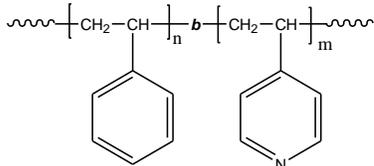


Sample Name: Poly (styrene-*b*-4-vinyl pyridine)

Sample #: P43146-S4VP

Structure:



Composition:

Mn x 10 ³ 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:

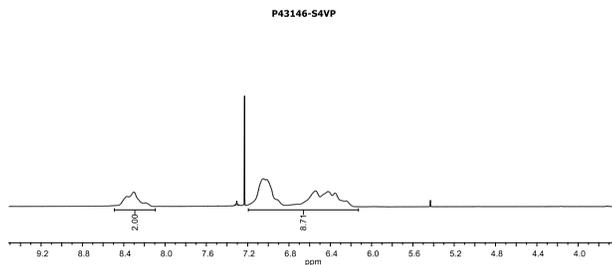
The polymer was characterized by SEC and ¹H NMR data analysis. The composition of the block copolymer can also be determined by titration in acetic acid/HClO₄ using crystal violet indicator. Copolymer PDI is determined by SEC.

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.

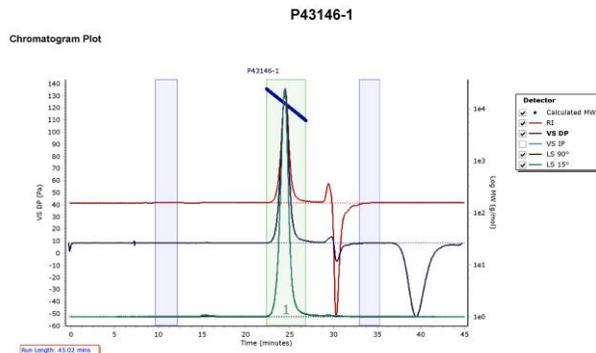
Solubility:

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

¹H NMR spectrum of the polymer:



SEC elugram of the PS block:

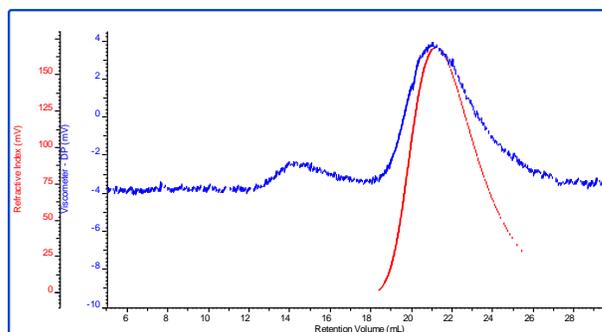


Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak-1	12637	12304	12665	13006	13343	12922	1.029

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.