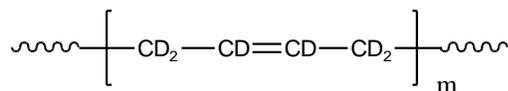


**Sample Name:** Deuterated Polybutadiene-*d*<sub>6</sub> (predominantly 1,4-addition), protonated end-groups.

**Sample #:** P42213B-dBd

**Structure:**

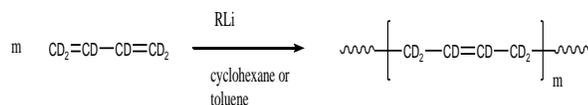


**Composition:**

$M_n \times 10^3$	$M_w/M_n$
522.0	1.46

**Synthesis Procedure:**

Deuterated polybutadiene-*d*<sub>6</sub> was obtained by living anionic polymerization of butadiene-*d*<sub>6</sub> monomer:



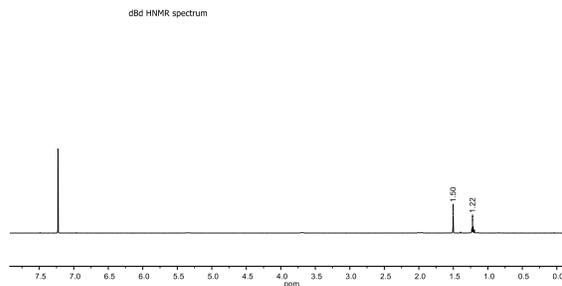
**Characterization:**

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.

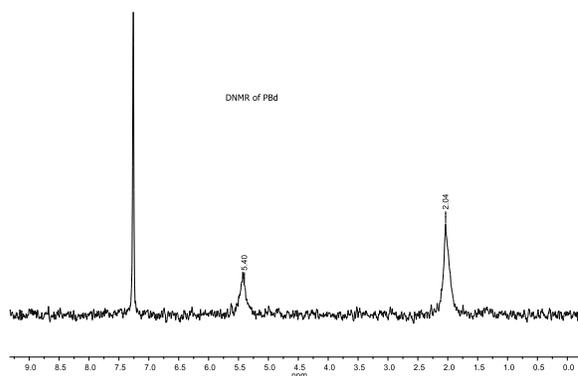
**Solubility:**

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

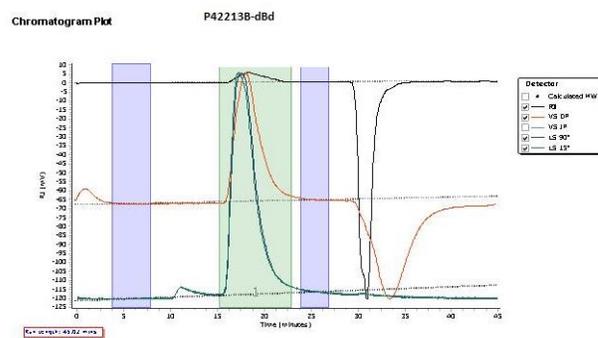
**H NMR spectrum of the Sample:**



**D NMR spectrum of the Sample:**



**SEC elugram of the polymer:**



Molecular Weight Averages							
Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	826238	522658	763346	1015476	1231910	967447	1.461