

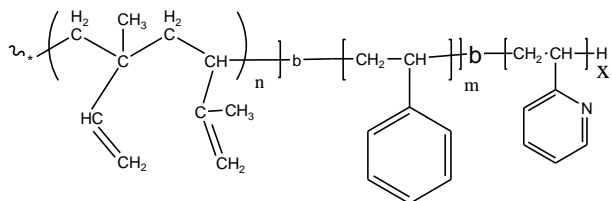
SEC for the polymer AT DIFFERENT STAGES OF POLYMERIZATION :

Sample Name:

Poly(Isoprene (1,2 AND 3,4) rich -b-styrene-b-2vinyl pyridine)

Sample #: P11359-IPS2VP

Structure:

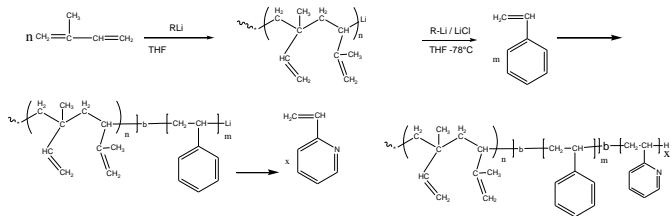


Composition:

Mn x 10 ³ IP-b-S-2VP	PDI
200.0-340.0-b-215.0	1.6

Synthesis Procedure:

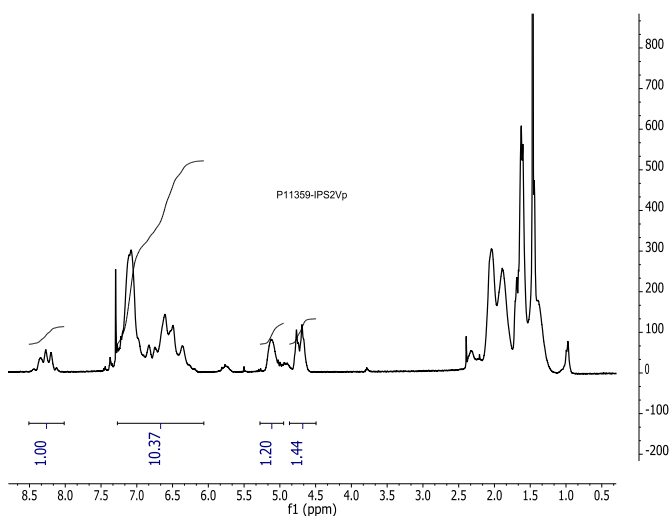
By living anionic polymerization with sequence addition of isoprene (polymerization in polar solvent) than styrene, followed by addition of 2 vinyl pyridine (2VP). The scheme of the reaction is illustrated below:



Solubility:

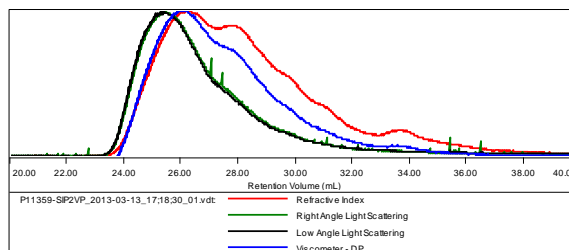
Polymer is soluble in THF, toluene, and CHCl₃. The polymer readily precipitates from cold hexanes/ethanol mixture. .

¹H-NMR Spectrum of the polymer:

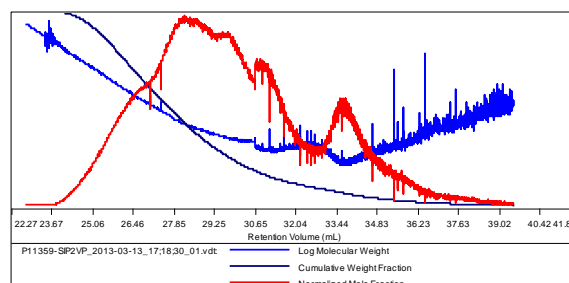


Sample ID: P11359-SIP2VP

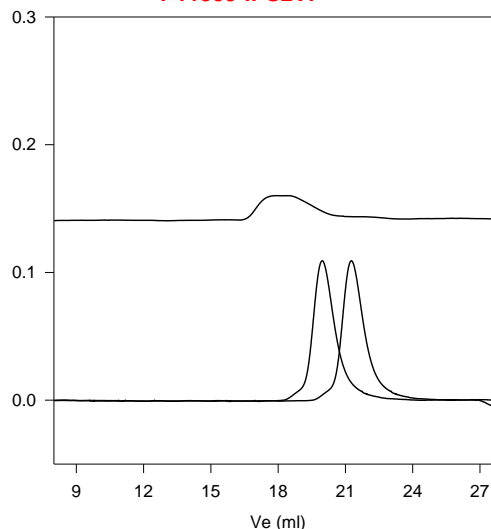
Concentration (mg/mL)	4.5603
Sample dn/dc (mL/g)	0.1580
Method File	PS80K-Mar-2013-0002.vcm
Column Set	3x PL 1113-6300
System	System 1



Sample	Mn	Mw	Mp	Mw/Mn	IV
P11359-SIP2VP_2013-03-13_17:18:30_01.vdt	746,566	1.178 e 6	1.566 e 6	1.578	1.6306



P11359-IPS2VP



Size exclusion chromatography of poly(IP-b-S-b-2VP)

- PIP (rich in 1, 2 and 3,4 addition), M_n=200,000, M_w=216,500, Mw/Mn=1.08
- Poly(IP-b-S): Ip(200,000)-b-S(340,000) Mw/Mn=1.09
- Triblock copolymer: P(IP)200,000-b-S(340,000)-b-2VP(215,000): Mw/Mn=1.6

Composition from ¹H NMR dn/dc in THF at 35°C: 0.163ml/g;