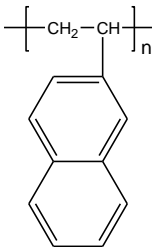


Sample Name: Poly(2-vinyl naphthalene)

Sample #: P10987B-2VN

Structure:

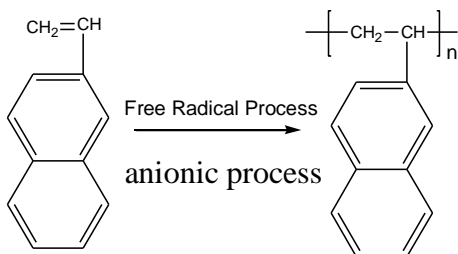


Composition:

Mn x 10 ³	PDI
20.0	2.0

Synthesis Procedure:

Poly(2-vinyl naphthalene) is synthesized by free radical or anionic living polymerization 2-vinyl naphthalene and the reaction scheme is below.



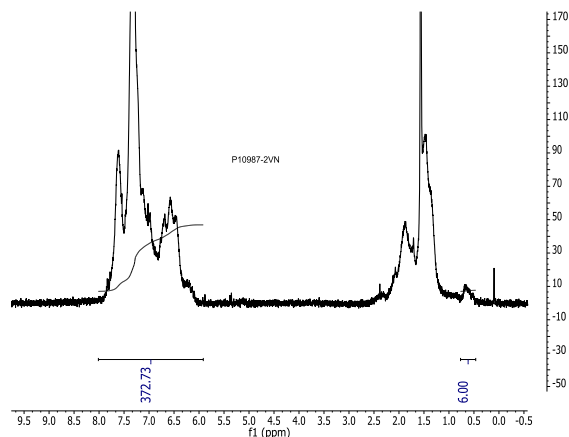
Characterization:

A Varian 9002 liquid chromatography equipped with three columns from Supelco (G2000, G4000, and G6000 HXL) and a Varian RI-4 refractive index, a Viscotek T60A dual detector with laser scattering (LS) and viscosity differential pressure (DP) were used to measure the number and weight average molecular weights (M_n and M_w , respectively) of the polymer. THF with 1% of triethylamine in volume was used as eluent. Narrow molecular weights polystyrene and PMMA standards (Polymer Source Inc) were used to generate the calibration curve.

Solubility:

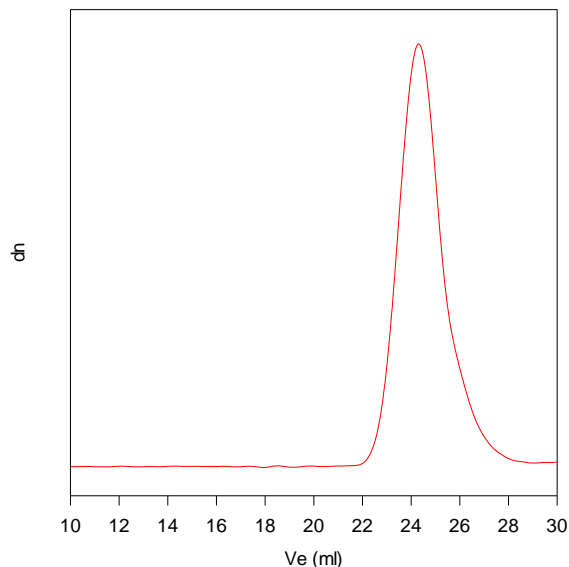
Poly(2-vinyl naphthalene) is soluble in DMF, THF, toluene and CHCl_3 . It precipitates from methanol, ethanol, water and hexanes.

1H NMR of the polymer



SEC of the polymer:

P10987B-2VN



Size Exclusion Chromatography of Poly(2-Vinylnaphthalene)

$M_n=20,000$, $M_w=40,000$, $PI=2.0$

dn/dc in THF at 35 °C: 0.230 ml/g

Solution viscosity in THF at 35 °C: 0.17dl/g

References:

For details, please see the following article:

Faquan Zeng, Mu Yang, Jianxin Zhang, **Sunil K. Varshney**, "Synthesis and characterization of block copolymers from 2-vinylnaphthalene by anionic polymerization" J. of Polymer Science, Journal of Polymer Science Part A: Polymer Chemistry, 40, 24, 4387-4397 2002.