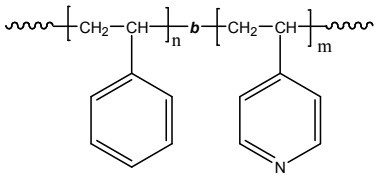
Sample Name: **Poly (styrene-b-4-vinyl pyridine)**

Sample #: **P40023-S4VP**

Structure:



Composition:

Mn x 10^3 PS-b-4VP	PDI
166.0-b-200.0	1.55
T_g for PS block: 105°C	T_g for 4VP block: 133°C

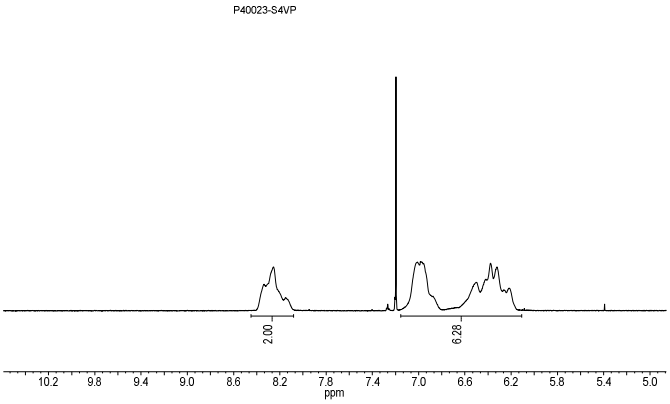
Synthesis Procedure: The polymer was synthesized by anionic polymerization process.

Characterization: The product was characterized by size exclusion chromatography (SEC) and 1H NMR. The composition of the block copolymer can also be determined by titration in acetic acid/HClO4 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_g) of the sample has been considered.

Solubility: Poly (styrene-b-4-vinyl pyridine) is soluble in CHCl3 and DMF.

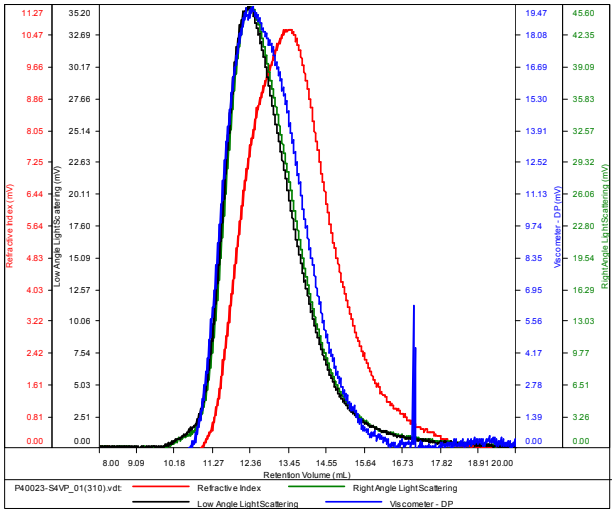
H-NMR Spectrum of Sample:



SEC of Sample # P40023_S4VP

P40023-S4VP

Conc (mg/mL)	0.5299
dn/dc (mL/g)	0.1650
Method	PS80k-October192016-0000.vcm
Solvent	DMF w 0.023M LiBr
Column	PSS



Sample	Mn	Mw	Mp	Mw/Mn	IV
P40023-S4VP_01(310).vdt	366,623	569,371	441,814	1.553	1.0397

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.