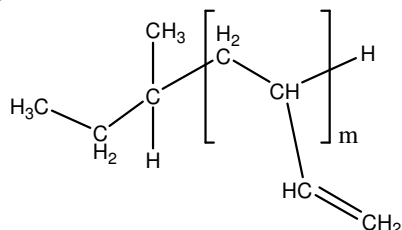


Sample Name: Polybutadiene (1,2-rich microstructure)

Sample #: P19662-Bd

Structure:



Composition:

Mn x 10 ³	PDI
4.2	1.07

PBd 1,4-addition	<3 %
PBd 1,2-addition:	>97 %

Synthesis Procedure:

1,2-addition polybutadiene was prepared by anionic living polymerization of butadiene in non-polar/polar media.

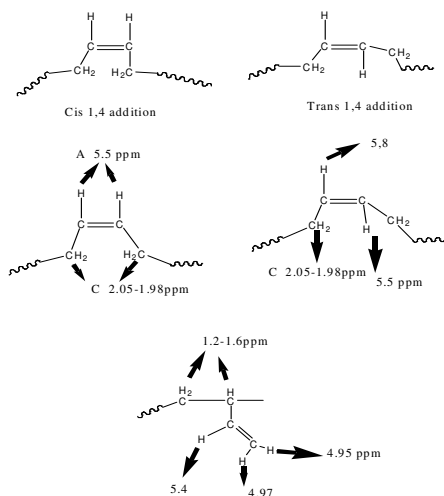
Characterization:

The polymer was characterized by SEC and ¹H-NMR.

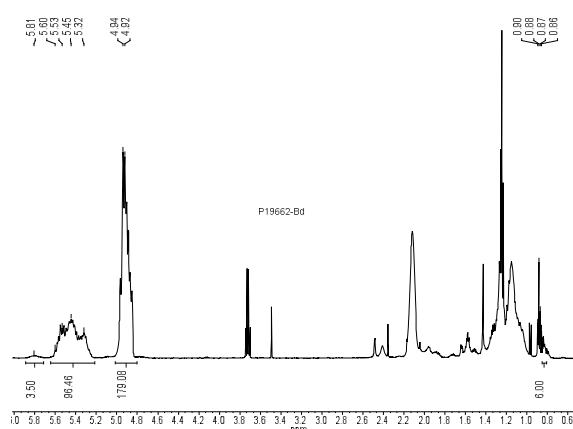
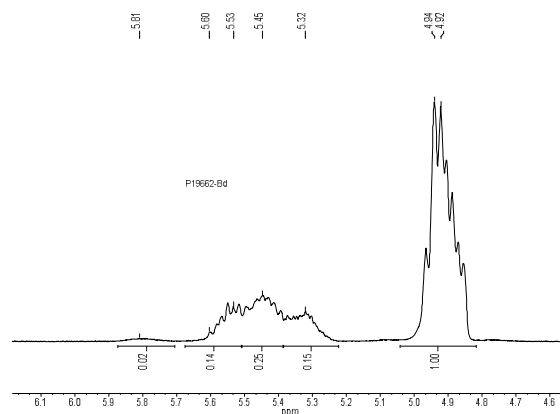
Microstructure: The ratio between 1,4- and 1,2-addition was calculated by ¹H NMR spectroscopy.

Solubility:

Polybutadiene is soluble in DMF, THF, toluene, hexane, cyclohexane and CHCl₃. It precipitates from methanol, ethanol and water.



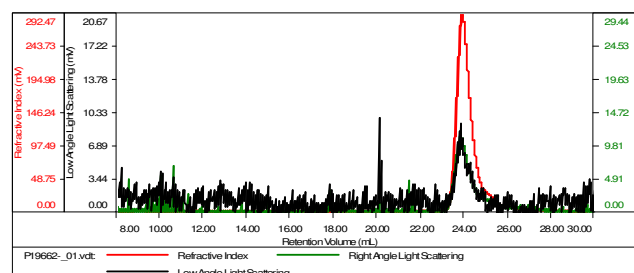
¹H NMR spectrum:



SEC elugram:

Sample ID-P19662-Bd

Concentration (mg/mL)	1.8308
Sample drydc (mL/g)	0.1250
Method File	PS80K.Jun30:2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19662_01.vcl	4,143	4,433	3,765	1.070	0.4889