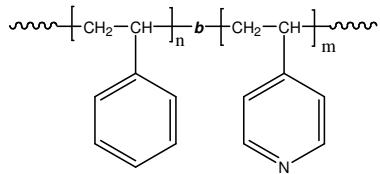


Sample Name: Poly(styrene-b-4-vinyl pyridine)

Sample #: P19968-S4VP

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup> PS-b-4VP	PDI
244.0-b-18.0	1.03

T<sub>g</sub> for PS block: 103°C

T<sub>g</sub> for 4VP block: 145°C

**Synthesis Procedure:**

The polymer was synthesized by anionic process.

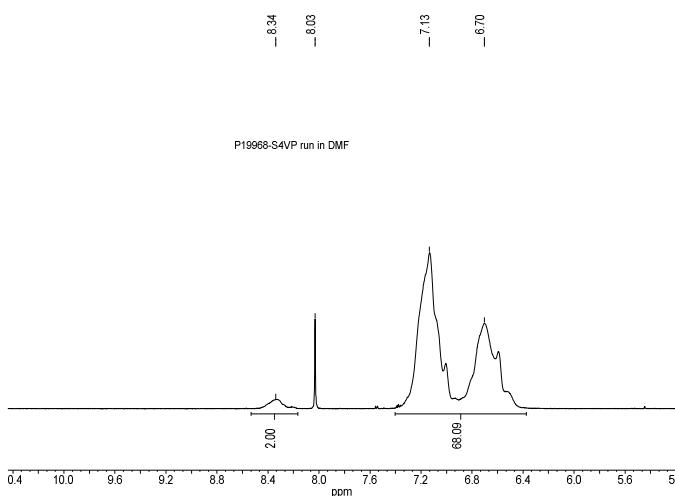
**Characterization:**

The polymer was characterized by <sup>1</sup>H NMR, 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<sub>g</sub>) of the sample has been considered.

**Solubility:**

Poly(styrene-b-4-vinyl pyridine) is soluble in DMF, CHCl<sub>3</sub>. The polymer can also be solubilized in THF depending on its chemical composition. The polymer readily precipitates from hexanes and diethyl ether.

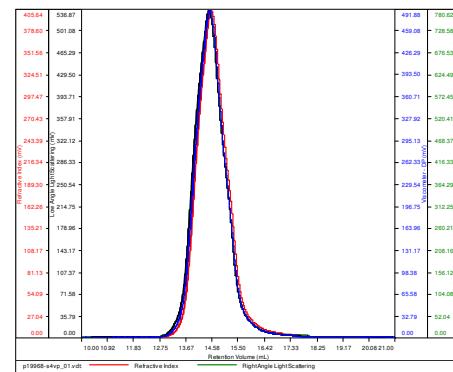
**<sup>1</sup>H-NMR Spectrum of the polymer:**



**SEC elugram of the polymer:**

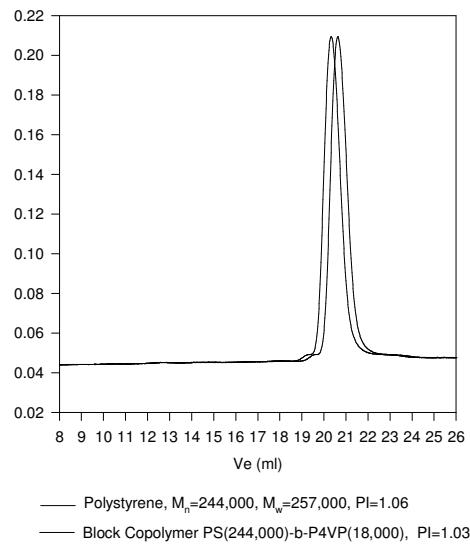
P19968-S4VP

Conc (mg/mL)	11.5517
dndc (mL/g)	0.1600
Method	P580k-May-25-2016-0000.vcm
Solvent	DMF w 0.023M LiBr
Column	PSS



Sample	Mn	Mw	Mp	Mw/Mn	IV
p19968-s4vp_01.vdt	261.976	270.164	261.478	1.031	0.5532

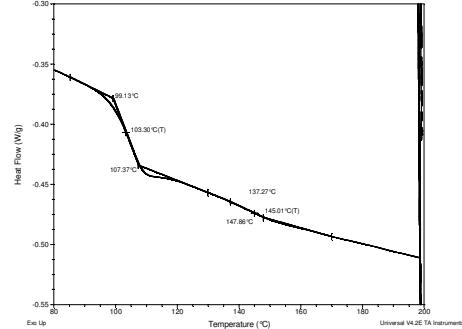
**P19968-S4VP**



— Polystyrene, M<sub>n</sub>=244,000, M<sub>w</sub>=257,000, PI=1.06

— Block Copolymer PS(244,000)-b-P4VP(18,000), PI=1.03

**Thermogram of the polymer:**



**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.