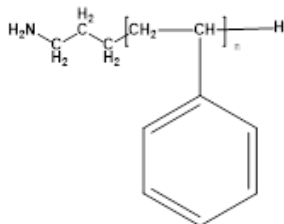


**Sample Name: Amino Terminated Polystyrene**

**Sample #: P44249R-SNH2**

**Structure:**

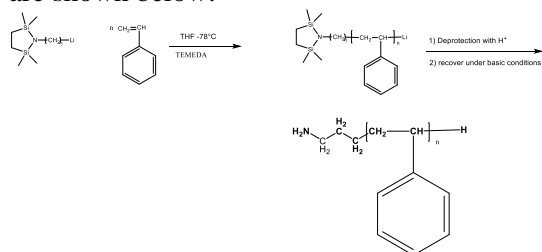


**Composition:**

$M_n \times 10^3$	PDI
41.0	1.45

**Synthesis Procedure:**

$\alpha$ -amino terminated polystyrene was synthesized by anionic living polymerization with different end-grouping strategies. The reaction schemes are shown below:



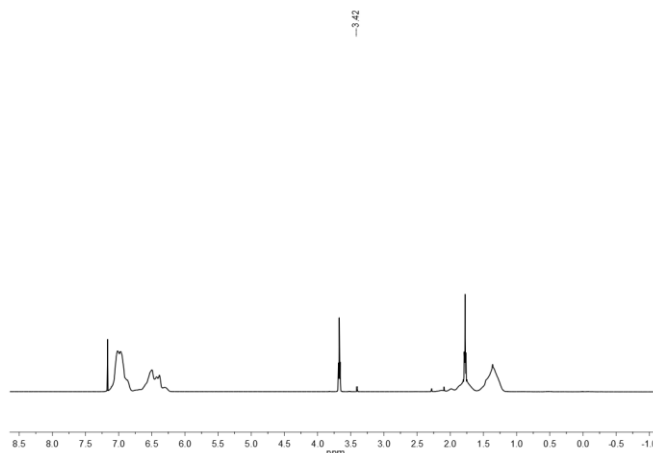
**Characterization:**

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. However, amino terminated polystyrene was found to interact with chromatography columns and therefore the amino group was protected by reaction with 1-naphthyl isocyanate before GPC analysis. Removal of the protecting group was confirmed by UV spectroscopy and the degree of functionality was confirmed by titration with  $\text{HClO}_4$  using crystal violet as the indicator.

**Solubility:**

Polymer is soluble in THF,  $\text{CHCl}_3$  and toluene. It precipitated out from methanol and hexane.

**HNMR spectrum of the Sample:**



**SEC profile of the Sample:**

