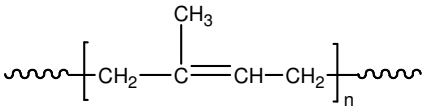
Sample Name: Polyisoprene, *rich in 1,4-addition*

Sample #: P18989-Ip



Composition:

Mn x 10^3	Mw/Mn
19.5	1.03

Microstructure:

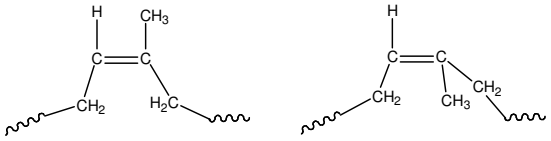
1,4-addition		1,2- *&* 3,4-addition
Cis-isomer	Trans-isomer	
88 %	12 %	–

Synthesis Procedure:
Polyisoprene was obtained by living anionic polymerization.

Characterization:

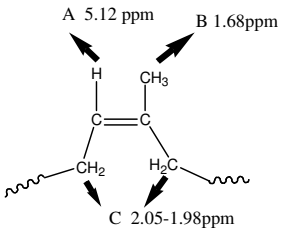
The microstructure of polymer was calculated from ^{1}H NMR data. Molecular weight and polydispersity index (M_w/M_n) of the polymer were determined by size exchlusion chromatography (SEC).
I

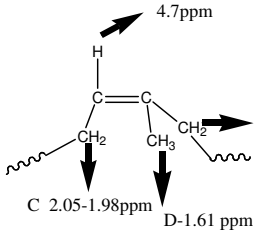
Proton shifts in ^{1}H NMR:

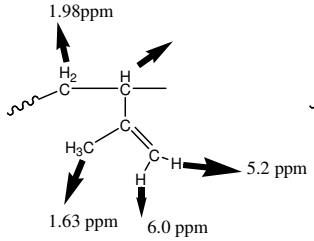


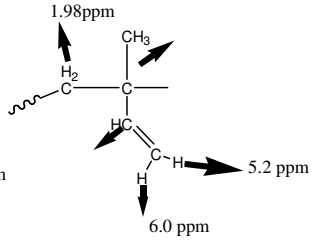
Cis 1,4 addition

Trans 1,4 addition

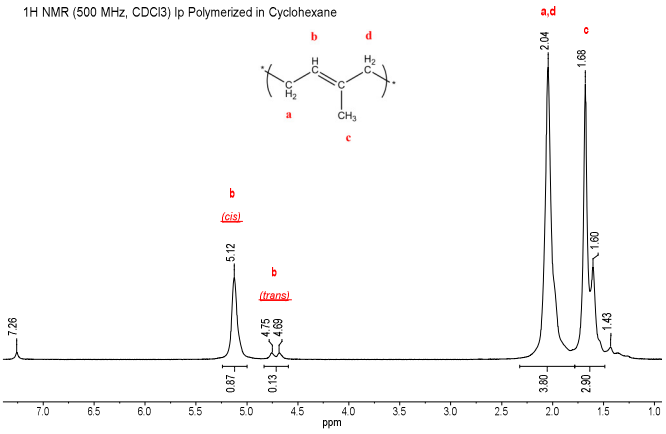








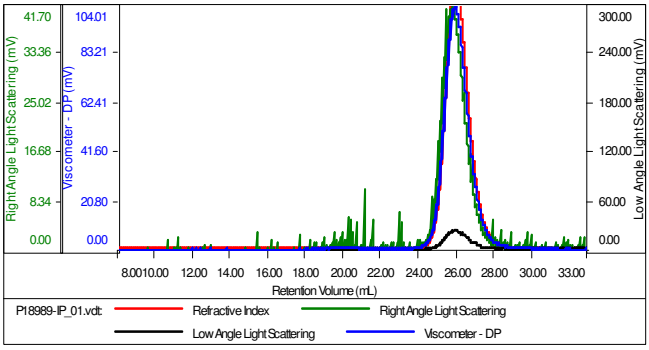
1H NMR (500 MHz; $CDCl_3$) of polyisoprene:



SEC elugram of polyisoprene:

Sample ID: P18989-IP

Concentration (mg/mL)	2.2177
Sample dn/dc (mL/g)	0.1250
Method File	PS80K-NOV27-2014-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersi	Intrinsic Viscosity (dL/g)
P18989-IP_01.vdt	19,229	19,868	19,421	1.033	1.6141