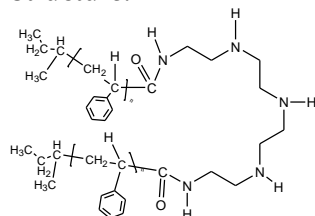


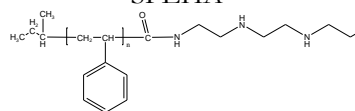
Sample Name: Polystyrene bearing Pent ethyl
Hexamine unit in the middle of polymer chain
Sample #: P18909C-S 2PEHA

Structure:

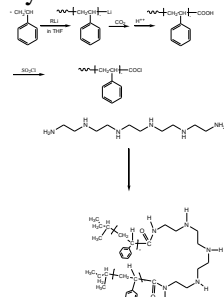


Composition:

Mn x 10 ³	PDI
5.0	1.3
Contain about 10% SPEHA	



Synthesis Procedure:



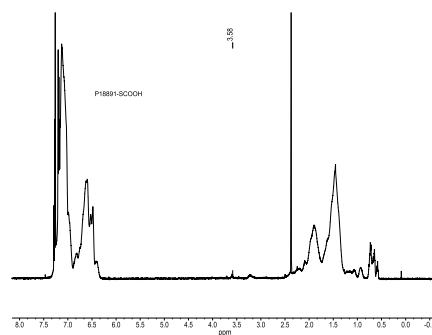
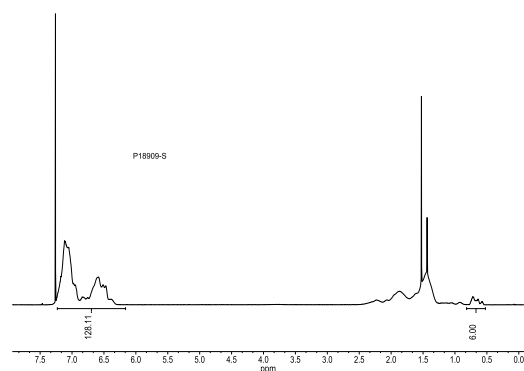
Characterization:

The molecular weight and polydispersity index of this polymer were determined before addition of the CO₂H function, by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. Polymer functionality was determined by titration with NaOH using phenolphthalein as the indicator.

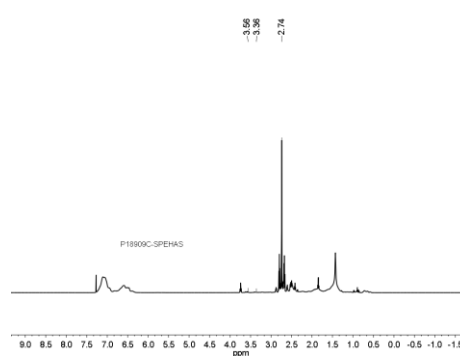
Solubility:

Polymer is soluble in toluene, THF, CHCl₃ and can be precipitated in water and cold methanol.

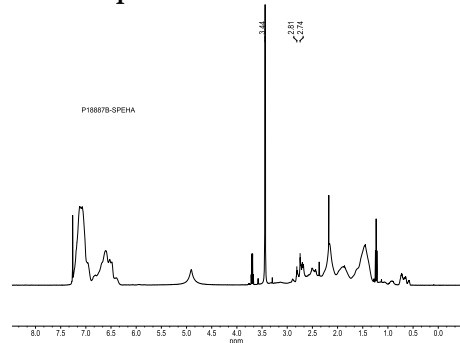
H NMR:



SPEHAS

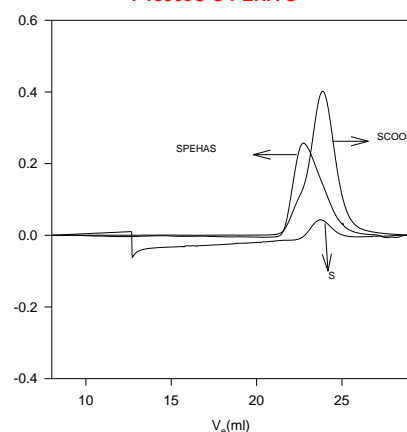


For comparison HNMR with terminal PEHA:



SEC of Sample: used for end functionalization with Pentaethylene hexamine

P18909C-S-PEHA-S



Size exclusion chromatography of polymer in THF at 30 oC

1. PS-COOH Mn =2,500 Mw: 2,700 Mw/Mn:1.08
2. PS-PEHA-S Mn 5,000 Mw/Mn 1.3

Contain about 10% S-PEHA