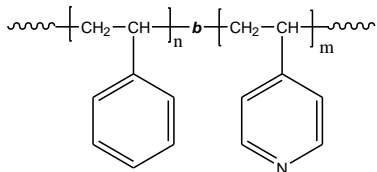


Sample Name: Poly(styrene-b-4-vinyl pyridine)

Sample #: P40604-S4VP

Structure:



Composition:

Mn x 10 ³ PS-b-4VP	PDI
173.0-b-15.0	1.04

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.

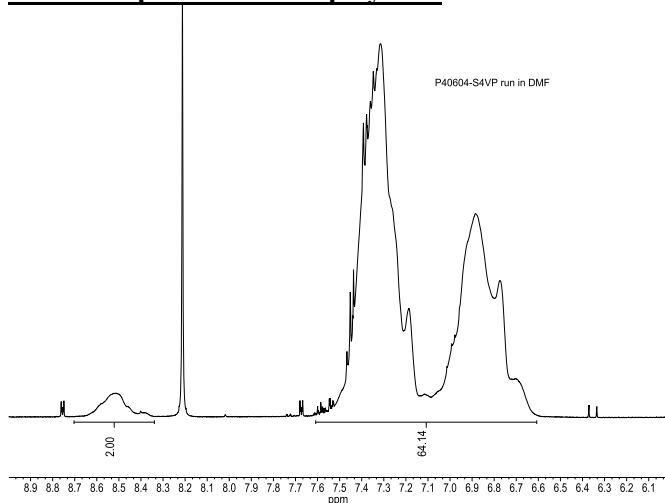
Characterization: The polymer was characterized by SEC and ¹H NMR.

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.

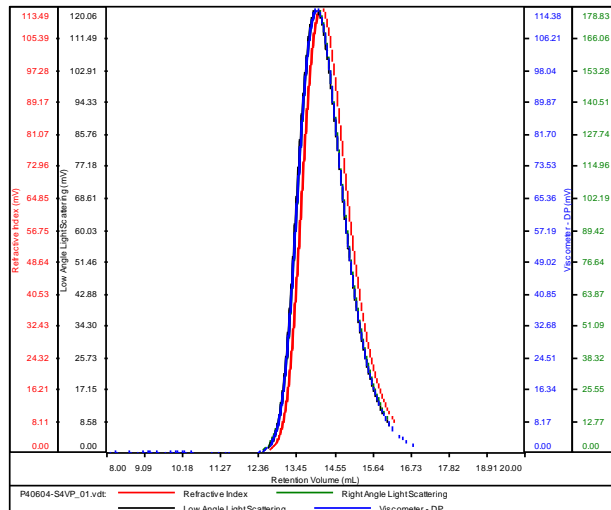
¹H NMR spectrum of the polymer:



SEC elugram of the polymer:

P40604-S4VP

Conc	8.5231
dn/dc	0.1600
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
P40604-S4VP_01.vdt	188,226	195,361	191,765	1.038	0.2430

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.