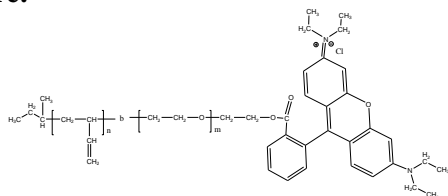


Sample Name: Poly(1,2-butadiene)-b-poly(ethylene oxide), ω -(Rhodamine B)-terminated

Sample # P43297-BdEO-Rhodamine

Structure:



Composition:

$M_n \times 10^3$ (g/mol) [PBd- <i>b</i> -PEO]	M_w/M_n	Polybutadiene: 1,2-addition
0.6-0.35	1.06	85 %

Thermal properties of PBd-*b*-PEO:

Glass transition temperature (T_g):	-21.5 °C
Melting point (T_m):	38 °C

Synthesis:

The polymer was synthesized by anionic polymerization process followed by converting terminal OH group to Rhodamine end terminated block copolymer.

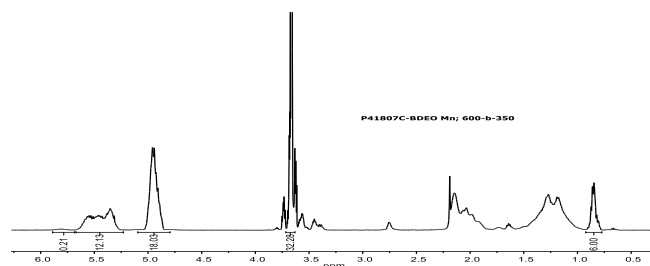
Characterization:

The product was characterized by size exclusion chromatography (SEC) and ^1H NMR.

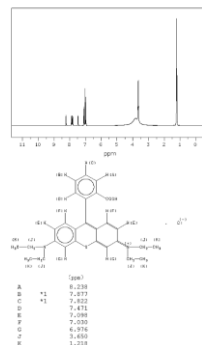
Solubility:

The poly (butadiene-*block*-ethylene oxide) is soluble in THF, chloroform, toluene. Solubility in hexanes, methanol, ethanol, and water depends on the composition of the diblock copolymer.

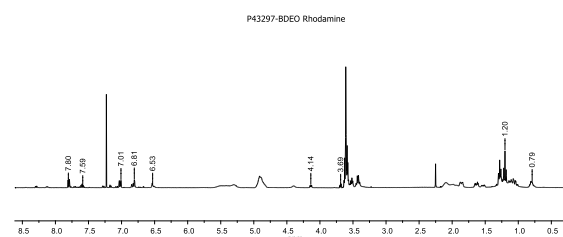
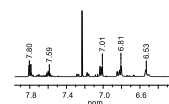
^1H NMR spectrum of the BdEO Polymer: Lot# P41807C



^1H NMR spectrum of Rhodamine in DMSO:

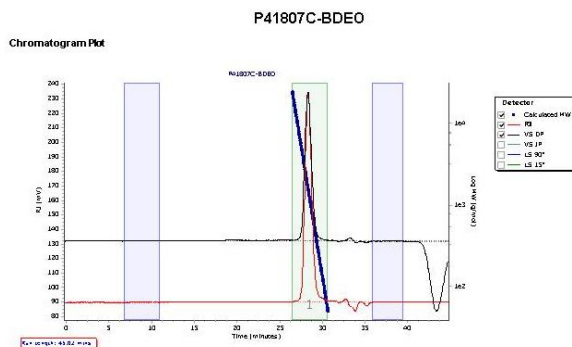


^1H NMR of Rhodamine terminated polymer:

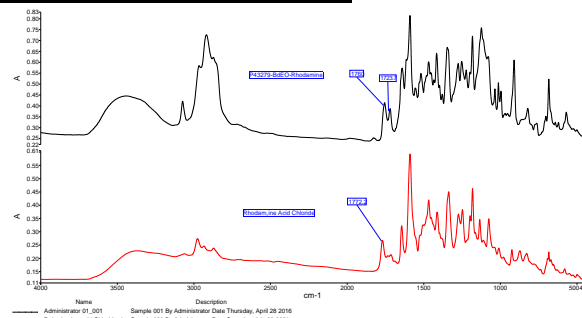


SEC elugrams of PBd-*b*-PEO Sample:

Agilent GPC/SEC Software

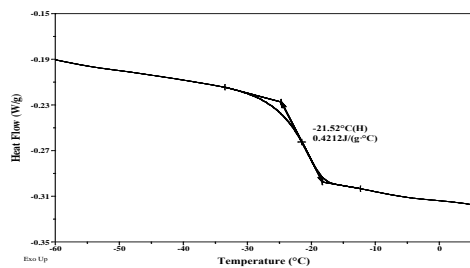


FTIR spectra of the Product:



DSC thermograms of PBd-*b*-PEO diblock copolymer:

- Glass transition temperature (2nd heating scan, 10°C/min):



- Melting point (3rd heating scan, 10°C/min) and crystallization temperature (3rd cooling scan, 10°C/min):

