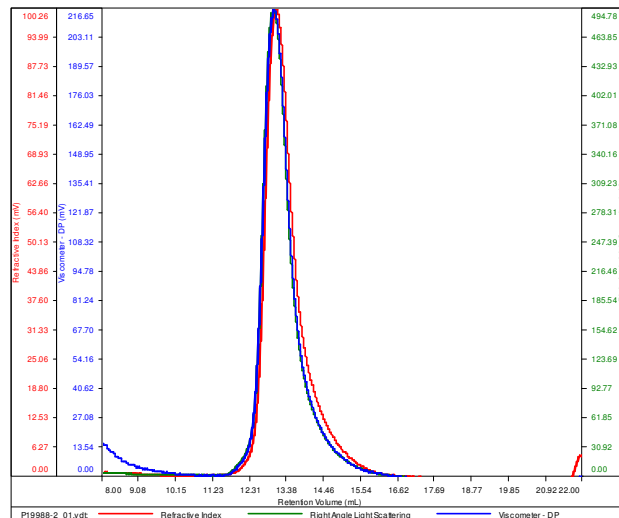
¹H NMR spectrum of the polymer:



SEC elugram of the polymer:

P19988-2

| | |
|--------------|----------------------------|
| Conc (mg/mL) | 2.5270 |
| dn/dc (mL/g) | 0.1600 |
| Method | PS80k-May-25-2016-0000.vcm |
| Solvent | DMF w 0.023M LiBr |
| Column | PSS |



| Sample | Mn | Mw | Mp | Mw/Mn | IV |
|-----------------|---------|---------|---------|-------|--------|
| P19988-2_01.vcl | 651,202 | 683,406 | 707,901 | 1.049 | 0.9591 |

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.