

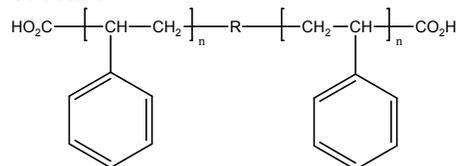
Sample Name:
 α,ω -Carboxy Terminated Polystyrene

Solubility: Polymer is soluble in THF, Dioxane, CHCl_3 and precipitated out from methanol/water, and in cold hexane.

Sample #: P4573-S2COOH

SEC of Sample:

Structure:

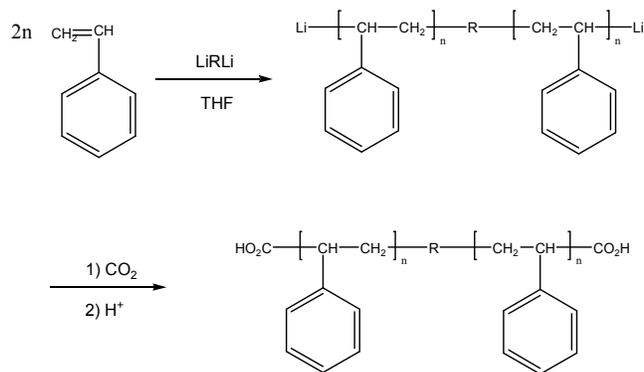


Composition:

$\text{Mn} \times 10^3$	PDI
8.0	1.09

Synthesis Procedure:

The functionalized polymer was prepared by anionic living polymerization of styrene using bifunctional as initiator in THF followed by terminating the polymerization reaction with dried CO_2 . The scheme of the reaction is illustrated below:



Characterization:

The molecular weight and polydispersity index of this polymer were determined before the addition of the carboxy function by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. Polymer functionality was determined by the titration with NaOH using phenolphthalein as the indicator.