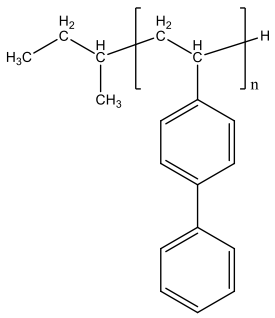
Product Profile

Identification

Product Name: POLY(4-VINYL BIPHENYL)
Product Lot Number: P19913A-R-4VBP
CAS: 25232-08-0
Product Chemical Architecture:



Composition:

Mn x 10^3	Mw/Mn (PDI)	dn/dc (mg/mL) in THF
2511.0	1.10	0.184

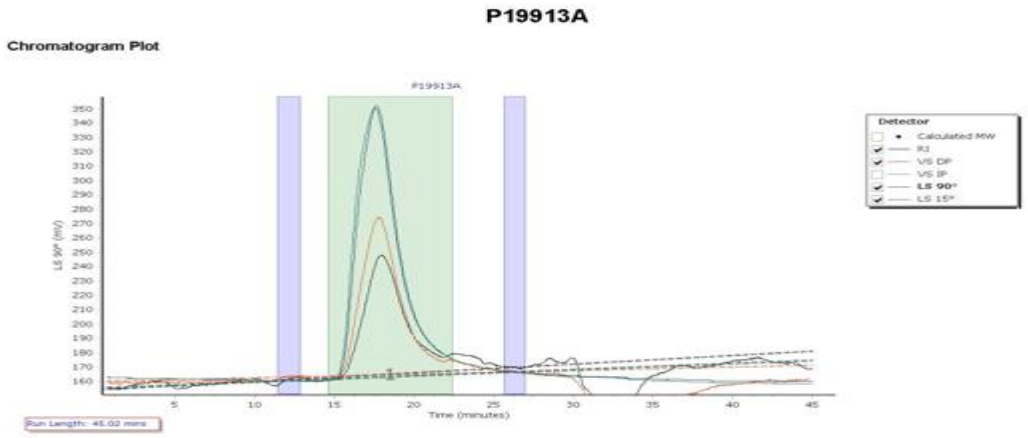
Method of Synthesis By anionic process.

Solubility in different solvents

THF	√		
CHCl3	√	CHCl3	√
Toluene	√		

Validation of Architecture:

A. <u>Gel Permeation Chromatography (GPC), SEC- Profile</u>

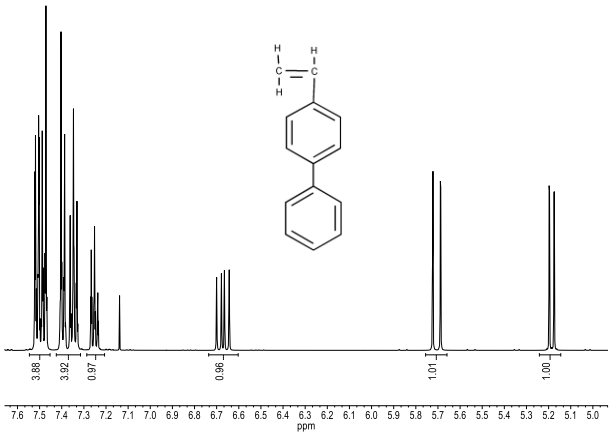


Molecular Weight Averages

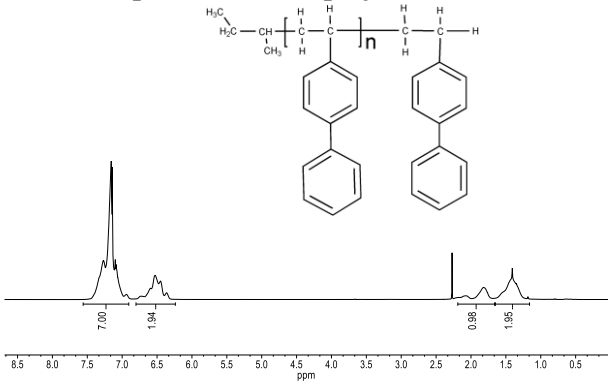
Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	2924216	2510536	2748125	2951396	3128154	2909053	1.094

B. **^{1}H NMR spectrum of the monomer in $CDCl_3$:**

^{1}H NMR spectrum of the monomer in $CDCl_3$:



^{1}H NMR spectrum of the polymer in $CDCl_3$:



C. **Thermal analysis profile of polymers**

DSC data for poly 4VBP polymers of different molecular weights

Molecular weight (Mn)	Glass transition (Tg)
9.5×10^3	105 °C
30.0×10^3	135 °C
75.5×10^3	141 °C
530.0×10^3	151 °C