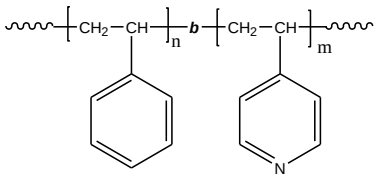
Sample Name: **Poly(styrene-b-4-vinyl pyridine)**

Sample #: **P40605-S4VP**

Structure:



Composition:

Mn x 10^3 PS-b-4VP	PDI
37.0-b-10.5	1.04

T_g for PS block: 105°C	T_g for 4VP block: 133°C

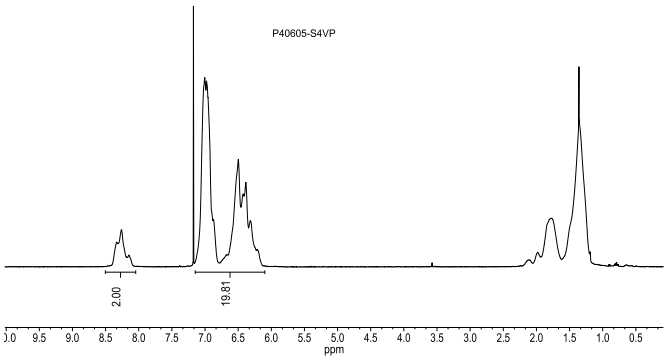
Synthesis Procedure: The polymer was synthesized by anionic process.

Characterization: The polymer was characterized by SEC and ^{1}H 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 DMF.

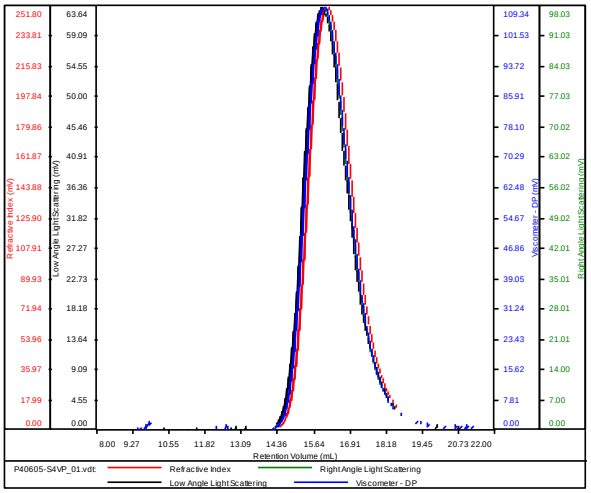
^{1}H NMR spectrum of the polymer:



SEC elugram of the polymer:

P40605-S4VP

Conc	22.0085
dn/dc	0.1570
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS80k-May2017-0000.vcm



Sample	MW Number Average	MW Weight Average	MW at Peak	Polydispersity	Intrinsic Viscosity
P40605-S4VP_01.vdt	47,545	49,161	47,903	1.034	0.1038

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.