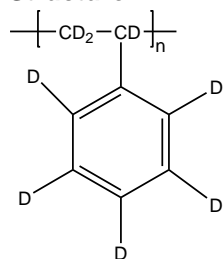


Sample Name: Deuterated Polystyrene-d₈

Sample #: P14631-dPS

Structure:

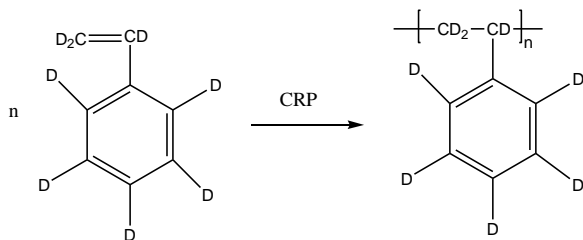


Composition:

| | |
|----------------------|------|
| Mn x 10 ³ | 9.0 |
| Mw x 10 ³ | 10.5 |
| PDI | 1.18 |

Synthesis Procedure:

Deuterated polystyrene-d₈ is obtained by controlled radical living polymerization of styrene-d₈ 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.

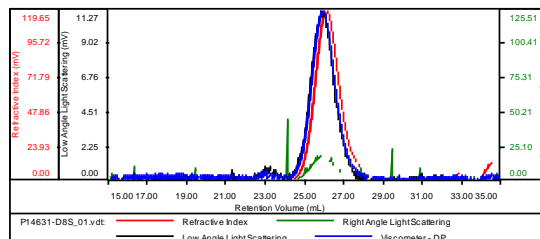
Solubility:

Deuterated polystyrene-d₈ is soluble in DMF, THF, toluene and CHCl₃. It precipitates from methanol, ethanol, water and hexanes.

SEC of deuterated polystyrene:

Sample ID: P14631-D8S

| | |
|-----------------------|---------------------------|
| Concentration (mg/mL) | 4.9961 |
| Sample dn/dc (mL/g) | 0.1700 |
| Method File | PS80K-NOV25-2013-0000.vcm |
| Column Set | 3x PL 1113-6300 |
| System | System 1 |



| Sample | Mn | Mw | Mp | Mw/Mn | IV |
|-------------------|-------|--------|--------|-------|--------|
| P14631-D8S_01.vdt | 8,879 | 10,491 | 10,320 | 1.182 | 0.1003 |

