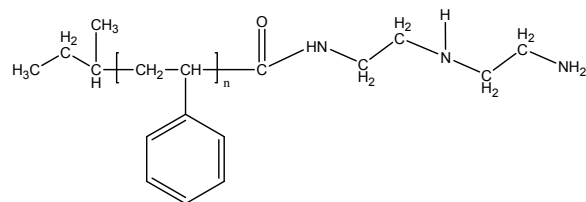


Sample Name:
Diethylene Triamine Terminated Polystyrene

Sample #: **P18058B-SDTA**

Structure:



Composition:

Mn x 10 ³	PDI
2.6	1.10
Functionality %	98

Synthesis Procedure:

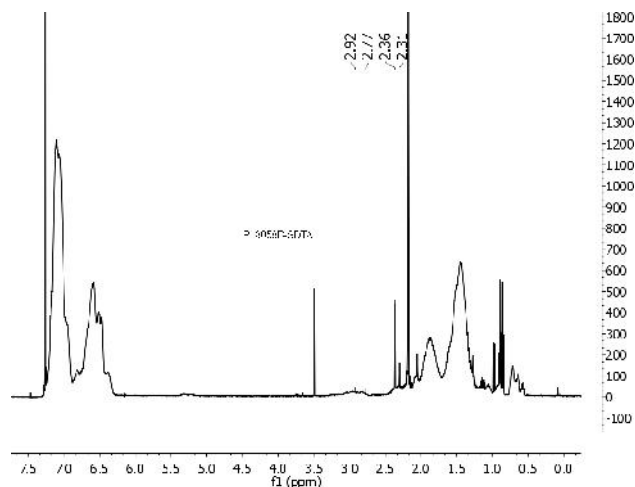
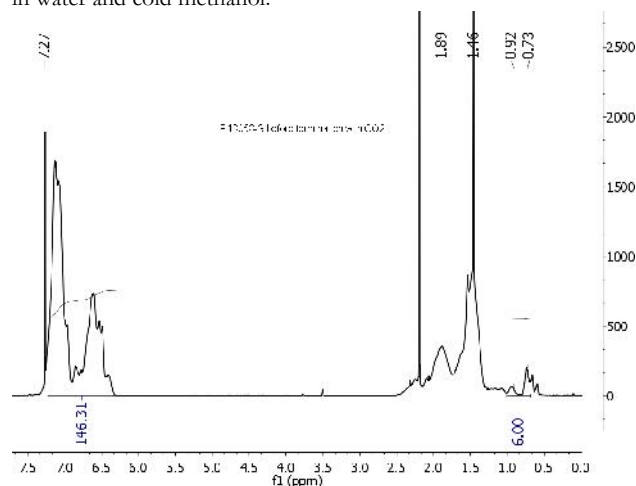
By anionic polymerization.

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.

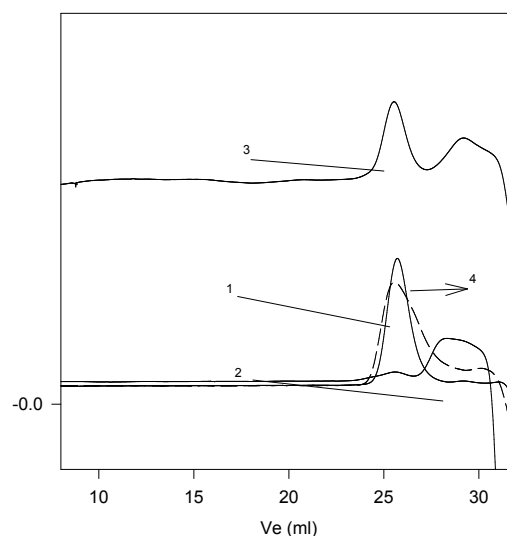
Solubility:

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



SEC of Sample:

P18058B-SDTA



Size exclusion chromatography of polystyrene bearing different end group

1. Polystyrene : M_n=2600, M_w=2800, PI=1.10, functionality>99%
2. COOH terminated PS: Strong adsorption with Column packing material:
Also indicated quantitative functionalization
3. Polystyrene Carboxylic acid Chloride terminated
4. After reaction with diethylene tetraamine: Broadening due to adsorption with Column packing material