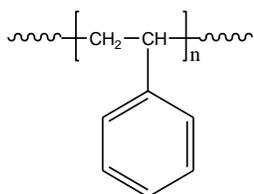


**Sample Name: Polystyrene-Broad Distribution**

**SEC profile of the polymer:**

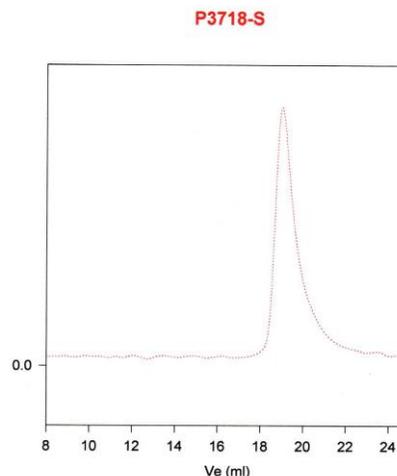
**Sample #: P3718-S**

**Structure:**



**Composition:**

$M_n \times 10^3$	PDI
455.0	1.5

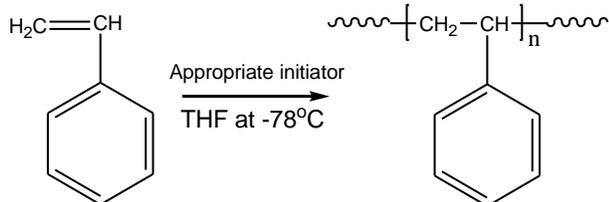


Size exclusion chromatography of polystyrene:

$M_n=455000$   $M_w=679000$   $PI=1.5$

**Synthesis Procedure:**

Polystyrene is obtained by living anionic polymerization of styrene 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 UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

**Solubility:**

Polystyrene is soluble in DMF, THF, toluene and  $\text{CHCl}_3$ . It precipitates from methanol, ethanol, water and hexanes.