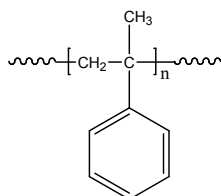


Sample Name: Poly(α -methyl styrene)

Sample #: P4879A-MeS (electronic grade)

Structure:

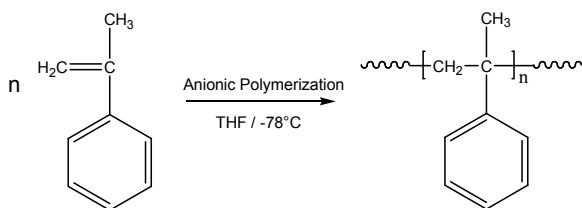


Composition:

Mn x 10 ³	PDI
340.0	1.10

Synthesis Procedure:

Poly(α -methyl styrene) is synthesized by living anionic polymerization of α -methyl styrene and the reaction scheme is shown 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.

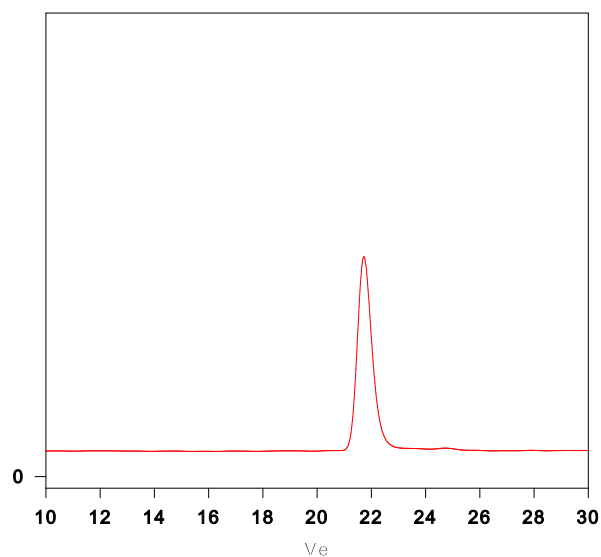
Solubility:

Poly(α -methyl styrene) is soluble in DMF, THF, toluene and CHCl₃. It precipitates from methanol, ethanol, water and hexanes.

Purification and Filtration: The obtained polymer was dissolved in benzene and filter through a membrane 0.5 μ nylon filter. The obtained solution was freeze dried under vacuum.

SEC of Homopolymer:

P4879-() MeS



Size exclusion chromatography of Poly(α -methyl styrene) with on-line TriSEC detector:

M_n=340,000, M_w=374,000, M_w/M_n=1.10

Solution viscosity in THF at 35 °C: 1.148dl/g

Radius of Gyration:23.07nm