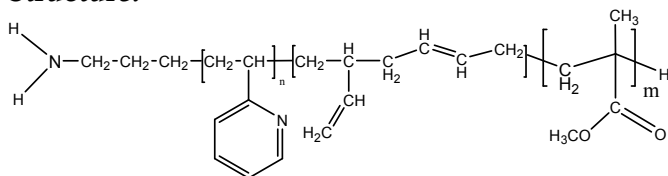


Sample Name:

Amino terminated Polystyrene-b-butadiene (rich in 1,2-addition)-b-methylmethacrylate)

Sample #: P11135B-NH2-SBdMMA

Structure:



Composition:

Mn x 10 ³	PDI
NH2-S-b-Bd-b-MMA	
30.0-b-14.0-b-11.0	1.25
T _g for PS block 100 oC	T _g for Bd block Not clear
	T _g for MMA block Not clear

Synthesis Procedure:

The triblock polymer is synthesized by living anionic polymerization with sequence addition of styrene, butadiene (Bd), followed by methyl methacrylate (MMA). Amino protected lithium based initiator was used. For details you may read our published work.

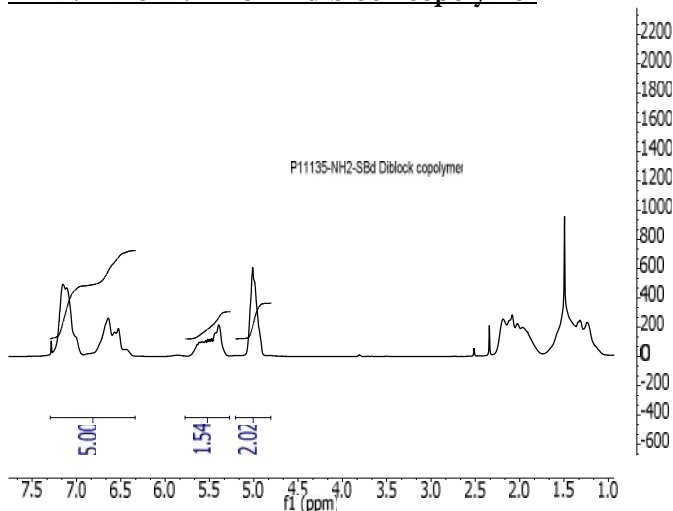
1. Varshney, S. K.; Song, Z.; Zhang, Jian-Xin.; Jerome, Robert. Rapid Communication; J. Polym. Sci. Part A, 2006, 44, 3400.

Characterization: Size exclusion chromatography (SEC): Varian liquid chromatograph equipped with UV and refractive detector. SEC columns from Supelco were used with THF as the eluent.. The molecular weights and the polydispersity index were calculated.

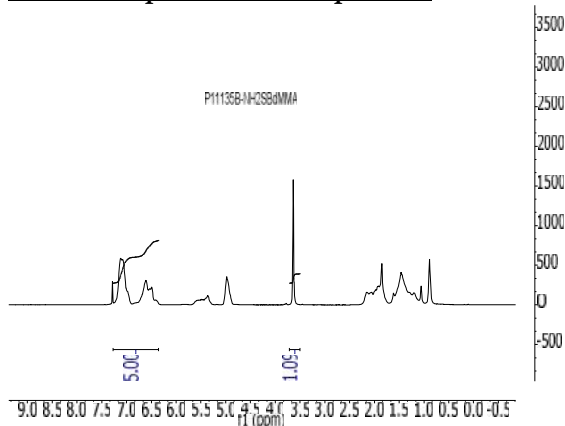
Solubility:

Polymer is soluble in THF, toluene, acetone and CHCl₃. The polymer readily precipitates from hexanes, ether and water.

¹H NMR of NH2-SBd diblock copolymer



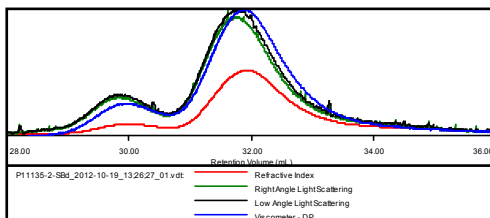
¹H-NMR Spectrum of the product



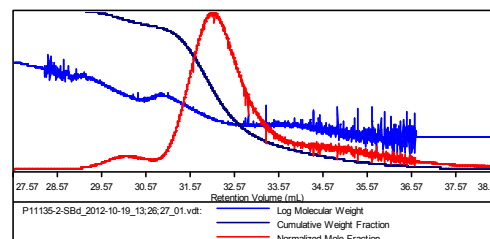
SEC of the polymer: SBd diblock copolymer

Sample ID: P11135-2-SBd

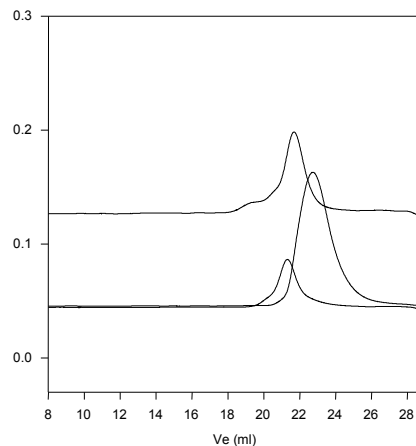
Concentration (mg/mL)	4.3020
Sample dn/dc (mL/g)	0.1700
Method File	PS80K-Oct-2012-0002.vcm
Column Set	3x PL 1113-6300
System	System 1



Sample	Mn (Da)	Mw (Da)	Mp (Da)	Mw/Mn	IV (dL/g)
P11135-2-SBd_2012-10-19_13:26:27_01.vdt	44,958	51,740	46,418	1.151	0.6189



P11135B-NH2SBdMMA



Size exclusion chromatography of NH2-polystyrene-b-butadiene (1,2 rich addition)

- First bloPoly styrene, M_n = 30,000, M_w = 38,000, PI=1.28
- Poly(styrene-b- polybutadiene):PS(30,000)-b-PBd(14,000), PI=1.2
- Poly(styrene-b-Polybutadiene-b-MMA) Mn: 30,000-b-14,000-b-11,000 Mw/Mn : 1.25