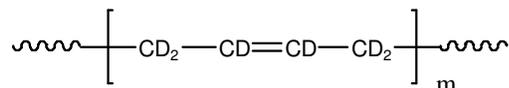


**Sample Name:** Deuterated Polybutadiene- $d_6$  (predominantly 1,4-addition), protonated end-groups.

**Sample #:** P19557-dPBd

**Structure:**

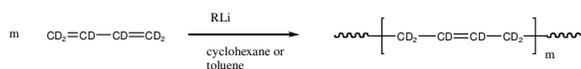


**Composition:**

$M_n \times 10^3$	$M_w/M_n$
66.0	1.11

**Synthesis Procedure:**

Deuterated polybutadiene- $d_6$  was obtained by living anionic polymerization of butadiene- $d_6$  monomer:



**Characterization:**

The molecular weight and polydispersity index ( $M_w/M_n$ ) of the deuterated poly butadiene 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 from Viscotek Co. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used.

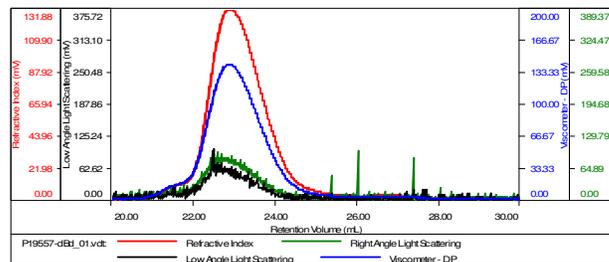
**Solubility:**

Polymer is soluble in toluene, THF and  $\text{CHCl}_3$ .

**SEC of the product:**

Sample ID-P19557-Bd

Concentration (mg/mL)	0.6104
Sample dn/dc (mL/g)	0.1270
Method File	PS30K-Nov-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)
P19557-dBd_01.vct	66,238	73,928	63,241	1.116	10.8206