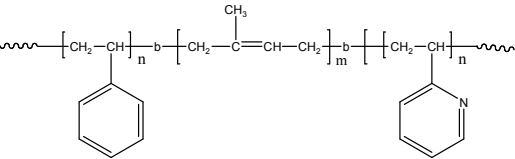


Sample Name:  
Poly(Styrene-b-isoprene-b-2-vinylpyridine)

Sample #: P11329-SIP2VP  
Structure:



Composition:

Mn x 10 <sup>3</sup> S-b-IP-b-2VP	PDI
36.5-b-36.5-b-12.0	1.15
Microstructure for IP block	Rich in 1,4 addition

Synthesis Procedure:

By living anionic polymerization with sequence addition of styrene then isoprene (polymerization in apolar solvent), followed by addition of 2VP monomer.

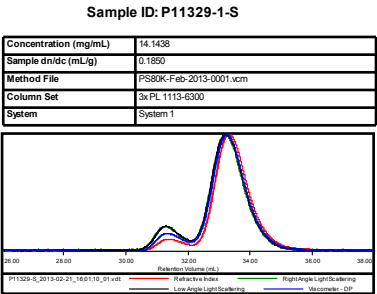
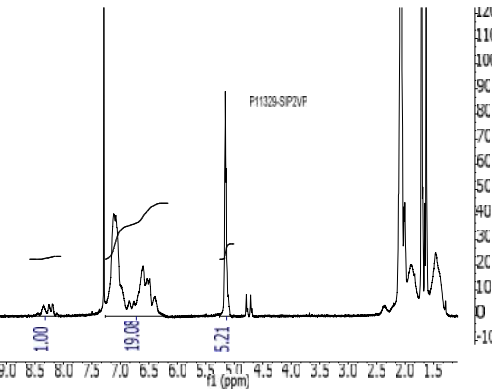
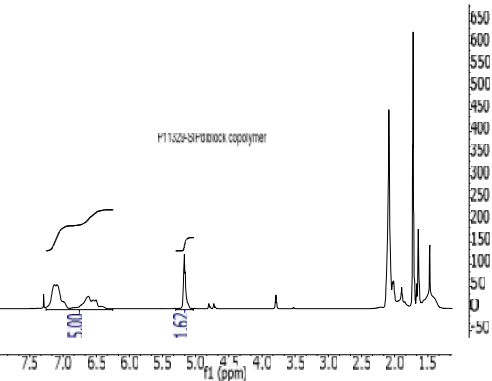
Characterization:

Polymer at different stages of polymerization was analyzed by size exclusion chromatography (SEC).The Block copolymer composition was then calculated from <sup>1</sup>H-NMR spectroscopy .

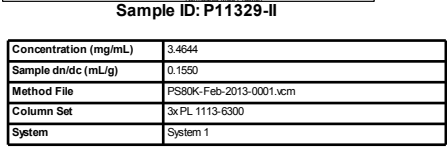
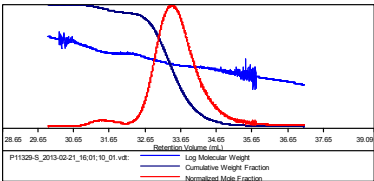
Solubility:

Poly(styrene-b-2 vinylpyridine-b-ethylene oxide) is soluble in THF, toluene, and CHCl<sub>3</sub> .

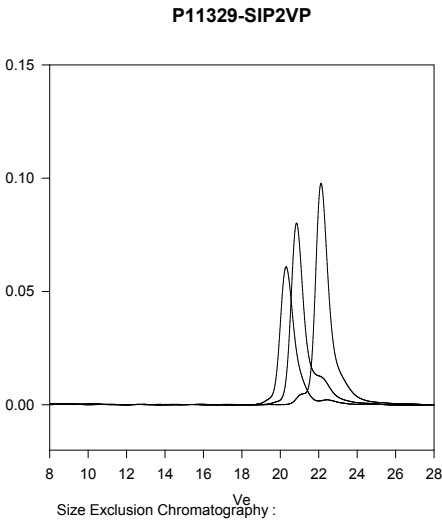
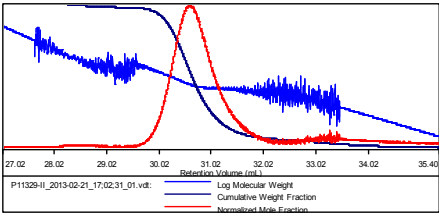
<sup>1</sup>H-NMR Spectrum of the polymer:



Sample	Mn (Da)	Mw (Da)	Mp (Da)	Mw/Mn	IV (dL/g)
P11329-S_2013-02-21_16:01:10_01.vrt	35,633	38,744	35,933	1.087	0.3035



Sample	Mn (Da)	Mw (Da)	Mp (Da)	Mw/Mn	IV (dL/g)
P11329-II_2013-02-21_17:02:31_01.vrt	72,693	80,117	78,255	1.102	0.6970



Size Exclusion Chromatography :

- First PS block, M<sub>n</sub>=36,500 Mw: 39,500 M<sub>w</sub>/M<sub>n</sub>=1.08
- PS-IP, diblock PS(36,500)-b-PIP( 36,500), M<sub>w</sub>/M<sub>n</sub>=1.10
- Triblock PS(36,500)-b-PIP(36,500) -b-P2VP(12,000) M<sub>w</sub>/M<sub>n</sub>=1.15