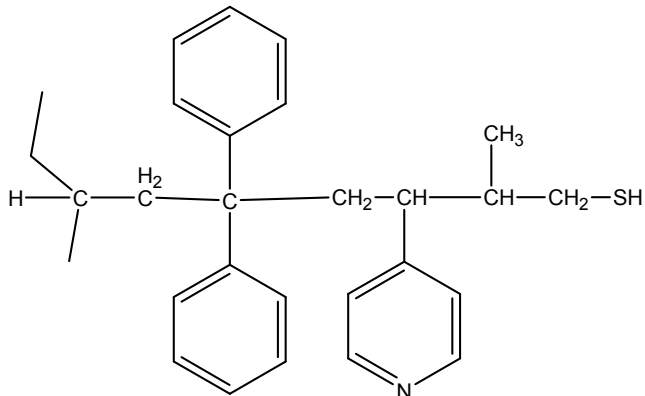


Sample Name:

Thiol Terminated Poly(4-Vinyl Pyridine)

Sample #: P8383-4VPSH

Structure:



Composition:

Mn x 10 ³	PDI
2.5	1.2
T _g (°C)	96

Synthesis Procedure:

Thiol terminated poly(4-vinyl pyridine) was prepared by living anionic polymerization of 4-vinyl pyridine in THF. The methodology for the SH fictionalization is proprietary.

Characterization:

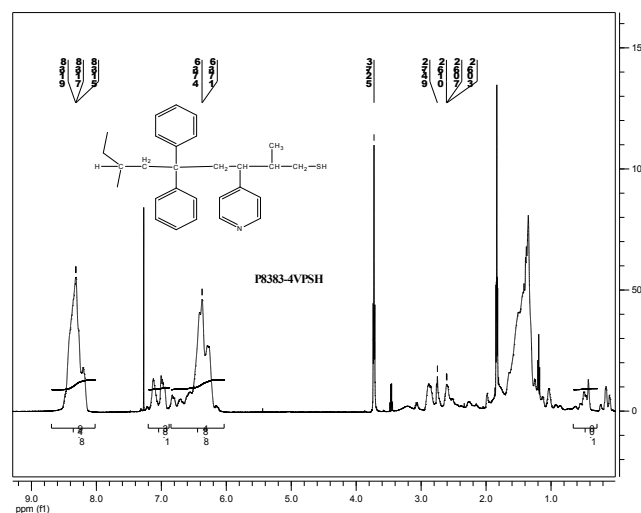
The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC) in THF. SEC analysis was performed on a Varian liquid chromatograph equipped with refractive and UV light scattering detectors. Three SEC columns from Supelco (G6000-4000-2000 HXL) were used with triple detectors from Viscotek Co.

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

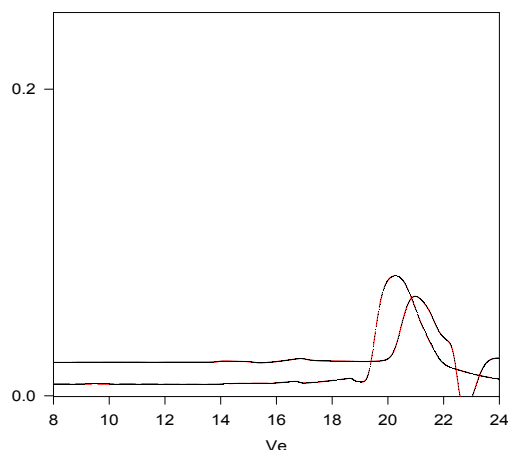
Polymer is soluble in DMF, THF, toluene, methanol, ethanol and CHCl₃. It precipitates from water and hexanes.

H NMR of the Polymer:



SEC of Sample:

P8383- 4VPSH



Size Exclusion Chromatography profile of the product:

- Before SH end functionalized Poly 4VP M_n = 2500, M_w = 3000, PI=1.2
- - - Thiol ended Poly 4VP after oxidation in the presence of iodine crystal. Formation of disulfide and the molecular weight increase by 2 folds: These results shows quatitative functionality

DSC thermogram for the polymer:

