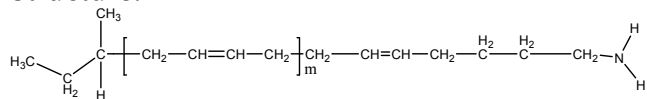


Sample Name: Amino Terminated
Polybutadiene, 1, 4- rich microstructure
Sample #: P18001-BdNH₂

Structure:

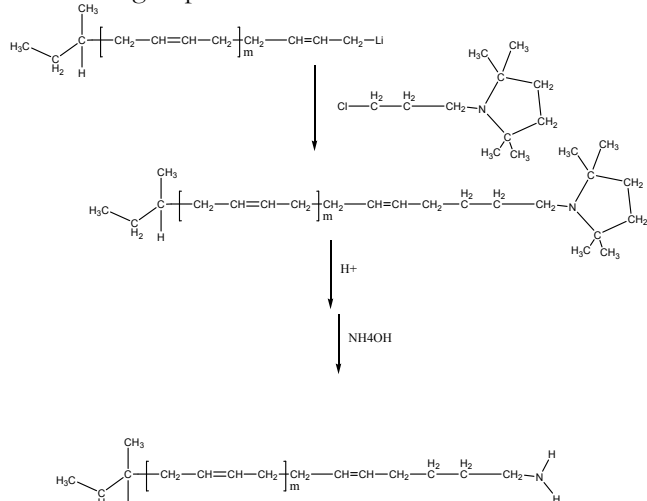


Composition:

Mn x 10 ³	PDI
2.3	1.08
Functionality	>90%
By titration	> 94%

Synthesis Procedure:

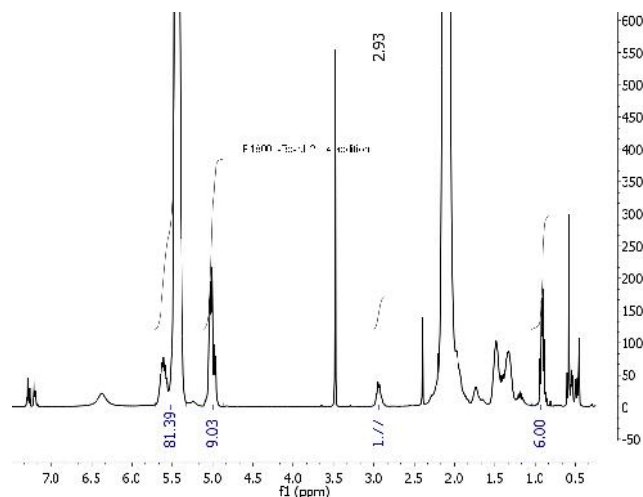
1,4-addition amino terminated polybutadiene was prepared by anionic living polymerization of butadiene in apolar solvent using *Sce. BuLi* followed by termination of polymerization reaction by 2,2,5,5-tetramethyl-1-(3-chloropropyl)-1-aza-2,5-disilacyclopentane, followed by deprotection of NH₂ functional group.



Characterization:

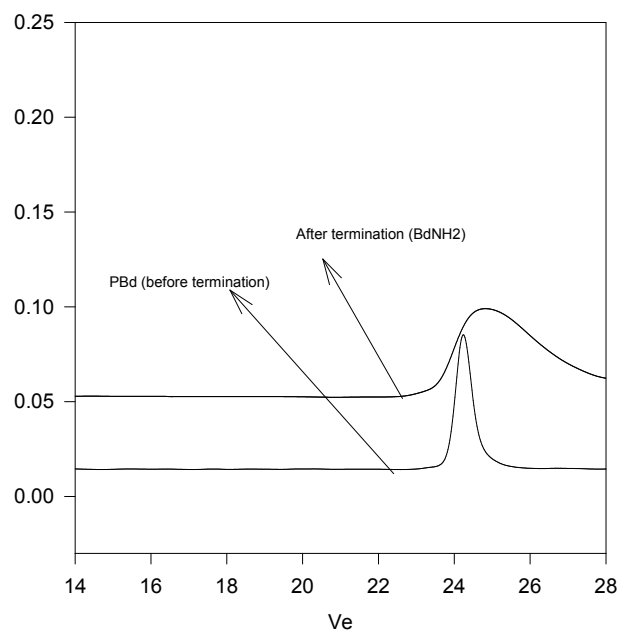
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

Functionality: The functionality of polymer was determined by the titration with HClO₄ using crystal violet as the indicator



GPC of the polymer:

P18001-BdNH₂ (1, 4 addition)



Size Exclusion Chromatography :

— Mn: 2,300 Mw: 2,400 Mw/Mn 1.08

Functionality: > 98%