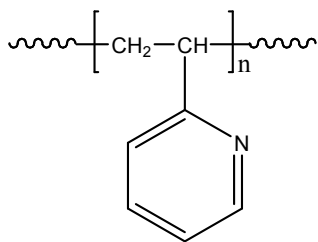


Sample Name: **Poly(2-vinyl pyridine)**

Sample #: **P2VP56K**

Structure:

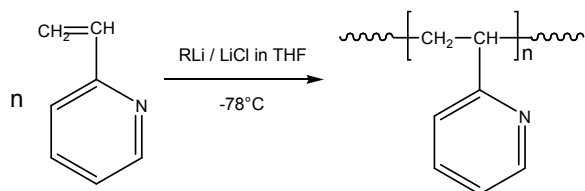


Composition:

| Mn x 10 ³ | PDI |
|----------------------|------|
| 56.0 | 1.06 |

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. Polymerization is carried out in THF at -78 °C. Polymerization reaction is terminated using degassed methanol. The reaction scheme is illustrated as follows:



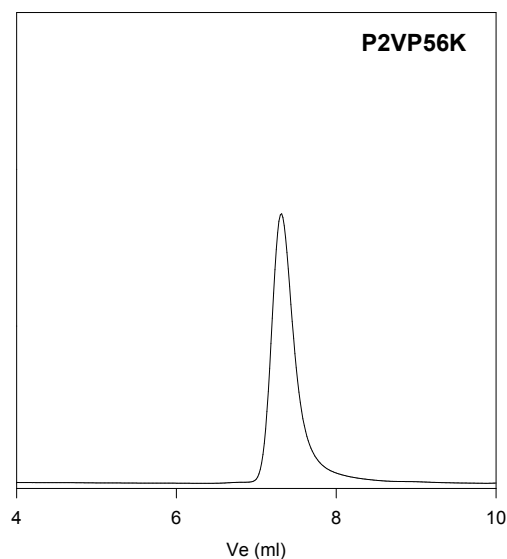
Characterization:

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 CHCl₃. It precipitates from water and hexanes, ether.

SEC of Sample:



Results of size exclusion chromatography analysed in DMF:

Mn=56000, Mw=59000, Mz=61000, PI=1.06