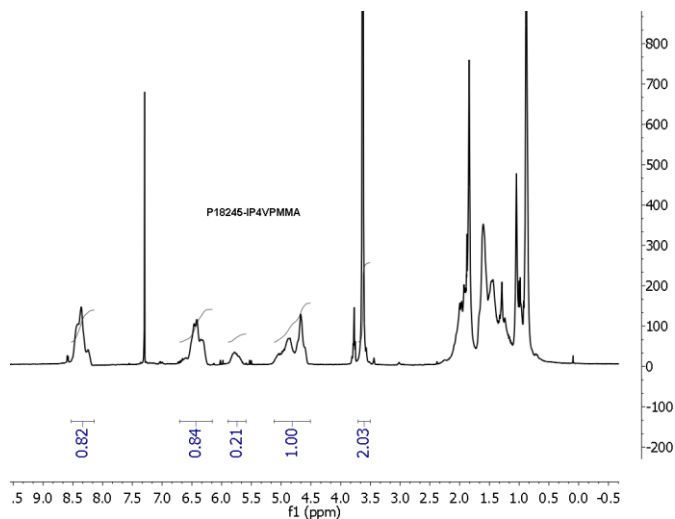
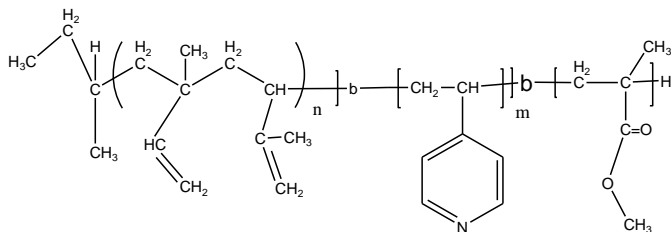


Sample Name:

Poly(Isoprene_(1,2 AND 3,4) rich -b-4-vinyl pyridine-b-methylmethacrylate)

Sample #: P18245-IP4VPMMA

Structure:**Composition:**

Mn x 10 ³	PDI
IP-b-4VP-MMA	
15.0-b-9.5-b-15.0	1.25

Synthesis Procedure:

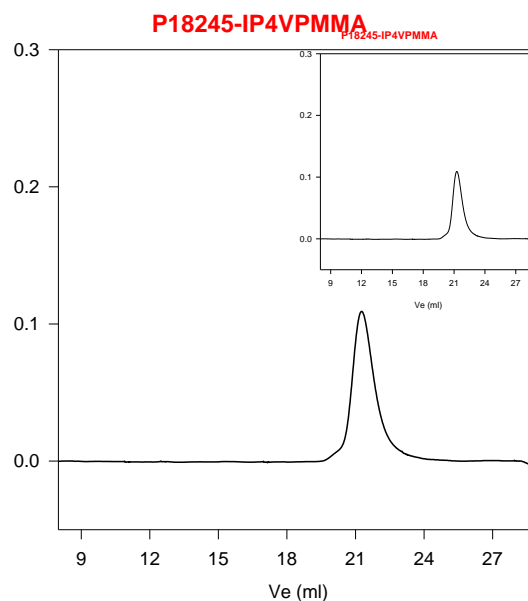
By living anionic polymerization with sequence addition of isoprene (polymerization in polar solvent) than 4VP, followed by addition of MMA.

Characterization:

First Block: Size exclusion chromatography (SEC): Varian liquid chromatograph equipped with UV and refractive detector. SEC columns from Supelco were used with THF as the eluent for the first block of polyisoprene. The diblock copolymers of Pip-4VP can not be eluted in THF it was therefore analysed in DMF with methanol 5%. The triblock copolymer was also analysed in DMF at 60°C. The columns were calibrated with monodisperse polystyrene. The molecular weights and the polydispersity index were calculated. **Second and Third Block:** The chemical composition was extracted from proton NMR, which was recorded from Varian 500MHz instrument using CDCl₃ as solvent. The molecular weights of second and third block were calculated based on the molecular weight of other blocks and the chemical composition. The polydispersity index of block copolymer was obtained by SEC as described above.

Solubility:

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

¹H-NMR Spectrum of the polymer:**SEC for the polymer AT DIFFERENT STAGES OF POLYMERIZATION :**

Size exclusion chromatography of poly(IP-b-4VP-b-MMA)

— Triblock copolymer: P(IP)15,000-b-4VP(9,500)bMMA(15,000): Mw/Mn=1.25