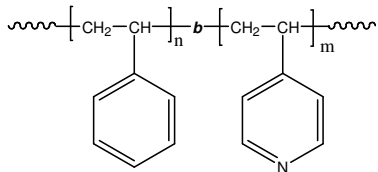


Sample Name: Poly(styrene-b-4-vinyl pyridine)

Sample #: P40024-S4VP

Structure:



Composition:

Mn x 10 ³ PS-b-4VP	PDI
25.0-b-10.0	1.05

T _g for PS block: 105°C	T _g for 4VP block: 133°C
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Synthesis Procedure: The polymer was synthesized by anionic process.

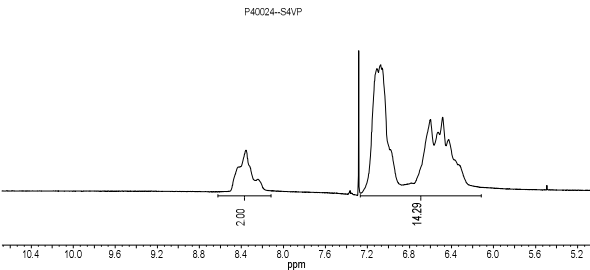
Characterization: The polymer was characterized by SEC and ¹H NMR .

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.

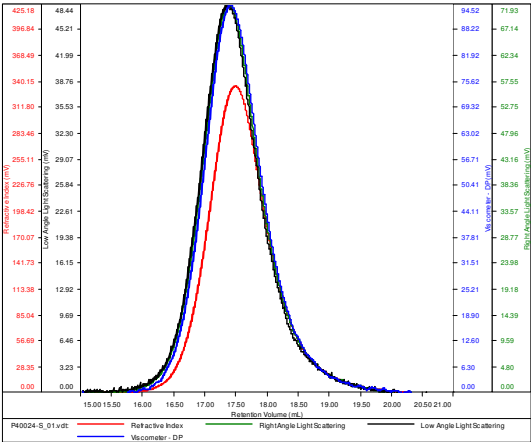
Solubility: Poly(styrene-b-4-vinyl pyridine) is soluble in CHCl₃ DMF.

¹H NMR spectrum of the polymer:



SEC elugram of the polymer:
Sample ID:40024--1

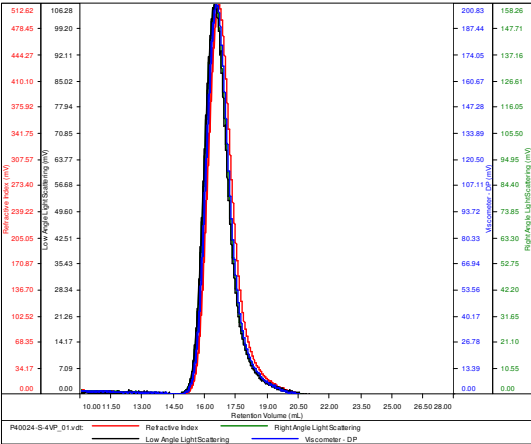
Conc (mg/mL)	8.8152
dn/dc (mL/g)	0.1650
Method	PS80k May-25-2016-0000.vcm
Solvent	DMF w 0.023M LiBr
Column	PSS



Sample	Mn	Mw	Mp	Mw/Mn	IV
P40024-S_01.vdt	24,913	25,961	25,052	1.042	0.1363

Sample ID:40024-S4VP

Conc (mg/mL)	16.6575
dn/dc (mL/g)	0.1650
Method	PS80k May-25-2016-0000.vcm
Solvent	DMF w 0.023M LiBr
Column	PSS



Sample	Mn	Mw	Mp	Mw/Mn	IV
P40024-S-4VP_01.vdt	35,065	36,795	36,186	1.049	0.1829

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.