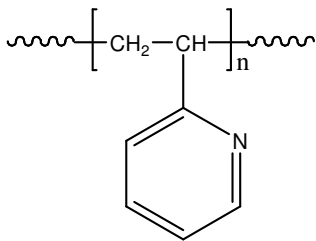


Sample Name: Poly(2-vinyl pyridine)

Sample #: P8098A-2VP

Structure:



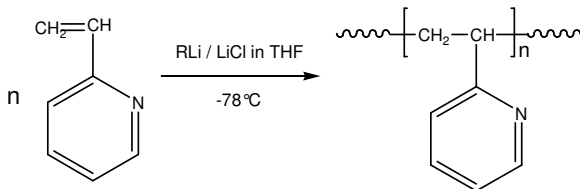
Composition:

$M_n \times 10^3$	PDI
1.5	1.25

Glass transition temperature (T _g):	45 °C
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Synthesis Procedure:

Poly(2-vinyl pyridine) is obtained by living anionic polymerization of 2-vinyl pyridine using an adduct of Sec. butyllithium and diphenyl ethylene-LiCl. Polymerization is carried out in THF at -78°C . Polymerization reaction is terminated using degassed methanol. The reaction scheme is illustrated as follows:



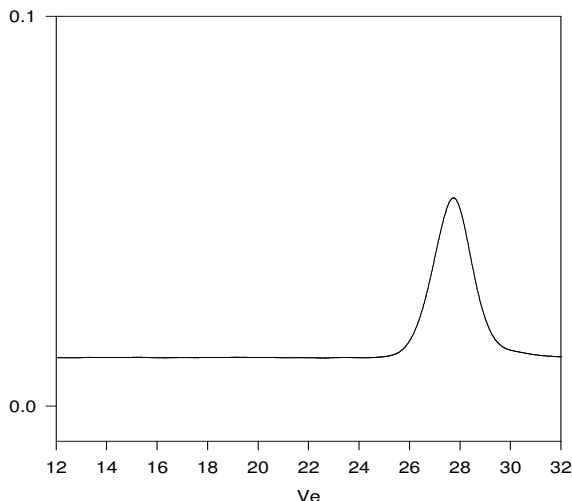
Characterization:

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.

Solubility:

Poly 2 vinylpyridine is soluble in DMF, THF, toluene, methanol, ethanol and CHCl_3 . It precipitates from water and hexanes, ether.

SEC elugram of the polymer : P8098A-2VP



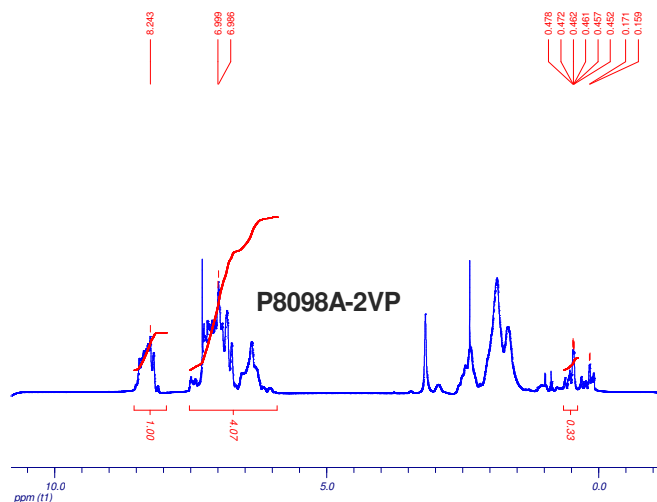
Size exclusion chromatography of poly(2-vinylpyridine) in THF

$M_n=1500$, $M_w=1900$, $PI=1.25$

dn/dc in THF at 35°C : 0.167ml/g

$^1\text{H NMR}$ M_n : 1500

$^1\text{H NMR}$ spectrum of the Polymer:



DSC thermogram (2nd heating scan, 10°C/min):

