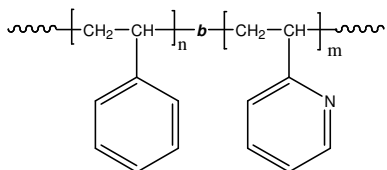


Sample Name:

Polystyrene-*block*-poly (2-vinyl pyridine)

Sample #: **P19907-S2VP**

Structure:



Composition of PS-*b*-P2VP diblock copolymer:

$M_n \times 10^3$ (g/mol)	PDI
285.0- <i>b</i> -4.0	1.06

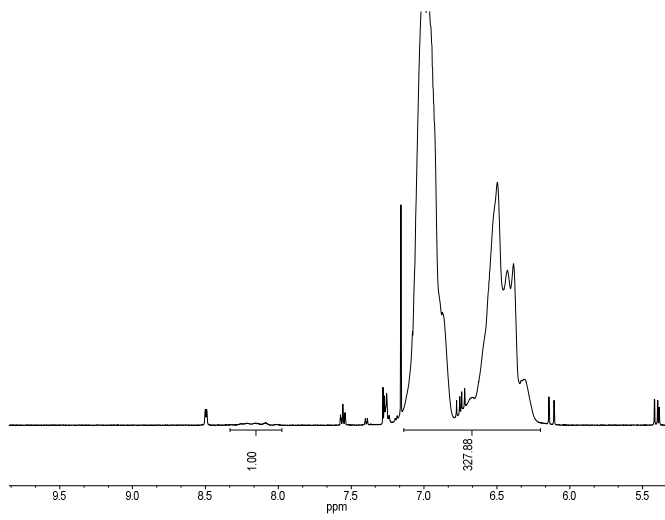
Synthesis:

The polymer was synthesized by anionic Process

Characterization: Polymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI).

The block copolymer composition was calculated from its $^1\text{H-NMR}$ spectrum by comparing the peak area of the 2VP protons (at 8.2 ppm) with the peak area of the aromatic protons of polystyrene (at 6.3–7.2 ppm). The composition of the block copolymer can also be determined by titration PS-*b*-P2VP in acetic acid/ HClO_4 using crystal violet indicator. PDI of block copolymer was determined by SEC.

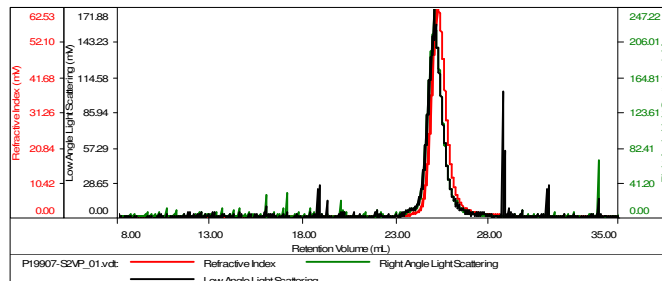
^1H NMR spectrum of PS-*b*-P2VP:



SEC elugram of PS-*b*-P2VP:

Sample ID: P19907-S2VP

Concentration (mg/mL)	0.9047
Sample conc (mL/g)	0.1650
Method File	PS80K-April-18-2016-0001.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P19907-S2VP_01.vdt	289,479	306,590	1.059	2.1262	288,818

References:

1. S. K. Varshney, X. F. Zhong and A. Eisenberg *Macromolecules* **1993**, 26, 701–706.
2. Z.Gao, S. K. Varshney, S. Wong, A. Eisenberg *Macromolecules* **1994**, 27, 7923–7927.