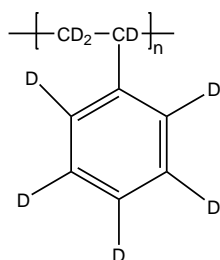


Sample Name: Deuterated Polystyrene (d<sub>8</sub>)

Sample #: P19911H-dPS

**Structure:**

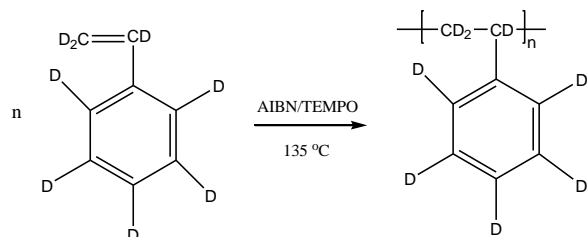


**Composition:**

Mn x 10 <sup>3</sup>	PDI
783.0	1.20

**Synthesis Procedure:**

Deuterated polystyrene-d<sub>8</sub> is obtained by controlled radical polymerization of styrene-d<sub>8</sub> as illustrated below:



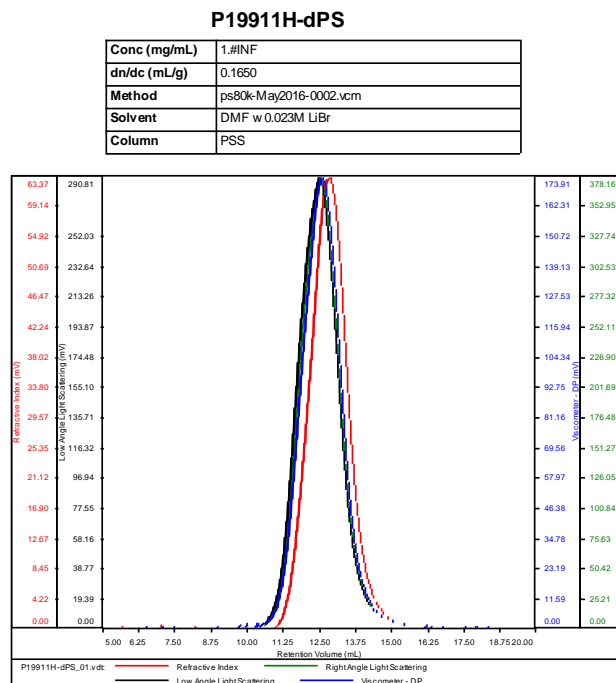
**Characterization:**

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 light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

**Solubility:**

Deuterated polystyrene-d<sub>8</sub> is soluble in DMF, THF, toluene and CHCl<sub>3</sub>. It precipitates from methanol, ethanol, water and hexanes.

**SEC elugram of Homopolymer:**



Sample	Mn	Mw	Mp	Mw/Mn	IV
P19911H-dPS_01.vdt	782,942	941,646	779,592	1.203	1.3766