

Product Profile

Identification

Product Name: Poly(styrene-b-4-vinyl-pyridine)

Product Lot Number: P3192P-R-S4VP

CAS #: 26222-40-2

Product Chemical Architecture:



Composition:

Composition (S-b-4VP)	513,000-b-72,000
4VP mole%	12.3
Mn (g/mole)	585,000
Mw (g/mole)	626,000
Mw/Mn	1.07
dn/dc (mL/g) in DMF at 35 °C	0.164

Method of Synthesis

The polymer is synthesized by anionic polymerization process.

Solubility in different solvents:

THF	Depends on composition	DMF	✓
Alcohol	Depends on composition	CHCl ₃	✓
Toluene _(hot)	X	Water	X

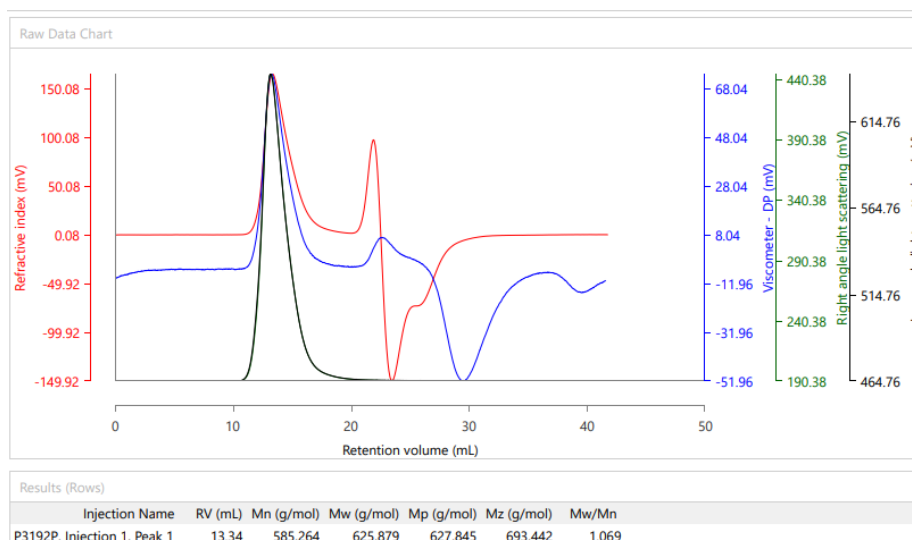
Validation of Architecture

A. Gel Permeation Chromatography (GPC), SEC Profile:

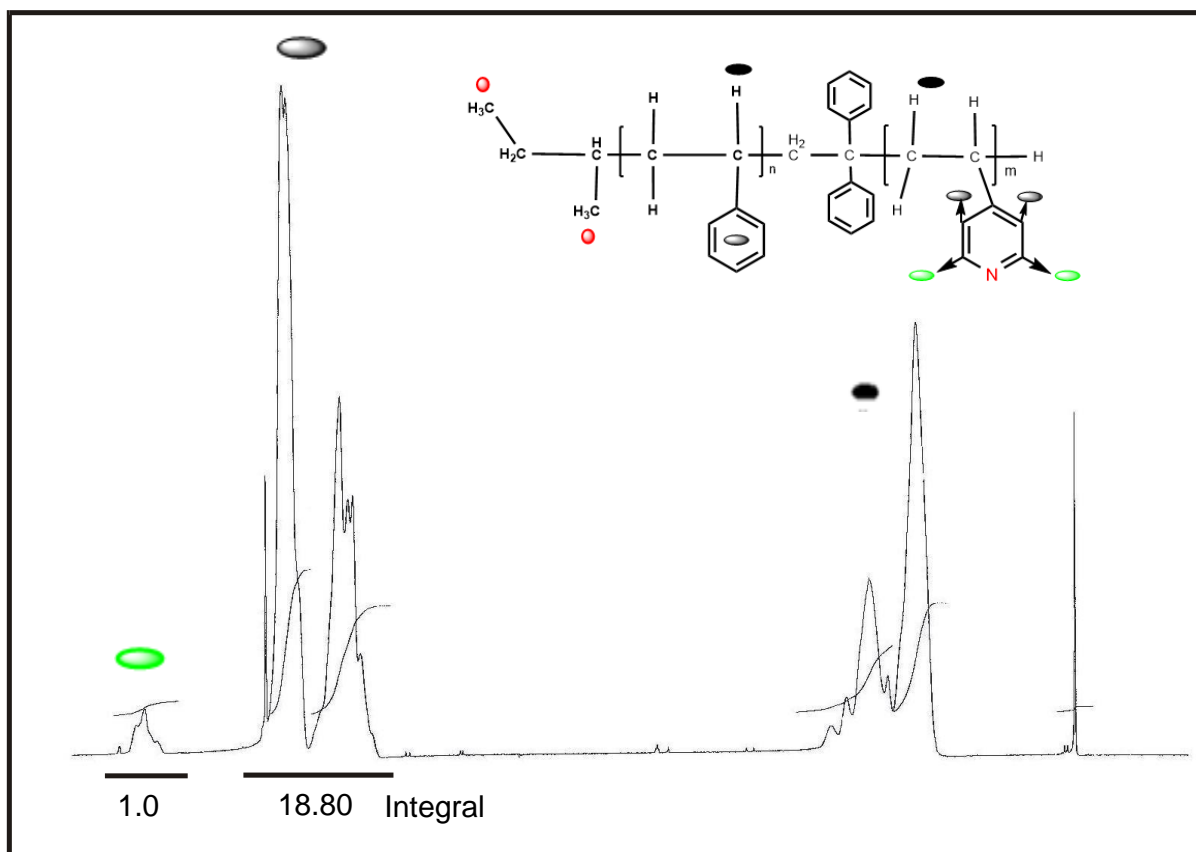
Molecular weights were determined by Malvern OmniSec Reveal & Resolve GPC/SEC System equipped with Triple detector (RI, Viscometer, RALS 90° and LALS 7°) and two columns (PSS, SDV, 8x300 mm). DMF with 0.023M LiBr was the eluent. The flow rate was 0.7 ml/min.

Polymer Source

Malvern Panalytical



B. NMR (^1H NMR) of S4VP in CDCl_3 , 500 MHz



P3192P-S4VP