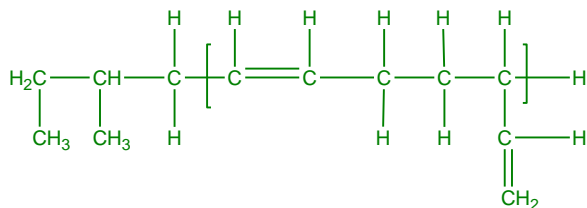


(1,2=40%, 1,4 = 60%)

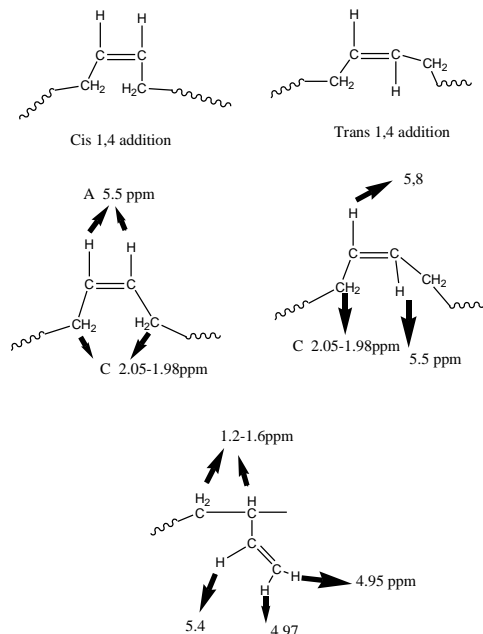
Structure:



Composition:

Mn x 10 ³	PDI
186.0	1.02
1,2 addition: 1,4 addition	40:60
Cis 1,4 and trans 1,4	20:80

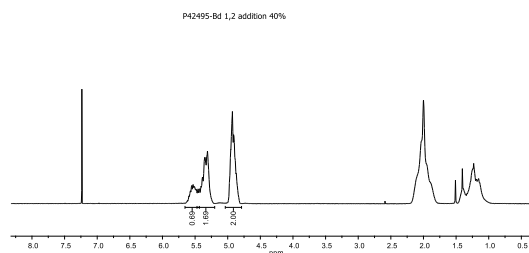
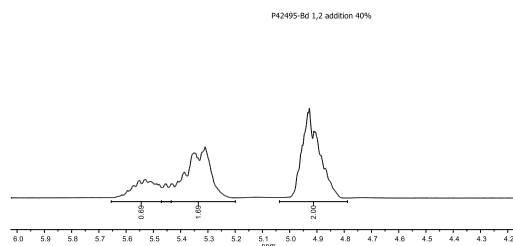
Polybutadiene (1,2-rich) is obtained by living anionic polymerization in THF using *sec*BuLi as the initiator.



The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering

Polymer microstructure can be confirmed by ^1H -NMR where the spectrum of 1,2-polybutadiene contains of 1 vinylic proton signal at 5.4 ppm and 2 vinylic protons at 5.0 ppm but the spectrum of 1,4-polybutadiene only contains vinylic signals at 5.4 ppm.

^1H -NMR spectrum:



SEC elugram of P42495-Bd:

Aqilent GPC/SEC Software

