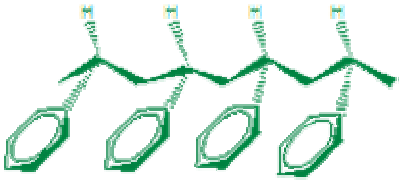
Sample Name: **Isotactic Polystyrene**

Sample #: **P2769-Siso**

Structure:



Composition:

Mn x 10^3	PDI	Iso-contents
31.0	3.48	Over 99%

Synthesis Procedure:
Polystyrene is obtained by living anionic polymerization of styrene in Hexane or in Toluene using LiOH as additive . Polymerization at -30 oC for 4 days and fractionation of isotactic rich polystyrene by methyl ethyl ketone.(MEK). Iso tactic polystyrene is insoluble in MEK.

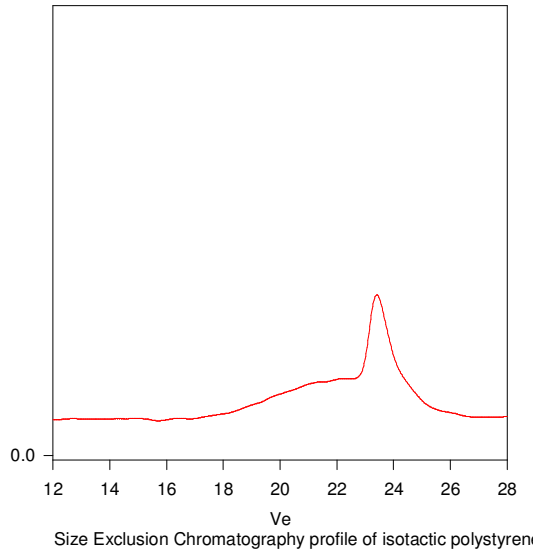
Characterization:

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 THF, and $CHCl_3$. It precipitates from methanol, ethanol, water and hexanes.

SEC of Homopolymer:

P2769-isoS



Size Exclusion Chromatography profile of isotactic polystyrene:
Low mole Wt fraction: M_n= 7500
High Mole Wt Fraction: Mn 57000
Total Molecular weight: Mn 31000 Mw/Mn 3.48

^{13} C spectrum of the Polymer:

