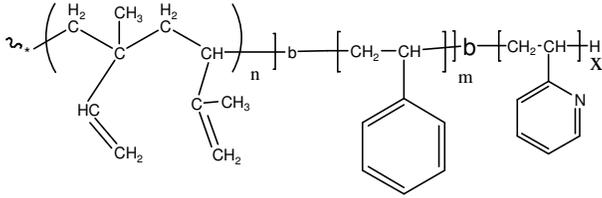


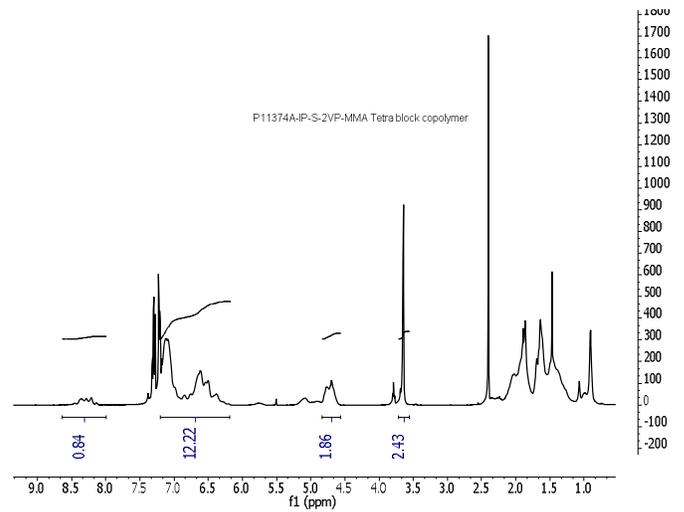
**Sample Name:**

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

**Sample #: P11374A-IPS2VPMMA**

**Structure:****Composition:**

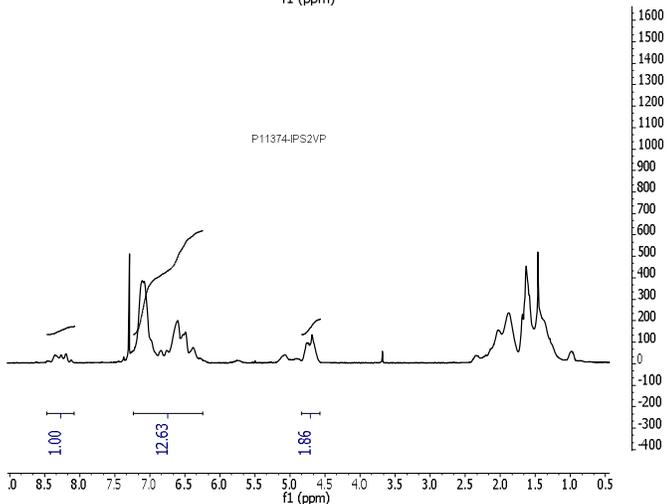
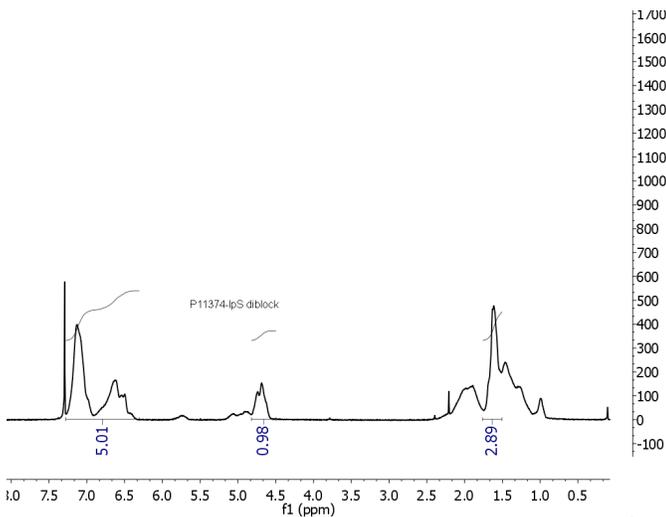
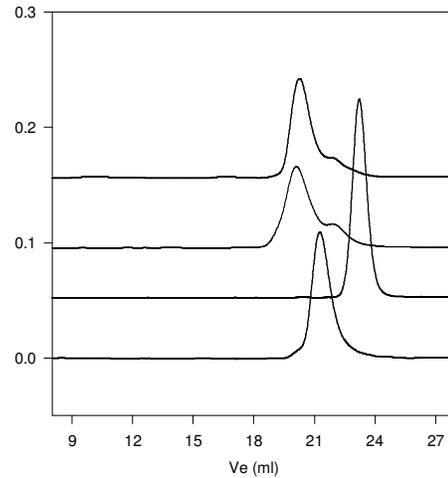
Mn x 10 <sup>3</sup> IP-b-S-b-2VP-b-MMA	PDI
23.0-38.5-b-19.0-b-27.0	1.25



**SEC for the polymer at different stages of polymerization:**

**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) and then Methylmethacrylate.

**<sup>1</sup>H-NMR Spectrum of the polymer:****P11374-IPS2VP**

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

— PIP (rich in 1, 2 and 3,4 addition), M<sub>n</sub>=23,000, M<sub>w</sub>=24,500, M<sub>w</sub>/M<sub>n</sub>=1.07

— Poly(IP-b-S): Ip(23,000)-b-S(38,000) M<sub>w</sub>/M<sub>n</sub>=1.09

— Triblock copolymer: P(IP)23,000-b-S(38,000)-b-2VP(19,000); M<sub>w</sub>/M<sub>n</sub>=1.2

Tetra blockcopolymer: P(IP)23,000-b-S(38,000)-b-2VP(19,000)-b-MMA(27,000); M<sub>w</sub>/M<sub>n</sub>=1.25  
Composition from <sup>1</sup>H NMR dn/dc in THF at 35°C: 0.163ml/g;