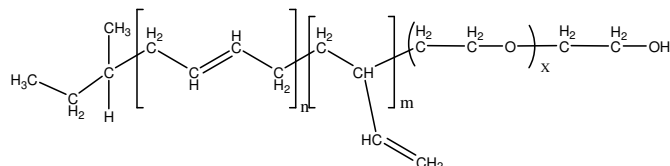


Sample Name: Poly(butadiene-b-ethylene oxide)
Polybutadiene rich in 1,4 microstructure

Sample #: P40108B-BdEO
(polybutadiene block rich in 1,4 microstructure)



Composition:

Mn x 10 ³ Bd-b-EO	Mw/Mn (PDI)
18.5-b-8.0	1.04

PBd microstructure	1,4 addition >85%
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Synthesis Procedure:

The polymer was synthesized by anionic process

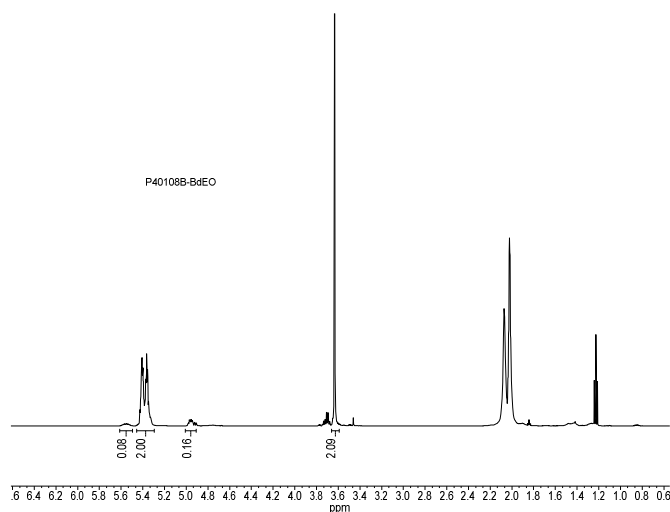
Characterization:

The polymer was characterized by ¹H NMR and SEC.

Solubility:

Poly(butadiene-b-ethylene oxide) is soluble in THF, CHCl₃, and toluene. The polymer has variable solubility in hexane, methanol, ethanol and water depending on its composition.

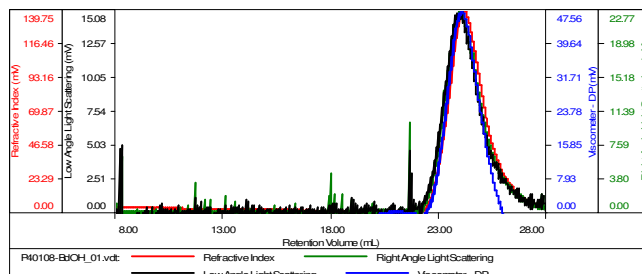
¹H NMR spectrum of the Polymer:



SEC elugram of the block copolymer:

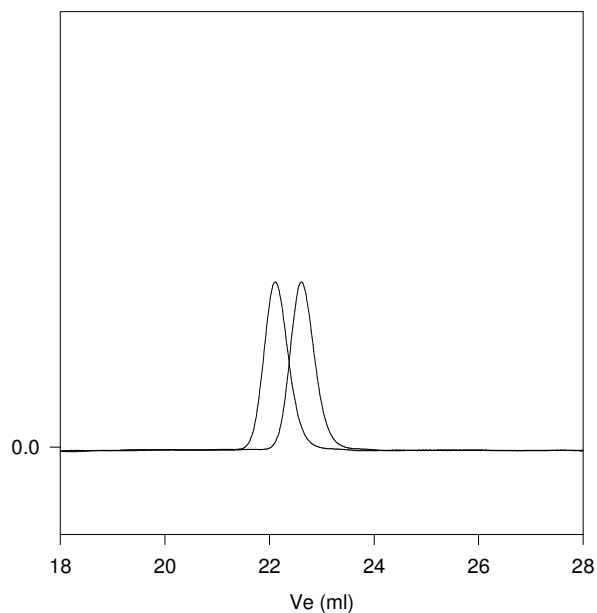
Sample ID: P40108-BdCH

Concentration (mg/mL)	6.3157
Sample dn/dc (mL/g)	0.1090
Method File	PS80K-29August2016-0000.vom
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P40108-BdCH_01.vdt	18,550	19,065	1.028	0.3836	18,476

P40108B-BdEO



Size exclusion chromatography of poly(butadiene-b-ethylene oxide):

- 1,4 polybutadiene M_n=18,500, M_w=19,000 PI=1.03
- Block Copolymer PBd(18,500)-b-PEO(8000), Mw/Mn 1.04 (Composition from ¹H NMR)