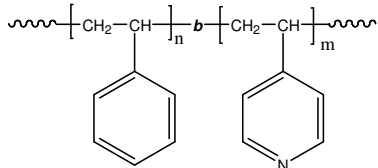


Sample Name: Poly(styrene-b-4-vinyl pyridine)

Sample #: P19967-S4VP

Structure:



Composition:

Mn x 10 ³ PS-b-4VP	PDI
190.0-b-10.0	1.03

T _g for PS block: 103°C	T _g for 4VP block: 145°C
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Synthesis Procedure:

The polymer was synthesized by anionic process.

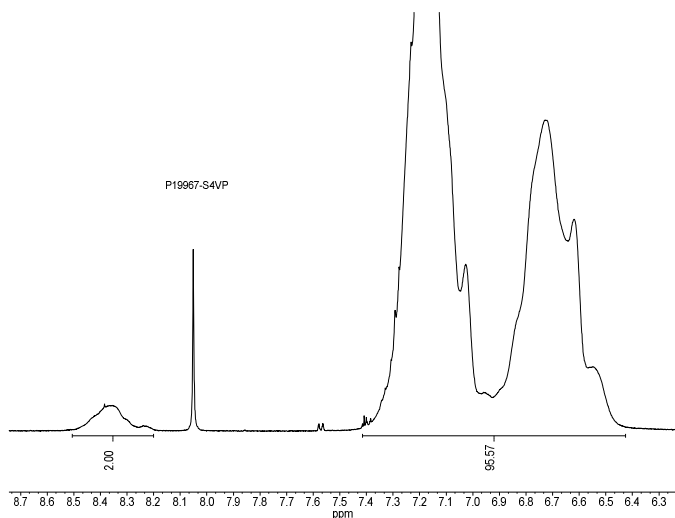
Characterization:

The polymer was characterized by ¹H 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_g) of the sample has been considered.

Solubility:

Poly(styrene-b-4-vinyl pyridine) is soluble in DMF, CHCl₃. The polymer can also be solubilized in THF depending on its chemical composition. The polymer readily precipitates from hexanes and diethyl ether.

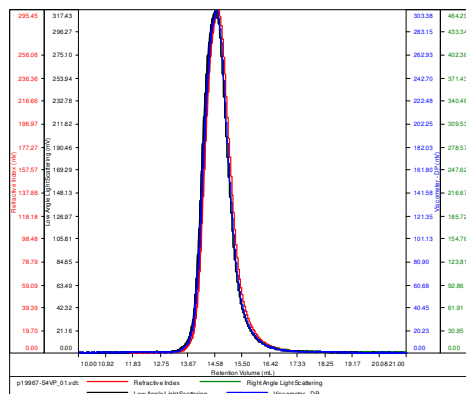
¹H NMR Spectrum of the polymer:



SEC elugram of the polymer:

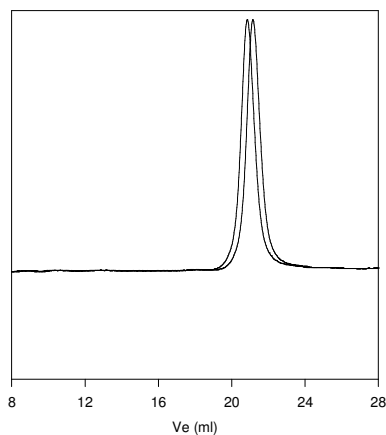
P19967-S4VP

Conc (mg/mL)	6.8761
dn/dc (mL/g)	0.1650
Method	PS80k May 25-2016-0000.vcm
Solvent	DMF w/0.023M LiBr
Column	PSS



Sample	Mn	Mw	Mp	Mw/Mn	IV
p19967-S4VP_01.xdr	200,980	207,734	204,370	1.034	0.4839

P19967-S4VP

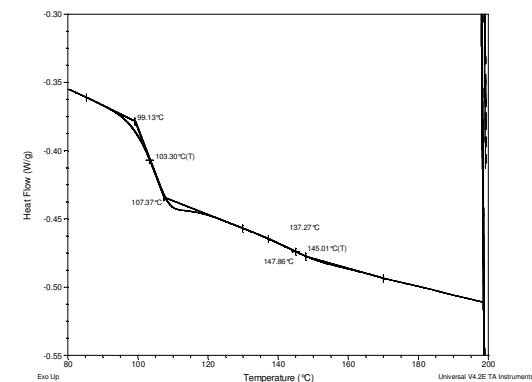


Size exclusion chromatography of polystyrene-b-poly(4-vinylpyridine)

— Polystyrene, M_n=190,000, M_w=218,000, PI=1.05

— Block Copolymer PS(190,000)-b-P4VP(10,000), PI=1.03 Run in DMF

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.