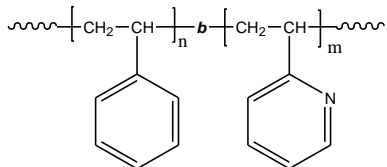


Sample Name:

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

Sample #: **P40091-S2VP**

**Structure:**



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

$M_n \times 10^3$ (g/mol)	PDI
185.0- <i>b</i> -195.0	1.05

**Synthesis:**

Polystyrene-*b*-poly (2-vinyl pyridine) was prepared by living anionic polymerization in THF at  $-78^\circ\text{C}$  in the presence of LiCl as an additive.

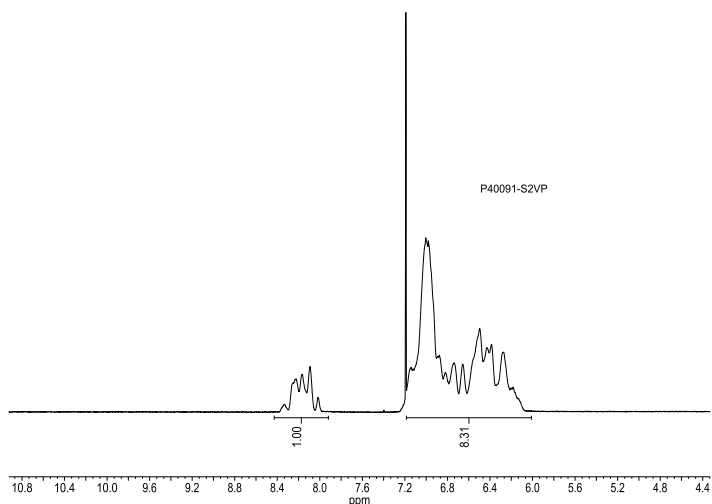
**Characterization:**

The product was characterized by size exclusion chromatography (SEC) and  $^1\text{H}$  NMR.

**Solubility:**

Poly (styrene-*b*-2 vinylpyridine) is soluble in THF, toluene, and  $\text{CHCl}_3$ . The diblock copolymer can also be solubilized in methanol, ethanol depending on its composition. The polymer readily precipitates from hexanes, ether and water.

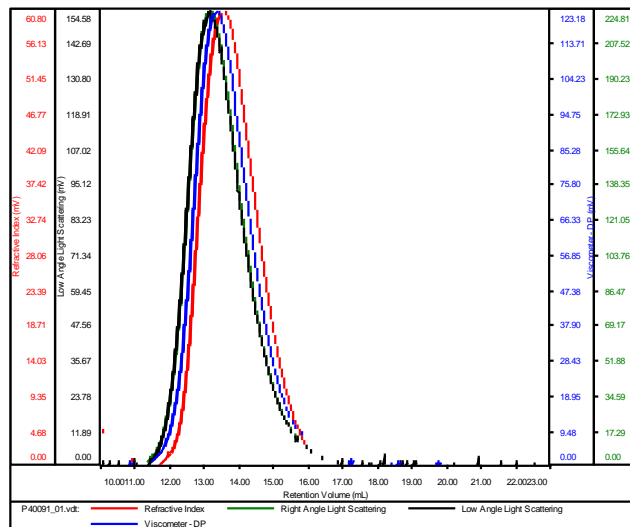
**$^1\text{H}$  NMR spectrum of PS-*b*-P2VP:**



**SEC elugram of PS-*b*-P2VP:**

**P40091-S2VP**

Conc	2.9215
dn/dc	0.1650
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS80K_2017-July-05-0000.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P40091_01.vdt	375,008	392,914	399,335	1.048	0.9210

**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.