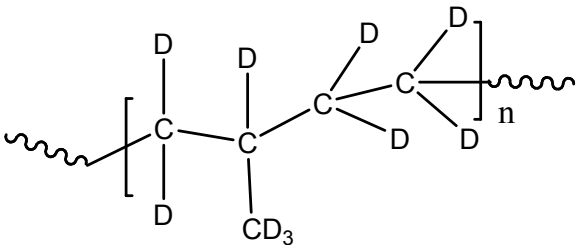
Sample Name:
Deuterated Propylene ethylene
(obtained from deuteration of Polyisoprene-d8
(1,4-addition rich polymer)

Sample #: **P9122A-dPrE**

Structure:



Composition:

Mn x 10^3	PDI
42.0	1.2

Synthesis Procedure:
Polyisoprene is obtained by anionic polymerization of deuterated (d8) isoprene. It was deuterated under pressure using Pd/CaCo3 catalyst at 400psi for 3 days.

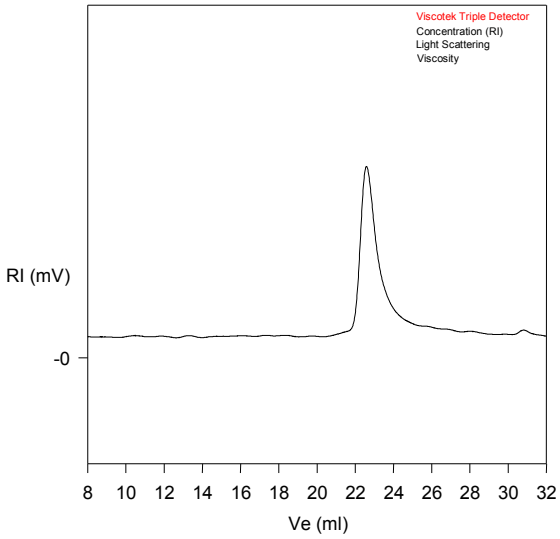
Characterization:

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.

Solubility:
Polymer is soluble in THF, toluene, hexane and chloroform. This polymer precipitates from methanol.

SEC of Sample:

P9122-dPIP (1,4 addition)
used for P9122A-dPrE



Size Exclusion Chromatography of Poly isoprene deuterated
M_n = 41,000, M_w = 49,000, M_w/M_n = 1.2
data from light scattering detector:
After deuteration: Mn 42,000 Mw/Mn : 1.2

Deuterium NMR of Monomer used :