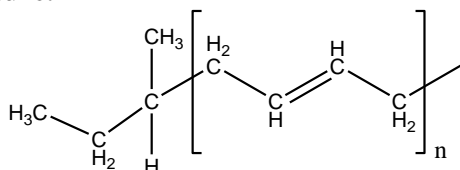


Sample Name: Polybutadiene (1, 4-rich microstructure)

Sample #: P41849-Bd

Structure:



Composition:

Mn x 10 ³	PDI
44.0	1.02

1,4 addition	>92%
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Synthesis Procedure:

The 1,4-addition polybutadiene was prepared by anionic living polymerization of butadiene in non-polar media.

Characterization:

The polymer was characterized by SEC and ¹H NMR.

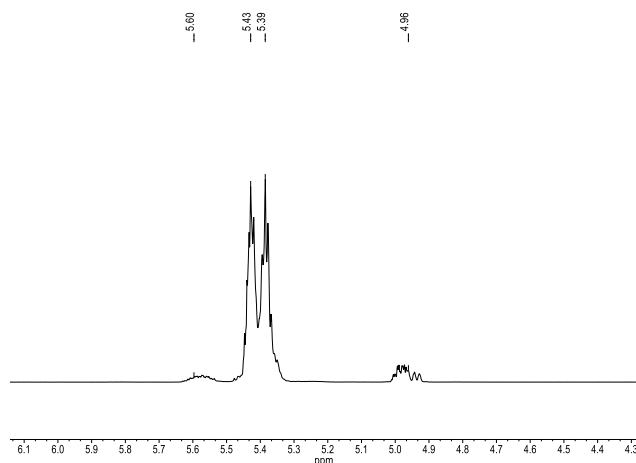
Microstructure:

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

Solubility:

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

¹H NMR spectrum of the polymer:

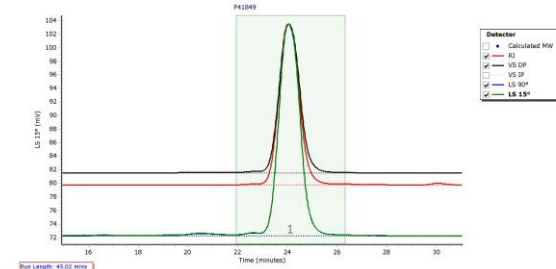


SEC elugram of the polymer:

Agilent GPC/SEC Software

P41849

Chromatogram Plot



Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
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Peak 1	43611	43782	43783	43784	43785	43784	1
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Processing Parameters

Method	RI
Concentration Detector Used in Analysis	RI
Injection volume (μL)	100.00
Flow rate (mL/min)	1.00
Concentration options	Calculate Sample Concentration from Entered Sample Properties
Entered divic (mL/g)	0.127
Entered Ext Coeff ((mg/mL)-1)[cm-1]	1.000