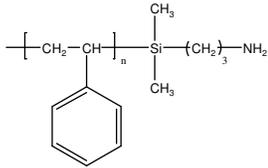


**Sample Name: Amino Terminated Polystyrene**

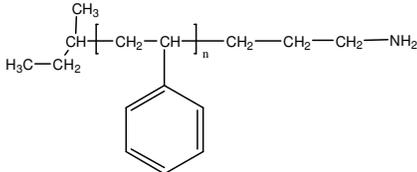
**Sample #: P19596-SNH2**

**This lot bears structure # 2**

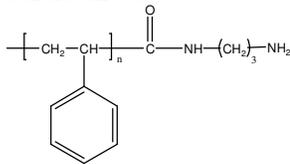
**Structure 1:**



**Structure 2:**



**Structure 3:**

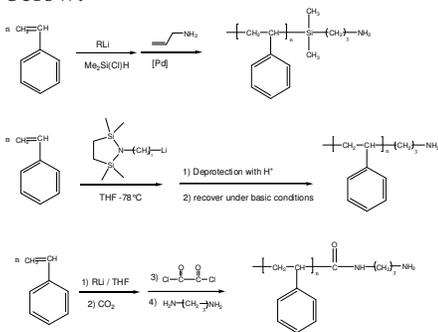


**Composition:**

Mn × 10 <sup>3</sup>	PDI
19.5	1.06

**Synthesis Procedure:**

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



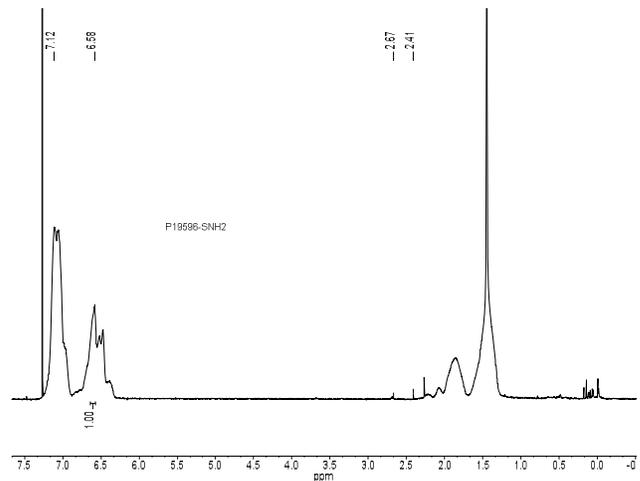
**Characterization:**

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 HClO<sub>4</sub> using crystal violet as the indicator.

**Solubility:** Polymer is soluble in THF, CHCl<sub>3</sub> toluene and precipitated out from methanol and hexane.

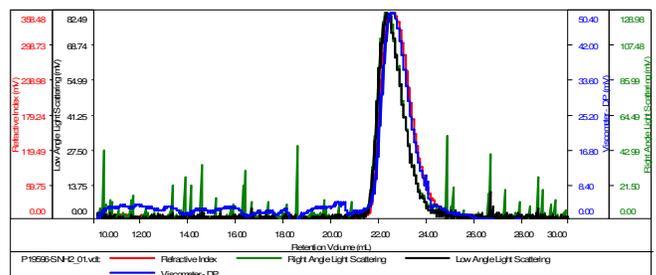
**<sup>1</sup>H NMR:**



**SEC of Sample:**

**Sample ID-P19596-SNH2**

Concentration (mg/mL)	2.6760
Sample dn/dc (mL/g)	0.1850
Method File	PS30K-June30-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19596-SNH2_01.vdt	19,522	20,741	23,123	1.062	0.7318