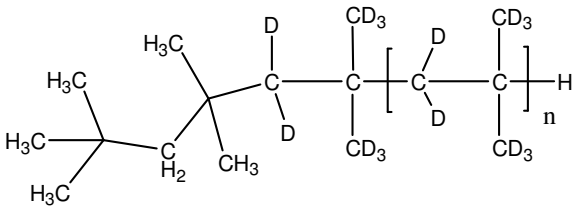
Sample Name: **Deuterated d8 Polyisobutylene**

Sample #:

P18618- Pd8 IB



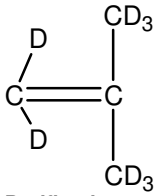
Composition:

Mn x 10^3	PDI
0.9	1.4

Synthesis Procedure:

deuterated d8 Polyisobutylene is synthesized by living cationic polymerization of d4 isobutylene in hexane at –78 °C using a tin based catalyst and a 2,4,4-dimethyl pentene / HCl initiator.

Monomer used was d8 isobutylene



Purification:

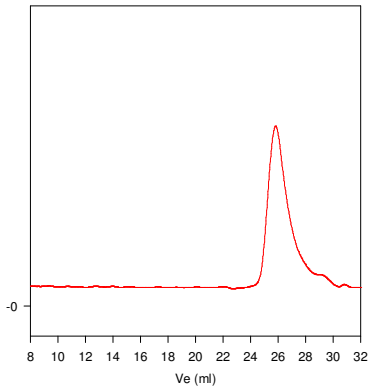
After polymerization the catalyst residues are removed by filtration and washing with acidic water after which the pH is returned to nominal values and finally the polymer is freeze dried.

Characterization:

The molecular weight and polydispersity index (PDI) of polyisobutylene are obtained by size exclusion chromatography.

SEC of Homopolymer:

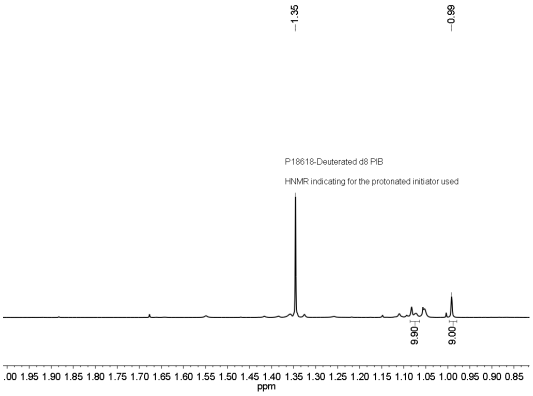
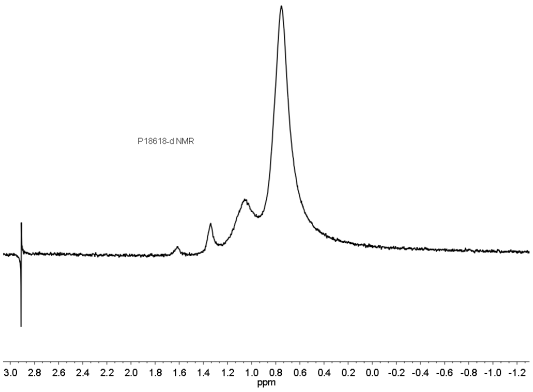
P18618-d8IB



Size Exclusion Chromatogram of Polyisobutylene:

M_n=900, M_w=1,300, M_w/M_n = 1.4

HNMR of the Polymer:



D NMR