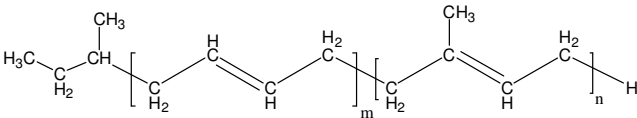


Sample Name: Polybutadiene-*b*-polyisoprene
(predominantly 1,4-addition)

Sample # P19642-BdIp

Structure:



Composition:

Mn × 10 ³ (Bd-b-IP)	Mw/Mn
34.0-b-39.0 (by NMR)	1.03

Synthesis Procedure:

The polymer was synthesized by anionic polymerization in cyclohexane as solvent. In this batch first monomer was isoprene followed by butadiene monomer.

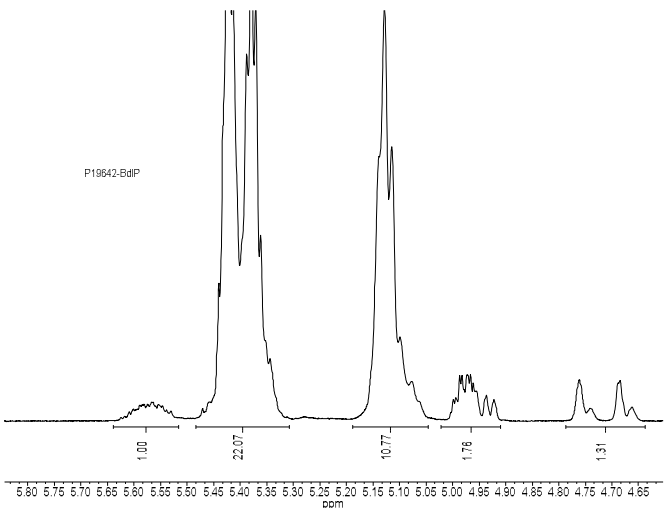
Characterization:

The polymer composition was analyzed by SEC and ¹H NMR analysis.

Thermal analysis:

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

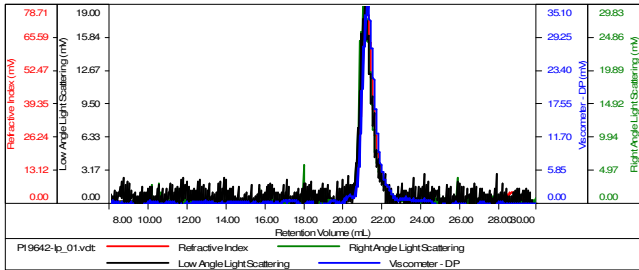
¹H NMR of Bd-IP diblock copolymer in CDCl₃:



SEC elugram:

Sample ID-P19642-IP

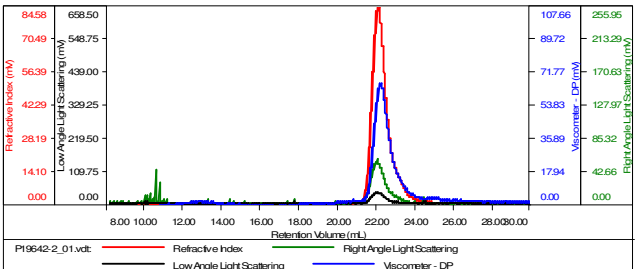
Concentration (mg/mL)	0.4534
Sample dn/dc (mL/g)	0.1220
Method File	PS80K-June30-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19642-IP_01.vdt	38,699	38,716	38,982	1.006	1.7131

Sample ID-P19642-IPBd

Concentration (mg/mL)	0.6009
Sample dn/dc (mL/g)	0.1170
Method File	PS80K-June30-2015-0000.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)
P19642-2_01.vdt	73,272	75,138	70,874	1.025	3.2548