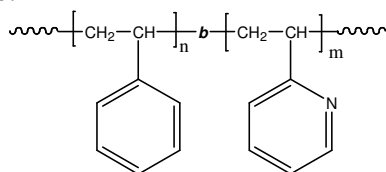


Sample Name:
Polystyrene-*b*-poly (2-vinyl pyridine)

Sample #: **P19904-S2VP**

Structure:



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

$M_n \times 10^3$ (g/mol)	PDI
284.0- <i>b</i> -10.0	1.10

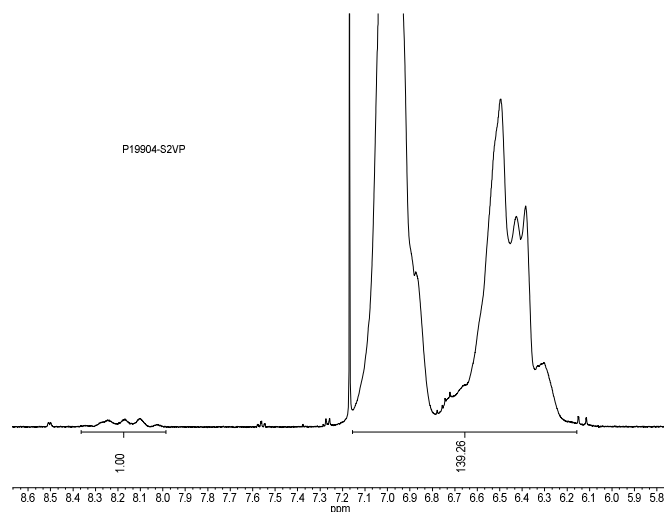
ynthesis:

The polymer was synthesized by anionic process

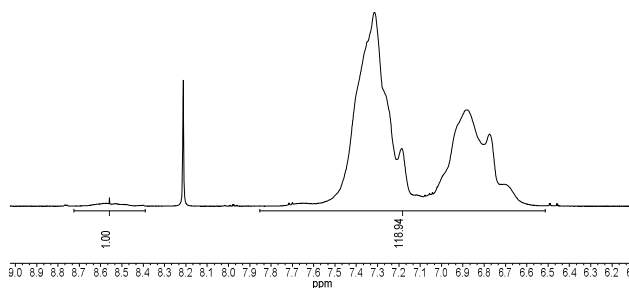
Characterization: Polymer was analyzed by size exclusion chromatography (SEC) to obtain its molecular weight and polydispersity index (PDI).

The block copolymer composition was calculated from its ^1H -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/HClO₄ using crystal violet indicator. PDI of block copolymer was determined by SEC.

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



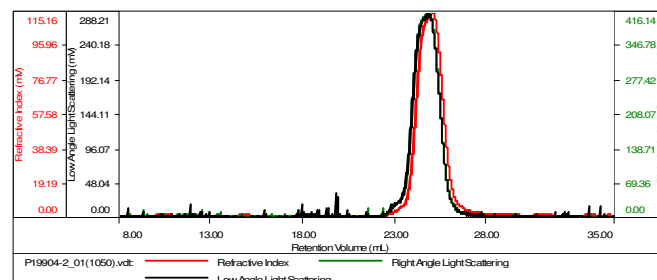
P19904-S2VP run in DMF



SEC elugram of PS-*b*-P2VP:

Sample ID: P19904-S2VP

Concentration (mg/mL)	2.8314
Sample dn/dc (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)
P19904-2_01(1050).vd	294,007	323,905	1.102	3.0196	315,113

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.