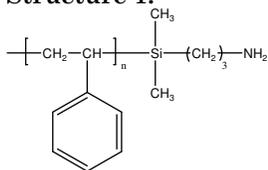


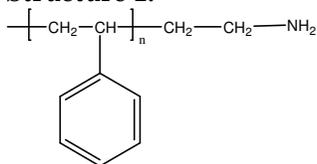
Sample Name: Amino Terminated Polystyrene

Sample #: P18806-SNH2 (This lot bears structure # 2)

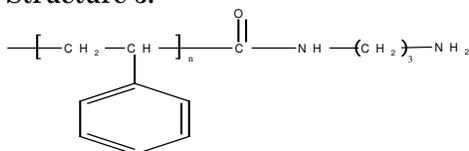
Structure 1:



Structure 2:



Structure 3:

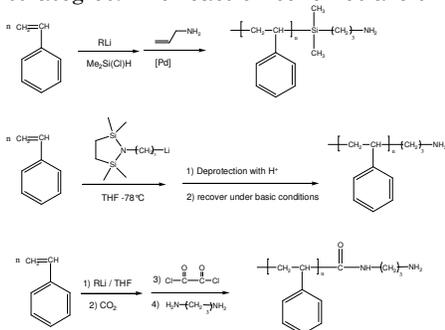


Composition:

$M_n \times 10^3$	PDI
1.5	1.16
Fnctionality	> 95%

Synthesis Procedure:

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



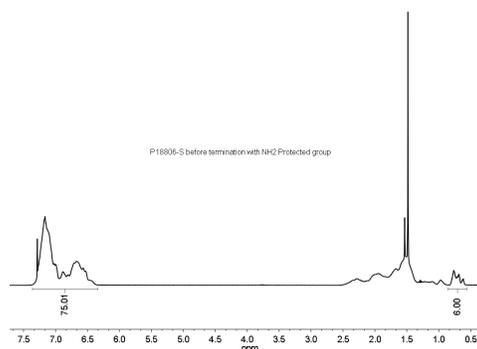
Characterization:

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_4 using crystal violet as the indicator.

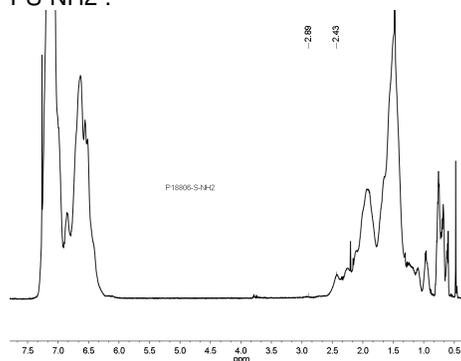
Solubility:

Polymer is soluble in THF, CHCl_3 , toluene and precipitated out from methanol and hexane.

H NMR:



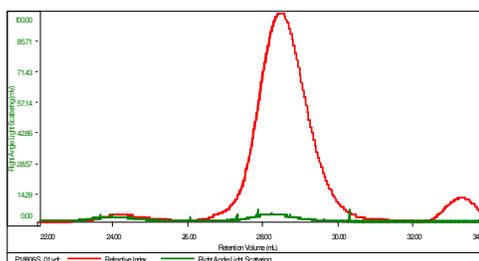
PS-NH2 :



SEC of Sample:

Sample ID: P18806-SNH2 (before deprotection of NH2 group)

Concentration (mg/mL)	0.8554
Sample ch/d/c (mL/g)	0.1850
Method File	PS80K_July11-2014-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn	Mw	Mp	Mw/Mn	IV
P18806-S_01.vd	1,465	1,701	1,723	1.161	0.2440

