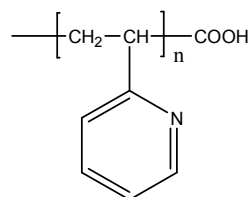


**Sample Name:**  
**Carboxy Terminated Poly(2-Vinyl Pyridine)**

**Sample #:** P2260- 2VPCOOH

**Structure:**

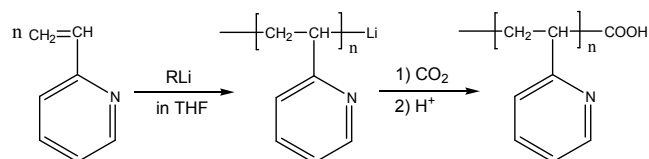


**Composition:**

$M_n \times 10^3$	PDI
40.6	1.08
$T_g$ for the functional polymer	89°C

**Synthesis Procedure:**

Carboxy terminated poly(2-vinyl pyridine) was prepared by living anionic polymerization of 2-vinyl pyridine in THF followed by termination with dried  $\text{CO}_2$ . The scheme of the reaction is illustrated below:



**Characterization:**

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

**Thermal analysis:**

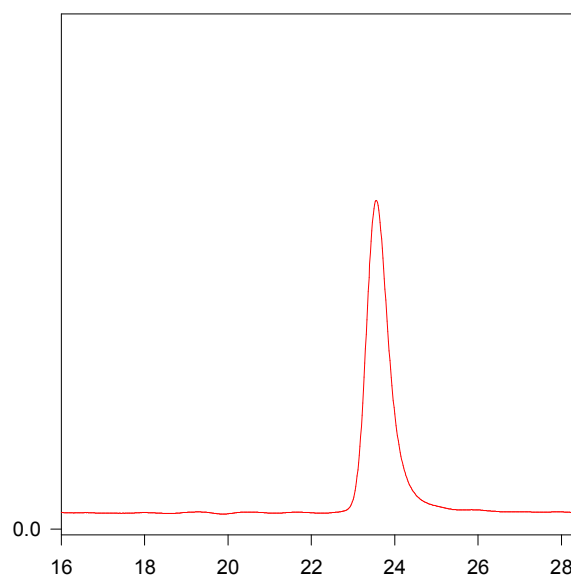
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min. The inflection glass transition temperature ( $T_g$ ) has been considered.

**Solubility:**

Polymer is soluble in DMF, THF, toluene, methanol and  $\text{CHCl}_3$ . It precipitates from hexane, ether.

**SEC of Sample:**

**P2260- 2VPCOOH**



Size Exclusion Chromatography profile of the product:  
Carboxy Terminated Poly(2-vinyl pyridine)

$M_n = 40600$ ,  $M_w = 43800$ ,  $PI = 1.08$

**DSC thermogram for the sample:**

