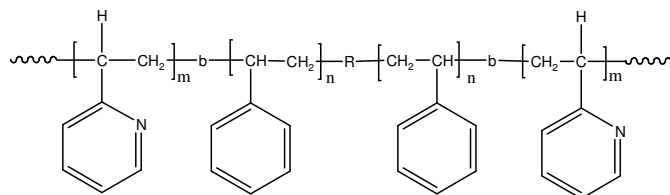


Sample Name: Poly(2-vinyl pyridine-b-styrene-b-2-vinyl pyridine)

Sample #: P18766-2VPS2VP

Structure:



R: dimer or tetramer of alpha methyl styrene

Composition:

Mn x 10 ³ 2VP-b-PS-b-2VP	PDI
8.0-b-17.0-b-8.0	1.5
T _g for PS block: 102°C	

Synthesis Procedure:

Poly(2-vinyl pyridine-b-styrene-b-2-vinyl pyridine) is prepared by living anionic polymerization using a bifunctional initiator with sequence addition of styrene followed by 2-vinylpyridine (2VP).

Characterization:

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. THF was an eluent.

Thermal analysis:

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

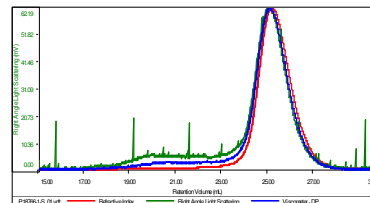
Solubility:

Poly(2-vinyl pyridine-styrene-b-2-vinyl pyridine) is soluble in DMF, THF, CHCl₃. The polymer readily precipitates from hexanes and diethyl ether.

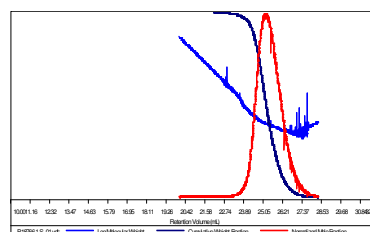
SEC of the polymer:

Sample ID: P18766-1-S

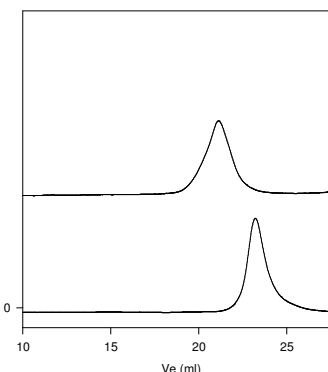
Concentration (mg/mL)	25.933
Sample dn/dc (mL/g)	0.1830
Method File	PS00K-Ap15-2014-0000.vcm
Column Set	3x PL 1113-6200
Solvent	THF



Sample	Mn	Mw	Mp	Mw/Mn	IV
P18766-1-S_01.vcl	15,782	18,620	16,001	1.180	0.0794



P18766-2VPS2VP



Size exclusion chromatography of:
Poly(2 vinyl pyridine-b-Styrene-b-2 vinylpyridine)

— Poly(Styrene), M_n=17,000, PI=1.18
— Triblock Copolymer P 2VP(8,000)-b-PS(17,000)-b-P2VP(8,000) PI=1.5
Chemical composition from ¹H NMR and by titration (average value)

¹H NMR:

