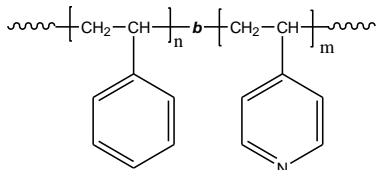


**Sample Name:** Poly (styrene-*b*-4-vinyl pyridine)

**Sample #:** P43146-S4VP

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup> PS- <i>b</i> -4VP	PDI
12.5- <i>b</i> -8.0	1.03

**Synthesis Procedure:**

The polymer was synthesized by anionic polymerization process.

**Characterization:**

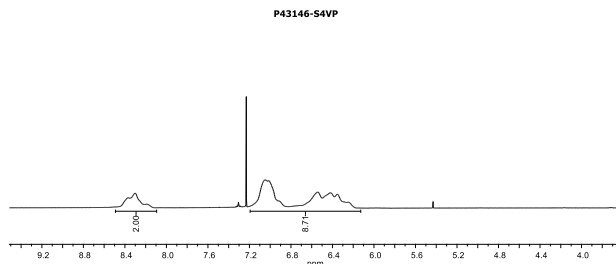
The polymer was characterized by SEC and <sup>1</sup>H NMR data analysis. The composition of the block copolymer can also be determined by titration in acetic acid/HClO<sub>4</sub> using crystal violet indicator. Copolymer PDI is determined by SEC.

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<sub>g</sub>) of the sample has been considered.

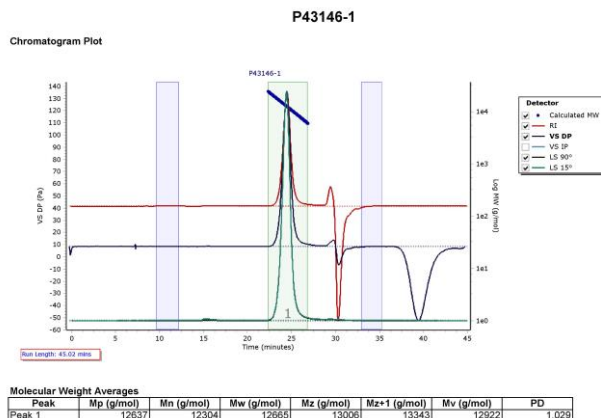
**Solubility:**

Poly (styrene-*b*-4-vinyl pyridine) is soluble in CHCl<sub>3</sub> and DMF.

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



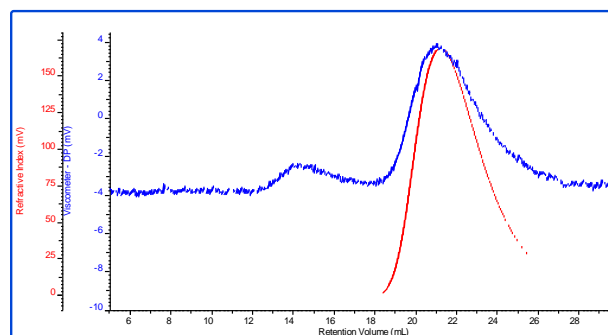
**SEC elugram of the PS block:**



**SEC elugram of the Sample:**

**P43146-S4VP**

dn/dc	0.1500
Flow Rate	0.7000
Solvent	DMF with LiBr
Method	Calibration_2020-11-25_PMMA-85K-0003.vcm



Sample	Mn	Mw	Mp	Mw/Mn
P43146_1_2021-04-19	20,323	21,014	19,548	1.034

**References:**

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